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## AIR DRILLS & ACCESSORIES

### Sioux® Mini Air Drills

**NEW**

*High Power To Weight Ratio*

*Updated Design*

- Contoured three finger grip & integrated finger rest.
- Precision spindle & chuck, with three planet gear set for longer life.
- Drop-in motor for ease of service.
- 1/4" keyed chuck included, except SDR4P26N2-610, SDR4P26N2-520 (1/4", 3/8" keyless chuck included).

SDR4P26N2

**Note:** All models: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

#### 1/4" Capacity - 0.4 hp (0.30 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR4P26N2	2600	5-1/2" (140 mm)	1.6 lbs (0.7 kgs)

#### 1/4" Capacity - 0.4 hp (0.30 kW) - Reversible

Part Number	Free RPM	Overall Length	Weight
SDR4P24R2	2400	5-3/4" (146 mm)	1.6 lbs (0.7 kgs)



SDR4P26N2-520

*Other Models Available, Please Inquire*

#### 1/4" Capacity - 0.4 hp (0.30 kW) - Keyless Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR4P26N2-610	2600	5-1/2" (140 mm)	1.6 lbs (0.7 kgs)

#### 3/8" Capacity - 0.4 hp (0.30 kW) - Keyless Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR4P26N2-520	2600	5-1/2" (140 mm)	1.6 lbs (0.7 kgs)

SDR4S36N2L



*Updated Design*

**NEW**

#### Lever Grip, 1/4" Capacity - 0.33 hp (0.25 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR4S36N2L	3600	7-3/8" (190 mm)	1.8 lbs (0.8 kgs)

### Chicago Pneumatic® Mini Air Drills

*New Composite Housing*

*Includes Jacobs® Keyed Chuck*

*Low Speed Gear Box*

CP7300C

**NEW**

*Handle Exhaust*



- New composite housing with thermoplastic rubber grip.
- Large teasing trigger & progressive valve allows more control.
- Left and right wings to guide the forefinger.
- Flat back for better pushing action while drilling and tapping.
- Excellent for drilling, honing, reaming and hole sawing.

#### 1/4" Capacity - 0.3 hp (0.22 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
CP7300C	3300	6-3/4" (170 mm)	1.4 lbs (0.6 kgs)



CP7300RC

*Other Models Available, Please Inquire*

#### 1/4" Capacity - 0.3 hp (0.22 kW) - Reversible

Part Number	Free RPM	Overall Length	Weight
CP7300RC	2800	7-5/16" (186 mm)	1.5 lbs (0.7 kgs)

**Note:** All models: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.



*For Angle Drills See Pages 16-18*



## APEX® Ergonomic Air Drills



- Dramatically redesigned ergonomics promote operator comfort.
- Perfect for tight quarters and cramped spaces.
- Includes keyed chuck.
- Many other models & options available, please inquire.

14CFS93-38

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

1/4" Capacity - 0.4 hp (0.30 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CFS93-38	3200	5-3/4" (146 mm)	1.5 lbs (0.7 kgs)

## JET® R6 Series Air Drill



JAT-600

Reversible

- Lightweight aluminum construction.
- Side mounted forward-reverse switch.
- Includes keyed chuck.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

3/8" Capacity - 0.5 hp (0.37 kW) - Reversible			
Part Number	Free RPM	Overall Length	Weight
JAT-600	2000	7-3/16" (183 mm)	2.5 lbs (1.1 kgs)

## Sioux® Aviation Air Drills



SDR6P26N2

Precision Signature Series Drills

- Lightweight aluminum housing with ergonomic handle & soft textured grip.
- Three planet gear system for increased life & load capacity.
- With teasing throttle & keyed chuck.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

1/4" Capacity - 0.6 hp (0.45 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR6P26N2	2600	5-3/4" (146 mm)	2.1 lbs (0.95 kgs)

3/8" Capacity - 0.6 hp (0.45 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR6P26N3	2600	6-1/4" (159 mm)	2.3 lbs (1.0 kgs)

## Desoutter® Composite Grip Air Drills



DR350-P550-C10

Updated Design

- Composite pistol grip construction for enhanced operator comfort.
- Powered with a 0.5 HP oil-free "dryline" modular motor.
- Teasing throttle & integral exhaust.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

5/16" Capacity - 0.5 hp (0.35 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
DR350-P20000-C8	20,000	4-3/4" (120 mm)	1.4 lbs (0.62 kgs)
DR350-P4500-C8	4500	5-3/8" (136 mm)	1.4 lbs (0.62 kgs)
DR350-P3000-C8	3000	7" (178 mm)	1.4 lbs (0.62 kgs)

3/8" Capacity - 0.5 hp (0.35 kW) - Non-Reversible, Side Handle Incl.			
Part Number	Free RPM	Overall Length	Weight
DR350-P1000-C10	1000	8-1/8" (206 mm)	1.5 lbs (0.70 kgs)
DR350-P550-C10	550	8-1/8" (206 mm)	1.7 lbs (0.79 kgs)

## Cleco® Variable Speed Air Drills



Versatile Governed Speed Control

Includes Keyed Chuck

- Calibrated dial on rear of tool simplifies drill speed selection.
- Choice of three governed speed models to match material.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

135DPV-14B-51

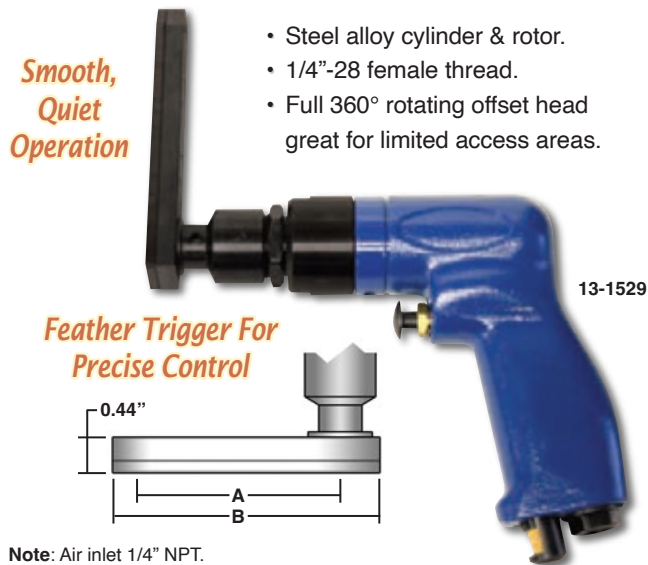
3/8" Capacity - 0.7 hp (0.52 kW) - Non-Reversible				
Part Number	Free RPM	Governed RPM	O.A.L.	Weight
135DPV-7B-43	600	150 To 550	9-5/8" (244 mm)	3.625 lbs (1.6 kgs)
135DPV-14B-51	1250	400 To 1,200	9-1/4" (235 mm)	3.375 lbs (1.5 kgs)
135DPV-28B-51	2600	700 To 2,400	8-1/2" (216 mm)	3.125 lbs (1.4 kgs)

1/2" Capacity - 0.7 hp (0.52 kW) - Non-Reversible, Side Handle Incl.				
Part Number	Free RPM	Governed RPM	O.A.L.	Weight
135DPV-7B-50	600	150 To 550	9-5/8" (244 mm)	3.625 lbs (1.6 kgs)
135DPV-14B-50	1250	400 To 1,200	9-1/4" (235 mm)	3.375 lbs (1.5 kgs)

Part Number	Description
861006	Side Handle (included with 1/2" capacity drills)

## AIR DRILLS & ACCESSORIES

### USATCO Offset 'Pancake' Air Drills



Note: Air inlet 1/4" NPT.  
Uses threaded shank drills available on pages 20-21.

1/4" Capacity - 0.3 hp (0.22 kW) - Non-Reversible					
Part Number	Free RPM	Shaft Offset (A)	Offset Length (B)	Overall Length	Weight
13-1527	3000	2.49"	3.34"	7" (178 mm)	2.0 lbs (0.91 kgs)
13-1529	3000	3.83"	4.88"	7" (178 mm)	2.1 lbs (0.95 kgs)
13-1531	3000	5.18"	6.23"	7" (178 mm)	2.3 lbs (1.04 kgs)

### USATCO Economy Mini Air Drill



Note: Air inlet 1/4" NPT.

1/4" Capacity - 0.3 hp (0.22 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
13-1127-25	3000	6-1/4" (159 mm)	1.5 lbs (0.7 kgs)

### Threaded Shank Drill Adapters

#### Great For Cordless Drills

Allows a chucked drill to accept threaded shank bits.



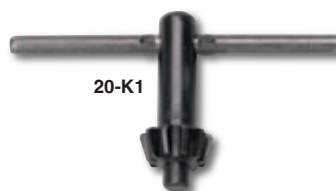
Part Number	Shank	Thread
70456	1/4" Hex	1/4"-28
70449	1/4" Hex	10-32

### Jacobs® Plain Bearing Chucks & Chuck Keys

O.E.M. Standard For Accuracy & Durability



Part Number	Ref. Number	Capacity	Mount Thread	Key Number	Style
20-6200	0	5/32"	0 JT	K0	Smooth
20-6208	1B	1/4"	3/8-24	K1	Smooth
20-6255	7BA	1/4"	3/8-24	K7	Fluted
20-14700	41BA	3/8"	3/8-24	K30	Fluted
20-6283	33BA-3/8	1/2"	3/8-24	K32	Fluted
20-6138	33BA-1/2	1/2"	1/2-20	K32	Fluted



#### Chuck Keys

Soft steel handles limit potential for fracturing under excessive load.

'T' Handle Keys			Thumb Handle Keys		
Part No.	Model	Pilot Size	Part No.	Model	Pilot Size
20-K0	K0	1/8"	20-K7	K7	7/32"
20-K1	K1	5/32"	20-K30	K30	15/64"
			20-K32	K32	1/4"

### Jacobs® Hand-Tite Keyless Drilling Chucks

Ergonomic Design

- Keyless operation.
- Superior gripping force.



Part Number	Capacity Range	Mount Thread
20-30360	3/64" to 3/8"	3/8"-24
20-31038	1/16" to 1/2"	1/2"-20
20-31037	1/16" to 1/2"	3/8"-24

### Keyless Impact Chucks

Square Drive, Keyless Design

Transform your impact wrench into an efficient drilling tool with superior holding power.



Note: For use with standard impact tools, see page 135-136.

Part Number	Capacity	Sq. Drive Mount	O.A.L. (open)
20-90424	3/32" to 3/8"	3/8"	2-3/32" (53 mm)
20-90430	1/8" to 1/2"	1/2"	2-5/8" (67 mm)

## Heavy-Duty Keyless Chucks

*All Steel Construction*



20-610

Works with reversible and non-reversible drills.

Part Number	Capacity Range	Mount Thread
20-610	0 - 1/4"	3/8"-24
20-520	0 - 3/8"	3/8"-24
20-522	1/16" - 1/2"	3/8"-24

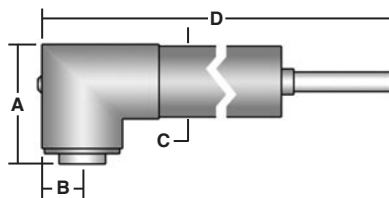
## Micro Drill Chuck

- Used with very small dia. drills in a drill press or handheld tool.
- Grips firmly and accurately in sizes as small as a human hair.
- Can be held in any 1/8" or 3/16" collet or larger adj. drill chuck.



Part Number	Accepts Drill Sizes
67-149-5	#60 to #80 Wire Gauge

## USATCO Angle Drill Attachments



20-127-4

*Quickly Connect To Any Drill Chuck*

Convenient & inexpensive close quarter drilling tools.

90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-127-4	1-9/32" (33 mm)	1-1/4" (32 mm)	3/4" (19 mm)	7-1/8" (181 mm)



20-133-20

90° Mini Angle Head, 5/32" Capacity, 10-32 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-133-20	1-3/16" (30 mm)	0.212" (5 mm)	1/2" (13 mm)	6" (155 mm)



20-127-45-4

45° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-127-45-4	1-3/16" (30 mm)	0.400" (10 mm)	3/4" (19 mm)	7-1/2" (191 mm)

## USATCO Angle Drill Attachments (cont'd)



53-127-4C

*Includes Adapter, 1/4" Chuck & Chuck Key*

90° Angle Head With Keyed Chuck, 5/32" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
53-127-4C	2-7/16" (62 mm)	0.425" (11 mm)	3/4" (19 mm)	7-1/8" (181 mm)



20-129-4

*Locks In Any Position*

Note: Shaft offset: 1-7/16" (37 mm).

360° Rotating Offset Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-129-4	1-1/4" (32 mm)	0.384" (10 mm)	3/4" (19 mm)	7-5/8" (194 mm)

## USATCO Angle Drill Attachment Kit



**Kit Includes:**

Angle Drill Attachment (20-127-4), Threaded Shank Drill Bits (1 each #40, #30, #21 & #10), Gear Lubricator, Gear Lube, Wrench, Repair Parts List & Plastic Kit Box (not shown)

Part Number	Description
53-127K	Complete 9 PC Kit

## Socket Drive Angle Drill Attachment

*Versatile*



Fits any 1/4" square drive ratchet or wrench.

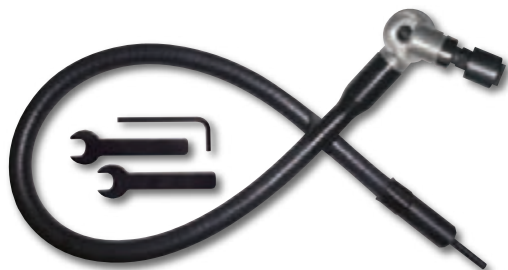
Note: Chart references angle attachment illustration shown above left.

90° Angle Head, 1/4" Square Drive				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-350	1.60" (41 mm)	1-3/8" (35 mm)	3/4" (19 mm)	7" (178 mm)



## AIR DRILLS & ACCESSORIES

### 360° Snake Drill Attachment

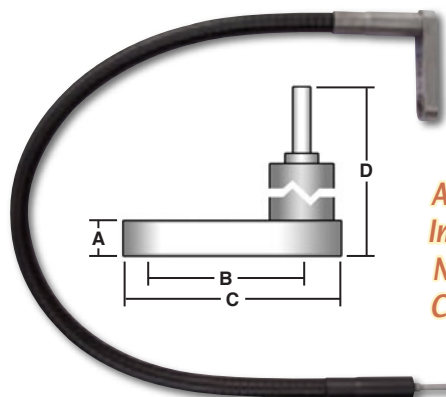


- Angle head rotates a full 360° & can be locked in any position.
- 20-M3 chuck (accepts straight shank drills).
- Includes wrenches & allen key.

**Note:** Chart references snake attachment illustration shown below.

360° Adjustable Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-360	3" (76 mm)	0.385" (10 mm)	0.608" (15 mm)	30" (76 cm)

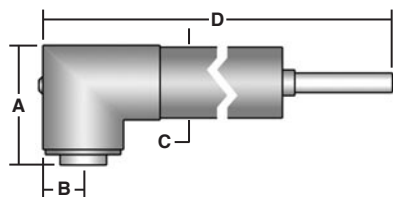
### USATCO Offset 'Pancake' Snake Drill Att.



*Allows Access  
In Tight Areas  
Normal Drills  
Cannot Reach*

Flat Offset Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-T-635	7/16" (11 mm)	2-5/16" (59 mm)	3-3/16" (81 mm)	30" (76 cm)

## USATCO Snake Drill Attachments



*Excellent Drilling  
Solutions For Hard  
To Reach Areas*

90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-4	1-9/32" (33 mm)	0.384" (10 mm)	3/4" (19 mm)	30" (76 cm)

90° Mini Angle Head, 5/16" Capacity, 10-32 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-132-20	15/16" (24 mm)	0.275" (7 mm)	11/16" (18 mm)	22" (56 cm)

90° Angle Head With Jacobs Chuck, 1/4" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-134-1C	2-7/8" (73 mm)	0.565" (14 mm)	3/4" (19 mm)	30" (76 cm)

Straight Head With Jacobs Chuck, 1/4" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-134-2C	—	0.565" (14 mm)	5/8" (16 mm)	30" (76 cm)

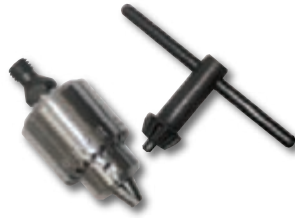
45° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-45-4	1-3/16" (30 mm)	0.400" (10 mm)	3/4" (19 mm)	30" (76 cm)

360° Adjustable Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-130-4	1-1/4" (32 mm)	0.384" (10 mm)	3/4" (19 mm)	30" (76 cm)

Straight Head, 5/16" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-131-4	11/16" (18 mm)	5/8" (16 mm)	11/16" (18 mm)	22" (56 cm)

## Drill Attachment Conversion Assembly

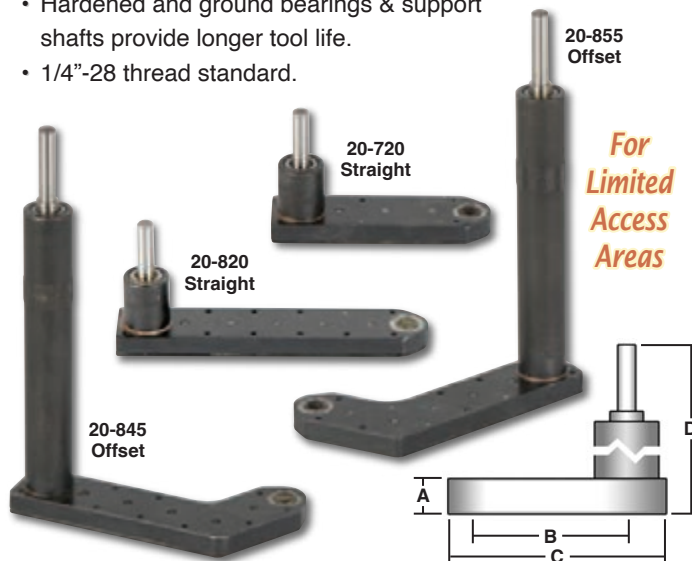
- Convert any angle or snake drill attachment to keyed chuck mode.
- Includes 1/4"-28 threaded adapter, 5/32" capacity chuck & chuck key.



Part Number	Diameter	Side To Center	Overall Length
53-77	0.85" (21.6 mm)	0.45" (11.4 mm)	1.65" (42 mm)

## Thin Offset Angle Drill Attachments

- Hardened and ground bearings & support shafts provide longer tool life.
- 1/4"-28 thread standard.



Straight - 3/8" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-720	2-7/16" (62 mm)	3-3/16" (81 mm)	1-1/8" (29 mm)
20-725	2-7/16" (62 mm)	3-3/16" (81 mm)	4-9/16" (116 mm)
20-730	3-3/4" (95 mm)	4-1/2" (114 mm)	1-1/8" (29 mm)
20-735	3-3/4" (95 mm)	4-1/2" (114 mm)	4-9/16" (116 mm)

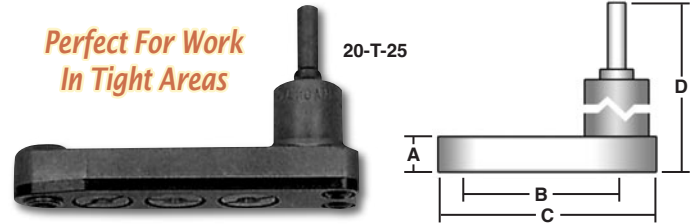
30° Offset - 3/8" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-745	3-1/8" R (79 mm)	4" (102 mm)	4-9/16" (116 mm)
20-755	3-1/8" L (79 mm)	4" (102 mm)	4-9/16" (116 mm)

Straight - 1/4" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-820	2-7/16" (62 mm)	3-3/16" (81 mm)	11/16" (18 mm)
20-825	2-7/16" (62 mm)	3-3/16" (81 mm)	5-3/16" (132 mm)
20-830	3-3/4" (95 mm)	4-1/2" (114 mm)	11/16" (18 mm)
20-835	3-3/4" (95 mm)	4-1/2" (114 mm)	5-3/16" (132 mm)

30° Offset - 0.290" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-845	Right	4" (102 mm)	4-5/16" (110 mm)
20-855	Left	4" (102 mm)	4-5/16" (110 mm)

## Flat Offset Angle Drill Attachments

Perfect For Work  
In Tight Areas



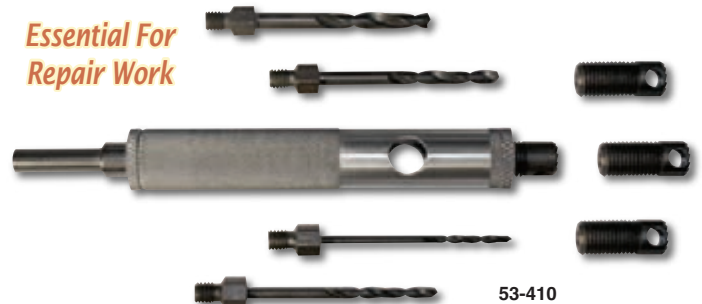
Note: 1/4"-28 thread standard. Also available with 10-32 thread, please inquire.

1/8" Capacity - 1/4" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-T-21	3/4" (19 mm)	1-1/2" (38 mm)	5-5/8" (143 mm)

1/4" Capacity - 7/16" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-T-23	1-5/32" (29 mm)	2-3/16" (56 mm)	6-1/2" (165 mm)
20-T-25	2-5/16" (59 mm)	3-3/16" (81 mm)	2" (51 mm)
20-T-235	2-5/16" (59 mm)	3-3/16" (81 mm)	6-5/8" (168 mm)

## USATCO Rivet Removal Tools

Essential For  
Repair Work



- Adjustable drill-out assembly limits penetration to rivet, not beyond.
- Solid aluminum construction.

Standard Rivet Removal Tool	
Part Number	Description
53-400	Tool, Guides & 4 Bits (#10, #21, #30 & #40)

### Blind Rivet Removal Tool

- Serrated end cup prevents slippage while drilling rivets.
- For POP, Adel, Cherry blind rivets etc.
- Not for use with steel stemmed blind rivets.

Blind Rivet Removal Tool	
Part Number	Description
53-410	Tool, Guides & 4 Bits (3/32", 1/8", 5/32" & 3/16")

Replacement Bits	
Part Number	Description
02-2972-10	#10
02-2972-21	#21
02-2972-30	#30
02-2972-40	#40

Replacement Bits	
Part Number	Description
02-2971-3/32	3/32"
02-2971-1/8	1/8"
02-2971-5/32	5/32"
02-2971-3/16	3/16"

## Aircraft Quality Jobber's Length Drills



*Made to NAS907 Specifications*

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a #30 H.S.S. (118° split point) drill, the number would be 02-R18A-30

Wire Gauge Part Number (Prefix)				02-R18A	02-R18B	02-R18C	02-R18D	02-D2S	02-D2E
Wire Gauge Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (118° SP)	Carbide Tipped	Carbide (118° SP)
1	.2280"	2-5/8"	3-7/8"	•	•	•	•	•	•
2	.2210"	2-5/8"	3-7/8"	•	•	•	•	•	•
3	.2130"	2-1/2"	3-3/4"	•	•	•	•	•	•
4	.2090"	2-1/2"	3-3/4"	•	•	•	•	•	•
5	.2055"	2-1/2"	3-3/4"	•	•	•	•	•	•
6	.2040"	2-1/2"	3-3/4"	•	•	•	•	•	•
7	.2010"	2-7/16"	3-5/8"	•	•	•	•	•	•
8	.1990"	2-7/16"	3-5/8"	•	•	•	•	•	•
9	.1960"	2-7/16"	3-5/8"	•	•	•	•	•	•
10	.1935"	2-7/16"	3-5/8"	•	•	•	•	•	•
11	.1910"	2-5/16"	3-1/2"	•	•	•	•	•	•
12	.1890"	2-5/16"	3-1/2"	•	•	•	•	•	•
13	.1850"	2-5/16"	3-1/2"	•	•	•	•	•	•
14	.1820"	2-3/16"	3-3/8"	•	•	•	•	•	•
15	.1800"	2-3/16"	3-3/8"	•	•	•	•	•	•
16	.1770"	2-3/16"	3-3/8"	•	•	•	•	•	•
17	.1730"	2-3/16"	3-3/8"	•	•	•	•	•	•
18	.1695"	2-1/8"	3-1/4"	•	•	•	•	•	•
19	.1660"	2-1/8"	3-1/4"	•	•	•	•	•	•
20	.1610"	2-1/8"	3-1/4"	•	•	•	•	•	•
21	.1590"	2-1/8"	3-1/4"	•	•	•	•	•	•
22	.1570"	2"	3-1/8"	•	•	•	•	•	•
23	.1540"	2"	3-1/8"	•	•	•	•	•	•
24	.1520"	2"	3-1/8"	•	•	•	•	•	•
25	.1495"	1-7/8"	3"	•	•	•	•	•	•
26	.1470"	1-7/8"	3"	•	•	•	•	•	•
27	.1440"	1-7/8"	3"	•	•	•	•	•	•
28	.1405"	1-3/4"	2-7/8"	•	•	•	•	•	•
29	.1360"	1-3/4"	2-7/8"	•	•	•	•	•	•
30	.1285"	1-5/8"	2-3/4"	•	•	•	•	•	•
31	.1200"	1-5/8"	2-3/4"	•	•	•	•	•	•
32	.1160"	1-5/8"	2-3/4"	•	•	•	•	N/A	•
33	.1130"	1-1/2"	2-5/8"	•	•	•	•	N/A	•
34	.1110"	1-1/2"	2-5/8"	•	•	•	•	N/A	•
35	.1100"	1-1/2"	2-5/8"	•	•	•	•	N/A	•
36	.1065"	1-7/16"	2-1/2"	•	•	•	•	N/A	•
37	.1040"	1-7/16"	2-1/2"	•	•	•	•	N/A	•
38	.1015"	1-7/16"	2-1/2"	•	•	•	•	N/A	•
39	.0995"	1-3/8"	2-3/8"	•	•	•	•	N/A	•
40	.0980"	1-3/8"	2-3/8"	•	•	•	•	N/A	•
41	.0969"	1-3/8"	2-3/8"	•	•	•	•	N/A	•
42	.0935"	1-1/4"	2-1/4"	•	•	•	•	N/A	•
43	.0890"	1-1/4"	2-1/4"	•	•	•	•	N/A	•
44	.0860"	1-1/8"	2-1/8"	•	•	•	•	N/A	•
45	.0820"	1-1/8"	2-1/8"	•	•	•	•	N/A	•
46	.0810"	1-1/8"	2-1/8"	•	•	•	•	N/A	•
47	.0785"	1"	2"	•	•	•	•	N/A	•
48	.0760"	1"	2"	•	•	•	•	N/A	•
49	.0730"	1"	2"	•	•	•	•	N/A	•
50	.0700"	1"	2"	•	•	•	•	N/A	•
51	.0670"	1"	2"	•	•	•	•	N/A	•
52	.0635"	7/8"	1-7/8"	•	•	•	•	N/A	•
53	.0595"	7/8"	1-7/8"	N/A	N/A	•	•	N/A	•
54	.0550"	7/8"	1-7/8"	N/A	N/A	•	•	N/A	•
55	.0520"	7/8"	1-7/8"	N/A	N/A	•	•	N/A	•
56	.0465"	3/4"	1-3/4"	N/A	N/A	•	•	N/A	•
57	.0430"	3/4"	1-3/4"	N/A	N/A	•	•	N/A	•
58	.0420"	11/16"	1-5/8"	N/A	N/A	•	•	N/A	N/A
59	.0410"	11/16"	1-5/8"	N/A	N/A	•	•	N/A	N/A
60	.0400"	11/16"	1-5/8"	N/A	N/A	•	•	N/A	N/A



## Aircraft Quality Jobber's Length Drills (cont'd)



*Made to NAS907 Specifications*

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a 1/4" H.S.S. (118° split point) drill, the number would be 02-R10A-1/4

Fractional Part Number (Prefix)				02-R10A	02-R10B	02-R10C	02-R10D	02-D2S	02-D2E
Fractional Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (118° SP)	Carbide Tipped	Carbide (118° SP)
1/16	.0625"	7/8"	1-7/8"	•	•	•	•	N/A	•
5/64	.0781"	1"	2"	•	•	•	•	N/A	•
3/32	.0938"	1-1/4"	2-1/4"	•	•	•	•	N/A	•
7/64	.1094"	1-1/2"	2-5/8"	•	•	•	•	N/A	•
1/8	.1250"	1-5/8"	2-3/4"	•	•	•	•	•	•
9/64	.1406"	1-3/4"	2-7/8"	•	•	•	•	•	•
5/32	.1562"	2"	3-1/8"	•	•	•	•	•	•
11/64	.1719"	2-1/8"	3-1/4"	•	•	•	•	•	•
3/16	.1875"	2-5/16"	3-1/2"	•	•	•	•	•	•
13/64	.2031"	2-7/16"	3-5/8"	•	•	•	•	•	•
7/32	.2188"	2-1/2"	3-3/4"	•	•	•	•	•	•
15/64	.2344"	2-5/8"	3-7/8"	•	•	•	•	•	•
1/4	.2500"	2-3/4"	4"	•	•	•	•	•	•
17/64	.2656"	2-7/8"	4-1/8"	•	•	•	•	•	•
9/32	.2812"	2-15/16"	4-1/4"	•	•	•	•	•	•
19/64	.2969"	3-1/16"	4-3/8"	•	•	•	•	•	•
5/16	.3125"	3-3/16"	4-1/2"	•	•	•	•	•	•
21/64	.3281"	3-5/16"	4-5/8"	•	•	•	•	•	•
11/32	.3438"	3-7/16"	4-3/4"	•	•	•	•	•	•
23/64	.3594"	3-1/2"	4-7/8"	•	•	•	•	•	•
3/8	.3750"	3-5/8"	5"	•	•	•	•	•	•
25/64	.3906"	3-3/4"	5-1/8"	•	•	•	•	•	•
13/32	.4062"	3-7/8"	5-1/4"	•	•	•	•	•	•
27/64	.4219"	3-15/16"	5-3/8"	•	•	•	•	•	•
7/16	.4375"	4-1/16"	5-1/2"	•	•	•	•	•	•
29/64	.4531"	4-3/16"	5-5/8"	•	•	•	•	•	•
15/32	.4688"	4-5/16"	5-3/4"	•	•	•	•	•	•
31/64	.4844"	4-3/8"	5-7/8"	•	•	•	•	•	•
1/2	.5000"	4-1/2"	6"	•	•	•	•	•	•

Letter Part Number (Prefix)				02-R15A	02-R15B	02-R15C	02-D2S	02-D2E
Letter Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	Carbide Tipped	Carbide (118° SP)
A	.2340"	2-5/8"	3-7/8"	•	•	•	•	•
B	.2380"	2-3/4"	4"	•	•	•	•	•
C	.2420"	2-3/4"	4"	•	•	•	•	•
D	.2460"	2-3/4"	4"	•	•	•	•	•
E	.2500"	2-3/4"	4"	•	•	•	•	•
F	.2570"	2-7/8"	4-1/8"	•	•	•	•	•
G	.2610"	2-7/8"	4-1/8"	•	•	•	•	•
H	.2660"	2-7/8"	4-1/8"	•	•	•	•	•
I	.2720"	2-7/8"	4-1/8"	•	•	•	•	•
J	.2770"	2-7/8"	4-1/8"	•	•	•	•	•
K	.2810"	2-15/16"	4-1/4"	•	•	•	•	•
L	.2900"	2-15/16"	4-1/4"	•	•	•	•	•
M	.2950"	3-1/16"	4-3/8"	•	•	•	•	•
N	.3020"	3-1/16"	4-3/8"	•	•	•	•	•
O	.3160"	3-3/16"	4-1/2"	•	•	•	•	•
P	.3230"	3-5/16"	4-5/8"	•	•	•	•	•
Q	.3320"	3-7/16"	4-3/4"	•	•	•	•	•
R	.3390"	3-7/16"	4-3/4"	•	•	•	•	•
S	.3480"	3-1/2"	4-7/8"	•	•	•	•	•
T	.3580"	3-1/2"	4-7/8"	•	•	•	•	•
U	.3680"	3-5/8"	5"	•	•	•	•	•
V	.3770"	3-5/8"	5"	•	•	•	•	•
W	.3860"	3-3/4"	5-1/8"	•	•	•	•	•
X	.3970"	3-3/4"	5-1/8"	•	•	•	•	•
Y	.4040"	3-7/8"	5-1/4"	•	•	•	•	•
Z	.4130"	3-7/8"	5-1/4"	•	•	•	•	•

# AIR DRILLS & ACCESSORIES

## Aircraft Quality Jobber's Length Drills (cont'd)



*Made to NAS907 Specifications*

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a 2.0mm H.S.S. (118° split point) drill, the number would be **02-2A-2.00**

Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
.35	.0138"	3 mm	19 mm	•	N/A
.40	.0158"	5 mm	20 mm	•	N/A
.45	.0177"	5 mm	20 mm	•	N/A
.50	.0197"	5 mm	22 mm	•	N/A
.55	.0217"	6 mm	24 mm	•	N/A
.60	.0236"	8 mm	24 mm	•	N/A
.65	.0256"	10 mm	26 mm	•	N/A
.70	.0276"	10 mm	28 mm	•	N/A
.75	.0295"	13 mm	28 mm	•	N/A
.80	.0315"	13 mm	30 mm	•	N/A
.85	.0335"	16 mm	30 mm	•	N/A
.90	.0354"	16 mm	32 mm	•	N/A
.95	.0374"	16 mm	32 mm	•	N/A
1.00	.0394"	17 mm	34 mm	•	•
1.05	.0413"	17 mm	34 mm	•	•
1.10	.0433"	19 mm	36 mm	•	•
1.15	.0453"	19 mm	36 mm	•	•
1.20	.0472"	22 mm	38 mm	•	•
1.25	.0492"	22 mm	38 mm	•	•
1.30	.0512"	22 mm	38 mm	•	•
1.35	.0531"	22 mm	40 mm	•	•
1.40	.0551"	22 mm	40 mm	•	•
1.45	.0571"	22 mm	40 mm	•	•
1.50	.0591"	22 mm	40 mm	•	•
1.55	.0610"	22 mm	43 mm	•	•
1.60	.0630"	22 mm	43 mm	•	•
1.65	.0650"	25 mm	43 mm	•	•
1.70	.0669"	25 mm	43 mm	•	•
1.75	.0689"	25 mm	46 mm	•	•
1.80	.0709"	25 mm	46 mm	•	•
1.85	.0728"	25 mm	46 mm	•	•
1.90	.0748"	25 mm	46 mm	•	•
1.95	.0768"	25 mm	49 mm	•	•
2.00	.0787"	25 mm	49 mm	•	•
2.05	.0807"	29 mm	49 mm	•	•
2.10	.0827"	29 mm	49 mm	•	•
2.15	.0846"	29 mm	53 mm	•	•
2.20	.0866"	32 mm	53 mm	•	•
2.25	.0886"	32 mm	53 mm	•	•
2.30	.0906"	32 mm	53 mm	•	•
2.35	.0925"	32 mm	53 mm	•	•
2.40	.0945"	35 mm	57 mm	•	•
2.45	.0965"	35 mm	57 mm	•	•
2.50	.0984"	35 mm	57 mm	•	•
2.60	.1024"	37 mm	57 mm	•	•
2.70	.1063"	37 mm	61 mm	•	•
2.75	.1083"	37 mm	61 mm	•	•
2.80	.1102"	38 mm	61 mm	•	•
2.90	.1142"	41 mm	61 mm	•	•
3.00	.1181"	41 mm	61 mm	•	•
3.10	.1220"	41 mm	65 mm	•	•
3.20	.1260"	41 mm	65 mm	•	•
3.25	.1280"	41 mm	65 mm	•	•
3.30	.1299"	44 mm	65 mm	•	•
3.40	.1339"	44 mm	70 mm	•	•
3.50	.1378"	44 mm	70 mm	•	•
3.60	.1417"	48 mm	70 mm	•	•
3.70	.1457"	48 mm	70 mm	•	•
3.75	.1476"	48 mm	75 mm	•	•
3.80	.1496"	48 mm	75 mm	•	•

Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
3.90	.1535"	51 mm	75 mm	•	•
4.00	.1575"	54 mm	75 mm	•	•
4.10	.1614"	54 mm	75 mm	•	•
4.20	.1654"	54 mm	75 mm	•	•
4.25	.1673"	54 mm	80 mm	•	•
4.30	.1693"	54 mm	80 mm	•	•
4.40	.1739"	56 mm	80 mm	•	•
4.50	.1772"	56 mm	80 mm	•	•
4.60	.1811"	56 mm	80 mm	•	•
4.70	.1850"	59 mm	80 mm	•	•
4.75	.1870"	59 mm	86 mm	•	•
4.80	.1890"	59 mm	86 mm	•	•
4.90	.1929"	62 mm	86 mm	•	•
5.00	.1968"	62 mm	86 mm	•	•
5.10	.2008"	62 mm	86 mm	•	•
5.20	.2047"	64 mm	86 mm	•	•
5.25	.2067"	64 mm	86 mm	•	•
5.30	.2087"	64 mm	86 mm	•	•
5.40	.2126"	64 mm	93 mm	•	•
5.50	.2165"	64 mm	93 mm	•	•
5.60	.2205"	67 mm	93 mm	•	•
5.70	.2244"	67 mm	93 mm	•	•
5.75	.2264"	67 mm	93 mm	•	•
5.80	.2283"	67 mm	93 mm	•	•
5.90	.2323"	67 mm	93 mm	•	•
6.00	.2362"	70 mm	93 mm	•	•
6.10	.2402"	70 mm	101 mm	•	•
6.20	.2441"	70 mm	101 mm	•	•
6.25	.2461"	70 mm	101 mm	•	•
6.30	.2480"	70 mm	101 mm	•	•
6.40	.2520"	73 mm	101 mm	•	•
6.50	.2559"	73 mm	101 mm	•	•
6.60	.2598"	73 mm	101 mm	•	•
6.70	.2638"	73 mm	101 mm	•	•
6.75	.2657"	73 mm	109 mm	•	•
6.80	.2677"	73 mm	109 mm	•	•
6.90	.2717"	73 mm	109 mm	•	•
7.00	.2756"	73 mm	109 mm	•	•
7.10	.2795"	75 mm	109 mm	•	•
7.20	.2835"	75 mm	109 mm	•	•
7.25	.2854"	75 mm	109 mm	•	•
7.30	.2874"	75 mm	109 mm	•	•
7.40	.2913"	78 mm	109 mm	•	•
7.50	.2953"	78 mm	109 mm	•	•

## Aircraft Quality Short Flute Jobber's Length Drills

- Short flute design for handling higher thrust loads when drilling tough high tensile and heat resistant alloys.
- Heavy web construction provides for more rigidity and helps eliminate vibration and flexing.



319C-10

Cobalt, Type 'D'



More Sizes Available, Please Inquire

Wire Gauge, 135° Split Point				
Part Number	Size	Dec. Equiv.	Flute Length	Overall Length
319C-40	#40	.0980"	13/16"	2-3/8" (60 mm)
319C-30	#30	.1285"	15/16"	2-3/4" (70 mm)
319C-27	#27	.1440"	1"	3" (76 mm)
319C-21	#21	.1590"	1-1/16"	3-1/4" (83 mm)
319C-20	#20	.1610"	1-1/16"	3-1/4" (83 mm)
319C-13	#13	.1850"	1-1/8"	3-1/2" (89 mm)
319C-10	#10	.1935"	1-3/16"	3-5/8" (92 mm)

Fractional, 135° Split Point				
Part Number	Size	Dec. Equiv.	Flute Length	Overall Length
319C-3/32	3/32"	.0938"	3/4"	2-1/4" (57 mm)
319C-1/8	1/8"	.1250"	7/8"	2-3/4" (70 mm)
319C-5/32	5/32"	.1562"	1"	3-1/8" (79 mm)
319C-3/16	3/16"	.1875"	1-1/8"	3-1/2" (89 mm)
319C-7/32	7/32"	.2188"	1-1/4"	3-3/4" (95 mm)
319C-1/4	1/4"	.2500"	1-3/8"	4" (102 mm)
319C-5/16	5/16"	.3125"	1-5/8"	4-1/2" (114 mm)
319C-3/8	3/8"	.3750"	1-13/16"	5" (127 mm)

## Aircraft Quality Extension Length Drills

Made to NAS907 Specs



More Sizes Available

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a #20, 6" cobalt (135° split point) drill, the number would be 02-501-6-20C

Wire Gauge Part Number (Prefix)			02-501-6	02-501-12	02-501-6_C	02-501-12_C	02-2610	02-2611
Wire Gauge Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Cobalt (135° SP)	12" Cobalt (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
3	.2130"	2-1/2"	•	•	•	•	•	•
5	.2055"	2-1/2"	•	•	•	•	•	•
7	.2010"	2-7/16"	•	•	•	•	•	•
8	.1990"	2-7/16"	•	•	•	•	•	•
10	.1935"	2-7/16"	•	•	•	•	•	•
11	.1910"	2-5/16"	•	•	•	•	•	•
12	.1890"	2-5/16"	•	•	•	•	•	•
13	.1850"	2-5/16"	•	•	•	•	•	•
15	.1800"	2-3/16"	•	•	•	•	•	•
16	.1770"	2-3/16"	•	•	•	•	•	•
19	.1660"	2-1/8"	•	•	•	•	•	•
20	.1610"	2-1/8"	•	•	•	•	•	•
21	.1590"	2-1/8"	•	•	•	•	•	•
22	.1570"	2"	•	•	•	•	•	•
27	.1440"	1-7/8"	•	•	•	•	•	•
29	.1360"	1-3/4"	•	•	•	•	•	•
30	.1285"	1-5/8"	•	•	•	•	•	•
40	.0980"	1-3/8"	•	•	•	•	N/A	N/A

Letter Part Number (Prefix)			02-502-6	02-502-12	02-2610	02-2611
Letter Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
D	.2460"	2-3/4"	•	•	•	•
G	.2610"	2-7/8"	•	•	•	•

Fractional Part Number (Prefix)			02-500-6	02-500-12	02-500-6_C	02-500-12_C	02-2610	02-2611
Fractional Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Cobalt (135° SP)	12" Cobalt (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
3/32	.0938"	1-1/4"	•	•	•	•	N/A	N/A
1/8	.1250"	1-5/8"	•	•	•	•	•	•
5/32	.1562"	2"	•	•	•	•	•	•
3/16	.1875"	2-5/16"	•	•	•	•	•	•
7/32	.2188"	2-1/2"	•	•	•	•	•	•
1/4	.2500"	2-3/4"	•	•	•	•	•	•
9/32	.2812"	2-15/16"	•	•	N/A	N/A	•	•
5/16	.3125"	3-3/16"	•	•	N/A	N/A	•	•
3/8	.3750"	3-5/8"	•	•	N/A	N/A	•	•



## AIR DRILLS & ACCESSORIES

### Aircraft Quality Stubby Length Drills

*Made to NAS907 Specifications*



*More Sizes Available, Please Inquire*

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix).  
**Ex.:** For a #40 TiN coated (135° split point) drill, the number would be **02-R41C-40T**

Wire Gauge Part Number (Prefix)				02-R41B	02-R41C_C	02-R41C_T
Size (Suffix)	Decimal Equiv.	Flute Length	Overall Length	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (135° SP)
3	.2130"	1-1/4"	2-3/8"	•	•	•
5	.2055"	1-1/4"	2-3/8"	•	•	•
7	.2010"	1-3/16"	2-1/4"	•	•	•
8	.1990"	1-3/16"	2-1/4"	•	•	•
10	.1935"	1-3/16"	2-1/4"	•	•	•
11	.1910"	1-3/16"	2-1/4"	•	•	•
12	.1890"	1-3/16"	2-1/4"	•	•	•
13	.1850"	1-1/8"	2-3/16"	•	•	•
15	.1800"	1-1/8"	2-3/16"	•	•	•
16	.1770"	1-1/8"	2-3/16"	•	•	•
19	.1660"	1-1/16"	2-1/8"	•	•	•
20	.1610"	1-1/16"	2-1/8"	•	•	•
21	.1590"	1-1/16"	2-1/8"	•	•	•
22	.1570"	1-1/16"	2-1/8"	•	•	•
27	.1440"	1"	2-1/16"	•	•	•
29	.1360"	15/16"	1-15/16"	•	•	•
30	.1285"	15/16"	1-15/16"	•	•	•
40	.0980"	13/16"	1-13/16"	•	•	•

Fractional Part Number (Prefix)				02-R40B	02-R40C_C	02-R40C_T
Size (Suffix)	Decimal Equiv.	Flute Length	Overall Length	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (135° SP)
3/32	.0938"	3/4"	1-3/4"	•	•	•
1/8	.1250"	7/8"	1-7/8"	•	•	•
5/32	.1562"	1"	2-1/16"	•	•	•
3/16	.1875"	1-1/8"	2-3/16"	•	•	•
7/32	.2188"	1-1/4"	2-3/8"	•	•	•
1/4	.2500"	1-3/8"	2-1/2"	•	•	•
9/32	.2812"	1-1/2"	2-11/16"	•	•	•
5/16	.3125"	1-5/8"	2-13/16"	•	•	•
3/8	.3750"	1-13/16"	3-1/8"	•	•	•

### Drill Rite™ Precision Hand Drill Guide

- Allows hand drills to perform like a professional drill press.
- High quality aircraft grade aluminum construction.
- 3/16" & 1/4" hardened drill bushings included with tool (other bushings available, please inquire).



Part Number	Capacity (pipe or round stock)
70400	1/2" to 2-1/2" Diameter

### Jobber's Length Drill Sets

*High Performance*



*Made In The USA*

02-C1-H

*Sturdy Metal Case Included*

Drill Sets - Heavy Duty, 118° Non-Split Point			
Part Number	Construction	Included Sizes	Bits
02-C13-H	High Speed Steel	1/16" to 1/4" (x 64ths)	13
02-C21-H	High Speed Steel	1/16" to 3/8" (x 64ths)	21
02-C15-H	High Speed Steel	1/16" to 1/2" (x 32ths)	15
02-C29-H	High Speed Steel	1/16" to 1/2" (x 64ths)	29
02-C1-H	High Speed Steel	#1 to #60	60
02-CAZ-H	High Speed Steel	A to Z	26
02-C115-H	High Speed Steel	1/16" to 1/2", A-Z, #1-#60	115
02-C112-H*	High Speed Steel	1 to 6 mm (x 0.5 mm)	11
02-C252-H*	High Speed Steel	1 to 13 mm (x 0.5 mm)	25

\* Production grade.

Drill Sets - Heavy Duty, 118° Split Point			
Part Number	Construction	Included Sizes	Bits
02-CB115-H	Cobalt	1/16" to 1/2", A-Z, #1-#60	115
02-CT15-H	H.S.S. TiN Coated	1/16" to 1/2" (x 32ths)	15

Drill Sets - Heavy Duty, 135° Split Point			
Part Number	Construction	Included Sizes	Bits
02-CB13-H	Cobalt	1/16" to 1/4" (x 64ths)	13
02-CB21-H	Cobalt	1/16" to 3/8" (x 64ths)	21
02-CB15-H	Cobalt	1/16" to 1/2" (x 32ths)	15
02-CB29-H	Cobalt	1/16" to 1/2" (x 64ths)	29
02-CT29-H	H.S.S. TiN Coated	1/16" to 1/2" (x 64ths)	29
02-CB60-H	Cobalt	#1 to #60	60
02-CT60-H	H.S.S. TiN Coated	#1 to #60	60
02-CB26-H	Cobalt	A to Z	26

## Left Hand Spiral Drills

02-92460



- Premium hi-molybdenum tool steel construction is gold surface treated for maximum lubricity.
- Precision ground for superb accuracy and performance.
- Ideal for removing broken studs and fasteners without the need for a screw extractor.

Left Hand Spiral Drill Packs\*, 135° Split Point

Part Number	Diameter	Flute Length	Overall Length
02-89290	3/32"	1-1/4"	2-1/4" (57 mm)
02-92440	1/8"	1-5/8"	2-3/4" (70 mm)
02-23170	5/32"	2"	3-1/8" (79 mm)
02-92450	3/16"	2-5/16"	3-1/2" (89 mm)
02-92444	7/32"	2-1/2"	3-3/4" (95 mm)
02-92460	1/4"	2-3/4"	4" (102 mm)
02-92453	9/32"	2-15/16"	4-1/4" (108 mm)
02-92470	5/16"	3-3/16"	4-1/2" (114 mm)
02-92480	3/8"	3-5/8"	5" (127 mm)

\*Drills are six per pack except for 02-92470 & 02-92480 (three per pack).

## Chipfree Acrylic Drills

02-31530



- Chipfree point is precision ground at 60° for gradual entry that avoids cracking.
- 0° rake eliminates grabbing and breakout.

Acrylic Drill Packs\*, 60° Point

Part Number	Diameter	Flute Length	Overall Length
02-32260	3/32"	1-5/16"	2-1/4" (57 mm)
02-31500	1/8"	1-3/8"	2-1/2" (64 mm)
02-31510	5/32"	2-3/16"	2-7/8" (73 mm)
02-31520	3/16"	2"	3-3/16" (81 mm)
02-32220	7/32"	2-9/16"	3-3/4" (95 mm)
02-31530	1/4"	2-5/16"	3-9/16" (91 mm)

\*Drills are twelve per pack. other sizes available, please inquire.



For Hole Saws & Circle Cutters See Pages 81-83

## Self-Starting Step Drills

02-10104



02-10101T



- Single flute cutting edge for greater control through steps.
- Hex shank prevents slipping in drill chuck.
- Many other styles & sizes available, please inquire.

Fractional Step Drills

Part No. H.S.S.	Part No. TiN Coated	# Of Holes	Hole Size Range	Shank Size	Max. Material Thickness
02-10101	02-10101T	13	1/8" to 1/2"	1/4"	1/8"
02-10102	02-10102T	6	3/16" to 1/2"	1/4"	3/8"
02-10103	02-10103T	9	1/4" to 3/4"	3/8"	1/8"
02-10104	02-10104T	12	3/16" to 7/8"	3/8"	1/8"
02-10105	—	10	1/4" to 1-3/8"	1/2"	1/8"

Metric Step Drills

Part No. H.S.S.	Part No. TiN Coated	# Of Holes	Hole Size Range	Shank Size	Max. Material Thickness
02-11101	02-11101T	9	4 to 12 mm	6.35 mm	5 mm
02-11103	02-11103T	7	6 to 18 mm	9.53 mm	5 mm
02-11104	02-11104T	10	4 to 22 mm	9.53 mm	5 mm
02-11105	02-11105T	13	5 to 35 mm	12.70 mm	3.5 mm



02-10502

02-10225



- Money saving sets provide a wide range of hole sizes.
- 4 PC set includes hard plastic carrying case.

Part Number	Description	Hole Sizes - 1/8" Material (max.)	Hole Sizes - 3/8" Material (max.)
02-10502	3 PC Set	1/8" to 3/4"	3/16" to 1/2"
02-10225	4 PC Set	1/8" to 1-3/8"	3/16" to 1/2"

## Chucking Reamers

### High Quality Construction

- Sizing chart used for reference only as available sizes may vary, please inquire.
- Many other styles & sizes available, please inquire.



High Speed Steel			
Type	Straight Flute	Left Spiral Flute	Right Spiral Flute
Shank	Straight	Straight	Straight
Part No. (Prefix)	700	720	740

Cobalt	
Type	Straight Flute
Shank	Straight
Part No. (Prefix)	700C

Carbide Tipped				
Type	Straight Flute	Straight Flute	Expansion Flute	Expansion Flute
Shank	Straight	Taper	Straight	Taper
Part No. (Prefix)	400	402	465	467

Solid Carbide	
Type	Straight Flute
Shank	Straight
Part No. (Prefix)	1564

Size (Suffix)	Decimal Equiv.
41	.0960"
40	.0980"
2.5mm	.0984"
39	.0995"
38	.1015"
37	.1040"
36	.1065"
7/64	.1094"
35	.1100"
34	.1110"
33	.1130"
32	.1160"
3mm	.1181"
31	.1200"
1230	.1230"
1240	.1240"
1247	.1247"
1/8	.1250"
1260	.1260"
30	.1285"
29	.1360"
3.5mm	.1378"
28	.1405"
9/64	.1406"
27	.1440"
26	.1470"
25	.1495"
24	.1520"
23	.1540"
5/32	.1562"
22	.1570"
4mm	.1575"

Size (Suffix)	Decimal Equiv.
21	.1590"
20	.1610"
19	.1660"
18	.1695"
11/64	.1719"
17	.1730"
16	.1770"
4.5mm	.1772"
15	.1800"
14	.1820"
13	.1850"
1855	.1855"
1865	.1865"
1870	.1870"
3/16	.1875"
1885	.1885"
12	.1890"
11	.1910"
10	.1935"
9	.1960"
5mm	.1968"
8	.1990"
7	.2010"
13/64	.2031"
6	.2040"
5	.2055"
4	.2090"
3	.2130"
5.5mm	.2165"
7/32	.2187"
2	.2210"
1	.2280"

Size (Suffix)	Decimal Equiv.
A	.2340"
15/64	.2344"
6mm	.2362"
B	.2380"
C	.2420"
D	.2460"
2480	.2480"
2490	.2490"
2495	.2495"
1/4	.2500"
2510	.2510"
6.5mm	.2559"
F	.2570"
G	.2610"
17/64	.2656"
H	.2660"
I	.2720"
7mm	.2756"
J	.2770"
K	.2810"
9/32	.2812"
L	.2900"
M	.2950"
7.5mm	.2953"
19/64	.2969"
N	.3020"
3105	.3105"
3115	.3115"
3120	.3120"
5/16	.3125"
3135	.3135"
8mm	.3150"

Size (Suffix)	Decimal Equiv.
O	.3160"
P	.3230"
21/64	.3281"
Q	.3320"
8.5mm	.3346"
R	.3390"
11/32	.3437"
S	.3480"
9mm	.3543"
T	.3580"
23/64	.3594"
U	.3680"
3730	.3730"
3740	.3740"
9.5mm	.3740"
3745	.3745"
3/8	.3750"
3760	.3760"
V	.3770"
W	.3860"
25/64	.3906"
10mm	.3737"
X	.3970"
Y	.4040"
13/32	.4062"
Z	.4130"
10.5mm	.4134"
27/64	.4219"
11mm	.4331"
4355	.4355"
4365	.4365"
4370	.4370"

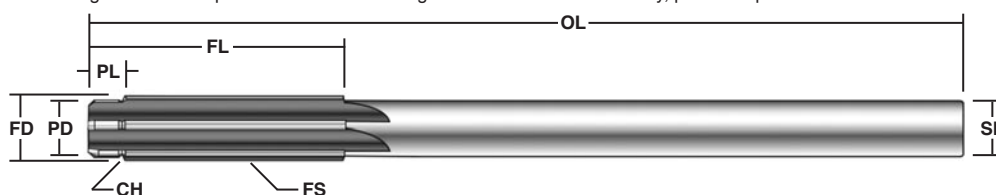
Size (Suffix)	Decimal Equiv.
7/16	.4375"
4385	.4385"
11.5mm	.4528"
29/64	.4531"
15/32	.4687"
12mm	.4724"
31/64	.4844"
12.5mm	.4921"
4980	.4980"
4990	.4990"
4995	.4995"
1/2	.5000"
5010	.5010"
13mm	.5118"
17/32	.5312"
13.5mm	.5315"
14mm	.5512"
9/16	.5625"
14.5mm	.5709"
15mm	.5906"
19/32	.5937"
15.5mm	.6102"
5/8	.6250"
16mm	.6299"
16.5mm	.6496"
21/32	.6562"
17mm	.6693"
11/16	.6875"
17.5mm	.6890"
18mm	.7087"
23/32	.7187"
18.5mm	.7283"

Size (Suffix)	Decimal Equiv.
19mm	.7480"
3/4	.7500"
19.5mm	.7677"
25/32	.7812"
20mm	.7874"
20.5mm	.8071"
13/16	.8125"
21mm	.8268"
27/32	.8437"
21.5mm	.8465"
22mm	.8661"
7/8	.8750"
22.5mm	.8858"
23mm	.9055"
29/32	.9062"
23.5mm	.9252"
15/16	.9375"
24mm	.9449"
24.5mm	.9646"
31/32	.9687"
25mm	.9843"
1	1.0000"
1-1/16	1.0625"
1-1/8	1.1250"
1-3/16	1.1875"
1-1/4	1.2500"
1-5/16	1.3125"
1-3/8	1.3750"
1-7/16	1.4375"
1-1/2	1.5000"

Key	
OL	Overall Length
FL	Flute Length
FD	Flute Diameter
FS	Flute Spiral
PL	Pilot Length
PD	Pilot Diameter
CH	Chamfer
SD	Shank Diameter

#### Basic Ordering Instructions:

Select desired reamer type from the charts at the top of the page (prefix) & add the desired reamer size from the sizing charts above (suffix).  
**Example:** To order a 1/4" straight flute, straight shank H.S.S. reamer, use part number 700-1/4. Reamers ordered this way will be pilotless with geometry conforming to NAS 897 specifications. Overall length & shank diameter will vary, please inquire.



#### Custom Ordering Instructions:

Use the illustration above as a starting point - specifying only the options absolutely necessary will allow the most economical prices & the quickest turnaround. Cutting or non-cutting pilots, shanks with flats & many other options also available, please inquire.



## Chuckling Reamer Sets

*Straight Shank, Straight Flute, Right Hand Cut*



*Sturdy Metal Case Included*

02-127S14

Chuckling Reamer Sets			
Part Number	Construction	Included Sizes	Bits
02-127S02	High Speed Steel	1/16" to 1/2" (x 64ths)	29
02-CB127S02	Cobalt	1/16" to 1/2" (x 64ths)	29
02-127S11	High Speed Steel	#1 to #60	60
02-CB127S11	Cobalt	#1 to #60	60
02-127S14	High Speed Steel	A to Z	26
02-CB127S14	Cobalt	A to Z	26

## USATCO Reamer Kit



- Versatile kit includes both chucking & threaded shank reamers.
- Included sizes are perfect for common aircraft fastener work (including nominal, first over, and second over sizes).

### Kit Includes:

Fifteen Chuckling Reamers / Fifteen Piloted Threaded Shank Reamers (.1285 x .0980, .1590 x .1285, .1610 x .1250, .1840 x .1680, .1850 x .1600, .1985 x .1850, .2000 x .1840, .2140 x .1990, .2460 x .2340, .2470 x .2310, .2500 x .2340, .2610 x .2460, .2760 x .2610, .2780 x .2620, .3125 x .2969) & Foam Fitted Plastic Carrying Case

**Note:** 1/4-28 threaded shank reamers are 2-1/8" O.A.L. (1/4" pilot length).

Part Number	Description
53-100-4503	Complete 31 PC Kit

## H.S.S. Adjustable Hand Reamers

02-4A



- Easily adjustable by loosening one nut and tightening the other to ream any odd sized holes - perfect for field repairs.
- Made of long lasting high speed steel with a right hand cut.

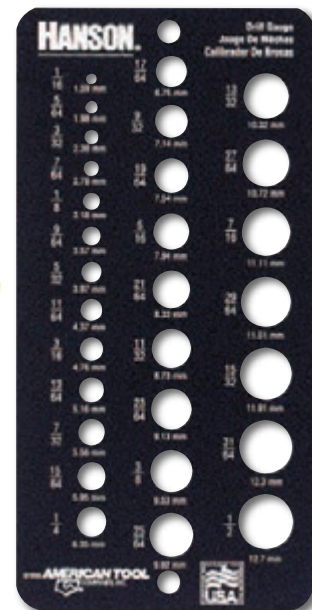
Part Number	Range Of Adjustment	Blade Length	Overall Length
02-8A	1/4" to 9/32" (6.3 - 7.1 mm)	1-11/32"	3-1/4" (83 mm)
02-7A	9/32" to 5/16" (7.1 - 7.9 mm)	1-11/32"	3-1/2" (89 mm)
02-6A	5/16" to 11/32" (7.9 - 8.7 mm)	1-1/2"	4-1/8" (105 mm)
02-5A	11/32" to 3/8" (8.7 - 9.5 mm)	1-1/2"	4-3/8" (111 mm)
02-4A	3/8" to 13/32" (9.5 - 10.3 mm)	1-1/2"	4-3/4" (121 mm)
02-3A	13/32" to 7/16" (10.3 - 11.1 mm)	1-1/2"	5" (127 mm)
02-2A	7/16" to 15/32" (11.1 - 11.9 mm)	1-5/8"	5-1/4" (133 mm)

**Note:** 02-8A to 02-4A are 4-flute, 02-3A & 02-2A are 6-flute.

### 5PC Adjustable Hand Reamer Set (includes fitted case)

Part Number	Included Reamers	Range Of Adjustment
RS-AHR-4	02-8A, 02-7A, 02-6A, 02-5A	1/4" to 3/8" (6.3 - 9.5 mm)

## Drill Gauges



18-14E

*Conforms To  
Gov't Spec  
GG-G86b*

- Heavy gauge steel, machined & ground to close tolerances.
- Dimensional text permanently etched into face for long life.

Part Number	Drill Types & Sizes
18-12	Letter (A to Z)
18-13	Number (61 to 80) & (3" to 1-1/8")
18-14	Fractional (1/16" to 1/2" x 64ths)
18-14E	Fractional (1/16" to 1/2" x 64ths), Easy Read Type
18-15	Number (1 to 60)
18-35	Metric (to 13 mm x .05 mm)

## USATCO Angle Drills

### Affordable Close-Quarter Drilling Tools



13-1227A-1



13-1227A-2



13-1227A-3

- Steel alloy cylinder & rotor for long tool life.
- Precision machined for smooth & quiet operation.
- Milled motor housing - rear exhaust.

90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-1	3200	8-1/4" (210 mm)	1.25 lbs (0.6 kgs)

45° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-2	3200	9" (229 mm)	1.25 lbs (0.6 kgs)

360° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-3	3200	8-3/4" (222 mm)	1.25 lbs (0.6 kgs)

Note: All models air inlet 1/4" NPT.



13-1227A-1EXT



13-1227A-2EXT

*Made In The USA*

### Extension Angle Drills

Features an extra-long drill head perfect for inaccessible areas.

90° Extension - 1/4" Cap., 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-1EXT	3000	13-3/8" (340 mm)	2.0 lbs (0.9 kgs)

45° Extension - 1/4" Cap., 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-2EXT	3000	14-7/8" (378 mm)	2.0 lbs (0.9 kgs)

Note: Extension drills also available with 9/32"-40 thread, please inquire.

## Desoutter® Compact Angle Drills

*Updated Design*



DR300-T3000-S5-90



DR300-T3000-T5-30



DR300-T3000-S5-360



*High Precision, Durable Drills For Long Life*

- Durable five blade motor with long life bearings.
- Lightweight and ergonomic composite grip.
- Fixed air inlet prevents foreign object damage.

90° Angle - 3/16" Capacity, 1/4"-28 Thread - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-S5-90	3000	9-13/16" (249 mm)	1.5 lbs (0.7 kgs)

30° Angle - 3/16" Capacity, Collet Spindle - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-T5-30	3000	10-5/8" (270 mm)	1.5 lbs (0.7 kgs)

360° Angle - 3/16" Capacity, Collet Spindle - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-T5-360	3000	10-9/16" (269 mm)	1.6 lbs (0.75 kgs)

360° Angle - 3/16" Capacity, 1/4"-28 Thread - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-S5-360	3000	10-1/2" (267 mm)	1.6 lbs (0.75 kgs)

Note: Many other models available, please inquire.



*For A Wide Selection Of Deburring Tools See Pages 90-93*

## APEX® Angle Drills

*The Industry Workhorse*



15LF283-62

*Comfortable Ergonomic Design*

- Vibration & noise reducing ergonomic design.
- High efficiency motor and gear train with fewer parts for quick, easy maintenance and longer tool life.
- Thermal insulated handle with comfortable textured grip.

Note: Air Inlet 1/4" NPT.

90° Mini Angle Head (shown) - Composite Housing, 1/4" Capacity, 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number Rear Exhaust	Free RPM	Overall Length	Weight
15LF283-62	3300	11-1/8" (282 mm)	1.8 lbs (0.82 kgs)

45° Mini Angle Head - Composite Housing, 1/4" Capacity, 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number Rear Exhaust	Free RPM	Overall Length	Weight
15LF283-42	3300	11-1/8" (282 mm)	1.8 lbs (0.82 kgs)

360° Mini Angle Head - Composite Housing, 1/4" Capacity, 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number Rear Exhaust	Free RPM	Overall Length	Weight
15LF283-92	3300	11-1/8" (282 mm)	1.8 lbs (0.82 kgs)

Note: Many other models and configurations available, please inquire.

## APEX® Heavy-Duty Angle Drills

*Tough, Reinforced Angle Head*



15LN285-52

*Comfortable Ergonomic Design*

- A great tool for tough jobs not suitable for lighter models.
- Vibration & noise reducing ergonomic design.
- High efficiency motor and gear train with fewer parts for quick, easy maintenance and longer tool life.
- Thermal insulated handle with comfortable textured grip.

Note: Air Inlet 1/4" NPT.

90° Heavy-Duty Angle Head - Composite Housing, 1/4" Capacity, 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number Rear Exhaust	Free RPM	Overall Length	Weight
15LN285-52	870	12.8" (325 mm)	3.0 lbs (1.36 kgs)

90° Heavy-Duty Angle Head - Composite Housing, 1/4" Capacity, 3-Jaw Chuck Included - 0.4 hp (0.30 kW)			
Part Number Rear Exhaust	Free RPM	Overall Length	Weight
15LN286-59	540	12.8" (325 mm)	3.0 lbs (1.36 kgs)

Note: Many other models and configurations available, please inquire.

## Sioux® Heavy-Duty Angle Drills



3A1240



SDR10A22N2

*Strongest Gears In Its Class*

- Rugged construction & dependable service.
- Includes keyed chuck.
- Non-reversible (reversible models also available, please inquire).

Note: Air Inlet 1/4" NPT.

1/4" Cap. Chuck, 3/8"-24 Thread - 1.0 hp (0.75 kW) - Rear Exhaust			
Part Number	Free RPM	Overall Length	Weight
SDR10A22N2	2200	10.2" (260 mm)	2.9 lbs (1.3 kgs)

1/2" Cap. Chuck, 1/2"-20 Thread - 1.0 hp (0.75 kW) - Side Exhaust			
Part Number	Free RPM	Overall Length	Weight
3A1240	600	15-1/8" (384 mm)	6.5 lbs (2.9 kgs)

## USATCO Offset 'Pancake' Angle Air Drills

*Smooth, Quiet Operation*



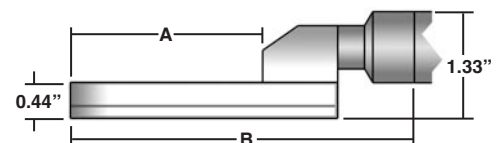
13-1627



13-1629



13-1631



Steel alloy cylinder & rotor, precision milled motor housing.

Note: Air Inlet 1/4" NPT.

90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)					
Part Number	Free RPM	Clearance (A)	Offset Length (B)	Overall Length	Weight
13-1627	3000	2.44"	4.81"	11" (279 mm)	2.0 lbs (0.91 kgs)
13-1629	3000	3.79"	6.16"	12.35" (314 mm)	2.1 lbs (0.95 kgs)
13-1631	3000	5.13"	7.50"	13.69" (348 mm)	2.3 lbs (1.04 kgs)



## AIR DRILLS & ACCESSORIES

### Sioux® 360° Angle Drill

*Lockable Angle Head,  
Full 360° Rotation*



SDR10S40N360

- Lever start, rear exhaust.
- Accepts straight shank bits up to 1/4".

Note: Air Inlet 1/4" NPT.

1/4" Capacity - 0.75 hp (0.56 kW)			
Part Number	Free RPM	Overall Length	Weight
SDR10S40N360	4000	12-1/2" (318 mm)	2.7 lbs (1.3 kgs)

### Economy Angle Drills

*Affordable Close Quarter  
Drilling Tools*



13-9950



13-9951

Note: Air Inlet 1/4" NPT.

90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9950	2800	10" (254 mm)	1.6 lbs (0.7 kgs)

45° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9951	2800	11" (279 mm)	1.6 lbs (0.7 kgs)

### Extended Reach Economy Angle Drill

*Extra Length For Tight Areas*



Note: Air Inlet 1/4" NPT.

90° Extended - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9952	2800	13-1/4" (337 mm)	1.8 lbs (0.8 kgs)



For Boelube® Drilling Lubricant See Page 233

### Angle Drill Upgrade Kit



#### Kit Includes:

Four Adapter Drills (#10, #21, #30 & #40), Four Collet Chucks (#10, #21, #30 & #40), Cone Jaw Chuck & Wrench

Part Number	Description
53-99757	Complete 10 PC Kit

### Cone-Jaw Chuck With Wrench

- Light-duty tool fits most angle drills with female thread.
- Use standard drills with any threaded spindle tool.



Part Number	Capacity	Thread
53-M3	1/16" to 1/4"	1/4"-28

### USATCO Collet Chucks

#### 1/4"-28 Thread

Integral units hold one size only, sub adapter not required.



53-92964

Part Number	Size	Part Number	Size
20-4010	#10	20-4257	F
20-4011	#11	20-5060	6 mm
20-4012	#12	20-4013	3/32"
20-1850	#13	20-4014	1/8"
20-4019	#19	20-4015	5/32"
20-4020	#20	20-4016	3/16"
20-4021	#21	20-4017	7/32"
20-4027	#27	20-4018	1/4"
20-4028	#28	20-41516	5/16"
20-4030	#30	20-41318	3/8"
20-4040	#40		

#### 4 PC Collet Chuck Kit

Part Number	Sizes Included
53-92964	#10, #21, #30 & #40



## Collets

- For use on all 9/32"-40 internal thread drills.
- Suitable for Desoutter & Atlas Copco drills.



Wire Gauge Sizes		
Part No.	Size	Decimal
AD040	60	.0400"
AD041	59	.0410"
AD042	58	.0420"
AD043	57	.0430"
AD0465	56	.0465"
AD052	55	.0520"
AD055	54	.0550"
AD0595	53	.0595"
AD0635	52	.0635"
AD067	51	.0670"
AD070	50	.0700"
AD073	49	.0730"
AD076	48	.0760"
AD0785	47	.0785"
AD081	46	.0810"
AD082	45	.0820"
AD086	44	.0860"
AD089	43	.0890"
AD0935	42	.0935"
AD096	41	.0960"
AD098	40	.0980"
AD0995	39	.0995"
AD1015	38	.1015"
AD1040	37	.1040"
AD1065	36	.1065"
AD110	35	.1100"

Wire Gauge Sizes		
Part No.	Size	Decimal
AD111	34	.1110"
AD113	33	.1130"
AD116	32	.1160"
AD120	31	.1200"
AD1285	30	.1285"
AD136	29	.1360"
AD1405	28	.1405"
AD144	27	.1440"
AD147	26	.1470"
AD1495	25	.1495"
AD152	24	.1520"
AD154	23	.1540"
AD157	22	.1570"
AD159	21	.1590"
AD161	20	.1610"
AD166	19	.1660"
AD1695	18	.1695"
AD1730	17	.1730"
AD177	16	.1770"
AD180	15	.1800"
AD182	14	.1820"
AD185	13	.1850"
AD189	12	.1890"
AD191	11	.1910"
AD1935	10	.1935"
AD1960	9	.1960"

Metric Sizes		
Part No.	Size	Decimal
AD0315	0.8	.0315"
AD0354	0.9	.0354"
AD0394	1.0	.0394"
AD0433	1.1	.0433"
AD0472	1.2	.0472"
AD0512	1.3	.0512"
AD0551	1.4	.0551"
AD0591	1.5	.0591"
AD0630	1.6	.0630"
AD0669	1.7	.0669"
AD0709	1.8	.0709"
AD0748	1.9	.0748"
AD0787	2.0	.0787"
AD0827	2.1	.0827"
AD0866	2.2	.0866"
AD0906	2.3	.0906"
AD0945	2.4	.0945"
AD0984	2.5	.0984"
AD1024	2.6	.1024"
AD1063	2.7	.1063"
AD1102	2.8	.1102"
AD1142	2.9	.1142"
AD1181	3.0	.1181"
AD1220	3.1	.1220"
AD1260	3.2	.1260"
AD1299	3.3	.1299"
AD1339	3.4	.1339"
AD1378	3.5	.1378"
AD1417	3.6	.1417"

Metric Sizes		
Part No.	Size	Decimal
AD1535	3.9	.1535"
AD1575	4.0	.1575"
AD1614	4.1	.1614"
AD1654	4.2	.1654"
AD1693	4.3	.1693"
AD1732	4.4	.1732"
AD1772	4.5	.1772"
AD1811	4.6	.1811"
AD1850	4.7	.1850"
AD1890	4.8	.1890"
AD1929	4.9	.1929"
AD1969	5.0	.1969"

Fractional Sizes		
Part No.	Size	Decimal
AD0312	1/32"	.0312"
AD0469	3/64"	.0469"
AD0625	1/16"	.0625"
AD0781	5/64"	.0781"
AD0937	3/32"	.0937"
AD1094	7/64"	.1094"
AD125	1/8"	.1250"
AD1406	9/64"	.1406"
AD1562	5/32"	.1562"
AD1719	11/64"	.1719"
AD1875	3/16"	.1875"

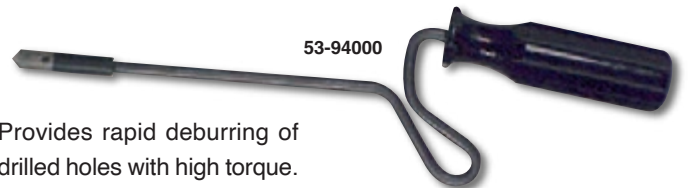
## H.S.S. Threaded Shank Reamers

- 1/4"-28 thread.
- No pilot.



Part Number	Diameter	Decimal Equiv.	Overall Length
02-96503	#10	.1935"	5/8" (16 mm)
02-96502	#13	.1850"	5/8" (16 mm)
02-96501	#21	.1590"	5/8" (16 mm)
02-96499	#30	.1285"	5/8" (16 mm)
02-96505	1/4"	.2500"	5/8" (16 mm)
02-96567	#10	.1935"	1" (25.4 mm)
02-96566	#13	.1850"	1" (25.4 mm)
02-96565	#21	.1590"	1" (25.4 mm)
02-96564	#30	.1285"	1" (25.4 mm)
02-96568	1/4"	.2500"	1" (25.4 mm)

## 'Speed Driver' Hole Deburring Tool & Cutters



Provides rapid deburring of drilled holes with high torque.

Part Number	Description
04-94003	Speed Driver Only (no cutter)
53-94000	Speed Driver & 3/8" Diameter, 100° Cutter



Cutters can also be used with angle drills and similar threaded shank tools.

100° Cutters, 1/4"-28 Thread	
Part Number	Diameter
02-94000	3/8"
02-94001	1/2"
02-94002	5/8"

## Threaded Shank Adapter Drills

### High Speed Steel Adapter Drills

Drills are manufactured to NAS 965 Type 'B' construction with 135° split points. Great for drilling general to medium duty, low tensile strength materials in confined areas.

### Cobalt Adapter Drills

Drills are manufactured to NAS 965 Type 'D' construction with 135° heavy duty split points and surface treated. Made from M42 8% cobalt high speed steel. Great for drilling hard, tough high tensile strength materials in confined areas. When drilling low tensile strength materials these drills will have a significantly greater tool life than standard H.S.S., resulting in a much lower cost per drill.



**Note:** Carbide drills, PCD drills, & custom drill sizes also available, please inquire. 10-32 thread drills shown on next page.

Adapter Drills, 1/4"-28 Shank Thread							
Drill Size	Decimal Equivalent	H.S.S. Stubby 3/4" OAL	H.S.S. Short 1-1/4" OAL	H.S.S. Long 2-1/8" OAL	Cobalt Stubby 3/4" OAL	Cobalt Short 1-1/4" OAL	Cobalt Long 2-1/8" OAL
2.3 mm	.0906"	02-2924-2.3	02-2964-2.3	02-2974-2.3	02-2924-2.3C	02-2964-2.3C	02-2974-2.3C
3/32"	.0938"	02-2921-3/32	02-2961-3/32	02-2971-3/32	02-2921-3/32C	02-2961-3/32C	02-2971-3/32C
40	.0980"	02-2922-40	02-2962-40	02-2972-40	02-2922-40C	02-2962-40C	02-2972-40C
2.5 mm	.0984"	02-2924-2.5	02-2964-2.5	02-2974-2.5	02-2924-2.5C	02-2964-2.5C	02-2974-2.5C
3.17 mm	.1248"	02-2924-3.17	02-2964-3.17	02-2974-3.17	02-2924-3.17C	02-2964-3.17C	02-2974-3.17C
1/8"	.1250"	02-2921-1/8	02-2961-1/8	02-2971-1/8	02-2921-1/8C	02-2961-1/8C	02-2971-1/8C
30	.1285"	02-2922-30	02-2962-30	02-2972-30	02-2922-30C	02-2962-30C	02-2972-30C
3.3 mm	.1299"	02-2924-3.3	02-2964-3.3	02-2974-3.3	02-2924-3.3C	02-2964-3.3C	02-2974-3.3C
27	.1440"	02-2922-27	02-2962-27	02-2972-27	02-2922-27C	02-2962-27C	02-2972-27C
3.96 mm	.1559"	02-2924-3.96	02-2964-3.96	02-2974-3.96	02-2924-3.96C	02-2964-3.96C	02-2974-3.96C
5/32"	.1562"	02-2921-5/32	02-2961-5/32	02-2971-5/32	02-2921-5/32C	02-2961-5/32C	02-2971-5/32C
21	.1590"	02-2922-21	02-2962-21	02-2972-21	02-2922-21C	02-2962-21C	02-2972-21C
20	.1610"	02-2922-20	02-2962-20	02-2972-20	02-2922-20C	02-2962-20C	02-2972-20C
4.1 mm	.1614"	02-2924-4.1	02-2964-4.1	02-2974-4.1	02-2924-4.1C	02-2964-4.1C	02-2974-4.1C
16	.1770"	02-2922-16	02-2962-16	02-2972-16	02-2922-16C	02-2962-16C	02-2972-16C
4.76 mm	.1874"	02-2924-4.76	02-2964-4.76	02-2974-4.76	02-2924-4.76C	02-2964-4.76C	02-2974-4.76C
3/16"	.1875"	02-2921-3/16	02-2961-3/16	02-2971-3/16	02-2921-3/16C	02-2961-3/16C	02-2971-3/16C
11	.1910"	02-2922-11	02-2962-11	02-2972-11	02-2922-11C	02-2962-11C	02-2972-11C
4.9 mm	.1929"	02-2924-4.9	02-2964-4.9	02-2974-4.9	02-2924-4.9C	02-2964-4.9C	02-2974-4.9C
10	.1935"	02-2922-10	02-2962-10	02-2972-10	02-2922-10C	02-2962-10C	02-2972-10C
3	.2130"	02-2922-3	02-2962-3	02-2972-3	02-2922-3C	02-2962-3C	02-2972-3C
7/32"	.2188"	02-2921-7/32	02-2961-7/32	02-2971-7/32	02-2921-7/32C	02-2961-7/32C	02-2971-7/32C
D	.2460"	02-2923-D	02-2963-D	02-2973-D	02-2923-DC	02-2963-DC	02-2973-DC
1/4"	.2500"	02-2921-1/4	02-2961-1/4	02-2971-1/4	02-2921-1/4C	02-2961-1/4C	02-2971-1/4C
6.35 mm	.2500"	02-2924-6.35	02-2964-6.35	02-2974-6.35	02-2924-6.35C	02-2964-6.35C	02-2974-6.35C
F	.2570"	02-2923-F	02-2963-F	02-2973-F	02-2923-FC	02-2963-FC	02-2973-FC
6.6 mm	.2598"	02-2924-6.6	02-2964-6.6	02-2974-6.6	02-2924-6.6C	02-2964-6.6C	02-2974-6.6C
G	.2610"	02-2923-G	02-2963-G	02-2973-G	02-2923-GC	02-2963-GC	02-2973-GC
17/64"	.2656"	02-2921-17/64	02-2961-17/64	02-2971-17/64	02-2921-17/64C	02-2961-17/64C	02-2971-17/64C
J	.2770"	02-2923-J	02-2963-J	02-2973-J	02-2923-JC	02-2963-JC	02-2973-JC
9/32"	.2812"	02-2921-9/32	02-2961-9/32	02-2971-9/32	02-2921-9/32C	02-2961-9/32C	02-2971-9/32C
5/16"	.3125"	02-2921-5/16	02-2961-5/16	02-2971-5/16	02-2921-5/16C	02-2961-5/16C	02-2971-5/16C
8 mm	.3150"	02-2924-8	02-2964-8	02-2974-8	02-2924-8C	02-2964-8C	02-2974-8C
3/8"	.3750"	02-2921-3/8	02-2961-3/8	02-2971-3/8	02-2921-3/8C	02-2961-3/8C	02-2971-3/8C

## Threaded Shank Adapter Drills (cont'd)

Adapter Drills, 10-32 Shank Thread							
Drill Size	Decimal Equivalent	H.S.S. Stubby 3/4" OAL	H.S.S. Short 1-1/4" OAL	H.S.S. Long 2-1/8" OAL	Cobalt Stubby 3/4" OAL	Cobalt Short 1-1/4" OAL	Cobalt Long 2-1/8" OAL
3/32"	.0938"	02-2621-3/32	02-2941-3/32	02-2951-3/32	02-2621-3/32C	02-2941-3/32C	02-2951-3/32C
40	.0980"	02-2622-40	02-2942-40	02-2952-40	02-2622-40C	02-2942-40C	02-2952-40C
1/8"	.1250"	02-2621-1/8	02-2941-1/8	02-2951-1/8	02-2621-1/8C	02-2941-1/8C	02-2951-1/8C
30	.1285"	02-2622-30	02-2942-30	02-2952-30	02-2622-30C	02-2942-30C	02-2952-30C
27	.1440"	02-2622-27	02-2942-27	02-2952-27	02-2622-27C	02-2942-27C	02-2952-27C
5/32"	.1562"	02-2621-5/32	02-2941-5/32	02-2951-5/32	02-2621-5/32C	02-2941-5/32C	02-2951-5/32C
21	.1590"	02-2622-21	02-2942-21	02-2952-21	02-2622-21C	02-2942-21C	02-2952-21C
20	.1610"	02-2622-20	02-2942-20	02-2952-20	02-2622-20C	02-2942-20C	02-2952-20C
16	.1770"	02-2622-16	02-2942-16	02-2952-16	02-2622-16C	02-2942-16C	02-2952-16C
3/16"	.1875"	02-2621-3/16	02-2941-3/16	02-2951-3/16	02-2621-3/16C	02-2941-3/16C	02-2951-3/16C
11	.1910"	02-2622-11	02-2942-11	02-2952-11	02-2622-11C	02-2942-11C	02-2952-11C
10	.1935"	02-2622-10	02-2942-10	02-2952-10	02-2622-10C	02-2942-10C	02-2952-10C
3	.2130"	02-2622-3	02-2942-3	02-2952-3	02-2622-3C	02-2942-3C	02-2952-3C
7/32"	.2188"	02-2621-7/32	02-2941-7/32	02-2951-7/32	02-2621-7/32C	02-2941-7/32C	02-2951-7/32C
1/4"	.2500"	02-2621-1/4	02-2941-1/4	02-2951-1/4	02-2621-1/4C	02-2941-1/4C	02-2951-1/4C
17/64"	.2656"	02-2621-17/64	02-2941-17/64	—	—	—	—
9/32"	.2812"	02-2621-9/32	02-2941-9/32	—	—	—	—
5/16"	.3125"	02-2621-5/16	02-2941-5/16	02-2951-5/16	02-2621-5/16C	—	—
3/8"	.3750"	—	—	02-2951-3/8	02-2621-3/8C	—	—

### Threaded Shank Adapter Drill Sets

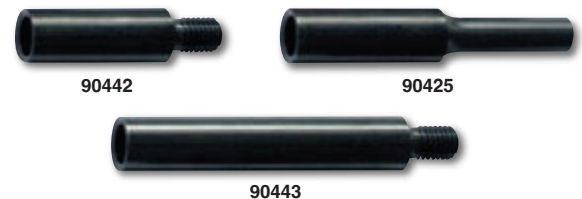


Stubby 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2921	3/32", 1/8", 5/32" & 3/16"
53-2922	#10, #21, #30 & #40

Short 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2961	3/32", 1/8", 5/32" & 3/16"
53-2962	#10, #21, #30 & #40

Long 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2971	3/32", 1/8", 5/32" & 3/16"
53-2972	#10, #21, #30 & #40

### Threaded & Straight Shank Extensions



- Versatile - for use with countersinks, drill bits etc.
- 1/4"-28 female thread, 3/8" body diameter.

1/4"-28 Threaded Shank			1/4" Straight Shank		
Part No.	O.A.L.	Shank	Part No.	O.A.L.	Shank
90442	1"	5/16"	90425	2"	7/8"
90443	2"	5/16"	90426	4"	7/8"
90444	4"	5/16"	90427	6"	7/8"

### Threaded Shank Adapters



Part Number	Converts
20-90409	1/4"-28 Male Thread To 9/32"-40 Female Thread
20-90411	9/32"-40 Male Thread To 1/4"-28 Female Thread
20-90413	1/4"-28 Male Thread To 10-32 Female Thread

## AIR DRILLS & ACCESSORIES

### Strap Duplicators

Tapered back end is convenient for prying apart sheets.



Bushing Type

**Bushing Type** (with jig, drill duplicate holes from overlapping sheet)

Part Number 6-1/4" Reach ('L')	Part Number 13-1/4" Reach ('L')	Drill Size & Pilot Diameter
46-231-1	46-231-21	#40
46-231-2	46-231-22	#30
46-231-3	46-231-23	#21
46-231-4	46-231-24	#19
46-231-5	46-231-25	#10
46-231-6	46-231-26	#5
46-231-7	46-231-27	1/4"
46-231-8	46-231-28	F



Bushing Inverted  
Pilot Type

**Bushing Inverted Pilot Type** (bushing type with inverted pilot)

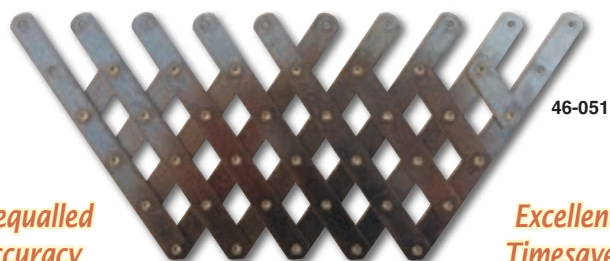
Part Number 6-1/4" Reach ('L')	Part Number 13-1/4" Reach ('L')	Drill Size & Pilot Diameter
46-232-1	46-232-21	#40
46-232-2	46-232-22	#30
46-232-3	46-232-23	#21
46-232-4	46-232-24	#19
46-232-5	46-232-25	#10
46-232-6	46-232-26	#5
46-232-7	46-232-27	1/4"
46-232-8	46-232-28	F

### 5 PC Strap Duplicator Sets



Part Number	Type	Includes (1 each):
53-70369	Bushing, 6-1/4" Reach	#40, #30, #21, #10 & 1/4"
53-70370	Bushing, 13-1/4" Reach	
53-70371	Inverted, 6-1/4" Reach	
53-70372	Inverted, 13-1/4" Reach	

### Rivet Fan Spacing Tools



46-051

*Unequalled  
Accuracy*

*Excellent  
Timesaver*

- Used for layout & marking of equally spaced rivet holes.
- Hole spacing from 1/2" (13 mm) closed to 2" (51 mm) open.

Part Number	Type	Fingers	Open Length
46-081	Standard	20	38" (97 cm)
46-051	Mini	10	18" (46 cm)

### Big Gator Drill Guide

*Made In  
The USA*



18-70416

*Heat-  
Treated  
Steel*

- 17 holes with marked centerlines for proper hole alignment.
- "V" groove on bottom for easy drilling on corners and rounds.

Part Number	Type	Range (increments)	Dimensions
18-70416	Fractional	1/8" to 3/8" (1/64")	5-1/2" L x 7/8" W x 7/8" H
18-70423	Metric	3 to 9.5mm (0.5mm)*	

\*Metric guide also includes 3.3, 4.2 and 6.8mm holes.

### "Bombsite" Precision Optical Hole Locator

*Optical Grade  
Clear Acrylic*



*Virtually  
Unbreakable*

- Permanently etched crosshairs provide an extremely accurate and magnified reference point accurate to  $\pm 0.001"$  of dead center.
- Works with all standard 1/2" diameter slip bushing tools including the drill bar below and slip drill stands on next page.

Part Number	Diameter
70349	1/2" (12.7mm)

### Drill Bar



- This adjustable, slip-type drill bar provides accurate placement and alignment of drilled holes. Includes lock screw and liner.
- Can be used with hole locator (above) - once centered replace locator with a slip bushing and drill (slip bushing not included).

Part Number	Dimensions
70346	6"L x 1-1/2"W x 3/4"H



## Drill Stand & Slip Bushing Kit



### 18 PC Kit Includes:

### Custom Fitted Case

Drill Stand, 16 Slip Bushings (#8, #10, #13, #16, #20, #21, #27, #30, #40, 3/32", 1/8", 5/32", 3/16", 1/4", 5/16" & "D") & Case

Part Number	Description
53-16045	18 PC Set

## Drill Stand & Slip Bushing Sets



53-16070

### 5 PC Number Set Includes:

Drill Stand & Four Slip Bushings (#10, #21, #30 & #40)

### 5 PC Fractional Set Includes:

Drill Stand & Four Slip Bushings (3/32", 1/8", 5/32" & 3/16")

### 10 PC Set Includes:

Drill Stand & Five Slip Bushings (#10, #21, #30, #40, 3/32", 1/8", 5/32", 3/16" & 1/4")

Part Number	Description
53-16070	5 PC Number Set
53-16071	5 PC Fractional Set
53-16075	10 PC Piece Set

## Drill Stand & Slip Bushings

### Clear & Durable Lexan Stand

- Steel liner with bushing lock holds industry standard 1/2" OD slip bushings.
- Bushings are 3/4" long.



Drill Stand (order bushings below)	
Part Number	Height
18-5210	1-3/4"

1/2" OD Slip Bushings		1/2" OD Slip Bushings	
Part Number	Drill Size	Part Number	Drill Size
18-1040	#40	18-1045	5/32"
18-1041	3/32"	18-1046	#10
18-1042	#30	18-1047	3/16"
18-1043	1/8"	18-1048	7/32"
18-1044	#21	18-1049	1/4"

## Drill Stand & Threaded Bushing Kit

### Fitted Case Helps Prevent F.O.D.



### Kit Includes:

Three Housings, Nine Bushings (#40, #30, #21, #10, 5/32", 3/16", 7/32", 1/4" & F) & Fitted Plastic Case

Part Number	Description
53-590DBK	Complete 13 PC Kit

## AIR DRILLS & ACCESSORIES

### Drill Stands & Threaded Bushings

18-3212A



*Interchangeable &  
Hardened Bushings*

18-3212B



- Keeps your drills & taps perpendicular to work surface.
- No-mar transparent plastic allows a clear view of the work.

#### Drill Stands (order bushings below)

Part Number	Type	Thread	Height*
18-3212A	Standard	1/2"-13	1-5/8"
18-3212B	Low-Profile	1/2"-13	1-1/8"
18-3215A	Large Diameter	3/4"-16	1-3/4"

#### 1/2"-13 Thread Bushings

Part Number	Drill Size
18-1213-40	#40
18-1213-3/32	3/32"
18-1213-30	#30
18-1213-1/8	1/8"
18-1213-21	#21
18-1213-5/32	5/32"
18-1213-10	#10
18-1213-3/16	3/16"
18-1213-11	#11
18-1213-7/32	7/32"
18-1213-1/4	1/4"

#### 3/4"-16 Thread Bushings

Part Number	Drill Size
18-1215-9/32	9/32"
18-1215-5/16	5/16"
18-1215-11/32	11/32"
18-1215-3/8	3/8"
18-1215-7/16	7/16"
18-1215-1/2	1/2"

\*Height of low-profile stand less bushing.

### Threaded Channel Drill Stands

18-13186



18-13187



- Keep drills a perfect 90° to the work surface.
- Use with 1/2"-13 threaded bushings (offered above).
- Three hole type keeps multiple bushings ready to go.
- Bottom feet with open ends allow for quick chip ejection.

Part Number	Type	Dimensions
18-13186	One Hole	1-1/8" L x 5/8" W x 1" H
18-13187	Three Hole	2" L x 1" W x 1" H

### Drill Stops



18-DS-20

- Prevents work damage from uncontrolled drill breakthru.
- Positive stop, spring cushioned contact.

Part Number	Drill Size	Overall Length	Part Number	Drill Size	Overall Length
18-DS-50	#50	1-5/16" (33 mm)	18-DS-11	#11	1-1/2" (38 mm)
18-DS-41	#41		18-DS-10	#10	
18-DS-40	#40		18-DS-6	#6	
18-DS-30	#30		18-DS-1	#1	2-1/8" (54 mm)
18-DS-28	#28		18-DS-1/4	1/4"	
18-DS-27	#27	1-1/2" (38 mm)	18-DS-5/16	5/16"	
18-DS-21	#21		18-DS-7/32	7/32"	
18-DS-20	#20		18-DS-9/32	9/32"	
18-DS-17	#17		18-DS-3/8	3/8"	
18-DS-16	#16		18-DS-7/16	7/16"	
18-DS-12	#12				



18-DS-20NM

#### No-Mar Drill Stops

- Unique rounded plastic face eliminates surface marring.
- Color coded, locks on drill with two set screws.

Part Number	Color	Size	Part Number	Color	Size
18-DS-40NM	Zinc	#40	18-DS-20NM	Zinc	#20
18-DS-30NM	Copper	#30	18-DS-10NM	Brass	#10
18-DS-21NM	Black	#21	18-DS-1/4NM	Copper	1/4"

#### Drill Stop Sets

Part Number	Type	Included Sizes (1 each)
53-1234	Standard	#10, #21, #30, #40
53-12345	Standard	#10, #21, #30, #40, 1/4"
53-70268	No-Mar	#10, #21, #30, #40
53-70270	No-Mar	#10, #21, #30, #40, 1/4"

### Chip Chasers



04-100



04-200

- Easily remove chips between sheets after drilling rivet holes.
- Blade choice of fine spring steel or heavy-duty stainless steel.
- Comfortable molded plastic handle.

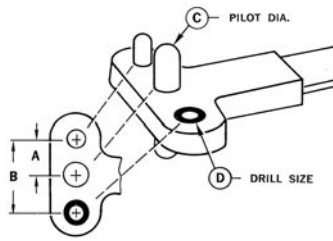
Part Number Spring Steel Blade	Part Number Stainless Blade	Blade Length
04-100	04-300	2-3/4"
04-200	04-400	5-7/8"
53-1200	53-3400	Special: Both Tools

## Nut Plate Drill Jigs

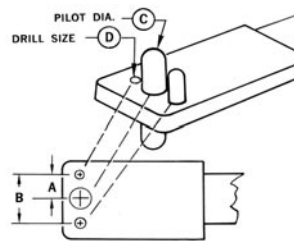
- Designed for accurate drilling of rivet holes for nut plates.
- Flexible handle provides hand clearance when jig is in use.



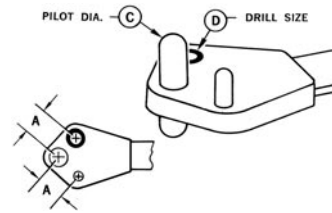
04-518-ND



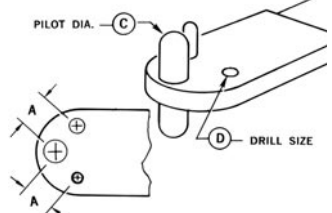
Two Lug Type Style 1



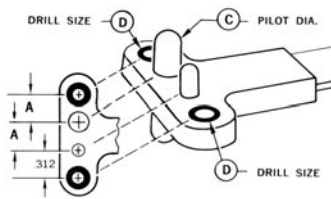
Two Lug Type Style 2



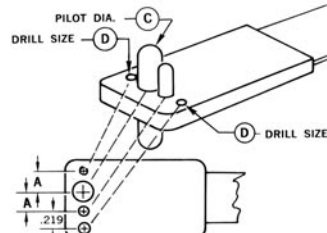
Corner Lug Type Style 1



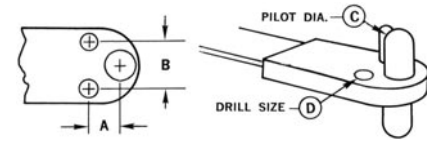
Corner Lug Type Style 2



One Lug Type Style 1



One Lug Type Style 2



Mini Anchornut Type

Two Lug Type Style 1					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-A	#6	.344"	.688"	.139"	#40
04-518-B	#8	.344"	.688"	.164"	#40
04-518-C	#10	.344"	.688"	.191"	#40
04-518-D	1/4"	.500"	1.000"	.248"	#40
04-518-E	5/16"	.500"	1.000"	.312"	#30
04-518-F	3/8"	.500"	1.000"	.372"	#30
04-518-M	—	.375"	.750"	.4375"	#40
04-518-N	—	.500"	1.000"	.6875"	#30
04-518-P	—	.6875"	1.375"	.811"	#30

Two Lug Type Style 2					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-NA	#4	.203"	.406"	.112"	#40
04-518-NB	#6	.218"	.436"	.139"	#40
04-518-NC	#8	.234"	.468"	.164"	#40
04-518-ND	#10	.250"	.500"	.191"	#40
04-518-NE	1/4"	.281"	.562"	.248"	#40
04-518-NF	5/16"	.3125"	.625"	.312"	#30

One Lug Type Style 1					
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size	Drill Size
04-518-G	#6	.344"	.139"	#40	#40
04-518-H	#8	.344"	.164"	#40	#40
04-518-J	#10	.344"	.191"	#40	#40
04-518-K	1/4"	.344"	.248"	#40	#40
04-518-L	#10 Sp.	.344"	.213"	#40	#40

One Lug Type Style 2					
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size	Drill Size
04-518-PA	#4	.203"	.112"	#40	#40
04-518-PB	#6	.218"	.139"	#40	#40
04-518-PC	#8	.234"	.164"	#40	#40
04-518-PD	#10	.250"	.191"	#40	#40
04-518-PE	1/4"	.281"	.248"	#40	#40

Corner Type Style 1					
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size	Drill Size
04-518-R	#6	.344"	.139"	#40	#40
04-518-S	#8	.344"	.164"	#40	#40
04-518-T	#10	.344"	.191"	#40	#40
04-518-U	1/4"	.500"	.248"	#40	#40
04-518-V	5/16"	.500"	.312"	#30	#40

Corner Type Style 2					
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size	Drill Size
04-518-SA	#4	.203"	.112"	#40	#40
04-518-SB	#6	.218"	.139"	#40	#40
04-518-SC	#8	.234"	.164"	#40	#40
04-518-SD	#10	.250"	.191"	#40	#40
04-518-SE	1/4"	.281"	.248"	#40	#40

Mini Anchornut Type					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-TA	#10	.250"	.219"	.191"	#40
04-518-TB	1/4"	.281"	.219"	.248"	#40
04-518-TC	5/16"	.312"	.250"	.312"	#30



## AIR DRILLS & ACCESSORIES

### Hi-Shear Ultralite® Nut Plate Air Drill



- Only one hand required to locate, drill & countersink both holes.
- Easily convert rivet spacings with interchangeable foot attachments.
- Available in single wing, double wing & mickey mouse models.
- Accommodates all nut plate spindle spacings from 0.219 to 1.125".
- Available in both 600 & 7000 RPM models (please specify).

Specifications	
Drill Stroke Length	1/2"
Available Spindle Speeds	600 and 7000 RPM
Collet Stroke Length	1/4"
Horsepower	0.54
Feed Rate Change	0.001" - 0.012" Per Revolution
Weight	4.75 lbs (2.2 kgs)

### H.S.S. Nut Plate Drill Bits



- 100° countersink, 8-32 thread.
- Cobalt nut plate drill bits also available, please inquire.

'L' Dim. = 0.295"		
Part Number	Countersink Dia.	Drill Diameter
40-100-25-8	.187"	.0980"
S40-100-25-8	.250"	.0980"
30-100-25-8	.250"	.1285"

'L' Dim. = 0.420"		
Part Number	Countersink Dia.	Drill Diameter
40-100-35-8	.187"	.0980"
S40-100-35-8	.250"	.0980"
30-100-35-8	.250"	.1285"

'L' Dim. = 0.560"		
Part Number	Countersink Dia.	Drill Diameter
40-100-50-8	.187"	.0980"
S40-100-50-8	.250"	.0980"
30-100-50-8	.250"	.1285"

### JET® 20" Variable Speed Drill Press

F.O.B. FACTORY



Massive  
3" Quill  
Diameter

- Front mounted LED spindle RPM readout & positive control depth stop.
- Heavy-duty cast iron design.
- Head is massively constructed for more accuracy and rigidity.
- Large precision ground T-Slot work table for stable & easy set ups.
- Large hand grips designed for maximum user comfort.



Note: CSA/CUS certified.

Specifications	
Motor Power	2HP, 115/230V, 1Ph
Spindle Speed	300 to 2000 RPM
Spindle Taper	MT-3
Spindle Travel	6" (152 mm)
Drilling Capacity (iron)	1-1/2" (38 cm)
Drilling Capacity (mild steel)	1" (25 cm)
Work Table Size	22" x 18-3/4" (59 x 48 cm)
Work Table Travel	20" (51 cm)
Work Table Weight Capacity	154 lbs (70 kgs)
Overall Height	79-1/2" (202 cm)
Weight	780 lbs (354 kgs)

Part Number	Description
JDP-20VS-1	20" Variable Speed Drill Press

### Tube Drilling Jig

No Clamping Necessary

- For drilling tubes & other round stock.
- Bolts to drill press table.
- Grooved & angled sides hold work in place.



Part Number	Description
70189	Tube Drilling Jig



## USATCO Rivet Guns

All USATCO Rivet Guns CE Certified



17-9XBSP

17-3XSP

17-200B

Power Regulator & Retainer Spring Included

- Aluminum offset pistol handle.
- Most parts interchangeable with Chicago Pneumatic style rivet guns.

Note: Inline models available (1X-4X), please inquire.

Standard .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-1XSP*	3600	1/8" Aluminum	5-11/16" (145 mm)	2.00 lbs (0.9 kgs)
17-2XSP	2580	5/32" Alum. 3/32" Steel	6-11/24" (165 mm)	2.25 lbs (1.0 kgs)
17-3XSP	2160	3/16" Alum. 5/32" Steel	7-5/16" (186 mm)	2.25 lbs (1.0 kgs)
17-4XSP	1740	1/4" Alum. 3/16" Steel	8-5/16" (211 mm)	2.75 lbs (1.2 kgs)

\* Uses series 'B' type rivet sets available on page 30 & 32.

Standard .498 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-5XBSP	1560	9/32" Alum. 3/16" Steel	8-5/16" (211 mm)	4.75 lbs (1.2 kgs)
17-7XBSP	900	3/8" Alum. 5/16" Steel	11-5/16" (287 mm)	6 lbs (2.7 kgs)
17-9XBSP	1140	5/16" Alum. 1/4" Steel	9-5/16" (237 mm)	5.125 lbs (2.3 kgs)

### Jiffy Type

- Includes exclusive USATCO 09-RB-5 retainer spring.
- Uses series 'B' type rivet sets available on pages 30 & 32.

Jiffy Type .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-200B	2700	3/16" Alum. 5/32" Steel	4-1/4" (108 mm)	2.625 lbs (1.2 kgs)

### AVC® Type 4" Stroke

- Smooth running, powerful & easy to hold.
- Perfect balance & valve timing, hard hitting 9/16" dia. pistons.

AVC® Type .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-13SP	1725	5/16" Alum. 1/4" Steel	8-3/4" (222 mm)	3.5 lbs (1.6 kgs)

## Chicago Pneumatic® Rivet Guns



CP4444RUTAB

CP4450-3

- Genuine CP original design.
- Aluminum offset pistol handle.
- Includes retainer spring.

Built-In Power Regulator

Note: Rivet set shown not included.

Standard Pistol Grip .401 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4444RURAB	2580	1/8" Alum. 3/32" Steel	6.7" (170 mm)	2.20 lbs (1.00 kgs)
CP4444RUSAB	2160	3/16" Alum. 5/32" Steel	7.3" (186 mm)	2.43 lbs (1.10 kgs)
CP4444RUTAB	1740	1/4" Alum. 3/16" Steel	8.3" (211 mm)	2.87 lbs (1.2 kgs)

Standard Pistol Grip .498 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4447RUSAB	1560	1/4" Alum. 3/16" Steel	8.9" (227 mm)	4.85 lbs (1.2 kgs)
CP4447RUTAB	1140	5/16" Alum. 1/4" Steel	9.9" (252 mm)	5.07 lbs (2.20 kgs)
CP4447RUVAB	900	3/8" Alum. 5/16" Steel	11.9" (303 mm)	5.95 lbs (2.70 kgs)

### Ergonomic Recoilless Type

- Ergonomic design significantly reduces Carpal Tunnel Syndrome & enhances operator comfort.
- Progressive teasing throttle for better control.
- Includes retainer spring & built-in regulator.

Ergonomic Recoilless Pistol Grip .401 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4450-2	2580	1/8" Alum. 3/32" Steel	8.4" (213 mm)	2.70 lbs (1.22 kgs)
CP4450-3	2160	3/16" Alum. 5/32" Steel	8.9" (226 mm)	2.90 lbs (1.32 kgs)
CP4450-4	1740	1/4" Alum. 3/16" Steel	9.9" (251 mm)	3.30 lbs (1.50 kgs)

Ergonomic Recoilless Pistol Grip .498 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4475-3	2000	1/4" Alum. 3/16" Steel	10.8" (275 mm)	4.00 lbs (1.81 kgs)
CP4475-4	1700	5/16" Alum. 1/4" Steel	11.8" (300 mm)	5.3 lbs (2.40 kgs)
CP4475-6	1250	3/8" Alum. 5/16" Steel	13.8" (351 mm)	6.2 lbs (2.81 kgs)

## RIVET GUNS & ACCESSORIES

### Chicago Pneumatic® Rivet Guns (cont'd)

CP4450-S-2

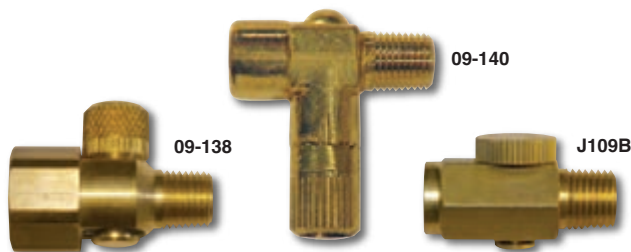


Note: Rivet set shown not included.

#### Ergonomic Recoilless Inline .401 Shank

Part Number	BPM	Capacity	O.A.L.	Weight
CP4450-S-2	2580	1/8" Alum. 3/32" Steel	8.7" (220 mm)	2.8 lbs (1.3 kgs)
CP4450-S-3	2160	3/16" Alum. 5/32" Steel	9.2" (223 mm)	3.0 lbs (1.4 kgs)
CP4450-S-4	1740	1/4" Alum. 3/16" Steel	10.2" (258 mm)	3.2 lbs (1.5 kgs)

### Rivet Gun Power Regulators



Regulates air intake for accurate adjustment of hammer blow.

Part Number	Type
09-138	Brass
09-140	Solid Brass Construction
J109B	Brass

### 90° Angle Attachment

Great for limited access areas inaccessible by standard tools.

Compact & Lightweight



Part Number	Capacity	For Use With	O.A.L.	Weight
07-595C-1	3/16"	CP, Cleco, ATI, USI	3-1/2" (89 mm)	1 lb (0.5 kgs)
07-595C-2	3/16"	Jiffy, Sioux, IR		

Note: Rivet sets are sold separately, please order from charts below.

Universal AN470 - 3/8" O.A.L.		Flush - 1/4" Body Length	
Part Number	Cupping Size	Part Number	Diameter
07-5952-4703	3/32"	07-5951-40	5/8" (16 mm)
07-5952-4704	1/8"		
07-5952-4705	5/32"		
07-5952-4706	3/16"		

#### Angle Attachment Kit, Includes:

90° Angle Attachment, Three AN470 Cupped Sets (3/32", 1/8" & 5/32") & One 5/8" Diameter Mushroom Flush Set

Part Number	Incl. Attachment	For Use With
53-595C-1	07-595C-1	CP, Cleco, ATI, USI
53-595C-2	07-595C-2	Jiffy, Sioux, IR

### Rivet Gun Retainer Springs



**Caution:** Retainer springs are not guaranteed to keep rivet set from leaving barrel of gun if the tool is not operated snugly against the rivet in work piece.

Retainer Spring Set			
Part Number		Includes	
53-RBH-2		09-RB-2 & 09-RH-2	
Part Number	Type	Diameter	For Use With These Rivet Gun Models:
09-RB-1	Beehive	1"	USATCO 17-3AA, 17-1XSP
09-RB-2	Beehive	1-3/32"	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-RB-3	Beehive	1-5/32"	IR; AVC 10, 11, 12, 13, 24 & 26; Jiffy; Sioux; Cleco G4 & G8
09-RB-4	Beehive	1-3/16"	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-RB-5	Beehive	1-5/32"	USATCO 17-100B & 17-200B (compact design models)
09-RH-2	Handi	1-3/32"	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-RH-3	Handi	1-5/32"	IR; AVC 10, 11, 12, 13, 24 & 26; Jiffy; Sioux; Cleco G4 & G8
09-RH-4	Handi	1-3/16"	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-896	Mech-Aid	1-3/32" (.401)	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-897	Mech-Aid	1-3/16" (.498)	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-896-1	Mech-Aid	1-5/32"	USATCO 17-100B & 17-200B (compact design models)

## RIVET STYLE REFERENCE



AN435  
Button



AN430  
Round



AN455  
Brazier



AN456  
Mod. Brazier



AN470  
Universal



AN442  
Flat



BACR 15FT  
Briles Boeing



AN426  
Countersunk



AN450  
Semi-Tubular

## Cupped Rivet Sets



07-15  
Series



07-10  
Series



07-11  
Series



07-20  
Series



07-21 Series

See Page  
34 For Our  
Popular  
Rivet Set  
Packs

.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-15	—	—	—	2-1/2" (64 mm)
07-10	07-20	07-30	07-40	3-1/2" (89 mm)
07-11	07-21	07-31	07-41	5-1/2" (140 mm)
07-12	07-22	07-32	07-42	7-1/2" (191 mm)
07-13	07-23	07-33	07-43	10-1/2" (267 mm)
07-14	07-24	07-34	07-44	13-1/2" (343 mm)

**Note:** Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). **Example:** For a .401 shank, 2-1/2" O.A.L. straight rivet set with an 1/8" AN470 cupping, use part number 07-15-4704.

Rivet Cupping Chart					
Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Univ. AN470
1/16"	4302	4352	4422	4552	4702
3/32"	4303	4353	4423	4553	4703
1/8"	4304	4354	4424	4554	4704
5/32"	4305	4355	4425	4555	4705
3/16"	4306	4356	4426	4556	4706
7/32"	—	—	—	—	4707
1/4"	4308	4358	4428	—	4708
9/32"	—	—	—	—	4709

## Bell Type Cupped Rivet Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-50	07-60	07-70	07-80	3-1/2" (89 mm)
07-51	07-61	07-71	07-81	5-1/2" (140 mm)
07-52	07-62	07-72	07-82	7-1/2" (191 mm)
07-53	07-63	07-73	07-83	10-1/2" (267 mm)
07-54	07-64	07-74	07-84	13-1/2" (343 mm)

**Note:** Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). **Example:** For a .401 shank, 3-1/2" O.A.L. straight rivet set with an 3/8" AN470 cupping, use part number 07-50-47012.

Rivet Cupping Chart						
Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Mod. Br. AN456	Univ. AN470
1/4"	—	—	—	4558	—	—
5/16"	43010	43510	44210	45510	45610	47010
3/8"	43012	43512	44212	45512	45612	47012

## AN450 Tubular Rivet Sets



.401 Shank		Overall Length
Straight	Offset	
07-10	07-20	3-1/2" (89 mm)
07-11	07-21	5-1/2" (140 mm)
07-12	07-22	7-1/2" (191 mm)

**Note:** Select the rivet set required (chart above), then add the desired cupping (flaring AN450 cupping sizes chart below). **Example:** For a 3-1/2" straight rivet set with an 1/8" cupping, use part number 07-10-4504.

Flaring AN450 Cupping Sizes						
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"
4502	4503	4504	4505	4506	4508	45010

## RIVET GUNS & ACCESSORIES

### Cupped Sets For Jiffy Type (Series 'B') Rivet Guns



07-510 Series



07-520 Series

Note: Jiffy type rivet guns shown on page 27. Flush sets shown on page 32.

Straight Cupped .401 Shank		
Part Number	Diameter	Overall Length
07-510	1/2" (13 mm)	1-3/16" (30 mm)

Offset Cupped .401 Shank		
Part Number	Diameter	Overall Length
07-520	1/2" (13 mm)	1-5/8" (41 mm)
07-521		1-3/4" (45 mm)
07-522		1-7/8" (48 mm)
07-523		2" (51 mm)

Note: Select the rivet set required (chart above), then add the desired cupping (chart below).  
Example: For an offset 2" set with an AN470 1/8" cupping, use part number 07-523-4704.

Round AN430 Cupping Size					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4302	4303	4304	4305	4306	4308

Universal AN470 Cupping Size					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4702	4703	4704	4705	4706	4708

### Boeing® BACR15FT Modified Univ. Rivet Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-15	—	—	—	2-1/2" (64 mm)
07-10	07-20	07-30	07-40	3-1/2" (89 mm)
07-11	07-21	07-31	07-41	5-1/2" (140 mm)
07-12	07-22	07-32	07-42	7-1/2" (191 mm)
07-13	07-23	07-33	07-43	10-1/2" (267 mm)
07-14	07-24	07-34	07-44	13-1/2" (343 mm)

Note: Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). Example: For a .401 shank, 3-1/2" O.A.L. straight rivet set with a 1/8" cupping, use part number 07-10-4704BAC.

Modified Universal AN470 Cupping Sizes			
3/32"	1/8"	5/32"	3/16"
4703BAC	4704BAC	4705BAC	4706BAC

Modified Universal AN470 Cupping Sizes		
7/32"	1/4"	9/32"
4707BAC	4708BAC	4709BAC

### Boeing® BACR15FT Mod. Univ. Bell Type Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-50	07-60	07-70	07-80	3-1/2" (89 mm)
07-51	07-61	07-71	07-81	5-1/2" (140 mm)
07-52	07-62	07-72	07-82	7-1/2" (191 mm)
07-53	07-63	07-73	07-83	10-1/2" (267 mm)
07-54	07-64	07-74	07-84	13-1/2" (343 mm)

Note: Select the rivet set required (chart above), then add the desired cupping (chart below).  
Example: For a .401 shank, 5-1/2" straight set with a 3/8" cupping, use part no. 07-51-47012BAC.

Modified Universal AN470 Cupping Sizes		
5/16"	11/32"	3/8"
47010BAC	47011BAC	47012BAC

### Boeing® BACR15FT Modified Univ. Rivet Sets



ST1112MB-C401-5



ST1112MB-R401-5-3

- Manufactured from H13 chromemoly tool steel.
- Magnetic particle inspected after heat treatment.

.401 Shank - Mod. Universal AN470, 3-1/2" Overall Length		
Straight	Offset	Rivet Size
ST1112MB-C401-4	ST1112MB-R401-4-3	1/8"
ST1112MB-C401-5	ST1112MB-R401-5-3	5/32"
ST1112MB-C401-6	ST1112MB-R401-6-3	3/16"
ST1112MB-C401-7	ST1112MB-R401-7-3	7/32"
ST1112MB-C401-8	ST1112MB-R401-8-3	1/4"

### Boeing® BACR15FT Mod. Univ. Cutaway Sets



- Manufactured from H13 chromemoly tool steel.
- Magnetic particle inspected after heat treatment.

.401 Shank - Modified Universal AN470				
Part Number	Rivet Size	Body Dia.	Body Length	Overall Length
ST1112B-C401-4-53	1/8"	.281"	1-3/4"	3.31" (84 mm)
ST1112B-C401-5-53	5/32"	.312"	1-3/4"	3.31" (84 mm)
ST1112B-C401-6-53	3/16"	.344"	1-3/4"	3.31" (84 mm)
ST1112B-C401-8-53	1/4"	.406"	1-3/4"	3.31" (84 mm)



## AN470 Double Offset Rivet Sets



07-130-4706

**Note:** Available in longer lengths, please inquire. Flush sets shown on page 33.

.401 Shank	.498 Shank	Overall Length
Part Number	Part Number	
07-130	07-132	5-1/2" (140 mm)
07-131	07-133	7-1/2" (191 mm)

**Note:** Select the rivet set required (chart above), then add the desired cupping (chart below).  
**Example:** For a .401 shank, 5-1/2" set with an 1/8" cupping, use part number 07-130-4704.

Universal AN470 Cupping Sizes					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4702	4703	4704	4705	4706	4708

## AN470 Gooseneck Rivet Sets



07-135-4704

**Note:** We will make specials, price on request. Flush sets shown on page 33.

.401 Shank			
Part Number	Rivet Size	Rivet Style	Overall Length
07-135-4703	3/32"	AN470	7-1/4" (184 mm)
07-135-4704	1/8"	AN470	
07-135-4705	5/32"	AN470	
07-135-4706	3/16"	AN470	
07-135-4708	1/4"	AN470	



For USATCO's Pro Rivet Gun Kit See Page 61

## Straight & Offset Flush Rivet Sets



07-10-500

07-20-500

.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-10-500	07-20-500	07-30-500	07-40-500	3-1/2" (89 mm)
07-11-500	07-21-500	07-31-500	07-41-500	5-1/2" (140 mm)
07-12-500	07-22-500	07-32-500	07-42-500	7-1/2" (191 mm)

## Flush Mushroom Sets



07-89

07-170

.401 Shank	.498 Shank	Face Diameter	Overall Length
07-85	—	3/4" (19 mm)	2-1/16" (52 mm)
07-89	—	3/4" (19 mm)	3" (76 mm)
07-90	07-100	1" (25 mm)	2-1/2" (64 mm)
07-91	07-101	1" (25 mm)	3" (76 mm)
07-92	07-102	1" (25 mm)	5-1/2" (140 mm)
07-93	07-103	1" (25 mm)	7-1/2" (191 mm)
07-94	07-104	1-1/4" (32 mm)	3" (76 mm)
07-95	07-105	1-1/4" (32 mm)	5-1/2" (140 mm)
07-96	07-106	1-1/2" (38 mm)	3-1/8" (79 mm)
07-97	07-107	1-3/4" (45 mm)	3-1/4" (83 mm)
07-98	07-108	1-1/8" (29 mm)	2-1/4" (57 mm)
07-99	07-109	1-1/4" (32 mm)	2-1/4" (57 mm)
—	07-999	2" (51 mm)	3" (76 mm)

## Flush Mushroom Sets With Rubber Guard

.401 Shank	.498 Shank	Face Diameter	Overall Length
07-170	07-173	3/4" (19 mm)	2-1/4" to 2-5/8" (57 to 67 mm)
07-171	07-174	1" (25 mm)	
07-172	07-175	1-1/4" (32 mm)	

## 'Shortie' Flush Mushroom Rivet Sets



07-110

.401 Shank	.498 Shank	Face Diameter	Overall Length
07-110	07-120	3/4" (19 mm)	1-3/4" to 2" (45 to 51 mm)
07-111	07-121	1" (25 mm)	
07-112	07-122	1-1/4" (32 mm)	
07-113	07-123	1-1/2" (38 mm)	

## RIVET GUNS & ACCESSORIES

### Offset Flush Mushroom Sets



07-140

.401 Shank	.498 Shank	Face Diameter	Overall Length
07-140	07-160	1" (25 mm)	3-1/2" (89 mm)
07-141	07-161	1" (25 mm)	5-1/2" (140 mm)
07-142	07-162	1" (25 mm)	7-1/2" (191 mm)
07-143	07-163	1-1/4" (32 mm)	3-1/2" (89 mm)
07-144	07-164	1-1/4" (32 mm)	5-1/2" (140 mm)
07-145	07-165	1-1/4" (32 mm)	7-1/2" (191 mm)

### Flush Sets For Jiffy Type (Series 'B') Rivet Guns



07-500



07-560



07-530

Note: Jiffy type (series 'B') rivet guns shown on page 27.

Straight Flush .401 Shank		
Part Number	Diameter	Overall Length
07-500	3/8" (10 mm)	1-3/16" (30 mm)
07-501	1/2" (13 mm)	
07-502	5/8" (16 mm)	

Mushroom Flush .401 Shank		
Part Number	Diameter	Overall Length
07-559	3/4" (19 mm)	1-1/4" (32 mm)
07-560	1" (25 mm)	1-5/8" (41 mm)

Mushroom Flush w/Rubber Guard .401 Shank		
Part Number	Diameter	Overall Length
07-530	3/4" (19 mm)	1-1/8" to 1-3/8" (29 to 35 mm)
07-531	1" (25 mm)	
07-532	1-1/4" (32 mm)	

### No-Mar Flush Sets



07-915A-1

1" Face Diameter			
.401 Shank	.498 Shank	Face Type	Overall Length
07-915A-1	07-915A-2	Aluminum	3-1/2" (89 mm)
07-915B-1	07-915B-2	Brass	3-1/2" (89 mm)
07-915P-1	07-915P-2	Phenolic	3-1/2" (89 mm)

### USATCO No-Mar Flush Rivet Sets



07-1000



07-2000

- USATCO design gets in closer, easier to use.
- Holds sheet firmly in down position while riveting.

.401 Shank	
Part Number	Overall Length
07-1000	3-1/2" (89 mm)
07-2000	5-1/2" (140 mm)

### Flush Sets With Polyurethane Guard

ST1111B-V401K-3



*Ideal For Skin Work*

- Manufactured from H-13 chromoly tool steel.
- Magnetic particle tested after heat treat & shot-peened for stress relief prior to polish.

.401 Shank	.498 Shank	Face Dia.	O.A.L.
ST1111B-V401K-1	ST1111B-V498E-1	3/4" (19 mm)	2-1/2" (64 mm)
ST1111B-V401K-2	ST1111B-V498E-2	1" (25 mm)	2-1/2" (64 mm)
ST1111B-V401K-3	ST1111B-V498E-3	1-1/4" (32 mm)	2.33" (59 mm)

### Swivel Flush Sets

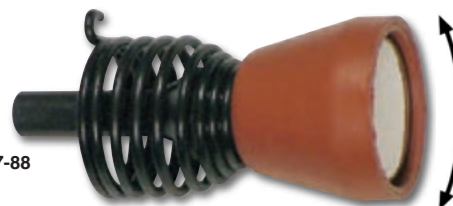
07-180



.401 Shank	.498 Shank	Face Diameter	Overall Length
07-180	07-182	3/4" (19 mm)	3" (76 mm)
07-181	07-183	1-3/16" (30 mm)	3" (76 mm)

### Swivel Flush Sets With Rubber Guard

07-88



.401 Shank	.498 Shank	Face Type
07-88	07-888	1-1/4" (32 mm)

## Double Offset Flush Rivet Set



.401 Shank	
Part Number	Overall Length
07-130-500	5-1/2" (140 mm)

## Gooseneck Flush Rivet Set



Note: We will make specials on this series, price on request.

.401 Shank	
Part Number	Overall Length
07-135-500H	7-1/4" (184 mm)

## Limited Access Flush 'J' Rivet Set



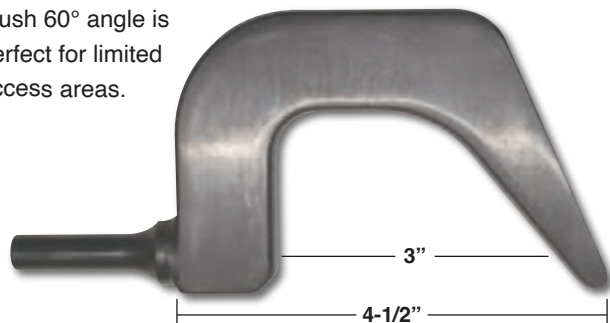
*Excellent For  
Tight Spots*

*Compact  
Face Profile*

.401 Shank		
.401 Shank	Face Width	Overall Length
07-10172	1"	5-1/2" (140 mm)

## Limited Access Offset Flush Rivet Set

Flush 60° angle is perfect for limited access areas.



.401 Shank	
Part Number	Overall Length
07-10076	6-1/4" (159 mm)

## Limited Access Flush 'T' Rivet Set



Long shank and "T" head design is ideal for reaching into tight areas.

.401 Shank		
Part Number	Face Width	Overall Length
07-10710	1/2"	7" (178 mm)

## Limited Access Offset Rivet Sets

*Use Squeezer  
Sets With Your  
Rivet Gun*



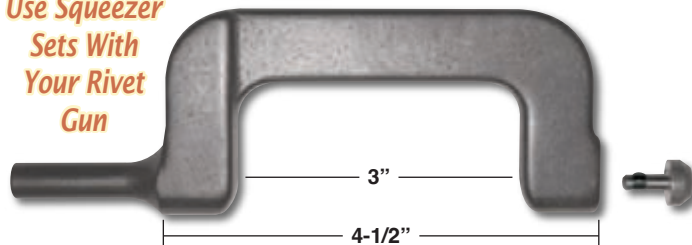
Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank		
.401 Shank	Type	Overall Length
07-PA	.250" Set Hole	6-1/4" (159 mm)
07-PA-1	.187" Set Hole	

Note: Squeezer set not included (to order squeezer sets see pages 53-56).

## Limited Access Rivet Set

*Use Squeezer  
Sets With  
Your Rivet  
Gun*



Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank		
.401 Shank	Set Hole	Overall Length
07-10198	.187"	6-1/8" (156 mm)

Note: Squeezer set not included (to order squeezer sets see pages 53-56).



*For Rivet Squeezer Sets See Page 53-56*



## USATCO Rivet Gun Set Packs

*Includes the Most Popular Sizes*



Straight .401 Shank			
Part Number	Pack Type	Includes (1 each)	O.A.L.
53-105	5 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush with Guard	3-1/2" (89 mm)
53-106	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Univ.), Flush & Mushroom Flush with Guard	3-1/2" (89 mm)
53-115	5 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush	5-1/2" (140 mm)
53-116	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush	5-1/2" (140 mm)
53-155	5 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush with Guard	2-1/2" (64 mm)
53-156	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Univ.), Flush & Mushroom Flush with Guard	2-1/2" (64 mm)



Jiffy .401 Shank			
Part Number	Pack Type	Includes (1 each)	O.A.L.
53-5104	5 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush with Guard	1-3/16" (30 mm)
53-5105	6 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Univ.), Flush & Mushroom Flush with Guard	1-3/16" (30 mm)

*Convenient & Economical*



Offset .401 Shank			
Part Number	Pack Type	Includes (1 each)	O.A.L.
53-204	5 PC Off. (not shown)	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush	3-1/2" (89 mm)
53-205	6 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush	3-1/2" (89 mm)
53-214	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush	5-1/2" (140 mm)
53-215	6 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush	5-1/2" (140 mm)



## Drive Sets For Huck® Stump Collars



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
H 07-10	H 07-20	H 07-30	H 07-40	3-1/2" (89 mm)
H 07-11	H 07-21	H 07-31	H 07-41	5-1/2" (140 mm)
H 07-12	H 07-22	H 07-32	H 07-42	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 1/8" collar, use part number **H 07-10-4**.

Huck Stump Collar Sizes		
1/8"	5/32"	3/16"
4	5	6

## Bell Type Drive Sets For Huck® Stump Collars



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
H 07-50	H 07-60	H 07-70	H 07-80	3-1/2" (89 mm)
H 07-51	H 07-61	H 07-71	H 07-81	5-1/2" (140 mm)
H 07-52	H 07-62	H 07-72	H 07-82	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 3/8" collar, use part number **H 07-50-12**.

Huck Stump Collar Sizes		
1/4"	5/16"	3/8"
8	10	12

## Drive Sets For Hi-Shear® Collars



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
HS 07-10	HS 07-20	HS 07-30	HS 07-40	3-1/2" (89 mm)
HS 07-11	HS 07-21	HS 07-31	HS 07-41	5-1/2" (140 mm)
HS 07-12	HS 07-22	HS 07-32	HS 07-42	7-1/2" (191 mm)
HS 07-15	—	HS 07-35	—	2-3/4" (70 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 1/8" collar, use part number **HS 07-10-4**.

Hi-Shear Collar Sizes			
1/8"	5/32"	3/16"	1/4"
4	5	6	8

## Bell Type Drive Sets For Hi-Shear® Collars



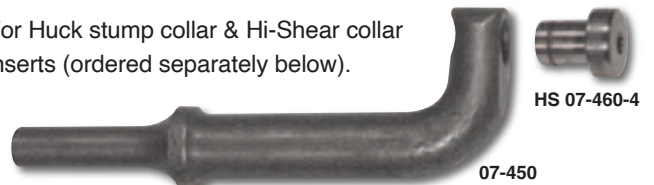
.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
HS 07-50	HS 07-60	HS 07-70	HS 07-80	3-1/2" (89 mm)
HS 07-51	HS 07-61	HS 07-71	HS 07-81	5-1/2" (140 mm)
HS 07-52	HS 07-62	HS 07-72	HS 07-82	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 3/8" collar, use part number **HS 07-50-12**.

Hi-Shear Collar Sizes	
5/16"	3/8"
10	12

## Gooseneck Insert Adapters & Collar Inserts

For Huck stump collar & Hi-Shear collar inserts (ordered separately below).



Insert Adapters			
.401 Shank	.498 Shank	Insert Size	Overall Length
07-450	07-455	.406"	4-1/2" (114 mm)
07-451	07-456	.531"	

Collar Inserts			
Hi-Shear Type	Huck Type	Insert Size	For Collar Sizes
HS 07-460	H 07-465	.406"	1/8", 5/32" & 3/16"
HS 07-461	H 07-466	.531"	1/4", 5/16" & 3/8"

**Collar Insert Ordering Note:** Select the size & type insert required (chart above), then add the desired collar size (chart below). **Example:** For a .406" Hi-Shear insert for a 3/8" collar, use part number **HS 07-460-12**.

Collar Sizes					
1/8"	5/32"	3/16"	1/4"	5/16"	3/8"
4	5	6	8	10	12

## Notched Sets For Hi-Shear® Collars



.401 Shank	.498 Shank	Overall Length
HS 07-150	HS 07-155	4-1/2" (114 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank set for a 3/8" collar, use part number **HS 07-150-8**.

Hi-Shear Collar Sizes					
1/8"	5/32"	3/16"	1/4"	5/16"	3/8"
4	5	6	8	10	12

## RIVET GUNS & ACCESSORIES

### Huck/Hi-Shear® Collar Removers



- Saves valuable time, no damage or marring to metal skin.
- Available straight or with a 10° offset near the chisel edge.

Rivet Gun Type, 5-1/2" Overall Length						
Straight .401 Shank	10° Offset .401 Shank	Straight .498 Shank	10° Offset .498 Shank	Collar Size	Opening (+.001 -.000)	Tool Diameter
HSC 07-401-4	HSC 07-401B-4	HSC 07-498-4	HSC 07-498B-4	1/8"	.125"	1/2"
HSC 07-401-5	HSC 07-401B-5	HSC 07-498-5	HSC 07-498B-5	5/32"	.156"	1/2"
HSC 07-401-6	HSC 07-401B-6	HSC 07-498-6	HSC 07-498B-6	3/16"	.187"	5/8"
HSC 07-401-7	HSC 07-401B-7	HSC 07-498-7	HSC 07-498B-7	7/32"	.218"	5/8"
HSC 07-401-8	HSC 07-401B-8	HSC 07-498-8	HSC 07-498B-8	1/4"	.250"	5/8"
HSC 07-401-9	HSC 07-401B-9	HSC 07-498-9	HSC 07-498B-9	9/32"	.281"	3/4"
HSC 07-401-10	HSC 07-401B-10	HSC 07-498-10	HSC 07-498B-10	5/16"	.312"	3/4"
HSC 07-401-12	HSC 07-401B-12	HSC 07-498-12	HSC 07-498B-12	3/8"	.375"	13/16"

Hand Type							
Straight	10° Offset	Collar Size	Stock Hex	Opening (+/- .010)	Nose Width	Nose Height	Overall Length
HSC 07-4	HSC 07-4B	1/8"	1/2"	.136"	9/16"	.083"	5-1/2" (140 mm)
HSC 07-5	HSC 07-5B	5/32"	1/2"	.167"	9/16"	.104"	5-1/2" (140 mm)
HSC 07-6	HSC 07-6B	3/16"	5/8"	.199"	11/16"	.125"	6-1/2" (165 mm)
HSC 07-8	HSC 07-8B	1/4"	3/4"	.259"	13/16"	.165"	7" (178 mm)
HSC 07-10	HSC 07-10B	5/16"	3/4"	.321"	7/8"	.206"	7" (178 mm)
HSC 07-12	HSC 07-12B	3/8"	3/4"	.384"	7/8"	.248"	7" (178 mm)

### One Piece Knockout Punches



07-141A-4

.401 Shank, 3-1/2" O.A.L.		.498 Shank, 3-1/2" O.A.L.	
Part Number	Rivet Size	Part Number	Rivet Size
07-141A-3	3/32"	07-141B-3	3/32"
07-141A-4	1/8"	07-141B-4	1/8"
07-141A-5	5/32"	07-141B-5	5/32"
07-141A-6	3/16"	07-141B-6	3/16"
07-141A-8	1/4"	07-141B-8	1/4"
07-141A-10	5/16"	07-141B-10	5/16"
07-141A-12	3/8"	07-141B-12	3/8"

Knockout Punch Sets		
.401 Shank	.498 Shank	Included Sizes
53-141A	53-141B	3/32", 1/8", 5/32" & 3/16"
53-141AA	53-141BB	3/32", 1/8", 5/32", 3/16" & 1/4"

### Hi-Shear One Piece Knockout Punches



07-140A-3

.401 Shank, 3-1/2" O.A.L.		.498 Shank, 3-1/2" O.A.L.	
Part Number	Rivet Size	Part Number	Rivet Size
07-140A-3	3/32"	07-140B-3	3/32"
07-140A-4	1/8"	07-140B-4	1/8"
07-140A-5	5/32"	07-140B-5	5/32"
07-140A-6	3/16"	07-140B-6	3/16"
07-140A-8	1/4"	07-140B-8	1/4"
07-140A-10	5/16"	07-140B-10	5/16"
07-140A-12	3/8"	07-140B-12	3/8"

Hi-Shear Knockout Punch Sets		
.401 Shank	.498 Shank	Included Sizes
53-140A	53-140B	3/32", 1/8", 5/32" & 3/16"
53-140AA	53-140BB	3/32", 1/8", 5/32", 3/16" & 1/4"

## USATCO 'Extreme Edge' Plastic Scrapers

*Chemical Resistant*

94103



*Long Edge Life*

*.401 Shank*

- Non-metallic construction perfect for aerospace work.
- Great for removing sealants, adhesives, stickers etc.
- For use with .401 shank handi type retainer spring.
- Resharpenable, non-marring scrapers are strong & lightweight.

Part Number	Uses
94103	Angled tip for sharp edges & corners.



94104

Part Number	Uses
94104	For narrow channels, slots & detail scraping.



94105

Part Number	Uses
94105	Great for removing hard surface coating material.



94106

Part Number	Uses
94106	Corner scraping without changing hold angle.



94107

Part Number	Uses
94107	Great for internally radiused surfaces.



94108

Part Number	Uses
94108	Concentrated scraping into corners & edges.

## USATCO 'Extreme Edge' Plastic Scrapers (cont'd)



94109

Part Number	Uses
94109	Perfect for removing gaskets on alum. or steel.



94110

Part Number	Uses
94110	Delicate scraping that requires less wedge angle.



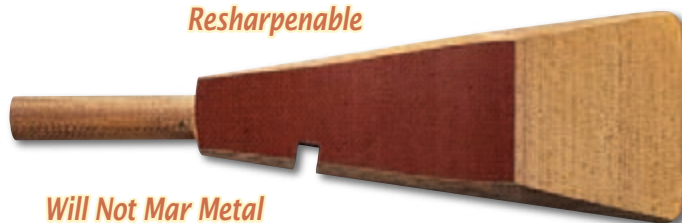
94111

*Other Styles Available, Please Inquire*

Part Number	Uses
94111	Delicate scraping over larger surface areas.

## Phenolic Scraper

*Resharpenable*

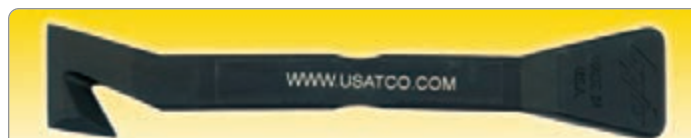


*Will Not Mar Metal*

- Safely remove sealants, adhesives & stickers without marring.
- Chemically resistant, non-sparking & non-conductive.
- Handheld phenolic scraper also available on page 218.

.401 Shank	
Part Number	Dimensions
95051	6-1/2" Long* x 2" Wide x 3/8" Thick

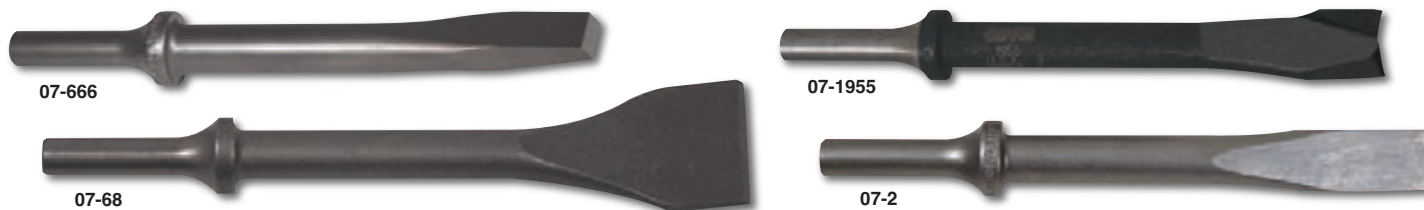
\*Overall length is 6-1/2", 4-1/2" less shank.



*For Handheld Plastic Scrapers See Pages 217-219*

## RIVET GUNS & ACCESSORIES

### Chisel & Cutter Tools



Part Number	Description	Shank	Uses
07-666	Rivet Buster	.401	For shearing all types of rivets (5/8" blade width).
07-2	Chisel	.401	For splitting nuts, shearing etc. (3/4" blade width).
07-2B	Chisel	.498	For breaking spot welds, splitting nuts, shearing etc. (3/4" blade width).
07-2204	Extension Chisel	.401	Same as 07-2 only 11" long (3/4" blade width).
07-68	Scraper	.401	For removing sealant & deadener without heat (1-5/16" blade width).
07-1955	Ripper	.401	For clean, short radius cuts. Very tough.
07-1957	Cutter	.401	For straight & radius cuts. More precise.
07-1959	Sheet Metal Trimmer	.401	For edging sheet metal without stretch or distortion. Little touch-up grinding needed.
07-1960	Spot Weld Breaker	.401	For cutting spot welds, works well on molding & rivets.
07-1961	Radius Cutter	.401	For cutting a tight radius fast & smooth.

### USATCO Break Loose Tools



Designed to utilize the vibratory effect of rivet guns, which when combined with turning movement (using the included wrench on hex body) will loosen almost any frozen rusted screw, bolt or nut.

Break Loose Tool - 3/8" Square Drive		
Part Number	Description	Overall Length
53-540	Long Tool	7" (178 mm)
53-541	Short Tool	4-1/8" (105 mm)

**Note:** Tools include wrench only, USATCO 17-3XSP rivet gun shown not included.

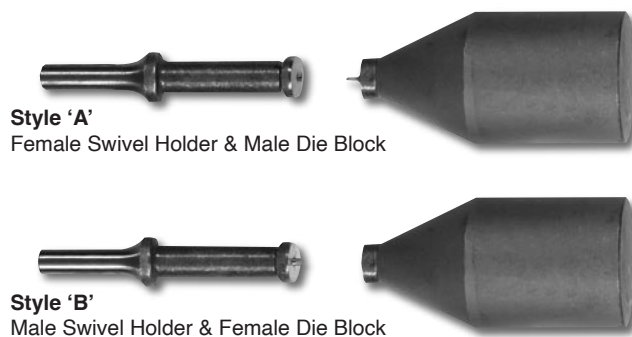


#### Adapter Kits:

Square Drive Adapter & 4 Bits (one each for #2 & #3 Phillips, one for Frearson style, one 485-2X slotted for 6F-8R)

Adapter Kits	
Part Number	Description
53-AK	5 PC 3/8" Square Drive Adapter Kit
53-540AK	Long Tool (53-540) & Adapter Kit (53-AK)
53-541AK	Short Tool (53-541) & Adapter Kit (53-AK)

### Swivel Dimpling Combo With Punch & Die Block



.401 Shank, Style 'A' Punch & Die Block Combo		.401 Shank, Style 'B' Punch & Die Block Combo	
Part Number	Rivet Dia.	Part Number	Rivet Dia.
53-3003	3/32"	53-3013	3/32"
53-3004	1/8"	53-3014	1/8"
53-3005	5/32"	53-3015	5/32"
53-3006	3/16"	53-3016	3/16"

.401 Shank Female Swivel Holder		.401 Shank Male Swivel Holder	
Part Number	Rivet Dia.	Part Number	Rivet Dia.
07-300-4263	3/32"	07-301-4263	3/32"
07-300-4264	1/8"	07-301-4264	1/8"
07-300-4265	5/32"	07-301-4265	5/32"
07-300-4266	3/16"	07-301-4266	3/16"

Die Blocks*	
Part Number	Shank
08-1000-1	.187"
08-1000-2	.250"

\*Punch or die not included with die blocks. Punches & dies can be ordered separately on page 56.



## Squeezer Set Adapter

*Use Squeezer Sets In Your Rivet Gun*



Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank		
Part Number	Set Hole Size	Overall Length
07-5187	.187"	5" (127 mm)

Note: Squeezer sets shown not included.

## Shank Adapter Sleeve



Sleeve nests in the barrel of the rivet hammer, converting a .498 bore to .401 quick and easy.

.498 Male Shank To .401 Female Shank	
Part Number	For Use With
07-99705	.401 Shank Sets

Note: Rivet set shown not included.

## Retainer Spring Shank Adapters

*Includes Retainer Spring*



.401 Male Shank To .498 Female Shank		
Part Number	For Use With	Overall Length*
07-401B	.498 Shank Sets	3-3/4" (95 mm)

.498 Male Shank To .401 Female Shank		
Part Number	For Use With	Overall Length*
07-498A	.401 Shank Sets	3-3/4" (95 mm)

\*Length without spring.

## Extension Shank Adapters



- Quickly convert any standard rivet set to an extra long style.
- Other lengths available, please inquire.

.401 Male Shank To .401 Female Shank		
Part Number	For Use With	Overall Length
07-401-EX	.401 Shank Sets	8" (203 mm)

.498 Male Shank To .401 Female Shank		
Part Number	For Use With	Overall Length
07-498-EX	.401 Shank Sets	8" (203 mm)

## Shank Adapter



.498 Male Shank To .401 Female Shank		
Part Number	For Use With	Overall Length
07-70407	.401 Shank Sets	4-1/2" (114 mm)

## Rivet Set Protective Caps



- Color coded caps protect rivets & skin from damage.
- Sold individually, sets not included.
- Fits all standard 1/2" body sets & lasts for approx. 50-75 rivets.

Part Number	Rivet Size	Color
10003	3/32"	Red
10004	1/8"	Green
10005	5/32"	Yellow
10006	3/16"	White
10008	1/4"	Blue

## Rivet Length Gauge

- Checks proper length of rivets before setting.
- For both universal head & flush rivets.



Part Number	For Rivets
92068	-3, -4, -5 & -6

## Shop Head Rivet Gauge Set

- Measures minimum height & dia. of shop heads after setting.
- For both univ. head & flush rivets.



Part Number	For Rivets
92054	-3, -4, -5 & -6

## RIVET GUNS & ACCESSORIES

### Riveter's Tape

*Saves Time  
& Money*



72-183-1

*Reduces  
Manpower  
On Larger  
Riveting Jobs*

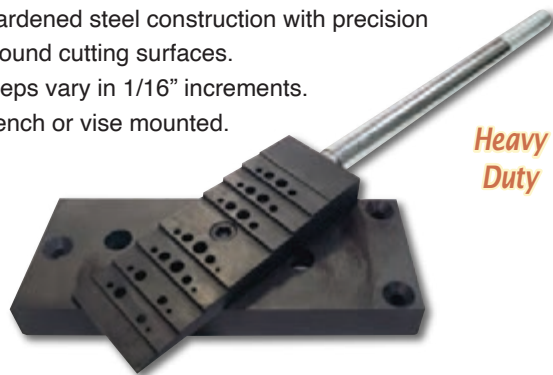
- Adhesive-free center window ensures easy visibility of rivets.
- Static-free, self wound rolls are perforated for easy use.

Part Number	Width	Thickness	Roll Length
72-183-1	1" (25.4 mm)	4 mil	108' (36 yards)
72-183-4	4-1/2" (114.3 mm)		

**Note:** For use with aluminum rivets only. Other sizes available, please inquire.

### USATCO Heavy-Duty Rivet Chopper

- Hardened steel construction with precision ground cutting surfaces.
- Steps vary in 1/16" increments.
- Bench or vise mounted.



*Heavy  
Duty*

Part Number	Capacity (1/8" to 1/2" L)	Capacity (1/4" to 1/2" L)
04-31	1/16" to 5/32"	3/16"

### Rivet Cutters

*Cushioned  
Grip Handles*



- Adjustable steps in 1/16" increments.
- Adjustable guide maintains cutting length.

Part Number	Type	Capacity*
04-17	Standard	3/32" to 1/4"
04-501	Heavy-Duty	3/32" to 1/4"

\*04-17 capacity of 1/4" for emergency use only.

### Extension Handle Rivet Cutters

- 13" tubular extension handles provide additional leverage.
- Adjustable guide maintains cutting length.



Part Number	Capacity
04-501S	3/32" to 1/4"

### Skin Wedge



- Quickly pry open two pieces of metal - easily separate faying surfaces between wing stiffeners and skin for seal installation.
- All steel construction is heat-treated to allow slight flexibility.

Single Tool	3PC Set	Dimensions
14085	16085	7" L x 1" W x 1/4" Thickness

### USATCO Bucking Bar Sets



53-5BK

#### Three Piece Kit:

08-669, 08-111 & 08-670

*Convenient & Economical*

Part Number	Weight
53-3BK	6.5 lbs (2.9 kgs)

#### Five Piece Kit:

08-669, 08-111, 08-670, 08-720 & 08-760B-2

Part Number	Weight
53-5BK	8.25 lbs (3.7 kgs)

#### Ten Piece Kit:

53-5BK (above), 08-730, 08-656, 08-649, 08-604A & 08-638

Part Number	Weight
53-10BK	15.75 lbs (7.1 kgs)

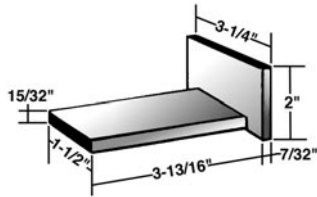
#### Fifteen Piece Kit:

53-10BK (above), 08-702, 08-736, 08-112, 08-646 & 08-633

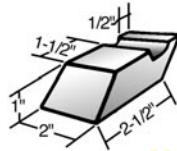
Part Number	Weight
53-15BK	25.25 lbs (11.4 kgs)

**Note:** Please see following pages for dimensional data on individual bucking bars.

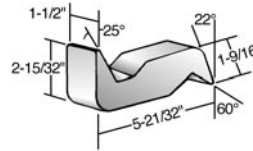
## USATCO Precision Cast Bucking Bars



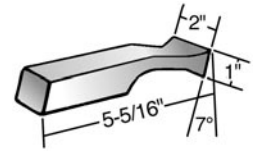
Part No.	Weight
08-1023	1.25 lbs (0.6 kgs)



Part No.	Weight
08-1090	1.4 lbs (0.6 kgs)

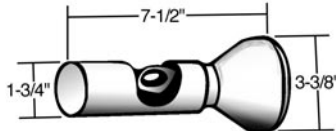


Part No.	Weight
08-111	3.0 lbs (1.4 kgs)

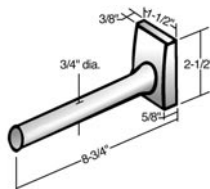


Part No.	Weight
08-112	1.5 lbs (0.7 kgs)

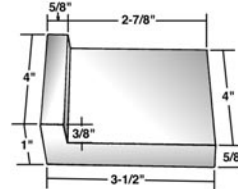
*Machined*



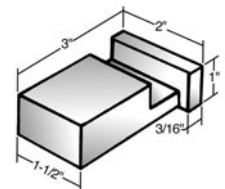
Part No.	Weight
08-603	6.5 lbs (2.9 kgs)



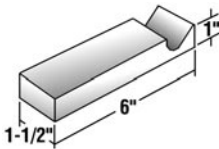
Part No.	Weight
08-604A	2.0 lbs (0.9 kgs)



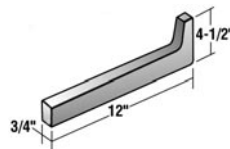
Part No.	Weight
08-607	2.5 lbs (1.1 kgs)



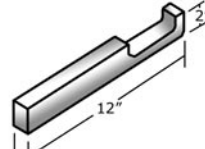
Part No.	Weight
08-619	1.3 lbs (0.6 kgs)



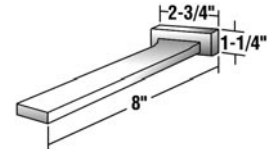
Part No.	Weight
08-622	2.5 lbs (1.1 kgs)



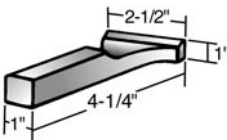
Part No.	Weight
08-625	6.5 lbs (2.9 kgs)



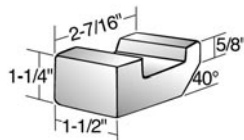
Part No.	Weight
08-626	6.0 lbs (2.7 kgs)



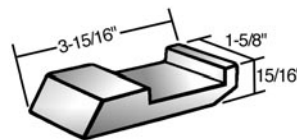
Part No.	Weight
08-630	1.5 lbs (0.7 kgs)



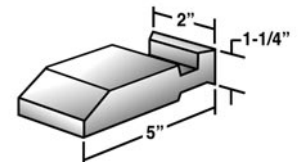
Part No.	Weight
08-633	1.25 lbs (0.6 kgs)



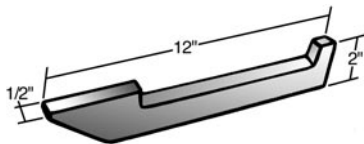
Part No.	Weight
08-634	1.2 lbs (0.6 kgs)



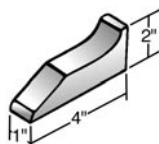
Part No.	Weight
08-638	1.25 lbs (0.6 kgs)



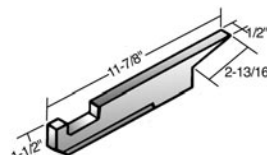
Part No.	Weight
08-640	3.0 lbs (1.4 kgs)



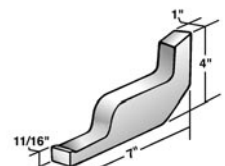
Part No.	Weight
08-646	2.25 lbs (1.0 kgs)



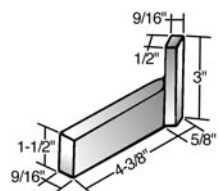
Part No.	Weight
08-647	1.5 lbs (0.7 kgs)



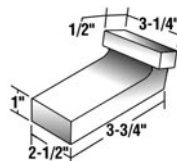
Part No.	Weight
08-649	2.0 lbs (0.9 kgs)



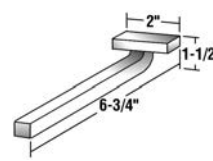
Part No.	Weight
08-653	3.0 lbs (1.4 kgs)



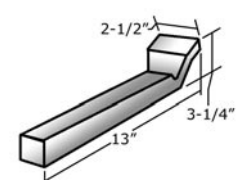
Part No.	Weight
08-656	1.0 lbs (0.45 kgs)



Part No.	Weight
08-658	3.75 lbs (1.7 kgs)

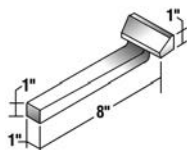


Part No.	Weight
08-662	0.75 lbs (0.3 kgs)

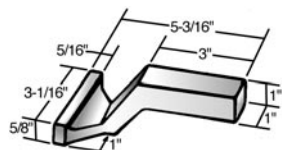


Part No.	Weight
08-666	9.25 lbs (4.2 kgs)

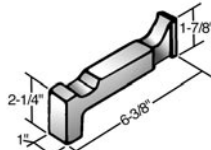
## USATCO Precision Cast Bucking Bars (cont'd)



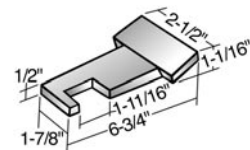
Part No.	Weight
08-668	3.0 lbs (1.4 kgs)



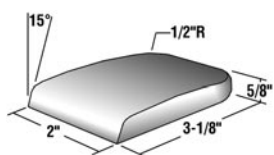
Part No.	Weight
08-669	1.5 lbs (0.7 kgs)



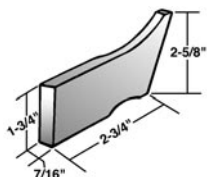
Part No.	Weight
08-670	2.0 lbs (0.9 kgs)



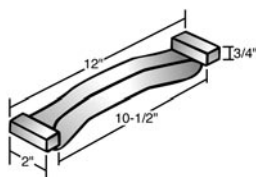
Part No.	Weight
08-671	2.25 lbs (1.0 kgs)



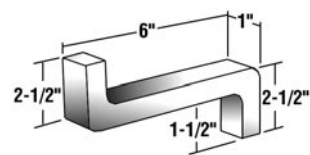
Part No.	Weight
08-6721A	1.0 lbs (0.45 kgs)



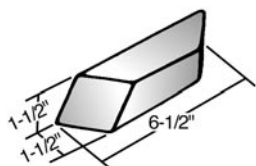
Part No.	Weight
08-676	0.75 lbs (0.34 kgs)



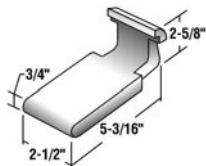
Part No.	Weight
08-686	4.25 lbs (1.9 kgs)



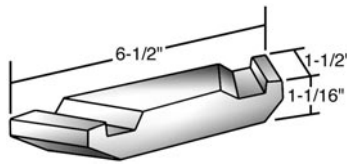
Part No.	Weight
08-690	2.5 lbs (1.1 kgs)



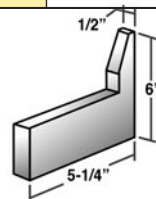
Part No.	Weight
08-692	3.0 lbs (1.4 kgs)



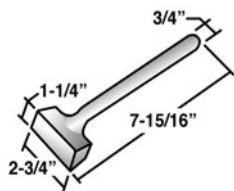
Part No.	Weight
08-701	2.75 lbs (1.2 kgs)



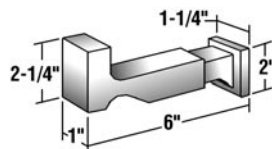
Part No.	Weight
08-702	2.0 lbs (0.9 kgs)



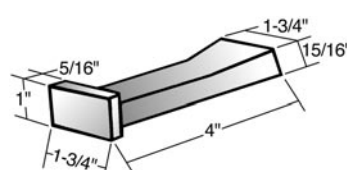
Part No.	Weight
08-715	2.0 lbs (0.9 kgs)



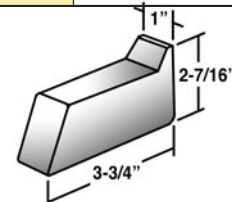
Part No.	Weight
08-718	1.5 lbs (0.68 kgs)



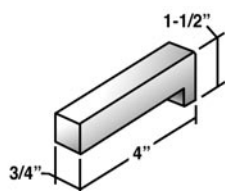
Part No.	Weight
08-719	2.0 lbs (0.9 kgs)



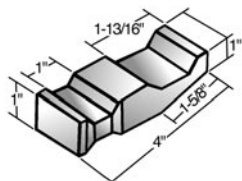
Part No.	Weight
08-720	0.75 lbs (0.34 kgs)



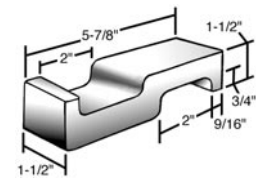
Part No.	Weight
08-721	1.75 lbs (0.79 kgs)



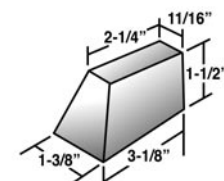
Part No.	Weight
08-727	1.0 lbs (0.45 kgs)



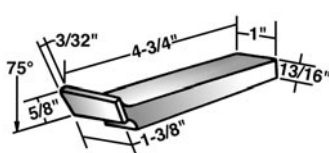
Part No.	Weight
08-730	1.25 lbs (0.6 kgs)



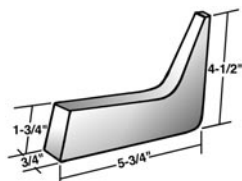
Part No.	Weight
08-736	2.3 lbs (1.0 kgs)



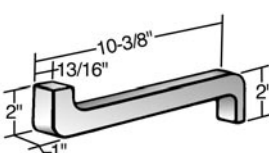
Part No.	Weight
08-750G-1	1.3 lbs (0.59 kgs)



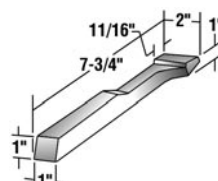
Part No.	Weight
08-750K-1	1.125 lbs (0.5 kgs)



Part No.	Weight
08-750N-1	2.25 lbs (1.0 kgs)



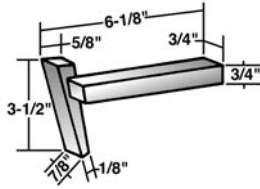
Part No.	Weight
08-751	3.25 lbs (1.5 kgs)



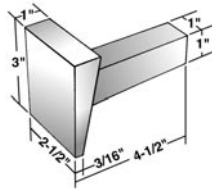
Part No.	Weight
08-751U-1	1.25 lbs (0.6 kgs)



## USATCO Precision Cast Bucking Bars (cont'd)



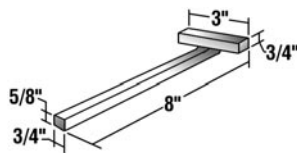
Part No.	Weight
08-7522-1	1.25 lbs (0.6 kgs)



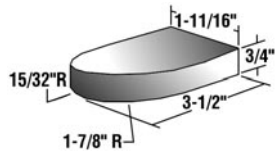
Part No.	Weight
08-7523	2.4 lbs (1.1 kgs)



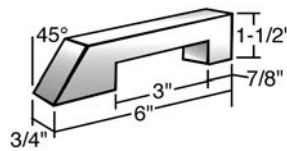
Part No.	Weight
08-7524	2.4 lbs (1.1 kgs)



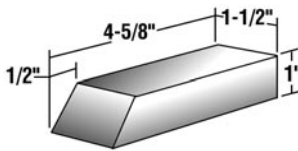
Part No.	Weight
08-753	1.75 lbs (0.8 kgs)



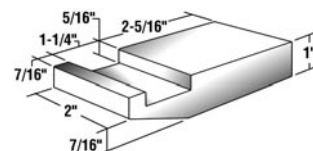
Part No.	Weight
08-753T-4	1.25 lbs (0.6 kgs)



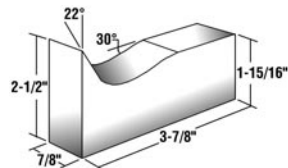
Part No.	Weight
08-760B-2	1.0 lbs (0.45 kgs)



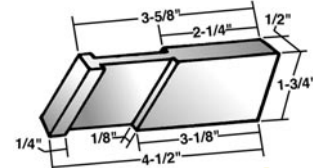
Part No.	Weight
08-760B-10	2.0 lbs (0.9 kgs)



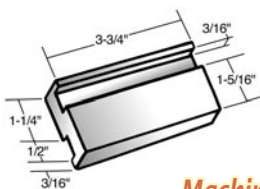
Part No.	Weight
08-78-24C	2.0 lbs (0.9 kgs)



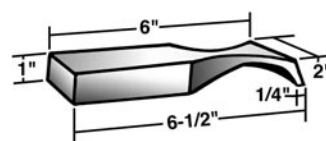
Part No.	Weight
08-83	1.5 lbs (0.7 kgs)



Part No.	Weight
08-860	0.9 lbs (0.4 kgs)



Part No.	Weight
08-861	0.9 lbs (0.4 kgs)

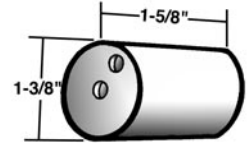


Part No.	Weight
08-862	2.7 lbs (1.2 kgs)

## USATCO Precision Cast Bucking Bars (cont'd)

Accepts .187 shank squeezer or dimple die sets - for close up work.

Part No.	Weight
08-864	0.6 lbs (0.3 kgs)



## Trauma Reducing Bucking Bar Kit



- Significantly reduces vibration associated with hammering rivets.
- Spring tension adjustment for different rivet sizes & materials.
- Quick-change handle design allows changing of bars in seconds.

### Includes:

Cushioned Bucking Bar Handle, Five Bucking Bars In Assorted Styles, Adjustment Key & Fitted Carrying Case

Part Number	Description
1001K	Complete 8 PC Kit

## USATCO BUCKING BAR SPECIALS

Many other styles and shapes are available!

Usatco offers you the ability to custom design your own bucking bar style. Please inquire with your design for special bucking bars and we will quote with your design or one that is similar in form and function.



For Riveting Impact Protection See Page 230

## Tungsten Bucking Bars



*Made In  
The USA*



*Vibration  
Reducing*

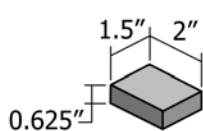
08-1111T

08-1110T

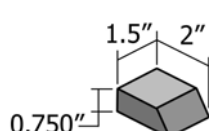
- High density tungsten bucking bars help reduce vibration.
- Deburred edges & polished working surfaces for trouble-free use.
- USATCO can fabricate custom bars from your drawings, please inq.

NEW Tungsten Bucking Bar Kits		
Part Number	Included:	Weight
53-70801	2PC: 08-1102T & 08-1164T	4.57 lbs (2.1 kgs)
53-70803	4PC: 2PC Kit, 08-1112T & 08-1161T	9.09 lbs (4.1 kgs)
53-70805	8PC: 4PC Kit, 08-1104T, 08-1105T, 08-1106T & 08-1113T	17.91 lbs (8.1 kgs)

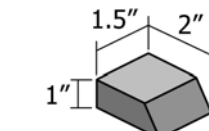
Note: Dimensions and weights are approximate and may vary slightly.



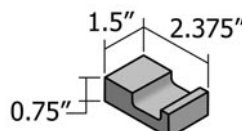
Part No.	Weight
08-1100T	1.16 lbs (0.53 kgs)



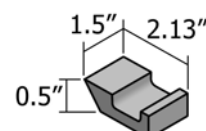
Part No.	Weight
08-1101T	1.07 lbs (0.49 kgs)



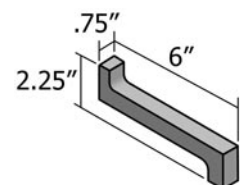
Part No.	Weight
08-1102T	2.87 lbs (1.30 kgs)



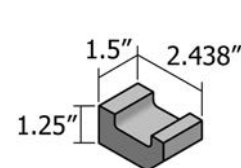
Part No.	Weight
08-1103T	1.31 lbs (0.59 kgs)



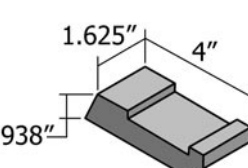
Part No.	Weight
08-1104T	1.20 lbs (0.54 kgs)



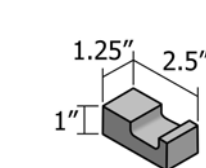
Part No.	Weight
08-1105T	2.62 lbs (1.19 kgs)



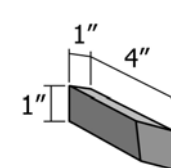
Part No.	Weight
08-1106T	2.19 lbs (0.99 kgs)



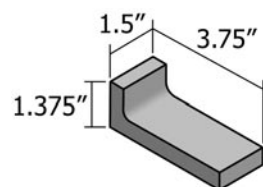
Part No.	Weight
08-1107T	2.93 lbs (1.33 kgs)



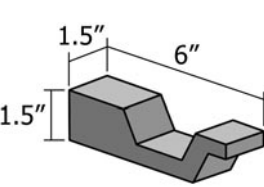
Part No.	Weight
08-1108T	1.70 lbs (0.77 kgs)



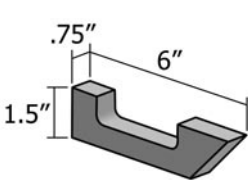
Part No.	Weight
08-1109T	1.92 lbs (0.87 kgs)



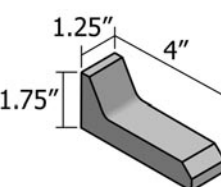
Part No.	Weight
08-1110T	2.52 lbs (1.14 kgs)



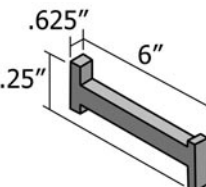
Part No.	Weight
08-1111T	5.90 lbs (2.68 kgs)



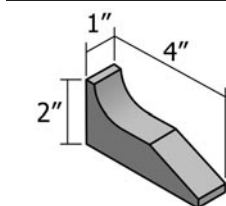
Part No.	Weight
08-1112T	2.73 lbs (1.24 kgs)



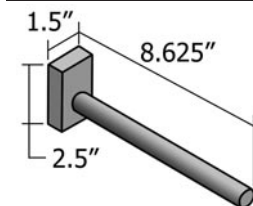
Part No.	Weight
08-1113T	2.81 lbs (1.28 kgs)



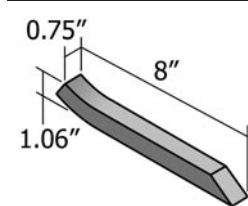
Part No.	Weight
08-1114T	2.34 lbs (1.06 kgs)



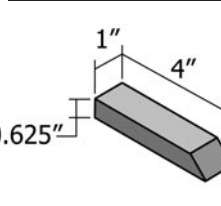
Part No.	Weight
08-1115T	2.63 lbs (1.19 kgs)



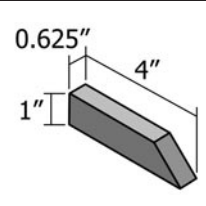
Part No.	Weight
08-1116T	3.87 lbs (1.76 kgs)



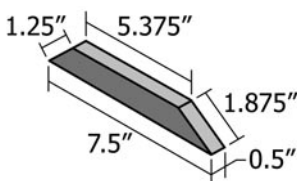
Part No.	Weight
08-1117T	2.58 lbs (1.17 kgs)



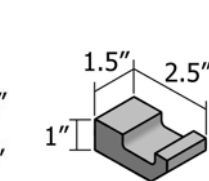
Part No.	Weight
08-1119T	1.53 lbs (0.69 kgs)



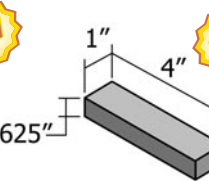
Part No.	Weight
08-1160T	1.44 lbs (0.65 kgs)



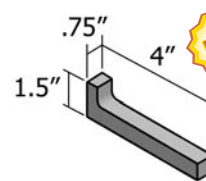
Part No.	Weight
08-1161T	1.79 lbs (0.81 kgs)



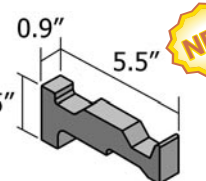
Part No.	Weight
08-1163T	1.65 lbs (0.75 kgs)



Part No.	Weight
08-1164T	1.70 lbs (0.77 kgs)



Part No.	Weight
08-1165T	1.65 lbs (0.75 kgs)



Part No.	Weight
08-1166T	3.85 lbs (1.75 kgs)

**NEW**

**NEW**

**NEW**

**NEW**

## USATCO C-Yoke Riveters

*The Industry  
Standard  
For Years!*



*CE Approved & Certified*

*Used In Factories Worldwide!*

*Quiet, Easy Operation*



*Clamping Force Exceeds Federal Specifications*

Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214C	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	10-5/16" (26 cm)	4.5 lbs (2.1 kgs)
34-214*	N/A	3000 lbs	1/8" Alum. 3/32" Steel	9" (23 cm)	4.0 lbs (1.8 kgs)

High Force Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214CC	1-1/2"	3800 lbs	5/32" Alum. 3/32" Steel	10-5/16" (26 cm)	4.5 lbs (2.1 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-720C	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	14" (36 cm)	5.5 lbs (2.5 kgs)
34-720*	N/A	6000 lbs	3/16" Alum. 5/32" Steel	12" (31 cm)	5.0 lbs (2.3 kgs)

High Force Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-720CC	1-1/2"	7600 lbs	1/4" Alum. 5/32" Steel	14" (36 cm)	5.5 lbs (2.5 kgs)

\*Riveter less yoke. See pages 50-51 for optional USATCO c-yokes.

## USATCO 360° Swivel C-Yoke Riveter

*Locks In Any  
Position*

*CE Approved & Certified*



Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214SC	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	12" (31 cm)	4.5 lbs (2.1 kgs)

## Chicago Pneumatic® C-Yoke Riveters



Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214CELEL	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	10-5/16" (26.2 cm)	4.5 lbs (2.0 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214FALEL	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	14" (35.6 cm)	5.5 lbs (2.5 kgs)

## Chicago Pneumatic® 360° Swivel C-Yoke Riveter

- 13,500 pounds of force throughout the stroke.
- 360° swivel yoke locks in any position.



Note: 25/32" closed yoke height.

*Compact & Powerful*

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0341CUDEL	2-1/8"	13,500 lbs	9/32" Alum. 1/4" Steel	19-7/8" (50.5 cm)	13.4 lbs (6.1 kgs)

## Ultralite® C-Yoke Riveters

*Lightweight Ergo Design*



*Sturdy Forged Jaws*

Note: Stroke at maximum force is 1/8".

Tri-Cylinder					
Part No.	Reach	Force	Capacity	O.A.L.	Weight
16357	Varies (see below)	11,000 lbs	5/16" Alum. 1/4" Steel	21" (53 cm)	10.1 lbs (4.6 kgs)

Note: To order combine riveter part number (above) & desired yoke number (below).  
Example: For 2" reach, 1-1/2" gap (3/16" set hole), part number would be 16357-7481.

C-Yokes - 3/16" Set Hole				C-Yokes - 1/4" Set Hole			
Suffix	Reach	Gap	Thick.	Suffix	Reach	Gap	Thick.
7479	1-1/2"	1-1/4"	3/4"	3052	1-1/2"	1-1/4"	3/4"
7481	2"	1-1/2"	7/8"	6477	2"	1-1/2"	7/8"
7482	3"	1-1/2"	1-1/8"	6478	3"	1-1/2"	1-1/8"
7483	1-1/2"	2"	1"	6479	1-1/2"	2"	1"
7484	2-1/2"	1-3/8"	1"	6480	2-1/2"	1-3/8"	1"
7485	2-1/2"	1-3/4"	1-1/8"	6481	2-1/2"	1-3/4"	1-1/8"



## RIVET SQUEEZERS & ACCESSORIES

### Chicago Pneumatic® Heavy-Duty C-Yoke Riveters

*Includes Safety Throttle Guard*



CP0351FUDEL

Note: 25/32" closed yoke height.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351CUDEL	2-1/8"	6000 lbs	3/16" Alum. 5/32" Steel	17-1/2" (45 cm)	12.5 lbs (5.7 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351FUDEL	2-1/8"	12,000 lbs	1/4" Alum. 7/32" Steel	21-3/4" (55 cm)	15.25 lbs (6.9 kgs)

### High Power C-Yoke Riveter

*Accepts Std. 3/16" Tooling*



34-820C

*Made In The USA*

- Throttle control for precise rivet installation.
- Powerful and well balanced - full squeeze force at only 90 PSI.

Note: 11/16" closed yoke height. Includes swivel air inlet.

Tri-Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-820C	1-1/2"	9000 lbs	1/4" Alum. 3/16" Steel	18-3/4" (47.6 cm)	8.5 lbs (3.9 kgs)

### Heavy-Duty High Power C-Yoke Riveters

*Swivel & Fixed Yoke Models*



34-444CFH21

*Made In The USA*

- Includes large lever handle & swivel air inlet.
- Accepts standard 3/16" tooling (1/4" set hole yoke also available, please inquire).



Tri-Cylinder With Fixed Yoke					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-444CFH21	2-1/8"	12,000 lbs	5/16" Alum. 1/4" Steel	23-3/16" (58.9 cm)	15.5 lbs (7 kgs)

Tri-Cylinder With Swivel Yoke					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-444CSH21	2-1/8"	12,000 lbs	5/16" Alum. 1/4" Steel	23-3/16" (58.9 cm)	16.5 lbs (7.5 kgs)

### USATCO Alligator Jaw Riveters

*The Industry Standard For Years!*

*CE Approved & Certified*



34-214A-2-1/4

*Quiet, Easy Operation*

*Used In Factories Worldwide!*



34-725A-1-1/2

*Clamping Force Exceeds Federal Specifications*

Note: 7/8" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214A-1-1/2	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	9-3/16" (23 cm)	3.75 lbs (1.7 kgs)
34-214A-2-1/4	2-1/4"	2200 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.25 lbs (1.9 kgs)
34-214A-3	3"	1800 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.50 lbs (2.1 kgs)

High Force Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214AA-1-1/2	1-1/2"	3900 lbs	5/32" Alum. 1/8" Steel	9-3/16" (23 cm)	3.75 lbs (1.7 kgs)
34-214AA-2-1/4	2-1/4"	3000 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.25 lbs (1.9 kgs)
34-214AA-3	3"	2400 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.50 lbs (2.1 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-725A-1-1/2	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	11-3/16" (28 cm)	4.75 lbs (2.2 kgs)
34-725A-2-1/4	2-1/4"	4300 lbs	5/32" Alum. 1/8" Steel	12-3/4" (32 cm)	5.25 lbs (2.4 kgs)
34-725A-3	3"	3400 lbs	1/8" Alum. 3/32" Steel	13-1/2" (34 cm)	5.50 lbs (2.5 kgs)

High Force Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-725AA-1-1/2	1-1/2"	7200 lbs	1/4" Alum. 3/16" Steel	11-3/16" (28 cm)	4.75 lbs (2.2 kgs)
34-725AA-2-1/4	2-1/4"	5300 lbs	3/16" Alum. 1/8" Steel	12-3/4" (32 cm)	5.25 lbs (2.4 kgs)
34-725AA-3	3"	4000 lbs	5/32" Alum. 1/8" Steel	13-1/2" (34 cm)	5.50 lbs (2.5 kgs)



## Chicago Pneumatic® Alligator Jaw Riveters



CP0214ANBEL

Note: 7/8" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214ANBEL	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	9-3/16" (23 cm)	3.75 lbs (1.70 kgs)
CP0214ANFEL	2-1/4"	2200 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.19 lbs (1.90 kgs)
CP0214ANGEL	3"	1800 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.41 lbs (2.00 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214ENBEL	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	11-7/8" (30 cm)	4.85 lbs (2.20 kgs)
CP0214ENFEL	2-1/4"	4300 lbs	5/32" Alum. 1/8" Steel	12-3/4" (32 cm)	5.29 lbs (2.40 kgs)
CP0214ENGEL	3"	3400 lbs	1/8" Alum. 3/32" Steel	13-1/2" (34 cm)	5.50 lbs (2.50 kgs)

## CP® Heavy-Duty Alligator Jaw Riveters

Includes Safety Throttle Guard



CP0351ESREL

Closed Yoke Heights: -SGEL & -SKEL, 7/8"; -SREL, 1-1/2"; -SVEL, 3/4".

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351ASGEL	2-7/8"	5200 lbs	5/32" Alum. 1/8" Steel	19-1/2" (50 cm)	15.60 lbs (7.08 kgs)
CP0351ASKEL	5"	3400 lbs	1/8" Alum. 3/32" Steel	21-5/8" (55 cm)	19.80 lbs (8.98 kgs)
CP0351ASREL	7"	3000 lbs	1/8" Alum. 3/32" Steel	23-5/8" (60 cm)	24.25 lbs (11.00 kgs)
CP0351ASVEL	9-1/8"	3000 lbs	1/8" Alum. 3/32" Steel	25-3/4" (65 cm)	26.20 lbs (11.88 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351ESGEL	2-7/8"	10,400 lbs	1/4" Alum. 3/16" Steel	23-3/4" (60 cm)	18.5 lbs (8.39 kgs)
CP0351ESKEL	5"	6800 lbs	3/16" Alum. 5/32" Steel	25-7/8" (66 cm)	22.4 lbs (10.16 kgs)
CP0351ESREL	7"	6000 lbs	3/16" Alum. 5/32" Steel	27-7/8" (71 cm)	26.9 lbs (12.20 kgs)
CP0351ESVEL	9-1/8"	6000 lbs	3/16" Alum. 5/32" Steel	30" (76 cm)	29.1 lbs (13.20 kgs)

## Ultralite® Alligator Jaw Riveters

Ergonomic Design



- 50% weight reduction over similar models.
- High-strength forged jaws, precision bearings & shafts.

Tri-Cylinder					
Part No.	Reach	Force	Capacity	O.A.L.	Weight
17283	3"	10,000 lbs	1/4" Alum. 3/16" Steel	20-1/4" (50 cm)	9 lbs (4.0 kgs)
	5"	6800 lbs	3/16" Alum. 5/32" Steel	22-1/2" (55 cm)	11 lbs (5.0 kgs)
	7"	4400 lbs	5/32" Alum. 1/8" Steel	24-1/2" (62 cm)	13 lbs (6.0 kgs)

Note: To order combine riveter part number (above) & desired yoke number (below). Example: For 5" reach (1/4" set hole) riveter, part number would be 17283-17147.

Alligator Yokes - 3/16" Set Hole			Alligator Yokes - 1/4" Set Hole		
Suffix	Reach	Travel	Suffix	Reach	Travel
17148	3"	7/8"	17149	3"	7/8"
17146	5"	1-1/4"	17147	5"	1-1/4"
19000	7"	1-3/4"	19010	7"	1-3/4"

## High Power Alligator Jaw Riveters

Made In The USA



Powerful & Well Balanced

- Accepts standard 3/16" tooling.
- Full squeeze force at only 90 PSI.
- Throttle control for precise rivet installation.

More Power Than Our Tandem Series

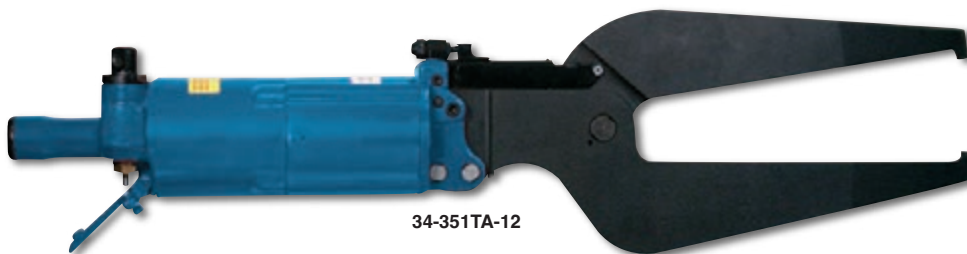
Note: 7/8" closed yoke height. Includes swivel air inlet.

Tri-Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-825A-1-1/2	1-1/2"	9000 lbs	1/4" Alum. 3/16" Steel	16" (40.6 cm)	7 lbs (3.2 kgs)
34-825A-2-1/4	2-1/4"	7000 lbs	3/16" Alum. 5/32" Steel	16-3/4" (42.5 cm)	7.5 lbs (3.4 kgs)
34-825A-3	3"	5200 lbs	3/16" Alum. 5/32" Steel	17-1/2" (44.4 cm)	8 lbs (3.6 kgs)

## RIVET SQUEEZERS & ACCESSORIES

### USATCO Deep Reach Alligator Jaw Riveter

CE Approved  
& Certified



34-351TA-12

Extra Long  
12" Reach

Tandem Cylinder							
Part Number	Reach	Force	Capacity Aluminum	Capacity Steel	Closed Yoke Height	Overall Length	Weight
34-351TA-12	12"	3000 lbs	1/8"	3/32"	1"	32-7/8" (84 cm)	39 lbs (17.7 kgs)

### Heavy-Duty High Power Alligator Jaw Riveters



34-444AFH32

Made In The USA



- Accepts standard 3/16" tooling.
- Includes large lever handle & swivel air inlet.

Note: 7/8" closed yoke height. Optional swivel yoke also available, please inquire.

Tri-Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-444AFH32	3-1/4"	9800 lbs	9/32" Alum. 7/32" Steel	22-1/2" (57.1 cm)	14.5 lbs (6.8 kgs)
34-444AFH52	5-1/4"	6800 lbs	1/4" Alum. 3/16" Steel	24-1/2" (62.2 cm)	16 lbs (7.3 kgs)
34-444AFH72	7-1/4"	6000 lbs	3/16" Alum. 5/32" Steel	26-1/2" (67.3 cm)	17.5 lbs (7.9 kgs)
34-444AFH92	9-1/8"	6000 lbs	3/16" Alum. 5/32" Steel	28-1/2" (72.4 cm)	21.5 lbs (9.8 kgs)

### USATCO REBUILT PORTABLE RIVET SQUEEZERS

USATCO has been reconditioning all types of aerospace tools since 1951. All riveters that go through our experienced, professional shop look and operate like new.

We maintain a large inventory of riveters too varied to list here. Contact us to see what we have available - you can save up to 50% off current new prices!



For Air Hose & Accessories See Pages 208-210

### Ultralite® Compact Alligator Jaw Riveter

The Smallest Squeezer In The Aviation Industry



34-702

Uses Standard  
3/16" Sets

Perfect For Limited Access Areas

- Ultra compact yet powerful - delivers 2200 pounds of force.
- Epoxy coated aluminum housing for a lightweight, durable tool.
- Smooth control safety throttle lever & 90° elbow swivel air inlet.

Note: Stroke at maximum force is 1/32".

Single Cylinder						
Part Number	Reach	Gap	Force	Capacity	Overall Length	Weight
34-702	1"	1-7/64"	2200 lbs	1/8" Alum. 3/32" Steel	7-3/8" (18.6 cm)	2.2 lbs (1.0 kgs)

### Power Booster Assembly



- Increase the power of your existing 351 type riveters.
- Unit can easily be installed by an experienced tool technician.

Part Number	For Use With
38-351B	CP0351 Type Riveters

Riveter Reach	Dural Capacity		Steel Capacity	
	Before	After	Before	After
2-7/8"	3/16"	5/16"	5/32"	1/4"
5"	5/32"	1/4"	1/8"	3/16"
7"	1/8"	3/16"	3/32"	5/32"
9-1/8"	1/8"	3/16"	3/32"	5/32"

## USATCO Safety Lever Backhead

- Easily to install.
- Ergonomic design is less fatiguing to hold.
- More control for user to safely engage the riveter.



Part Number	For Use With
38-795-LA	214 Type Riveters

## Throttle Guard Kit

### Easy To Install

- Convert your older riveter to modern safety standards.
- Includes replacement pin and gasket (not shown).



Part Number	For Use With
90793	CP0351 Type Riveters

## USATCO Rivet Squeezer Stands

### Heavy-Duty Model

- Fits alligator jaw CP0351A & USI series riveters.
- Manufactured by USATCO for major aircraft companies.

Part No.	Includes	Height
37-11	Floor Stand & Foot Control	45" (114 cm)

### Lightweight Models

- Fits most c-yoke 214 series riveters.
- Custom riveter adaptations available, please inq.

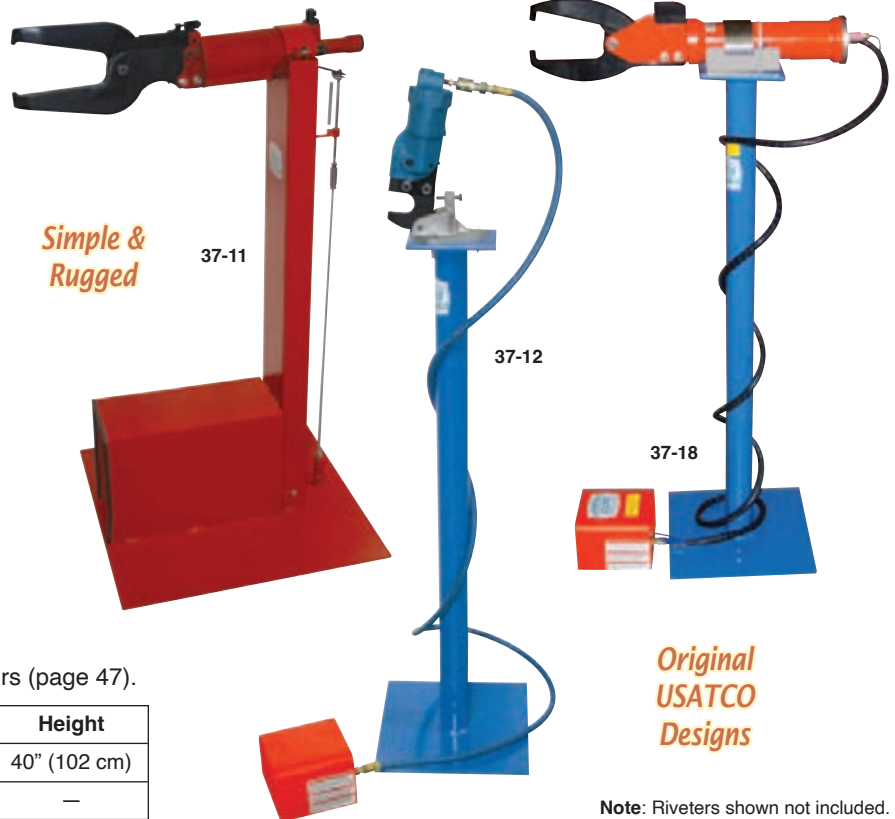
Part No.	Includes	Height
37-12	Floor Stand, Foot Control & Conversion Head	40" (102 cm)
37-13	Bench Mount Stand, Foot Control & Conversion Head	—

**Note:** When ordering please specify make & model number of riveter to be mounted.

### Ultralite Riveter Model

Designed specifically for Ultralite alligator jaw riveters (page 47).

Part No.	Includes	Height
37-18	Floor Stand & Hands Free Foot Control	40" (102 cm)
37-20	Hands Free Foot Control Only (portable)	—

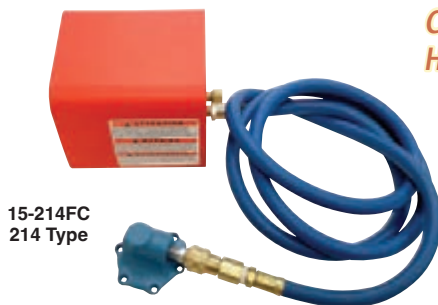


*Simple & Rugged*

*Original  
USATCO  
Designs*

**Note:** Riveters shown not included.

## Foot Control Attachments



15-214FC  
214 Type

*Convert Your Riveter To  
Hands-Free Foot Control*



15-2C  
351 Type

*Steel Safety Enclosure Prevents  
Accidental Operation*

### 214 Type Foot Control

Includes foot throttle backhead & 7.5' hose (riveter sold separately).

Part Number	For Use With
15-214FC	214 Type Riveters

### 351 Type Foot Control

Includes foot control with 6' cable (riveter sold separately).

Part Number	For Use With
15-2C	CP0351 Type Riveters



## RIVET SQUEEZERS & ACCESSORIES

### USATCO C-Yokes

- Yokes furnished with .187" set holes (.250" available, please inquire).
- Set holders may be required for some models, see below.

*USATCO Can Fabricate Your Custom Yoke Designs, Please Inquire*

1-5/16" Mount Spacing		
Part Number	Reach	Gap
64-C1	1-7/16"	1-1/4"
64-C4	3-1/2"	1-3/4"
64-C5	4-1/8"	2-1/2"
64-C8	4-1/2"	3-1/2"
64-C9	10"	3-1/2"
64-C12-S	13"	4"
64-C16	2"	2"
64-C200	2"	1-1/4"
64-C300	3"	1-1/4"
64-959	2-1/2"	1-3/8"
64-961HD	3-1/2"	1-1/2"

**Note:** 64-C8, 64-C9, 64-C12-S & 64-C16 yokes include adj. threaded adapter.

1-5/8" Mount Spacing		
Part Number	Reach	Gap
64-C3	4-7/16"	1-5/8"
64-C6	20-1/2"	2-1/4"
64-C10	2-1/8"	1-1/8"

2-1/16" Mount Spacing		
Part Number	Reach	Gap
64-C11	2-1/8"	1-1/8"

#### 1-5/16" Mount Spacing:

Fits all 214 type riveters, USATCO 34-214C and 34-720C. Requires set holder, see below.

#### 1-5/8" Mount Spacing:

Fits CP0351C & CP0351CUNEL (for CP#1 yoke frames).

#### 2-1/16" Mount Spacing:

Fits CP0351CUNEL (for CP#2 yoke frames).

Set Holders	
Part Number	For Use With
38-539	64-C1, 64-C200
38-539-2	64-C16
38-539-2A	64-C4, 64-C300 & 64-959
38-539-3	64-C8 & 64-961HD
38-539-4	64-C5
38-539-6	64-C9



### USATCO 360° Swivel C-Yokes

- Adjustable tool holder eliminates the need for shimming.
- Takes standard .187" shank rivet sets (see pages 53-56).

1-5/16" Mount Spacing			
Part Number	Reach	Gap	For Use With
64-C360-1	1-1/2"	1-1/4"	USATCO 214C Series, CP0214CENEL
64-C360-3	3"		





## USATCO Longeron C-Yoke

### Excellent Maneuverability

- Specifically designed to reach over longérons, angles, hinges and other obstructions.
- Precision crafted & heat treated.
- Takes standard .187" shank rivet sets (see pages 53-56).



1-5/16" Mount Spacing			
Part Number	Reach	Gap	Inside Gap
64-7755	2-3/8"	1-1/4"	2-3/8"

## USATCO C-Yokes For Semi-Tubular Rivets

- Designed especially for semi-tubular rivets up to 5/16".
- Takes standard .187" shank rivet sets (see pages 53-56).



Set Holder (Required)	
Part Number	For Use With
38-539	64-C28 to 64-C39

Yoke: 1-5/16" Mount Spacing		
Part Number	Reach	Gap
64-C28	1-1/8"	1-3/4"
64-C29	1-1/8"	2"
64-C30	1-1/8"	2-1/4"
64-C31	1-1/8"	2-1/2"
64-C32	1-1/8"	2-3/4"
64-C33	1-1/8"	3"
64-C34	1-1/8"	3-1/2"
64-C35	1-1/8"	4"
64-C36	1-1/8"	4-7/16"
64-C37	1-1/8"	3-1/4"
64-C38	1-1/8"	3-3/4"
64-C39	1-1/8"	4-1/4"

## 2 PC Quick-Change Yoke Pin Set

### Change Yokes Fast



Pull rings allow user to swap out yokes quickly & easily.

For 214 Type Rivet Squeezers			
Part Number	Pin Diameter	Pin Length	Description
96396	1/4" (6.4 mm)	3/4" (19 mm)	2 PC Yoke Pin Set

## Adjustable Set Holder

### Fast & Easy Adjustments



- Replaces the rigid 2-9/16" set holder standard to most CP214 style single cylinder pneumatic squeezers.
- Eliminates the need to shim the dies and sets with washers.
- Heat treated 4130 steel investment casing with rolled threads.

Part Number	Description
97798	Adjustable Set Holder

Note: Not for use with tandem cylinder squeezers.

## USATCO Alligator Jaw Assemblies

### Precision Crafted & Heat Treated

64-A5-3



64-A5-2



Made In The USA

All Hardware Included

- The same yokes installed on our 34-214A & 34-725A riveters.
- Will also fit CP and other similar riveters.

Part Number	Reach	Gap
64-A5-1	1-1/2"	0.89"
64-A5-2	2-1/4"	0.89"
64-A5-3	3"	0.89"

## Power Hand Rivet Squeezer

### Our Most Powerful Model



- Deep throat with ample leverage & heat-treated tool steel jaws.
- Takes standard .187" shank rivet sets (see pages 53-56).

### Power Hand Squeezer Kit:

Power Hand Rivet Squeezer, Four Universal AN470 Rivet Sets (3/32", 1/8", 5/32" & 3/16") & Two Flush Rivet Sets

3/16" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-501A	53-501A	2-1/2"	1-1/8"

## RIVET SQUEEZERS & ACCESSORIES

### Stainless Steel Hand Rivet Squeezers

*Rugged & Portable*

*Adjustable Ram*

10-THS10



- Stainless steel construction designed for lasting performance.
- Heat-treated on all wear & deflecting components.
- Takes standard .187" shank rivet sets (see pages 53-56).

#### Stainless Steel Squeezer Kit:

Squeezer, 3 Univ. AN470 (3/32", 1/8" & 5/32") & 2 Flush Sets

1/16" to 5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-THS10	53-THS10	1"	1-1/4"
10-THS15	53-THS15	1-1/2"	1-1/4"
10-THS20	53-THS20	2"	1-1/4"
10-THS22	53-THS22	2"	2"
10-THS30	53-THS30	3"	1-1/4"
10-THS40	53-THS40	4"	1-1/4"
10-THS50	53-THS50	5"	1-1/4"
10-THS60	53-THS60	6"	1-1/4"

Replacement Yokes		
Part No.	Reach	Gap
THY10	1"	1-1/4"
THY101	1"	1" Flush
THY15	1-1/2"	1-1/4"
THY20	2"	1-1/4"
THY22	2"	2"
THY25	2-7/8"	1-1/4"

Replacement Yokes		
Part No.	Reach	Gap
THY30	3"	1-1/4"
THY35	3-1/2"	1-1/4"
THY40	4"	1-1/4"
THY50	5"	1-1/4"
THY60	6"	1-1/4"

**Note:** Narrow nose yokes avail., please inq.

### 3 PC Quick-Change Yoke Pin Sets

Pull rings allow user to swap out yokes quickly & easily.



*Change Yokes Fast*

For Texas & Tatco (THS) Style Hand Squeezers (above)	
Part Number	Description
96394	3 PC Yoke Pin Set



*For Rivet Gauges & Rivet Cutters See Pages 39-40*

### 360° Swivel Hand Rivet Squeezers

*Adjustable Ram*

10-502AH-D



- Full 360° yoke can be locked in any position.
- Takes standard .187" shank rivet sets (see pages 53-56).
- Tool has a 3/8" stroke and a 5/8" ram adjustment (no washers are needed).

#### Swivel Squeezer Kit:

Squeezer, 3 Univ. AN470 (3/32", 1/8" & 5/32") & 2 Flush Sets

5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-502AH-D	53-502AH-D	1-1/2"	1-1/4"
10-502AH-E	53-502AH-E	3"	1-1/4"

### DA Series 360° Swivel Hand Rivet Squeezers

*3500 Pounds Of Squeezing Pressure*



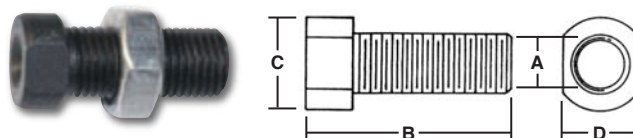
*Adjustable Ram*

- Full 360° yoke can be locked in any position.
- Uses squeezer sets or 3/8"-24 adapter dollie (below).

#### DA Series Squeezer Kit:

360° Hand Rivet Squeezer, Three Universal AN470 Rivet Sets (3/32", 1/8" & 5/32"), Two Flush Sets & Two Adapter Dollies

5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-DA-2	53-DA-2	2-1/2"	1-5/8"
10-DA-5	53-DA-5	6"	1-5/8"



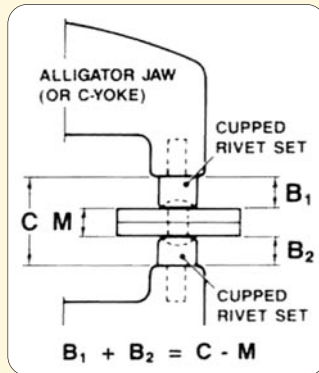
#### Adapter Dollie:

- Enables use of any of our .187" shank riveting or dimpling sets.
- 3/8"-24 thread size, includes lock nut.

Part Number	'A' Dim	'B' Dim	'C' Dim	'D' Dim
27-5-4	.187"	1"	1/2"	7/16"

## SELECTING RIVET SETS FOR YOUR COMPRESSION RIVETERS

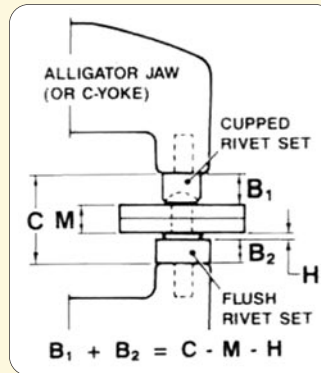
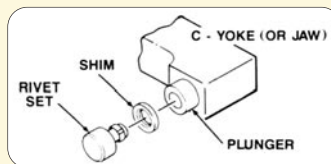
To develop maximum power, the riveter must drive the rivet near the end of the riveter's stroke. Therefore, the combined length of the two rivet sets must be correct. **Determine the correct length as follows:**



### When two cupped rivet sets are used:

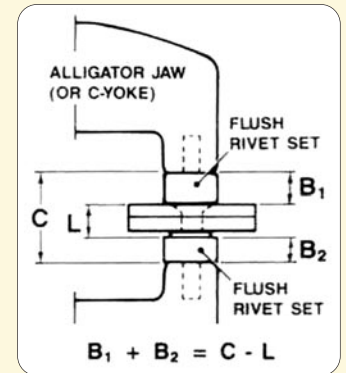
The length of the body dimensions of the two rivet sets ( $B_1$ ,  $B_2$ ) should equal the closed height dimension of the yoke ( $C$ ) minus the total thickness of material being riveted ( $M$ ).

The closed height dimension of the yoke referred to is the opening available when the jaws or plunger are in extreme closed or forward position with both rivet sets removed.



### When one cupped & one flush set are used:

The length of the body dimensions of the two rivet sets ( $B_1$ ,  $B_2$ ) should equal the closed height dimension of the yoke ( $C$ ) minus the total thickness of material being riveted ( $M$ ) and the height of the finished rivet head driven by the flush set ( $H$ ).

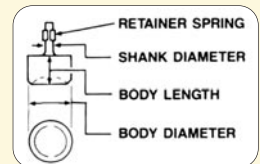


### When two flush sets are used:

The length of the body dimensions of the two rivet sets ( $B_1$ ,  $B_2$ ) should equal the closed height dimension of the yoke ( $C$ ) minus the overall length of the rivet after it is driven ( $L$ ).

If necessary, select rivet sets a little short and shim to proper length with hardened shims (1/64", 1/32", 1/16" or 1/8" thick).

**Head or die configuration:** Cupped or flush; available in button, round, brazier, universal or flat head configurations.



## Cupped Squeezer Sets

Made In  
The USA



- High alloy steel construction.
- Faces polished to high luster.
- Precision ground shanks.
- Heat-treated for long wear & tool life.

.187" Shank, 3/8" Dia.		.187" Shank, 1/2" Dia.		.250" Shank, 5/8" Dia.		.312" Shank, 5/8" Dia.		.375" Shank, 5/8" Dia.	
Part No.	Body L	Part No.	Body L	Part No.	Body L	Part No.	Body L	Part No.	Body L
—	1/8"	26-010	1/8"	—	1/8"	—	1/8"	—	1/8"
26-100	1/4"	26-200	1/4"	26-220	1/4"	26-240	1/4"	26-260	1/4"
26-101	3/8"	26-201	3/8"	26-221	3/8"	26-241	3/8"	26-261	3/8"
26-102	1/2"	26-202	1/2"	26-222	1/2"	26-242	1/2"	26-262	1/2"
26-103	5/8"	26-203	5/8"	26-223	5/8"	26-243	5/8"	26-263	5/8"
26-104	3/4"	26-204	3/4"	26-224	3/4"	26-244	3/4"	26-264	3/4"

**Note:** Select a set (charts above) & add the desired cupping (chart below). **Example:** For a .187" shank, 1/2" dia., 1/4" body length set with a 1/8" AN470 cupping, use part no. 26-200-4704.

Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Mod. Brazier AN456	Universal AN470
1/16"	4302	4352	4422	4552	4562	4702
3/32"	4303	4353	4423	4553	4563	4703
1/8"	4304	4354	4424	4554	4564	4704
5/32"	4305	4355	4425	4555	4565	4705
3/16"	4306	4356	4426	4556	4566	4706
7/32"	4307	4357	4427	4557	4567	4707
1/4"	4308	4358	4428	4558	4568	4708
5/16"	43010	43510	44210	45510	45610	47010
3/8"	43012	43512	44212	45512	45612	47012

## RIVET SQUEEZERS & ACCESSORIES

### Squeezer Sets For AN450 Tubular Rivets



.187" Shank	.250" Shank	.312" Shank	.375" Shank	Body Length
26-200	26-220	26-240	26-260	1/4"
26-201	26-221	26-241	26-261	3/8"
26-202	26-222	26-242	26-262	1/2"
26-203	26-223	26-243	26-263	5/8"
26-204	26-224	26-244	26-264	3/4"

**Note:** Select a set (chart above), add rivet size & type (chart below). **Example:** For a .187" shank, 1/4" body length set with a 1/8" rivet size (flaring), use part no. 26-200-4502.

Semi-Tubular AN450 Cupping Sizes							
Size	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"
Flaring	4502	4503	4504	4505	4506	4508	45010
Anvil	2	3	4	5	6	8	10

### Cupped Sq. Sets For BOEING® BACR15FT Type



.187" Shank	.250" Shank	Body Length
26-200	26-220	1/4"
26-201	26-221	3/8"
26-202	26-222	1/2"
26-203	26-223	5/8"
26-204	26-224	3/4"

**Note:** Select the size set required (charts above), then add the desired cupping (chart below). **Example:** For a .187" shank, 1/4" body length set with a 1/8" BACR15FT cupping, use part number 26-200-4704BAC.

Modified Universal AN470 Cupping Sizes			
3/32"	1/8"	5/32"	3/16"
4703BAC	4704BAC	4705BAC	4706BAC

7/32"	1/4"	9/32"
4707BAC	4708BAC	4709BAC

### Soft Blank Sets

- Not heat-treated, easily machinable.
- Retainer spring provided.



.187" Shank		.187" Shank	
Part Number	Body Length	Part Number	Body Length
26-211B	1/4"	26-215B	3/4"
26-212B	3/8"	26-216B	7/8"
26-213B	1/2"	26-217B	1"
26-214B	5/8"		

### Flush Squeezer Sets



.187" Shank, 3/8" Dia.		.187" Shank, 1/2" Dia.	
Part Number	Body Length	Part Number	Body Length
26-110	1/8"	26-210	1/8"
26-110A	3/16"	26-210A	3/16"
26-111	1/4"	26-211	1/4"
26-112	3/8"	26-212	3/8"
26-113	1/2"	26-213	1/2"
26-114	5/8"	26-214	5/8"
26-115	3/4"	26-215	3/4"
26-116	7/8"	26-216	7/8"
26-117	1"	26-217	1"

.250" Shank, 5/8" Dia.		.312" Shank, 5/8" Dia.	
Part Number	Body Length	Part Number	Body Length
26-230	1/8"	26-250	1/8"
26-230A	3/16"	26-250A	3/16"
26-231	1/4"	26-251	1/4"
26-232	3/8"	26-252	3/8"
26-233	1/2"	26-253	1/2"
26-234	5/8"	26-254	5/8"
26-235	3/4"	26-255	3/4"
26-236	7/8"	26-256	7/8"
26-237	1"	26-257	1"

.375" Shank, 3/4" Dia.		.375" Shank, 3/4" Dia.	
Part Number	Body Length	Part Number	Body Length
26-270	1/8"	26-274	5/8"
26-270A	3/16"	26-275	3/4"
26-271	1/4"	26-276	7/8"
26-272	3/8"	26-277	1"
26-273	1/2"		

### Sleeved & Spring Loaded Flush Squeezer Sets

Spring tension holds workpiece steady during rivet installation.



.187" Shank			.250" Shank		
Part No.	I.D.	O.D.	Part No.	I.D.	O.D.
26-1043	3/8"	9/16"	26-1044	3/8"	9/16"
26-1045	19/64"	1/2"	26-1046	19/64"	1/2"

### Shank Adapters

Part Number	Body Length	Shank	Accepts
26-1	1/2"	.250"	.187"
26-2	3/8"	.312"	.187"



Includes retainer spring.



## Spacer Shims

Used for proper adjustment of squeezer set height to accommodate different material thickness.



.187" Shank		.250" Shank		.312" Shank	
Part No.	Thickness	Part No.	Thickness	Part No.	Thickness
27-0	1/64"	27-3	1/32"	27-6	1/32"
27-1	1/32"	27-4	1/16"	27-7	1/16"
27-2	1/16"	27-5	1/8"	27-8	1/8"

## Huck & Hi-Shear Squeezer Sets



HS 26-200-4



H 26-205-8

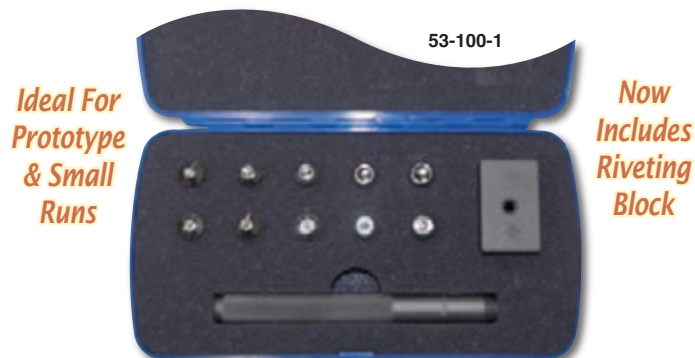
Hi-Shear .187" Shank	
Part Number	Rivet Size
HS 26-200-4	1/8"
HS 26-200-5	5/32"
HS 26-200-6	3/16"
HS 26-200-8	1/4"

Hi-Shear .250" Shank	
Part Number	Rivet Size
HS 26-220-4	1/8"
HS 26-220-5	5/32"
HS 26-220-6	3/16"
HS 26-220-8	1/4"
HS 26-220-10	5/16"
HS 26-220-12	3/8"

Huck Lockbolt .187" Shank	
Part Number	Rivet Size
H 26-205-4	1/8"
H 26-205-5	5/32"
H 26-205-6	3/16"
H 26-205-8	1/4"
H 26-205-10	5/16"

Huck Lockbolt .250" Shank	
Part Number	Rivet Size
—	1/8"
H 26-225-5	5/32"
H 26-225-6	3/16"
H 26-225-8	1/4"
H 26-225-10	5/16"
H 26-225-12	3/8"

## Adapto® Hand Flaring Kit



53-100-1

- Easy to use, specially designed for semi-tubular rivets.
- Complete kit includes tool with flaring & oval sets for 1/16" to 3/32", 1/8" to 5/32" & 3/16" rivets, riveting block & plastic case.

Part Number	Description
53-100-1	Complete 13 PC Kit
08-100	Flaring Tool Only

## Rivet Squeezer Set Kits



53-26

### Set Assortment Kit Includes:

4 Universal AN470 Sets (1/8" body length: 3/32", 1/8", 5/32" & 3/16"), 6 Universal AN470 Sets (1/4" body length: 1/16", 3/32", 1/8", 5/32", 3/16" & 1/4"), 4 Round AN430 Sets (1/16", 3/32", 1/8" & 5/32"), 1 Flat AN442 Set (1/4" body length: 3/32"), 4 Flush Sets with 3/8" Diameter (1 each: 1/8", 1/4", 3/8" & 1/2" body length), 4 Flush Sets with 1/2" Diameter (1 each: 1/8", 1/4", 3/8" & 1/2" body length), Soft Blank Set (1/4" body length), Shim Post Holder, 6 Spacer Shims (2 each: 1/64", 1/32" & 1/16"), Metal Kit Box

Part Number	Description
53-26	31 PC Set Assortment Kit



53-26F

53-3456

### Flush Set Kit Includes:

8 Flush Sets with 3/8" Diameter (2 each: 1/8", 1/4", 3/8" & 1/2" body length), 12 Flush Sets with 1/2" Diameter (1 each: 1/8", 3/16", 1/4", 3/8", 1/2" & 5/8" body length), 3 Soft Blank Sets (1 each: 1/4", 3/8" & 1/2" body length), Shim Post Holder, 7 Spacer Shims (3 each: 1/64", 2 each: 1/32" & 1/16"), Metal Kit Box

Part Number	Description
53-26F	31 PC Flush Set Kit

### Dimple Die Kit Includes:

4 Dimple Punches (1/4" body length: 3/32", 1/8", 5/32" & 3/16"), 4 Dimple Dies (1/4" body length: 3/32", 1/8", 5/32" & 3/16"), Plastic Kit Box

Part Number	Description
53-3456	9 PC Dimple Die Kit

## RIVET SQUEEZERS & ACCESSORIES

### AN426 100° Dimple Punch & Dies



.187" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P211	26-D211	1/4"
26-P212	26-D212	3/8"
26-P213	26-D213	1/2"

.250" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P231	26-D231	1/4"
26-P232	26-D232	3/8"
26-P233	26-D233	1/2"

.312" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P251	26-D251	1/4"
26-P252	26-D252	3/8"
26-P253	26-D253	1/2"

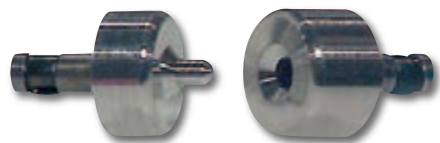
.187" Shank Punch & Die Combos	
Part Number	Body Length
53-211	1/4"
53-212	3/8"
53-213	1/2"

.187" Shank Combo Set (3/32", 1/8", 5/32" & 3/16")	
Part Number	Body Length
53-3456	1/4"

**Note:** Select a size punch, die or combo (charts above) & add the rivet size (chart below).  
**Example:** For .187" shank, 1/4" body punch with a 1/8" rivet size, use part no. 26-P211-4264.

Countersunk AN426 Cupping Sizes					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4262	4263	4264	4265	4266	4268

### Dimple Punch & Dies For 100° Screws



.187" Shank	
Part Number	Screw Size
53-5094	#6
53-5095	#8
53-5096	#10

.187" Shank	
Part Number	Screw Size
53-5098	1/4"
53-50910	5/16"

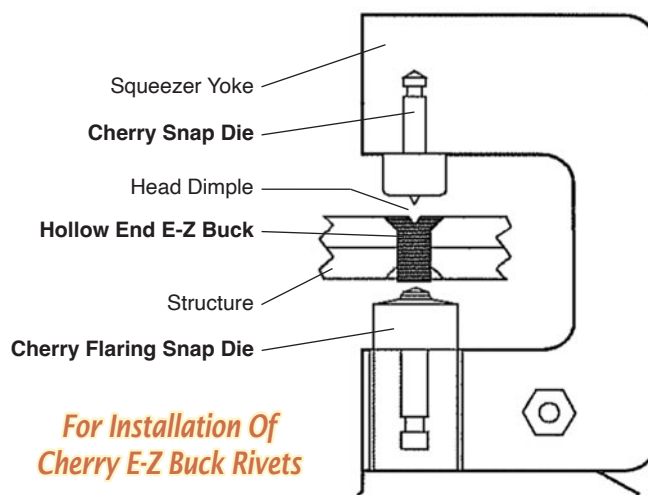
### 'Spring Back' Dimple Die Sets

Form Perfect  
100° Dimples



.187" Shank		.187" Shank	
Part Number	Rivet Size	Part Number	Rivet Size
4263PDSB	3/32"	5094PDSB	#6
4264PDSB	1/8"	5095PDSB	#8
4265PDSB	5/32"	5096PDSB	#10

### Cherry® Hollow End E-Z Buck Dies



For Installation Of  
Cherry E-Z Buck Rivets

These dies should be used with automatic riveting machines or by a squeezer of sufficient size to provide the upset loads listed below. The snap dies are designed to center the squeezer on the rivet and prevent damage to the structure.

Acceptable Upset Loads	
Rivet Diameter	Upset Load +/- 200 lbs
1/8" (-4)	2500 lbs (1134 kgs)
5/32" (-5)	2700 lbs (1225 kgs)
3/16" (-6)	3000 lbs (1361 kgs)
7/32" (-7)	3750 lbs (1701 kgs)

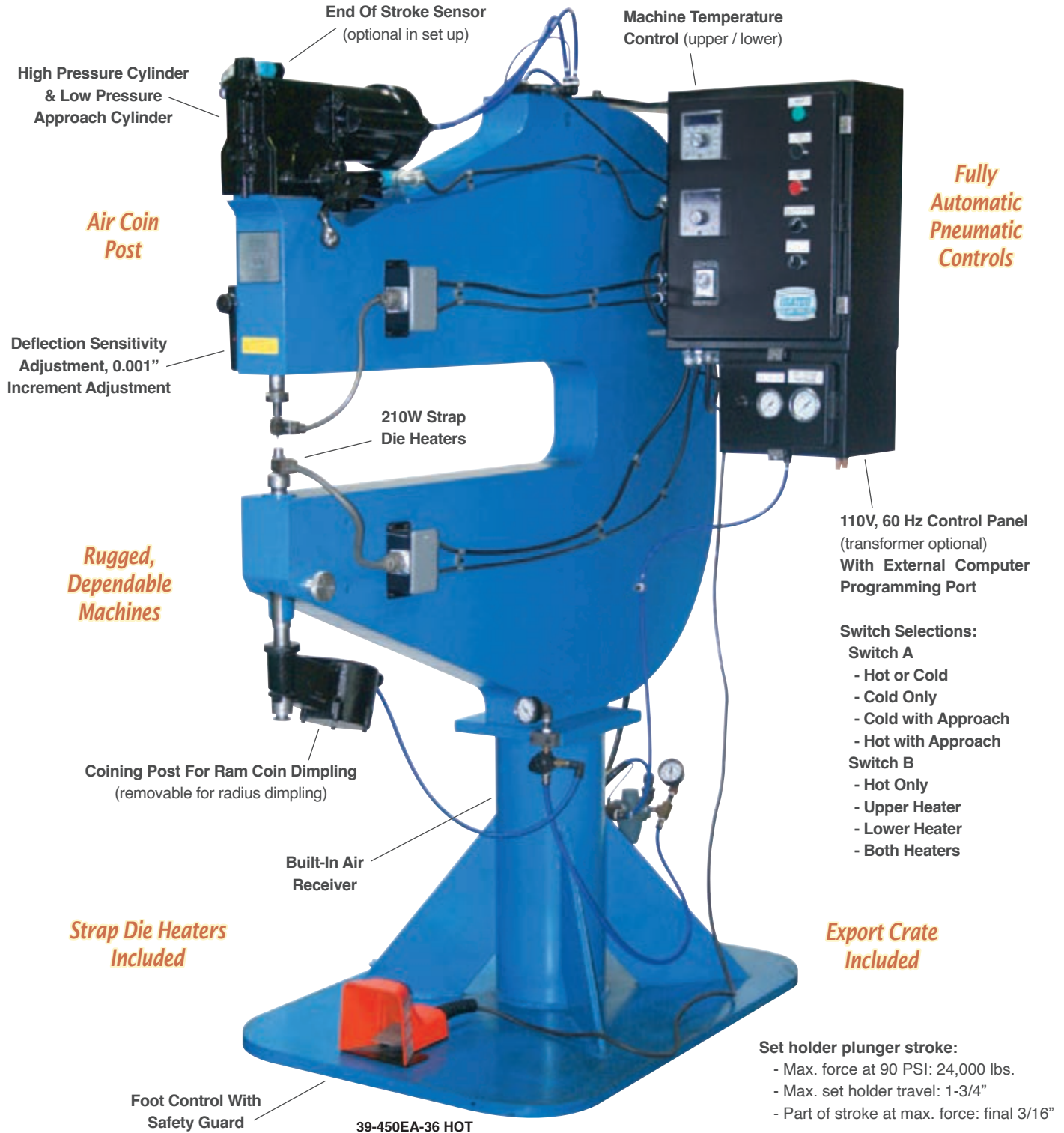
Cherry Flaring Snap Dies		
3/16" Mount Dia.	1/4" Mount Dia.	Rivet Diameter
839C1-4	839C10-4	1/8" (-4)
839C1-5	839C10-5	5/32" (-5)
839C1-6	839C10-6	3/16" (-6)
839C1-7	839C10-7	7/32" (-7)

Cherry Snap Dies* (optional)		
3/16" Mount Dia.	1/4" Mount Dia.	Rivet Diameter
839B3	839B13	All Sizes

\*Each die fits all flaring diameters.

## Hot Ram Coin Dimplers

F.O.B. RONKONKOMA, NY



- New automatic electronic controls, controller uses preset ranges.
- Foot control with guard, parts list & instruction manual included.

**Note:** Subject to availability - yoke styles may vary. Tooling not included. Also available in 220V, 50 Hz (please inquire).

Part Number	Reach	Gap	Heat Controller Temp. Range	Dwell Timer Range	Voltage (input)	Approximate Shipping Weight
39-450EA-24 HOT	24" (61 cm)	8" (20.3 cm)	0 to 800°	0 to 30 Seconds	110V, 60 Hz	2200 lbs (998 kgs)
39-450EA-36 HOT	36" (91 cm)					3200 lbs (1452 kgs)



## STATIONARY RIVETERS & DIMPLERS

### Cold Riveter-Dimplers

F.O.B. RONKONKOMA, NY



An excellent riveting platform, includes foot control with guard.

**Note:** Subject to availability - yoke styles may vary. Tooling not included.

3/8" Mild Steel & Aluminum Capacity	
Part Number	Reach
39-450EA-24 COLD	24" (61 cm)
39-450EA-36 COLD	36" (91 cm)

### End Plate & Control Upgrade

*Eliminate Air Leaks & Erratic Operation*

*Better Control In Forward & Reverse*

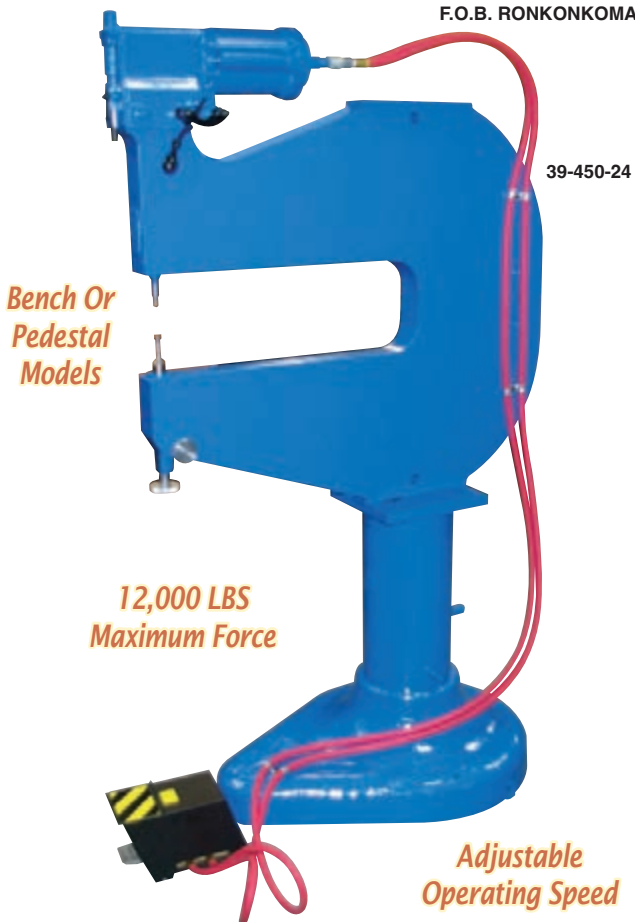


USATCO exclusive developed especially for older CP450 machines.

Part Number	For Use With
27-98611	Type D Models
27-98711	Type EA Models

### Rebuilt Heavy-Duty Riveters

F.O.B. RONKONKOMA, NY



- Rolling cam & wedge assembly multiplies piston compressive force.
- Short stroke adjustment for varied starting positions & fast operation.
- Includes foot control with guard, uses 0.312" shank sets.

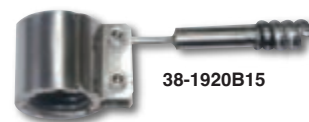
**Note:** Subject to availability - yoke styles may vary. Tooling not included.

Bench Models - 7/32" Mild Steel & 1/4" Aluminum Capacity	
Part Number	Reach
39-450-12	12" (30.5 cm)
39-450-18	18" (45.7 cm)

Pedestal Models - 7/32" Mild Steel & 1/4" Aluminum Capacity	
Part Number	Reach
39-450-24	24" (61 cm)
39-450-36	36" (91 cm)

### Strap Die Heaters

- Designed for continuous operation at 750°F or less.
- Includes thermocouple, flexible cable & quick disconnect plugs.



**Note:** For 39-450EA models (see previous page), ZT1807, ZT1812, ZT2418, ZT2427.

210 Watts, 110V AC Input - Cannon Connector	
Part Number	Style
38-1920B15	Offset
38-1921B15	Straight



## Heavy-Duty Bench/Pedestal Mount Riveters

F.O.B. RONKONKOMA, NY

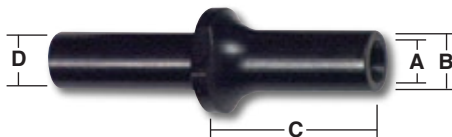


- Heavy-duty riveter designed to tackle the largest riveting jobs.
- Included foot control allows for easy hands-free operation.
- Can be bench or pedestal mounted (not included).

1/4" Steel & 5/16" Aluminum Capacity			
Part Number	Reach	Gap	Shipping Weight
8000CSA-9-1/2	9-1/2"	3-1/2"	178 lbs (81 kgs)
8000CSA-12-1/2	12-1/2"	3-1/2"	221 lbs (100 kgs)
8000CSA-24	24"	4-1/2"	681 lbs (309 kgs)

**Note:** 37-15 pedestal shown not included, see next page for more info.

## Rivet Set Adapters



For adapting squeezer type rivet sets to hot & cold riveter-dimplers.

Part Number	Internal Dia. ('A')	Outer Dia. ('B')	Nose Length ('C')	Shank Dia. ('D')
07-81392	3/16"	7/16"	1-7/8"	5/8"
07-81393	1/4"	9/16"	1-7/8"	5/8"
07-82189	5/16"	21/32"	1-7/8"	5/8"
07-82190	3/8"	3/4"	1-7/8"	5/8"

## USATCO Bench/Pedestal Mount Riveters

F.O.B. RONKONKOMA, NY



- 9/16" maximum stroke, uses 0.187" shank sets.
- USATCO can fabricate other yoke styles, please inquire.

Standard, 3/16" Aluminum Capacity			
Part Number	Gap	Reach	Force
34-720CBR1	3-1/2"	4-1/2" (11.4 cm)	6000 lbs
34-720CBR2	3-1/2"	10" (25.4 cm)	
34-720CBR3	4"	13" (33 cm)	

High Force, 3/16" Aluminum Capacity			
Part Number	Gap	Reach	Force
34-720CCBR1	3-1/2"	4-1/2" (11.4 cm)	7600 lbs
34-720CCBR2	3-1/2"	10" (25.4 cm)	
34-720CCBR3	4"	13" (33 cm)	

**Note:** Tooling not included. See next page for optional 37-15 pedestal (not shown).

## Dimpler Pressure Pad Dollies

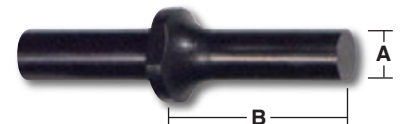


Spring loaded sleeve presses sheets together before rivet is driven.

Part Number	Face Diameter	Shank Diameter
07-78691	3/8"	5/8"
07-78692	1/2"	

## Flush Sets

Used on all hot & cold riveter-dimplers.



Part Number	'A' Diameter	'B' Nose Length
07-81391	23/64"	2-1/4"
07-81390	31/64"	2-1/4"
07-82389	39/64"	2-1/4"

## STATIONARY RIVETERS & DIMPLERS, USATCO CUSTOM KITS

### Hot Dimpler Punch & Dies



26-1853-1/8

26-1855-1/8

For AN426 100° rivets in pilot drill & dimple type operations.

3/8" Shank		
Punch	Die	Size
26-1853-3/32	26-1853-3/32	3/32"
26-1855-1/8	26-1853-1/8	1/8"
26-1855-5/32	26-1853-5/32	5/32"
26-1855-3/16	26-1853-3/16	3/16"
26-1855-1/4*	26-1853-1/4	1/4"

\*Standard long flanged.

### Pedestal Unit

*Fits All CP  
Type Pedestal  
Riveters*

*Sturdy  
Angle Iron  
Construction*



Part Number	Overall Height	Weight
37-15	27-1/2" (70 cm)	54 lbs (24.5 kgs)

## USATCO Homebuilder's Basic Tool Kit



*Great Starter Set For Building Or  
Repairing Your Own Aircraft*

Part Number	Description
53-455	Complete 492 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-305-3	1	Pilot Countersink
02-305-4	1	
02-305-5	1	
02-306-21	1	
02-306-30	1	
02-306-40	1	
02-441	1	Countersink Cage
02-R10B-3/32	2	Jobber's Length Drill
02-R10B-1/8	2	

Tools Included		
Part Number	Pcs.	Description
02-R10B-5/32	2	Jobber's Length Drill
04-1220	1	Fluting Plier
04-17	1	Rivet Cutter
04-44	1	Hand Seamer
04-62	1	Cleco Plier
04-K380	1	Auto Deburr Tool
04-M-3/32	150	'M' Type Sheet Metal Fastener
04-M-1/8	150	
04-M-3/16	150	

Tools Included		
Part Number	Pcs.	Description
07-10-4703	1	Rivet Set 3-1/2" O.A.L.
07-10-4704	1	
07-10-4705	1	Flush Rivet Set
07-10-500	1	
07-1000	1	No-Mar Rivet Set
07-12-500	1	Flush Rivet Set
07-170	1	Mushroom Rivet Set
08-692	1	Bucking Bar
08-669	1	
08-638	1	
08-670	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
17-3XSP	1	Rivet Gun
18-DS-21	1	Drill Stop
18-DS-30	1	
18-DS-40	1	Aviation Snip Set
53-70453	3pc	
62-54406	1	Sturdy Plastic Tool Box
75-282-0	1	Aviation Maint. Handbook
JAT-600	1	3/8" Reversible Air Drill

**USATCO Professional Rivet Gun Kits**
***Our #1 Selling Kit***

- Virtually all the tools you need for riveting, in handy kit form.
- For pro sheet metal mechanics, serious home builders and students.

***Sturdy Molded Plastic Case***

Complete Kit		
Part Number	Rivet Gun Included	Shank
53-RGK	17-3XSP	.401
53-RGK1	17-4XSP	.401
53-RGK2	17-2XSP	.401
53-SGK*	17-7XBSP	.498
53-TGK*	17-5XBSP	.498

\*Kits 53-SGK & 53-TGK come packed in sturdy plastic toolbox.



Tools Included (.401 Shank Kits)	
Part Number	Description
07-10-4703	3/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4704	1/8" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4705	5/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4706	3/16" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-11-4703	3/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4704	1/8" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4705	5/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4706	3/16" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-140	Offset Flush Mushroom Set, 3-1/2" Overall Length
07-170	Flush Mushroom Rivet Set with Guard, 2-1/4" Overall Length
07-20-4703	3/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-20-4704	1/8" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-20-4705	5/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-92	Flush Mushroom Rivet Set, 5-1/2" Overall Length
08-111	Bucking Bar (see page 41)
08-112	Bucking Bar (see page 41)
08-669	Bucking Bar (see page 42)
08-670	Bucking Bar (see page 42)
09-140	Power Regulator
09-RB-2	Beehive Retainer Spring
09-RH-2	Handi Retainer Spring
17-_____	Rivet Gun (2X, 3X or 4X, see chart above)
62-14	Molded Plastic Carrying case

Tools Included (.498 Shank Kits)	
Part Number	Description
07-30-4703	3/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4704	1/8" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4705	5/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4706	3/16" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-31-4703	3/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4704	1/8" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4705	5/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4706	3/16" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-160	Offset Flush Mushroom Set, 3-1/2" Overall Length
07-173	Flush Mushroom Rivet Set with Guard, 2-1/4" Overall Length
07-40-4703	3/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-40-4704	1/8" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-40-4705	5/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-102	Flush Mushroom Rivet Set, 5-1/2" Overall Length
08-111	Bucking Bar (see page 41)
08-112	Bucking Bar (see page 41)
08-669	Bucking Bar (see page 42)
08-670	Bucking Bar (see page 42)
09-140	Power Regulator
09-RB-4	Beehive Retainer Spring
09-RH-4	Handi Retainer Spring
17-_____	Rivet Gun (5X or 7X, see chart above)
62-54404	Plastic Tool Box



## USATCO Professional Aero Sheet Metal & Riveting Tool Kit

*Priced To Save  
You Money*

- Comprehensive 367 piece kit.
- Includes 5-drawer rolling cabinet.



Part Number	Description
53-425	Complete 367 PC Kit

**Note:** Included MHD type fasteners not shown.

Tools Included		
Part Number	Pcs.	Description
02-306-21	1	Pilot Countersink
02-306-30	1	
02-306-40	1	
02-501-6-10	2	6" Aircraft Extension Drills
02-501-6-21	2	
02-501-6-30	2	
02-501-6-40	2	12" Aircraft Extension Drills
02-501-12-10	2	
02-501-12-21	2	
02-501-12-30	2	
02-501-12-40	2	Rivet Shaver Cutter
02-A800-4	1	
02-C1-H	60pc	Drill Set
04-17	1	Rivet Cutter
04-134SR	1	Safety Wire Twister
04-20SL	1	Offset Hand Snip (left)
04-20SR	1	Offset Hand Snip (right)
04-22022	6pc	Deburr Tool & Blades
04-4P3	1	Camloc Plier
04-62	1	Cleco Plier
04-EL-1/2-1	6	Side Grip Sheet Metal Fastener
04-EL-3/4-1	6	
04-M-3/32	50	'M' Type Sheet Metal Fastener
04-M-1/8	50	
04-M-5/32	20	
04-M-3/16	20	
04-MHD-3/32	6	'MHD' Type Sheet Metal Fastener
04-MHD-1/8	12	
04-MHD-5/32	12	
04-MHD-3/16	6	
04-44	1	Hand Seamer
07-10-4703	1	Rivet Set, 3-1/2" O.A.L.

Tools Included		
Part Number	Pcs.	Description
07-10-4704	1	Rivet Set 3-1/2" O.A.L.
07-10-4705	1	
07-10-4706	1	
07-10-500	1	Flush Rivet Set (3-1/2")
07-11-4704	1	Rivet Set 5-1/2" O.A.L.
07-11-4705	1	
07-11-4706	1	
07-11-500	1	Flush Rivet Set (5-1/2")
07-170	1	Mushroom Set w/Guard
07-20-4703	1	Offset Rivet Set 3-1/2" O.A.L.
07-20-4704	1	
07-20-4705	1	
07-20-4706	1	Offset Flush Set (3-1/2")
07-20-500	1	
07-92	1	Mushroom Set (5-1/2")
08-111	1	Bucking Bar
08-604A	1	
08-669	1	
08-670	1	Power Regulator
09-140	1	
09-RB-2	1	
09-RH-2	1	Handi Retainer Spring
10-THS20	1	2" Hand Rivet Squeezer
15-1580	1	Junior Air Vac
17-3XSP	1	Rivet Gun
18-DS-10	1	Drill Stop
18-DS-21	1	
18-DS-30	1	
18-DS-40	1	
1900RS-B4	1	Rivet Shaver With Skirt
20-127-4	1	Angle Drill Attachment
20-128-4	1	Snake Drill Attachment

Tools Included		
Part Number	Pcs.	Description
26-200-4703	1	Squeezer Set (3/32")
26-200-4704	1	Squeezer Set (1/8")
26-200-4705	1	Squeezer Set (5/32")
26-210	2	Flush Squeezer Set
32-290	1	Flat File
32-311	1	Half Round File
32-397	1	Round File
32-261	1	Aluminum Flat File
43-025	1	Aircraft Safety Wire
43-032	1	
43-041	1	
44-6233-3/32	1	Wire Rivet Hole Brush
44-6233-1/8	1	
44-6233-5/32	1	
44-6233-3/16	1	Strap Duplicator
46-231-1	1	
46-231-2	1	
46-231-3	1	
46-231-5	1	Rivet Squeezer Punch & Die Set
53-211-4263	2pc	
53-211-4264	2pc	
53-211-4265	2pc	
53-211-4266	2pc	Thd. Shank Drill Set
53-2962	4pc	
53-441	5pc	Countersink Kit
53-90131	6pc	Rivet Punch Out Kit
53-FHPS	4pc	File Handle Set
62-54407	1	Metal Tool Box
62-70433	1	Metal Rolling Cabinet
75-282-0	1	Aviation Maint. Handbook
90397	2pc	Utility Cut-Off Tool
JAT-600	1	3/8" Reversible Air Drill



**USATCO Student's Sheet Metal Tool Kit**

Part Number			Description		
53-426			Complete 69 PC Kit		
Tools Included			Tools Included		
Part Number	Pcs.	Description	Part Number	Pcs.	Description
02-306-21	1	Pilot Countersink	07-10-4705	1	Rivet Set
02-306-30	1		07-10-4706	1	3-1/2" O.A.L.
02-306-40	1		07-10-500	1	Flush Rivet Set
02-441	1	Countersink Cage	07-170	1	Mushroom Rivet Set
02-R18C-10	2	Cobalt Jobber's Drill Bits	08-670	1	Bucking Bar
02-R18C-21	2		08-751	1	
02-R18C-30	2		09-140	1	Power Regulator
02-R18C-40	2		09-RB-2	1	Beehive Ret. Spring
04-17	1	Rivet Cutter	09-RH-2	1	Handi Ret. Spring
04-62	1	Cleco Plier	17-3XSP	1	Rivet Gun
04-M-3/32	10	'M' Type Sheet Metal Fastener	20-127-4	1	Ang. Drill Attachment
04-M-1/8	10		53-2962	4pc	Thd. Shank Drill Set
04-M-5/32	10		62-54406	1	Sturdy Plastic Tool Box
04-M-3/16	5		75-282-0	1	Av. Maint. Handbook
07-10-4703	1	Rivet Set	JAT-600	1	3/8" Rev. Air Drill
07-10-4704	1				


**USATCO RV Tool Kit**

Part Number			Description		
53-RV			Complete 548 PC Kit		
Tools Included			Tools Included		
Part Number	Pcs.	Description	Part Number	Pcs.	Description
02-306-30	1	Pilot Countersink	07-20-4703	1	Offset Rivet Set
02-306-40	1		07-20-4704	1	
02-441	1	Countersink Cage	07-20-4705	1	
02-R18C-10	2	Cobalt Jobber's Drill Bits	07-20-4706	1	Bucking Bar
02-R18C-21	2		08-112	1	
02-R18C-30	2		08-638	1	
02-R18C-40	2		08-647	1	
04-1220	1	Fluting Plier	08-670	1	Power Regulator
04-17	1	Rivet Cutter	09-140	1	
04-22022	6pc	Deburr Tool & Blades	09-RB-2	1	Beehive Ret. Spring
04-62	1	Cleco Plier	09-RH-2	1	Handi Ret. Spring
04-44	1	Hand Seamer	10-THS20	1	2" Hand Rivet Sq.
04-M-1/8	175	'M' Type Sheet Metal Fastener	17-3XSP	1	Rivet Gun
04-M-3/32	325		26-200-4703	1	Squeezer Set (3/32")
07-10-4703	1	Rivet Set	26-200-4704	1	Squeezer Set (1/8")
07-10-4704	1		26-200-4705	1	Squeezer Set (5/32")
07-10-4705	1		26-210	2	Flush Squeezer Set
07-10-4706	1		62-54405	1	Sturdy Plastic Toolbox
07-1000	1	No-Mar Rivet Set	JAT-600	1	3/8" Rev. Air Drill
07-140	1	Offset Mushroom Set			
07-170	1	Mushroom Rivet Set			

*Perfect For First Time Projects*



## USATCO CUSTOM KITS

### USATCO Rivet Squeezer Tool Kit

Squeezer set kit includes assorted cupped & flush sets, soft blanks, spacer shims & fitted metal case.

Part Number	Description
53-71021	Complete 38 PC Kit

Tools Included		
Part Number	Pcs.	Description
34-214C	1	C-Yoke Rivet Squeezer
96396	2pc	Quick Change Yoke Pin Set
53-26	31pc	Rivet Squeezer Set Kit
38-539-2A	1	Set Holder
62-54404	1	Plastic Tool Box
64-C200	1	2" Reach C-Yoke
64-C300	1	3" Reach C-Yoke



*A Practical & Economical 38 Piece Kit*

### USATCO Air Hydraulic Blind Rivet Installation Tool Kit

#### *4000 Pounds Of Pulling Force*

- Lightweight & compact size allows for use in limited access areas.
- Installs all CherryMAX and Huck-Clinch thru 1/4".

#### Includes:

Riveter, 3 Pulling Heads (CherryMAX extended straight, offset & right angle), 7 Nosepieces (1/8" & 1/4", 5/32"-3/16" CherryMAX, 3/32" Nut Plate, 3/16" & 1/4" Monobolt, 1/4" Split Rivet), Adapter Sleeve, Adapter Puller Assembly, Jaws (3 piece), Swivel Air Line Connector & Metal Carrying Case.

Part Number	Case Dimensions	Weight
PT-100-MIL-5	9-1/4" x 6-1/2" x 2-1/2"	8.0 lbs (3.6 kgs)



### USATCO Combination Blind Rivet, Blind Bolt & Blind Nut Installation Tool Kit

#### *Ideal For Field Maintenance, Modification & Industrial Sheet Metal Applications*

- This kit provides hand mechanical, hand hydraulic, air hydraulic & cordless blind riveters all in one convenient carrying case.
- Installs all CherryMAX thru 1/4" and most blind bolts thru 3/16".
- This versatile 78 PC kit has been approved for use in the U.S. Army's Standard Automotive Tool Set ("SATS") and is currently being used by all U.S. Military service branches.

Installs single action aerospace blind rivets thru 3/16" O.S. diameter and industrial blind rivets thru 1/4" diameter. Pull-up studs and driving anvils for UNC, UNF, and metric threads are also included to permit installation of blind rivet nuts and inserts from 6-32 thru 3/8"-16 and 5 thru 10 mm. The kit also includes special right angle, offset and extended straight pulling heads for all CherryMAX, Huck Clinch, and Allmax blind rivets (M7885/NAS9300) in sizes thru 3/16" oversize, as well as an adapter for use with the MS20600 series self-plugging and NAS1400A rivet side ejection straight, offset, and right angle pulling heads (not included in this kit) for sizes 3/32" thru 3/16" diameter. The kit also includes the pull-up studs and driving anvils used in conjunction with the hand hydraulic combination riveter/nutsetter, which allows installation of blind nuts (NAS1329/30, MS27130/31) and AVK, TSN and Nutsert style inserts.

Part Number	Case Dimensions	Weight
D-9000-MIL-2	19-1/4" x 14-3/4" x 4-5/8"	28.5 lbs (12.9 kgs)





**USATCO Homebuilder's Tool Kit**


- Comprehensive 655 piece kit, priced to save you money.
- Includes stainless steel hand rivet squeezer.

Part Number	Description
53-665SK	Complete 655 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-306-10	1	Pilot Countersink
02-306-21	1	
02-306-30	1	
02-306-40	1	Countersink Cage
02-441	1	
02-501-6-10	2	
02-501-6-21	2	6" Aircraft Extension Drill
02-501-6-30	2	
02-501-6-40	2	
02-R18C-10	3	Cobalt Jobber's Length Drill
02-R18C-21	3	
02-R18C-30	12	
02-R18C-40	12	
04-17	1	Rivet Cutter
04-22022	6	Deburr Tool & Blades
04-62	1	Cleco Plier
04-EL-1/2-1	5	Side Grip Sheet Metal Fastener
04-EL-1/2-1/2	5	
04-M-1/8	170	'M' Type Sheet Metal Fastener
04-M-3/16	30	
04-M-3/32	330	
04-M-5/32	30	
04-W-1	10	No-Mar Cam Fastener

Tools Included		
Part Number	Pcs.	Description
07-10-4703	1	Rivet Set, 3-1/2" O.A.L.
07-10-4704	1	
07-10-4705	1	
07-10-4706	1	
07-170	1	Mushroom Rivet Set
08-112	1	Bucking Bar
08-638	1	
08-692	1	
08-694	1	Power Regulator
09-140	1	
09-RB-2	1	
09-RH-2	1	Handi Retainer Spring
10-THS20	1	2" Stainless Steel Hand Rivet Squeezer
13-1127-25	1	Mini Air Drill
17-3XSP	1	Rivet Gun
26-110	1	Flush Squeezer Set
26-112	1	
26-210	2	
26-200-4703	1	Squeezer Set (3/32")
26-200-4704	1	Squeezer Set (1/8")
26-200-4705	1	Squeezer Set (5/32")
62-12	1	Plastic Squeezer Set Box
62-54405	1	Sturdy Plastic Tool Box

**USATCO Glastar® Sheet Metal Tool Kit**


- Comprehensive 573 piece kit, priced to save you money.
- Includes Stoddard-Hamilton® recommended Glastar sheet metal tools\*.

\*These are just the sheet metal tools for the wing & tail components, you will also need other tools for the fiberglass construction part of the kit.

Tools Included		
Part Number	Pcs.	Description
02-2962-21	1	Threaded Shank Drills
02-2962-30	1	
02-2962-40	1	
02-306-10	1	Pilot Countersink
02-306-21	1	
02-306-30	1	
02-306-40	1	
02-306-30-120	1	Pilot Countersink 120°
02-441	1	Countersink Cage
02-501-6-21	3	6" Aircraft Extension Drill
02-501-6-30	3	
02-501-6-40	3	
02-C1-H	60pc	Drill Set (number sizes)
02-R10B-1/16	3	Jobber's Length Drill
02-R10B-1/4	3	
02-R10B-11/64	3	
04-200	1	Chip Chaser
04-20SL	1	Offset Snip (left)
04-20SR	1	Offset Snip (right)
04-22022	6pc	Deburr Tool & Blades
04-3090-1/2	2	Spring Tension Clamp
04-62	1	Cleco Plier
04-EL-1/2-1/2	10	Side Grip Sheet Metal Fastener
04-EL-3/4-1/2	10	
04-K380	1	Deburring Tool
04-M-1/8	150	'M' Type Sheet Metal Fastener
04-M-3/16	25	

Part Number	Description
53-GLASTAR	Complete 573 PC Kit

Tools Included		
Part Number	Pcs.	Description
04-M-3/32	250	'M' Type Sheet Metal Fastener
07-10-4703	1	Rivet Set, 3-1/2" O.A.L.
07-10-4704	1	
07-10-4706	1	
07-170	1	Mushroom Rivet Set
08-638	1	Bucking Bar
08-647	1	
08-721	1	
08-760B-2	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
10-37001	1	360° POP Riveter
10-THS20	1	2" Stainless Steel Hand Rivet Squeezer
1245	1	12" Flex Ruler
17-3XSP	1	Rivet Gun
20-127-4S	1	90° Angle Drill Attachment
26-200-4703	1	Squeezer Set (3/32")
26-200-4704	1	Squeezer Set (1/8")
26-200-4705	1	Squeezer Set (5/32")
26-210	2	Flush Squeezer Set
53-211-4263	2pc	Rivet Squeezer Punch & Die Set
53-211-4264	2pc	
61-860	1	Center Punch & Scribe
62-54405	1	Sturdy Plastic Tool Box
JAT-600	1	3/8" Reversible Air Drill



**USATCO Deluxe Student's Tool Kit**

*A Great Starter Kit,  
Compact & Portable*

- High quality tools will provide years of service.
- Features our heavy-duty mechanics canvas tool bag.



Part Number	Description
53-DSK	Complete 77 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-R10A-3/32	3	Jobber's Length Drill
02-R10A-1/8	3	
02-R10A-5/32	3	
02-R10A-3/16	3	
02-R10A-1/4	3	
02-306-21	1	Integral Pilot Cutter
02-306-30	1	
02-306-40	1	
04-M-1/8	10	'M' Type Fastener
04-M-3/16	10	
04-M-3/32	10	

Tools Included		
Part Number	Pcs.	Description
04-M-5/32	10	'M' Type Fastener
02-441	1	Countersink Cage
04-501	1	Rivet Cutter
04-62	1	Cleco Plier
08-670	1	Bucking Bar
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
17-3XSP	1	Rivet Gun
07-10-4703	1	Rivet Set, 3-1/2"
07-10-4704	1	

Tools Included		
Part Number	Pcs.	Description
07-10-4705	1	Rivet Set, 3-1/2"
07-10-4706	1	
07-170	1	Mushroom Set w/ Guard
18-DS-10	1	Drill Stop
18-DS-21	1	
18-DS-30	1	
18-DS-40	1	
62-279	1	Canvas Tool Bag
JAT-600	1	3/8" Reversible Air Drill

**USATCO Pro Composite Tool Kit**

Equipped with the tools necessary for major composite repair.

Part Number	Description
53-70458	Complete 235 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-1541-1/4	1	Solid Carbide Router Bits With Assorted Profiles
02-1547-1/4	1	
02-1547A-1/4	1	
02-1547B-1/4	1	
02-305-4C	1	Carbide Tip Countersink Cutter
02-305-5C	1	
02-305-6C	1	
02-305-8C	1	
02-551	1	Countersink Cage
04-330	1	Kevlar Hand Shears
10-099	1	6" Utility Knife
120625	3	Cut-Off Disc
12L2500-01RT	1	Router
12LF281-36	1	Right Angle Grinder
1450CA	3pc	Mandrel Set
14-2577	1	Router Base
15-A1080	1	Air Vac
407105	1	Respirator
49-MHS1	1	Diamond Hole Saw

Tools Included		
Part Number	Pcs.	Description
49-MHS1-1/2	1	Diamond Hole Saw
49-MHS2	1	
49-NA-01	1	Hole Saw Arbor
49-R3F	1	Diamond Router Bit
55417	10	Coarse Prep Disc
55418	10	Medium Prep Disc
55419	10	Fine Prep Disc
65001	153pc	Sanding Disc Kit
705-PCD130	1	Diamond Countersink
755-3	1	5/32" Pilot
755-5	1	3/16" Pilot
755-7	1	7/32" Pilot
755-8	1	1/4" Pilot
90272	1	3-Way Manifold
90460	1	Safety Goggles
DSRO-01-25HL	1	Vac. Orbital Sander
SDK-15	15pc	Sanding Drum Kit
SDR6P26N3	1	3/8" Capacity Drill
62-54406	1	Plastic Tool Box



**Note:** Tooling not shown in product image, please refer to charts for complete breakdown.

## Heavy-Duty Bending Brakes



*Rugged All Steel Construction*

1824

*2000 lb Max Hold Down Force*

*Machined Bending Edge*

- Unit will also bend 12 gauge in narrower widths.
- Maximum 40" width stock with 2-1/2" throat depth.

18 Gauge Capacity Bending Brake			
Part Number	Maximum Bend Length*	Minimum Reverse Bend	Shipping Weight
1824	24"	5/8"	50 lbs (23 kgs)
1840	40"	5/8"	90 lbs (41 kgs)

\*With unlimited throat.

Floor Stands	
Part Number	Shipping Weight
1824S	40 lbs (18 kgs)
1840S	50 lbs (23 kgs)

## Light Duty Bench Brake

F.O.B. FACTORY



PX24

**NEW**

*Made In The USA*

*Updated Design*

- Ideal for small, precise box & pan work.
- 135° maximum bending angle & 3" maximum box depth.
- Heat-treated die steel fingers are precision ground.
- 0-24" adjustable back gauge.

Note: Finger widths included: 3/4", 1", 1-1/2", 1-3/4", 3", 4-1/2", 6".

16 Gauge Capacity Bending Brake			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
PX24	24"	1/4"	270 lbs (122 kgs)



*For Metal Seamers & Crimpers See Pages 157-158*

## Tennsmith® Bench Brakes

F.O.B. FACTORY



*Made In The USA*

HBU48-12

*Welded Steel Plate Construction*

- Heavy truss rods & braces provide strength & rigidity.
- Roller type thrust bearing to prevent upper leaf creep.
- Dual position apron angle with removable apron insert.

12 Gauge Capacity Bench Brake			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HBU48-12*	48-1/4"	1/4"	1,330 lbs (603 kgs)

16 Gauge Capacity Bench Brakes***			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HBU48-16*	48-1/4"	1/4"	495 lbs (225 kgs)
HBS48-16	48-1/4"	1/4"	460 lbs (209 kgs)

22 Gauge Capacity Bench Brakes***			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
U48-22**	48-1/4"	5/16"	280 lbs (127 kgs)
S48-22	48-1/4"	5/16"	220 lbs (100 kgs)

\*With 4" max. box depth. \*\*With 3" max. box depth.

\*\*\*Optional floor stands available, please inquire.

## Tennsmith® Heavy-Duty Bench Brakes

F.O.B. FACTORY

*Made In The USA*



HB97-18

### Welded Steel Plate Construction

- Heavy truss rods & braces provide strength & rigidity.
- Roller type thrust bearing to prevent upper leaf creep.
- Dual position apron angle with removable apron insert.
- Heavy counterweights & apron stop rod.

#### 16 Gauge Mild Steel Capacity Bench Brakes

Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HB73-16	73"	1/4"	1200 lbs (545 kgs)
HB121-16	121"	1/4"	2875 lbs (1304 kgs)

#### 18 Gauge Mild Steel Capacity Bench Brakes

Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HB97-18	97"	1/4"	1385 lbs (628 kgs)
HB121-18	121"	1/4"	2300 lbs (1043 kgs)

## JET® Slip Rolls

F.O.B. FACTORY

*Quality Import*



SR2024

- Suitable for many industrial, educational & vocational shop uses.
- Precision tuned carbon steel rolls are ground & polished.
- Dual position apron angle with removable apron insert.
- Large roll adjusting screws & front mounted handle.

**Note:** Optional floor stands available, please inquire.

**Note:** Includes 3/16", 1/4" & 5/16" wire grooves (except SR1650: 1/4", 5/16" & 3/8").

#### 20 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR2024	24"	1"	216 lbs (98 kgs)

#### 22 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR2236	36"	1"	256 lbs (116 kgs)

#### 16 Gauge Mild Steel Capacity - 3" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR1650	50"	2"	573 lbs (260 kgs)

## Tennsmith® Slip Rolls

F.O.B. FACTORY



SR24

*An Affordable Heavy-Duty Production Tool*

*Made In The USA*

- Three full length rear starting grooves are standard.
- Front mounted handle to lift upper roll for material removal.
- Oilite bearings eliminate the need for lubrication.

**Note:** Shown with optional stand (stands available, please inquire).

**Note:** Includes 3/16", 1/4" & 5/16" wire grooves (except SR48: 3/8", 1/2" & 5/8").

#### 20 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR24	24"	1"	190 lbs (86 kgs)

#### 22 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR36	36"	1"	250 lbs (113 kgs)

#### 24 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR42	42"	1"	270 lbs (122 kgs)

#### 16 Gauge Mild Steel Capacity - 3" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR48	49"	1-1/2"	1100 lbs (500 kgs)



# SHEET METAL FORMING EQUIPMENT

## Tennsmith® Squaring Shears

F.O.B. FACTORY



High-Carbon High-Chromium Blades

- Comes standard with tool steel blades & front arm extensions.
- Units also shear plastic, lead, zinc aluminum, brass & copper.

### Foot Powered

Includes protractor & graduated slide gauges, front squaring arm.

16 Gauge Mild Steel Capacity (20 gauge stainless)			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
36	37"	30" / 37"	700 lbs (318 kgs)
52	52-1/4"	30" / 37"	950 lbs (431 kgs)



### Air Powered

Includes bevel gauges, graduated slide gauges, foot control, stroke counter, pressure regulator & oiler/condenser cups.

16 Gauge Mild Steel Capacity (20 gauge stainless) - 40 SPM			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
36A	37"	30" / 37"	800 lbs (363 kgs)
52A	52-1/4"	30" / 37"	1085 lbs (492 kgs)

Note: 75 PSI maximum operating pressure.

### Hydraulic Powered

Includes bevel gauges, graduated slide gauges, foot control, stroke counter, sight gauge, thermometer & 10g oil reservoir.

16 Gauge Mild Steel Capacity (20 gauge stainless) - 45 SPM				
Part Number	Power Supply	Max. Cut Length	Gauge Ranges	Shipping Weight
52H-1 PH	1 Phase, 230V, 60Hz	52-1/4"	30" Back	1300 lbs
52H-3 PH	3 Phase, 230V*, 60Hz		37" Front	(590 kgs)

Note: 1450 PSI maximum operating pressure. \*460V available, please inquire.

## JET® Foot Shear

F.O.B. FACTORY



Quality Import

- Shear comes standard with hardened stainless steel blades.
- High quality cast-iron grade frame to eliminate deflection across the blade-span and blade frame work.
- Four-way upper and two-way lower blades for longer life.
- Micro adjustment rear depth gauges for precise measurements.

16 Gauge Mild Steel Capacity			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
1652	52"	25-1/2" / 28"	1220 lbs (554 kgs)

## JET® Shear, Brake & Roll Combo

F.O.B. FACTORY

Right Or Left Hand Operation

Quality Import

- Brake includes removable fingers for complex bending operations.
- Includes applicable dies, dual edge shear blade & back gauge.
- Shown with optional stand (please inquire).



### Note:

SBR30: Upper die 4-3/4" height, 1", 2", 3", 4", 6" & 10" widths.  
SBR40: Upper die 4-3/4" height, 1", 2", 2", 4", 6", 7", 8" & 12" widths.

20 Gauge Mild Steel Capacity @ 30" Wide			
Part Number	Slip Roll Size	Minimum Form Radius	Shipping Weight
SBR30	30" x 1-1/2"	3/4"	332 lbs (151 kgs)

20 Gauge Mild Steel Capacity @ 40" Wide			
Part Number	Slip Roll Size	Minimum Form Radius	Shipping Weight
SBR40	40" x 1-5/8"	1"	561 lbs (255 kgs)

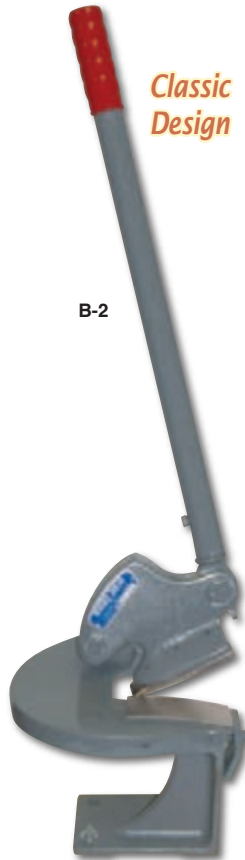
## Beverly® Throatless Shears

- Ideal all-purpose metal cutting tools.
- Shoulder design permits turning work to any shape or position.
- Units allow any cut in heavy gauges, yet handle lighter metals without distortion.
- Alloy steel rack & pinion for great power with little effort.
- Removable handle for easy portability.
- Two-point lower blade adjustment.
- Slitting shear also available, please inq.

Part No.	Cap. (mild, stain.)	Blade Length	Height Less Handle	Weight
B-1	14 ga., 18 ga.	4-1/2"	14" (36 cm)	18 lbs (8.1 kgs)
B-2	10 ga., 14 ga.	4-3/8"	14" (36 cm)	35 lbs (15.8 kgs)
B-3*	3/16", 10 ga.	5-5/8"	15" (38 cm)	58 lbs (26.3 kgs)

\*B-3 equipped with high carbon, high chrome blades.

Replacement Blades		
For B-1	For B-2	For B-3
B-1-1	B-2-1	B-3-1



*Classic Design*

B-2

## Tennsmith® Notchers

F.O.B. FACTORY

- Front gauges & large surface ground work table standard.
- Straight shearing; notches over 90° accomplished in two operations.
- Especially useful where box, chassis & panel blanks are to be fabricated.
- Reversible upper blades.

Replacement Blades	
Part Number	Description
16-18B1	Regular Set of 4
16-18B2	Tab Set of 4

Floor Stand	
Part Number	Shipping Weight
37-16-18	170 lbs (77 kgs)

Notchers			
Part Number	Mild Steel Cap. (notch / pierce)	Blades Included	Shipping Weight
16-18RB	16 / 18 Gauge	Regular	170 lbs (77 kgs)
16-18TB	16 / 18 Gauge	Tab	170 lbs (77 kgs)



*Made In The USA*

16-18RB

37-16-18

## JET® Manual Shriner & Stretcher

- Quickly form compound curves with easy, hands-free foot pedal operation.
- Adjustable forming depth.
- Heavy-gauge steel base is stable yet can be rolled for easy movement.

### Bench Press Includes:

Shrinker Stretcher Head, Foot Pedal Floor Stand, Shrinker Jaw Set, Stretcher Jaw Set, Wrench & User Manual



*Non-Skid Foot Pad*



*Built-In Jaw Storage*

*Rolling Wheels*

### 16 Gauge Mild Steel Capacity Shriner & Stretcher

Part Number	Throat (d x h)	Max. Flange	Overall Height	Weight
MSS-1	6" x 2-1/2"	1-1/8"	32" (81.28 cm)	84 lbs (38 kgs)

Note: Aluminum jaws also available, please inquire.

## USATCO Bench Model Shriner & Stretcher

- Work and form common metals.
- Shrink & stretch down to a 2" radius.
- High 45 to 1 leverage provides fast & powerful working action.
- Unit mounts in a vice or on a bench or stand (offered on next page).

04-135

*Made In The USA*

16 Gauge Mild Steel Capacity		
Part Number	Description	Weight
04-135	Metal Shriner	11 lbs (4.9 kgs)
04-136	Metal Stretcher	11 lbs (4.9 kgs)
53-137	Both Units	22 lbs (9.9 kgs)



Accessories	
Part Number	Description
04-12	Conversion Assembly (stretcher to shriner)
04-18	Conversion Assembly (shriner to stretcher)
38-9300	Replacement Shriner Jaws (4 piece set)
38-9301	Replacement Stretcher Jaws (4 piece set)

## SHEET METAL FORMING EQUIPMENT

### USATCO Dual Head Shrinker & Stretcher Stand

- Dual head configuration allows two users at the same time.
- Wheeled base for easy movement.
- For use with USATCO Bench Model Shrinker & Stretcher shown on previous page.

*Made In  
The USA*

**Note:** Shrinker & Stretcher units shown not included.

36" Dual Head Floor Stand	
Part Number	Weight
37-70127	26 lbs (11.7 kgs)



### Manual Bench Shrinker/Stretcher



*Revolutionary  
Design*

*High  
Leverage*

*Precision  
Machine Frame*

**NEW**

570 Bench Press with  
570-200 Jaws Shown

- Ideal for the professional metal worker.
- Both down and up acting.
- All bearing design for smooth operation and long life.
- Choice of steel and aluminum jaws (sold separately, see below).
- Includes bench mount plate (not shown).

Bench Press - 14 Gauge Alum. Capacity (16 Gauge Mild Steel)			
Part Number	Throat	Inside Height*	Weight
570	7"	2-1/4"	55 lbs (25 kgs)

\*Maximum clearance between tooling.



Shrinker & Stretcher Jaw Sets	
Part Number	Description
570-200	Steel Shrinker Jaw Set
570-210	Steel Stretcher Jaw Set
570-220	Aluminum Shrinker Jaw Set
570-230	Aluminum Stretcher Jaw Set

**Note:** Optional Floor Stand also available, please inquire.

### Bench Press & Shrinker & Stretcher



*Ideal For  
Production  
Work*

**NEW**

*Provides Three  
Tons Of Force*

*Bronze Bushings  
For Long Life*

*Rugged 5/16" Welded  
Plate Construction*

2200-M Bench Press with  
550-100 Jaws Shown

- Tooling can either be mounted for straight in use or rotated 90° for side to side work for added flexibility.
- Without dies can be used as a standard press or arbor press.
- Other tooling options available, please inquire.

#### Bench Press Includes:

Bench Press, Quick Index Handles, Spring Loaded Center, Slug Ejector Assembly, Lower Punch-Flare Adapter with Bolt, Upper Punch-Flare Adapter with Bolt & Arbor Nut Wrench (Shrinker/Stretcher Jaw Assembly sold separately below)

Bench Press - 14 Gauge Alum. Capacity (16 Gauge Mild Steel)			
Part Number	Throat	Inside Height*	Weight
2200-M	12"	3"	64 lbs (29 kgs)

\*Maximum clearance between tooling.

Shrinker/Stretcher Jaw Assembly	
Part Number	Description
550-100	Deep Throat Shrinker/Stretcher Jaw Assembly

**Note:** Optional Floor Stand also available, please inquire.



## JET® 45" English Wheeling Machine

F.O.B. FACTORY

*Heavy-Duty Frame*

*Both Wheels Swivel  
90 Degrees For  
Larger Work Pieces*

*Quick  
Release  
Lever*

*Includes 4 Rolling  
Wheels & 10 Anvils  
In Various Profiles*

*Retractable Base  
Wheels For Easy  
Movement*

English wheel gets its name from the two steel wheels between which metal is formed. The wheels - one above and one below - are rolled against one another with a piece of sheet metal between, under a pre-adjusted pressure setting. The wheels roll as the sheet metal is moved back and forth. Shaping results as the lower wheel is forced under pressure into the metal, stretching and forming it.

- Quick and easy, tooling-free wheel change.
- Convenient wheel storage brackets attached to unit.

Part Number	Capacity	Throat	Head Opening	O.A. Height	Shipping Weight
45-373-45	1/8" Alum. 16 ga. Mild St.	45" (114 cm)	6" (15 cm)	63" (160 cm)	555 lbs (252 kgs)



*For Hammers & Mallets See Pages 162-163*

## JET® Planishing Hammer

F.O.B. FACTORY

*Quick  
Change  
Upper  
Dies*

*Large 24"  
Throat*

*Includes 2  
Die Set  
Brackets*

*Comfortable  
Electronic  
Foot Control  
(110V AC)*



- Smooths beads and forms mild steel sheet metal up to 16 gauge, aluminum & copper up to 1/8" thick.
- Supplied with two pair of upper & anvil die sets.
- Three position airflow regulates speed of pneumatic hammer\*.

Part Number	Throat	Head Opening	Overall Height	Shipping Weight
PH-24	24"	2-1/2"	66" (168 cm)	250 lbs (113 kgs)

\*1800-2000, 3200-3500 & 4400-4600 BPM ranges. Req'd air pressure 90-120 PSI.

## Tennsmith® Hand Rotary Machine

*Smooth, Fast &  
Precise Operation*

- Includes six rolls: beading, turning, closing, jogging, flanging & crimping.
- Adjustable roll pressure.
- Table mount with clamp.
- Unit can be used in both forward & reverse.



*Made In  
The USA*

22 Gauge Mild Steel Capacity			
Part Number	Throat	Height	Ship Weight
R22	7" (178 mm)	16" (41 cm)	67 lbs (30 kgs)

## PUNCH & CUTTING TOOLS

### Micro-Stop Countersink Cage



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread					
Tool w/Plastic Footpiece	Tool w/Steel Footpiece	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-441	02-441S	5/8"	5/16"	0.001"	3000

#### Countersink Cage Kits:

Includes tool, footpiece & H.S.S. countersink cutters listed below.

Countersink Cage Kits		
Kit w/Plastic Footpiece	Kit w/Steel Footpiece	Included Cutters (1/2" body diameter)
53-441K	53-441SK	3/32", 1/8", 5/32" & 3/16"
53-441K1	53-441SK1	#10, 21, 30 & 40
53-441K2	53-441SK2	3/32", 1/8", 5/32", 3/16", #10, 21, 30 & 40



#### Optional Footpieces (for use with standard skirt only):



Available separately or installed on tool.



Optional Footpieces		
Footpiece Only	Footpiece w/Tool	Type
94278	02-441-1X	Phenolic
94279	02-441-2X	Nylon
94280	02-441-3X	Nylon Flanged
94281	02-441-4X	Chrome
94282	02-441	Plastic

#### Optional Skirts:

Available separately or installed on tool.

Skirt Type		
	2 Leg	Flange
Skirt Only	95390	95395
Skirt w/Tool	02-441A	02-441C

Skirt Type		
	Insert Collar	Cutaway
Skirt Only	95391	95394
Skirt w/Tool	02-441D	02-441F

Skirt Type		
	Std. w/Steel Footpiece	Std. w/Nylon Footpiece
Skirt Only	95396	95397
Skirt w/Tool	02-441S	02-441N

### Micro-Stop Countersink Cutter Kit

*Fitted Case Helps Prevent F.O.D.*



#### Includes:

*Versatile & Portable*

Countersink Cage, Two Replacement Skirts (insert collar & flange type), Four Footpieces (phenolic, nylon, nylon flanged & chrome), Nine 1/2" Diameter H.S.S. Cutters (3/32", 1/8", 5/32", 3/16", 1/4", #40, #30, #21 & #10) & Plastic Case

**Note:** Elliptical countersink cutter kit also available, please inquire.

Part Number	Description
53-590	Complete 17 PC Kit

### Mini Micro-Stop Countersink Cage

*Perfect For Use In Seat Tracks*

02-241



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-241	7/16"	1/4"	0.001"	3000

02-241-2X



1/4"-28 Countersink Thread - With Nylon Footpiece				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-241-2X	7/16"	1/4"	0.001"	3000

#### Countersink Cage Kits:

Includes tool & H.S.S. countersink cutters listed below.

Countersink Cage Kits	
Part Number	Included Cutters (1/2" body diameter)
53-241K	3/32", 1/8", 5/32" & 3/16"
53-241K1	#10, 21, 30 & 40
53-241K2	3/32", 1/8", 5/32", 3/16", #10, 21, 30 & 40

**Full Flange Skirt Micro-Stop Countersink Cage**

*Compact*

*Heavy-Duty*



- Dual bearings for continuous high-speed use.
- Positive stop to connect shaft eliminates work damage.

1/4"-28 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-551	5/8"	5/16"	0.001"	10,000

Optional Footpiece	
Part Number	Type
38-2911	Nylon

**Note:** Other optional skirts & footpieces available, please inquire.

**Jumbo Micro-Stop Countersink Cages**



02-1533

- Hardened & ground spindles, bronze bearings & precision depth control.
- Dual bearings for upper & lower spindle support.

**Note:** Jumbo cutters with required 3/8"-24 thread shown on next page.

3/8"-24 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-1530	1"	1/2"	0.001"	3000
02-1533	1-1/4"	1/2"	0.001"	3000

**Self Aligning Countersink Cages**



- Stay perpendicular to work surface & concentric with the hole.
- Drill position offset by the ball system within a 20° envelope.
- Chucking flats to accommodate drill chuck.
- Safety locking knurled adjustment ring.
- Flanged skirt type (other styles available, please inquire).

1/4"-28 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351B-A	7/8"	0.340"	0.001"	5000

M6 x 1 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351A-A	7/8"	0.340"	0.001"	5000

**Threaded Shank Micro-Stop Countersink Cage**

*Only 1.38" To 1.77"  
Overall Length*



- 1/4"-28 shaft thread.
- Positive adjustment lock.

1/4"-28 Countersink Thread				
Part Number	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-141	1/2"	3/32"	0.001"	3000

**Integral Pilot Countersink Cutters**



H.S.S.

**Note:** H.S.S. cutters are 3-flute standard.  
Carbide tip cutters are 2-flute standard.  
Other style are available, please inquire.



Carbide Tip

Integral Pilot 1/4"-28 Thread, 100° H.S.S.			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32	02-305-3	—	3/32"
02-304-1/8	02-305-4	—	1/8"
02-304-5/32	02-305-5	02-307-5	5/32"
02-304-3/16	02-305-6	02-307-6	3/16"
02-304-7/32	02-305-7	02-307-7	7/32"
02-304-1/4	02-305-8	02-307-8	1/4"
—	—	02-307-5/16	5/16"
02-304-40	02-306-40	02-307-40	#40
02-304-30	02-306-30	02-307-30	#30
02-304-21	02-306-21	02-307-21	#21
02-304-10	02-306-10	02-307-10	#10
02-304-F	02-306-F	02-307-F	F

Integral Pilot 1/4"-28 Thread, 100° Carbide Tip			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32C	02-305-3C	—	3/32"
02-304-1/8C	02-305-4C	—	1/8"
02-304-5/32C	02-305-5C	02-307-5C	5/32"
02-304-3/16C	02-305-6C	02-307-6C	3/16"
02-304-7/32C	02-305-7C	02-307-7C	7/32"
02-304-1/4C	02-305-8C	02-307-8C	1/4"
02-304-40C	02-306-40C	02-307-40C	#40
02-304-30C	02-306-30C	02-307-30C	#30
02-304-21C	02-306-21C	02-307-21C	#21
02-304-10C	02-306-10C	02-307-10C	#10
02-304-FC	02-306-FC	02-307-FC	F



## PUNCH & CUTTING TOOLS

### Cobalt Integral Pilot Countersink Cutters

Solid M42  
Cobalt



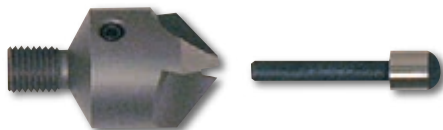
For Harder  
Materials

Three Flute Integral Pilot, 1/4"-28 Thread - Cobalt

Part Number 100° Cutting Angle	Part Number 130° Cutting Angle	Pilot Diameter	Body Diameter
02-8056-40	02-806-40	#40	1/2"
02-8056-30	02-806-30	#30	1/2"
02-8056-21	02-806-21	#21	1/2"
02-8056-10	02-806-10	#10	1/2"
02-8056-1/4	—	1/4"	1/2"
02-80565	Complete 100° 5PC Set		

### Replaceable Pilot C'Sink Cutters & Pilots

Precision  
Ground



Replaceable Pilot Cutters, 1/4"-28 Thread - .086" Pilot Hole

H.S.S.	Carbide Tipped	Body Diameter	Cutter Angle
02-167-3-82	02-167-3-82C	1/2"	82°
02-167-3-100	02-167-3-100C	1/2"	100°
02-167-3-120	02-167-3-120C	1/2"	120°
02-167-4-100	—	5/8"	100°

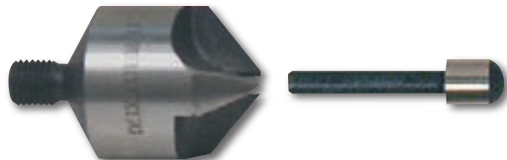
.086" Replaceable Pilots

Part Number	Pilot Diameter
02-A181-3	3/32"
02-A181-4	1/8"
02-A181-5	5/32"

.086" Replaceable Pilots

Part Number	Pilot Diameter
02-A181-6	3/16"
02-A181-7	7/32"
02-A181-8	1/4"

### Jumbo Replaceable Pilot C'Sink Cutters & Pilots



Note: 100° cutting angle standard, 82° available, please inquire.

Replaceable Pilot Cutters  
3/8"-24 Thread - .170" Pilot Hole

H.S.S.	Body Diameter
02-434-1	3/4"
02-434-2	7/8"
02-434-3	1"
02-434-4	1-1/8"
02-434-5	1-1/4"

Jumbo cutters also available in carbide and integral pilot style, please inquire.

.170" Replaceable Pilots

Part Number	Pilot Diameter
02-A184-6	3/16"
02-A184-8	1/4"
02-A184-10	5/16"
02-A184-12	3/8"
02-A184-14	7/16"
02-A184-16	1/2"
02-A184-20	5/8"

### Undercut Body Countersink Cutters



- Undercut body diameter provides faster chip ejection.
- Designed for close tolerance work & to eliminate sheet damage.
- Two flute, high speed steel construction with a 100° cutting angle.

3/8" Body Diameter, 100° Cutting Angle

Part Number	Shank Size	Pilot Diameter
02-100-210-0960	.210"	.0960"
02-100-256-0980	.256"	.0980"
02-100-256-1222	.256"	.1222"
02-100-256-1265	.256"	.1256"
02-100-317-1570	.317"	.1570"
02-100-386-1915	.386"	.1915"

### Extended Footpiece Micro-Stop C'Sink Cage



02-284

Hardened and ground spindles, bronze bearings, and precision depth control.

1/4"-28 Countersink Thread

Part Number	Capacity	Footpiece Extension	Shaft Travel	Depth Adj.	Max. RPM
02-284	3/8"	2-3/4"	5/16"	0.001"	3000
02-284-4	3/8"	4"	5/16"	0.001"	3000
02-284-D	5/8"	2-3/4"	5/16"	0.001"	3000

### Extended Footpiece Micro-Stop C'Sink Cutters



Note: 100° cutting angle standard.

Integral Pilot, 1/4"-28 Thread - 3/8" Body Diameter

H.S.S.	Carbide Tipped	Pilot Diameter
02-303-3/32	02-303-3/32C	3/32"
02-303-1/8	02-303-1/8C	1/8"
02-303-5/32	02-303-5/32C	5/32"
02-303-3/16	02-303-3/16C	3/16"
02-303-7/32	02-303-7/32C	7/32"
02-303-1/4	02-303-1/4C	1/4"
02-303-40	02-303-40C	#40
02-303-30	02-303-30C	#30
02-303-21	02-303-21C	#21
02-303-10	02-303-10C	#10

**BRFZ Micro-Stop Countersink Cages**



For use with Boeing® BRFZ rivet cutters shown below.

Standard Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441SBACR15FT-1	5/8"	5/16"	0.0005"	3000

Flanged Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441FBACR15FT-1	5/8"	5/16"	0.0005"	3000

**Countersink Cutters For BRFZ Rivets**

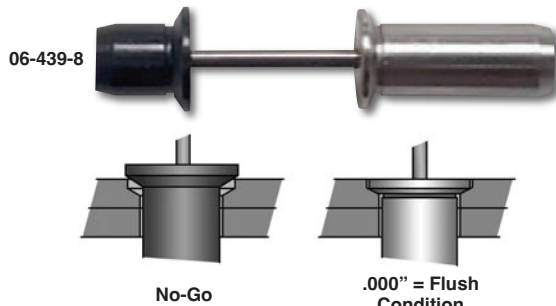


- Designed for Boeing® BRFZ rivets, MS14218.
- Creates both counterbore & countersink in one operation.
- Manufactured from M42 H.S.S., heat-treated to 63-66 Rc.

Integral Pilot 1/4"-28 Thread 3/8" Body Diameter, H.S.S.			Integral Pilot 1/4"-28 Thread 1/2" Body Diameter, H.S.S.		
Part No.	Rivet Size	Diameter	Part No.	Rivet Size	Diameter
02-438-3	-3	3/32"	02-438-8	-8	1/4"
02-438-4	-4	1/8"	02-438-9	-9	9/32"
02-438-5	-5	5/32"	02-438-10	-10	5/16"
02-438-6	-6	3/16"			
02-438-7	-7	7/32"			

Note: 1/4"-28 thread.  
120° cutting angle standard.

**BRFZ Dual Gauges**



Go / no-go gauge determines proper Boeing® BRFZ rivet installation.

Part Number	Nominal Diameter	No Go	Part Number	Nominal Diameter	No Go
06-439-3	3/32"	.1265"	06-439-7	7/32"	.3170"
06-439-4	1/8"	.1655"	06-439-8	1/4"	.3640"
06-439-5	5/32"	.2140"	06-439-9	9/32"	.4110"
06-439-6	3/16"	.2625"	06-439-10	5/16"	.4600"

**Countersink Extensions**



- Versatile - for use with countersinks, drill bits etc.
- 1/4"-28 female thread, 3/8" body diameter.

1/4"-28 Threaded Shank			1/4" Straight Shank		
Part Number	Overall Length	Shank	Part Number	Overall Length	Shank
90442	1"	5/16"	90425	2"	7/8"
90443	2"	5/16"	90426	4"	7/8"
90444	4"	5/16"	90427	6"	7/8"

**Straight Shank Aircraft Countersink Cutters**



- Radial relief ground angle assures free cutting clearance & prevents chatter.
- Available in 60°, 82°, 90° & 100° cutting angles.\*

\*Select the cutter required, then add the desired cutting angle (60, 82, 90 or 100).  
Example: For a H.S.S. 1/4" dia. one flute cutter with a 100° angle, use no. 02-112-1-100.

One Flute			
H.S.S.	Carbide	Diameter	Shank
02-112-1	02-112-1C	1/4"	1/4"
02-112-3	02-112-3C	3/8"	1/4"
02-112-5	02-112-5C	1/2"	1/4"
02-112-6	02-112-6C	5/8"	1/2"

Six Flute Chatterless			
H.S.S.	Carbide	Diameter	Shank
02-612-1	02-612-1C	1/4"	1/4"
02-612-2	02-612-2C	5/16"	1/4"
02-612-3	02-612-3C	3/8"	1/4"
02-612-5	02-612-5C	1/2"	1/4"
02-612-6	02-612-6C	5/8"	1/2"

**Straight Shank Zero Flute C'Sink Cutters**



**Fast Stock Removal**

Single cutting edge for chatter free finish in all materials.

1/4" Straight Shank, 100° Cutting Angle		
Part Number	Capacity	Overall Length
100130	3/32" - 1/4"	1-1/2" (38.1 mm)
100131	1/8" - 27/64"	1-11/16" (42.8 mm)
100132	3/16" - 35/64"	1-7/8" (47.6 mm)

## PUNCH & CUTTING TOOLS

### Str. Shank Integral Pilot Extension Countersinks

*M42 High Speed Steel Construction*



100° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-100-0938	3/16"	3/32"
02-1875-100-1250	3/16"	1/8"
02-1875-100-1562	3/16"	5/32"
02-1900-100-1562	.1900"	3/32"
02-2500-100-0938	1/4"	3/32"
02-2500-100-1250	1/4"	1/8"
02-2520-100-1250	.2520"	1/8"
02-2830-100-1395	.2830"	.1395"
02-3125-100-1250	5/16"	1/8"
02-3125-100-1562	5/16"	5/32"
02-3400-100-1562	.3400"	5/32"
02-3750-100-0938	3/8"	3/32"
02-3750-100-1250	3/8"	1/8"
02-3750-100-1562	3/8"	5/32"
02-3750-100-1875	3/8"	3/16"
02-4050-100-1875	.4050"	3/16"
02-4375-100-2188	7/16"	7/32"
02-4375-100-2500	7/16"	1/4"
02-5000-100-0938	1/2"	3/32"
02-5000-100-1250	1/2"	1/8"
02-5000-100-1562	1/2"	5/32"
02-5000-100-1875	1/2"	3/16"
02-5000-100-2188	1/2"	7/32"
02-5000-100-2500	1/2"	1/4"
02-5300-100-2500	.5300"	1/4"

90° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-90-0938	3/16"	3/32"
02-2500-90-1250	1/4"	1/8"
02-3125-90-1562	5/16"	5/32"
02-3750-90-1875	3/8"	3/16"
02-5000-90-2500	1/2"	1/4"

120° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-120-0938	3/16"	3/32"
02-2500-120-1250	1/4"	1/8"
02-3125-120-1562	5/16"	5/32"
02-3750-120-0938	3/8"	3/32"
02-3750-120-1250	3/8"	1/8"
02-3750-120-1562	3/8"	5/32"
02-3750-120-1875	3/8"	3/16"
02-5000-120-2500	1/2"	1/4"

Note: All countersinks are furnished with a 1-3/4" length x 3/16" diameter shank, a 3/8" pilot length & are 2-1/2" overall length.

### Carbide Tip Replaceable Pilot Stop Counterbores

- Works with most microstop c'sink cages.
- Perfect for highly abrasive, difficult to machine & exotic materials.



Note: 1/64" corner radius. For use with pilots shown on next page.

Part Number	Cutter Dia.	Shank Thread	Pilot Hole
02-730-1	3/8"	1/4"-28	3/32"
02-730-2	7/16"	1/4"-28	1/8"
02-730-3	1/2"	1/4"-28	1/8"
02-730-4	9/16"	1/4"-28	1/8"
02-730-5	5/8"	1/4"-28	1/8"
02-730-6A	11/16"	3/8"-24	3/16"
02-730-6B	11/16"	7/16"-20	3/16"
02-730-7A	3/4"	3/8"-24	3/16"
02-730-7B	3/4"	7/16"-20	3/16"
02-730-8A	13/16"	3/8"-24	3/16"
02-730-8B	13/16"	7/16"-20	3/16"
02-730-9A	7/8"	3/8"-24	3/16"
02-730-9B	7/8"	7/16"-20	3/16"
02-730-10A	15/16"	3/8"-24	3/16"
02-730-10B	15/16"	7/16"-20	3/16"
02-730-11A	1"	3/8"-24	3/16"
02-730-11B	1"	7/16"-20	3/16"
02-730-12A	1-1/8"	3/8"-24	3/16"
02-730-12B	1-1/8"	7/16"-20	3/16"
02-730-13A	1-1/4"	3/8"-24	3/16"
02-730-13B	1-1/4"	7/16"-20	3/16"

### Counterbore Extension

*Great For Limited Access Areas*



Part Number	Shank	Shank Cap.	Overall Length
02-275-EX	1/4"	1/4"	4" (102 mm)

### Interchangeable Pilot Aircraft Counterbore Kits

#### 16 Piece Short Series Kit:

Five Counterbores (1/4", 5/16", 3/8", 7/16" & 1/2"), Eight Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4" & 5/16"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-29	53-29CT	Complete 16 PC Kit

#### 40 Piece Short Series Kit:

Thirteen Counterbores (1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" & 1"), Twenty Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4", 9/32" & 5/16" - 3/16" Shank: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32" & 1/2"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-39	53-39CT	Complete 40 PC Kit



53-29



**Interchangeable Pilot Aircraft Counterbores**

*Short Flute Type*



- Cuts a flat area around hole for bolt or nut installation.
- Precision ground OD with back taper to ensure concentricity.
- Carbide tip recommended for hardened or composite materials.

**Note:** Supplied without corner radii. Corner radii available on special request (please inq.).

1/4" Shank H.S.S.			1/4" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole	Part Number	Cutter Dia.	Pilot Hole
02-275-1	1/4"	3/32"	02-275-1C	1/4"	3/32"
02-275-2	9/32"	3/32"	02-275-2C	9/32"	3/32"
02-275-3	5/16"	3/32"	02-275-3C	5/16"	3/32"
02-275-4	11/32"	3/32"	02-275-4C	11/32"	3/32"
02-275-5	3/8"	3/32"	02-275-5C	3/8"	3/32"
02-275-6	13/32"	1/8"	02-275-6C	13/32"	1/8"
02-275-7	7/16"	1/8"	02-275-7C	7/16"	1/8"
02-275-8	15/32"	1/8"	02-275-8C	15/32"	1/8"
02-275-9	1/2"	1/8"	02-275-9C	1/2"	1/8"
02-275-10	17/32"	1/8"	02-275-10C	17/32"	1/8"
02-275-11	9/16"	1/8"	02-275-11C	9/16"	1/8"
02-275-12	19/32"	1/8"	02-275-12C	19/32"	1/8"
02-275-13	5/8"	1/8"	02-275-13C	5/8"	1/8"
02-275-14	21/32"	3/16"	02-275-14C	21/32"	3/16"
02-275-15	11/16"	3/16"	02-275-15C	11/16"	3/16"
02-275-16	23/32"	3/16"	02-275-16C	23/32"	3/16"
02-275-17	3/4"	3/16"	02-275-17C	3/4"	3/16"
02-275-18	25/32"	3/16"	02-275-18C	25/32"	3/16"
02-275-19	13/16"	3/16"	02-275-19C	13/16"	3/16"
02-275-20	27/32"	3/16"	02-275-20C	27/32"	3/16"
02-275-21	7/8"	3/16"	02-275-21C	7/8"	3/16"
02-275-22	29/32"	3/16"	02-275-22C	29/32"	3/16"
02-275-23	15/16"	3/16"	02-275-23C	15/16"	3/16"
02-275-24	31/32"	3/16"	02-275-24C	31/32"	3/16"
02-275-25	1"	3/16"	02-275-25C	1"	3/16"

3/8" Shank H.S.S.			3/8" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole	Part Number	Cutter Dia.	Pilot Hole
02-275-26	1-1/16"	3/16"	02-275-26C	1-1/16"	3/16"
02-275-27	1-1/8"	3/16"	02-275-27C	1-1/8"	3/16"
02-275-28	1-3/16"	3/16"	02-275-28C	1-3/16"	3/16"
02-275-29	1-1/4"	3/16"	02-275-29C	1-1/4"	1/4"
02-275-30	1-5/16"	3/16"	02-275-30C	1-5/16"	1/4"
02-275-31	1-3/8"	3/16"	02-275-31C	1-3/8"	1/4"
02-275-31B	1-7/16"	3/16"	02-275-31BC	1-7/16"	1/4"
02-275-32	1-1/2"	3/16"	02-275-32C	1-1/2"	1/4"

**Aircraft Counterbore Pilots**



- Made from precision ground, finest quality tool steel.
- Fits most standard aircraft counterbores.
- Can also be used with threaded shank stop counterbores (shown on previous page).

3/32" Shank		3/16" Shank	
Part Number	Head Dia.	Part Number	Head Dia.
02-276-1	3/32"	02-276-5C	3/16"
02-276-2	1/8"	02-276-6C	#10
02-276-3	5/32"	02-276-7C	7/32"
02-276-4	#20	02-276-8C	1/4"
02-276-5	3/16"	02-276-9C	F
02-276-6	#10	02-276-10C	9/32"
02-276-7	7/32"	02-276-11C	5/16"
02-276-8	1/4"	02-276-12C	11/32"
02-276-9	F	02-276-13C	3/8"

1/8" Shank	
Part Number	Head Dia.
02-276-2A	1/8"
02-276-3A	5/32"
02-276-4A	#20
02-276-5A	3/16"
02-276-6A	#10
02-276-7A	7/32"
02-276-8A	1/4"
02-276-9A	F
02-276-10A	9/32"
02-276-11A	5/16"

5/32" Shank	
Part Number	Head Dia.
02-276-3B	5/32"
02-276-4B	#20
02-276-5B	3/16"
02-276-6B	#10
02-276-7B	7/32"
02-276-8B	1/4"
02-276-9B	F
02-276-10B	9/32"
02-276-11B	5/16"
02-276-12B	11/32"
02-276-13B	3/8"
02-276-14B	13/32"
02-276-15B	7/16"
02-276-16B	15/32"
02-276-17B	1/2"

1/4" Shank	
Part Number	Head Dia.
02-276-8D	1/4"
02-276-9D	F
02-276-10D	9/32"
02-276-11D	5/16"
02-276-12D	11/32"
02-276-13D	3/8"
02-276-14D	13/32"
02-276-15D	7/16"
02-276-16D	15/32"
02-276-17D	1/2"
02-276-18D	17/32"
02-276-19D	9/16"
02-276-20D	19/32"
02-276-21D	5/8"
02-276-22D	21/32"
02-276-23D	11/16"
02-276-24D	23/32"

## PUNCH & CUTTING TOOLS

### 4-Flute Back Countersink Cutters

- Precision ground with 100° cutting angle.
- For restricted areas where conventional countersinks cannot be utilized.



H.S.S.	Solid Carbide	Cutter Dia.	Pilot Hole
02-290-1	02-290-1C	1/4"	3/32"
02-290-1B	02-290-1BC	1/4"	1/8"
02-A208-2J	02-A208-2JC	5/16"	3/32"
02-290-2	02-290-2C	5/16"	1/8"
02-290-2B	02-290-2BC	5/16"	5/32"
02-A208-3J	02-A208-3JC	3/8"	1/8"
02-290-3	02-290-3C	3/8"	5/32"
02-290-3B	02-290-3BC	3/8"	3/16"
02-A208-4J	02-A208-4JC	7/16"	1/8"
02-290-4	02-290-4C	7/16"	5/32"
02-290-4B	02-290-4BC	7/16"	3/16"
02-A208-5J	02-A208-5JC	1/2"	5/32"
02-290-5	02-290-5C	1/2"	3/16"
02-290-5B	02-290-5BC	1/2"	1/4"
02-A208-6J	02-A208-6JC	9/16"	5/32"
02-290-6	02-290-6C	9/16"	3/16"
02-290-6B	02-290-6BC	9/16"	1/4"
02-A208-7J	02-A208-7JC	5/8"	3/16"
02-290-7	02-290-7C	5/8"	1/4"
02-290-7B	02-290-7BC	5/8"	5/16"
02-290-8	02-290-8C	11/16"	1/4"
02-290-8B	02-290-8BC	11/16"	5/16"
02-290-9	02-290-9C	3/4"	1/4"
02-290-9B	02-290-9BC	3/4"	3/8"
02-290-10	02-290-10C	7/8"	5/16"
02-290-10B	02-290-10BC	7/8"	3/8"
02-290-11	02-290-11C	1"	5/16"
02-290-11B	02-290-11BC	1"	1/2"
02-290-12	02-290-12X*	1-1/4"	3/8"
02-290-12B	02-290-12BX*	1-1/4"	1/2"

\*These models carbide tipped, not solid carbide.

### 4-Flute Back Spotfacers

- Precision ground.
- For restricted areas where conventional spotfacers cannot be utilized.

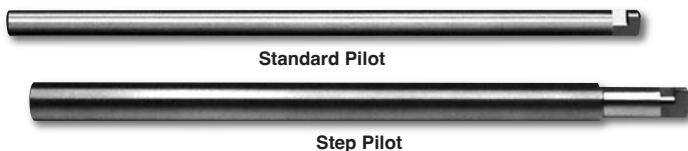


Note: Corner radii: H.S.S. 1/32", Solid Carbide 1/64".

H.S.S.	Solid Carbide	Cutter Dia.	Pilot Hole
02-280-1	02-280-1C	1/4"	3/32"
02-280-1B	02-280-1BC	1/4"	1/8"
02-280-2	02-280-2C	5/16"	1/8"
02-280-2B	02-280-2BC	5/16"	5/32"
02-280-3	02-280-3C	3/8"	5/32"
02-280-3B	02-280-3BC	3/8"	3/16"
02-280-4	02-280-4C	7/16"	5/32"
02-280-4B	02-280-4BC	7/16"	3/16"
02-280-5	02-280-5C	1/2"	3/16"
02-280-5B	02-280-5BC	1/2"	1/4"
02-280-6J	02-280-6JC	9/16"	5/32"
02-280-6	02-280-6C	9/16"	3/16"
02-280-6B	02-280-6BC	9/16"	1/4"
02-280-7	02-280-7C	5/8"	1/4"
02-280-7B	02-280-7BC	5/8"	5/16"
02-280-8	02-280-8C	11/16"	1/4"
02-280-8B	02-280-8BC	11/16"	5/16"
02-280-9	02-280-9C	3/4"	5/16"
02-280-9B	02-280-9BC	3/4"	3/8"
02-280-10	02-280-10C	7/8"	5/16"
02-280-10B	02-280-10BC	7/8"	3/8"
02-280-11	02-280-11C	1"	5/16"
02-280-11B	02-280-11BC	1"	1/2"
02-280-12	02-280-12X*	1-1/8"	1/2"
02-280-12B	02-280-12BX*	1-1/4"	3/8"
02-280-13	02-280-13X*	1-3/8"	5/8"
02-280-13B	02-280-13BX*	1-1/2"	5/8"
02-280-14	02-280-14X*	1-3/4"	3/4"
02-280-14B	02-280-14BX*	1-7/8"	3/4"
02-280-15	02-280-15X*	2"	3/4"

\*These models carbide tipped, not solid carbide.

### Back Countersink & Back Spotfacer Pilots



Standard Pilot

Step Pilot

- Interchangeable with back countersink & back spotfacer cutters.
- Standard pilots are 6" overall length.
- Units with double drive bayonet lock are 8" overall length.
- Selection continues on next page.

Standard Pilots		Standard Pilots	
Part Number	Pilot Diameter	Part Number	Pilot Diameter
02-285-1	3/32"	02-285-6	5/16"
02-285-2	1/8"	02-285-7	3/8"
02-285-3	5/32"	02-285-8	1/2"
02-285-4	3/16"	02-285-9*	5/8"
02-285-5	1/4"	02-285-10*	3/4"

\*These models furnished with double drive bayonet lock.

## Back Countersink & Spotfacer Pilots (cont'd)

Step Pilots		
Part Number	Pilot Diameter	Step Diameter
02-2855-1	3/32"	1/8"
02-2855-2	1/8"	5/32"
02-2855-3	5/32"	3/16"
02-2855-4	3/16"	1/4"
02-2855-5	1/4"	5/16"
02-2855-6	5/32"	3/16"
02-2855-7	3/16"	1/4"
02-2855-8	1/4"	5/16"
02-2855-9	5/16"	3/8"
02-2855-10	3/8"	1/2"
02-2855-11	1/2"	9/16"
02-2855-12	1/4"	5/16"
02-2855-13	5/16"	3/8"
02-2855-14	3/8"	1/2"
02-2855-17	1/2"	9/16"
02-2855-20*	5/8"	3/4"
02-2855-21*	5/8"	7/8"
02-2855-22*	3/4"	7/8"
02-2855-23*	3/4"	1"
02-2855-24*	3/4"	1-1/4"

\*These models furnished with double drive bayonet lock.

## Back Countersink & Back Spotfacer Kits



53-590S

- Precision ground with correct 100° cutting angle.
- Carbide kits for use with steel, inconel & composite materials.

### Includes:

Six Pilots (3/32", 1/8", 5/32", 3/16", 1/4" & 5/16"), Seven 100° Cutters (1/4", 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8") & Plastic Case

14 PC Back Countersink Kits		14 PC Back Spotfacer Kits	
H.S.S.	Solid Carbide	H.S.S.	Solid Carbide
53-590TA	53-590TAC	53-590S	53-590SC

## Fine & Coarse Tooth Hole Saws

### Fine Tooth

For use with aluminum, sheet steel & plastics.

### Coarse Tooth

For use with thicker materials - deep teeth allow proper chip flow.



Part Number (prefix)	Description
49-500	Fine Tooth
49-501	Coarse Tooth

**Note:** Select the type saw (chart above), then add the diameter number (chart below).  
**Example:** For fine tooth with a 3/8" diameter, the part number would be 49-500-1.

Suffix	Diameter*	Suffix	Diameter*
1	3/8" (9.5 mm)	24	1-3/16" (30 mm)
2	13/32" (10.3 mm)	25	1-1/4" (32 mm)
3	7/16" (11 mm)	26	1-5/16" (33 mm)
4	15/32" (11.8 mm)	27	1-3/8" (35 mm)
5	1/2" (12.8 mm)	28	1-7/16" (36 mm)
6	17/32" (13.5 mm)	29	1-1/2" (38 mm)
7	9/16" (14.2 mm)	30	1-9/16" (40 mm)
8	19/32" (15 mm)	31	1-5/8" (41 mm)
9	5/8" (15.8 mm)	32	1-11/16" (43 mm)
10	21/32" (16.6 mm)	33	1-3/4" (44 mm)
11	11/16" (17.4 mm)	34	1-13/16" (46 mm)
12	23/32" (18.2 mm)	35	1-7/8" (47.5 mm)
13	3/4" (19 mm)	36	1-15/16" (49 mm)
14	25/32" (19.8 mm)	37	2" (51 mm)
15	13/16" (20.6 mm)	38	2-1/8" (54 mm)
16	27/32" (21.4 mm)	39	2-1/4" (57 mm)
17	7/8" (22.2 mm)	40	2-3/8" (60 mm)
18	29/32" (23 mm)	41	2-1/2" (64 mm)
19	15/16" (23.7 mm)	42	2-5/8" (67 mm)
20	31/32" (24.5 mm)	43	2-3/4" (70 mm)
21	1" (25 mm)	44	2-7/8" (73 mm)
22	1-1/16" (27 mm)	45	3" (76 mm)
23	1-1/8" (29 mm)		

\*3/8" to 1-1/4" diameter is 5/16"-24 thread, 1-5/16" to 3" diameter is 1/2"-20 thread.

## Hole Saw Arbors

*Precision Ground To Ensure Concentricity*



49-502-1

1/4" Shank, 5/16"-24 Thread		1/2" Shank, 1/2"-20 Thread	
Part Number	Pilot Diameter	Part Number	Pilot Diameter
49-502-1	3/16"	49-502-3	1/4"
49-502-2	1/4"	49-502-4	3/8"



## PUNCH & CUTTING TOOLS

### Blair® 'Blaircutter' Hole Cutter Kit

- Accurate, burr-free holes in materials up to 3/16" thick.
- Spring loaded arbor pilot pops the slug from the cutter.

02-13218

*Made In  
The USA*



#### Complete Kit Includes:

Arbor, Three Extra Pilots, Seven Cutters (1/4", 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8") & Carrying Case

Part Number	Material Capacity	Arbor Shank
02-13218	3/16"	1/4"

#### Replacement Cutters (sold in packs of 3)

1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
13200	13202	13204	13206	13208	13210	13212

### Blair® 'Rotabroach' Large Dia. Hole Cutter Kit

*Made In  
The USA*



*Precise,  
Burr-Free  
Holes*

02-11091

- Precision ground teeth will cut everything from plastic to stainless.
- For precision holmaking in sheet metal, frame materials, and plate stock up to 1/2" thick without chip clogging.

#### Complete Kit Includes:

Arbor, Hex Washer, Center Punch, Extra Pilot, Six Cutters (7/8", 1", 1-1/8", 1-1/4", 1-3/8" & 1-1/2") & Carrying Case

Part Number	Material Capacity	Arbor Shank
02-11091	1/2"	1/2"

#### Replacement Cutters (sold individually)

7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"
11340	11348	11356	11364	11366	11368

### Blair® Auto & Fabricator Hole Cutter Kit

*Great For  
Sheet Metal*

02-14006



*Made In  
The USA*

- Precision ground & hardened M2 high speed steel teeth.
- Produce large holes 3X faster and cleaner than regular hole saws.

#### Complete Kit Includes:

Arbor, Hex Washer, Center Punch, Extra Pilot, Six Cutters (7/8", 1-1/8", 1-3/8", 1-3/4", 2" & 2-1/2") & Carrying Case

Part Number	Material Capacity	Arbor Shank
02-14006	1/8"	3/8"

#### Replacement Cutters (sold individually)

7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"	1-3/4"	2"	2-1/2"
14628	14632	14636	14640	14644	14648	14656	14662	14674

### Hougen® Heavy-Duty Hole Cutter Kit

*Can Be  
Mounted  
On Air Feed  
Drill Units*

02-11075



#### Complete Kit Includes:

Arbor With Spring Loaded Retractable Pilot, Extra Pilot, Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Center Punch, Allen Wrench, Stop Washers & Carrying Case

Part Number	Material Capacity	Arbor Shank
02-11075	1/4"	3/8"

#### Replacement Cutters (sold in packs of 3)

1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"
11100	11104	11108	11112	11116	11120	11124	11132

**BAHCO® Hole Saw Sets**



**Thirteen Piece Set Includes:**

862013

Nine Hole Saws (3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4" & 2-1/2"), Two Arbors & Adaptor (fits 9/16" to 1-3/16" and 1-1/4" to 6" hole saws), Pilot Drill & Fitted Plastic Case

Part Number	Description
862013	12PC Set

**Hole Cutter**

*20 Gauge  
Sheet Metal  
Capacity*

61-13551



*Lightweight  
Aluminum Frame*

- Use with any standard 1/4" drill (tool includes drill bit & allen key).
- Patented shoe feature permits smooth finishing of holes.

Part Number	Hole Cutting Range	Replacement Bit
61-13551	2" to 12" (5.1 to 30.5 cm)	02-13548
61-14551	2" to 20" (5.1 to 50.8 cm)	

**Allpax® Gasket Cutter Kits**

*Hardened Steel  
Cutting Heads*

AX1301



- Quickly punch precision bolt holes in flange gaskets.
- Patented locking system allows rapid change of cutting heads.
- Unique design punches single dia. holes (bolt holes) as well as dual diameter rings (washers) in one operation.

Part Number	Description	Hole Sizes	Weight
AX1301	16 PC Imperial Kit	1/8" to 1-3/16"	2.5 lbs (1.1 kgs)
AX1351	16 PC Metric Kit	3 mm to 30 mm	1.1 lbs (0.5 kgs)

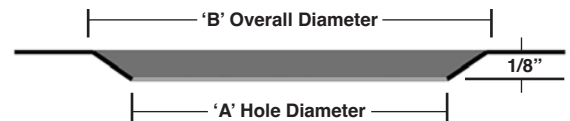
**Aircraft Punch & Flare Dies**

*Simple, Fast  
& Accurate*



61-250

- Designed to punch the required hole size and follow with a 35-degree straight angle (leg depth of 1/8").
- Hand or arbor press operation in aluminum up to 14 ga (0.064"), mild steel up to 16 ga (0.059") and stainless up to 19 ga (0.040").
- Just drill a pilot hole for the draw bolt, then apply the tool and tighten with a wrench for a perfectly smooth, flared hole.



Part Number	'A' Hole Diameter	'B' Overall Diameter
61-100	1"	2"
61-125	1-1/4"	2-1/4"
61-150	1-1/2"	2-1/2"
61-175	1-3/4"	2-3/4"
61-200	2"	3"
61-225	2-1/4"	3-1/4"
61-250	2-1/2"	3-1/2"
61-275	2-3/4"	3-3/4"
61-300	3"	4"
61-312	3-1/8"	4-1/8"
61-325	3-1/4"	4-1/4"
61-350	3-1/2"	4-1/2"
61-375	3-3/4"	4-3/4"
61-400	4"	5"
61-500	5"	6"
61-600	6"	7"

**Note:** Special shapes/sizes available on request, please inquire.



53-81551

Aircraft Punch & Flare Kits		
Part Number	Description	Hole Range
53-81551	6 PC Kit	1" to 2-1/2" Dia. (does not include 2-1/4")
53-81661	9 PC Kit	1" to 3" Diameter
53-81991	13 PC Kit	1" to 4" Dia. (does not include 3-1/8")

## PUNCH & CUTTING TOOLS

### Hand Metal Punch Kit



04-5

1-3/4"  
Throat

#### Standard Metal Punch Kit:

Hand Metal Punch, Seven Punch & Die Sets (3/32", 1/8", 5/32", 3/16", 7/32", 1/4" & 9/32") & Foam Fitted Plastic Case

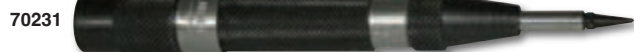
Part Number	Description
04-5	Complete Kit
04-5S	Complete Kit (economy model)
04-5K	Bench Mounting Base

Replacement Punch & Die Sets	
Part Number	Size
38-098	#40
38-129	#30
38-159	#21
38-194	#10
38-5094	3/32"
38-5125	1/8"

Replacement Punch & Die Sets	
Part Number	Size
38-5156	5/32"
38-5188	3/16"
38-5219	7/32"
38-5250	1/4"
38-2812	9/32"

Note: Other punch/dies available, please inq.

### Automatic Center Punches



70231



70440

- Spring-loaded operation is adjustable for light or heavy strokes.
- Ground & hardened replaceable point.

Part Number	Body Type	Overall Length
70231	Steel	5" (127 mm)
70440	Aluminum	5" (127 mm)

### Deep Throat Hand Metal Punch Kit



04-2222

Will Also Punch  
Channels Up To  
1-3/8" Deep

3-1/4"  
Throat

#### Deep Throat Metal Punch Kit:

Hand Metal Punch, Seven Punch & Die Sets (5/32", 7/32", 9/32", 11/32", 13/32", 15/32" & 17/32") & Foam Fitted Plastic Case

Part Number	Description
04-2222	Complete Kit
04-2222K	Bench Mounting Base

#### Replacement Punch & Die Sets

Part Number	Size
38-6094	3/32"
38-6125	1/8"
38-6156	5/32"
38-6188	3/16"
38-6219	7/32"
38-6250	1/4"

#### Replacement Punch & Die Sets

Part Number	Size
38-6281	9/32"
38-6344	11/32"
38-6406	13/32"
38-6469	15/32"
38-6531	17/32"

Note: Other punch/dies available, please inq.

### NOXON® Combo Prick Punch & Center Punch



- Prick punch creates slight indentations for precision marking.
- Center punch creates deep indentations for pilot holes.

Part Number	Weight	Overall Length
70234	1.7 oz (48.2 g)	5-1/4" (133 mm)

### Pocket Automatic Center Punch



- Slim design.
- Adjustable for light or heavy strokes.

Part Number	Description
61-860	Tool with Centering Point



## SPI® Fine Optical Center Punch

*High Accuracy  
Center Punching  
Made Simple*



*Includes  
Fitted Case*

- 9X magnification spotting lens with center dot and circle.
- Solid, precision guide base with scratch protection.
- Ground center punch made of hardened tool steel.

Part Number	Accuracy
14517	0.002"

## Hand Punch Sets



61-14085



61-14086



61-14087

- Hardened & tempered tool steel with ground points of 45-52 Rc.
- Knurled punch body for better grip.
- Includes fitted case with clear size markings.

5 PC Center Punch Set, 4" Overall Length	
Part Number	Point Sizes Included
61-14085	1/16", 5/64", 3/32", 9/64" & 5/32"

8 PC Drive Pin Set, 4" Overall Length	
Part Number	Point Sizes Included
61-14086	1/16", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4" & 5/16"

5 PC Extra Long Drive Pin Set, 8" Overall Length	
Part Number	Point Sizes Included
61-14087	1/8", 3/16", 1/4", 5/16" & 3/8"

## Round Shank Center Punches



- Points are ground to size for maximum strength & penetration.
- Knurled hand grip stamped with size for quick identification.

Part Number	Punch Diameter	Overall Length
61-74AA	1/16"	3-1/16" (78 mm)
61-74A	5/64"	3-19/32" (91 mm)
61-74B	3/32"	3-7/8" (98 mm)
61-74C	9/64"	4" (102 mm)
61-74D	5/32"	4" (102 mm)

## Drive Pin Hand Punches

*Knurled  
Hand  
Grips*



- Durable tool steel uniformly heat treated & centerless ground.
- Ends are ground square for accurate pin driving.

Standard, 4" (102 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-75A	1/16"	3/4" (19 mm)
61-75B	3/32"	
61-75C	1/8"	
61-75D	5/32"	
61-75E	3/16"	1" (25 mm)
61-75F	7/32"	
61-75G	1/4"	
61-75H	5/16"	



## Extra Long Drive Pin Punches

- For use on work not accessible with shorter punches.
- Conforms to government spec GGG-P-831E.

Extra Long, 8" (203 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-76A	1/8"	3-1/2" (89 mm)
61-76B	3/16"	
61-76C	1/4"	
61-76D	5/16"	
61-76E	3/8"	

## PUNCH & CUTTING TOOLS

### Duplicating Punches

#### Tight Tolerance Hole Duplication



AT507-10

- Accurately center punch hole location from one sheet to another.
- Manufactured from heat-treated, oil hardened drill rod.

Part Number	Punch Size	Overall Length
AT507-1	3/32"	3-1/2" (89 mm)
AT507-2	#40	3-1/2" (89 mm)
AT507-3	1/8"	3-1/2" (89 mm)
AT507-4	#30	3-1/2" (89 mm)
AT507-10	1/4"	3-1/2" (89 mm)
AT507-11	5/16"	3-1/2" (89 mm)



AT507KT

#### Duplicating Punch Kit:

Fourteen Punches (3/32", #40, 1/8", #30, 5/32", #19, 3/16", #10, 7/32", 1/4", 5/16", 3/8", 7/16" & 1/2") & Fitted Plastic Case

Part Number	Description
AT507KT	Complete 15 PC Kit

### Transfer Punch Sets

#### Includes Indexed Stand

- Heat-treated & tempered tool steel construction.
- Transfer punches available individually, please inquire.
- Punches are 4-7/8" O.A.L.



61-50728

Part Number	Type	Point Sizes Included
61-50728	28 PC Fractional	3/32" to 1/2" (x 64ths) & 17/32"
61-50733	33 PC Fractional	1/2" to 1" (x 64ths)
61-50725	25 PC Metric	1.0 to 13.0 mm (x .5 mm)
61-50726	26 PC Letter	A to Z
61-50760	60 PC Wire Gauge	#1 to #60

### Blind Hole Spotter Set Kits

- A fast and easy way to locate opposite centers.
- Six of each size packed in individual plastic tubes.
- Includes sturdy steel storage case.

61-18108



Part Number	Description	Sizes Included
61-18108	108 PC Set	1/8" to 21/32" (x 32nds)
61-1111	66 PC Set	11/16" to 1" (x 32nds)

### Comfort Grip Punch & Chisel Holder



#### Handle Resistant To Solvents, Gas & Oil

- Keeps your hands safely away from striking tool.
- Adjustable screw allows use with most punches and chisels.

Part Number	Capacity
28449	0 to 1-1/2" (0 to 38 mm)

### NOXON® Chisel & Punch Rivet Removal Set



#### 3500 PSI Driving Force



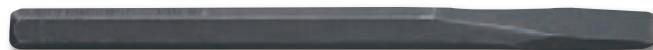
- Hammerless spring design is great for use in tight areas.
- Use the 5/16" cold chisel to shear protruding steel or aluminum rivets without damaging surface material.
- Use the H.S.S. center punch to easily remove mandrel.
- Center punch designed to mark most hardened materials.

Part Number	Description
ACRR02	5/16" Cold Chisel & H.S.S. Center Punch

### Cold Chisels

#### Heavy-Duty Industrial Grade

70746



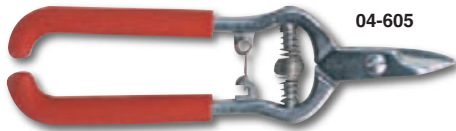
- For cutting, shaping and removing metal softer than the cutting edge of the chisel.
- Works great with the punch & chisel holder shown above.

Part Number	Stock Size	Blade Width	Overall Length
70746	7/16"	1/2"	6" (15.2 cm)
70747	7/8"	1"	8" (20.3 cm)

## Kevlar Fabric Hand Shears & Scissors



Part Number	Type	Cut Length	Overall Length
04-468	Knife Edge	2-3/4"	8-1/4" (210 mm)



Part Number	Type	Cut Length	Overall Length
04-605	Trim Snip	3/4"	5" (127 mm)



Part Number	Type	Cut Length	Overall Length
04-330	Serrated	4-1/2"	10" (254 mm)

Note: For cordless electric kevlar scissors see page 233.

## Diamond Plated Integral Pilot Countersinks



1/4"-28 Thread - 100° Cutter Angle		
Part Number	Outside Diameter	Overall Length
02-38C	3/8" (10 mm)	1" (25 mm)
02-50C	1/2" (13 mm)	1" (25 mm)
02-62C	5/8" (16 mm)	1" (25 mm)

1/4"-28 Thread - 130° Cutter Angle		
Part Number	Outside Diameter	Overall Length
02-38D	3/8" (10 mm)	1" (25 mm)
02-50D	1/2" (13 mm)	1" (25 mm)
02-62D	5/8" (16 mm)	1" (25 mm)

Note: Select a base part number for the required cutter (charts above), add a pilot diameter, grit (chart below), and number of slots (0, 2 or 3).

Example: For a 100°, 1/2" diameter cutter with a 5/32" pilot, 40/60 grit and two slots the part number would be 02-50C-5/32-B-2.

Available Grits				
30/40	40/60	60/80	120/140	220/270
A	B	C	D	E

## Solid Carbide Brad Point Drills



- Specifically designed for drilling graphite and aramid fiber (KEVLAR®) reinforced composite materials.
- Specially modified tip keeps fibers in tension while cutting in shear eliminating delamination for a more precise hole.
- Other sizes available, please inquire.

Solid Carbide				
Part Number	Size	Decimal	Flute	O.A.L.
02-AWD-3/32	3/32"	0.0938"	1/2"	1-3/4" (45 mm)
02-AWD-40	#40	0.0980"	1/2"	1-13/16" (46 mm)
02-AWD-1/8	1/8"	0.1250"	5/8"	1-7/8" (48 mm)
02-AWD-5/32	5/32"	0.1562"	3/4"	2-1/16" (52 mm)
02-AWD-21	#21	0.1590"	7/8"	2-1/8" (54 mm)
02-AWD-3/16	3/16"	0.1875"	15/16"	2-3/16" (56 mm)
02-AWD-10	#10	0.1935"	1"	2-1/4" (57 mm)
02-AWD-7/32	7/32"	0.2188"	1-1/16"	2-3/8" (60 mm)
02-AWD-1/4	1/4"	0.2500"	1-1/4"	2-1/2" (64 mm)
02-AWD-5/16	5/16"	0.3125"	1-1/2"	2-13/16" (71 mm)
02-AWD-3/8	3/8"	0.3750"	1-5/8"	3-1/8" (79 mm)

## Solid Carbide Tapered Reamer Drills



- Four flute, tapered tip design is excellent for drilling fiberglass and carbon graphite materials.
- Other lengths available, please inquire.

Solid Carbide - 6" O.A.L.			Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal	Part Number	Size	Decimal
02-GDRS-40	#40	0.0980"	02-GDRS-3/16	3/16"	0.1875"
02-GDRS-1/8	1/8"	0.1250"	02-GDRS-10	#10	0.1935"
02-GDRS-30	#30	0.1285"	02-GDRS-8	#8	0.1990"
02-GDRS-5/32	5/32"	0.1562"	02-GDRS-1/4	1/4"	0.2500"
02-GDRS-21	#21	0.1590"	02-GDRS-5/16	5/16"	0.3125"
02-GDRS-20	#20	0.1610"			

## Solid Carbide Dagger Drills



- Drill holes in graphite materials (including graphite-aluminum) up to 1/4" thick without delamination.
- Other lengths available, please inquire.

Solid Carbide - 6" O.A.L.			Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal	Part Number	Size	Decimal
02-GDDS-098	#40	0.0980"	02-GDDS-187	3/16"	0.1875"
02-GDDS-128	#30	0.1285"	02-GDDS-193	#10	0.1935"
02-GDDS-159	#21	0.1590"	02-GDDS-250	1/4"	0.2500"



## COMPOSITE CUTTING TOOLS

### General Purpose Diamond Plated Twist Drills



Perfect for drilling graphite epoxy, carbon, boron and fiberglass.

**Note:** Diamond plate length: 3/16" to 1/4". Other sizes available, please inquire.

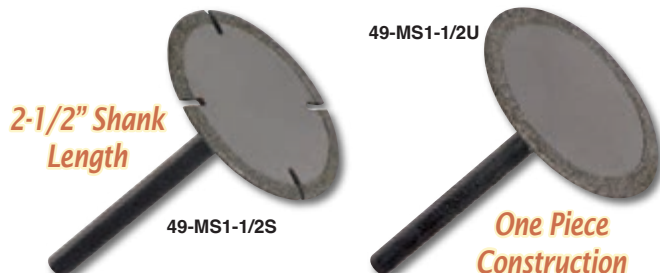
40/60 Grit - Jobber's Length		40/60 Grit - Jobber's Length	
Part Number	Head Dia.	Part Number	Head Dia.
49-TD1	1/8" (3.2 mm)	49-TD6	5/8" (16 mm)
49-TD2	1/4" (6.35 mm)	49-TD7	3/4" (19 mm)
49-TD3	3/8" (10 mm)	49-TD8	7/8" (22 mm)
49-TD4	7/16" (11 mm)	49-TD9	1" (25 mm)
49-TD5	1/2" (13 mm)		

### Diamond Plated Jigsaw Blades



Part Number	Fits Jig Saws	Overall Length
49-300	Black & Decker & Competitive	3" (76 mm)
49-301	Rockwell Bayonet	3" (76 mm)
49-302	Bosch Style	3" (76 mm)
49-303	Rockwell Tiger & Competitive	4" (102 mm)
49-304	Black & Decker & Competitive	4" (102 mm)
49-305	Bosch Style	4" (102 mm)

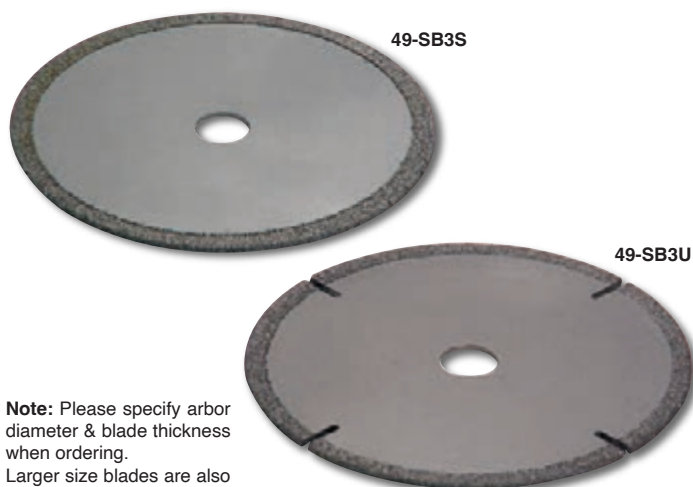
### Mounted Diamond Plated Saw Blades



**Note:** Please specify shank diameter & blade thickness when ordering.  
Larger size blades are also available, please inquire.

Mounted 40/60 Grit - 1/8" Return			
Part Number Slotted	Part Number Unslotted	Outside Diameter	Plated Thickness (Kerf)
49-MS3/4S	49-MS3/4U	3/4" (19 mm)	.080" to .100"
49-MS1S	49-MS1U	1" (25 mm)	
49-MS1-1/4S	49-MS1-1/4U	1-1/4" (32 mm)	
49-MS1-1/2S	49-MS1-1/2U	1-1/2" (38 mm)	
49-MS2S	49-MS2U	2" (51 mm)	
49-MS2-1/2S	49-MS2-1/2U	2-1/2" (64 mm)	
49-MS3S	49-MS3U	3" (76 mm)	
49-MS3-1/2S	49-MS3-1/2U	3-1/2" (89 mm)	.102" to .130"
49-MS4S	49-MS4U	4" (102 mm)	
49-MS4-1/2S	49-MS4-1/2U	4-1/2" (114 mm)	.130" to .150"
49-MS5S	49-MS5U	5" (127 mm)	
49-MS6S	49-MS6U	6" (152 mm)	

### Arbor Mount Diamond Plated Saw Blades



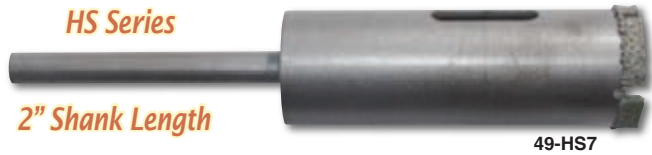
**Note:** Please specify arbor diameter & blade thickness when ordering.  
Larger size blades are also available, please inquire.

Arbor Mounted 40/60 Grit - 1/8" Return			
Part Number Slotted	Part Number Unslotted	Outside Diameter	Plated Thickness (Kerf)
49-SB1S	49-SB1U	1" (25 mm)	.060" to .080"
49-SB1-1/2S	49-SB1-1/2U	1-1/2" (38 mm)	
49-SB2S	49-SB2U	2" (51 mm)	
49-SB2-1/2S	49-SB2-1/2U	2-1/2" (64 mm)	
49-SB3S	49-SB3U	3" (76 mm)	
49-SB3-1/2S	49-SB3-1/2U	3-1/2" (89 mm)	
49-SB4S	49-SB4U	4" (102 mm)	
49-SB5S	49-SB5U	5" (127 mm)	.090" to .110"
49-SB6S	49-SB6U	6" (152 mm)	
49-SB7S	49-SB7U	7" (178 mm)	
49-SB8S	49-SB8U	8" (203 mm)	
49-SB10S	49-SB10U	10" (25.4 cm)	



For USATCO's Pro Composite Tool Kit See Page 67

## Diamond Plated Integral Shank Hole Saws



2" drilling depth (inside depth). Furnished with windows & slots.

**Note:** Larger sizes are available, please inquire.

40/60 Grit - 1/8" Return		40/60 Grit - 1/8" Return	
Part Number	Head Dia.	Part Number	Head Dia.
49-HS5	1/2" (13 mm)	49-HS12	2" (51 mm)
49-HS6	3/4" (19 mm)	49-HS13	2-1/4" (57 mm)
49-HS7	7/8" (22 mm)	49-HS14	2-1/2" (64 mm)
49-HS8	1" (25 mm)	49-HS15	2-3/4" (70 mm)
49-HS9	1-1/4" (32 mm)	49-HS16	3" (76 mm)
49-HS10	1-1/2" (38 mm)	49-HS17	4" (102 mm)
49-HS11	1-3/4" (44 mm)	49-HS18	5" (127 mm)

## Arbor Mount Diamond Plated Hole Saws

MHS Series 49-MHS1-1/2

- MHS series, "Black & Decker" type.
- Furnished with windows & slots.
- 1-1/2" drilling depth (inside depth).
- For use with arbors shown below.



**Note:** Larger sizes are available, please inquire.

40/60 Grit - 1/8" Return		40/60 Grit - 1/8" Return	
Part Number	Head Dia.	Part Number	Head Dia.
49-MHS1/2	1/2" (13 mm)	49-MHS1-3/4	1-3/4" (44 mm)
49-MHS9/16	9/16" (14 mm)	49-MHS1-7/8	1-7/8" (48 mm)
49-MHS5/8	5/8" (16 mm)	49-MHS2	2" (51 mm)
49-MHS3/4	3/4" (19 mm)	49-MHS2-1/4	2-1/4" (57 mm)
49-MHS7/8	7/8" (22 mm)	49-MHS2-1/2	2-1/2" (64 mm)
49-MHS1	1" (25 mm)	49-MHS3	3" (76 mm)
49-MHS1-1/16	1-1/16" (27 mm)	49-MHS3-1/4	3-1/4" (83 mm)
49-MHS1-1/8	1-1/8" (29 mm)	49-MHS3-1/2	3-1/2" (89 mm)
49-MHS1-3/16	1-3/16" (30 mm)	49-MHS4	4" (102 mm)
49-MHS1-1/4	1-1/4" (32 mm)	49-MHS4-1/4	4-1/4" (108 mm)
49-MHS1-3/8	1-3/8" (35 mm)	49-MHS4-1/2	4-1/2" (114 mm)
49-MHS1-1/2	1-1/2" (38 mm)	49-MHS5	5" (127 mm)

## Diamond Plated Routers

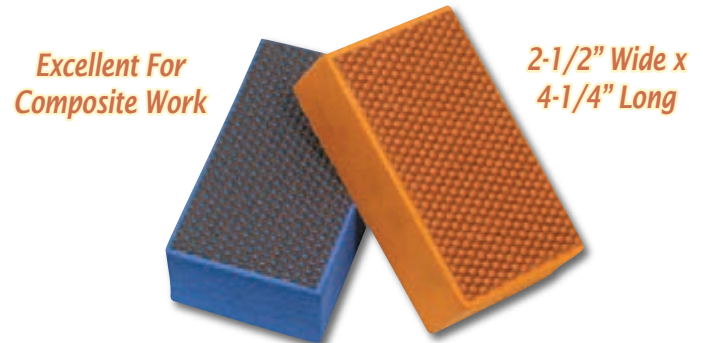


**Note:** Please specify shank diameter when ordering. On 3/4" & larger outside diameter routers, minimum shank diameter is 1/2". Larger sizes are available, please inquire.

40/60 Grit - 1/8" Outside Diameter		
Unfluted, Square End	Unfluted, Radius End	Head Length
49-R1US	49-R1UR	1/4" (6.35 mm)
49-R2US	49-R2UR	1/2" (13 mm)

40/60 Grit - 1/4" Outside Diameter				
Unfluted, Square End	Unfluted, Radius End	Fluted, Square End	Fluted, Radius End	Head Length
49-R3US	49-R3UR	49-R3FS	49-R3FR	1/4" (6.35 mm)
49-R4US	49-R4UR	49-R4FS	49-R4FR	1/2" (13 mm)
49-R5US	49-R5UR	49-R5FS	49-R5FR	3/4" (19 mm)
49-R6US	49-R6UR	49-R6FS	49-R6FR	1" (25 mm)
49-R7US	49-R7UR	49-R7FS	49-R7FR	1-1/2" (38 mm)

## Flexible Diamond Hand Sanding Pads



These diamond hand sanding pads work best when used wet.

Plated (for grinding)		Resin (for finishing)	
Part Number	Grit	Part Number	Grit
92350	70	92450	220
92351	120	92451	600
92352	220	92452	1800
92353	400	92453	3500
92354	600		

## MHS Series Hole Saw Arbors



- Setscrew body for pilot drill adjustment.
- Quick release for change of hole saws with arbor in chuck.

**Note:** Also available with pilots, please inquire.

For 1/2" To 1-3/16" Diameter Hole Saws			
Part Number	Screw Thread	Shank Size	Chuck Size
49-NA-01	1/2"-20	11/32" Hex	3/8"

For 1-1/4" To 5" Diameter Hole Saws			
Part Number	Screw Thread	Shank Size	Chuck Size
49-NA-05	5/8"-18	7/16" Hex	1/2"

## DEBURRING TOOLS

### Shaviv® Universal Deburring Kit



Versatile set includes tool for both sheet-edge cleaning and general deburring across a wide range of materials.

#### Kit Includes:

Ergonomic Tool Handle, 'Burr-Bi' Double Edge Deburr Tool with Hand Guard & Two Sets Of Wheel Blades, Four Telescoping Blade Holders, Ten Blades in Assorted Profiles, Hex Key & Fitted Case

Part Number	Description
04-22181	Complete 21 PC Kit

### Shaviv® Burr-Bi Double Edge Deburr Tool



04-22060

#### Built-In Hand Guard

- Deburrs both sides of the workpiece quick and efficiently.
- Heavy-duty, round R10 H.S.S. blades are double-sided. (side 'A' side for spiral chips, 'B' side for powdery chips)

Part Number	Material Capacity
04-22060	Up to 5/8"

Replacement Blades	
Part Number	Description
04-22065	Replacement Blade Set

### Shaviv® Deburr Tool



Ergo Handle

04-22022

- Ideal for when need to get up close to the workpiece.
- Safety lock to prevent losing blades while working.
- Includes one of all five blades shown below.

Part Number	Description
04-22022	Deburr Tool With 5 Blades

#### Heavy-Duty H.S.S. Replacement Blades (3.2 mm)

Part Number	Description
04-E-100	General purpose, for metals with spiral chips.
04-E-111	Thin pointed nose for small holes (down to 1/16").
04-E-120	Thin rounded nose for small holes. Left & right cut.
04-E-200	For powdery chips and plastic. Left & right cut.
04-E-300	For spiral chips and plastic. Dual inside & outside cut.

Note: Cobalt, TiN coated and carbide blades also available, please inquire.

### Shaviv® Aeroburr Deburring Sets



Long Lasting TiN Coated H.S.S. Blades

90110

- Perfect for deburring curves and small holes down to 1/16".
- Customized specifically for the aerospace industry.
- TiN blades offer five times the life of non-coated blades.
- For use on steel, aluminum, copper, stainless and plastics.
- Includes five blades and blade holder.

Part Number	Description
90110	7PC Standard-Duty Set
90111	7PC Heavy-Duty Set

#### TiN Coated H.S.S. Replacement Blades

Part Number	Description
04-B-11P	Standard-duty, thin pointed, 2.6 mm thick blade.
04-E-111P	Heavy-duty, thin pointed, 3.2 mm thick blade.

### Burnishing Tool



- Designed to remove blemishes & scratches in sheet metal.
- Heat-treated blade is hard chrome plated & mirror polished.

Part Number	Overall Length
04-515	6-5/8" (168 mm)



## Shaviv® Telescoping Deburr Tools



*Includes 0.78" Capacity Cutter*

04-K680

- Powerful tools excellent for both countersinking and chamfering.
- Telescoping action for chamfering in deep holes and tight spaces.

### Telescoping Ratchet Deburr Tool

- Ratchet mechanism makes countersinking trouble free.
- Great where normal rotational deburring is impossible.

Part Number	Type	Telescope Action
04-K380	Standard	1/4" to 3-1/4"
04-K680	Ratchet	

### Replacement Cutters

Part Number	Capacity
04-F-12	0.47"
04-F-20	0.78"
04-F-30	1.18"

## Shaviv® Telescoping Ratchet OD Deburr Tool



90073

*Includes 1.02" Capacity Cutter*

- Quick rotational chamfering of pipes, tubes etc. up to 1" OD.
- For use on steel, aluminum, copper, stainless and plastics.

Part Number	Description
90073	Tool w/1.02" Capacity Cutter

### Replacement Cutter

Part Number	Capacity
29147	1.02"

## Slim-Grip Disposable Burrs

*Versatile & Cost Effective*



- For use on steel & aluminum.
- Fixed heavy-duty E-100 blade.

Part Number	Overall Length
E01000	5-1/2" (140 mm)

## 'Speed Driver' Hole Deburring Tool



53-94000

- Provides rapid deburring of drilled holes with high torque.
- Shown with cutter, not included (available below).

Part Number	Description
04-94003	Speed Driver Only
53-94000	Speed Driver & 3/8" Diameter 100° Cutter



### 100° Cutters

Part Number	Diameter
02-94000	3/8"
02-94001	1/2"
02-94002	5/8"

## SPI® Fine Deburring Set



82-365-8

*Ideal For Delicate Parts*

- Six double end tools with revolving, hardened steel deburring discs.
- Comfortable knurled handle - includes plastic pouch.

### Complete 7 PC Kit

Part Number	Wheel Size Range
82-365-8	0.060" to 0.208" dia.

### Individual Tools

Part Number	Wheel Diameters
07-709-9	0.060" & 0.070"
07-710-7	0.082" & 0.092"
07-711-5	0.106" & 0.116"
07-712-3	0.134" & 0.150"
07-713-1	0.160" & 0.185"
07-714-9	0.198" & 0.208"

## DEBURRING TOOLS

### Burraway Deburring Tool Kit

- Convenient kit keeps your tools neat & organized.
- Furnished with double acting blade for burr removal on both the front & back sides of hole.
- The inexpensive, replaceable cutting blades can be adjusted to control the amount of edge break.
- Spring tensioned blade retracts automatically as it passes through the workpiece.
- Crowned & polished top surface of the blade will not mar interior of the hole.

*Includes The Most Popular Sizes With Replacement Blades*



#### Complete Kit Includes:

Five Burraway Tools with Blade (1/8", 5/32", 3/16", 7/32" & 1/4"), Five Replacement Blades (1/8", 5/32", 3/16", 7/32" & 1/4") & Fitted Plastic Case

**Note:** Individual Burraway tools & replacement blades available below.

Part Number	Description
70398	Complete 11 PC Kit

### Burraway Deburring Tools



*Adjustable  
Blade Tension*

*Easily Deburr Both  
Sides In One Pass*

- Furnished with double acting blade for burr removal on both the front & back sides of hole.
- The inexpensive, replaceable cutting blades can be adjusted to control the amount of edge break.
- Spring tensioned blade retracts automatically as it passes through the workpiece.
- Crowned & polished top surface of the blade will not mar interior of the hole.

**Note:** Many other sizes available. Carbide tipped & TiN coated replacement blades also available, please inquire.

Fractional Sizes			
Complete Tool	Extra Blade	Hole Size	Decimal Equiv.
02-938	02-938-1	3/32"	.0938"
02-109	02-109-1	7/64"	.1094"
02-125	02-125-1	1/8"	.1250"
02-156	02-156-1	5/32"	.1562"
02-187	02-187-1	3/16"	.1875"
02-218	02-218-1	7/32"	.2188"
02-250	02-250-1	1/4"	.2500"
02-281	02-281-1	9/32"	.2812"
02-312	02-312-1	5/16"	.3125"
02-343	02-343-1	11/32"	.3438"
02-375	02-375-1	3/8"	.3750"
02-406	02-406-1	13/32"	.4062"

Metric Sizes			
Complete Tool	Extra Blade	Hole Size	Decimal Equiv.
02-MA-2.0	02-MA-2.0-1	2.0 mm	.0787"
02-MA-2.5	02-MA-2.5-1	2.5 mm	.0984"
02-MA-3.0	02-MA-3.0-1	3.0 mm	.1181"
02-MA-3.5	02-MA-3.5-1	3.5 mm	.1378"
02-MA-4.0	02-MA-4.0-1	4.0 mm	.1575"
02-MA-4.5	02-MA-4.5-1	4.5 mm	.1772"
02-MA-5.0	02-MA-5.0-1	5.0 mm	.1969"
02-MB-5.5	02-MB-5.5-1	5.5 mm	.2165"
02-MB-6.0	02-MB-6.0-1	6.0 mm	.2362"
02-MB-6.5	02-MB-6.5-1	6.5 mm	.2559"
02-MB-7.0	02-MB-7.0-1	7.0 mm	.2756"
02-MB-7.5	02-MB-7.5-1	7.5 mm	.2953"

## Burr-Off® Tools

CP-12



- The original 'clothespin' tool - with its integral cutting edges it will deburr thousands of holes on both sides and can be reground for even longer tool life.
- Suited to high production, automated deburring operations.
- All sizes are 4" overall length.
- Larger sizes and other options are available, please inquire.



*Deburr Both Sides  
In One Pass*

5 PC Burr-Off Set	
Part Number	Includes
53-CP	CP-6, CP-8, CP-10, CP-12 & CP-16

Part Number	Hole Sizes	Shank Dia.
CP-6	.093" to .109"	.092"
CP-7	.109" to .125"	.139"
CP-8	.125" to .140"	.124"
CP-9	.140" to .156"	.139"
CP-10	.156" to .172"	.155"

Part Number	Hole Sizes	Shank Dia.
CP-11	.172" to .187"	.171"
CP-12	.187" to .203"	.186"
CP-13	.203" to .219"	.202"
CP-14	.219" to .234"	.218"
CP-15	.234" to .250"	.233"

Part Number	Hole Sizes	Shank Dia.
CP-16	.250" to .266"	.249"
CP-17	.266" to .281"	.265"
CP-18	.281" to .297"	.280"
CP-19	.297" to .313"	.296"
CP-20	.313" to .328"	.312"

Part Number	Hole Sizes	Shank Dia.
CP-21	.328" to .343"	.327"
CP-22	.093" to .109"	.092"
CP-23	.359" to .375"	.358"

## Piloted (Bonding) Wire Rivet Hole Brushes

- Designed to remove surface material and coatings for grounded contact points.
- Cleans paint, dirt, rust etc. from around rivet holes.

*Stainless Steel Wire*



44-6233-3/32

Brush Wire Diameter Applications	
0.005"	Fine to light surface preparation.
0.008"	Light to medium surface removal and preparation.
0.010"	Medium surface removal and preparation.
0.014"	Aggressive surface removal and preparation.

**Note:** Maximum safe free speed is 20,000 RPM. Larger diameter, reverse & threaded shank type brushes are also available, please inquire.

0.005" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6232-3/32	44-6233-3/32	3/32"
44-6231-1/8	44-6232-1/8	44-6233-1/8	1/8"
44-6231-5/32	44-6232-5/32	44-6233-5/32	5/32"
44-6231-3/16	44-6232-3/16	44-6233-3/16	3/16"
—	44-6232-1/4	44-6233-1/4	1/4"

0.010" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6272-3/32	44-6273-3/32	3/32"
44-6271-1/8	44-6272-1/8	44-6273-1/8	1/8"
44-6271-5/32	44-6272-5/32	44-6273-5/32	5/32"
44-6271-3/16	44-6272-3/16	44-6273-3/16	3/16"
—	44-6272-1/4	44-6273-1/4	1/4"

0.008" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6262-3/32	44-6263-3/32	3/32"
44-6261-1/8	44-6262-1/8	44-6263-1/8	1/8"
44-6261-5/32	44-6262-5/32	44-6263-5/32	5/32"
44-6261-3/16	44-6262-3/16	44-6263-3/16	3/16"
—	44-6262-1/4	44-6263-1/4	1/4"

0.014" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6292-3/32	44-6293-3/32	3/32"
44-6291-1/8	44-6292-1/8	44-6293-1/8	1/8"
44-6291-5/32	44-6292-5/32	44-6293-5/32	5/32"
44-6291-3/16	44-6292-3/16	44-6293-3/16	3/16"
—	44-6292-1/4	44-6293-1/4	1/4"

### 5 PC Brush Set

- Includes 5 brushes & plastic carrying case (not shown).
- 1/2" body diameter.

Part Number	Wire Diameter	Pilot Sizes Included
53-70303	0.005"	3/32", 1/8", 5/32", 3/16" & 1/4"





## MATERIAL REMOVAL TOOLS

### USATCO Rivet Shaver Kit

*Updated Design*



#### Kit Includes:

1900RS-B4 Rivet Shaver (see below), Five Cutters (5/16", 3/8", 7/16", 1/2" & 9/16"), Five Skirts (5/16", 3/8", 7/16", 1/2" & 9/16"), Removable Cutter Box & Foam Fitted Case

Part Number	Description
53-1900RS	Complete 13 PC Kit

### USATCO Rivet Shaver

*1/2" Skirt Included*



*Updated Design*

- New, more ergonomic handle.
- Includes skirt & stabilizer.

Note: 1/4" NPT.

Pistol Grip 1.0 hp (0.75 kW) - 16,000 RPM				
Part Number	Cutter Capacity	Depth Increments	Overall Length	Weight
1900RS-B4	1/2"	0.001"	7-1/2" (191 mm)	2.9 lbs (1.3 kgs)

### ATI® Pro Rivet Shaver Kit



#### Kit Includes:

ATI429SXC Rivet Shaver (1.0 hp - 20,000 RPM), Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Seven Skirts (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4") & Sturdy Fitted Toolbox

Part Number	Description
ATI590L	Complete 16 PC Kit

### Sioux® Rivet Shavers

*Powerful 1 HP Motor*

*1/2" Skirt Included*



- Spring loaded removable stabilizer.
- Ergonomic handle for comfortable use.
- Includes skirt & stabilizer.

Note: 1/4" NPT. Available with other skirt sizes, please inq.

Pistol Grip 1.0 hp (0.75 kW) - 21,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
SRS10P21-8	1/2"	0.0005"	8" (205 mm)	2.7 lbs (1.2 kgs)

Lever Grip 1.0 hp (0.75 kW) - 21,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
SRS10S21-8	1/2"	0.0005"	10" (255 mm)	2.5 lbs (1.1 kgs)

### Limited Access Rivet Shaver

- Extra Long 4" extension is ideal for limited access applications.
- Shaves clean & precise regardless of rivet height.
- Includes skirt & stabilizer.

Note: 1/4" NPT.

Pistol Grip 0.75 hp (0.56 kW) - 18,000 RPM				
Part Number	Cutter Capacity	Depth Increments	Overall Length	Weight
US7387RSE	1/2"	0.001"	10-3/4" (273 mm)	3.5 lbs (1.6 kgs)



*9/16" Skirt Included*

*Made In The USA*

## APEX® Rivet Shavers

9/16" Skirt  
Included



- Ergonomic design, rear exhaust.
- Easily adjustable positive lock.
- Spring loaded nosepiece & stabilizer (skirt & stabilizer included).

Note: 1/4" NPT. Available with other skirt sizes, please inquire.

Small Handle Pistol Grip 0.4 hp (0.30 kW) - 29,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
14CFS60-95	1/2"	0.0005"	8-1/4" (210 mm)	2.2 lbs (1.0 kgs)
14CFS60-98*	1/2"	0.00025"	8-1/4" (210 mm)	2.2 lbs (1.0 kgs)

\*Model 14CFS60-98 does not include stabilizer.

Large Handle Pistol Grip 0.9 hp (0.67 kW) - 20,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
14CNL60-95	1/2"	0.0005"	8-7/8" (226 mm)	4.5 lbs (2.0 kgs)

## APEX® Quad Weld & Rivet Shaver

53-10-1224X



Four Tools  
In One

- Versatile front exhaust unit can be used for weld shaving, POP & blind rivet bolt trimming, disc sanding or right angle grinding.
- Also accepts 1/4" shank sanding & grinding tools.

Note: 1/4" NPT. Includes collet & wrenches.

Lever Grip 0.3 hp (0.22 kW) - 12,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
53-10-1224X	3/4"	0.001"	6-3/8" (160 mm)	1.1 lbs (0.5 kgs)

Lever Grip 0.3 hp (0.22 kW) - 20,000 RPM				
Part Number	Cutter Cap.	Depth Incr.	Overall Length	Weight
53-10-1230X	3/4"	0.001"	6-3/8" (160 mm)	1.1 lbs (0.5 kgs)

End Cut Replacement Cutters - 1/4" Shank, 1-7/8" O.A.L.				
Part Number	Type	Style	Used For	Dia.
14-1732	Carbide	Inverted Cone	Steel Rivets	3/4"
14-1330	H.S.S.	Inverted Cone	Aluminum Welds	3/4"
14-1332	Carbide	Cylindrical	Shaving Welds	1/2"

## Rivet Shaver Carbide Cutters

### Coarse Cut

Solid carbide blade.

02-A800-4  
Coarse Cut



### Fine Cut

Fourteen flute center cutting design with self-centering solid carbide head for increased control with no chatter.

02-A900-4  
Fine Cut



Coarse Cut, 1/4"-28 Thread	
Part Number	Body Dia.
02-A800-1	5/16"
02-A800-2	3/8"
02-A800-3	7/16"
02-A800-4	1/2"
02-A800-5	9/16"
02-A800-6	5/8"
02-A800-7	3/4"
02-A800-8	7/8"
02-A800-9	1"
02-A800-10	1-1/4"

Fine Cut, 1/4"-28 Thread	
Part Number	Body Dia.
02-A900-1	5/16"
02-A900-2	3/8"
02-A900-4	1/2"

Precision Ground  
For Chatter-Free  
Cuts & Longer Life

## Rivet Shaver Skirts

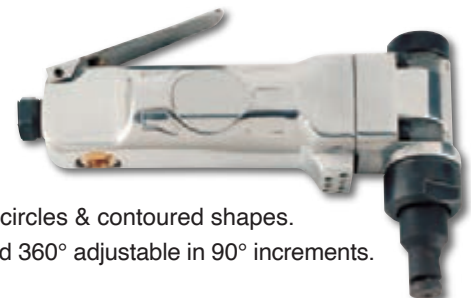


Highly Polished  
Working Surfaces  
Prevent Marring

APEX	Sioux	USATCO	Body Dia.
14-4391	2925-5	SP8931	5/16"
14-4392	2925-6	SP8904	3/8"
14-4393	2925-7	SP8903	7/16"
14-4394	2925-8	SP8902	1/2"
14-4395	2925-9	SP8901	9/16"
14-4396	2925-10	SP8930	5/8"
14-4397	—	SP8929	3/4"
14-4410	—	—	1"
14-4412	—	—	1-1/4"

## Economy Pneumatic Nibbler

Clean,  
Distortion  
Free Cuts



JSM-213

- Easily cuts circles & contoured shapes.
- Cutting head 360° adjustable in 90° increments.

Note: 1/4" NPT.

Lever Grip - 0.5 hp (0.37 kW) - 2600 SPM, 6 FPM			
Part Number	Cap. (steel)	Overall Length	Weight
JSM-213	18 Gauge	7" (178 mm)	2.2 lbs (1.0 kgs)

Replacement Punch & Dies	
Part Number Punch	Part Number Die
21340	21341

## MATERIAL REMOVAL TOOLS

### Sioux® Pneumatic Nibbler



- Safety lever lock.
- Rear exhaust.

Note: 1/4" NPT.

Lever Grip - 1.0 hp (0.75 kW)			
Part Number	Cap. (steel)	Overall Length	Weight
SNH10S18	18 Gauge	8-1/2" (215 mm)	2.65 lbs (1.2 kgs)

### EC® Reversible Trim Shears

- Reversible motor allows for versatile shearing & makes it easy to back out of jams.
- Designed to cut steel, stainless steel, titanium, inconel & similar metals.

*Quick & Powerful*



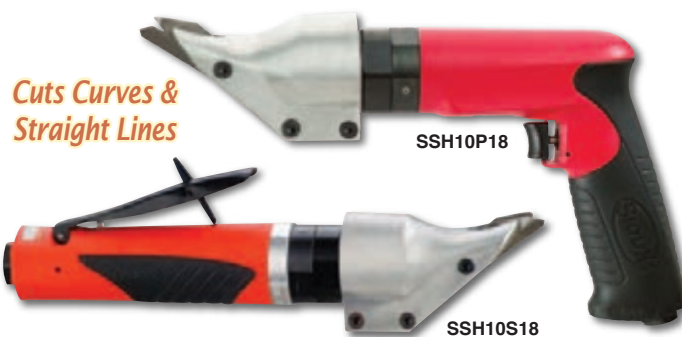
Lever Grip Trim Shears				
Part Number	Capacity (steel)	Throat Capacity	Approx. Feed Rate	Weight
7LR	13 Gauge	1-1/4"	8 ft-min.	4.5 lbs (2.0 kgs)
8LR	14 Gauge	2-1/4"	8 ft-min.	5.5 lbs (2.5 kgs)

Pistol Grip Trim Shears				
Part Number	Capacity (steel)	Throat Capacity	Approx. Feed Rate	Weight
7PR	13 Gauge	1-1/4"	8 ft-min.	5 lbs (2.3 kgs)
8PR	14 Gauge	2-1/4"	8 ft-min.	5.5 lbs (2.5 kgs)
9PR	10 Gauge	2-1/2"	3.5 ft-min.	12.5 lbs (5.7 kgs)
10PR	.080" Inconel	2"	3.5 ft-min.	19 lbs (8.6 kgs)

Replacement Feed Cutters	
Part Number	For Tool
02-9097	7LR to 8PR
02-9280	9PR
02-9915	10PR

Replacement Roll Cutters	
Part Number	For Tool
02-9098	7LR & 7PR
02-9101	8LR & 8PR
02-9279	9PR
02-9914	10PR

### Sioux® Pneumatic Shears



Excellent for sheet metal work - also plastic & similar mat. to 3/32".

Note: 1/4" NPT.

Pistol Grip 1.0 hp (0.75 kW)				
Part No.	Cap. (steel)	SPM	O.A.L.	Weight
SSH10P18	18 Gauge	2,600	10" (255 mm)	2.9 lbs (1.3 kgs)

Lever Grip 1.0 hp (0.75 kW)				
Part No.	Cap. (steel)	SPM	O.A.L.	Weight
SSH10S18	18 Gauge	2,600	11" (280 mm)	2.75 lbs (1.25 kgs)

### Dewalt® 20V MAX Cordless Power Shear Kit



- Head swivels 360° for great control & access to tight quarters.
- Cuts 7/32" strip that curls away for consistent & accurate cuts.

#### Kit Includes:

Cordless Swivel Head Shears, Battery Charger, Two 20V MAX Battery Packs, Blade Wrench & Contractor Bag

Part Number	Cap. (steel)	Min. Radius	SPM	Tool Weight
70356	18 Gauge	5-1/2"	0 to 2300	3.9 lbs (1.8 kgs)





## Kett® Heavy-Duty Pneumatic Scissor



- Specially designed for fast, accurate cutting of mild steel (to 24 gauge), wire mesh (to 18 gauge), soft plastic or rubber (to 1/4"), rigid PVC & other plastics (to 1/8").
- Unique swiping action leaves a clean edge without fouling.

**Note:** Replacement blades available, please inquire.

Part No.	Cap. (steel)	RPM	Overall Length	Weight
P-2041	24 Gauge	0-2500	11-3/4" (299 mm)	5.0 lbs (2.3 kgs)

## Utility Cut-Off Tool

Cuts Metal Up To 3/4" Thick



- 360° rotating spark guard & safety lock throttle.
- Built-in speed regulator & ball bearing construction.

**Note:** 1/4" NPT. Includes 3" cutting wheel.

0.5 hp (0.37 kW), 3/8" Arbor			
Part Number	Free RPM	O.A.L.	Weight
90397	20,000	7-5/16" (186 mm)	2.0 lbs (0.9 kgs)

## Replacement Cutting Discs

- Small Type 1, double reinforced resinoid cut-off discs.
- Super thin (.035"), provides a clean, fine-finished burr free cut.

122059



1/4" Arbor Disc	3/8" Arbor Disc	Diameter	Max. RPM
—	122058	2"	30,000
122059	122060	3"	25,000
122061	122062	4"	19,000



## 1/4" Shank Cutting Disc Mandrels

1450CA includes the 1/4" shank mandrel and both 1/4" and 3/8" arbor endpieces (for use with 1/4" and 3/8" arbor discs).

Mandrel & 1/4" Arbor	Mandrel & 3/8" Arbor	Mandrel & Both Arbors
1414CA	1438CA	1450CA

## Tab Shear



- Full length bosses with bolts & self-locking nuts.
- Hard anodized aluminum frame with carbide wear faces.

**Note:** 1/4" NPT. Replacement blades available, please inquire.

Part Number	Capacity (steel, alum.)	Max. Throat Opening	Shearing Force	Weight
650	1/16", 3/32"	1/8" x 3" (area)	4,200 lbs (1,905 kgs)	7.0 lbs (3.2 kgs)

## APEX® Straight Routers

12L1001-36RT



**Note:** 1/4" NPT. Includes collet & wrenches. Router guide not included, see next page.

Front Exhaust 0.3 hp (.22 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L1001-36RT	34,000	1/4"	6-3/4"	1.4 lbs (0.6 kgs)
12L1000-36RT	30,000	1/4"	(172 mm)	(0.6 kgs)

Front Exhaust 0.6 hp (.45 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2000-01RT	25,000	1/4"	7-1/2"	2.0 lbs (0.9 kgs)
			(191 mm)	

Rear Exhaust 0.6 hp (.45 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2080-01RT	25,000	1/4"	7-1/2"	2.0 lbs (0.9 kgs)
			(191 mm)	

Front Exhaust 0.9 hp (.67 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2500-01RT	23,000	1/4"	7-1/8"	2.6 lbs (1.2 kgs)
			(181 mm)	

Rear Exhaust 0.9 hp (.67 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2580-01RT	23,000	1/4"	7-1/8"	2.6 lbs (1.2 kgs)
12L2580-0124RT	23,000	3/8"	(181 mm)	

## MATERIAL REMOVAL TOOLS

### APEX® High Power Straight Router

12L4018-01



Note: 1/2" NPT. Includes collet & wrenches. Router guide not included, see on right.

Front Exhaust 1.7 hp (1.27 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L4018-01	18,000	1/4"	11-3/8" (289 mm)	4.2 lbs (1.9 kgs)

### APEX® High Power Routers w/Base Mount



10T4318-62

Note: 1/2" NPT. Includes collet and wrenches.

Rear Exhaust 1.7 hp (1.27 kW) With Base Mount				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
10T4318-62	18,000	1/2"	7-1/8" (181 mm)	7.5 lbs (3.4 kgs)
10T4316-62	16,000			
10T4309-62	9000			

Rear Exhaust 1.7 hp (1.27 kW) Power Unit Only				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
11T4318-62	18,000	1/2"	7-1/8" (181 mm)	5.5 lbs (2.5 kgs)

### APEX® Two Handed Router Base

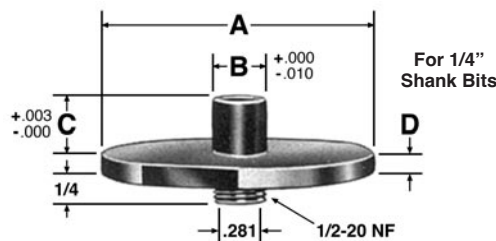
*Easy Depth Adjustment*



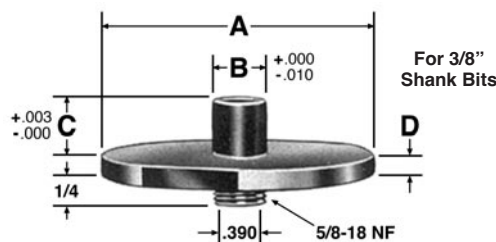
- For use with either front or rear exhaust models on previous page.
- Can also be used with 10-43 template guides, please inquire.

Part Number	For Series
14-1577	12-10
14-2577	12-20 & 12-25

### APEX® Router Guides



For 1/4" Shank Bits				
Part No.	'A'	'B'	'C'	'D'
14-2703	3/4"	3/8"	1/2"	1/8"
14-2400	1"	3/8"	1/8"	1/8"
14-2401	1"	3/8"	1/4"	1/8"
14-2402	1"	3/8"	3/8"	1/8"
14-2406	1"	7/16"	1/8"	1/8"
14-2407	1"	7/16"	1/4"	1/8"
14-2408	1"	7/16"	3/8"	1/8"
14-2411	1"	1/2"	1/4"	1/8"
14-2412	1"	1/2"	1/2"	1/8"
14-2413	1"	1/2"	5/8"	1/8"
14-2414	1"	1/2"	3/4"	1/8"
14-2417	1"	9/16"	1/8"	1/8"
14-2420	1"	5/8"	1/8"	1/8"
14-2421	1"	5/8"	5/8"	1/8"
14-2500	1-1/2"	3/8"	1/8"	1/8"
14-2501	1-1/2"	3/8"	1/4"	1/8"
14-2502	1-1/2"	3/8"	3/8"	1/8"
14-2505	1-1/2"	7/16"	1/8"	1/8"
14-2506	1-1/2"	7/16"	1/4"	1/8"
14-2507	1-1/2"	7/16"	3/8"	1/8"
14-2510	1-1/2"	1/2"	1/4"	1/8"
14-2511	1-1/2"	1/2"	3/8"	1/8"
14-2512	1-1/2"	1/2"	1/2"	1/8"
14-2600	2-1/2"	1/2"	1/2"	3/16"



For 3/8" Shank Bits				
Part No.	'A'	'B'	'C'	'D'
14-2531	1-1/2"	1/2"	3/8"	1/8"
14-2538	1-1/2"	1/2"	1/2"	1/8"
14-2539	1-1/2"	1/2"	5/8"	1/8"
14-2540	1-1/2"	9/16"	3/8"	1/8"
14-2542	1-1/2"	9/16"	5/8"	1/8"
14-2893	1-1/2"	5/8"	3/8"	1/8"
14-2925	1-1/2"	5/8"	1/2"	1/8"
14-2544	1-1/2"	5/8"	5/8"	1/8"
14-2240	2-1/2"	1/2"	3/8"	1/8"
14-2632	2-1/2"	1/2"	1/2"	1/8"
14-2633	2-1/2"	1/2"	5/8"	1/8"
14-2634	2-1/2"	9/16"	3/8"	1/8"
14-2630	2-1/2"	9/16"	1/2"	1/8"
14-2243	2-1/2"	5/8"	3/8"	1/8"
14-2636	2-1/2"	5/8"	1/2"	1/8"
14-2631	2-1/2"	5/8"	5/8"	1/8"

## APEX® Router Assemblies



- All assembly components available separately, please inquire.
- For use with APEX straight routers shown on page 97.

### For 12-10 Series Type Routers

Part Number	Thread Size	Cutter Shank Dia.
14-2187	1/4"-20	1/4"

### For 12-20 & 12-25 Series Type Routers

Part Number	Thread Size	Cutter Shank Dia.
14-2180	1/4"-20	1/4"
14-2429	5/8"-18	3/8"

## H.S.S. Taper Router Bits



For clearance cutting or routing & trimming of aircraft assemblies.

Part Number	Size	Point Dia.	Shank Dia.
02-0228	1	.081"	.098"
02-0221	2	.110"	.128"
02-0213	3	.165"	.1875"
02-0209	4	.224"	.250"



### Taper Router Kit:

Four Routers (one each above) & Plastic Case (not shown)

Part Number	Description
53-1492	Complete 5 PC Kit

## H.S.S. Aircraft Router Bit



For routing and trimming aluminum, non-abrasive plastics and similar materials

2 Downcut Flutes with Drill Point, Left Hand Helix, Right Hand Cut		
Part Number	Shank Diameter	Overall Length
02-17251	1/4"	2-3/8" (60 mm)

## Solid Carbide Router Bits



For edge routing when the end is not in contact with the work piece.

### Diamond Pattern, Right Hand Cut, No End Cut

Part Number	Shank Diameter	Overall Length
02-1547-3/16	3/16"	2" (51 mm)
02-1547-1/4	1/4"	2-1/2" (64 mm)
02-1547-3/8	3/8"	2-1/2" (64 mm)
02-1547-1/2	1/2"	3" (76 mm)



- Drill point plunges through the work piece before routing begins.
- Designed to produce an even edge & leave burr-free surfaces.

### Diamond Pattern, 135° Drill Point End

Part Number	Shank Diameter	Overall Length
02-1547A-3/16	3/16"	2" (51 mm)
02-1547A-1/4	1/4"	2-1/2" (64 mm)
02-1547A-3/8	3/8"	2-1/2" (64 mm)
02-1547A-1/2	1/2"	3" (76 mm)



For bottom cuts requiring a smooth surface & square corners.

### Diamond Pattern, End Mill End Cut

Part Number	Shank Diameter	Overall Length
02-1547B-3/16	3/16"	2" (51 mm)
02-1547B-1/4	1/4"	2-1/2" (64 mm)
02-1547B-3/8	3/8"	2-1/2" (64 mm)
02-1547B-1/2	1/2"	3" (76 mm)



### Diamond Pattern, Burr Style End Cut

Part Number	Shank Diameter	Overall Length
02-1547C-3/16	3/16"	2" (51 mm)
02-1547C-1/4	1/4"	2-1/2" (64 mm)
02-1547C-3/8	3/8"	2-1/2" (64 mm)
02-1547C-1/2	1/2"	3" (76 mm)



### 2 Flute Pattern, Left Hand Spiral, Right Hand Cut, No End Cut

Part Number	Shank Diameter	Overall Length
02-1541-3/16	3/16"	2" (51 mm)
02-1541-1/4	1/4"	2-1/2" (64 mm)
02-1541-3/8	3/8"	2-1/2" (64 mm)
02-1541-1/2	1/2"	3" (76 mm)



## G747 Lightweight CherryMAX® Power Riveter



Uses Existing  
CherryMAX  
Tooling

Lightweight &  
High Power

G747

The G747 is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX and nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads, all of which can install -4, -5 and -6 diameter CherryMAX bulb type rivets in all head styles, materials and grip lengths.

- 10° angled head allows user to work using a natural hand position.
- Comfortable grip for one handed operation in any position.
- Same weight as the G702A, with the power of much larger tools.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 71 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .09 SCFM / cycle (2.55 L / cycle)

G747 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G747	.437"	2100 lbf (9.34 kN)	3.5 lbs (1.6 kgs)

G747 Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G747KS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G747 Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 113.
- For full specifications on pulling heads below please see pages 114-115.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 116.

G747 Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
			SST	1/8", 5/32", 3/16" **	All
H747-3NPR	Straight	—	Nut Plate	3/32"	-4*
H753A-456	Right Angle	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
			SST	1/8", 5/32", 3/16" **	All
H781A-456 H782 <sup>1</sup>	Offset	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
			SST	1/8", 5/32", 3/16" **	All
H9015-3C	Straight	704A9	MS / Nut Plate††	3/32"	-4*
H9015-4C	Straight	704A9	MS / Nut Plate††	1/8"	-4*
H9015-5C	Straight	704A9	MS / Nut Plate††	5/32"	-4*
H9015-6C	Straight	704A9	MS / Nut Plate††	3/16"	-4*
H955-3	Straight	—	CherryLOCK 'A' ***	3/32"	-4*
H955-4	Straight	—	CherryLOCK 'A' ***	1/8"	-4*
H955-5	Straight	—	CherryLOCK 'A' ***	5/32"	-4*
H955-6	Straight	—	CherryLOCK 'A' ***	3/16"	-4*
H746-4MBC	Straight	—	Std. MBC	1/8"	-4*
H746-5MBC	Straight	—	Std. MBC	5/32"	-4*
H746-6MBC	Straight	—	Std. MBC	3/16"	-4*

\*May be double stroked for longer grips. \*\*Nominal and oversize.

\*\*\*When installing CherryLOCK 'A' rivets, the proper diameter pulling head must be used.

†Will not install 3/16" diameter aluminum (stainless steel & monel only). ††Serrated stems only.

<sup>1</sup>See page 113 for more information on H782 pulling head and interchangeable nosepieces.

### G747 Power Riveter Kit



G747 Power Riveter Kit	
Part Number	Installs
G747CMR	NAS 9301 to 9312 (1/8" to 3/16"), MS90353/4, MS21140/1, TAF 'S' Type (1/8" & 5/32") & MS20604/5 (3/32")

**Pulling Heads Included:** H701B-456 (Straight), H781A-456 (Offset), H753A-456 (Right Angle) & H747-3NPR (3/32" Nut Plate) **Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

**G746A CherryMAX® Power Riveter**

**G746A**

The G746A is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX Bulb, CherryMAX 'AB' wiredraw and CherryLOCK 'A' wiredraw rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads.

Comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 72 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .25 SCFM / cycle (7.08 L / cycle)

G746A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
<b>G746A</b>	.875"	1850 lbf (8.23 kN)	4.25 lbs (1.9 kgs)

G746A Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
<b>G746KS</b>	All Required Seals, 'O' Rings, Gaskets & Hardware

**G746A Pulling Heads**

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 113.
- For full specifications on pulling heads below please see pages 114-115.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 116.

G746A Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
<b>H701B-456</b>	Straight	—	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-9*
			MBC L/C	1/8", 5/32", 3/16"	-9*
			SST	1/8", 5/32", 3/16" **	All
<b>H753A-456</b>	Right Angle	—	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-4
			SST	1/8", 5/32", 3/16" **	All
<b>H781A-456 H782<sup>1</sup></b>	Offset	—	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-4*
			SST	1/8", 5/32", 3/16" **	All
<b>H9015-3C</b>	Straight	704A9	MS <sup>††</sup>	3/32"	All
<b>H9015-4C</b>	Straight	704A9	MS <sup>††</sup>	1/8"	All
<b>H9015-5C</b>	Straight	704A9	MS <sup>††</sup>	5/32"	All
<b>H9015-6C</b>	Straight	704A9	MS <sup>††</sup>	3/16"	All
<b>H955-3</b>	Straight	—	CherryLOCK 'A'	3/32"	-9*
<b>H955-4</b>	Straight	—	CherryLOCK 'A'	1/8"	-9*
<b>H955-5</b>	Straight	—	CherryLOCK 'A'	5/32"	-9*
<b>H955-6</b>	Straight	—	CherryLOCK 'A'	3/16"	-9*
<b>H746-4MBC</b>	Straight	—	Std. MBC	1/8"	All
<b>H746-5MBC</b>	Straight	—	Std. MBC	5/32"	All
<b>H746-6MBC</b>	Straight	—	Std. MBC	3/16"	All

\*May be double stroked for longer grips. \*\*Nominal and oversize.

\*\*\*When installing CherryLOCK 'A' rivets, the proper diameter pulling head must be used.

††Serrated stems only. †††Will not install 3/16" diameter Inconel 600 rivets.

<sup>1</sup>See page 113 for more information on H782 pulling head and interchangeable nosepieces.

**G746A Power Riveter Kits**

**G746ACMRW**

G746A CherryMAX Kit	
Part Number	Installs
<b>G746ACMRB</b>	-4, -5, -6 CherryMAX*

**Pulling Heads Included:** H701B-456, H781A-456 & H735A-456 **Accessories Incl.:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

\*Except 3/16" inconel and oversize.

G746A CherryLOCK Kit	
Part Number	Installs
<b>G746ACMRW</b>	SST & -3, -4, -5, -6 CherryLOCK "A"

**Pulling Heads Included:** H955-3, H955-4, H955-5 & H955-6 **Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

## G704B CherryMAX® Power Riveter



G704B

The G704B is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX and nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads, all of which can install -4, -5 and -6 diameter CherryMAX bulb type rivets in all head styles, materials and grip lengths.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 71 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .16 SCFM / cycle (4.53 L / cycle)

G704B Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G704B	.510"	3100 lbf (13.79 kN)	4.25 lbs (1.9 kgs)

G704B Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G704KS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G704B Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 113.
- For full specifications on pulling heads below please see pages 114-115.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 116.

G704B Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
			MBC L/C	1/8", 5/32", 3/16"	-4*
			SST	1/8", 5/32", 3/16" **	All
H753A-456	Right Angle	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
			SST	1/8", 5/32", 3/16" **	All
			SST	1/8", 5/32", 3/16" **	All
H781A-456 H782 <sup>1</sup>	Offset	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
			SST	1/8", 5/32", 3/16" **	All
			SST	1/8", 5/32", 3/16" **	All
H9015-3C	Straight	704A9	MS††	3/32"	-4*
H9015-4C	Straight	704A9	MS††	1/8"	-4*
H9015-5C	Straight	704A9	MS††	5/32"	-4*
H9015-6C	Straight	704A9	MS††	3/16"	-4*
H955-3	Straight	—	CherryLOCK 'A'	3/32" †	-4*
H955-4	Straight	—	CherryLOCK 'A'	1/8" †	-4*
H955-5	Straight	—	CherryLOCK 'A'	5/32" †	-4*
H955-6	Straight	—	CherryLOCK 'A'	3/16" †	-4*
H746A-4MBC	Straight	—	Std. MBC	1/8"	-4*
H746A-5MBC	Straight	—	Std. MBC	5/32"	-4*
H746A-6MBC	Straight	—	Std. MBC	3/16"	-4*

\*May be double stroked for longer grips. \*\*Nominal and oversize.

†Will not install 3/16" diameter aluminum (stainless steel & monel only). ††Serrated stems only.

<sup>1</sup>See page 113 for more information on H782 pulling head and interchangeable nosepieces.

### G704B Power Riveter Kit



G704B CherryMAX Kit	
Part Number	Installs
G704BCMR	-4, -5, -6 CherryMAX

**Pulling Heads Included:** H701B-456, H781A-456 & H735A-456

**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals



**G704B-SR & G704B-40SH CherryMAX® Split Power Riveters**

**G704B-SR**

*3' Hose,  
Inline Head*

*Perfect For Limited  
Access Areas*


**G704B-40SH**

*10' Hose,  
Pistol Grip Head*

The CherryMAX G704B-SR & G704B-40SH split power riveters were designed specifically for the installation of CherryMAX rivets in applications with extremely limited access.

The tool transmits power from the power unit through a flexible hose to a small, lightweight head. By utilizing the proper pulling head, design problems and operator fatigue can be greatly reduced.

**The SR model is equipped with a three foot hose and the 40SH model is equipped with an eight foot hose.**

**G704B-SR & G704B-40SH Pulling Heads**

- Pulling heads not incl. with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also avail. on page 113.
- For full specs on pulling heads below please see pages 114-115.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 116.

G704B-SR & G704B-40SH Pulling Heads				
Part Number	Head Style	Rivet Type	Rivet Diameters	Max. Grip
<b>H701B-456</b>	Straight	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
		MBC L/C	1/8", 5/32", 3/16"	-4*
		SST	1/8", 5/32", 3/16" **	All
<b>H753A-456</b>	Right Angle	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
		SST	1/8", 5/32", 3/16" **	All
<b>H781A-456</b>	Offset	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4*
		SST	1/8", 5/32", 3/16" **	All

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** does not exceed 85 dB (A)

**Air Consumption** 4 CFM @ 20 cycles per minute

G704B-SR & G704B-40SH Split Power Riveters				
Part Number	Hose Length	Stroke	Pulling Force	Weight
<b>G704B-SR</b>	3' (91.5 cm)	.518"	3136 lbf (13.9 kN)	4.5 lbs (2.0 kgs) (power unit only)
<b>G704B-40SH</b>	10' (305 cm)			

G704B-__ Routine Maintenance Kits (see page 117 for more info)		
Part Number	For Tool	Includes
<b>G704KS</b>	G704B-SR	All Req'd Seals, 'O' Rings, Gaskets & Hardware
<b>G704B-40SR/40SHKS</b>	G704B-40SH	

G704B-SR & G704B-40SH Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
<b>H9015-3C</b>	Straight	704A9	MS††	3/32"	-4*
<b>H9015-4C</b>	Straight	704A9	MS††	1/8"	-4*
<b>H9015-5C</b>	Straight	704A9	MS††	5/32"	-4*
<b>H9015-6C</b>	Straight	704A9	MS††	3/16"	-4*
<b>H955-3</b>	Straight	—	CherryLOCK 'A'	3/32" †	-4*
<b>H955-4</b>	Straight	—	CherryLOCK 'A'	1/8" †	-4*
<b>H955-5</b>	Straight	—	CherryLOCK 'A'	5/32" †	-4*
<b>H955-6</b>	Straight	—	CherryLOCK 'A'	3/16" †	-4*
<b>H746A-4MBC</b>	Straight	—	Std. MBC	1/8"	-4*
<b>H746A-5MBC</b>	Straight	—	Std. MBC	5/32"	-4*
<b>H746A-6MBC</b>	Straight	—	Std. MBC	3/16"	-4*

\*May be double stroked for longer grips. \*\*Nominal and oversize. †Will not install 3/16" diameter aluminum (stainless steel & monel only). ††Serrated stems only.

## G689 Double Action CherryLOCK Power Riveter



The G689 is a heavy duty double action pneumatic-hydraulic riveter designed for installation of CherryLOCK® Wiredraw rivets.

This tool is equipped with a custom mounting system only compatible with double action pulling heads (H681), but with proper adapters it can be used with other front or side eject pulling heads.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 74.1 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .50 SCFM / cycle (14.2 L / cycle)

G689 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G689	1.475"	3,800 lbf (16.9 kN)	12.85 lbs (5.9 kgs)

G689 Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G689KS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G689 Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads and adapters below please see pages 114-117.

G689 Pulling Heads For Standard Wiredraw CherryLOCK Rivets (NAS1398 & NAS1399)								
Rivet Material		Aluminum & Monel		Stainless Steel		—	Aluminum & Monel	Stainless Steel
Rivet Part Number		CR2163 CR2263 CR2563	CR2162 CR2262 CR2562	CR2643 CR2653 CR2663	CR2642 CR2652 CR2662	—	CR2164 CR2564	CR2644 CR2664
Pulling Head	Rivet Dia.	Universal Head	Flush Head	Universal Head	Flush Head	Pulling Head	Flush Head NAS1097	Flush Head NAS1097
H681-3C	-3	—	—	All	All	—	—	—
H681-4C	-4	All	All	All	All	H681-4S	All	All
H681-5C	-5	All	All	All	All	H681-5S	All	All
H681-6C	-6	All	All	All	All	H681-6S	All	All
H681-8C	-8	All	All	All	All	H681-8S	All	All

Other G689 Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H9015	Straight	680B46	MS	3/32", 1/8", 5/32" & 3/16"	All
H9055	Straight	680B46	CherryLOCK 'A'	3/32", 1/8", 5/32" & 3/16"	All
H9040	Straight	680B57	MS	3/32", 1/8", 5/32" & 3/16"	All
H781A-456	Offset	680B205	CherryMAX	1/8", 5/32" & 3/16"	All
H753A-456	Right Angle	680B205	CherryMAX	1/8", 5/32" & 3/16"	All
H680B200A	Straight	—	CherryMAX	1/8", 5/32" & 3/16"	All
H680B208	Straight	—	CherryMAX	1/8", 5/32" & 3/16"	All

G689 Pulling Heads For Bulb Type CherryLOCK Rivets (NAS1738 & NAS1399)			
Rivet Part Number		CR2249 CR2539 CR2839	CR2238 CR2248 CR2538 CR2838
Pulling Head	Rivet Dia.	Universal Head	Flush Head
H681-4C	-4	All	All
H681-5C	-5	All	All
H681-6C	-6	All	All

G689 Pulling Heads For Bulb Type CherryLOCK Rivets (NAS1738 & NAS1399)				
Rivet Part Number		CR2540 CR2840	—	CR2235 CR2245 CR2545 CR2845
Pulling Head	Rivet Dia.	156° Flush Head	Pulling Head	Unisink Head
H681-4F	-4	All	H681B166-4	All
H681-5F	-5	All	H681B166-5	All
H681-6F	-6	All	H681B166-6	All

## G784 Hydro-Shift CherryLOCK® Power Riveter



G784

The G784 is a pneumatic-hydraulic tool designed specifically for installation of CherryLOCK rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool will install nearly all diameters of CherryLOCK rivets up to a half-inch grip, 'A' group only.

With proper adapters & pulling heads this tool can be used to install other types of rivets, see charts below and page 117.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 69.7 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .27 SCFM / cycle (7.65 L / cycle)

G784 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G784	7/8"	2,600 lbf (11.57 kN)	8 lbs (3.6 kgs)

G784 Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G784KS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G784 Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see page 114.

G784 Pulling Heads For Standard CherryLOCK Rivets (NAS1398 & 1399)							
Rivet Part Number		CR2163 CR2263	CR2162 CR2164† CR2262	CR2563	CR2562 CR2564 †	CR2643 CR2653 CR2663	CR2642 CR2652 CR2662 CR2664† CR2644†
Pulling Head	Rivet Dia.	Aluminum Univ. Head	Aluminum Ctsk. Head	Monel Univ. Head	Monel Ctsk. Head	St. Steel Univ. Head	St. Steel Ctsk. Head
H681-3C	-3	—	—	—	—	All	All
H681-4C	-4	All	All	All	All	All	All
H681-5C	-5	-8	-9	-8	-9	-8	-9
H681-6C	-6	-8	-9	-8	-9	-8	-9
H681-8C	-8	-8	-9	-8	-9	—	—

G784 Pulling Heads For Bulbed CherryLOCK Rivets (NAS1738 & 1739)							
Rivet Part Number		CR2235* CR2239 CR2245* CR2249	CR2238 CR2248	CR2539 CR2545*	CR2538 CR2540*	CR2839 CR2845*	CR2838 CR2840**
Pulling Head	Rivet Dia.	Aluminum Univ. Head	Aluminum Ctsk. Head	Monel Univ. Head	Monel Ctsk. Head	Inconel Univ. Head	Inconel Ctsk. Head
H681-4C	-4	All	All	All	All	All	All
H681-5C	-5	All	All	All	All	All	All
H681-6C	-6	All	All	All	All	All	All

Other G784 Pulling Heads***					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H680B200A	Straight	—	CherryMAX	1/8", 5/32", 3/16"	All
H680B208	Straight	—	CherryMAX	1/4"	All
H753A-456	Right Angle	680B205	CherryMAX	1/8", 5/32", 3/16"	All
H781A-456	Offset	680B205	CherryMAX	1/8", 5/32", 3/16"	All

†Use part no. H681-(-)S \*Use part no. H681B166-(-) \*\*Use part no. H681-(-)F

\*\*\*The G784 riveter will also accept pulling heads to install CherryLOCK 'A' rivets (680B46 adapter required) and MS rivets (680B46 or 680B57 adapter required), please see page 117.

### G784 Power Riveter Kits



G784CLRA

G784 CherryLOCK Kit	
Part Number	Installs
G784CLRA	1/8" to 3/16", NAS 1398/9 '-' Type & CherryLOCK

**Pulling Heads Included:** H681-4C, H681-5C & H681-6C  
**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 680A159 Stroke Setting Gauge, P1395 Molded Plastic Case & All Necessary Manuals

G784 Basic Kit	
Part Number	Installs
G784CLRB	No Pulling Heads Included

**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, P1395 Molded Plastic Case & All Necessary Manuals



## G702A Lightweight Nut Plate Power Riveter



The G702A is a pneumatic-hydraulic tool designed specifically for installation of nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

The H702-3NPR pulling head fits directly on the tool to install -3, -4, 2.5 mm & 3mm nut plate rivets.

- 10° angled head allows user to work using a natural hand position.
- Comfortable grip for one handed operation in any position.

### Specifications

<b>Air Pressure</b>	90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.
<b>Cycle Time</b>	approximately one second
<b>Noise Level</b>	71 dB (A)
<b>Vibration</b>	less than 2.5 m/s2
<b>Air Consumption</b>	.09 SCFM / cycle (2.55 L / cycle)

G702A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
<b>G702A</b>	3/4"	1,100 lbf (4.9 kN)	3.5 lbs (1.6 kgs)

G702A Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
<b>G702AKS</b>	All Required Seals, 'O' Rings, Gaskets & Hardware

### G702A Pulling Head & Inserts

- Pulling heads not incl. with riveter, please order from chart below.
- For full specs on pulling head below please see page 115.

G702A Pulling Head & Inserts					
Part Number	Head Style	Rivet Insert	Rivet Type	Rivet Diameters	Max. Grip
<b>H702-3NPR</b>	Straight	<b>728A9-3*</b>	Nut Plate	3/32", 2.5 mm	-12**
		<b>728A9-104*</b>	Nut Plate	1/8", 3.0 mm	-12**
		<b>728A9-3</b>	SPR	3/32"	All

\*Included with pulling head. \*\*On the first stroke.

## G902 Lightweight Nut Plate Power Riveters



*Durable All Metal Housing*

*Limited Access Extensions Available, Please Inquire*

The G902 (feed through) & G902-15 (side eject) are all-pneumatic tools designed specifically for installation of nut plate rivets.

This tool utilizes straight pulling heads which can install 3/32" and 1/8" pull-through type nut plate rivets & 3/32" CherryLOCK 'A' rivets.

### Specifications

<b>Air Pressure</b>	90 PSI (6.2 bar) min./120 PSI (8.2 bar) max.
<b>Cycle Time</b>	approximately one second
<b>Noise Level</b>	60 dB (A)
<b>Vibration</b>	less than 2.5 m/s2
<b>Air Consumption</b>	.05 SCFM / cycle (1.42 L / cycle)

G902 & G902-15 Power Riveters				
Part Number	Type	Stroke	Pulling Force*	Weight
<b>G902</b>	Feed-Through	3/4"	550 lbf (2.45 kN)	2 lbs (0.9 kgs)
<b>G902-15</b>	Side Eject			

\*Force rated at 90 PSI. Pulling force at 120 PSI is 730 lbf (3.25 kN).

### G902 & G902-15 Pulling Heads

- Pulling heads not incl. with riveter, please order from chart below.
- For full specs on pulling heads below please see pages 114-115.

G902 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Maximum Grip
<b>H902-3NPR</b>	Nut Plate	3/32", 2.5 & 3 mm	-8*
	SPR	3/32"	-8*
<b>H9055-3</b>	CherryLOCK 'A'	3/32"	-8*
<b>H902-4NPR</b>	Nut Plate	1/8"	-8*
<b>H701B-456</b>			

G902-15 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Max. Grip
<b>H9015-3C</b>	Nut Plate	3/32", 2.5 & 3 mm	-9*
	SPR	3/32"	-9*
<b>H9055-3</b>	CherryLOCK 'A'	3/32"	-9*
<b>H9015-4C</b>	Nut Plate	1/8"	-9*

\*On the first stroke.

## G83A Lightweight Lockbolt Power Riveter



**Very Powerful  
& Lightweight**

**Compatible With  
Huck 244X & 2025  
Pulling Heads**

The G83A pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

By bending the rubber pin deflector sideways, 1-1/2" additional clearance can be obtained. This tool can also be used to install blind bolts and blind rivets.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 78.4 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .16 SCFM / cycle (4.53 L / cycle)

G83A Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G83A	7/16"	3,750 lbf (16.7 kN)	4.95 lbs (2.3 kgs)

\*800 lbf (3.56 kN) on return stroke.

### G83A Routine Maintenance Kit (see page 117 for more info)

Part Number	Includes
G83AKS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G83A Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see pages 114-116.

G83A Straight Lockbolt Pulling Heads*				
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Lockbolt Diameter
H513-04-20	—	—	—	1/8"
H513-04-35	—	—	—	
H513-04-60	—	—	—	
—	H513S-05-20	H513SR-05-20	H513SRC-05-20	5/32"
H513-05-35	H513S-05-35	H513SR-05-35	H513SRC-05-35	
H513-05-60	—	—	—	
H513-06-20	H513S-06-20	H513SR-06-20	H513SRC-06-20	3/16"
—	H513S-06-35	H513SR-06-35	H513SRC-06-35	
H513-06-60	—	—	—	

\*For .08 diameter, installs aluminum and titanium lockbolts only.

**Note:** The last component of the part number indicates attached length of the pulling head. For example part number H513-04-20 indicates the pulling head extends 2.0" beyond the gun line. The straight Lockbolt chart on page 116 shows all installed lengths and additional sizes.

G83A Offset Lockbolt Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Dia.
H563-5B	H563SP-5B	5/32"
H563-6B	H563SP-6B	3/16"

G83A Maxibolt Pulling Heads (S Type)		
Part Number	Head Style	Maxibolt Diameters
H83B-5MB	Straight	5/32"
H83B-6MB	Straight	3/16"
H84B-568	Straight	5/32", 3/16"

G83A CherryMAX Pulling Heads**			
Part Number	Head Style	Required Adapter	Rivet Diameters
H701B-456	Straight	744-300	1/8", 5/32", 3/16"
H781A-456	Offset		
H753A-456	Right Angle		
H84A-8	Straight	—	1/4"

\*\*CherryMAX adapter and pulling heads allow user to install CherryMAX, CherryMAX 'AB' & SST rivets.

G83A & G84 Adapters	
Part Number	To Adapt To Tool Mounting System
744-100	G85D & G87D
744-200	G744
744-300	G704B, G747 & G746A

**Note:** For 'U' type blind bolts use 652-066 for -5 and 652-067 insert for -06.

## G83A Power Riveter Kits



G83A Deluxe Installation Kit	
Part Number	Installs
G83AKT	5/32" & 3/16" MS Blind Bolt & LockBOLT, 1/8", 5/32" & 3/16" CherryMAX

**Pulling Heads Included:** H701B-456, H781A-456, H735A-456, H83B-5MB, H83B-6MB, H513S-05-20 & H513S-06-20

**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 269B12 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

G83A Installation Kit	
Part Number	Installs
G83BKT	5/32" & 3/16" MS Blind Bolt & NAS Style LockBOLT

**Pulling Heads Included:** H83B-5MB, H83B-6MB, H513S-05-20 & H513S-06-20

**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 269B12 Grip Selector Gauge, P1393 Molded Plastic Case & All Necessary Manuals

## G84 Lightweight Lockbolt Power Riveter



*Compatible With  
Huck 244X & 2025  
Pulling Heads*

G84

The G84 pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool incorporates a bayonet attachment for quick change of pulling heads. This tool can also be used to install blind bolts and blind rivets.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 80 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .29 SCFM / cycle (8.21L / cycle)

G84 Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G84	9/16"	5,750 lbf (25.6 kN)	7.7 lbs (3.5 kgs)

\*1200 lbf (5.34 kN) on return stroke.

G84 Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G84KS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G84 Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- For full specifications on pulling heads below please see pages 114-116.

G84 Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H513*	Straight	—	Lockbolt	1/8", 5/32", 3/16", 1/4"	All
			Aluminum Lockbolt		
**	Straight	—	Titanium Lockbolt	1/8", 5/32", 3/16", 1/4"	All
H563	Offset	—	Lockbolt	1/8", 5/32", 3/16"	All
H562*	Offset	—	Lockbolt	3/16", 1/4"	All
H83B-5MB	Straight	—	Maxibolt	5/32"	All
H83B-6MB	Straight	—	Maxibolt	3/16"	All
H84C-8MB***	Straight	—	Maxibolt	1/4"	All
H84B-568	Straight	—	Maxibolt Plus	5/32", 3/16", 1/4"	All
H701B-456	Straight	744-300	CherryMAX	1/8", 5/32", 3/16" †	All
			CherryMAX 'AB'		
H84A-8	Straight	—	CherryMAX	1/4"	All
H84-8CLA	Straight	—	CherryLOCK 'A'	1/4"	All
			CherryMAX 'AB'		

\*Use adapter 744-100 to accept pulling head design used on G85D, G87D and 353 style tools.

\*\*Use of special pulling head required, please inquire.

\*\*\*Use 652-106 'U' type nosepiece for 'U' type -8 diameter.

†Will not pull 3/16" aluminum CherryMAX 'AB' rivets; pulls 3/16 in monel and stainless steel only.

G83A & G84 Adapters††	
Part Number	To Adapt To Tool Mounting System
744-100	G85D & G87D
744-200	G744
744-300	G704B, G747 & G746A

††Requires removal of bayonet mount.

## G84 Power Riveter Kits



G84 Lockbolt Kit	
Part Number	Installs
G84LBK	5/32", 3/16" & 1/4" NAS Style LockBOLT

**Pulling Heads Included:** H513S-05-20", H513S-06-20" & H513-08-35"

**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1395 Molded Plastic Case & All Necessary Manuals

\*Small heads for use on G84, G83A & Huck 352.

G84 Maxibolt Kit	
Part Number	Installs
G84MBK	5/32", 3/16" & 1/4" MS Blind Bolt

**Pulling Heads Included:** H83B-5MB, H83B-6MB & H84C-8MB

**Accessories Included:** 700A77 Bleeder Bottle, 269B12 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1395 Molded Plastic Case & All Necessary Manuals



## G84-LS Split Power Riveter



*Comfortable & Lightweight One Hand Operation*

*10' Hose & Compact Head Unit Perfect For Limited Access Areas*

*Versatile Head Unit Offers Both Inline & Pistol Grip Use*

G84-LS

The G84-LS pneumatic-hydraulic installation tool is a heavy-duty production tool designed for high-speed, reliable installation of the most popular sizes of blind rivets, lockbolts and blind bolts. The base unit transmits its power through 10 feet of hose to a lightweight head cylinder. This facilitates fastener installation in many limited access areas and also reduces operator fatigue.

The trigger is incorporated in the head cylinder, providing comfortable, one-handed operation. Furthermore, the head cylinder can be configured for straight (inline) or pistol grip operation. The recoil absorbing design reduces shock transmitted to the user.

In combination with Cherry pulling heads and adapters, this tool installs all Lockbolt, blind bolts and blind rivets to 1/4" diameter, as well as Cherry rivetless nut plate in all sizes.

Inline Use



Pistol Grip Use



### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 66.5 dB (A)

**Vibration** 4.0 m/s<sup>2</sup>

**Air Consumption** .34 SCFM / cycle (9.63L / cycle)

G84-LS Split Power Installation Tool			
Part Number	Stroke	Pulling Force	Weight
G84-LS	0.53"	5700 lbf (25.32 kN)	11.8 lbs (5.4 kgs)

G84-LS Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
G84-LSKS	All Required Seals, 'O' Rings, Gaskets & Hardware

### G84-LS Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see page 115.

G84-LS Pulling Heads			
Part Number	Head Style	Req. Adapter	Installs
H83B-5MB	Straight	744-700	MS90353S05xxW
			MS90354S05xxW
H83B-5MBU	Straight	744-700	MS90353U05xx
			MS90354U05xx
H828-5MB	Right Angle	744-500	MS21140S05xxW
			MS21140U05xx*
			MS21141S05xxW
			MS21141U05xx*
H83B-6MB	Straight	744-700	MS90353S06xxW
H83B-6MBU	Straight	744-700	MS90354S06xxW
			MS90353U06xx
H828-6MB	Right Angle	744-500	MS90354U06xx
			MS21140S06xxW
			MS21140U06xx**
			MS21141S06xxW
			MS21141U06xx**

G84-LS Pulling Heads			
Part Number	Head Style	Req. Adapter	Installs
H84C-8MB	Straight	744-700	MS90353U08xxW
			MS90354U08xxW
H84C-8MBU	Straight	744-700	MS90353U08xx
			MS90354U08xx
H828-8MB	Right Angle	744-500	MS21140U08xxW
			MS21140U08xx***
			MS21141U08xxW
			MS21141U08xx***

G84-LS Adapters	
Part Number	To Adapt To Tool Mounting System
744-500	G744
744-600	G704B, G747 & G746A
744-700	G83A & G84 Bayonet

\*Requires optional 828-035 nosepiece to install, please inq. \*\*Requires optional 828-036 nosepiece to install, please inq. \*\*\*Requires optional 837-016 nosepiece to install, please inq.

## G87D Lockbolt Power Riveter



The G87D pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

By bending the rubber pin deflector sideways, 1-1/2" additional clearance can be obtained. This tool can also be used to install blind bolts and blind rivets.

Comfortable grip for one handed operation in any position.

### Specifications

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 74.2 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .60 SCFM / cycle (17 L / cycle)

G87D Power Riveter			
Part Number	Stroke	Pulling Force	Weight
<b>G87D</b>	9/16"	9,500 lbf (42.3 kN)	10.75 lbs (4.9 kgs)

G87D Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
<b>G85D/G87D-KS</b>	All Required Seals, 'O' Rings, Gaskets & Hardware

### G87D Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see pages 114-116.

G87D Straight Lockbolt Pulling Heads					
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Installed Length	Lockbolt Diameter
H513-04-20*	—	—	—	2" (51 mm)	1/8"
H513-04-35*	—	—	—	3-1/2" (89 mm)	
H513-04-60*	—	—	—	6" (152 mm)	
—	H513S-05-20*	H513SR-05-20*	H513SRC-05-20*	2" (51 mm)	5/32"
H513-05-35*	H513S-05-35	H513SR-05-35	H513SRC-05-35*	3-1/2" (89 mm)	
H513-05-60*	—	—	—	6" (152 mm)	
H513-06-20*	H513S-06-20*	H513SR-06-20*	H513SRC-06-20*	2" (51 mm)	3/16"
—	H513S-06-24	H513SR-06-24	—	2-3/8" (60 mm)	
—	H513S-06-35*	H513SR-06-35*	H513SRC-06-35*	3-1/2" (89 mm)	
—	H513S-06-48	H513SR-06-48	—	4-13/16" (122 mm)	
H513-06-60*	—	—	—	6" (152 mm)	1/4"
—	H513S-08-24	H513SR-08-24	—	2-3/8" (60 mm)	
H513-08-35*	H513S-08-35*	—	—	3-1/2" (89 mm)	
—	H513S-08-48	H513SR-08-48	H513SRC-08-48	4-13/16" (122 mm)	5/16"
—	H513S-10-27	H513SR-10-27	—	2-11/16" (68 mm)	
—	H513S-10-42	H513SR-10-42	—	4-3/16" (106 mm)	
—	H513S-12-27	H513SR-12-27	—	2-11/16" (68 mm)	3/8"
—	H513S-12-42	H513SR-12-42	—	4-3/16" (106 mm)	

\*Fits directly on Cherry G83A & Huck 352, requires the 552 adapter when used on Cherry G87D, G85D or Huck 353.

G87D Offset Lockbolt Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Diameter
H563-4B*	H563SP-4B*	1/8"
H563-5B*	H563SP-5B	5/32"
H563-6B*	H563SP-6B*	3/16"
H563-8B	—	1/4"

\*Fits directly on Cherry G83A & Huck 352, requires the 552 adapter when used on Cherry G87D, G85D or Huck 353.

G87D CherryMAX Pulling Heads**			
Part Number	Head Style	Required Adapter	Rivet Diameter
H84A-8	Straight	552	1/4"
H827-8	Offset	560-070	1/4"
H828-8	Right Angle	560-070	1/4"

\*\*CherryMAX adapter and pulling heads allow user to install CherryMAX, CherryMAX 'AB' & SST rivets.

G87D Maxibolt Pulling Heads			
Part Number	Head Style	Required Adapter	Maxibolt Diameter
H652-8MB	Straight	—	1/4"
H83B-5MB	Straight	552	5/32"
H83B-6MB	Straight	552	3/16"
H744-5MB	Straight	560-070	5/32"
H744-6MB	Straight	560-070	3/16"
H856-6MB	Offset	560-070	3/16"
H828-5MB	Right Angle	560-070	5/32"
H828-6MB	Right Angle	560-070	3/16"

## G800 CherryMAX® Hydraulic Hand Riveter

*Adjustable, Compact & Powerful*



*High Strength  
Steel & Aluminum  
Construction*

*Made In  
The USA*

*Tool Includes H800 Pulling  
Head & 782-456 Nosepiece*

The G800 is an ergonomic, lightweight hand powered riveter capable of installing a wide variety of blind fasteners. The all metal design makes this compact and robust tool ideal for use in rugged shop environments or field repair.

- Exceptional power with low hand effort for increased productivity.
- Mounting system (same as G704B) compatible with popular pulling heads including H782, H781A-456 & H753A-456.
- Leak-proof design with advanced seals & built-in redundancies.
- Ergo design with internal shock absorber & cushioned handle.
- Adjustable lever easily accommodates different hand sizes.

G800 Hand Riveter			
Part Number	Stroke	Pulling Force (adj.)	Weight
<b>G800</b>	3/4"	Up To 6000 lbf (26.7 kN)	1.7 lbs (0.8 kgs)

G800 Routine Maintenance Kit (see page 117 for more info)	
Part Number	Includes
<b>G800KS</b>	All Required Seals, 'O' Rings, Gaskets & Hardware

### G800 Pulling Heads

- H800 pulling head & 782-456 nosepiece included with tool.
- For full specifications on pulling heads below please see pages 113-114.

G800 Pulling Heads					
Part Number	Jaw	Follower	Nosepiece	Rivet Type	Rivet Diameter
<b>H800</b> (straight)	<b>701B18*</b>	<b>753A14A*</b>	<b>782-456*</b>	CherryMAX, CherryMAX 'AB'	-4, -5, -6 **
				Blindbolt 'S' Type	-04, -05
				MBC	-4, -5, -6
				NAS1900 'U' Type	-4, -5
<b>H753A-456</b> (rt. angle) <sup>†</sup>	<b>701B18</b>	<b>753A14A</b>	<b>886-003</b>	CherryLOCK 'A'	-3
			<b>886-004</b>	CherryLOCK 'A'	-4
			<b>886-005</b>	CherryLOCK 'A'	-5
			<b>886-006</b>	CherryLOCK 'A'	-6
<b>H782</b> (offset) <sup>††</sup>	<b>782-010</b>	<b>886-002</b>	<b>782-5BB</b>	Blindbolt 'U' Type	-05
			<b>782-4MBC</b>	Standard MBC	-4
	<b>782-010</b>	<b>886-002</b>	<b>782-5MBC</b>	Standard MBC	-5
			<b>782-6MBC</b>	Standard MBC	-6
	<b>701B18</b>	<b>753A14A</b>	<b>782-6AL</b>	CherryMAX 'AB' Aluminum	-6
			<b>782-3</b>	NAS1900	-4, -5, -6
				SPR	3/32"
			<b>782-4NAS</b>	NP Pull Through	-3
				NAS1900 (no shift washer)	-4
				NAS1900 (no shift washer)	-5
	<b>782-010</b>	<b>886-002</b>	<b>782-6NAS</b>	NAS1900 (no shift washer)	-6

G800 Heavy-Duty Pulling Head				
Part Number	Jaw	Nosepiece	Rivet Type	Rivet Diameter
<b>HD800-8</b> (straight)	<b>652-043*</b>	<b>652-024*</b>	CherryMAX, 'AB', 'A'	-8
		<b>652-065</b>	Maxibolt Plus	-5, -6, -8
	<b>865C25</b>	<b>652-035</b>	Maxibolt 'S' Type	-8
		<b>652-065</b>	Maxibolt 'U' Type	-8
	<b>744C76</b>	<b>652-038</b>	Maxibolt 'S' Type	-6

\*Standard components included with pulling head. \*\*Except -6 all aluminum.  
<sup>†</sup>H753A-456 also installs NAS1400 single action & 1722 rivets up to -04 grip (with optional components, please inquire). <sup>††</sup>H782 pulling head does not require or include jaw followers.

### G800 Installation Tool Kit



G800 Installation Kit	
Part Number	Installs
<b>G800CMR</b>	-4, -5 & -6 CherryMAX / CherryMAX AB*, Blind Bolt 'S' Type -04 & -05, MBC Lock Creator -4, -5 & -6, NAS1900 'U' -4 & -5

**Pulling Heads Included:** H800, H782 & H753A-456 **Nosepieces Included:** 782-456, 886-003 & 782-5BB **Accessories Included:** 269C5 Grip Selector Gauge, Molded Plastic Case & All Necessary Manuals  
 \*Except -6 all aluminum.



## BLIND RIVETERS & ACCESSORIES

### Cherry® G27 CherryMAX® Hand Riveter



- Pulling head is an integral part of tool.
- Great in areas with limited access or power limitations.

The G27 is an efficient, compact and lightweight tool for installing CherryMAX rivets. Includes the 728A9-4 insert shown in the chart shown below.

Part Number	Overall Length	Weight
<b>G27</b>	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

Replacement G27 CherryMAX Insert			
Part Number	Installs		
	CherryMAX	SST	MBC L / C
<b>728A9-4</b>	CR3212-4	CR6222-4	4901-04
	CR3213-4	CR6223-4	4904-04
	CR3222-4	CR6224-4	4705-04
	CR3223-4	CR6252-4	4907-04
	CR3523-4	CR6253-4	4911-04
	CR3522-4		4917-04
	CR3214-4		4967-04
	CR3224-4		
	CR3524-4		
	CR3242-4		
	CR3243-4		
	CR3252-4		
	CR3253-4		
	CR3852-4		
	CR3853-4		

### Cherry® G29 Nut Plate Hand Riveter



*Convenient Handle  
Storage Of Nosepieces*

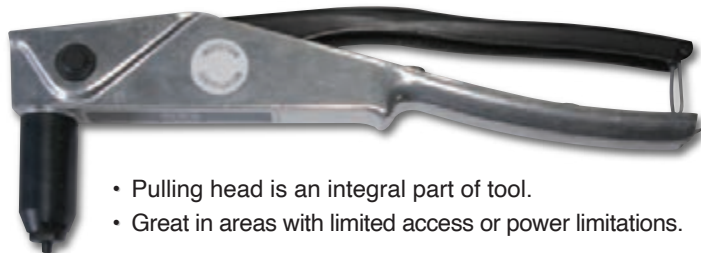
- Pulling head is an integral part of tool.
- Great in areas with limited access or power limitations.

The G29 is an efficient, compact and lightweight tool for installing nut plate and SPR rivets. Includes both the 728A9-3 and 728A9-104 inserts shown in the chart below.

Part Number	Overall Length	Weight
<b>G29</b>	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

Replacement G29 Inserts			
Part Number	Installs		
	Rivet Type	Rivet	Rivet Diameter
728A9-3	SPC	CR1122	-3
	Nut Plate	CCR244	-3
		CCR264	-3
		CCR274	-3
	Metric Nut Plate	CCMR244	-25
		CCMR264	-25
CCMR274		-25	
728A9-104	Nut Plate	CCR244	-4
		CCR264	-4
		CCR274	-4
	Metric Nut Plate	CCMR244	-30, -35
		CCMR264	-30, -35
		CCMR274	-30, -35

### Cherry® G30 CherryLOCK® Hand Riveter



- Pulling head is an integral part of tool.
- Great in areas with limited access or power limitations.

The G30 is an efficient, compact and lightweight tool for installing CherryLOCK 'A' rivets. Includes the 728-33 insert shown in the chart on right.

Part Number	Overall Length	Weight
<b>G30</b>	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

Replacement G30 CherryLOCK Insert			
Part Number	Installs		
	Rivet Type	Rivet	Rivet Diameter
<b>728-33</b>	CherryLOCK 'A'	CR2672	3/32"
		CR2673	3/32"
		NAS1399C3A( )	3/32"
		NAS1398C3A( )	3/32"

### USATCO CAN HELP WITH YOUR CHERRY TOOLING SELECTION

USATCO has been a key distributor of genuine Cherry Aerospace tooling for over 30 years. USATCO is the largest tooling distributor of genuine Cherry tooling in the world with close to \$1 million in stocked inventory in our two warehouses. Our trained sales staff can offer advice on tooling needed to properly install all Cherry

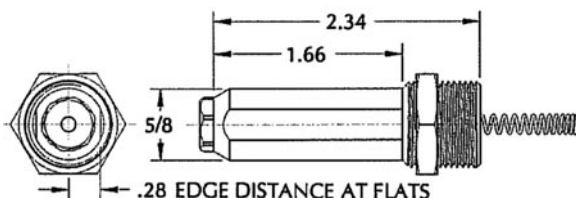
manufactured fasteners as well as assist in the choosing of other MS or NAS fastener tooling. When it's time to repair or overhaul your tools, USATCO is one of a few select distributors that offer free estimates on all Cherry tooling repairs.

**Cherry® H747-456 Straight Universal Pulling Head**

**Simple & Versatile**

- A more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H747-456 as purchased will install CherryMAX, CherryMAX AB, MBC L/C & MaxiBolt -04 & -05 products. Additional nosepieces offered below.



**Note:** Uses CherryMAX mounting system (G704B, G746A, G747).

Part Number	Stroke	Force	Weight
<b>H747-456</b>	w/G704B: 1/2" w/G746A: 7/8" w/G747: 7/16"	w/G704B: 3100 lbf w/G746A: 1850 lbf w/G747: 2200 lbf	0.15 lbs (0.07 kgs)

**Available Nosepieces**

Part Number	Installs
<b>782-456</b> (included with pulling head)	CherryMAX & CherryMAX AB -4, -5 & -6*
	Blindbolt 'S' Type -04 & -05
	MBC Lock Creator -4, -5 & -6
	NAS1900 'U' Type -4 & -5
<b>782-4NAS</b>	NAS1900 -4 (no shift washer)
<b>782-5NAS</b>	NAS1900 -5 (no shift washer)
<b>782-6NAS***</b>	NAS1900 -6 (no shift washer)
<b>782-4MBC</b>	Standard MBC -4
<b>782-5MBC</b>	Standard MBC -5
<b>782-6MBC***</b>	Standard MBC -6
<b>782-3**</b>	3/32" SPR & -3 pull thru Nut Plate
<b>782-5BB</b>	Blindbolt 'U' Type -05
<b>782-6AL***</b>	CherryMAX AB -6 Alum., NAS1900 -4, -5 & -6
<b>886-003**</b>	CherryLOCK 'A' Code -3
<b>886-004</b>	CherryLOCK 'A' Code -4
<b>886-005</b>	CherryLOCK 'A' Code -5
<b>886-006***</b>	CherryLOCK 'A' Code -6

\*Except -6 diameter all aluminum (use 782-6AL).

\*\*Nosepiece requires 955-011 jaw follower, see below.

\*\*\*Nosepiece requires 782-010 jaw & 866-002 jaw follower, see below.

**Replacement Parts**

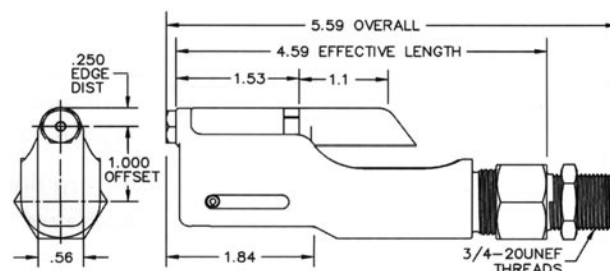
Jaw	Jaw Follower	Notes
<b>701B18</b>	<b>753A14A</b>	701B18 & 753A14A Included with Tool
	<b>955-011</b>	Req'd for 886-003 & 782-3 Nosepieces
<b>782-010</b>	<b>886-002</b>	Req'd for 886-006, 782-6MBC, 782-6AL & 782-6NAS Nosepieces

**Cherry® H782 Offset Universal Pulling Head**
**Strong Yet Compact & Lightweight**

**Two-Jaw Offset Design Eliminates Stem Slippage**

- A more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H782 is capable of installing CherryMAX, CherryLOCK 'A' code, MaxiBolt 'S' type blind bolts, MBC, SPR, NAS1398 A & AB code products, MS90353/4, MS21140/1 'U' 05, NAS1719, 1720 & 1721 and pull-through type nut plate rivets.



**Note:** Uses CherryMAX mounting system (G704B, G746A, G747).

Part Number	Stroke	Force	Weight
<b>H782</b>	w/G704B: 1/2" w/G746A: 7/8" w/G747: 7/16" w/G800: 0.78"	w/G704B: 3100 lbf w/G746A: 1850 lbf w/G747: 2200 lbf w/G800: 4200 lbf	0.84 lbs (0.36 kgs)

**Available Nosepieces**

Part Number	Installs
<b>782-456</b> (included with pulling head)	CherryMAX & CherryMAX AB -4, -5 & -6*
	Blindbolt 'S' Type -04 & -05
	MBC Lock Creator -4, -5 & -6
	NAS1900 'U' Type -4 & -5
<b>782-4NAS</b>	NAS1900 -4
<b>782-5NAS</b>	NAS1900 -5
<b>782-4MBC</b>	Standard MBC -4
<b>782-5MBC</b>	Standard MBC -5
<b>782-6MBC**</b>	Standard MBC -6
<b>782-3</b>	3/32" SPR & -3 pull thru Nut Plate
<b>782-5BB</b>	Blindbolt 'U' Type -05
<b>782-6AL**</b>	CherryMAX AB -6 Aluminum
<b>886-003</b>	CherryLOCK 'A' Code -3
<b>886-004</b>	CherryLOCK 'A' Code -4
<b>886-005</b>	CherryLOCK 'A' Code -5
<b>886-006**</b>	CherryLOCK 'A' Code -6

\*Except -6 diameter all aluminum (use 782-6AL).

\*\*These nosepieces require 782-010 jaws, see replacement parts chart on left.

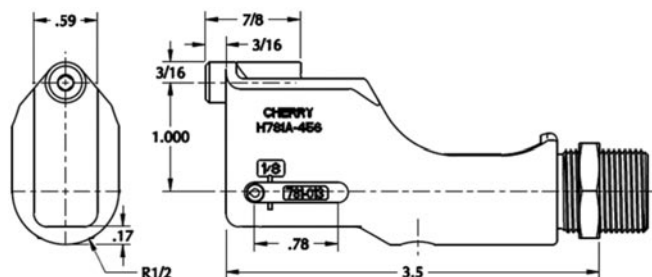
## BLIND RIVETERS & ACCESSORIES

### Cherry® Compact Single Jaw Offset Pulling Head



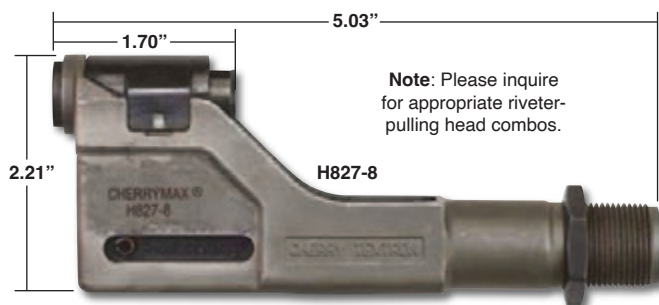
- Works directly with G746A, G747, G704B & G800 (no adapters).
- Continuously adjustable jaw grip to compensate for wear.

The H781A-456 will install CherryMAX Bulb & 'AB' (-4, -5 & -6), Maxibolt 'S' Type (-04 & -05), Cherry 1900 'U' type (-04 & -05) and MBC Lock Creator (-4, -5 & -6).



Part Number	Stroke	Weight
H781A-456	3/4"	0.5 lbs (0.23 kgs)

### CherryMAX® Offset Pulling Head



Note: Please inquire for appropriate riveter-pulling head combos.

Part Number	Installs
H827-8	1/4" Nominal & Oversize CherryMAX (G744 Only)

### CherryMAX® Right Angle Pulling Heads



Note: Please inquire for appropriate riveter-pulling head combos.

Part Number	Installs
H753A-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX
H828-8	1/4" Nominal & Oversize CherryMAX (G744 Only)

### CherryMAX® Straight Pulling Heads



Note: Please inquire for appropriate riveter-pulling head combos.

Part Number	Installs
H701B-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX
H846A-456	Same As Above (G744 Only)
H744A-8	1/4" Nominal & Oversize CherryMAX (G744 Only)

### CherryLOCK® H681 Straight Pulling Heads



- Fits directly on all Cherry hydroshift riveters, 2-9/16" installed.
- Separate pulling head is required for each style & diameter rivet.

Univ. Countersunk (MS 20426)		Countersunk (NAS 1097)	
Part Number	Rivet Dia.	Part Number	Rivet Dia.
H681-3C	3/32"	H681-4S	1/8"
H681-4C	1/8"	H681-5S	5/32"
H681-5C	5/32"	H681-6S	3/16"
H681-6C	3/16"	H681-8S	1/4"
H681-8C	1/4"		
Countersunk (156°)		Uni-Sink	
Part Number	Rivet Dia.	Part Number	Rivet Dia.
H681-4F	1/8"	H681B166-4	1/8"
H681-5F	5/32"	H681B166-5	5/32"
H681-6F	3/16"	H681B166-6	3/16"

### CherryLOCK® 'A' H955 Straight Pulling Heads



Note: Please inquire for appropriate riveter-pulling head combos.

H955 Part Number	H9055 Part Number	Rivet Diameter
H955-3	H9055-3	3/32"
H955-4	H9055-4	1/8"
H955-5	H9055-5	5/32"
H955-6	H9055-6	3/16"



## Cherry® MS Straight Pulling Heads

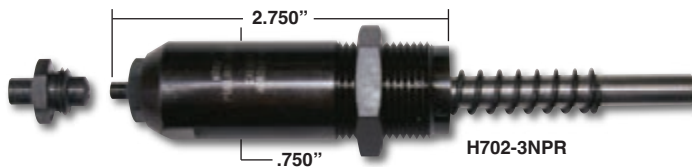


**Note:** Please inquire for appropriate riveter-pulling head combos.

Part Number	Rivet Diameter
H9015-3C	3/32"
H9015-4C	1/8"
H9015-5C	5/32"
H9015-6C	3/16"

Part Number	Rivet Diameter
H9040-3C	3/32"
H9040-4C	1/8"
H9040-5C	5/32"
H9040-6C	3/16"

## Cherry® Nut Plate Pulling Heads



For G702A Riveter	
Part Number	Installs
H702-3NPR*	3/32" & 1/8", 2.5 mm & 3 mm Nut Plate

\*Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8").

**Note:** SPR nosepiece also available, 728A9-3 (3/32"), please inquire.

For G747 Riveter	
Part Number	Installs
H747-3NPR*	3/32" & 1/8", 2.5 mm & 3 mm Nut Plate

\*Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8").



For G902 Riveters (-8 maximum grip)	
Part Number	Installs
H902-3NPR	3/32", 2.5 mm & 3 mm Nut Plate, 3/32" SPR
H902-4NPR	1/8" Nut Plate

For G902-15 Riveters (-9 maximum grip)	
Part Number	Installs
H9015-3C	3/32", 2.5 mm & 3 mm Nut Plate & SPR
H9015-4C	1/8" Nut Plate
H9055-3	3/32" CherryLOCK 'A'

## Cherry® TFS Rivetless Nut Plate Pulling Heads



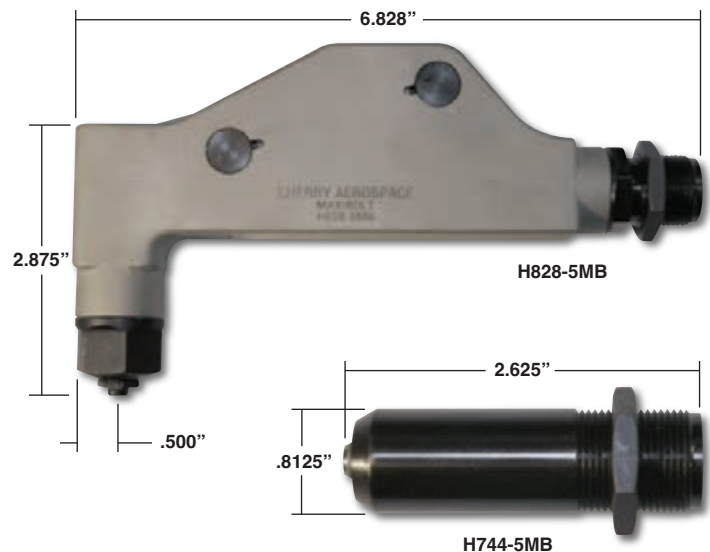
- Rivetless nut plates require a single drilled hole only.
- Improves the fatigue life of structure compared to rivet nut plates.
- Meets or exceeds NASM25027 specs (0.062" & longer grips).

Part Number	Type	Available Diameters	For Riveters
H704-__NP	NP	.233 to .358	G704B, G800 & G750A*
H704-__NPC	NPC Composite Applications	.249 to .368	

\*Use with G750A requires 750A-088 adapter (not included, please inquire).

**Ordering Instructions:** Add the desired diameter to the part number of the pulling head required. **Example:** For a NP type pulling head with a .249" hole diameter the part number would be H704-249NP.

## Maxibolt® Pulling Heads



**Note:** Please inquire for appropriate riveter-pulling head combos.

Straight Heads		Right Angle Heads	
Part Number	MaxiBolt Dia.	Part Number	MaxiBolt Dia.
H652-8MB	1/4"	H828-5MB	5/32"
H744-5MB	5/32"	H828-6MB	3/16"
H744-6MB	3/16"	H828-8MB	1/4"
H83B-5MB	5/32"	Offset Head	
H83B-6MB	3/16"		
H84B-568	5/32" & 3/16"	Part Number	MaxiBolt Dia.
		H856-6MB	3/16"

## BLIND RIVETERS & ACCESSORIES

### Cherry® LockBOLT Pulling Heads

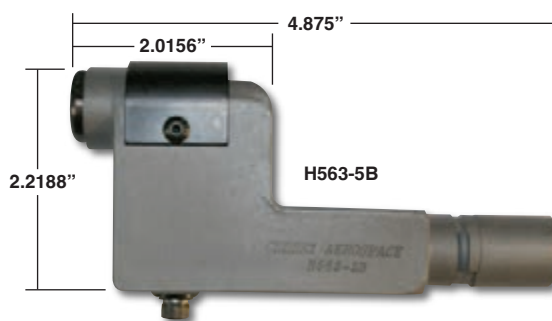


Straight Pulling Heads					
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Installed Length	Lockbolt Diameter
H513-04-20*	—	—	—	2" (51 mm)	1/8"
H513-04-35*	—	—	—	3-1/2" (89 mm)	
H513-04-60*	—	—	—	6" (152 mm)	
—	H513S-05-20*	H513SR-05-20*	H513SRC-05-20*	2" (51 mm)	5/32"
H513-05-35*	H513S-05-35	H513SR-05-35	H513SRC-05-35*	3-1/2" (89 mm)	
H513-05-60*	—	—	—	6" (152 mm)	
H513-06-20*	H513S-06-20*	H513SR-06-20*	H513SRC-06-20*	2" (51 mm)	3/16"
—	H513S-06-24	H513SR-06-24	—	2-3/8" (60 mm)	
—	H513S-06-35*	H513SR-06-35*	H513SRC-06-35*	3-1/2" (89 mm)	
—	H513S-06-48	H513SR-06-48	—	4-13/16" (122 mm)	
H513-06-60*	—	—	—	6" (152 mm)	
—	H513S-08-24	H513SR-08-24	—	2-3/8" (60 mm)	1/4"
H513-08-35*	H513S-08-35*	—	—	3-1/2" (89 mm)	
—	H513S-08-48	H513SR-08-48	H513SRC-08-48	4-13/16" (122 mm)	
—	H513S-10-27	H513SR-10-27	—	2-11/16" (68 mm)	5/16"
—	H513S-10-42	H513SR-10-42	—	4-3/16" (106 mm)	
—	H513S-12-27	H513SR-12-27	—	2-11/16" (68 mm)	3/8"
—	H513S-12-42	H513SR-12-42	—	4-3/16" (106 mm)	

\*Fits directly on Cherry G83 & Huck 244, requires a 552 adapter (see next page) when used on Cherry G87D, G85D or Huck 245.

Offset Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Diameter
H563-4B*	H563SP-4B*	1/8"
H563-5B*	H563SP-5B	5/32"
H563-6B*	H563SP-6B*	3/16"
H563-8B	—	1/4"

\*Fits directly on Cherry G83 & Huck 244, requires a 552 adapter (see next page) when used on Cherry G87D, G85D or Huck 245.



### Pulling Head Extensions

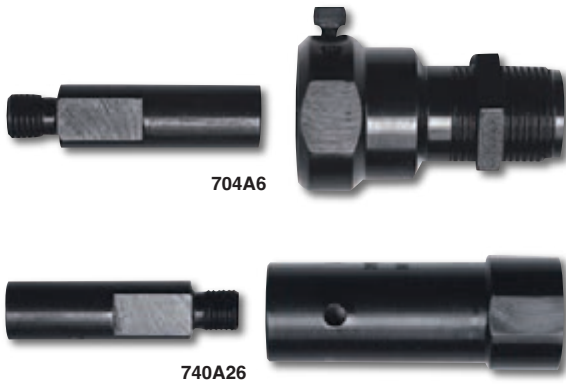


• Great for limited access areas. • Any combination may be used to reach desired length.

For G701A, G704B, G749A, G746 & G747 Riveters			
Part Number	Length	Part Number	Length
704A12-2	2" (51 mm)	704A12-6	6" (152 mm)
704A12-4	4" (102 mm)	704A12-12	12" (305 mm)

For G744 Riveters			
Part Number	Length	Part Number	Length
744B35-2	2" (51 mm)	744B35-6	6" (152 mm)
744B35-4	4" (102 mm)	744B35-12	12" (305 mm)

## Adapters For Pulling Heads



For G689, G700 & G784 Riveters	
Part Number	Allows
680B46	H9015 & H9055
680B57	H9040 Type

For G704B, G746A & G747 Riveters	
Part Number	Allows
704A6	H9040 Type
704A9	H9015 & 9055 Screw On Type

For G744 Riveter	
Part Number	Allows
744A20	H753A-456 & H781A-456
744B25	Huck 244 (352) Style Blind Bolt Pulling Head

For G686B-S, G689, G700 & G784 Riveters	
Part Number	Allows
680B205	H753A-456 & H781A-456

For G740A & G86A Riveters	
Part Number	Allows
740A26	H753A-456 & H781A-456

For G84 Riveters	
Part Number	Allows
744-100	G87D & Huck 245 (353) Pulling Head
744-200	H744A-8, H827-8, H828-5MB & H828-6MB
744-300	H701B-456, H753A-456 & H781A-456

For G84-LS Riveter	
Part Number	To Adapt To Tool Mounting System
744-500	G744
744-600	G704B, G747 & G746A
744-700	G83 & G84 Bayonet

For G87D Riveter	
Part Number	Allows
552	H84A-8, H83B-5MB, H83B-6MB
560-070	H827-8, H828-8, H744-5MB, H744-6MB, H856-6MB, H828-5MB, & H828-6MB

## Cherry® Gauges



Part Number	Description
269C3	CherryMAX/CherryLOCK Grip & Diameter Gauge
269C5	Lockbolt Grip Gauge
269B12	Maxibolt Grip Gauge

## Cherry® 209 Type Hand Nipper



Part Number	Description
04-57	Rivet Trimmer

## Cherry® Riveter Service Kits



All the seals, 'O'-rings, gaskets and hardware required for routine maintenance of your Cherry blind riveters.

Part No.	For Tool	Part No.	For Tool
G689KS	G689	G800KS	G800
G702AKS	G702A	G83KS	G83
G704KS	G704B, G704B-SR	G83AKS	G83A
G746KS	G746A	G84KS	G84
G747KS	G747	G84-LSKS	G84-LS
G784KS	G784		

Part Number	For Tool
G704B-40SR/40SHKS	G704B-40SH
G85D/G87D-KS	G87D



## BLIND RIVETERS & ACCESSORIES

### Huck® 200 Power Riveter



200

Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).

Part Number	Stroke	Pulling Force	Weight
200	1.190"	2950 lbf (13.1 kN)	10.5 lbs (4.8 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-1013	-4	NAS1919B/21B NAS1919M/21M NAS1919C/21C MLSP/MLS100 7MLS100-M
78972*		
99-458		
78973*		
99-459	-5	7MLS100-M
78980*	-6	
99-600	-5	
99-589	-6	MS21140 (B100-EU), MS21141 (BP-EU) MS90353 (B100-T), MS90354 (BP-T) OBP-EU, OB100EU, OBP-T & OB100-T 7B100-EU & 7B120-EU 4B100-T06/EU06

\*Requires 104406 adapter.

### Huck® 2012 Power Riveter



2012

- Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).
- A lightweight tool for fast, uniform installations.

Part Number	Stroke	Pulling Force	Weight
2012	0.650"	2670 lbf (11.9 kN)	4.4 lbs (2.0 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S", OSMLSP OSMLS100, SMLSP-BT SMLS100-BT, OSR
99-2731	-5	
99-2737	-6	
99-2701	-5	MS90353/54"S" or "U", MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU, OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06, SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2707	-6	

### Huck® 2013 'CherryMAX' Power Riveter



Uses Your Existing  
CherryMAX Tooling

A Durable,  
Production  
Rated Riveter

2013

- Uses your existing CherryMAX noses without an adapter.
- Longer stroke than G704B or G747 - less double stroking.
- Less O-rings and seals than comparable Cherry tools for less maintenance and downtime.

Part Number	Stroke	Pulling Force	Weight
2013	0.650"	2670 lbf (11.9 kN)	4.5 lbs (2.0 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies				
Part Number Straight	Part Number Offset	Part Number Rt. Angle	Fastener Diameter	Installs Fasteners
H701B-456	99-1333	99-1334	-4 thru -6	M7885 NAS9301/9312 BACR15FR/FP “Allmax” “CherryMAX” “HuckMax” “Huck-Clinch”
99-3442	H781A-456	H753A-456		
99-3443	—	—		

## Huck® 202 Power Riveter



202

- Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).
- Installs at a high production rate with minimum fatigue.
- Can be used to install 3/16" & 1/4" blind rivets & blind bolts.

Part Number	Stroke	Pulling Force	Weight
202	0.750"	3900 lbf (17.4 kN)	5.5 lbs (2.5 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S" OSMLSP OSMLS100 SMLSP-BT SMLS100-BT OSR
99-2731	-5	
99-2737	-6	
99-2743	-8	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2707	-6	

## Huck® 2025 Power Riveter



2025

Part Number	Stroke	Pulling Force	Weight
2025	0.675"	5290 lbf (23.5 kN)	5.75 lbs (2.6 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S" OSMLSP OSMLS100 SMLSP-BT SMLS100-BT OSR
99-2731	-5	
99-2737	-6	
99-2743	-8	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2707	-6	
99-2713	-8	
99-833	-5*	Huckrimp NAS4450/52 NAS4458S/66S 03KSP-DT/OKS200-DT
99-834	-6*	
99-2642	13/64 (06)	ASP Fasteners** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPPF/PP
99-2645	17/64 (08)	
99-2648	21/64 (10)	

\*Aluminum only. \*\*ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

## USATCO CAN HELP WITH YOUR HUCK TOOLING SELECTION

USATCO has been providing advice on proper tooling application, sales and service for genuine Huck manufactured aerospace tooling for 40 years. Send USATCO your rivet number and our experienced sales staff can offer you the correct tooling needed to properly install all Huck manufactured fasteners.

USATCO offers fast service, competitive pricing and after sales service. We stock many of the most popular tools, pulling heads and parts for your Huck tooling. In addition, USATCO offers free repair estimates on all Huck manufactured tooling.

## BLIND RIVETERS & ACCESSORIES

### Huck® 2440SX Power Riveter



2440SX

A lightweight and powerful tool designed to install at high volumes lockbolt & blind fasteners through 1/4".

Part Number	Stroke	Pulling Force	Weight
244X	0.5620"	4606 lbf (20.5 kN)	5.7 lbs (2.6 kgs)
2440SX	0.6245"		

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies			
Part Number Straight	Fastener Diameter	Installs Fasteners	
99-2725	-4	NAS1919/21"S" OSMLS100, OSMLS100 SMLS100-BT, SMLS100-BT OSR	
99-2731	-5		
99-2737	-6		
99-2743	-8		
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU, OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV	
99-2707	-6		
99-2713	-8		
99-2651	-4	<b>NAS Shear Lockbolts:</b> NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V <b>NAS Tension Lockbolts:</b> NAS1456-1462/1465-1472 NAS1475-1482/1516-1522 NAS1525-1532/1535-1542 NAS2005V-2012V/2105V-2112V NAS2115V-2122V NAS2125-2132/6935-6942 NAS6946-6952/6955-6962 NAS6965-6972	
99-2549S/T	-5		
99-2555	-6		
99-2561	-8		
99-2651	-4	GP Lockbolts GPL3S/6S/7T/8T	
99-2549S/T	-5		
99-2555	-6		
99-2561	-8		
99-2573	4mm	MGP Lockbolts MGPL28T	
99-2579	5mm		
99-2585	6mm		

### Huck® 2440SX Power Riveter (cont'd)

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2654	-4	LGP Lockbolts
99-2501	-5	
99-2507	-6	
99-2513	-8	
99-2525	4mm	MLGP Lockbolts
99-2531	5mm	
99-2537	6mm	
99-833	-5*	Huckrimp NAS4450/52, NAS4458S/66S 03KSP-DT/OKS200-DT
99-834	-6*	
99-2642	13/64 (06)	ASP Fasteners** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPPF/PP
99-2645	17/64 (08)	
99-2648	21/64 (10)	

\*Aluminum only. \*\*ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

### Huck® 245 & 255 Power Riveters

Factory Tested  
For 2000 Cycles



245

255

- High-speed production tool with optimum stroke for one-cycle installation of a wide range of fasteners.
- Chrome plated piston rods extend the life of the seals, and relief valves in both air & hydraulics offer double protection.

Note: Nose assemblies ordered separately from chart on next page.

Part Number	Stroke	Pulling Force	Weight
245	0.625"	7500 lbf (33.4 kN)	9.3 lbs (4.2 kgs)

Part Number	Stroke	Pulling Force	Weight
255	0.625"	7750 lbf (34.5 kN)	8.8 lbs (4.0 kgs)

Applicable Nose Assemblies Shown On Next Page



## Huck® 245 & 255 Power Riveters (cont'd)

Nose Assemblies			
Part No. Straight	Part No. Offset***	Fastener Diameter	Installs Fasteners
99-2725*	99-3715	-4	NAS1919/21"S" OSMLS100 SMLS100-BT SMLS100-BT OSR
99-2731*	99-3716	-5	
99-2737*	99-3717	-6	
99-1311	99-3718	-8	
99-335	—	-10	
99-2704	99-3712	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2710	99-3713	-6	
99-2716	99-3714	-8	
99-2719	—	-10	
99-2551	99-3703	-5	
99-2558	99-3704	-6	<b>NAS Shear Lockbolts:</b> NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V <b>NAS Tension Lockbolts:</b> NAS1456-1462/1465-1472 NAS1475-1482/1516-1522 NAS1525-1532/1535-1542 NAS2005V-2012V/2105V-2112V NAS2115V-2122V NAS2125-2132/6935-6942 NAS6946-6952/6955-6962 NAS6965-6972
99-2564	99-3705	-8	
99-2567	99-3720	-10	
99-2552	99-3703	-5	
99-2559	99-3704	-6	
99-2565	99-3705	-8	GP Lockbolts GPL3S/6S/7T/8T
99-2568	99-3720	-10	
99-2576	99-3706	4mm	MGP Lockbolts MGPL28T
99-2582	99-3707	5mm	
99-2588	99-3708	6mm	
99-2591	—	8mm	
99-2595	—	10mm	
99-2504	99-3700	-5	LGP Lockbolts
99-2510	99-3701	-6	
99-2517	99-3702	-8	
99-2519	99-3719	-10	
99-2528	99-3709	4mm	
99-2534	99-3710	5mm	MLGP Lockbolts
99-2540	99-3711	6mm	
99-2543	99-3721	8mm	
99-2642*	99-3728	13/64 (06)	ASP Fasteners*** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPFF/PP
99-2645*	99-3729	17/64 (08)	
99-2648*	99-3730	21/64 (10)	

\*Use adapter 102463, please inquire.

\*\*Use adapter 119400-1 & stroke limiter 118362, please inquire.

\*\*\*ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

## Huck® 246 Power Riveter



246

- High-speed production tool with optimum stroke for one-cycle installation of a wide range of fasteners.
- Can be used with a wide range of HUCKBOLT® fasteners and huck blind fasteners including 5/16" & 3/8" diameter GP® and LGP® fasteners.
- Chrome plated piston rods extend the life of the seals, and relief valves in both air & hydraulics offer double protection.

Part Number	Stroke	Pulling Force	Weight
246	0.875"	9986 lbs (44.4 kN)	12.3 lbs (5.6 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2719	-10	MS21141U( ) (UBR-EU) MS21140U( ) (UB100-EU) MS90354U( ) (UBR-T) MS90353U( ) (UB100-T) MS90353S(SB100-T) MS21140S(SB100-EU) MS90354S(SBP-T) MS21141S(UBP-EU) OSBP-EU( ) OSB100-EU( ) OSBP-T( ) OSB100-T( ) OBP-EU( ) OB100-EU( ) OBP-T( ) OB100-T( ) UBP-MV( ) UB100-MV( ) SB100-T05 & 06 SB100-EU05 & 06 S7B100-EU S4B100-T06 4B100-T08
99-2722	-12	

Note: Other nose assemblies available, please inquire.

## BLIND RIVETERS & ACCESSORIES

### POP® ProSet XT Riveters



#### Comfortable, Low Force Activation Trigger

- Class-leading lightweight construction with balanced handling.
- Patented quick disconnect nose housing and jaw case for rapid, tool-free cleaning and maintenance of the front end.
- Clear quick release mandrel collector bottle reduces downtime.
- Adjustable vacuum exhaust direction.
- "On/Off" switch reduces air consumption and noise.

#### Included Nosepieces:

**XT1:** 3/32", 1/8" & 5/32"      **XT2:** 1/8", 5/32" & 3/16"

**XT3:** 1/8", 5/32", 3/16" & 1/4"      **XT4:** 1/8", 5/32", 3/16" & 1/4"

**NOTE:** Optional nosepieces available for all models, please inquire.

Part Number	Stroke	Cycle Time	Pulling Force	Weight
XT1	0.71"	0.4 s	1461 lbf (6.5 kN)	2.6 lbs (1.2 kgs)
XT2	0.79"	0.6 s	2001 lbf (8.9 kN)	2.8 lbs (1.3 kgs)
XT3	1.02"	0.9 s	3822 lbf (17 kN)	4.7 lbs (2.1 kgs)
XT4	0.71"	1.0 s	5171 lbf (23 kN)	4.8 lbs (2.2 kgs)

### 510A Type Pneumatic Riveter

**Strong & Compact**



#### Tool Includes:

Riveter, Three Nosepieces (1/8", 5/32" & 3/16") & Air Line Ass'y

**Note:** Air Inlet 1/8" NPT.

Part Number	Stroke	Pulling Force	Weight
PRG510A-B	5/8"	1000 lbf (4.5 kN)	3.7 lbs (1.7 kgs)

### 540 Type Pneumatic Riveter

#### Tool Includes:

Riveter, Four Nosepieces (1/8", 5/32", 3/16" & 1/4"), & Air Line Assembly

#### PRG540 Installs:

POP Type Rivets In Most Materials To 1/4"

**A High-Volume Production Tool**

**Strong, Robust & Reliable**



**Note:** Air Inlet 1/4" NPT.

Part Number	Stroke	Pulling Force	Weight
PRG540	11/16"	3000 lbf (13.3 kN)	4.9 lbs (2.2 kgs)

### POP® Hand Riveter

- Robust aluminum casting and vanadium steel handle design.
- For all popular rivets to 3/16" - includes nosepiece wrench.
- POP hand riveter kit shown on next page.

Part Number	Included Nosepieces	Overall Length	Weight
PS15	3/32", 1/8", 5/32" & 3/16"	9.65" (245 mm)	1.3 lbs (0.6 kgs)

**One Handed Operation**



## POP® Hand Riveter Kit

### Complete Kit Includes:

PS15 POP Hand Riveter, Four Nosepieces (3/32", 1/8", 5/32" & 3/16"), Nosepiece Wrench, 200 PC Rivet Assortment (various popular materials and sizes), 60 Backup Plates (washers) & Fitted Plastic Carrying Case



Part Number	Description
PS15-KIT	265 PC Kit

## Cordless Blind Riveter Tool Kit

*A Powerful & Portable Riveting Tool*



PT-4000-MIL-1

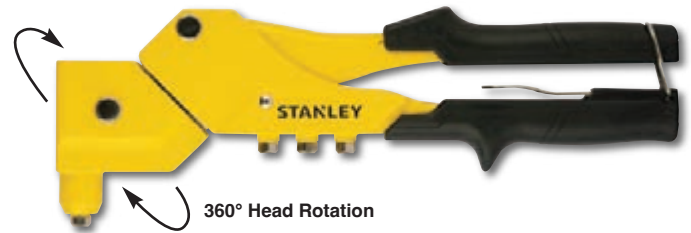
- Fast & efficient, this tool rivals air powered performance in a highly portable package.
- Installs almost all straight pull blind rivets including CherryMAX style (M7885) through 3/16" dia. and most 1/4" dia. all aluminum blind bolts.
- Includes battery charger & 2 quick charge battery packs (1 hour recharge).

Installs (but not limited to) virtually all CherryMAX (M7885), Avdel, or Cherry Monobolts, Cherry Interlock, Huck MagnaLok, and POP type rivets. The tool will also install 5/32" and 3/16" Blind Bolts (MS90353/54-S/U) with the included nosepieces.

Part Number	Stroke	Pulling Force	Case Size	Weight
PT-4000-MIL-1	0.787"	4000 lbf (17.8 kN)	14" x 11-1/2" x 4-1/2"	15 lbs (6.8 kgs)

## 360° Swivel Hand Riveter

*Sets Up To 3/16" Steel Rivets*



- Patented, positive-ratchet locking swivel head rotates 360° and will hold in place in any of the over forty positions.
- High-strength steel body & cast aluminum head.

Part Number	Nosepieces Included
10-37001	3/32", 1/8", 5/32" & 3/16"

## Wrench Type Upsetters

*Quick & Economical*



Slotted  
C1000  
Series  
(plus type)

For installing aluminum and/or steel engineered threaded fasteners.



Large Size  
C722 Series



Standard  
C845 Series

For Standard Rivnuts*		
Part Number	Size	Thread
C845-440	#4	4-40
C845-632	#6	6-32
C845-832	#8	8-32
C845-1024	#10	10-24
C845-1032	#10	10-32
C845-2520	1/4"	1/4"-20
C845-2528	1/4"	1/4"-28
C845-M4	M4	M4 x 0.7
C845-M5	M5	M5 x 0.8
C845-M6	M6	M6 x 1.0

For Large Size Rivnuts*		
Part Number	Size	Thread
C722-3118	5/16"	5/16"-18
C722-3124	5/16"	5/16"-24
C722-3716	3/8"	3/8"-16
C722-3724	3/8"	3/8"-24
C722-5013	1/2"	1/2"-13
C722-5020	1/2"	1/2"-20
C722-M8	M8	M8 x 1.25
C722-M10	M10	M10 x 1.50

\*Includes allen wrench.

For Slotted Rivnuts (plus type)		
Part Number	Size	Thread
C1000-440	#4	4-40
C1000-632	#6	6-32
C1000-832	#8	8-32
C1000-1024	#10	10-24

For Slotted Rivnuts (plus type)		
Part Number	Size	Thread
C1000-1032	#10	10-32
C1000-M4	M4	M4 x 0.7
C1000-M5	M5	M5 x 0.8
C1000-M6	M6	M6 x 1.0



## BLIND RIVETERS & ACCESSORIES

### USATCO RIVETNUT Drivers



*High Speed Push-Pull  
Spiral Action*

10-JP8

Note: Metric sizes also available, please inquire.

Part Number	Conversion Kit Part Number	Replacement Stud Part No.	Thread Size
10-JP4	10-JP4-C	38-U-16-4	4-40
10-JP6	10-JP6-C	38-U-16-6	6-32
10-JP8	10-JP8-C	38-U-16-8	8-32
10-JP10	10-JP10-C	38-U-16-10	10-32
10-JP1/4*	10-JP1/4-C	38-U-16-1/4	1/4"-28
10-JP2520	10-JP2520-C	38-U-16-2520	1/4"-20

\*Aluminum only.



#### RIVETNUT Driver Kit:

Driver, 6-32, 8-32 & 10-32 Large Flange Alum. RIVETNUTS (25 each), Two Nosepieces w/Conversion Kits & Molded Plastic Case

Part Number	Description
53-JP6810	Complete 81 PC Kit

### Notcher/Key Seating Tools



*3/32" Alum. & 1/32"  
Steel Capacity*

10-L3600-4

Note: Extra blades should be ordered with tool.

Part Number	For Use With	Size
10-L3600-4	Flat Head Rivnuts	#4
10-L3600-6	100° Countersunk & Flat Head Rivnuts	#6
10-L3600-8	100° Countersunk & Flat Head Rivnuts	#8
10-L3600-10	100° Countersunk & Flat Head Rivnuts	#10
10-L3600-1/4	Flat Head Rivnuts	1/4"

Replacement Cutter Blades	For Use With
10-K14	#6, 8, 10 & 1/4"
10-K18	#4

### Aluminum Klik Thread-Sert Kit



#### Includes:

Thread-Sert Tool, Seven Mandrels, Four Nosepieces, 5/16"-18 & 3/8"-16 Thread-Serts (6 each), 6-32, 8-32, 10-32, 10-24 & 1/4"-20 Thread-Serts (10 each) & Plastic Case

Part Number	Description
39313	Complete 75 PC Kit

### Pneumatic Threaded Insert Driver Kits



140-SP

- Automatically threads, installs the fastener & spins out the mandrel.
- Totally adjustable stroke length to suit any grip range.
- Includes swivel air inlet for increased mobility.
- No complicated tear down required to change stroke or thread.

#### 140-SP Includes:

Pneumatic Insert Driver, 6-32 to 1/4"-20 Mandrels & Nosepieces, Extra Driver Base, Accessories & Molded Plastic Case

Part Number	Capacity*	Weight
140-SP	4 to 6 mm 6-32 to 1/4"-20	4.9 lbs (2.2 kgs)

#### 160-SP Includes:

Pneumatic Insert Driver, 6-32 to 3/8"-16 Mandrels & Nosepieces, Extra Driver Base, Accessories & Molded Plastic Case

Part Number	Capacity*	Weight
160-SP	3.5 to 10 mm 4-40 to 1/2"-20	6 lbs (2.7 kgs)

\*In aluminum or steel. Full line of mandrels & nosepieces available, please inquire.

## Reversible Ratchet Wrench Assemblies



Note: Assembly models ATHA23 to ATHA36 for large size collars (3 components).

1/4" Drive (ATHR250)		
Part Number	Socket Hex	Hex Key Size
ATHA1	3/16"	1/16"
ATHA2	7/32"	1/16"
ATHA3	1/4"	1/16"
ATHA4	9/32"	1/16"
ATHA5	5/16"	1/16"
ATHA6	11/32"	1/16"
ATHA7	7/32"	5/64"
ATHA8	1/4"	5/64"
ATHA9	9/32"	5/64"
ATHA10	5/16"	5/64"
ATHA11	11/32"	5/64"
ATHA13	5/16"	3/32"
ATHA14	11/32"	3/32"
ATHA15A	3/8"	3/32"

3/4" Drive (ATHR750)		
Part Number	Socket Hex	Hex Key Size
ATHA34	15/16"	1/4"
ATHA35	1"	1/4"
ATHA36	1-1/8"	5/16"

3/8" Drive (ATHR375)		
Part Number	Socket Hex	Hex Key Size
ATHA16	7/16"	3/32"
ATHA21	1/2"	3/32"
ATHA17	3/8"	1/8"
ATHA18	7/16"	1/8"
ATHA22	1/2"	1/8"
ATHA19	7/16"	5/32"
ATHA20	1/2"	5/32"
ATHA23	3/8"	5/64"
ATHA24	1/2"	3/32"
ATHA25	1/2"	1/8"

1/2" Drive (ATHR500)		
Part Number	Socket Hex	Hex Key Size
ATHA26	9/16"	1/8"
ATHA27	9/16"	5/32"
ATHA28	9/16"	3/16"
ATHA29	5/8"	5/32"
ATHA30	11/16"	5/32"
ATHA31	11/16"	7/32"
ATHA32	3/4"	3/16"
ATHA33	7/8"	7/32"

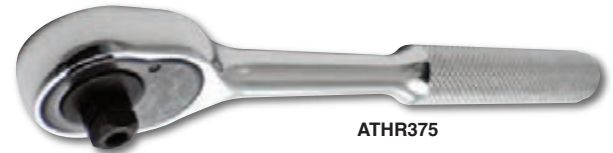
## Mini Reversible Ratchet Wrench



Compact & low profile for better maneuverability in tight areas.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR250M	1/4"	0.92"	0.46"	0.40"	4.60" (11.7 cm)

## Reversible Ratchet Wrenches



72 tooth spindle engages ratchet in only 5° of handle movement.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR250	1/4"	15/64"	1/4"	3/8"	5" (12.7 cm)
ATHR375	3/8"	1-1/4"	3/8"	1/2"	7" (17.8 cm)
ATHR500	1/2"	1-3/4"	1/2"	0.687"	10" (25.4 cm)
ATHR750	3/4"	2-5/8"	3/4"	1-1/8"	20" (50.8 cm)

## Tilting Head Reversible Ratchet Wrench



Tilting head is perfect for maneuvering in limited access areas.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR-TILT	1/4"	0.90"	0.45"	0.40"	6-1/4" (15.9 cm)

## Hi-Lok® & Hi-Lite® Installation Sockets



ATHS218



ATHS375

- For the installation of Hi-Lok® & Hi-Lite® fasteners.
- Anti-FOD set screw provides positive square drive engagement.

1/4" Drive Socket	
Part Number	Hex
ATHS187	3/16"
ATHS218	7/32"
ATHS250	1/4"
ATHS281	9/32"
ATHS312	5/16"
ATHS343	11/32"
ATHS375A	3/8"

1/2" Drive Socket	
Part Number	Hex
ATHS562	9/16"
ATHS625	5/8"
ATHS687	11/16"
ATHS750	3/4"
ATHS875	7/8"

3/8" Drive Socket	
Part Number	Hex
ATHS375	3/8"
ATHS437	7/16"
ATHS500	1/2"

3/4" Drive Socket	
Part Number	Hex
ATHS937	15/16"
ATHS1000	1"
ATHS1125	1-1/8"

## HI-SHEAR INSTALLATION & REMOVAL

### Hex Drivers



57406

- General use & production assembly using socket screw products.
- Includes adjustable, replaceable Allen bit & bit change key.

**NOTE:** For more hex drivers, keys & sets see pages 161-162.

Part Number	Key Size	Part Number	Key Size
57400	.028"	57412	7/64"
57406	1/16"	57414	1/8"
57408	5/64"	57416	9/64"
57410	3/32"		

### 'Tight Squeeze' Installation Tool Assemblies

Single-  
Handed  
Operation



TSQ25-312-078  
Assembly



TSQ25 Tool Only

- Newly designed, full function Hi-Lok® and Hi-Lite® installation tool.
- Unique profile for operation in tight spots and around corners.
- Toothless ratcheting system for quick tool engagement.

Part Number	Socket Size	Hex Key Size
TSQ25-218-062	7/32"	1/16"
TSQ25-250-062	1/4"	1/16"
TSQ25-281-062	9/32"	1/16"
TSQ25-312-062	5/16"	1/16"
TSQ25-281-078	9/32"	5/64"
TSQ25-312-078	5/16"	5/64"
TSQ25-343-078	11/32"	5/64"
TSQ25-437-078	7/16"	5/64"
TSQ25-312-094	5/16"	3/32"
TSQ25-343-094	11/32"	3/32"
TSQ25-437-094	7/16"	3/32"
TSQ25*	—	—

\*Tool only - applicable sockets on previous page and 'Tight Squeeze' hex keys below.



TSQ078

Replacement 'Tight Squeeze' Hex Keys	
Part Number	Key Size
TSQ062	1/16"
TSQ078	5/64"
TSQ094	3/32"

### Roller Ratchet Installation Tools

Single Head Type



Quick Ratchet Engagement

- Ideal for installing Hi-Lok® & other fasteners in confined areas.
- Uses standard drive sockets & Hi-Shear® style set screw sockets.
- Allen wrench through hole for Hi-Lock® & Hi-Lite® pins.

1/4" Square Drive			
Part Number	Max. Torque	Head Height	Overall Length
RR40S-SP	150 in-lbs	0.91"	3-1/2" (89 mm)
RR40SP	150 in-lbs	0.91"	6" (152 mm)
RR80	200 in-lbs	1.37"	6" (152 mm)
RR130	250 in-lbs	0.92"	7" (178 mm)

3/8" Square Drive			
Part Number	Max. Torque	Head Height	Overall Length
RR250	400 in-lbs	1.21"	8" (203 mm)
RR400	600 in-lbs	1.21"	9" (229 mm)

### Double Box Ratchet Wrenches



ATBR-2528



ATBRO-3134

- Perfect for installing Hi-Lok® fasteners in tight areas.
- Shoulder ring prevents collar from slipping through the socket.
- Optional ejector pin quickly discards removed collar.

**Note:** All tools are 3/8" thick except ATBR-2125E (5/16" thick).

Standard Models				
Straight	25° Offset	Hex #1	Hex #2	Overall Length
ATBR-2125	ATBRO-2125	7/32"	1/4"	4-3/32" (104 mm)
ATBR-2528	ATBRO-2528	1/4"	9/32"	4-3/32" (104 mm)
ATBR-3134	ATBRO-3134	5/16"	11/32"	4-3/32" (104 mm)
ATBR-3137	ATBRO-3137	5/16"	3/8"	5-7/32" (133 mm)
ATBR-4350	ATBRO-4350	7/16"	1/2"	5-7/32" (133 mm)

Ejector Models				
Straight	25° Offset	Hex #1	Hex #2	Overall Length
ATBR-2125E	ATBRO-2125E	7/32"	1/4"	4-3/32" (104 mm)
ATBR-2528E	ATBRO-2528E	1/4"	9/32"	4-3/32" (104 mm)
ATBR-3134E	ATBRO-3134E	5/16"	11/32"	4-3/32" (104 mm)
ATBR-3137E	ATBRO-3137E	5/16"	3/8"	5-7/32" (133 mm)
ATBR-4350E	ATBRO-4350E	7/16"	1/2"	5-7/32" (133 mm)



## 'Savi-Socket' Collar Removal Sockets

High Strength, Heat-Treated Tool Steel

Made In  
The USA



SAVI-56

Corrosion  
Resistant  
Coating

- Conical/tapered shape with helical teeth to quickly remove Hi-Lok®, Hi-Lite®, Eddie Bolt® and Huck® threaded collars.
- Socket is firmly drawn onto the collar, removing it with minimal wear and effort - all without jamming the collar into the socket.
- For use on aluminum, steel, titanium and all coated collars.
- Anti-FOD set screw for positive retention.

1/4" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-21	5/32" EB	5 EB	0.21" (5.5 mm)
SAVI-24	5/32", 3/16" EB	5, 6 EB	0.24" (6.2 mm)
SAVI-25	5/32"	5	0.25" (6.5 mm)
SAVI-26	5/32", 3/16"	5, 6	0.26" (6.7 mm)
SAVI-27	5/32", 3/16"	5, 6	0.27" (7.0 mm)
SAVI-28	3/16"	6	0.28" (7.2 mm)
SAVI-29	3/16"	6	0.29" (7.5 mm)
SAVI-32	1/4", 1/4" EB	8, 8 EB	0.32" (8.2 mm)
SAVI-33	1/4"	8	0.33" (8.5 mm)
SAVI-34	1/4"	8	0.34" (8.7 mm)
SAVI-35	1/4"	8	0.35" (9.0 mm)
SAVI-36	1/4"	8	0.36" (9.2 mm)
SAVI-37	1/4"	8	0.37" (9.5 mm)
SAVI-39	5/16" EB	10 EB	0.39" (10.0 mm)

3/8" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-43	5/16"	10	0.43" (11.0 mm)
SAVI-45	5/16"	10	0.45" (11.5 mm)
SAVI-47	5/16"	10	0.47" (12.0 mm)
SAVI-50	5/16"	10	0.50" (12.7 mm)
SAVI-51	3/8"	12	0.51" (13.0 mm)
SAVI-55	3/8"	12	0.55" (14.0 mm)
SAVI-56	3/8"	12	0.56" (14.3 mm)
SAVI-59	7/16"	14	0.59" (15.0 mm)
SAVI-63	7/16"	14	0.63" (16.0 mm)

1/2" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-67	1/2"	16	0.67" (17.0 mm)
SAVI-69	1/2"	16	0.69" (17.5 mm)

\*Collar opening diameter where socket just fits over the top of the collar.

## 'Savi-Socket' Collar Removal Socket Sets

Convenient Sets Of The  
Most Popular Sizes



SAVI-568-RED

\*See reference chart on left for individual collar specifications.

4PC Eddie Bolt® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-56810-EB	SAVI-21, 24, 32 & 39	-5, -6, -8 & -10

12PC Hi-Lok® & Hi-Lite® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-568-HL	SAVI-24 to 29 & SAVI-32 to 37	-5, -6 & -8

6PC Hi-Lok® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-568-RED	SAVI-25, 26, 28, 29, 36 & 37	-5, -6 & -8

6PC Hi-Lok® & Hi-Lite® Large Size Set - 3/8" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-1012	SAVI-43, 45, 50, 51, 55 & 56	-10 & -12

## Frangible Collar Removal Sockets

3581  
Series



3581-1/4



3581-5/16

- Removes Hi-Lok, Hi-Lite and Eddie Bolt fastener collars.
- Innovative design features six-start, left hand internal threads.
- Hardened tool steel sockets have a female square drive and external hex drive - can be used with hand or air ratchets.
- Immediate collar engagement with minimal downforce.
- For use on aluminum, stainless steel and titanium collars.

1/4" Sq. Drive - 7/16" Ext. Hex		
Part Number	Collar Size	Dash Size
3581-5/32	5/32"	-5
3581-3/16	3/16"	-6
3581-1/4	1/4"	-8
3581-5/16	5/16"	-10

3/8" Sq. Drive - 3/4" Ext. Hex		
Part Number	Collar Size	Dash Size
3581-3/8	3/8"	-12
3581-7/16	7/16"	-14
3581-1/2	1/2"	-16
3581-9/16	9/16"	-18
3581-5/8	5/8"	-20

NEW



53-3581

Part Number	Description
53-3581	Set of 4 (-5, -6, -8 & -10)

## HI-SHEAR INSTALLATION & REMOVAL

### Hi-Lok® & Eddie-Bolt® Collar Removal Sockets



-5 to -8 Style



-10 to -14 Style

- Driven with hand or pneumatic tools with a 3/8" square drive.
- Sockets 'bite' into the collar allowing it to be unscrewed.

**Note:** -8 requires plier loosening prior to removal (pliers avail. below right & next page).

Part Number	Nominal Pin Diameter	Part Number	Nominal Pin Diameter
02-HLC1-5	5/32"	02-HLC1-10	5/16"
02-HLC1-6	3/16"	02-HLC1-12	3/8"
02-HLC1-8	1/4"	02-HLC1-14	7/16"

### K-Fast® 8-Spline Installation & Removal Sockets



*Tamper  
Proof*

- Uses standard square drive ratchet wrenches.
- For Kaynar KFN fasteners (Airbus aircraft, A10 Thunderbolt etc.).

1/4" Square Drive		1/2" Square Drive	
Part Number	Size	Part Number	Size
ATSK3686-2T	#8	ATSK3686-7S	7/16"
ATSK3686-3T	#10	ATSK3686-8S	1/2"
ATSK3686-4T	1/4"	ATSK3686-9S	9/16"
		ATSK3686-10S	5/8"

3/8" Square Drive	
Part Number	Size
ATSK3686-5F	5/16"
ATSK3686-6F	3/8"

### Thd. Shank Huck® & Hi-Shear® Collar Removers

*Four-Flute  
H.S.S.*



- Cleanly cut off swaged collar of Huck® & Hi-Shear® type fasteners.
- Internal stop prevents contact with the work surface.

**Note:** 1/4"-28 thread. For use with microstop countersink cages.

Part Number	Fastener Size	Overall Dia.	Part Number	Fastener Size	Overall Dia.
02-86-0	3/32" HS47	.365"	02-87-1	3/16" L6	.323"
02-86-1	1/8" HS47	.365"	02-87-2	1/4" L8	.413"
02-86-2	5/32" HS47	.365"	02-87-3	1/4" OS8	.372"
02-86-3	3/16" HS47	.438"	02-87-4	5/16" L10	.528"
02-86-4	1/4" HS47	.500"	02-87-5	5/16" OS10	.465"
02-86-5	5/16" HS47	.562"	02-87-7	3/8" OS12	.465"
02-86-6	3/8" HS47	.625"			

### Hi-Shear® Six-Wing Collar Removal Assemblies



*Straight Handle, Only 3/8" Thick*

*Standard Socket*

CAT19-15

- Tapered splines developed specifically for six-wing collars.
- Removes collar while preventing collar re-use or re-installation.
- Assemblies include box ratchet handle and drive socket.

Standard Socket, 4-1/4" Overall Length					
Complete Assembly	Socket Only	Pin Dash	Pin Size	Socket Length	Socket Dia.
CAT19-15	CAT18-15	-5	5/32"	1/2"	.35"
CAT19-18	CAT18-18	-6	3/16"	1/2"	.35"
CAT19-25	CAT18-25	-8	1/4"	1/2"	.47"

### Frangible Collar Hand Removal Tools



REM100-56

- Slips down over Hi-Lok® or similar collar and gently unscrews.
- Clean removal in limited access areas with no cutting or prying.

Part Number	Pin Dash Number	Nominal Pin Dia.	Head Width	Overall Length
REM100-56	-5	5/32"	.42"	5.6" (142 mm)
	-6	3/16"	.42"	
REM100-8	-8	1/4"	.55"	5.8" (147 mm)
REM100-10	-10	5/16"	.67"	6.9" (175 mm)
REM100-12	-12	3/8"	.75"	7.9" (200 mm)
REM100-14	-14	7/16"	.95"	9.9" (251 mm)

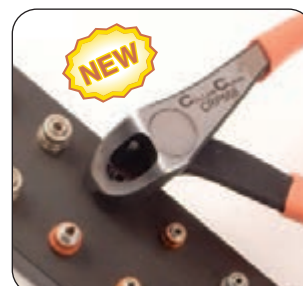
### Collar Claw Removal Tool



This revolutionary tool fits over collars like a socket leaving plenty of clearance between fasteners and easy access for hex keys if needed.

- Ergonomic, gentle squeeze action with up to 250 in-lb of torque.
- For use with any threaded collar: Hi-Lite/Lok & Threaded Huck (-5 to -8), Eddie Bolt (-5 to -10) as well as standard nuts and fasteners.

Part Number	Overall Length
04-568	7" (178 mm)



## Hi-Lok® & Hi-Tique® Collar Removal Assemblies



### Great For Limited Access Areas

These low profile tools can be driven directly with a standard hand ratchet, or fitted to an extension for deeper access in tight spots.

**Note:** Open end "crow foot" and other styles also available, please inquire.

1/4" Square Drive - 90° Offset				
Part Number	Size	'A' Height	'B' Width	'C' Overall Length
REM102-56	3/16"	0.35"	0.56"	1.1" (28 mm)
REM102-8	1/4"	0.35"	0.67"	1.2" (30 mm)

3/8" Square Drive - 90° Offset				
Part Number	Size	'A' Height	'B' Width	'C' Overall Length
REM102-10	5/16"	0.40"	0.79"	1.5" (38 mm)
REM102-12	3/8"	0.50"	0.90"	1.6" (41 mm)
REM102-14	7/16"	0.63"	1.17"	2.1" (53 mm)
REM102-16	1/2"	0.63"	1.26"	2.3" (58 mm)

## Hi-Lok® & Hi-Tique® Collar Removal Tool Kit



Provides close quarter tools to remove Hi-Lok® & Hi-Tique® collars.

### Kit Includes:

Six 90° Offset Collar Removal Tools (3/16", 1/4", 5/16", 3/8", 7/16" & 1/2"), 1/4" Drive Breaker Bar (5-3/4" L), 3/8" Drive Breaker Bar (10" L), Two 3" Drive Extensions (1/4" & 3/8") & Fitted Plastic Carrying Case

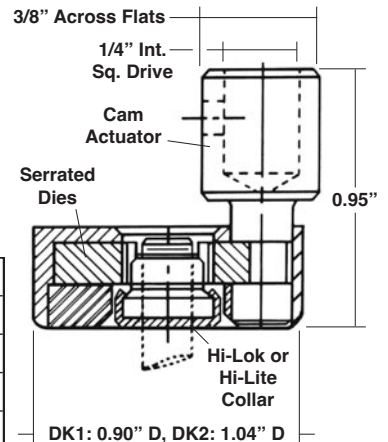
Part Number	Description
HLK10	Complete 10 PC Kit

## DK Series Hi-Lok® & Hi-Lite® Collar Rem. Tools



### Great For Limited Access Areas

Remove Hi-Lok® & Hi-Lite® collars with or without captive washers.



Part No.	Collar Dia. Range
DK1-1	.239" to .262"
DK1-3	.269" to .290"
DK2-4	.332" to .350"
DK2-5	.370"

**Note:** Use with 1/4" male square drive or 3/8" open end wrench (not included).

## Hi-Lok® Collar Removal Pliers



Diamond cut jaws for a patterned grip on fasteners from any angle.

Part Number	Capacity	Overall Length
04-3579	Up to 5/16"	7-3/8" (187 mm)

## Hi-Lok® Collar Removal Pliers



- Quick & inexpensive alternative for removing frangible hex collars such as Hi-Lok®, Hi-Lite®, Hi-Tique®, Veri-Lite® and C-Lok®.
- Hardened steel jaws designed to maximize gripping surface.

Part Number	Style	Capacity	Overall Length
04-100H	Standard	5/32", 3/16", 1/4" & 5/16"	7-3/8" (187 mm)
ZHP-100B	Offset		6-1/2" (165 mm)
ZHP-200	Standard	5/16", 5/8" & 3/4"	9" (229 mm)



### Ergonomic Offset Model

Ergonomic design with a 42° offset for better leverage.

Part Number	Style	Capacity	Overall Length
ZHP-200B	Ergo Offset	5/16", 5/8" & 3/4"	8-1/4" (210 mm)



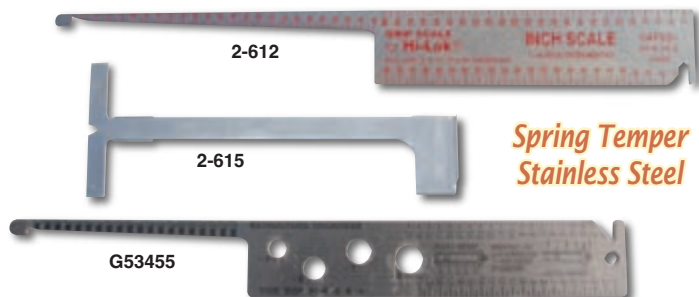
## HI-SHEAR INSTALLATION & REMOVAL

### Pin Protrusion Gauges



Part Number	Type	Included Sizes
2-1522	Hi-Lok® Standard	-5, -6, -8, -10 & -12
2-1522HST	Hi-Lite® Standard	
2-1522-B	Hi-Lok® Aerospace 'B'	
2-1522HST-B	Hi-Lite® Aerospace 'B'	
2-1522HLM	Hi-Lok® / Hi-Tigue® Metric	4, 5, 6, 8, 10 & 12 mm
2-1522HSTM	Hi-Lite® Metric	
2-1522-B-2	Hi-Lok® Large Diameter	-14, -16, -18, -20 & -24
2-1522HST-2	Hi-Lite® Large Diameter	-14, -16, -18 & -20

### Grip Gauges



Part Number	Description
2-612	1/16" Increments To 3", 1 mm Increments To 75 mm
2-615	Grip Gauge Slide (to assure a more accurate grip reading, for gauge 2-612 above)
2-651	Grip Gauge Assembly (incl. 2-612 & 2-615 above)
G53453	For Visu-Lok® Jo-Bolt® Fasteners
G53455	For Composi-Lok® Fasteners

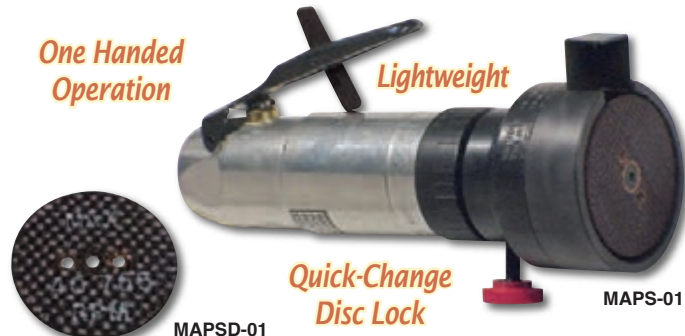
### Hi-Lok® Fastener Ratchet Extensions



- Continuous through-hole for hex key insertion. **AT13597-3X**
- Set screw secures extension to ratchet.

Part Number	Drive	Overall Length
255-2HL	1/4"	2" (51 mm)
AT13597-3X	3/8"	3" (76 mm)
255-4HL	1/4"	4" (102 mm)

### Rivet Stem Shaver



- Unique tool shaves corebolt breakoffs on Composi-Lok®, Visu-Lok®, Radial-Lok® & OSI-Bolt® fasteners with a swift, 30,000 RPM 'slicing' action.
- Precision setup with depth adjustment gauge.
- Long lasting abrasive cutting discs for smooth, uninterrupted cuts.

Rivet Stem Shaver	Replacement Cutting Disc	Free RPM	Depth Adj.	Weight
MAPS-01	MAPSD-01	30,000	0.001"	1.25 lbs (0.6 kgs)

### Reversible Ratchet Wrench Installation Kit



Install Hi-Lite®, Hi-Lok® & Hi-Tigue® pin and collar combinations.

#### Kit Includes:

Nine Ratchet Assemblies (5/16" x 1/16", 5/16" x 5/64", 11/32" x 5/64", 11/32" x 3/32", 7/16" x 3/32", 7/16" x 1/8", 1/2" x 5/32", 9/16" x 3/16" & 11/16" x 7/32"), Two Flat Box Ratchets (5/16" x 11/32" & 7/16" x 1/2"), Three T-Handle Hex Keys (5/32", 3/16" & 7/32"), Six Hex Drivers (1/16", 2X 5/64", 2X 3/32" & 1/8"), Grip Gauge, Pin Protrusion Gauge Set & Fitted Plastic Carrying Case

Part Number	Description
HLK14	Complete 22 PC Kit

## Hi-Lok® Installation & Removal Kits

*Other Tool Kits Available, Please Inquire*



AT13600K

### Deluxe Ratchet & Socket Kit:

1/4" & 3/8" Drive Reversible Ratchets, Ten Sockets (3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16" & 1/2"), 1/16" Hex Key, Four T-Hex Keys (5/64", 3/32", 1/8" & 5/32"), Two Extensions (2" & 3") & Fitted Plastic Case

Part Number	Description
AT13600K	Complete 20 PC Kit



AT13594K

### Ratchet & Socket Kit:

1/4" Drive Reversible Ratchet, Seven Sockets (3/16", 7/32", 1/4", 9/32", 5/16", 11/32" & 3/8"), Two Extensions (2" & 4"), 1/16" Hex Key, Two T-Hex Keys (5/64" & 3/32") & Fitted Plastic Case

Part Number	Description
AT13594K	Complete 14 PC Kit

## Hi-Lok® Installation & Removal Kits (cont'd)



ATISK3539A8

### Deluxe Roller Clutch Ratchet Kit:

Two 1/4" Drive Wrenches (1 installation, 1 removal), Six Hex Installation Wrenches (7/32", 1/4", 5/16", 11/32", 3/8" & 7/16"), Diamond Cut Removal Pliers & Fitted Plastic Case

Part Number	Description
ATISK3539A8	Complete 10 PC Kit

## 'Liberator' Ratchet Set



*Includes  
Fitted  
Plastic  
Case*

70978

- 90° & 360° ratchet heads are great for confined spaces.
- Various length handles accept 1/4"-28 bits & countersinks.
- Threaded 1/4" drive socket adapter for multi-function ratchet use.

Part Number	Description
70978	Complete 12 PC Kit

## HI-SHEAR INSTALLATION & REMOVAL

### Hi-Lok® Pneumatic Installation & Removal Kit



Kit includes:

HLKT2000

Pneumatic 1/4" Square Drive Ratchet (with through hole), Nine Hi-Lok® Sockets (5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8" & 7/16"), Four Hi-Lok® Collar Removal Sockets (5/32", 3/16", 1/4" & 5/16") Three Hex Keys (1/16", 5/64" & 3/32") & Fitted Plastic Case

Part Number	Description
HLKT2000	Complete 18 PC Kit

### USATCO TOOL REPAIR

USATCO has been repairing tools for 70 years. Send your inoperable tool to our state of the art facility (NY or CA) for a free estimate!

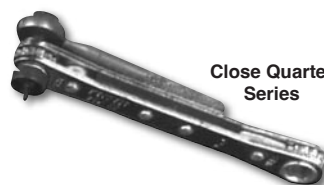
### Jo-Bolt® & Visu-Lok® Installation Hand Tools



Standard Series

#### Standard Ratchet Hand Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
HWF165	HWP165	HWA165	HWT165	-5 (5/32")
HWF200	HWP200	HWA200	HWT200	-6 (3/16")
HWF260	HWP260	HWA260	HWT260	-8 (1/4")
HWF312	HWP312	—	HWT312	-10 (5/16")
HWF375	HWP375	—	HWT375	-12 (3/8")



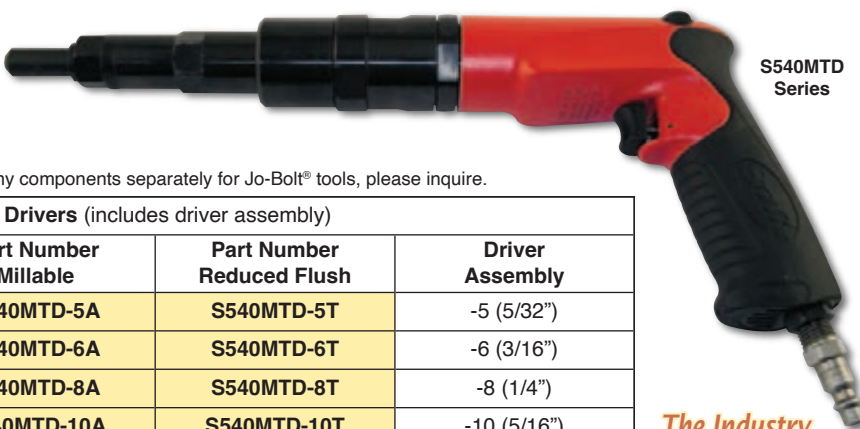
Close Quarter Series

#### Close Quarter Ratchet Hand Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
HWF5	HWP5	HWA5	HWT5	-5 (5/32")
HWF6	HWP6	HWA6	HWT6	-6 (3/16")
HWF8	HWP8	HWA8	HWT8	-8 (1/4")
HWF10	HWP10	—	HWT10	-10 (5/16")
HWF12	HWP12	—	HWT12	-12 (3/8")

## Pneumatic Installation Tools For Jo-Bolt®, Visu-Lok® & Composi-Lok® Fasteners

Specifically designed for the installation of 5/32" to 3/8" Jo-Bolt®, Visu-Lok®, Visu-Lok II®, Composi-Lok® & Composi-Lok II® blind bolts.



S540MTD Series

**Note:** For more detailed information and/or assistance in ordering any components separately for Jo-Bolt® tools, please inquire.

#### Pistol Grip Master Torque Drivers (includes driver assembly)

Part Number Flush	Part Number Protruding	Part Number Millable	Part Number Reduced Flush	Driver Assembly
S540MTD-5	S540MTD-5P	S540MTD-5A	S540MTD-5T	-5 (5/32")
S540MTD-6	S540MTD-6P	S540MTD-6A	S540MTD-6T	-6 (3/16")
S540MTD-8	S540MTD-8P	S540MTD-8A	S540MTD-8T	-8 (1/4")
S540MTD-10	S540MTD-10P	S540MTD-10A	S540MTD-10T	-10 (5/16")
S540MTD-12	S540MTD-12P	S540MTD-12A	S540MTD-12T	-12 (3/8")

*The Industry Standard*

#### Lever Grip Torque Responsive Adapters (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
7440M-5	7440M-5P	7440M-5A	7440M-5T	-5 (5/32")
7440M-6	7440M-6P	7440M-6A	7440M-6T	-6 (3/16")
7440M-8	7440M-8P	7440M-8A	7440M-8T	-8 (1/4")

#### Lever Grip Close Quarter Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
7440C-5	7440C-5P	7440C-5A	7440C-5T	-5 (5/32")
7440C-6	7440C-6P	7440C-6A	7440C-6T	-6 (3/16")
7440C-8	7440C-8P	7440C-8A	7440C-8T	-8 (1/4")



## Visu-Lok® Tool Kits



VLHK-102

### Visu-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, Fastener Drivers (-5, -6, -8, -10 & -12), Flush Nose (-5, -6, -8, -10 & -12), Protruding Nose (-5, -6, -8, -10 & -12), Millable Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6, -8, -10 & -12), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4000KIT	Complete 26 PC Kit

### Visu-Lok® Right Angle Torque Responsive Kit:

7440M Complete Driver Assembly, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8), Millable Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6 & -8), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4070KIT	Complete 18 PC Kit

### Visu-Lok® Pistol Grip Master Torque Driver Kit:

S540MTD Pneumatic Motor, PT Nose (flush & protruding), Flush Nose (-5, -6, -8 & -10), Protruding Nose (-5, -6 & -8), Millable Nose (-5, -6, -8 & -10), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4090KIT	Complete 16 PC Kit

### Visu-Lok® Flush & Protruding Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Fastener Drivers (-5, -6, -8 & -10), Flush Nose (-5, -6, -8 & -10), Protruding Nose (-5, -6, -8 & -10), Close Quarter Flush Nose (-5, -6, -8 & -10), Close Quarter Protruding Nose (-5, -6, -8 & -10), Close Quarter Millable Nose (-5, -6, -8 & -10) & Visu-Lok® Grip Gauge

Part Number	Description
VLHK-101	Complete 28 PC Kit

### Visu-Lok® Flush & Protruding Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8) & Visu-Lok® Grip Gauge

Part Number	Description
VLHK-102	Complete 11 PC Kit

## Composi-Lok® Tool Kits

*Convenient & Versatile*

4060KIT



### Composi-Lok® Right Angle Master Torque Driver Ass'y Kit:

7440M-BF Complete Driver Assembly, MTD502-BF Master Torque Driver, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6 & -8), Composi-Lok® Grip Gauge & Tool Box

Part Number	Description
4060KIT	Complete 16 PC Kit

### Composi-Lok® Pistol Grip Master Torque Driver Kit:

S540MTD-BF Pneumatic Motor, Fastener Drivers (-5, -6, -8, -10 & -12), Flush Nose (-5, -6, -8, -10 & -12), Protruding Nose (-5, -6, -8, -10 & -12), Reduced Flush Nose (-5, -6, -8, -10 & -12), Two Composi-Lok® Grip Gauges & Tool Box

Part Number	Description
4080KIT	Complete 24 PC Kit

### Composi-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Fastener Drivers (-5, -6, -8 & -10), Protruding Wrench Adapters (-7 & -8), Flush Nose (-5, -6, -7, -8, -9 & -10), Protruding Nose (-5, -6, -7, -8, -9 & -10), Close Quarter Fastener Drivers (-5, -6, -7, -8, -9 & -10), Close Quarter Flush Nose (-5, -6, -7, -8, -9 & -10), Close Quarter Protruding Nose (-5, -6, -7, -8, -9 & -10) & Two Composi-Lok® Grip Gauges

Part Number	Description
CLHK-101	Complete 41 PC Kit

### Composi-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Wrench Adapters (-5, -6, -7, -8 & -10), Three Universal Nose Tips (for -5 to -12), Three Nose Tip Connectors (for -5 to -12), Close Quarter Wrench Adapters (-5, -6, -7, -8 & -10), Three Close Quarter Nose Tip Connectors (for -5 to -12) & Two Composi-Lok® Grip Gauges

Part Number	Description
CLIIHK-101	Complete 24 PC Kit

## HI-SHEAR INSTALLATION & REMOVAL

### Hi-Shear® Pistol Grip Pneumatic Inst. Tooling



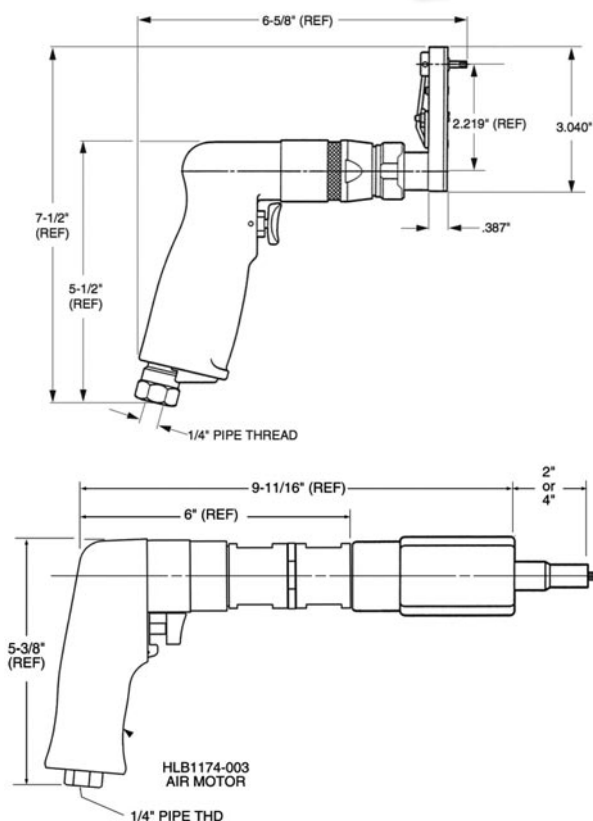
HLA1051

*Straight Driver Assembly  
With Extended Socket And  
Super Key (T-Series)*



HLA1201

*Offset Mini Driver Assembly  
With Thin Flush Socket And  
Super Key (T-Series)*



Specifications		
Tool	HLA1201	HLA1501
Operating Pressure	90 PSIA	90 PSIA
Max. Torque Rating	60 in-lbs @ 90 PSIA	300 in-lbs @ 90 PSIA
Socket Speed	500 RPM	250 RPM
Horsepower	0.20 HP (0.15 kW)	0.70 HP (0.52 kW)
Air Consumption	20 SCFM	22 SCFM
Weight	2.0 lbs (0.9 kgs)	3.8 lbs (1.7 kgs)

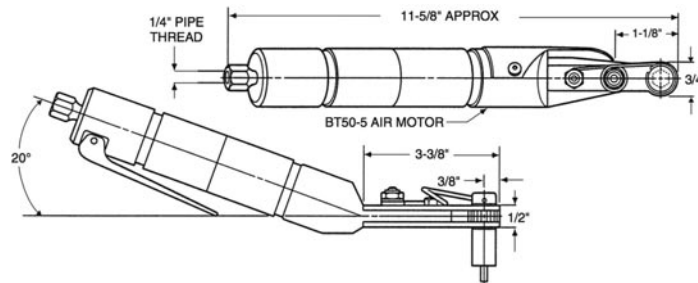
For additional ordering information and assistance, or to order specific assembly components where applicable, please inquire.

### Hi-Shear® Lever Grip Pneumatic Inst. Tooling



HLA2016

*20° Offset Ratchet Wrench Driver Assembly With  
Multi-Length Socket And Super Key (T-Series)*



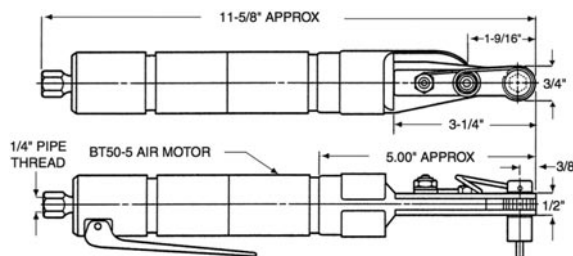
HLA2016 Available Socket Lengths

1/2"	1"	1-1/2"	2"	3/4"	1-3/4"	4"
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HLA2002

*Straight Ratchet Wrench Driver Assembly With  
Multi-Length Socket And Super Key (T-Series)*



HLA2002 Available Socket Lengths

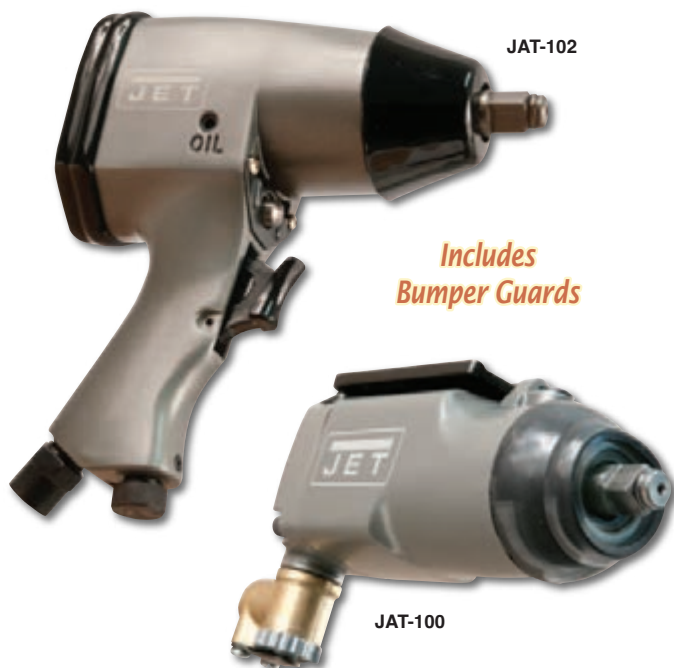
1/2"	1"	1-1/2"	2"	3/4"	1-3/4"	4"
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Specifications		
Tool	HLA2016	HLA2002
Operating Pressure	90 PSIA	90 PSIA
Max. Torque Rating	110 in-lbs @ 90 PSIA	110 in-lbs @ 90 PSIA
Socket Speed	250 RPM	250 RPM
Horsepower	0.50 (0.35 kW)	0.50 HP (0.35 kW)
Air Consumption	22 SCFM	22 SCFM
Weight	2.0 lbs (0.9 kgs)	2.0 lbs (0.9 kgs)

For additional ordering information and assistance, or to order specific assembly components where applicable, please inquire.

### USATCO HI-SHEAR® TOOLING

USATCO offers a full selection of Hi-Shear® pneumatic tools and accessories that are too numerous to list here. If you don't see what you are looking for please contact us for assistance.

**JET® Impact Wrenches**


*Includes  
Bumper Guards*

- Lightweight aluminum construction reduces weight.
- One hand forward/reverse button for easy adjustments.
- The inline JAT-100 features a single hammer clutch mechanism, pistol grip JAT-102 a powerful pin clutch hammer mechanism.

**Note:** Air Inlet 1/4" NPT - use 3/8" (9.5 mm) air hose.

3/8" Capacity Inline, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
<b>JAT-100</b>	5 to 50 ft-lbs (75 ft-lbs max.)	12,000	700	5-7/8" (149 mm)	2.0 lbs (0.91 kgs)

1/2" Capacity Pistol Grip, 1/2" Square Drive					
Part No.	Working Torque	RPM	BPM	O.A.L.	Weight
<b>JAT-102</b>	50 to 200 ft-lbs (250 ft-lbs max.)	7000	600	7-1/4" (184 mm)	5.0 lbs (2.27 kgs)

**Master Power® Inline Impact Wrench**


*Full Power Forward & Reverse*

- Butterfly throttle & swivel air inlet.
- Built-in power regulator with 4 settings for varying torque output.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

3/8" Capacity, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
<b>MP2271</b>	40 to 50 ft-lbs	10,500	900	7" (mm)	2.2 lbs (1.0 kgs)

**JET® Stubby Impact Wrench**


**NEW**

*Lightweight  
& Durable*

*Easy Touch  
Teasing Trigger*

*Deliver More Torque  
In Tighter Spaces*

- Lightweight yet high impact resistant composite housing.
- Unmatched balance to reduce fatigue over long usage.
- Easy, one handed side-to-side forward/reverse toggle.
- Comfortable non-slip molded rubber handle.

**Note:** Air Inlet 1/4" NPT - use 3/8" (9.5 mm) air hose.

3/8" Capacity, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
<b>JAT-125</b>	90 to 370 ft-lbs (430 ft-lbs max.)	8500	1500	4-3/8" (mm)	2.5 lbs (1.0 kgs)

**JET® Ratchet Wrenches**

*Ball Bearing Construction*



*Hardened Steel Gears*



*Durable, Quality Tools*

- Steel ball retainers for rapid socket changing.
- Variable-speed throttle for better speed control.

**Note:** Air Inlet 1/4" NPT - use 3/8" (9.5 mm) air hose.

3/8" Square Drive				
Part Number	Torque Range	RPM	O.A.L.	Weight
<b>JAT-301</b>	10-50 ft-lbs	200	10-1/2" (267 mm)	2.6 lbs (1.2 kgs)

1/2" Square Drive				
Part Number	Torque Range	RPM	O.A.L.	Weight
<b>JAT-302</b>	10-50 ft-lbs	200	10-1/2" (267 mm)	2.6 lbs (1.2 kgs)



## ASSEMBLY TOOLS

### Chicago Pneumatic® Ratchet Wrench

*Fast Rundown*

*Improved Head Design*



CP825C

*Short & Wide Lever*

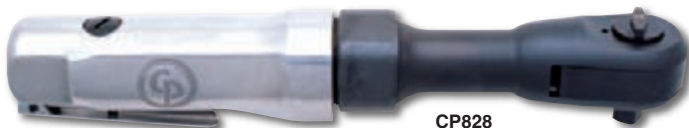
- Aluminum body with composite housing to insulate from cold.
- New, easy-to-use power regulator (0 to 280 RPM).
- Flat forward and reverse button.
- Back exhaust avoids blowing dirt and dust.



**Note:** Air Inlet 1/4" NPT - use 3/8" (9.5 mm) air hose.

1/4" Square Drive				
Part Number	Torque Range	RPM	O.A.L.	Weight
CP825C	4-18 ft-lbs (26 ft-lbs max.)	280	6-5/8" (169 mm)	1.1 lbs (0.5 kgs)

### Chicago Pneumatic® Ratchet Wrenches



CP828



CP828H

- For light duty assembly & repair work.
- Teasing throttle.

**Note:** Air Inlet 1/4" NPT - use 3/8" (9.5 mm) air hose.

3/8" Square Drive				
Part Number	Torque Range	RPM	O.A.L.	Weight
CP828	10-50 ft-lbs (50 ft-lbs max.)	150	10" (254 mm)	2.4 lbs (1.1 kgs)

1/2" Square Drive				
Part Number	Torque Range	RPM	O.A.L.	Weight
CP828H	10-50 ft-lbs (50 ft-lbs max.)	150	10" (254 mm)	2.4 lbs (1.1 kgs)

### Keyless Impact Chucks

*Superior Holding Power*



20-90430

*Square Drive, Keyless Design*

Transform your impact wrench into an efficient drilling tool.

Part Number	Capacity Range	Square Drive Mount	Overall Length (open)
20-90424	3/32" to 3/8"	3/8"	2-3/32" (53 mm)
20-90430	1/8" to 1/2"	1/2"	2-5/8" (67 mm)

### Master Power® Impact Nutrunner



MP2265B

*Ideal For Soft Joint Work*

*Power Of An Impact, Speed Of A Screwdriver*

*Lightweight & Compact*

*Detachable Belt Clip & Suspension Bail Included*

- Smooth & efficient impact mechanism creates no torque action.
- Forward/reverse lever can be positioned for right or left hand use.
- Built-in power regulator with 4 settings for precise control.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

1/2" Capacity, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
MP2265B	10 to 100 ft-lbs	10,000	1700	6" (152 mm)	2.2 lbs (1.0 kgs)

### 100 PC Master Driver Bit Set

*Modified S2 Shock Resistant Steel, Precision Machined Tips*



VHS100A



**Includes:**

Assorted Popular Sized Bits: 10 Phillips, 8 Pozidriv, 6 Square, 13 Torx, 3 Clutch, 10 Hex, 7 Slotted, 4 Triple Square, 5 Torq-Set, 5 Spanner, 11 Torx Tamper, 10 Hex Tamper, 5 Tri-Wing, 2 Socket Adapters, 'Y' Adapter, 1/4" Sq. Drive Holder, Magnetic Holder & Molded Plastic Case

Part Number	Description
VHS100A	Complete 100 PC Set

**Micro-Adjustable, Click Type Dual Scale Torque Wrenches**

**10002MRMH**

- Dual scale, calibrated dual direction.
- Easy to read laser marked scales.
- Positive lock spring-loaded pull down lock ring.
- Certificate of calibration traceable to N.I.S.T.

*Fast, Accurate  
& Easy To Set*

Dual Scale - Inch Pound & Nm					
Part Number	Square Drive	Torque Range, In-lbs (Nm)	Increments, In-lbs (Nm)	Overall Length	Weight
501MRMH	1/4"	10 to 50 (1.4 to 5.4)	0.5 (0.5)	10-1/8" (25.6 cm)	0.85 lbs (0.4 kgs)
2002MRMH	3/8"	30 to 200 (4.0 to 22.0)	1 (0.12)	10-1/8" (25.6 cm)	0.85 lbs (0.4 kgs)
7502MRMH	3/8"	100 to 750 (14.1 to 81.9)	5 (0.6)	16" (40.6 cm)	2.5 lbs (1.1 kgs)
10002MRMH	3/8"	150 to 1000 (19.8 to 110.2)	5 (0.6)	16" (40.6 cm)	2.5 lbs (1.1 kgs)

Dual Scale - Foot Pound & Nm					
Part Number	Square Drive	Torque Range, Ft-lbs (Nm)	Increments, Ft-lbs (Nm)	Overall Length	Weight
752MFRMH	3/8"	5 to 75 (10.2 to 98.3)	0.5 (0.7)	16" (40.6 cm)	2.5 lbs (1.1 kgs)
1503MFRMH	1/2"	20 to 150 (34.0 to 197.0)	1 (1.4)	19" (48.3 cm)	3.2 lbs (1.4 kgs)
2503MFRMH	1/2"	30 to 250 (47.0 to 332.0)	1 (1.4)	24-3/8" (61.9 cm)	3.2 lbs (1.4 kgs)
6004MFRMH	3/4"	100 to 500 (169.0 to 779.0)	5 (6.8)	42" (106.6 cm)	11.9 lbs (5.4 kgs)
10005MFRMH*	1"	200 to 1000 (305.0 to 1322.0)	5 (6.8)	70" (177.8 cm)	25.1 lbs (11.4 kgs)

**Note:** Accuracy:  $\pm 4\%$  CW  $\pm 6\%$  CCW of indicated value, CW, from 20% to 100% of full scale.

\*Includes one extension handle & is packed in a metal box.

**Ratchet Screwdriver Kit**


*A Wide Variety  
Of The Most  
Used Adapters*

*Crush  
Resistant  
Case*

**Includes:**

Ratchet Wrench, Extension, Screwdriver Handle, Twelve Allen Hex Adapters (.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4" & 5/16"), Two Slotted Head Adapters (1/4" & 3/8"), Two Phillips Head Adapters (#1 & #2), Square Drive Adapter & Molded Plastic Case

Part Number	Description
12-733	Complete 20 PC Set

**Ratchet Offset Screwdriver Set**


- Nickel plated steel ratchet drive handle reverses instantly.
- Tool is hardened & tempered steel with black oxide bits.
- Conforms to government specification GGG-S-1408.

**Screwdriver Set:**

Reversible Ratchet Screwdriver Handle, Two Cross Point Bits (#1 & #2) & Two Straight Bits (1/4" & 3/8")

Part Number	Description
70441	Complete 5 PC Set

**Williams® Magnetic Ratcheting Screwdriver**


- Heavy-duty 3 way (on-off-locked) ratcheting mechanism.
- Stainless steel shank with powerful holding magnet.
- Ergonomically designed hi-impact plastic handle.
- Accepts all standard 1/4" hex bits, easy bit storage in handle.

Part Number	Included Bits	O.A.L.
WRS-1	2 Slotted, T-15 Torx, #1 & #2 Phillips	9" (229 mm)

## ASSEMBLY TOOLS

### Williams® T-Handle Ratcheting Screwdrivers

Includes #2  
Phillips Bit



Comfort Grip  
T-Handle

WRST4

- Heavy-duty 3 way (on-off-locked) ratcheting mechanism.
- Ergonomically designed hi-impact plastic t-handle.
- Stainless steel shank accepts all standard 1/4" hex bits.

Part Number	Blade Length	Overall Length
WRST1	2" (51 mm)	3-7/8" (98 mm)
WRST4	3-7/8" (98 mm)	5-13/16" (148 mm)
WRST8	7-7/8" (200 mm)	9-13/16" (249 mm)

### Gearwrench® 6PC Mini Torx Screwdriver Set



- Tri-lobe, dual material handles for comfort and performance.
- Black oxide non-slip tips and color coded caps.

Part Number	Included Tips	Blade Length	Overall Length
80056	T-5 to T10	2-3/8" (60 mm)	6" (152 mm)

### Gearwrench® 6PC Combo Screwdriver Set



Oil And Solvent  
Resistant

- Tri-lobe, dual material handles for comfort and performance.
- Black oxide non-slip tips and laser etched size on shanks.

Part Number	Included Screwdrivers
80050	2 Phillips (#1 x 3" & #2 x 4") 4 Slotted (1/8" x 3", 1/4" x 4", 5/16" x 6" & 3/8" x 8")

### Gearwrench® 6PC Convertible Snap Ring Plier Set

Cushion  
Grip  
Handles



Cam-Lock  
Style

Includes Popular  
Tip Diameters

- Fits internal and external rings from 1/4" to 2" in diameter.
- Patented quick change design for easy, one-step conversion.

Part Number	Included Tips
3859D	0.038", 0.047 & 0.070" (3 in both 18° and 90° tips)

### Taylor® Adjustable Clutch Screwdrivers



13-7763

NEW

Lightweight &  
Comfortable

- Precision bearings & gears.
- Internally adjustable clutch.
- Ergonomic handle with rear exhaust.



13-7763S

Note: Air Inlet 1/4" NPT.

Pistol Grip - 1/4" Capacity - 1800 RPM			
Part Number	Torque Range	Overall Length	Weight
13-7763	45-115 in-lbs	7" (178 mm)	2.5 lbs (1.1 kgs)

Lever Grip - 1/4" Capacity - 800 RPM			
Part Number	Torque Range	Overall Length	Weight
13-7763S	45-115 in-lbs	11" (279 mm)	2.7 lbs (1.2 kgs)



**Desoutter® Adjustable Clutch Screwdrivers**

**SCP021-T2300-S4Q**

- Designed to handle high-volume assembly line tasks.
- Ergonomically designed housing is low vibration & lightweight.
- Many other styles available, please inquire.

**Note:** Air Inlet 1/4" NPT.

Pistol Grip Shut-Off Type - 1/4" Capacity				
Part Number	Torque Range	RPM	Overall Length	Weight
SCP043-T1100-S4Q	3.5 to 38 in-lbs	1100	9" (229 mm)	1.8 lbs (0.8 kgs)
SCP021-T2300-S4Q	3.5 to 18.6 in-lbs	2300	9" (229 mm)	1.9 lbs (0.9 kgs)

**Sioux® Adjustable Clutch Screwdrivers**

**SSD6P25AC**

- Lightweight aluminum housing with soft textured grip.
- Three idler gear system for increased tool life & load capacity.
- With teasing throttle & adjustable clutch.

**Note:** Air Inlet 1/4" NPT. Bit shown not included.

Pistol Grip - 0.6 hp (0.45 kW) - 1/4" Capacity				
Part Number	Max. Torque	RPM	Overall Length	Weight
SSD6P25AC	40 in-lbs	2500	8-1/2" (216 mm)	2.6 lbs (1.2 kgs)
SSD6P12AC	100 in-lbs	1200	10-1/4" (260 mm)	3.0 lbs (1.4 kgs)

Pistol Grip - 1.0 hp (0.75 kW) - 1/4" Capacity				
Part Number	Max. Torque	RPM	Overall Length	Weight
SSD10P7AC	140 in-lbs	700	10-1/4" (260 mm)	3.2 lbs (1.5 kgs)

**Sioux® Adjustable Clutch Screwdrivers (cont'd)**

**SSD10S12AC**

Lever Grip - 1.0 hp (0.75 kW) - 1/4" Capacity				
Part Number	Max. Torque	RPM	Overall Length	Weight
SSD10S12AC	120 in-lbs	1200	12-1/4" (311 mm)	2.8 lbs (1.3 kgs)

**APEX® ACR Anti-Camout Phillips Insert Bits**

*Prevents Work Damage*



*Allows Higher Torque*

Special wing-face ribs grip screw recesses to prevent stripping.

1/4" Hex Insert ACR, 1" Overall Length		
Part Number	Type	Point Size
440-1-ACR1-RX	Removal	1
440-1-ACR1-DX	Driving	1
440-1-ACR1X	Driving & Removal	1
440-2-ACR2-RX	Removal	2
440-2-ACR2-DX	Driving	2
440-2-ACR2X	Driving & Removal	2
446-2-ACR2-DX	Driving (limited clearance)	2
440-3-ACR3-RX	Removal	3
440-3-ACR3-DX	Driving	3
440-3-ACR3X	Driving & Removal	3

1/4" Hex Insert ACR, 2" Overall Length		
Part Number	Type	Point Size
440-22-ACR2-RX	Removal	2
440-22-ACR2X	Driving & Removal	2

5/16" Hex Insert ACR, 1-1/4" Overall Length		
Part Number	Type	Point Size
480-2-ACR2-RX	Removal	2
480-2-ACR2X	Driving & Removal	2
480-3-ACR3X	Driving & Removal	3
480-4-ACR4X	Driving & Removal	4



*For Screw & Bolt Removal Tools See Pages 226-227*

## ASSEMBLY TOOLS

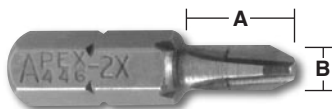
### APEX® Phillips Insert Bits



Note: Many other sizes available, please inquire.

1/4" Hex Drive, 1" O.A.L.		5/16" Hex Drive, 1-1/4" O.A.L.	
Part Number	Point Size	Part Number	Point Size
440-1X	1	480-2X	2
440-2X	2	480-3X	3
440-3X	3	480-4X	4

### APEX® Limited Clearance Phillips Insert Bits



*Great For Shallow  
Screw Recesses*

1/4" Hex Insert, 1" Overall Length			
Part Number	Point Size	Turned Length (A)	Turned OD (B)
446-0X	0	7/16" (11.1 mm)	.108" (4.1 mm)
446-1X	1	7/16" (11.1 mm)	.108" (4.1 mm)
446-2X	2	7/16" (11.1 mm)	.108" (4.1 mm)

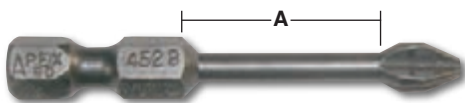
### APEX® Phillips Power Drive Bits



Note: Many other sizes available, please inquire.

1/4" Hex Power Drive			1/4" Hex Power Drive		
Part Number	Point Size	Overall Length	Part Number	Point Size	Overall Length
491X	1	1-15/16"	493-AX	3	2-3/4"
492X	2	1-15/16"	491-BX	1	3-1/2"
493X	3	1-15/16"	492-BX	2	3-1/2"
491-AX	1	2-3/4"	493-BX	3	3-1/2"
492-AX	2	2-3/4"			

### APEX® ACR Harpoon Phillips Power Drive Bits



With ACR anti-camout wing-face ribs for better grip.

1/4" Hex Power Drive ACR				
Part Number	Point Size	Body Diameter	Turned Length (A)	Overall Length
SD-4528-2-ACR2	2	9/64" (3.5 mm)	1-1/8" (28 mm)	1-15/16" (49 mm)
SD-4528-1-ACR2	2	9/64" (3.5 mm)	1-7/8" (48 mm)	2-3/4" (70 mm)
SD-5100	2	9/64" (3.5 mm)	3" (76 mm)	6" (152 mm)

### APEX® Slotted Insert Bits



Note: Many other sizes available, please inquire.

1/4" Hex Insert, 1" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
445-1X	4F-5R	.034"	3/16"
445-2X	6F-8R	.040"	7/32"
445-3X	8F-10R	.042"	1/4"
445-4X	10F-12R	.046"	9/32"

1/4" Hex Insert, 1-1/2" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
445-5X	12F-14R	.050"	5/16"
445-6X	14F-16R	.055"	23/64"

5/16" Hex Insert, 1-1/2" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
485-1X	4F-5R	.034"	3/16"
485-2X	6F-8R	.040"	7/32"
485-3X	8F-10R	.042"	1/4"
485-4X	10F-12R	.046"	.296"

### APEX® Hi-Torque Bits



1/4" Hex Insert, 1-1/4" Overall Length				
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width
HTN-B-1	1	9/32"	.049"	.274"
HTN-B-2	2	5/16"	.059"	.295"
HTN-B-3	3	3/8"	.059"	.377"
HTN-B-4	4	1/2"	.073"	.502"

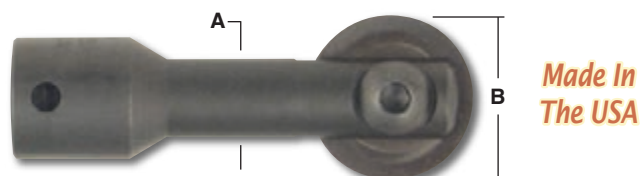
1/4" Square Drive Insert, 1" Overall Length				
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width
HTS-0	0	1/2"	.029"	.167"
HTS-1	1	1/2"	.049"	.274"
HTS-2	2	1/2"	.059"	.295"
HTS-3	3	1/2"	.059"	.377"
HTS-4	4	1/2"	.073"	.502"

3/8" Square Drive Insert					
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width	Overall Length
HTS-3A	1	3/4"	.059"	.377"	1"
HTS-4A	2	3/4"	.073"	.502"	1"
HTS-5	3	3/4"	.079"	.629"	1-1/4"
HTS-6	4	3/4"	.095"	.745"	1-1/4"

**APEX® Hi-Torque Bits (cont'd)**


1/2" Square Drive Insert					
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width	Overall Length
HTS-7	7	1"	.112"	.884"	1-5/8"
HTS-8	8	1"	.142"	.995"	1-5/8"
HTS-9	9	1-1/4"	.162"	1.136"	1-5/8"
HTS-10	10	1-1/4"	.182"	1.250"	1-5/8"
HTS-12*	12	1-1/4"	.216"	1.500"	2-3/8"

\*HTS-12 is 3/8" square drive (special order).

**2 PC Replaceable Blade Hi-Torque Drivers**


- Hardened & shock resistant tool steel replaceable blades.
- Blades can also be turned several times for longer life.
- Meets gov't specs MIL-B-9946E, MIL-B-9946/2 & ANSI B107.4.

1/4" Square Drive Socket, 1/2" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT3202M	HTB2M	#8	0.500"	1.25" (32 mm)
HT3203M	HTB3M	#10	0.552"	1.36" (35 mm)

3/8" Square Drive Socket, 3/4" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
—	HTB4M	1/4"	0.864"	2.67" (68 mm)
HT3205M	HTB5M	5/16"	0.990"	2.73" (69 mm)
HT3206M	HTB6M	3/8"	1.240"	2.73" (69 mm)

1/2" Square Drive Socket, 1" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT3406M	HTB6M	3/8"	1.240"	3.17" (81 mm)
HT3407M	HTB7M	7/16"	1.375"	3.23" (82 mm)
HT3408M	HTB8M	1/2"	1.500"	3.30" (84 mm)
HT3409M	HTB9M	9/16"	1.750"	3.42" (87 mm)
HT3410M	HTB10M	5/8"	2.000"	3.55" (90 mm)

1/4" Hex Drive, 1/2" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT4403M	HTB3M	#10	0.552"	3.50" (89 mm)
HT4404M	HTB4M	1/4"	0.864"	3.50" (89 mm)

**APEX® Torx Bits**


Note: Other sizes & styles available, please inquire.

1/4" Hex Insert, 1" Overall Length		
Part Number	Driver Size	Point Diameter
440-TX-05X	T-5	.055"
440-TX-06X	T-6	.065"
440-TX-07X	T-7	.077"
440-TX-08X	T-8	.090"
440-TX-09X	T-9	.097"
440-TX-10X	T-10	.107"
440-TX-15X	T-15	.128"
440-TX-20X	T-20	.151"
440-TX-25X	T-25	.173"
440-TX-27X	T-27	.195"
440-TX-30X	T-30	.216"
440-TX-40X	T-40	.260"
440-TX-45X	T-45	.306"
440-TX-50X	T-50	.346"



5/16" Hex Insert, 1-1/4" Overall Length		
Part Number	Driver Size	Point Diameter
480-TX-25X	T-25	.173"
480-TX-27X	T-27	.195"
480-TX-30X	T-30	.216"
480-TX-40X	T-40	.260"
480-TX-45X	T-45	.306"
480-TX-50X	T-50	.346"
480-TX-55X	T-55	.440"

**APEX® Socket Head Bits**


1/4" Hex Insert, 1" O.A.L.	
Part Number	Hex Size
185-0X	5/64"
185-1X	3/32"
185-9X	7/64"
185-2X	1/8"
185-10X	9/64"

1/4" Hex Insert, 1-5/16" O.A.L.	
Part Number	Hex Size
185-3X	5/32"
185-4X	3/16"
185-5X	7/32"
185-6X	1/4"

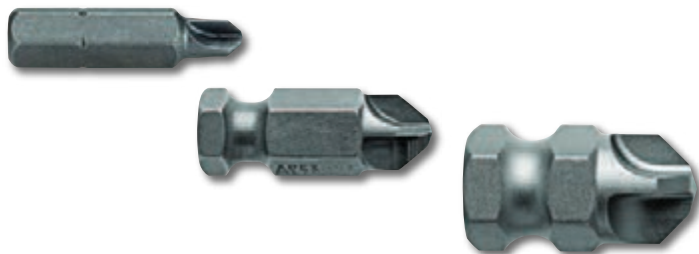
Note: Other sizes available, please inquire.

1/4" Hex Insert, 1-1/4" O.A.L.	
Part Number	Hex Size
185-7X	5/16"
185-8X	3/8"



## ASSEMBLY TOOLS

### APEX® Torq-Set Bits



1/4" Hex Insert, 1" Overall Length	
Part Number	Point Size
212-0	0
212-1	1
212-2	2
212-3	3
212-4	4
212-5	5
212-6	6
212-8	8
212-10	10
212-1/4	1/4"

5/16" Hex Insert, 1-1/4" Overall Length	
Part Number	Point Size
212-8A	8
212-10A	10
212-1/4A	1/4"
212-5/16A	5/16"
212-3/8A	3/8"

5/16" Hex Insert ACR*, 1-1/4" Overall Length	
Part Number	Point Size
212-1/4A-ACR	1/4"
212-5/16A-ACR	5/16"

1/4" Hex Insert ACR*, 1-1/4" Overall Length	
Part Number	Point Size
212-6-ACR	6
212-8-ACR	8
212-10-ACR	10
212-1/4-ACR	1/4"

5/16" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-8A	8
170-10A	10
170-1/4A	1/4"
170-5/16A	5/16"
170-3/8A	3/8"

7/16" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-1/4	1/4"
170-5/16	5/16"
170-3/8	3/8"
170-3/8C	3/8"
170-7/16	7/16"

7/16" Hex Power Drive ACR*, 1-1/4" Overall Length	
Part Number	Point Size
170-1/4-ACR	1/4"
170-5/16-ACR	5/16"

5/8" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-1/2	1/2"
170-9/16	9/16"
170-5/8	5/8"

\*ACR anti-camout ribs for removal only.

### APEX® Tri-Wing Bits



1/4" Hex Insert, 1" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TWD-0	0	0-80	—
TWD-1	1	2-56	4-40
TWD-2	2	4-40	6-32
TWD-3	3	6-32	8-32
TWD-4	4	8-32	10-32
TWD-5	5	10-32	1/4"-28
TWD-6	6	1/4"	5/16"
TWD-7	7	5/16"	3/8"

1/4" Hex Insert ACR*, 1-1/4" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TWD-4-ACR	4	8-32	10-32
TWD-5-ACR	5	10-32	1/4"-28

\* ACR anti-camout ribs for removal only.

1/4" Hex Power Drive, 1-1/4" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TW-0	0	0-80	—
TW-1	1	2-56	4-40
TW-2	2	4-40	6-32
TW-3	3	6-32	8-32
TW-4	4	8-32	10-32
TW-5	5	10-32	1/4"-28
TWB-6	6	1/4"-28	5/16"-24
TWB-7	7	5/16"-24	3/8"-24
TWB-8	8	3/8"-24	7/16"-20

### APEX® Bit Extensions



1/4" Male Hex Drive with 1/4" Male Square		
Part Number	Lock Type	Overall Length
EX-250	Pin	1-3/8"
EX-250-B	Ball	1-3/8"
EX-250-2	Pin	2"

1/4" Male Hex Drive with 3/8" Male Square		
Part Number	Lock Type	Overall Length
EX-370	Pin	1-5/8"
EX-370-B	Ball	1-5/8"
EX-370-2	Pin	2"

## Wilton® Light Industrial C-Clamps



Deep reach models ideal for many aerospace applications.

Standard			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
41416	820 lbs	1-1/2" (60 mm)	0 - 1-1/2" (38 mm)
41405	1430 lbs	2" (51 mm)	0 - 3" (76 mm)
41408	1400 lbs	3-1/4" (83 mm)	0 - 6" (152 mm)
41409	1700 lbs	4" (102 mm)	0 - 8" (203 mm)

Deep Reach			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
42510	350 lbs	3" (76 mm)	0 - 1" (25 mm)
42520	450 lbs	3-1/2" (89 mm)	0 - 2" (51 mm)
42525	600 lbs	4" (102 mm)	0 - 2-1/2" (64 mm)
42530	700 lbs	4-1/2" (114 mm)	0 - 3" (76 mm)
42450	1600 lbs	4-3/4" (121 mm)	0 - 2-1/2" (64 mm)
42460	1600 lbs	6-1/4" (159 mm)	0 - 2-1/2" (64 mm)

## Wilton® Junior C-Clamps



Features a heat treated forged steel frame, zinc plated steel spindle.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
21301	500 lbs	1" (51 mm)	0 - 1" (25 mm)
21302	500 lbs	1-1/2" (60 mm)	0 - 1" (25 mm)
21303	800 lbs	1-1/4" (70 mm)	0 - 1-1/4" (32 mm)
21304	850 lbs	1-1/2" (92 mm)	0 - 1-1/2" (38 mm)
21305	875 lbs	1-1/4" (114 mm)	0 - 2" (51 mm)
21306	1100 lbs	1-3/8" (137 mm)	0 - 3" (76 mm)
21307	850 lbs	2-1/2" (146 mm)	0 - 2-1/2" (64 mm)

## Wilton® Hi-Vis Safety C-Clamps



- Drop forged frame and ACME rolled spindle for maximum strength.
- V-grooved anvil for secure holding of rounds, squares and flats.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
14300	3500 lbs	2-1/4" (57 mm)	0 - 2-1/8" (54 mm)
14301	3500 lbs	2-7/16" (62 mm)	0 - 3" (76 mm)
14302	6200 lbs	3-1/4" (83 mm)	0 - 4-1/4" (108 mm)
14303	6600 lbs	4-1/16" (103 mm)	0 - 6-1/16" (154 mm)
14305	6900 lbs	4-15/16" (125 mm)	0 - 8-1/4" (210 mm)
14306	8000 lbs	5-7/8" (149 mm)	2 - 10-1/8" (257 mm)
14307	9300 lbs	6-1/4" (159 mm)	2 - 12-1/4" (311 mm)

## Wilton® Economy C-Clamps



Part Number	Holding Cap.	Jaw Reach	Jaw Gap
20301	3500 lbs	2-1/4" (57 mm)	0 - 2" (51 mm)
20302	3500 lbs	2-7/16" (62 mm)	0 - 3" (76 mm)
20303	6200 lbs	3-1/4" (83 mm)	0 - 4" (102 mm)
20304	6600 lbs	4-1/16" (103 mm)	0 - 6" (152 mm)
20305	6900 lbs	4-15/16" (125 mm)	0 - 8" (203 mm)
20306	8000 lbs	5-7/8" (149 mm)	0 - 10" (254 mm)
20307	9300 lbs	6-1/4" (159 mm)	0 - 12" (305 mm)

## Nylon Tip C-Clamps

Perfect For Aerospace Work

- High strength to weight ratio.
- Nylon tip cap & nylon inserts securely fastened to clamp.
- 550 lbs holding capacity.



Part Number	Jaw Reach	Jaw Gap	Weight
H566N	1-3/16" (30 mm)	1-1/4" (32 mm)	0.25 lbs (0.11 kgs)
H568N	2-5/16" (59 mm)	2-1/2" (64 mm)	0.95 lbs (0.43 kgs)

## CLAMP & FASTENING TOOLS

### Bessey® Deep Reach Malleable Cast C-Clamp

*A Handy General Purpose Clamp*



*Galvanized Finish*

CM34DR

Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Weight
CM34DR	900 lbs	4-1/2" (102 mm)	0 - 3" (76 mm)	1.5 lbs (0.68 kgs)

### Aluminum 90° Angle Clamp

- Square machined sides and base for secure & precise clamping.
- Base includes two bench mounting slots.



Part Number	Jaw Size (l x h)	Miter Capacity	Weight
AC-324	2-1/4" x 1-3/8"	2-3/4"	3.0 lbs (1.4 kgs)

### Metal Body Spring Clamps

*Ergonomic Shape*

04-636

*Corrosion Resistant*

Includes protective handles & tips.

Part Number	Jaw Reach	Jaw Gap	Overall Length
04-634	1-1/4" (32 mm)	1" (25 mm)	4" (102 mm)
04-636	2-1/4" (57 mm)	2" (51 mm)	6" (152 mm)
04-639	3-5/16" (84 mm)	3" (76 mm)	9" (229 mm)
04-640	5" (127 mm)	4" (102 mm)	12" (305 mm)

### Plastic Body Spring Clamps

*Soft, Non-Marring Pads*

04-58300

*Non-Slip Handles*

Jaws configured to hold odd shapes.

Part Number	Jaw Reach	Jaw Gap
04-58100	1" (25 mm)	1" (25 mm)
04-58200	2" (51 mm)	2" (51 mm)
04-58300	3" (76 mm)	3" (76 mm)

### Wilton® Light Duty Steel F-Clamps

*Classic Design Is Simple & Sturdy*



86130

*Tilt Pad For Firm Grip*

- Black oxide spindle resists wear and tear while impeding rust.
- Drop forged arm provides minimal flex under heavy work loads.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
86130	1200 lbs	4-3/4" (121 mm)	0 - 8" (20.3 cm)
86140	1200 lbs	4-3/4" (121 mm)	0 - 12" (30.5 cm)
86150	1200 lbs	4-3/4" (121 mm)	0 - 18" (45.7 cm)
86160	1200 lbs	4-3/4" (121 mm)	0 - 24" (60.9 cm)

### Fast Action Universal Clamps



04-415-4

*Self-Centering Jaws*



04-405-1

*Lightweight & Rugged*

- Plates made from high tensile steel.
- Meets federal spec. GGG-406, Type V.

'T' Handle	
Part Number	Jaw Capacity
04-401	1" (25 mm)
04-405	2" (51 mm)
04-410	3" (76 mm)
04-420	6" (152 mm)
04-430	9" (229 mm)
04-440	12" (305 mm)

Round Handle	
Part Number	Jaw Capacity
04-396	3/4" (19 mm)
04-401-1	1" (25 mm)
04-405-1	2" (51 mm)

'T' Handle No Mar Rubber Pads	
Part Number	Jaw Capacity
04-401-4	1" (25 mm)
04-405-4	2" (51 mm)
04-410-4	3" (76 mm)
04-415-4	4-1/2" (114 mm)

'T' Handle Deep Throat	
Part Number	Jaw Capacity
04-415	4-1/2" (114 mm)
04-421	6" (152 mm)
04-435	10" (254 mm)

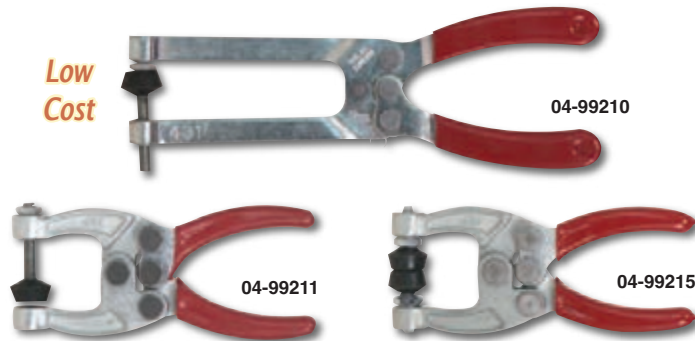


## Toggle Clamps

- Extra strong, quality construction.
- Myriad of uses in assembly operations.
- More styles available, please inquire.

*Great Where  
Space Is Limited*

*Low  
Cost*



1/4"-20 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99210	100 lbs	2-5/16"	1-1/16" (27 mm)	6-7/8" (175 mm)
04-99211	200 lbs	1-1/4"	1-1/16" (27 mm)	4-5/16" (110 mm)
04-99215	200 lbs	1-1/4"	1-1/16" (27 mm)	4-5/16" (110 mm)



5/16"-18 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99311	350 lbs	1-7/8"	1-1/16" (27 mm)	5-11/16" (144 mm)



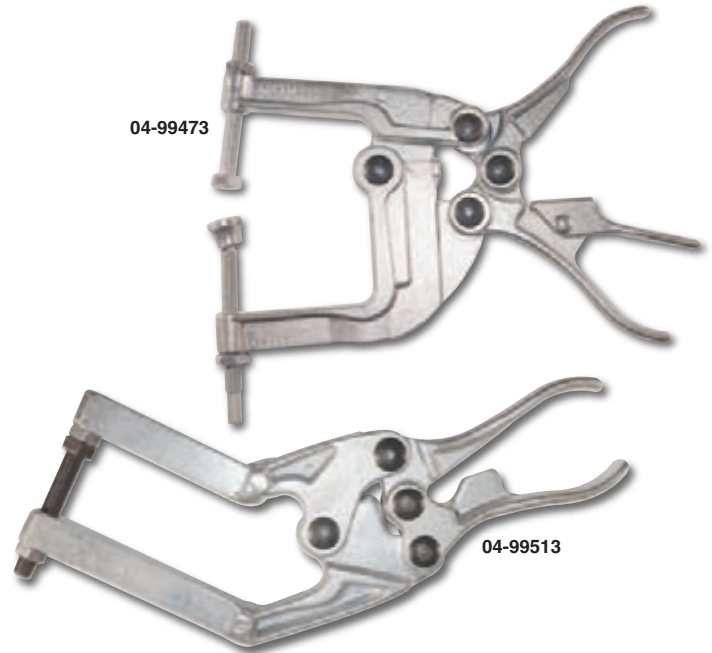
Note: Includes swivel spindle.

Quick-Release, 3/8"-16 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99423	700 lbs	2-1/2"	1-5/8" (41 mm)	9-1/2" (241 mm)



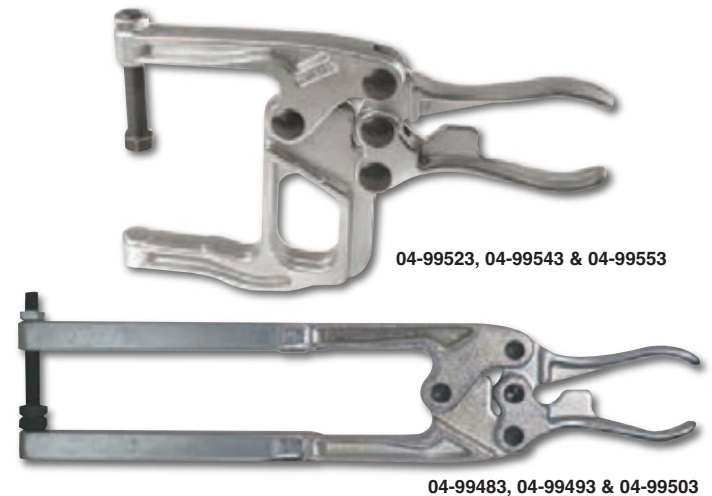
3/8"-24 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99563	10-45 lbs	1-3/16"	15/16" (24 mm)	4-3/4" (121 mm)
04-99573	65-125 lbs	2-1/4"	1-3/4" (44 mm)	8-3/8" (213 mm)

## Toggle Clamps (cont'd)



Quick-Release, 5/16"-24 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99473	700 lbs	2-3/8"	3" (76 mm)	8-1/16" (205 mm)

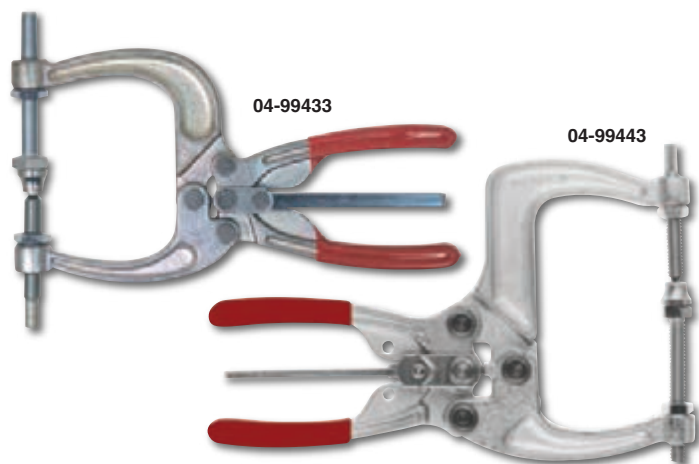
Offset, 5/16"-24 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99513	Varies	4"	1-1/16" (27 mm)	11-3/32" (282 mm)



3/8"-24 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99483	600 lbs	4"	1-3/4" (44 mm)	10-7/16" (265 mm)
04-99493	400 lbs	6"	1-3/4" (44 mm)	12-7/16" (316 mm)
04-99503	300 lbs	8"	1-3/4" (44 mm)	14-7/16" (367 mm)
04-99523	1200 lbs	2-1/4"	3-17/32" (90 mm)	8-3/8" (213 mm)
04-99543	1600 lbs	2-1/4"	4-17/32" (115 mm)	9-3/4" (248 mm)
04-99553	1600 lbs	2-1/4"	6-17/32" (166 mm)	9-3/4" (248 mm)

## CLAMP & FASTENING TOOLS

### Toggle Clamps (cont'd)



Quick-Release, 3/8"-16 Spindle Thread				
Part Number	Holding Cap.	Jaw Reach	Jaw Gap	Overall Length
04-99433	700 lbs	2-1/2"	3" (76 mm)	9-1/2" (241 mm)
04-99443	1200 lbs	2-1/2"	4-1/4" (108 mm)	9-1/2" (241 mm)

### Locking C-Clamps



Steel Swivel Pad Tips				
Part Number	Throat Depth	Jaw Adjust	Weight	Overall Length
04-4SP	1-1/4"	0 to 1-5/8"	0.3 lbs (0.13 kgs)	4" (102 mm)
04-6SP	1-1/2"	0 to 2-1/8"	0.6 lbs (0.27 kgs)	6" (152 mm)
04-11SP	2-5/8"	0 to 4"	1.8 lbs (0.8 kgs)	11" (279 mm)
04-18SP	9-1/2"	0 to 8"	2.8 lbs (1.3 kgs)	18" (457 mm)
04-24SP	15-1/2"	0 to 10"	3.6 lbs (1.6 kgs)	24" (609 mm)

Regular Tips				
Part Number	Throat Depth	Jaw Adjust	Weight	Overall Length
04-6R*	1-1/2"	0 to 2-1/8"	0.5 lbs (0.22 kgs)	6" (152 mm)
04-11R*	2-5/8"	0 to 4"	1.7 lbs (0.7 kgs)	11" (279 mm)

\*Also available with fast release cushioned grips, please inquire.

### Bessey® SuperGrips® Locking Clamp Pliers



Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Weight
SG-4	440 lbs	2-1/2" (64 mm)	4" (102 mm)	2.4 lbs (1.1 kgs)
SG-8	440 lbs	2-1/2" (64 mm)	8" (203 mm)	2.6 lbs (1.2 kgs)

### Quick-Clamp Lever Locks



Part Number	Jaw Capacity	Throat Depth	Overall Length
04-W-1	1"	0 to 5/32"	3-1/4" (83 mm)
04-W-2	1-3/8"	0 to 5/32"	3-3/4" (93 mm)
04-10-2A	1/8" to 3/8"	1-3/8"	3-3/4" (93 mm)
04-10-2B	3/16" to 1/2"	1-3/8"	3-3/4" (93 mm)
04-10-2C	1/2" to 3/4"	1"	3-5/8" (92 mm)
04-10-2D	3/4" to 1"	7/8"	3-1/2" (89 mm)
04-10-3	0 to 3/16"	2"	4-3/4" (121 mm)

### Spring Tension Clamps



- Apply in a fraction of the time required for ordinary screw clamps.
- Zamac alloy yoke & steel spring provides 70 lbs of force.

Note: Requires sheet metal fastener pliers for installation (see next page).

Part Number	Jaw Reach	Jaw Gap
04-3090-0	1-3/4"	0" to 7/16"
04-3090-1/4	3"	1/4" to 15/32"
04-3090-1/2	3-1/2"	9/16" to 1"

## Monogram® Sheet Metal Fasteners (CLECOS)



'MM' Type Mini



'ML' Type



'M' Type Std.



'MHD' Type



'Side Grip' Type

'MM' Type Mini	
0 To 1/4" Material Capacity	
Part Number	Drill Size
04-MM-3/32	#40
04-MM-1/8	#30
04-MM-5/32	#20
04-MM-3/16	#10

'ML' Type	
1/4" To 1/2" Material Capacity	
Part Number	Drill Size
04-ML-3/32	#40
04-ML-1/8	#30
04-ML-5/32	#20
04-ML-3/16	#10

'M' Type Standard	
0 To 1/4" Material Capacity	
Part Number	Drill Size
04-M-1/16	#50
04-M-3/32	#40
04-M-1/8	#30
04-M-5/32	#20
04-M-3/16	#10
04-M-7/32	#2
04-M-1/4	1/4"

'MHD' Type	
0 To 1/2" Material Capacity	
Part Number	Drill Size
04-MHD-3/32	#40
04-MHD-1/8	#30
04-MHD-5/32	#20
04-MHD-3/16	#10
04-MHD-7/32	#2
04-MHD-1/4	1/4"

'Side Grip' Type	
0 To 1/2" Material Capacity	
Part Number	Drill Size
04-EL-1/2-1/2	1/2"
04-EL-1/2-1	1"

'Side Grip' Type	
0 To 3/4" Material Capacity	
Part Number	Drill Size
04-EL-3/4-1/2	1/2"
04-EL-3/4-1	1"

## USATCO Sheet Metal Fastener Kit

A Great Starter Kit

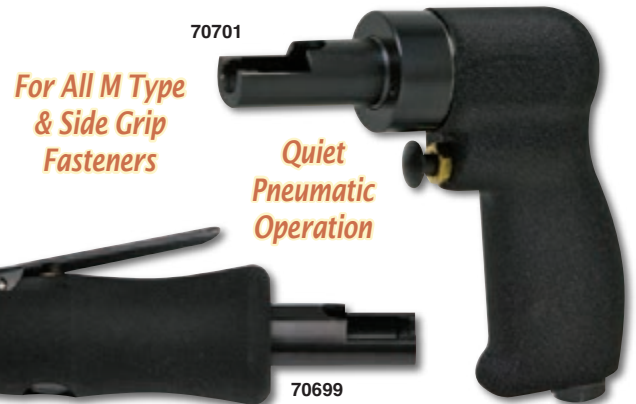


### Complete 45 PC Kit Includes:

Forty 'M' Type Fasteners (10 each: 3/32", 1/8", 5/32" & 3/16", Four 'Side Grip' Type Fasteners (3/4" Capacity, 1" Reach), Comfort Grip Fastener Pliers & Plastic Kit Box (not shown)

Part Number	Description
53-M45	Complete 45 PC Kit

## Sheet Metal Fastener Installation Tools



- Eliminates constant repetitive motion related to cleco pliers.
- Ergo handle & 360° swivel mount for comfortable operation.
- Includes 8' polyurethane hose, 1/4" NPT (not shown).

Part Number	Style	Weight
70699	Lever Grip	0.75 lbs (0.34 kgs)
70701	Pistol Grip	1.25 lbs (0.57 kgs)

## Sheet Metal Fastener Pliers



04-63

Installs MM, M, ML, MHD & Side Grip Fasteners

Also compatible with all spring loaded type fasteners.

Part Number	Type
04-62	Standard
04-63	With Comfort Grip Handles
04-64	With Black-Ox Coating



## CLAMP & FASTENING TOOLS

### Monogram® Wedgelock Installation Tool



- Patent pending installation tool for Wedgelock cylindrical body fasteners (shown on following pages).
- 29% lighter than competitor designs.
- Offset rollers prevent cam over and assure fastener engagement.
- Spring loaded driver and integrated guide bushing.
- Easier maintenance with access to roller cages and components.

Note: Air Inlet 1/4" NPT.

Part Number	RPM (max.)	Torque	Weight
W500-29-971-CBGB	2600	14 in-lbs	1.6 lbs (0.7 kgs)

### Cylindrical Body Fastener Installation Tools



- No 'fastener to tool' orientation problems.
- Drives all diameter & grip accommodations.
- Roller bearing drive system allows faster installation & removal.
- Adjustable clamping loads from 100 to 600 lbs.

Note: Air Inlet 1/4" NPT.

Part Number	RPM	Torque
W500-30-931	3,000	25 in-lbs
W500-30-931-GB*	3,000	25 in-lbs
W880-20-931-IR	2,000	32 in-lbs
W880-10-931-IR	1,000	64 in-lbs

\*W500-30-931-GB includes guide bushing for easier fastener installation.

### Monogram® Wedgelock Installation Tools



- New Atlas Copco installation tool for Wedgelock cylindrical body fasteners (shown on following pages).
- Lead angle of bushing guides tool onto fastener.
- Adjustable RPM with built in metered air flow.

Note: Air Inlet 1/4" NPT.

Part Number	Front End	RPM (max.)	Torque	Weight
W550-16-931	Standard	1600	18 in-lbs	2.7 lbs (1.2 kgs)
W550-16-931-GB	Guide Bushing			

Note: 550 lbs clamp up (average yield as tested with CBX series fasteners). Motor output exceeds max. recommended clamping load for fasteners smaller than 1/4" dia.

### Monogram® Wedgelock Torque Control Inst. Tool



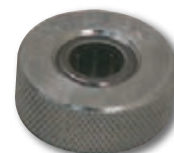
- New Atlas Copco torque control installation tool for CBX Wedgelock cylindrical body fasteners (shown on following pages).
- Dual torque control ranges are fully adjustable within each range.
- Operates with only 87-102 PSI air supply.

Note: Air Inlet 1/4" NPT.

Part Number	Front End	RPM (max.)	Torque Ranges	Weight
W550-16-TC-931	Standard	760	3.5 to 16, 10.6 to 44 in-lbs	2.4 lbs (1.1 kgs)
W550-16-TC-931-GB	Guide Bushing			

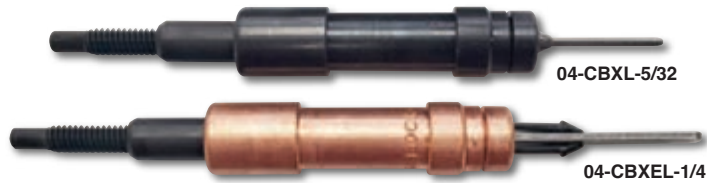
### Manual Cylindrical Body Fastener Tool

Hand Actuated, For Both Installation & Removal



Part Number	Weight
04-CBHT-01	0.5 oz (14.2 g)

## Cylindrical Body Temporary Fasteners



- Cylindrical design eliminates fastener-to-tool orientation issues.
- Lasting reusability with high installation & removal efficiency.
- Larger blind side bearing area reduces potential material damage in both metal and composites.
- Spring loaded models shown on next page.

Cylindrical Body - Fractional					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
3/32" (#40)	Zinc	0 - 0.5"	04-CBX-3/32	4-1/32"	3-23/64"
		0 - 1"	04-CBXL-3/32	5-1/32"	4-23/64"
		0.5 - 1.5"	04-CBXEL-3/32	5-17/32"	4-23/64"
1/8" (#30)	Copper	0 - 0.5"	04-CBX-1/8	4-1/16"	3-23/64"
		0 - 1"	04-CBXL-1/8	5-1/16"	4-23/64"
		0.5 - 1.5"	04-CBXEL-1/8	5-9/16"	4-23/64"
		1.5 - 2.5"	04-CBXK-1/8	6-9/16"	4-23/64"
5/32" (#20)	Black	0 - 0.5"	04-CBX-5/32	4-3/32"	3-23/64"
		0 - 1"	04-CBXL-5/32	5-3/32"	4-23/64"
		0.5 - 1.5"	04-CBXEL-5/32	5-9/16"	4-23/64"
		1.5 - 2.5"	04-CBXK-5/32	6-5/8"	4-23/64"
3/16" (#10)	Brass	0 - 0.5"	04-CBX-3/16	4-1/8"	3-23/64"
		0 - 1"	04-CBXL-3/16	5-1/8"	4-23/64"
		0.5 - 1.5"	04-CBXEL-3/16	5-5/8"	4-23/64"
		1.5 - 2.5"	04-CBXK-3/16	6-5/8"	4-23/64"
7/32" (#2)	Zinc	0 - 0.5"	04-CBX-7/32	4-9/64"	3-23/64"
		0 - 1"	04-CBXL-7/32	5-9/64"	4-23/64"
		0.5 - 1.5"	04-CBXEL-7/32	5-41/64"	4-23/64"
		1.5 - 2.5"	04-CBXK-7/32	6-41/64"	4-23/64"
1/4" ("F")	Copper	0 - 0.5"	04-CBX-1/4	4-5/32"	3-23/64"
		0 - 1"	04-CBXL-1/4	5-5/32"	4-23/64"
		0.5 - 1.5"	04-CBXEL-1/4	5-21/32"	4-23/64"
		1.5 - 2.5"	04-CBXK-1/4	6-21/32"	4-23/64"
9/32" ("L")	Brass	0 - 0.5"	04-CBX-9/32	4-5/32"	3-23/64"
		0 - 1"	04-CBXL-9/32	5-5/32"	4-23/64"
		0.5 - 1.5"	04-CBXEL-9/32	5-21/32"	4-23/64"
		1.5 - 2.5"	04-CBXK-9/32	6-21/32"	4-23/64"
5/16" ("O")	Black	0 - 0.5"	04-CBX-5/16	4-5/32"	3-23/64"
		0 - 1"	04-CBXL-5/16	5-5/32"	4-23/64"
		0.5 - 1.5"	04-CBXEL-5/16	5-21/32"	4-23/64"
		1.5 - 2.5"	04-CBXK-5/16	6-21/32"	4-23/64"
3/8" ("V")	Black With Brass Cap	0 - 0.5"	04-CBX-3/8	4-1/4"	3-23/64"
		0 - 1"	04-CBXL-3/8	5-1/4"	4-23/64"
		0.5 - 1.5"	04-CBXEL-3/8	5-3/4"	4-23/64"
		1.5 - 2.5"	04-CBXK-3/8	6-3/4"	4-23/64"

Cylindrical Body - Metric					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
2.5 mm	Black w/Zinc Nut	0 - 13 mm	04-CBX-2.5	97.7 mm	115.1 mm
		13 - 25 mm	04-CBXL-2.5	97.7 mm	128.8 mm
3.0 mm	Copper	0 - 13 mm	04CBX-3.0	97.7 mm	115.9 mm
		13 - 25 mm	04-CBXL-3.0	97.7 mm	128.6 mm
3.5 mm	Copper With Brass Nut	0 - 13 mm	04-CBX-3.5	97.7 mm	116.3 mm
		13 - 25 mm	04-CBXL-3.5	97.7 mm	129.0 mm
		25 - 38 mm	04-CBXEL-3.5	97.7 mm	147.7 mm
4.0 mm	Black	0 - 13 mm	04-CBX-4.0	97.7 mm	116.7 mm
		13 - 25 mm	04-CBXL-4.0	97.7 mm	129.4 mm
		25 - 38 mm	04-CBXEL-4.0	97.7 mm	142.1 mm
		51 - 64 mm	04-CBXK-4.0	97.7 mm	155.1 mm
4.5 mm	Brass With Zinc Nut	0 - 13 mm	04-CBX-4.5	97.7 mm	117.1 mm
		13 - 25 mm	04-CBXL-4.5	97.7 mm	129.8 mm
		25 - 38 mm	04-CBXEL-4.5	97.7 mm	142.5 mm
		51 - 64 mm	04-CBXK-4.5	97.7 mm	155.5 mm
5.0 mm	Brass With Copper Nut	0 - 13 mm	04-CBX-5.0	97.7 mm	117.5 mm
		13 - 25 mm	04-CBXL-5.0	97.7 mm	130.2 mm
		25 - 38 mm	04-CBXEL-5.0	97.7 mm	142.9 mm
		51 - 64 mm	04-CBXK-5.0	97.7 mm	155.9 mm
5.5 mm	Zinc With Black Nut	0 - 13 mm	04-CBX-5.5	97.7 mm	117.9 mm
		13 - 25 mm	04-CBXL-5.5	97.7 mm	130.6 mm
		25 - 38 mm	04-CBXEL-5.5	97.7 mm	143.3 mm
		51 - 64 mm	04-CBXK-5.5	97.7 mm	156.0 mm
6.0 mm	Copper	0 - 13 mm	04-CBX-6.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CBXL-6.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CBXEL-6.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CBXK-6.0	97.7 mm	156.4 mm
6.5 mm	Copper With Black Nut	0 - 13 mm	04-CBX-6.5	97.7 mm	118.3 mm
		13 - 25 mm	04-CBXL-6.5	97.7 mm	131.0 mm
		25 - 38 mm	04-CBXEL-6.5	97.7 mm	143.7 mm
		51 - 64 mm	04-CBXK-6.5	97.7 mm	156.4 mm
7.0 mm	Copper With Zinc Nut	0 - 13 mm	04-CBX-7.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CBXL-7.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CBXEL-7.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CBXK-7.0	97.7 mm	156.4 mm
7.5 mm	Black With Brass Nut	0 - 13 mm	04-CBX-7.5	97.7 mm	118.3 mm
		13 - 25 mm	04-CBXL-7.5	97.7 mm	131.0 mm
		25 - 38 mm	04-CBXEL-7.5	97.7 mm	143.7 mm
		51 - 64 mm	04-CBXK-7.5	97.7 mm	156.4 mm
8.0 mm	Black	0 - 13 mm	04-CBX-8.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CBXL-8.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CBXEL-8.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CBXK-8.0	97.7 mm	156.4 mm

## Spring Loaded Cylindrical Body Temporary Fasteners



- For use in wet sealant & liquid shim applications.
- Eliminate the need for re-torquing after installation.
- Internal spring compression retains a max. of 100 lb of clamping pressure even with minor thickness variations due to sealant flow.

Spring Loaded Cylindrical Body - Fractional					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
3/32" (#40)	Zinc	0 - 0.5"	04-CSX-3/32	4-17/32"	3-27/32"
		0.5 - 1"	04-CSXL-3/32	5-1/32"	3-27/32"
		1 - 1.5"	04-CSXEL-3/32	5-17/32"	3-27/32"
1/8" (#30)	Copper	0 - 0.5"	04-CSX-1/8	4-9/16"	3-27/32"
		0.5 - 1"	04-CSXL-1/8	5-1/16"	3-27/32"
		1 - 1.5"	04-CSXEL-1/8	5-9/16"	3-27/32"
		2 - 2.5"	04-CSXK-1/8	6-9/16"	3-27/32"
5/32" (#20)	Black	0 - 0.5"	04-CSX-5/32	4-19/32"	3-27/32"
		0.5 - 1"	04-CSXL-5/32	5-3/32"	3-27/32"
		1 - 1.5"	04-CSXEL-5/32	5-19/32"	3-27/32"
		2 - 2.5"	04-CSXK-5/32	6-5/8"	3-27/32"
3/16" (#10)	Brass	0 - 0.5"	04-CSX-3/16	4-5/8"	3-27/32"
		0.5 - 1"	04-CSXL-3/16	5-1/8"	3-27/32"
		1 - 1.5"	04-CSXEL-3/16	5-5/8"	3-27/32"
		2 - 2.5"	04-CSXK-3/16	6-5/8"	3-27/32"
7/32" (#2)	Zinc	0 - 0.5"	04-CSX-7/32	4-39/64"	3-27/32"
		0.5 - 1"	04-CSXL-7/32	5-7/64"	3-27/32"
		1 - 1.5"	04-CSXEL-7/32	5-39/64"	3-27/32"
		2 - 2.5"	04-CSXK-7/32	6-41/64"	3-27/32"
1/4" (F)	Copper	0 - 0.5"	04-CSX-1/4	4-21/32"	3-27/32"
		0.5 - 1"	04-CSXL-1/4	5-5/32"	3-27/32"
		1 - 1.5"	04-CSXEL-1/4	5-21/32"	3-27/32"
		2 - 2.5"	04-CSXK-1/4	6-21/32"	3-27/32"
9/32" (L)	Brass	0 - 0.5"	04-CSX-9/32	4-21/32"	3-27/32"
		0.5 - 1"	04-CSXL-9/32	5-5/32"	3-27/32"
		1 - 1.5"	04-CSXEL-9/32	5-21/32"	3-27/32"
		2 - 2.5"	04-CSXK-9/32	6-21/32"	3-27/32"
5/16" (O)	Black	0 - 0.5"	04-CSX-5/16	4-21/32"	3-27/32"
		0.5 - 1"	04-CSXL-5/16	5-5/32"	3-27/32"
		1 - 1.5"	04-CSXEL-5/16	5-21/32"	3-27/32"
		2 - 2.5"	04-CSXK-5/16	6-21/32"	3-27/32"
3/8" (V)	Black With Brass Cap	0 - 0.5"	04-CSX-3/8	4-3/4"	3-7/8"
		0.5 - 1"	04-CSXL-3/8	5-1/4"	3-7/8"
		1 - 1.5"	04-CSXEL-3/8	5-3/4"	3-7/8"
		2 - 2.5"	04-CSXK-3/8	6-3/4"	3-7/8"

Spring Loaded Cylindrical Body - Metric					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
2.5 mm	Black w/Zinc Nut	0 - 13 mm	04-CSX-2.5	97.7 mm	115.1 mm
		13 - 25 mm	04-CSXL-2.5	97.7 mm	128.8 mm
3.0 mm	Copper	0 - 13 mm	04CSX-3.0	97.7 mm	115.9 mm
		13 - 25 mm	04-CSXL-3.0	97.7 mm	128.6 mm
3.5 mm	Copper With Brass Nut	0 - 13 mm	04-CSX-3.5	97.7 mm	116.3 mm
		13 - 25 mm	04-CSXL-3.5	97.7 mm	129.0 mm
		25 - 38 mm	04-CSXEL-3.5	97.7 mm	147.7 mm
4.0 mm	Black	0 - 13 mm	04-CSX-4.0	97.7 mm	116.7 mm
		13 - 25 mm	04-CSXL-4.0	97.7 mm	129.4 mm
		25 - 38 mm	04-CSXEL-4.0	97.7 mm	142.1 mm
		51 - 64 mm	04-CSXK-4.0	97.7 mm	155.1 mm
4.5 mm	Brass With Zinc Nut	0 - 13 mm	04-CSX-4.5	97.7 mm	117.1 mm
		13 - 25 mm	04-CSXL-4.5	97.7 mm	129.8 mm
		25 - 38 mm	04-CSXEL-4.5	97.7 mm	142.5 mm
		51 - 64 mm	04-CSXK-4.5	97.7 mm	155.5 mm
5.0 mm	Brass With Copper Nut	0 - 13 mm	04-CSX-5.0	97.7 mm	117.5 mm
		13 - 25 mm	04-CSXL-5.0	97.7 mm	130.2 mm
		25 - 38 mm	04-CSXEL-5.0	97.7 mm	142.9 mm
		51 - 64 mm	04-CSXK-5.0	97.7 mm	155.9 mm
5.5 mm	Zinc With Black Nut	0 - 13 mm	04-CSX-5.5	97.7 mm	117.9 mm
		13 - 25 mm	04-CSXL-5.5	97.7 mm	130.6 mm
		25 - 38 mm	04-CSXEL-5.5	97.7 mm	143.3 mm
		51 - 64 mm	04-CSXK-5.5	97.7 mm	156.0 mm
6.0 mm	Copper	0 - 13 mm	04-CSX-6.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CSXL-6.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CSXEL-6.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CSXK-6.0	97.7 mm	156.4 mm
6.5 mm	Copper With Black Nut	0 - 13 mm	04-CSX-6.5	97.7 mm	118.3 mm
		13 - 25 mm	04-CSXL-6.5	97.7 mm	131.0 mm
		25 - 38 mm	04-CSXEL-6.5	97.7 mm	143.7 mm
		51 - 64 mm	04-CSXK-6.5	97.7 mm	156.4 mm
7.0 mm	Copper With Zinc Nut	0 - 13 mm	04-CSX-7.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CSXL-7.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CSXEL-7.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CSXK-7.0	97.7 mm	156.4 mm
7.5 mm	Black With Brass Nut	0 - 13 mm	04-CSX-7.5	97.7 mm	118.3 mm
		13 - 25 mm	04-CSXL-7.5	97.7 mm	131.0 mm
		25 - 38 mm	04-CSXEL-7.5	97.7 mm	143.7 mm
		51 - 64 mm	04-CSXK-7.5	97.7 mm	156.4 mm
8.0 mm	Black	0 - 13 mm	04-CSX-8.0	97.7 mm	118.3 mm
		13 - 25 mm	04-CSXL-8.0	97.7 mm	131.0 mm
		25 - 38 mm	04-CSXEL-8.0	97.7 mm	143.7 mm
		51 - 64 mm	04-CSXK-8.0	97.7 mm	156.4 mm



## Protective Caps For Sheet Metal Fasteners

Available user-installed in soft vinyl or hard plastic, or pre-installed with the temporary fastener in soft vinyl, hard plastic or aluminum.

Soft Vinyl Cap



Easy To Install

Cap Only - Soft Vinyl		
Part Number	Hole Diameter	For Fastener Series
NX-CAP-1	3/32" to 3/16"	BNX, CBX, CSX, HNX & WNX
NX-CAP-2	7/32" to 5/16"	
NX-CAP-3	3/8" Only	
M-CAP-1	3/32" to 3/16"	M, MM, ML & MEL
M-CAP-2	7/32" to 1/4"	
MHD-CAP-1	3/32" to 3/16"	MHD
MHD-CAP-2	7/32" to 1/4"	



Hard Plastic Caps

Cap Only - Hard Plastic		
Part Number	Hole Diameter	For Fastener Series
20125-22	3/32" to 1/8"	BNX, CBX, CSX, HNX & WNX
20125-24	5/32" to 3/16"	
20125-26	7/32" to 1/4"	
20125-27	5/16" Only	
20205	3/8" Only	



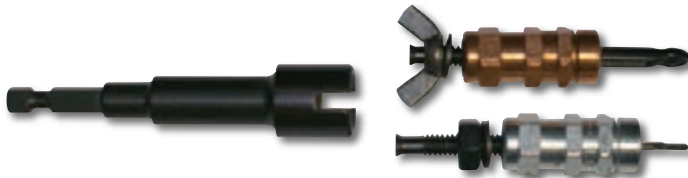
Full Assembly

Cap & Fastener Assemblies (see instructions below)		
Part Number Suffix	Type	For Fastener Series
-VC	Soft Vinyl	All Series
-PC	Hard Plastic	CBX & CSX
-ALC	Aluminum	HNX & WNX

**Note:** To order a cap and fastener assembly, add the required suffix (chart above) to the end of the fastener part number.

**Example:** To order a 1/4" hex body temporary fastener with an aluminum protective cap, the part number would be: **04-HNX-1/4-ALC**.

## Hex & Wing Nut Installation Tool



- Designed to install hex & wing nut fasteners fast & economically.
- Use with any 1/4" chuck or 1/4" female sq. drive power tool.

**Note:** Fasteners shown not included.

Part Number	Overall Length
70664	3-1/2" (89 mm)

## Sioux® Hex Body Temporary Fastener Runners



SSR6P25

2S2300SR

Works With All Brands & Styles Of Hex Fasteners

Ergonomic Pistol Grip

### Pistol Grip Model

Includes ergonomic comfort grip & shuttle reverse.

Pistol Grip - 0.40 hp (0.30 kW)				
Part Number	Free RPM	Torque	Overall Length	Weight
SSR6P25	2500	48 in-lbs	9-1/4" (235 mm)	2.7 lbs (1.2 kgs)

### 'Z' Handle Model

Smaller profile 'Z' handle perfect for limited access areas.

'Z' Handle - 0.33 hp (0.25 kW)				
Part Number	Free RPM	Torque	Overall Length	Weight
2S2300SR	2200	48 in-lbs	5-3/4" (146 mm)	2.6 lbs (1.2 kgs)

## Hex Body Fastener Installation Tool



W800-10-821-CHIR

Compact & Lightweight

- Drives all diameter and grip accommodations.
- Roller bearing drive system allows faster installation & removal.

Part Number	RPM	Torque
W880-20-821-CHIR	2,000	32 in-lbs
W880-10-821-CHIR	1,000	64 in-lbs

## Hex Body Temporary Fasteners



- High clamping loads and easy installation.
- Spin-free design allows nut to completely back off stud while remaining intact on stud body.

Hex Body - Fractional					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
3/32" (#40)	Zinc	0 - 0.3125"	04-HNXS-3/32	2-7/32"	2-3/8"
		0 - 0.5"	04-HNX-3/32	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-3/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-3/32	3-47/64"	4-3/8"
1/8" (#30)	Copper	0 - 0.3125"	04-HNXS-1/8	2-7/32"	2-3/8"
		0 - 0.5"	04-HNX-1/8	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-1/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-1/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-HNXK-1/8	3-47/64"	5-3/8"
5/32" (#20)	Black	0 - 0.3125"	04-HNXS-5/32	2-7/32"	2-3/8"
		0 - 0.5"	04-HNX-5/32	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-5/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-5/32	3-47/64"	4-3/8"
3/16" (#10)	Brass	1.5 - 2.5"	04-HNXK-5/32	3-47/64"	5-3/8"
	Brass	0 - 0.3125"	04-HNXS-3/16	2-7/32"	2-3/8"
		0 - 0.5"	04-HNX-3/16	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-3/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-3/16	3-47/64"	4-3/8"
7/32" (#2)	Zinc	1.5 - 2.5"	04-HNXK-3/16	3-47/64"	5-3/8"
		0 - 0.5"	04-HNX-7/32	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-7/32	3-11/16"	3-7/8"
1/4" ("F")	Copper	0.5 - 1.5"	04-HNXEL-7/32	3-47/64"	4-3/8"
	Copper	0 - 0.3125"	04-HNXS-1/4	2-7/32"	2-3/8"
		0 - 0.5"	04-HNX-1/4	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-1/4	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-1/4	3-47/64"	4-3/8"
9/32" ("L")	Brass	1.5 - 2.5"	04-HNXK-1/4	3-47/64"	5-3/8"
		1.5 - 2.5"	04-HNXK-9/32	3-47/64"	5-3/8"
5/16" ("O")	Black	0 - 0.5"	04-HNX-5/16	2-11/16"	2-7/8"
		0 - 1"	04-HNXL-5/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-5/16	3-47/64"	4-3/8"
		1.5 - 2.5"	04-HNXK-5/16	3-47/64"	5-3/8"
3/8" ("V")	Black With Brass Cap	0 - 1"	04-HNXL-3/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-HNXEL-3/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-HNXK-3/8	3-47/64"	5-3/8"

Hex Body - Metric					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
2.5 mm	Silver	0 - 13 mm	04-HNX-2.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-2.5	94.5 mm	99.3 mm
3.0 mm	Copper	0 - 13 mm	04-HNX-3.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-3.0	94.5 mm	99.3 mm
3.5 mm	Copper With Brass Nut	0 - 13 mm	04-HNX-3.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-3.5	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-3.5	95.6 mm	112.2 mm
4.0 mm	Black	0 - 13 mm	04-HNX-4.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-4.0	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-4.0	95.6 mm	112.2 mm
4.5 mm	Brass With Silver Nut	0 - 13 mm	04-HNX-4.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-4.5	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-4.5	95.6 mm	112.2 mm
5.0 mm	Brass With Copper Nut	0 - 13 mm	04-HNX-5.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-5.0	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-5.0	95.6 mm	112.2 mm
5.5 mm	Silver With Black Nut	0 - 13 mm	04-HNX-5.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-5.5	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-5.5	95.6 mm	112.2 mm
6.0 mm	Copper	0 - 13 mm	04-HNX-6.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-6.0	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-6.0	95.6 mm	112.2 mm
6.5 mm	Copper With Black Nut	0 - 13 mm	04-HNX-6.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-6.5	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-6.5	95.6 mm	112.2 mm
7.0 mm	Silver With Copper Nut	0 - 13 mm	04-HNX-7.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-7.0	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-7.0	95.6 mm	112.2 mm
7.5 mm	Black With Brass Nut	0 - 13 mm	04-HNX-7.5	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-7.5	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-7.5	95.6 mm	112.2 mm
		38 - 63 mm	04-HNXK-7.5	95.6 mm	137.8 mm
8.0 mm	Black	0 - 13 mm	04-HNX-8.0	68.8 mm	73.7 mm
		0 - 25 mm	04-HNXL-8.0	94.5 mm	99.3 mm
		13 - 38 mm	04-HNXEL-8.0	95.6 mm	112.2 mm
		38 - 63 mm	04-HNXK-8.0	95.6 mm	137.8 mm

## Wing Nut Manual Temporary Fasteners



- Hand operated - for structures requiring limited fastening or have limited access.
- User controlled clamping forces of 50-300 lbs.

Wing Nut - Fractional					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
3/32" (#40)	Zinc	0 - 0.3125"	04-WNXS-3/32	2-7/32"	2-3/8"
		0 - 0.5"	04-WNX-3/32	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-3/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-3/32	3-47/64"	4-3/8"
1/8" (#30)	Copper	0 - 0.3125"	04-WNXS-1/8	2-7/32"	2-3/8"
		0 - 0.5"	04-WNX-1/8	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-1/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-1/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-1/8	3-47/64"	5-3/8"
5/32" (#20)	Black	0 - 0.3125"	04-WNXS-5/32	2-7/32"	2-3/8"
		0 - 0.5"	04-WNX-5/32	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-5/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-5/32	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-5/32	3-47/64"	5-3/8"
3/16" (#10)	Brass	0 - 0.3125"	04-WNXS-3/16	2-7/32"	2-3/8"
		0 - 0.5"	04-WNX-3/16	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-3/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-3/16	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-3/16	3-47/64"	5-3/8"
7/32" (#2)	Zinc	0 - 0.5"	04-WNX-7/32	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-7/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-7/32	3-47/64"	4-3/8"
1/4" (F)	Copper	0 - 0.3125"	04-WNXS-1/4	2-7/32"	2-3/8"
		0 - 0.5"	04-WNX-1/4	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-1/4	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-1/4	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-1/4	3-47/64"	5-3/8"
5/16" (O)	Black	0 - 0.5"	04-WNX-5/16	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-5/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-5/16	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-5/16	3-47/64"	5-3/8"
3/8" (V)	Black With Brass Cap	0 - 0.5"	04-WNX-3/8	2-11/16"	2-7/8"
		0 - 1"	04-WNXL-3/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-WNXEL-3/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-WNXK-3/8	3-47/64"	5-3/8"

Wing Nut - Metric					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
2.5 mm	Silver	0 - 13 mm	04-WNX-2.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-2.5	94.5 mm	99.3 mm
3.0 mm	Copper	0 - 13 mm	04-WNX-3.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-3.0	94.5 mm	99.3 mm
3.5 mm	Copper w/Brass Rivet	0 - 13 mm	04-WNX-3.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-3.5	94.5 mm	99.3 mm
4.0 mm	Black	0 - 13 mm	04-WNX-4.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-4.0	94.5 mm	99.3 mm
4.5 mm	Brass w/Silver Rivet	0 - 13 mm	04-WNX-4.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-4.5	94.5 mm	99.3 mm
5.0 mm	Brass w/Cop. Rivet	0 - 13 mm	04-WNX-5.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-5.0	94.5 mm	99.3 mm
5.5 mm	Silver w/Black Rivet	0 - 13 mm	04-WNX-5.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-5.5	94.5 mm	99.3 mm
6.0 mm	Copper	0 - 13 mm	04-WNX-6.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-6.0	94.5 mm	99.3 mm
6.5 mm	Copper w/Black Rivet	0 - 13 mm	04-WNX-6.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-6.5	94.5 mm	99.3 mm
7.0 mm	Black w/Brass Rivet	0 - 13 mm	04-WNX-7.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-7.0	94.5 mm	99.3 mm
7.5 mm	Black w/Black Rivet	0 - 13 mm	04-WNX-7.5	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-7.5	94.5 mm	99.3 mm
8.0 mm	Black	0 - 13 mm	04-WNX-8.0	68.6 mm	73.7 mm
		0 - 25 mm	04-WNXL-8.0	94.5 mm	99.3 mm



## CLAMP & FASTENING TOOLS

### Bar Nut Manual Temporary Fasteners

*Easy To Operate*



04-BNXL-1/8

- High clamping loads and easy installation.
- Spin-free design allows nut to completely back off stud while remaining intact on stud body.

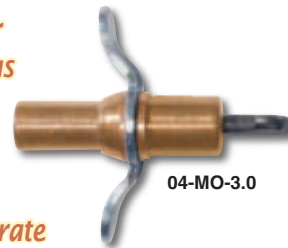
Bar Nut - Fractional					
Hole Dia.	Color Code	Grip Range	Part Number	Body Installed	Overall Length
3/32" (#40)	Zinc	0 - 0.3125"	04-BNXS-3/32	2-7/32"	2-3/8"
		0 - 0.5"	04-BNX-3/32	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-3/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-3/32	3-47/64"	4-3/8"
1/8" (#30)	Copper	0 - 0.3125"	04-BNXS-1/8	2-7/32"	2-3/8"
		0 - 0.5"	04-BNX-1/8	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-1/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-1/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-1/8	3-47/64"	5-3/8"
5/32" (#20)	Black	0 - 0.3125"	04-BNXS-5/32	2-7/32"	2-3/8"
		0 - 0.5"	04-BNX-5/32	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-5/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-5/32	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-5/32	3-47/64"	5-3/8"
3/16" (#10)	Brass	0 - 0.3125"	04-BNXS-3/16	2-7/32"	2-3/8"
		0 - 0.5"	04-BNX-3/16	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-3/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-3/16	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-3/16	3-47/64"	5-3/8"
7/32" (#2)	Zinc	0 - 0.5"	04-BNX-7/32	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-7/32	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-7/32	3-47/64"	4-3/8"
1/4" ('F')	Copper	0 - 0.3125"	04-BNXS-1/4	2-7/32"	2-3/8"
		0 - 0.5"	04-BNX-1/4	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-1/4	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-1/4	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-1/4	3-47/64"	5-3/8"
5/16" ('O')	Black	0 - 0.5"	04-BNX-5/16	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-5/16	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-5/16	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-5/16	3-47/64"	5-3/8"
3/8" ('V')	Black With Brass Cap	0 - 0.5"	04-BNX-3/8	2-11/16"	2-7/8"
		0 - 1"	04-BNXL-3/8	3-11/16"	3-7/8"
		0.5 - 1.5"	04-BNXEL-3/8	3-47/64"	4-3/8"
		1.5 - 2.5"	04-BNXK-3/8	3-47/64"	5-3/8"

### 'MO' Type Manual Temporary Fasteners

*Great For Tight Areas*



04-MO-5/32



04-MO-3.0

*Easy To Operate*

Hand operated for minimal clamping loads up to 12 lbs.

MO Type - Fractional			
Hole Dia.	Color Code	Grip Range	Part Number
3/32" (#40)	Zinc	0 - 0.25"	04-MO-3/32
		0.25" - 0.5"	04-MOL-3/32
1/8" (#30)	Copper	0 - 0.25"	04-MO-1/8
		0.25" - 0.5"	04-MOL-1/8
5/32" (#20)	Black	0 - 0.25"	04-MO-5/32
		0.25" - 0.5"	04-MOL-5/32
3/16" (#10)	Brass	0 - 0.25"	04-MO-3/16
		0.25" - 0.5"	04-MOL-3/16

MO Type - Metric			
Hole Dia.	Color Code	Grip Range	Part Number
2.0 mm	Black With Brass Rivet	0 - 6.5 mm	04-MO-2.0
2.5 mm	Silver	0 - 6.5 mm	04-MO-2.5
3.0 mm	Copper	0 - 6.5 mm	04-MO-3.0
3.5 mm	Copper With Brass Rivet	0 - 6.5 mm	04-MO-3.5
4.0 mm	Black	0 - 6.5 mm	04-MO-4.0
4.5 mm	Silver With Brass Rivet	0 - 6.5 mm	04-MO-4.5

### Skinpins No-Mar Manual Temporary Fasteners

04-SSL-3/32



04-SSL-1/8



04-SEL-5/32



- Instantly spins up or down with the flick of a finger.
- Specially designed tip provides maximum gripping strength.
- No-mar plastic caps are color coded for easy identification.

**Note:** Other sizes and styles available, please inquire.

Part Number, Standard (0 to 1/2" capacity)	Part Number, Long (0 to 1" capacity)	Drill Size	Color Code
04-SSL-3/32	04-SEL-3/32	#40	Red
04-SSL-1/8	04-SEL-1/8	#30	Yellow
04-SSL-5/32	04-SEL-5/32	#20	Blue
—	04-SEL-3/16	#10	Black
—	04-SEL-1/4	1/4"	White

## Aviation Snips



04-DAS-10G



04-DAR-10G



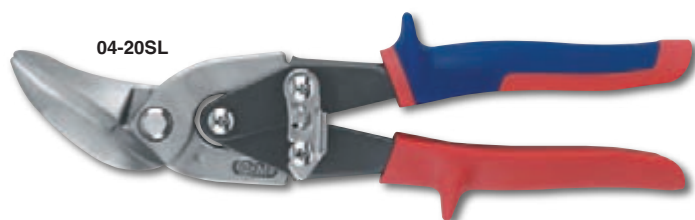
04-DAL-10G

- Easy cutting action on up to 18 gauge metal.
- Forged blades with serrated cutting edges to prevent slipping.
- Handles have smooth vinyl grips with thumb stops.

Part Number	Type	Cut Length	O.A.L.	Weight
04-DAS-10G	Straight	1-15/16" (33 mm)	10" (254 mm)	0.8 lbs (0.4 kgs)
04-DAR-10G	Right & Straight			
04-DAL-10G	Left & Straight			

Part Number	Description
53-70453	3 PC Set (left, right & straight)

## Offset Snips



04-20SL



04-20SR

Part Number	Cut	Cut Length	Overall Length
04-20SL	Left & Straight	1-15/16" (33 mm)	9-1/2" (241 mm)
04-20SR	Right & Straight		

**Note:** Cuts straight, sharp angles in one direction & 5" circles in the other direction.

Part Number	Description
53-20SLR	2 PC Set (left & right)

## Compound Action Offset Snips



P6900-L

*Ideal For Tight Spaces*



P6900-R

*Made In The USA*

- Long lasting, hot drop forged molybdenum alloy steel blades.
- Compound leverage handle action multiplies handle force.
- Ergonomic design can be used in a blade up or down position.

Part Number	Cut	Cut Length	Overall Length
P6900-L	Left & Straight	1-3/4" (45 mm)	10-7/8" (276 mm)
P6900-R	Right & Straight		

## Standard Tinner Snips



04-MD10

Flat inside edge guides straight cutting.

**Note:** For straight cuts, wide curves & notching.

Part No.	Cut Length	Overall Length	Weight
04-MD7	1-1/2"	7" (178 mm)	0.5 lbs (0.2 kgs)
04-MD10	2"	10" (254 mm)	0.6 lbs (0.3 kgs)
04-MD12	2-3/4"	12-3/4" (320 mm)	1.6 lbs (0.7 kgs)

## Duckbill Tinner Snips



04-D7

*Hot Forged Molybdenum Steel*

7" model great for cutting shims & gaskets.

**Note:** For cutting patterns & smooth, tight curves in either direction.

Part No.	Cut Length	Overall Length	Weight
04-D7	2"	7" (178 mm)	0.5 lbs (0.2 kgs)
04-D10	2"	10" (254 mm)	0.6 lbs (0.3 kgs)
04-D12	2-3/4"	12-3/4" (320 mm)	1.6 lbs (0.7 kgs)

## HAND TOOLS

### Bulldog Pattern Tinner Snips

*Made In The USA*



*Heavy-Duty, High Leverage*

- Hot drop forged molybdenum alloy steel construction.
- Long lasting blades will cut up to 16 gauge cold rolled steel.

**Note:** For straight cuts & heavy gauge notching.

Part No.	Cut Length	Overall Length	Weight
04-M15	2-1/4"	16" (406 mm)	3.8 lbs (1.7 kgs)

### Malco® Aluminum Handle Snips

- Versatile snips with sleek head design and a full 3" cut length.
- Easy blade replacement and comfortable, larger handle loops.



M12A

*1/3 The Weight  
Of Steel Types*

**Note:** Cuts straight & mild curve cuts. Will also cut multiple layered material.

Pattern Snips			
Part Number	Cut Length	Overall Length	Weight
M12A	3"	12" (305 mm)	1.1 lbs (0.5 kgs)
M14A	3-1/4"	14" (356 mm)	1.3 lbs (0.6 kgs)

*Made In  
The USA*



MC14A

**Note:** Cuts straight & left or right circles down to 6" diameter.

Combination Snips			
Part Number	Cut Length	Overall Length	Weight
MC12A	3"	12" (305 mm)	1.1 lbs (0.5 kgs)
MC14A	3-1/4"	14" (356 mm)	1.3 lbs (0.6 kgs)

Replacement Blades			
Part Number	For Tool	Part Number	For Tool
M12ARB	M12A	MC12ARB	MC12A
M14ARB	M14A	MC14ARB	MC14A

### Light Metal Cutting Snips

*Forged, High Quality  
Tool Steel*



04-57C

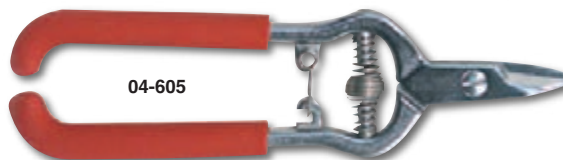
- Short & powerful precision ground blades.
- Superior hardened edges for cutting light metal.

Part Number	Blade Type	Cut Length	Overall Length
04-54	Straight	3/4"	7"
04-57C	Curved	(19 mm)	(178 mm)

### Kevlar Fabric Hand Shears & Scissors



04-468



04-605



04-330

**Note:** For cordless electric kevlar scissors see page 233.

Part Number	Type	Cut Length	Overall Length
04-605	Trim Snip	3/4"	5" (127 mm)
04-468	Knife Edge	2-3/4"	8-1/4" (210 mm)
04-330	Serrated	4-1/2"	10" (254 mm)



*For Pneumatic Shears & Scissors See Pages 96-97*



## Pinking Shears



- Lightweight & durable ABS plastic handle.
- Deep cut teeth are specially hardened for long wear.
- High quality stainless steel blades with ravel-resistant edge.

Part Number	Overall Length
04-P91	8" (203 mm)

## Malco® Notcher



- Ergo handles with a powerful 7:1 mechanical advantage.
- Drop forged jaw makes clean, 30° v-shaped cuts in sheet metal.
- Hardened all-steel construction and a nickel chrome finish.

Part Number	Steel Capacity	Throat	Overall Length	Weight
04-N1	24 Gauge	13/16"	8" (203 mm)	16 oz (0.5 kgs)

## Quick-Snip Hand Nibbler



- Heavy-duty, industrial quality.
- No distorting, burring or curling at edges of cut.

Part Number	Capacity Steel	Capacity Aluminum
04-J1251	18 Gauge	15 Gauge

## Malco® Hand Seamers



- Drop-forged jaws with graduated 1/4 inch depth markings.
- Easily bend flanges or completely flatten seams from 1/4 to 1-1/4 inch deep in 24 gauge galvanized or mild steel.
- Ergo handles with a powerful 7:1 mechanical advantage.

Part Number	Jaws	Overall Length	Weight
04-S2	3-1/4" W x 1-1/4" D	8-3/4" (222 mm)	24 oz (0.68 kgs)
04-S3	3-1/4" W x 1-1/4" D	8-1/2" (216 mm)	24 oz (0.68 kgs)
04-S6	6" W x 1-1/4" D	8-3/4" (222 mm)	30 oz (0.85 kgs)

## Hand Seamer



Part Number	Jaws	Overall Length	Weight
04-44	3-1/2" W x 1" D	8" (203 mm)	1.1 lbs (0.5 kgs)

## HAND TOOLS

### Narrow Type Fluting Pliers



04-1220

Makes narrow, precise flutes for straightening ribs and bulkheads.

Part Number	Overall Length
04-1220	10" (254 mm)

### Malco® Crimpers



Made In The USA

Easy  
To Use

04-111

04-C5

Ergo  
Handle

#### Single Blade Crimper

- Fast, easy to use & lightweight.
- Zinc plated steel construction with comfortable plastic grips.

#### Five Blade Crimper

- Ergo handles with a powerful 7:1 mechanical advantage.
- Handle closing stop maintains a consistent crimp.
- Hardened all-steel construction and a nickel chrome finish.

Part Number	Blade	Throat Depth	Overall Length	Weight
04-111	Single	1-1/4" D	8" (203 mm)	8 oz (0.25 kgs)
04-C5	Five	1-5/8" D	7-5/8" (244 mm)	17 oz (0.5 kgs)

### Camloc Pliers



- For Camloc fasteners.
- With black-ox coating & rubber grips.

Part Number	For Use With
04-4P3	2600, 2700 & 4002 Stud Series

### A-N Electrical Connector Pliers



Three  
Adjustment  
Positions

Powerful & Non-Marring

With replaceable nylon inserts for protection of A-N connectors.

Part Number	Description
04-529-10	A-N Electrical Connector Pliers
04-529-1	Replacement No-Mar Pads

### Line Clamp Pliers



04-83

- Holds the clamp bolt, compresses & retains the line clamp(s).
- Up to three clamps on one assembly can be held in position by the retaining pawl.
- More than three clamps or clamps with spacers can be handled manually.
- For use on #10 hex or #10 12 point screws (3/8" hex heads).

Part Number	For Use With
04-82	Clamps or studs anchored on flat surfaces.
04-83	Tubes and wires clamped with point of screw on back of the clamp.

### Cushioned Clamp Installation Pliers



NEW

Notched-nose locking pliers and alignment awl help simplify the installation of single or multiple 'Adel' type cushioned clamps.

Part Number	Includes
50104	Pliers, Alignment Awl & Instructions

## Locking Jaw Pliers



*Classic Design*

04-7RQ  
Fast Release

Classic design is constructed from high-grade heat treated alloy steel for maximum toughness and durability.

### NEW Fast Release Models

- Redesigned tactile grip zone helps improve user control and is suited for high-temperature applications.
- One-handed, triggerless release is two times easier to open than traditional locking pliers.
- 10" models feature a 20% reduced hand span for greater control and helps reduce hand strain.



04-7R  
Original

### Straight Jaw Locking Pliers

Original Part Number	Fast Release Part Number	Jaw Capacity	Overall Length	Weight
04-7R	04-7RQ	0 to 1-1/2"	7" (178 mm)	0.9 lbs (0.4 kgs)
04-10R	04-10RQ	0 to 1-7/8"	10" (254 mm)	1.3 lbs (0.6 kgs)



04-7WRQ

### Curved Jaw Locking Pliers

Original Part Number	Fast Release Part Number	Jaw Capacity	Overall Length	Weight
04-7CR	04-7CRQ	0 to 1-1/2"	7" (178 mm)	0.8 lbs (0.4 kgs)
04-10CR	04-10CRQ	0 to 1-7/8"	10" (254 mm)	1.2 lbs (0.5 kgs)

### Curved Jaw Locking Pliers with Wire Cutter

Original Part Number	Fast Release Part Number	Jaw Capacity	Overall Length	Weight
04-4WR	—	0 to 1"	4" (102 mm)	0.3 lbs (0.14 kgs)
04-5WR	04-5WRQ	0 to 1-1/8"	5" (127 mm)	0.4 lbs (0.18 kgs)
04-7WR	04-7WRQ	0 to 1-1/2"	7" (178 mm)	0.8 lbs (0.4 kgs)
04-10WR	04-10WRQ	0 to 1-7/8"	10" (254 mm)	1.2 lbs (0.5 kgs)

## Locking Jaw Pliers (cont'd)

*Other Models Available, Please Inquire*



04-6LNQ

### Long Nose Tapered Jaw Locking Pliers

Original Part Number	Fast Release Part Number	Jaw Capacity	Overall Length	Weight
04-4LN	—	0 to 1-5/8"	4" (102 mm)	0.3 lbs (0.14 kgs)
04-6LN	04-6LNQ	0 to 2"	6" (152 mm)	0.4 lbs (0.18 kgs)
04-9LN	04-9LNQ	0 to 2-3/4"	9" (229 mm)	0.9 lbs (0.4 kgs)



04-12LC

### Locking Large Jaw

Heavy-duty jaw locks around work of all shapes and will not slip.

Part Number	Maximum Opening	Overall Length
04-12LC	3-1/8" (79 mm)	12" (305 mm)



04-8R

### Locking Sheet Metal Tool

Makes bending, forming and crimping jobs faster and easier.

Part No.	Jaw Size	Overall Length	Weight
04-8R	1-3/4" D x 3-1/8" W	8" (203 mm)	1.3 lbs (0.6 kgs)



04-9R

### Welding Clamp

Deep-throated U-shaped jaws hold work in proper alignment.

Part No.	Jaw Size	Overall Length	Weight
04-9R	2-3/4" D x 1-5/8" W	9" (229 mm)	1.4 lbs (0.6 kgs)



## HAND TOOLS

### Leatherman® Multi-Purpose Tools

Limited Warranty &  
25 Year Guarantee



100%  
Stainless  
Steel

Leather Case  
Included

Made In  
The USA

#### Super Tool 300 Includes:

Needlenose Pliers; Regular Pliers; Wire Cutters; Hard Wire Cutters; Stranded Wire Cutters; Electrical Crimper; Wire Stripper; Knife; Serrated Knife; Saw; Awl w/Thread Loop, 9" Ruler (22 cm); Can Opener; Bottle Opener; Wood/Metal File; Phillips Screwdriver; Flat Screwdrivers (small, medium & large)

Part Number	Closed Length	Weight
70289	4-1/2" (11.5 cm)	9.6 oz (272 g)

#### Wave Includes:

Needlenose Pliers; Regular Pliers; Wire Cutters; Hard Wire Cutters; Wire Stripper; Knife; Serrated Knife; Saw; Spring Action Scissors, 8" Ruler (19 cm); Can Opener; Bottle Opener; Wood/Metal File; Diamond Coated File; Bit Drivers (small & large), Flat Screwdriver (medium)

Part Number	Closed Length	Weight
71136	4" (10 cm)	8.5 oz (241 g)

#### Crunch Includes:

Regular Pliers; Locking Pliers; Wire Cutters; Hard Wire Cutters; Wire Stripper; Serrated Knife; 8" Ruler (19 cm); Pin Vise; Bottle Opener; Wood/Metal File; 1/4" Hex Bit Driver, Phillips Screwdriver; Flat Screwdrivers (small, medium & large)

Part Number	Closed Length	Weight
71138	4" (10 cm)	6.9oz (196 g)

### Cylinder Base Nut Wrenches



For  
Continental  
Engines

Forged Alloy  
Steel

12 Point Hex  
Wrench End

53-2882

- Designed with a 1/2" square drive and built to last.
- Extra thin hex heads for easy access over the cylinder bolts.
- Made from tough, heat-treated alloy steel forging.

Part Number	Hex	For Use With Engine	Weight
04-2882	9/16"	C85, 0-200, 0-300, G0-300, E-185, E-225, 0 & IO-470, IO-360, IO-520	0.88 lbs (0.4 kgs)
04-2882-2	1/2"	A-65, C-85, 0-200, 0-300, G0-300, E-185, E-225, IO-360	
04-2882-3	5/8"	A-65, 0-470, IO-520	
04-2882-4	3/4"	Lycoming 0-390D, D2 and all wide deck lycoming engines.	

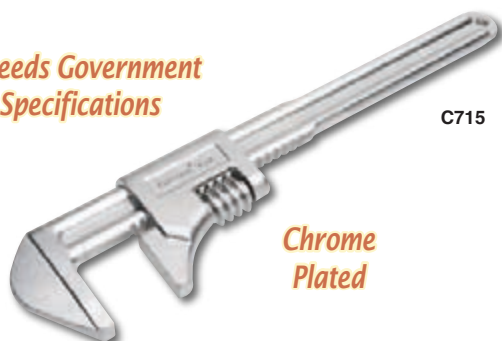
Part Number	Description
53-2882	Complete 4 PC Set



For Torque & Pneumatic Wrenches See Pages 135-137

## Crescent® "Ford" Wrenches

Exceeds Government Specifications



C715

Chrome Plated

- Precision machined from Crescent® special analysis tool steel.
- Adjustable, smooth jaws for no-mar installation & removal of aircraft fittings manufactured by Crescent®. Chrome plated.

Part Number	Jaw Opening	Overall Length
C79H	2-3/4" (70 mm)	9" (229 mm)
C711H	3" (76 mm)	11" (279 mm)
C715	3-5/8" (92 mm)	15" (381 mm)
C718	4-3/8" (111 mm)	18" (457 mm)

## Gearwrench® Socket Sets

Includes Fitted Case



80557

- 84 tooth full polish chrome thin profile ratchet.
- Knurled full polish chrome extensions\*.
- Sockets feature Surface-drive® tech to reduce fastener rounding.
- Full polish chrome sockets with large hard stamp size markings.

Part Number	Type	Drive	Size Range
80557	21PC SAE Deep & Standard Set	3/8"	3/8" to 3/4"
80326	14PC Metric Set	1/4"	4 to 13 mm

\*80326 includes 2" &amp; 6", 80557 includes 3" &amp; 6".

## Bondhus® T-Handle Hex Key Sets

Graduated Lengths

- Handle & blade are securely welded and will never loosen.
- Ergonomic handles shaped for comfort & control.
- Handle sizes are engineered to match torque capabilities.
- High torque steel construction with corrosion resistant finish.

13190

Made In The USA



Balldriver Tip



Hex Tip



Note: Other sizes available, please inquire.

Part Number	Tip Style	Set	Size Range
13190	Balldriver*	10 PC Inch	3/32" to 3/8"
13390	Hex	10 PC Inch	3/32" to 3/8"
13189	Balldriver*	8 PC Metric	2 to 10 mm
13389	Hex	8 PC Metric	2 to 10 mm

\*3/32 to 9/64" and 2 to 3 mm keys are straight hex to prevent breakage.

## Bondhus® Hex Key Sets

12199



12137

Made In The USA

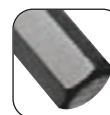
- Chamfered tips for fast insertion & full tool engagement.
- Marked & color coded case keeps keys organized.
- High torque steel construction with corrosion resistant finish.



ProHold Tip



Balldriver Tip



Hex Tip

Note: Other sizes available, please inquire.

Part Number	Tip Style	Set	Size Range
74937	ProHold	13 PC Inch	0.050" to 3/8"
10937	Balldriver	13 PC Inch	0.050" to 3/8"
12137	Hex	13 PC Inch	0.050" to 3/8"
74999	ProHold	9 PC Metric	1.5 to 10 mm
10999	Balldriver	9 PC Metric	1.5 to 10 mm
12199	Hex	9 PC Metric	1.5 to 10 mm

## HAND TOOLS

### Bondhus® Balldriver Hex Key Singles

*Made In The USA*



- Chamfered tips for fast insertion and full tool engagement.
- High torque steel construction with corrosion resistant finish.



**Balldriver Tip**

**Note:** Other sizes & styles available, please inquire.

Part Number	Hex Size	Overall Length
15702	0.050"	2.8" (72 mm)
15703	1/16"	3.0" (76 mm)
15704	5/64"	3.2" (81 mm)
15705	3/32"	3.4" (86 mm)
15706	7/64"	3.6" (90 mm)
15707	1/8"	3.8" (95 mm)
15708	9/64"	4.0" (101 mm)
15709	5/32"	4.2" (107 mm)
15710	3/16"	4.5" (114 mm)
15711	7/32"	4.9" (124 mm)
15712	1/4"	5.6" (141 mm)
15713	5/16"	6.0" (152 mm)
15714	3/8"	6.8" (171 mm)

### Bondhus® GorillaGrip® Fold-Up Hex Key Sets

12589

*Handle 40% Stronger Than Steel Handles*



*Made In The USA*

- Handle does not conduct heat or cold.
- High torque steel hex keys with corrosion resistant finish.
- 90° stop converts tool into a non-stop, time saving speed wrench.

**Note:** Other sizes & styles available, please inquire.

Part Number	Type	Size Range
12589	9 Key Inch Set	5/64" to 1/4"
12591	9 Key Inch Set	.050" to 3/16"
12587	7 Key Metric Set	2 to 8 mm

### Bristol® Spline Drive Keys



**4 & 6 Flute Design**

S-033-4



S-060-6

Spline drive tools offer superior torque transmission because nearly 100% of the force is applied at right angles to the load bearing spline surfaces of the socket.

Major Diameter	Flute Count	Part Number Short*	Part Number Long*
0.033"	4	S-033-4	—
0.048"	4	S-048-4	S-048-4L
0.048"	6	S-048-6	S-048-6L
0.060"	6	S-060-6	S-060-6L
0.069"	4	S-069-4	S-069-4L
0.072"	6	S-072-6	S-072-6L
0.076"	4	S-076-4	S-076-4L
0.096"	6	S-096-6	S-096-6L
0.111"	6	S-111-6	S-111-6L

\*Approximate overall lengths: short keys 1-1/4" to 2-1/2", long keys 3" to 4".

Part Number	Description
SS-508	10 PC Kit: All Nine Short Keys & Carrying Case

**Note:** Other sizes, styles & kits available, please inquire.

### Hex Drivers



57410

- General use & production assembly using socket screw products.
- Includes adjustable, replaceable Allen bit & bit change key.

Part Number	Key Size	Part Number	Key Size
57400	.028"	57412	7/64"
57406	1/16"	57414	1/8"
57408	5/64"	57416	9/64"
57410	3/32"		

### Ball Pein Hammers

HBP-3-0

*Hickory Handle*



- Ideal for driving punches, chisels & other metalwork.
- Heads are drop-forged and carefully heat treated for long life.

**Note:** Other sizes available, please inquire.

Part Number	Face Diameter	Overall Length	Weight
HBP-3-0	1"	10-7/16" (27 cm)	8 oz (227 g)
HBP-2-0	1-1/8"	12-1/2" (32 cm)	12 oz (340 g)
HBP-0	1-1/4"	13-5/8" (35 cm)	16 oz (454 g)



## Brass Hammers

Non-Slip Cushion Grip



HSB-1.5

Non-Sparking

- The flat surface brass head absorbs impact blows, reduces rebound and helps eliminate marred work surfaces.
- Sturdy fiberglass handle with non-slip cushion grip for greater comfort & safety.

Part Number	Face Diameter	Overall Length	Weight
HSB-1.5	1"	10" (25.4 cm)	24 oz (680 g)

## Grobet® Double Face Nylon Hammers

Non-Marring Replaceable Faces



Great For Forming &amp; Bending



37712

- Excellent for general metal work.
- Comfortable rubber grip plastic handle.
- Simple to replace screw off face sets (available below).

Part Number Hammer	Part Number Rep. Face Set	Face Diameter	Overall Length	Weight
37712	37712-01	1-1/4"	12-1/4" (31 cm)	1.2 lbs (0.5 kgs)
37713	37713-01	1-1/2"	12-1/4" (31 cm)	1.6 lbs (0.7 kgs)
37714	37714-01	1-3/4"	12-1/4" (31 cm)	2.1 lbs (0.9 kgs)
37715	37715-01	2"	15-1/2" (39 cm)	2.5 lbs (1.1 kgs)

## Deadblow Hammers

Non-Marring &amp; Non-Sparking



Ergonomically Designed Handle

70331

- Hard urethane construction resists head cuts & damage.
- Hammer will not absorb liquids - made in the USA.

Part Number	Face Diameter	Overall Length	Weight
70330	1-9/16"	12" (30.5 cm)	16 oz (454 g)
70331	1-3/4"	12-3/4" (32.4 cm)	24 oz (680 g)
70332	2"	13-1/2" (34.3 cm)	32 oz (907 g)

## Garland® Mallets

Hickory Handles

11004



Made In The USA

## Rawhide Mallets

- The best striking tool for metalwork, tool & die work.
- Prime-grade water buffalo hide head is tough & non-marring.

Part Number	Face Diameter	Head Length	Weight
11002	1-1/2"	3"	6 oz (170 g)
11004	2"	3-1/2"	11 oz (312 g)



15005

## Plastic Mallets

Head made from ultra-high-molecular-weight plastic that is non-porous, easy to clean & non marring on most surfaces.

Part Number	Face Diameter	Head Length	Weight
15002	1-1/2"	3-1/2"	6 oz (170 g)
15005	2-1/2"	4-7/8"	19 oz (539 g)



15009

## Bossing Mallets

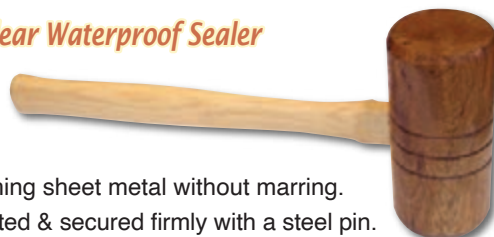
- Provides two different radii perfect for forming sheet metal.
- Head made from ultra-high-molecular-weight plastic that is nonporous, easy to clean & non marring on most surfaces.

Part Number	Face Diameter	Head Length	Weight
15008	2"	6-1/2"	16 oz (454 g)
15009	2-1/2"	6-3/4"	20 oz (567 g)
15010	3"	8"	24 oz (680 g)

Note: Many other sizes & styles available, please inquire.

## Genuine Hickory Mallet

Coated In Clear Waterproof Sealer



- Ideal for forming sheet metal without marring.
- Head cemented & secured firmly with a steel pin.

Part Number	Head Size	Overall Length	Weight
WM502	2-1/2" D x 5-1/2" L	13" (330 mm)	16 oz (454 g)

## SANDERS & GRINDERS

### Dynabrade® Orbital Action Sanders



- Thumb control for regulation of tool speed.
- High strength composite rotor with long lasting blades.
- Includes premium low profile sanding pad.

Note: All Models: Air Inlet 1/4" NPT (use 1/4" I.D. air hose).

Non-Vacuum, 0.25hp (0.19 kW) - 3/16" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
59020	5" Disc	12,000	6-1/2" (165 mm)	1.4 lbs (0.5 kgs)
59025*	6" Disc	12,000	7" (178 mm)	1.5 lbs (0.6 kgs)

\*NSN: 5130-01-516-2219



59024

Central Vacuum & 1" Vacuum Port, 0.25hp (0.19 kW) - 3/16" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
59024	5" Disc	12,000	7-1/4" (184 mm)	1.5 lbs (0.6 kgs)
59029*	6" Disc	12,000	7-3/4" (197 mm)	1.5 lbs (0.6 kgs)

\*NSN: 5130-01-561-4875



59023

Self-Generated Vacuum*, 0.25hp (0.19 kW) - 3/16" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
59023	5" Disc	12,000	8-1/2" (216 mm)	1.5 lbs (0.6 kgs)
59028	6" Disc	12,000	9" (229 mm)	1.5 lbs (0.6 kgs)

\*Self generating vacuum models use optional hose & floor bag, please inquire.

### Dynabrade® Rotary/Orbital Action Sanders



- Two tools in one - easily change from a rotary disc sander to random orbital sander with the flip of a switch.
- Unique "wobble" drive geometry for aggressive interrupted work surface contact with less heat & loading for longer abrasive life.
- Great for sanding, shaping, forming & feather edging.
- Extra muffling & polypropylene motor cover for quiet operation.

Note: Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

Non-Vacuum, 0.25hp (0.19 kW) - 3/8" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
DAQ-5	5" Disc	10,000	9-1/2" (241 mm)	4.5 lbs (2.0 kgs)
DAQ-6	6" Disc	10,000	10" (254 mm)	4.5 lbs (2.0 kgs)

Central Vacuum, 0.25hp (0.19 kW) - 3/8" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
DAQ-5DE	5" Disc	10,000	11-13/16" (30 cm)	5.3 lbs (2.4 kgs)
DAQ-6DE	6" Disc	10,000	11-13/16" (30 cm)	5.4 lbs (2.5 kgs)

### Dynabrade® Dynabug® Orbital Action Sander



- Comfortable palm control with a 3/16" stroke that is aggressive enough for knock-down, but controllable enough for finish work.
- Great for feather edging, finish sanding, blending & blocking.

Note: Air Inlet 1/4" NPT (use 1/4" I.D. air hose).

Non-Vacuum, 0.24hp (0.18 kW) - 3/16" Orbit				
Part Number	Capacity	RPM	O.A.L.	Weight
57800	3-5/8" x 7" Pad	8000	7-1/4" (184 mm)	2.8 lbs (1.3 kgs)

## Dynabrade® Dynafine® Vacuum Detail Sander

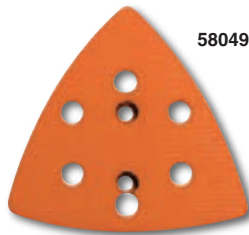


- Perfect for carbon fiber, fiberglass, painted aluminum etc.
- Accepts various pad shapes for countless applications.
- Efficiently diverts dust, captures debris & contaminants (including hexavalent chromium) for a safer workplace.
- Includes Dynaswivel, swivel cuff for added hose flexibility & tear-drop shaped, vinyl face vacuum sanding pad.
- 1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

**Note:** Air Inlet 1/4" NPT (use 1/4" I.D. air hose).

Please inquire for specially shaped tear-drop, triangle & round abrasives.

Central Vacuum, 0.12 hp (0.09 kW) - 1/32" Orbit, 7° Offset Handle				
Part Number	Capacity	RPM	O.A.L.	Weight
58017	See Below	15,000	11-3/8" (29 cm)	1.8 lbs (0.8 kgs)



Dynafine Vacuum Sanding Pads		
Vinyl Face	Hook Face	Shape
58045	58048	Tear-Drop
58046	58049	Triangular
58044	58047	Round



*For Air Hose & Accessories See Pages 208-210*

## Dynabrade® Vacuum Shroud Disc Sanders



- Efficient & clean material removal on non-ferrous surfaces.
- Perfect for carbon fiber, fiberglass, painted aluminum etc.
- High quality clear urethane shroud with sanding disc viewport captures debris & contaminants (incl. hexavalent chromium).
- 6° shroud angle allows ideal surface contact & debris extraction.

### 3" Diameter, Right Angle - Self-Generated Vacuum

1" diameter vacuum port ready for connection to portable or external dust collection system (not included).

Self-Generated Vacuum 0.4 hp (0.30 kW)					
Part Number	Capacity	RPM	Shroud*	O.A.L.	Weight
50210	3" Disc	15,000	1" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)
50570	3" Disc	15,000	1-1/2" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)

### 3" Diameter, Right Angle - Central Vacuum

1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

Central Vacuum 0.4 hp (0.30 kW)					
Part Number	Capacity	RPM	Shroud*	O.A.L.	Weight
50211	3" Disc	15,000	1" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)
50561	3" Disc	15,000	1-1/2" Height	10" (25.4 cm)	1.7 lbs (0.7 kgs)



### Replacement Vacuum Shrouds

Flexible shrouds can be trimmed for custom applications.

Part Number	Shroud Height*
50789	1" (25.4 mm)
50771	1-1/2" (38 mm)

\*1" shroud models will accommodate 3" diameter locking-type abrasive discs, 1-1/2" shroud models will accommodate 3" diameter bristle-type discs. Air Inlet 1/4" NPT (use 1/4" I.D. air hose). 1/4"-20 male spindle thread. Rated @ 90 psi.



## SANDERS & GRINDERS

### Dynabrade® Vac. Shroud Disc Sanders (cont'd)



51236

#### 2" Diameter, 7° Offset - Central Vacuum

1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

Central Vacuum 0.4 hp (0.30 kW) - 7° Offset Handle				
Part Number	Capacity	RPM	O.A.L.	Weight
51236	2" Disc	25,000	10-1/4" (24.7 cm)	1.7 lbs (0.7 kgs)

Part Number	Description
52742	Replacement Vacuum Shroud

### Economy Mini Angle Sander Kit



12170

- Comfortable pistol grip design.
- 15,000 RPM direct drive motor (no angled gears) for longer life.

#### Complete Kit Includes:

Pistol Grip Mini Sander, 2" & 3" Sanding Pads, 2" & 3" Sanding Discs (62 total in assorted grits), & Sturdy Fitted Carrying Case

Part Number	Description
12170	Complete 66 PC Kit

### APEX® Right Angle Disc Sanders



12LF200-36

10LF201-36

- 1/2" carbide burr, 1" mounted wheel capacity (disc capacity shown in charts below).
- Collet models use 300 series collet (included with tool).
- Many other models available, please inquire.

#### Composite Housing Models

Dual-material composite w/cushioned areas for comfort & control.

Note: Air Inlet 1/4" NPT. Rated @ 90 psi.

Composite Housing, 0.4 hp (0.30 kW) - 1/4" Collet					
F. Exhaust	R. Exhaust	Capacity	RPM	O.A.L.	Weight
12LF200-36	12LF280-36	3" Disc	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF201-36	12LF281-36	2" Disc	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

Composite Housing, 0.4 hp (0.30 kW) - 1/4"-28 Int. Thread				
Front Exhaust	Capacity	RPM	O.A.L.	Weight
12LF200-32	3" Disc	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF201-32	2" Disc	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

#### Aluminum Housing Models

Rugged aluminum body for maximum durability.

Note: Air Inlet 1/4" NPT. Rated @ 90 psi.

Aluminum Housing, 0.4 hp (0.30 kW) - 1/4" Collet					
F. Exhaust	R. Exhaust	Capacity	RPM	O.A.L.	Weight
10LF200-36	10LF280-36	3" Disc	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF201-36	10LF281-36	2" Disc	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

Aluminum Housing, 0.4 hp (0.30 kW) - 1/4"-28 Int. Thread				
Front Exhaust	Capacity	RPM	O.A.L.	Weight
10LF200-32	3" Disc	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF201-32	2" Disc	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

**Dynabrade® Dynafile**


*Quick Belt  
Change Design*

- Work metal, plastic, fiberglass & composites.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.5 hp (.37 kW) - Straight Handle				
Part Number	Capacity	RPM	O.A.L.	Weight
14000	1/8" to 1/2" x 24" Belt	20,000	14-5/8" (371 mm)	3.3 lbs (1.5 kgs)

**Dynabrade® Dynafile II**


*7° Offset  
Ergo Handle*

*Grinding Head  
Pivots 360°*

- Work metal, plastic, fiberglass & composites.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.5 hp (.37 kW) - 7° Offset Handle				
Part Number	Capacity	RPM	O.A.L.	Weight
40320	1/4" to 3/4" x 18" Belt	20,000	14-1/4" (362 mm)	2.8 lbs (1.3 kgs)

NSN: 3419-01-502-3640

**Dynabrade® Mini-Dynafile II**


*7° Offset  
Ergo Handle*

- Work metal, plastic, fiberglass & composites.
- Ergo handle with 7° offset design.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.4 hp (.30 kW) - 7° Offset Handle				
Part Number	Capacity	RPM	O.A.L.	Weight
15003	1/8" to 1/2" x 12" Belt	25,000	11-3/4" (298 mm)	1.7 lbs (0.8 kgs)

**Dynabrade® Versatility Kits**

**Dynafile Versatility Kit:**

Dynafile, Five Contact Arms, Abrasive Belt Assortment, Hard & Soft Platen Pads & Sturdy Carrying Case

Dynafile Versatility Kit	
Part Number	Description
14010	Complete 22 PC Kit

NSN: 5130-01-126-3260

**Dynafile II Versatility Kit:**

Dynafile II, Three Contact Arms, Abrasive Belt Ass't, Hard & Soft Platen Pads, Die Grinder Collet & Sturdy Carrying Case

Dynafile II Versatility Kit	
Part Number	Description
40321	Complete 20 PC Kit

NSN: 5130-01-279-4907

**Mini Dynafile II Versatility Kit:**

Mini Dynafile II, Three Contact Arms, Abrasive Belt Ass't, Hard & Soft Platen Pads, Die Grinder Collet & Sturdy Carrying Case

Mini Dynafile II Versatility Kit	
Part Number	Description
15006	Complete 21 PC Kit

**APEX® Belt Sanders**


12LF280-36B2

**Note:** Includes 2 sanding belts (80 & 120 grit), wrenches, grease gun & gear lube.

Composite Housing, 0.4 hp (.30 kW) - Rear Exhaust				
Part Number	Capacity	RPM	O.A.L.	Weight
12LF280-36B2	1/2" x 12" Belt	12,000	11.3" (287 mm)	1.3 lbs (0.6 kgs)
12LF281-36B3	1/2" x 24" Belt	20,000	17.3" (439 mm)	1.6 lbs (0.7 kgs)

## SANDERS & GRINDERS

### JET® R8 Series Belt Sanders



- Ergonomic grip absorbs vibration and reduces hand fatigue.
- 360° head rotation for use in confined spaces and difficult angles.

**Note:** 1/4" air inlet thread.

0.5 hp (.375 kW)				
Part Number	Capacity	RPM	O.A.L.	Weight
JAT-750	3/8" x 13" Belt	20,000	13" (330 mm)	1.94 lbs (0.88 kgs)

0.6 hp (.45 kW)				
Part Number	Capacity	RPM	O.A.L.	Weight
JAT-751	3/4" x 20-1/2" Belt	18,000	15-3/4" (400 mm)	2.98 lbs (1.35 kgs)

### Master Power® High Speed Pencil Grinder

**Double Bearings For Durability**



- Lightweight, ergonomically designed & vibration free.
- Ideal for precision deburring, blending & smoothing applications.
- 1/4" carbide burr & 1/4" diamond pin capacity - HG series collet.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Includes 5' air hose & 1' overhose.

0.1 hp (0.07 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
MP4200	1/8"	70,000	5-3/8" (13.7 cm)	0.43 lbs (0.20 kgs)

### APEX® Precision Pencil Grinders



1/4" carbide burr & 1/4" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, 5' air hose (1/8" NPT) & 1' overhose.

Composite Housing, 0.1 hp (0.074 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
12R0400-13	3 mm	60,000	5.8" (147 mm)	0.22 lbs (0.10 kgs)
12R0400-18	1/8"	60,000	5.8" (147 mm)	0.22 lbs (0.10 kgs)

### Chicago Pneumatic® Pencil Grinder Kit



**Quiet & Lightweight**

Quiet and lightweight, this easy to handle pencil grinder is ideal for limited space applications. A versatile general maintenance kit.

#### Complete Kit Includes:

Pencil Grinder, Silencer Hose, Two Collets (1/8" & 3 mm), Five Assorted Mounted Points, Five Assorted Carbide Burrs, Wrenches & Fitted Plastic Case

Part Number	Free RPM	Noise Level
CP9104Q	60,000	71 dB(A)

### APEX® Gearless Angle Head Pencil Grinders



- 1/4" carbide burr & 1/4" diamond pin cap. - HG collet.
- Gearless design reduces maintenance & downtime.

**Note:** Includes collet, wrenches, 5' air hose (1/8" NPT) & 1' overhose.

Composite Housing, 0.1 hp (0.074 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
12R0380-13	3 mm	80,000	5.5" (140 mm)	0.30 lbs (0.14 kgs)
12R0380-18	1/8"	80,000	5.5" (140 mm)	0.22 lbs (0.10 kgs)



**APEX® Precision Turbine Grinders**


10R9000-08

- Front exhaust motor requires no oil\*.
- 3/16" carbide burr & 3/16" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, hose filter & 7' air hose (1/8" NPT).

\*Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

**Aluminum Housing, 0.06 hp (0.04 kW) - Front Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
10R9000-03	3 mm	100,000	5.4" (137 mm)	0.41 lbs (0.19 kgs)
10R9000-08	1/8"	100,000	5.4" (137 mm)	0.41 lbs (0.19 kgs)



10L9500-36

- Front exhaust motor with built-in speed regulator requires no oil\*.
- 1/4" carbide burr & 3/16" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, hose filter, speed regulator & 8' air hose (1/4" NPT).

\*Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

**Aluminum Housing, 0.1 hp (0.07 kW) - Front Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
10L9500-36	1/8"	80,000	5.8" (147 mm)	1.98 lbs (0.90 kgs)

**APEX® Precision Turbine Pencil Grinders**

12R9180-08



- Rear exhaust motor with only one moving part, requires no oil\*.
- 1/8" carbide burr & 1/8" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, collet guard & 5' air hose (1/8" NPT).

\*Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

**Composite Housing, 0.1 hp (0.074 kW) - Rear Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
12R9180-03	3 mm	65,000	5.8" (147 mm)	0.41 lbs (0.19 kgs)
12R9180-08	1/8"	65,000	5.8" (147 mm)	0.41 lbs (0.19 kgs)

**Composite Housing, 0.1 hp (0.074 kW) - 2' Overhose, Rear Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
12R9180-28	1/8"	65,000	5.8" (147 mm)	0.41 lbs (0.19 kgs)

**Composite Housing, 0.1 hp (0.074 kW) - 4' Overhose, Rear Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
12R9180-43	3 mm	65,000	5.8" (147 mm)	0.41 lbs (0.19 kgs)
12R9180-48	1/8"	65,000	5.8" (147 mm)	0.41 lbs (0.19 kgs)

**APEX® Die Grinders**

12L1001-36



1/2" carbide burr & 1" mtd. wheel capacity - incl. 300 series collet.

**Note:** All models include collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose).

**Composite Housing, 0.3 hp (.22 kW)**

F. Exhaust	R. Exhaust	Collet	RPM	O.A.L.	Weight
12L1001-36	12L1081-36	1/4"	34,000	6" (152 mm)	0.88 lbs (0.40 kgs)
12L1000-36	12L1080-36	1/4"	30,000	6" (152 mm)	0.88 lbs (0.40 kgs)
12L1003-36*	12L1082-36*	1/4"	25,000	6" (152 mm)	0.88 lbs (0.40 kgs)

\* Oilless blades.

**High Power Models**

3/4" carbide burr & 1-1/2" mtd. wheel capacity\*\* - incl. 200 series collet.

\*\*0.9 HP models (12L2500-01 & 12L2580-01) have a 1" carbide burr capacity.

**Composite Housing, 0.6 hp (.45 kW)**

F. Exhaust	R. Exhaust	Collet	RPM	O.A.L.	Weight
12L2000-01	12L2080-01	1/4"	25,000	6.9" (175 mm)	1.32 lbs (0.60 kgs)

**Composite Housing, 0.9 hp (.67 kW)**

F. Exhaust	R. Exhaust	Collet	RPM	O.A.L.	Weight
12L2500-01	12L2580-01	1/4"	23,000	7.3" (185 mm)	1.76 lbs (0.80 kgs)

**Chicago Pneumatic® Die Grinders**

*Streamlined  
Safety Lever*

*Lightweight  
& Ergonomic*



CP3019-20

- Industrial duty for long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

**Note:** Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

**0.5 hp (0.37 kW) - Rear Exhaust**

Part Number	Collet	RPM	O.A.L.	Weight
CP3019-40	1/4"	40,000	6-5/8" (169 mm)	0.84 lbs (0.38 kgs)
CP3019-31	1/4"	31,000	6-5/8" (169 mm)	0.84 lbs (0.38 kgs)
CP3019-25	1/4"	25,000	6-5/8" (169 mm)	0.84 lbs (0.38 kgs)
CP3019-20	1/4"	20,000	6-5/8" (169 mm)	0.84 lbs (0.38 kgs)
CP3019-18	1/4"	18,000	6-5/8" (169 mm)	0.84 lbs (0.38 kgs)

## SANDERS & GRINDERS

### APEX® Extension Die Grinders

12L1100-36



1/2" carbide burr & 1" mounted wheel capacity - 300 series collet.

**Note:** Incl. collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose). \* Oilless blades.

#### Composite Housing, 0.3 hp (.22 kW) - 3" Extension, Front Exhaust

Part Number	Collet	RPM	O.A.L.	Weight
12L1100-36	1/4"	28,000	8.9" (226 mm)	1.1 lbs (0.5 kgs)
12L1111-36*	1/4"	25,000	8.9" (226 mm)	1.1 lbs (0.5 kgs)

#### Composite Housing, 0.3 hp (.22 kW) - 5" Extension, Front Exhaust

Part Number	Collet	RPM	O.A.L.	Weight
12L1101-36	1/4"	28,000	10.9" (277 mm)	1.3 lbs (0.6 kgs)
12L1112-36*	1/4"	25,000	10.9" (277 mm)	1.3 lbs (0.6 kgs)

### Chicago Pneumatic® Extension Die Grinder

*Streamlined  
Safety Lever*



CP3019-40ES

*Lightweight & Ergonomic*

- Industrial duty for long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

**Note:** Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

#### 0.5 hp (0.37 kW) - Rear Exhaust

Part Number	Collet	RPM	O.A.L.	Weight
CP3019-40ES	1/4"	40,000	9-7/8" (249 mm)	1.26 lbs (0.57 kgs)
CP3019-31ES	1/4"	31,000	9-7/8" (249 mm)	1.26 lbs (0.57 kgs)
CP3019-25ES	1/4"	25,000	9-7/8" (249 mm)	1.26 lbs (0.57 kgs)
CP3019-20ES	1/4"	20,000	9-7/8" (249 mm)	1.26 lbs (0.57 kgs)



*For Eye & Face Protection See Pages 230-231*

### APEX® Low Speed Die Grinder

12L1093-01



*Excellent For Titanium  
Blending & Buffing*

1/4" carbide burr & 1/2" mtd. wheel capacity - incl. 200 series collet.

**Note:** Includes collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose).

#### 0.3 hp (0.22 kW) - Rear Exhaust

Part Number	Collet	RPM	O.A.L.	Weight
12L1093-01	1/4"	5000	7-1/4" (184 mm)	1.6 lbs (0.7 kgs)

### APEX® Right Angle Die Grinders

*20% Higher  
Working Speed*



12LF200-36

*33%  
More  
Power*



10LF201-36

*Simplified Maintenance,  
No Shims Required*

1/2" burr & 1" mtd. wheel capacity - incl. 300 series collet.

#### Composite Housing Models

Dual-material composite w/cushioned areas for comfort & control.

#### Composite Housing, 0.4 hp (0.30 kW)

F. Exhaust	R. Exhaust	Collet	RPM	O.A.L.	Weight
12LF200-36	12LF280-36	1/4"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF201-36	12LF281-36	1/4"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

#### Aluminum Housing Models

Rugged aluminum body for maximum durability.

#### Aluminum Housing, 0.4 hp (0.30 kW)

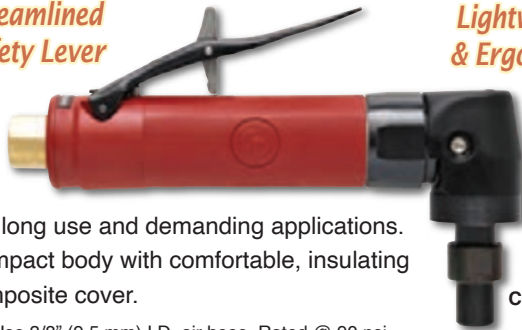
F. Exhaust	R. Exhaust	Collet	RPM	O.A.L.	Weight
10LF200-36	10LF280-36	1/4"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF201-36	10LF281-36	1/4"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

**Note:** All tools: air inlet 1/4" NPT. Rated @ 90 psi.

**Chicago Pneumatic® Right Angle Die Grinders**

*Streamlined  
Safety Lever*

*Lightweight  
& Ergonomic*



- For long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

CP3019-12AC

**Note:** Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

0.5 hp (0.37 kW) - 1/4" Collet - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
CP3019-20AC	1/4"	20,000	8-1/2" (216 mm)	1.1 lbs (0.5 kgs)
CP3019-12AC	1/4"	12,000	8-1/2" (216 mm)	1.1 lbs (0.5 kgs)

**APEX® Precision Collets**



200 & 300 Series			
200 Series	300 Series	Size	Capacity
—	301	3/64"	1/64" to 3/64"
—	302	5/64"	3/64" to 5/64"
—	303	3/32"	1/16" to 3/32"
204	304	1/8"	3/32" to 1/8"
205	305	5/32"	1/8" to 5/32"
206	306	3/16"	5/32" to 3/16"
207	307	7/32"	3/16" to 7/32"
208	308	1/4"	7/32" to 1/4"
209	—	9/32"	1/4" to 9/32"
210	—	5/16"	9/32" to 5/16"
211	—	11/32"	5/16" to 11/32"
212	—	3/8"	11/32" to 3/8"
—	309	3 mm	2.2 to 3 mm
213	310	6 mm	5.2 to 6 mm
216	—	8 mm	5.2 to 8 mm



HG Series

HG Series		
Part Number	Size	Capacity
103	1/16"	1/16"
102	3/32"	3/32"
100	1/8"	1/8"
146	1 mm	1 mm
131	2.35 mm	2.35 mm
148	3 mm	3 mm

**JET® R12 Series Die Grinders**

JAT-419



*Impact  
Resistant*

*Variable-Speed Throttle  
With Safety Lock*

- Lightweight & durable composite grip.
- Precision beveled gears for lower vibration and longer life.

**All Tools:** 1/4" air inlet thread (3/8" air hose recommended). **Average Air Consumption:** JAT-415, JAT-416 & JAT-419 = 2.6 CFM, JAT-481 = 5.3 CFM.

Straight Angle Grinder, 0.34 hp (0.25 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
JAT-419	1/4"	25,000	6-1/8" (156 mm)	0.9 lbs (0.4 kgs)



JAT-415



JAT-416

90° Angle Grinder, 0.34 hp (0.25 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
JAT-415	1/4"	20,000	6-1/8" (156 mm)	1.1 lbs (0.5 kgs)

115° Angle Grinder, 0.34 hp (0.25 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
JAT-416	1/4"	18,000	7" (178 mm)	1.5 lbs (0.7 kgs)



JAT-417

*Great For Limited  
Access Areas*

5" Extension Angle Grinder, 0.5 hp (0.37 kW) - Rear Exhaust				
Part Number	Collet	RPM	O.A.L.	Weight
JAT-417	1/4"	22,000	9-5/8" (245 mm)	1.5 lbs (0.7 kgs)



## Carbide Rotary Files

*Double Cut, 1/4" Shank*



Tree Pointed		
Part Number	Head Diameter	Cut Length
104C	1/4"	5/8"
106C	3/8"	3/4"
204C	1/2"	3/4"
254C	1/2"	1"
354C	5/8"	1"
404C	3/4"	1-1/2"

Ball Shape		
Part Number	Head Diameter	Cut Length
0510C	1/8"	1/8"
1010C	3/16"	1/4"
1510C	1/4"	1/4"
2010C	5/16"	5/16"
2510C	3/8"	3/8"
3010C	7/16"	3/8"
3510C	1/2"	1/2"
4010C	5/8"	9/16"
4510C	3/4"	11/16"
5010C	1"	15/16"



Tree Radius		
Part Number	Head Diameter	Cut Length
105C	1/4"	5/8"
155C	3/8"	3/4"
205C	1/2"	1"
355C	5/8"	1"
405C	3/4"	1-1/2"



Cylindrical Round End		
Part Number	Head Diameter	Cut Length
152C	3/16"	5/8"
252C	1/4"	5/8"
352C	3/8"	3/4"
452C	1/2"	1"
502C	5/8"	1"
552C	3/4"	1"



Flame		
Part Number	Head Diameter	Cut Length
103C	5/16"	3/4"
153C	1/2"	1-1/4"
203C	5/8"	1-7/16"



Cylindrical Flat End		
Part Number	Head Diameter	Cut Length
101C	3/16"	5/8"
151C	1/4"	5/8"
201C	3/8"	3/4"
251C	1/2"	1"
301C	5/8"	1"
351C	3/4"	3/4"
401C	3/4"	1"
451C	1"	1"



Inverted Cone		
Part Number	Head Diameter	Cut Length
107C	1/4"	5/16"
157C	1/2"	1/2"
307C	3/4"	5/8"



Concave Radius		
Part Number	Head Diameter	Cut Length
059C	1/4"	3/16"

## Carbide Rotary Files (cont'd)

*Other Styles Available, Please Inquire*



60° Deburring		
Part Number	Head Diameter	Cut Length
056C	1/4"	3/16"
156C	3/8"	5/16"
206C	1/2"	7/16"
256C	5/8"	9/16"
306C	3/4"	11/16"
406C	1"	15/16"

90° Deburring		
Part Number	Head Diameter	Cut Length
058C	1/4"	1/8"
158C	3/8"	3/16"
208C	1/2"	1/4"
258C	5/8"	5/16"
308C	3/4"	3/8"
408C	1"	1/2"

## Rotary File Sets



*Burr Holder Included*

*Ground From The Solid In Various Styles*

























Part Number	Shank	Description
912-8PC	1/4"	8 PC H.S.S. Set
914	1/4"	9 PC Carbide Set
915	1/8"	12 PC Carbide Set



*For Shop Vacuums & Accessories See Pages 228-229*

**Carbide Miniature Burrs**

*Double Cut, 1/8" Shank, 1-1/2" Overall Length*

			
Part No.	Size	Part No.	Size
SA-43	1/8" x 9/16"	SG-41	1/8" x 1/4"
			
Part No.	Size	Part No.	Size
SA-42	3/32" x 7/16"	SF-42	1/8" x 1/2"
			
Part No.	Size	Part No.	Size
SA-41	1/16" x 1/4"	SF-41	1/8" x 1/4"
			
Part No.	Size	Part No.	Size
SB-41	1/8"	SM-43	1/8" x 5/8" (7° taper)
			
Part No.	Size	Part No.	Size
SC-42	1/8" x 9/16"	SM-42	1/8" x 7/16" (14° taper)
			
Part No.	Size	Part No.	Size
SC-41	3/32" x 7/16"	SM-41	1/8" x 11/32" (12° taper)
			
Part No.	Size	Part No.	Size
SD-42	1/8"	SL-42	1/8" x 1/2" (8° taper)
			
Part No.	Size	Part No.	Size
SD-41	3/32"	SL-41	1/8" x 3/8" (8° taper)
			
Part No.	Size	Part No.	Size
SE-41	1/8" x 1/4"	SJ-42	1/8" (60° taper)
			
Part No.	Size	Part No.	Size
SH-41	1/8" x 1/4"	SK-42	1/8" (90° taper)
			
Part No.	Size	Part No.	Size
SG-44	1/8" x 1/2"	SN-42	1/8" x 3/16" (10° taper)
			
Part No.	Size	Part No.	Size
SG-43	1/8" x 3/32"	SN-41	3/32" x 1/8" (10° taper)

**Aluminum 'Star Cut' Carbide Rotary Files**

- Designed for aluminum & non-ferrous material, 1/4" shank.
- Star cut files are also great for medium to heavy stock removal of soft and/or sticky materials.



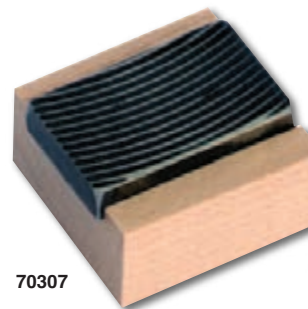
Cylindrical Flat End		
Part Number	Head Diameter	Cut Length
201CFMC	3/8"	3/4"
251CFMC	1/2"	1"
301CFMC	5/8"	1"
401CFMC	3/4"	1"

Ball Shape		
Part Number	Head Diameter	Cut Length
2510CFMC	3/8"	3/4"
3510CFMC	1/2"	1"
4010CFMC	5/8"	1"
4510CFMC	3/4"	1"

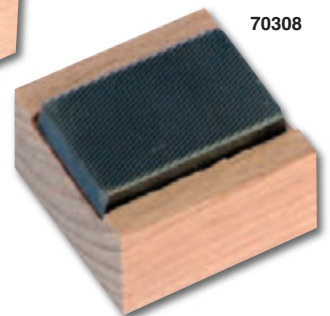


Cylindrical Round End		
Part Number	Head Diameter	Cut Length
352CFMC	3/8"	3/4"
452CFMC	1/2"	1"
502CFMC	5/8"	1"
552CFMC	3/4"	1"

Tree Radius		
Part Number	Head Diameter	Cut Length
155CFMC	3/8"	3/4"
205CFMC	1/2"	1"
355CFMC	5/8"	1"
405CFMC	3/4"	1"

**Nib Files**


*Easy To Use,  
No Gouging*



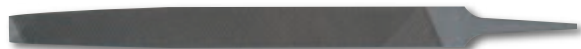
*Perfect For  
Dirt & Runs*

- Remove imperfections on paint jobs without respraying.
- Works on both primer & top coats (dry paint surface only).
- High-quality, precision ground steel for uniform results.
- Honed tips of teeth easily shave material without digging in.

Part Number	Style	Size
70307	Coarse	1-1/4"
70308	Fine	Square

## FILES & ABRASIVES

### Hand Files



Flat Files

Bastard Cut	Second Cut	Smooth Cut	Size	Overall Length
32-289	32-296	32-303	5/8" x 5/32"	6" (152 mm)
32-290	32-297	32-304	25/32" x 7/32"	8" (203 mm)
32-291	32-298	32-305	31/32" x 1/4"	10" (254 mm)
32-292	32-299	32-306	1-5/32" x 9/32"	12" (305 mm)



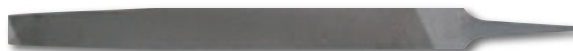
Round Files

Bastard Cut	Second Cut	Smooth Cut	Size	Overall Length
32-396	32-403	32-409	7/32"	6" (152 mm)
32-397	32-404	32-410	5/16"	8" (203 mm)
32-398	32-405	32-411	3/8"	10" (254 mm)
32-399	32-406	32-412	1/2"	12" (305 mm)



Half Round Files

Bastard Cut	Second Cut	Smooth Cut	Size	Overall Length
32-310	32-318	32-325	19/32" x 5/32"	6" (152 mm)
32-311	32-319	32-326	3/4" x 7/32"	8" (203 mm)
32-312	32-320	32-327	15/16" x 9/32"	10" (254 mm)
32-313	32-321	32-328	1-1/8" x 11/32"	12" (305 mm)



Mill Files

Bastard Cut	Second Cut	Smooth Cut	Size	Overall Length
32-369	32-379	32-385	7/32"	6" (152 mm)
32-370	32-380	32-386	5/16"	8" (203 mm)
32-371	32-381	32-387	3/8"	10" (254 mm)
32-372	32-382	32-388	1/2"	12" (305 mm)

### Milled Curved Tooth Hand Files



- Designed for smooth, fast work on annealed steels & hard plastics.
- Shear non-ferrous metal such as aluminum & copper with ease.

Mill Curved Tooth Files

Bastard Cut	Size	Overall Length
32-481	13/16" x 13/64"	8" (203 mm)
32-482	1" x 7/32"	10" (254 mm)
32-483	1-5/32" x 17/64"	12" (305 mm)

### Aluminum Hand Files



Type 'A' Double Cut Aluminum Flat Files

Bastard Cut	Size	Overall Length
32-260	5/8" x 5/32"	6" (152 mm)
32-261	25/32" x 7/32"	8" (203 mm)
32-262	31/32" x 1/4"	10" (254 mm)
32-263	1-5/32" x 9/32"	12" (305 mm)



Type 'A' Double Cut Aluminum Half Round Files

Bastard Cut	Size	Overall Length
32-265	19/32" x 5/32"	6" (152 mm)
32-266	3/4" x 7/32"	8" (203 mm)
32-267	15/16" x 9/32"	10" (254 mm)
32-268	1-1/8" x 11/32"	12" (305 mm)

### Plastic File Handles



- Comfortable shape with textured surface for non-slip grip.
- Metal threaded tang insert for a positive, properly aligned grip.

Part Number	Handle Number	Recommended File Size
37-782	2	4" Round
37-783	3	6" Round; 4" Flat, Half Round & Mill
37-784	4	8" Round; 6" Flat, Half Round & Mill
37-785	5	10" Round; 8" Flat, Half Round & Mill
37-786	6	12" (all types); 10" Flat, Half Round & Mill

4 Piece File Handle Set

Part Number	Set Includes
53-FHPS	37-782, 32-783, 32-784 & 32-785 (see above)

### File Brush



- Waxed hardwood block & handgrip with slot for included scorer.
- Polypropylene bristle brush & card wire brushing surface.

Part Number	Overall Length
44-01	9" (230 mm)



**Swiss Pattern Needle File Set**



- Finest steel precision files meet exacting tool maker requirements.
- Includes snap button plastic case (not shown).
- Set of 12, #2 single cut swiss pattern files with various profiles.

Part Number	Overall Length
<b>S475</b>	5-1/2" (140 mm)

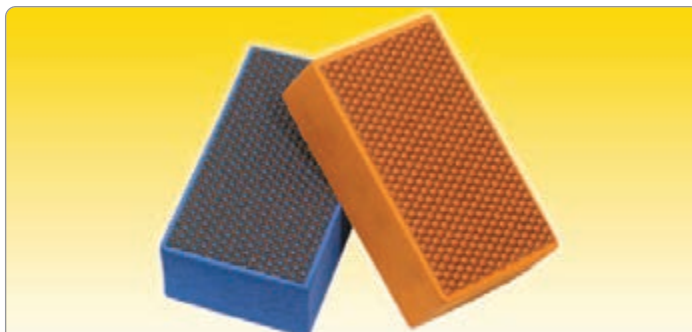
**Diamond Needle File Sets**

*Comfortable Plastic Grips*



- Set of 6 files with various profiles.
- Includes plastic case.

Part Number	Diamond Grit	Shank Diameter	Overall Length
<b>607F</b>	Fine (600 Grit)	0.118"	5-1/2" (140 mm)
<b>607C</b>	Coarse (250 Grit)	0.118"	5-1/2" (140 mm)



*For Flexible Diamond Sanding Pads See Page 89*

**6" x 9" Hand Pads**



- For cleanup, light deburring, blending & satin finishing on all metals.
- Open structure prevents loading & can be used wet or dry.

Part Number	Type	Color
<b>10473</b>	General Purpose A/O	Maroon
<b>10474</b>	Heavy-Duty A/O	Tan
<b>10475</b>	Ultra-Fine S/C	Grey

Part Number	Description
<b>43934</b>	Hand Pad Holder

**PSA Disc Holders**

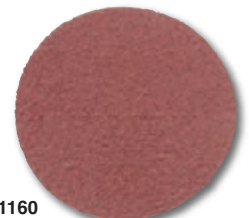
- Flex tested neoprene rubber pad.
- Hardened steel mandrel.

Part Number	Diameter	Maximum RPM
<b>74098</b>	1"	15,000
<b>74100</b>	2"	12,000
<b>74101</b>	3"	10,000
<b>74102</b>	4"	6,000



**PSA Discs**

- Pressure sensitive adhesive backing for uses up to 15,000 RPM.
- Protective liner speeds disc changing.
- Excellent heat resistant properties.



ALO Resin Bond Discs				
Grit	Pack Of 100		Pack Of 50	
	1"	2"	3"	4"
24	—	<b>71158</b>	<b>71173</b>	<b>71188</b>
36	—	<b>71159</b>	<b>71174</b>	<b>71189</b>
40	—	<b>71160</b>	<b>71175</b>	<b>71190</b>
50	<b>71131</b>	<b>71161</b>	<b>71176</b>	<b>71191</b>
60	<b>71132</b>	<b>71162</b>	<b>71177</b>	<b>71192</b>
80	<b>71133</b>	<b>71163</b>	<b>71178</b>	<b>71193</b>
100	<b>71134</b>	<b>71164</b>	<b>71179</b>	<b>71194</b>
120	<b>71135</b>	<b>71165</b>	<b>71180</b>	<b>71195</b>

## Merit® Quick-Change Discs



- The most aggressive quick-change sanding discs available in the industry.
- Laminated construction virtually eliminates the shredding that can occur with other discs.



**Type I: Snap-On**  
(equivalent to Norton TP fastener)



**Type II: Roll-On**  
(equivalent to Std. Abrasives Soc-Att® or Norton TS fastener)



**Type III: Turn-On**  
(equivalent to 3M Roloc or Norton TR fastener)

**Tough & Durable**

**Note:** Quick-change disc holders shown on next page.

### ALO Resin Bond Quick-Change Cloth Discs

These aluminum oxide discs are best used for general purpose deburring and blending on ferrous and nonferrous metals where greater edge durability is required.

ALO Resin Bond Discs				
Dia.	Grit	Type I	Type II	Type III
3/4"	24	61001	65100	64312
	36	61002	65101	64319
	40	61003	65102	64321
	50	61004	65103	64322
	60	61005	65104	64813
	80	61006	65105	64323
	100	61007	65106	64814
	120	61008	65107	64324
	150	61009	65108	64815
	180	61010	65109	64325
1"	24	61011	65111	64326
	36	61012	65113	64327
	40	61014	65115	64328
	50	61015	65116	66031
	60	61016	65117	61251
	80	61017	65118	64924
	100	61018	65119	61105
	120	61019	65120	66185
	150	61020	65121	61364
	180	61021	65122	61106
1-1/2"	24	61022	65123	64330
	36	61023	65124	66252
	40	61025	65126	66874
	50	61026	65128	64097
	60	61027	65130	64969
	80	61028	65131	64048
	100	61029	65132	64804
	120	61030	65133	64092
	150	61031	65134	64902
	180	61032	65135	61400
1-1/2"	24	61033	65136	61288
	36	61034	65137	64905
	40	61035	65138	64810
	50	61036	65139	66251
	60	61037	65141	61602
	80	61038	65143	64331

ALO Resin Bond Discs				
Dia.	Grit	Type I	Type II	Type III
2"	24	61041	65145	64912
	36	61042	65146	64913
	40	61043	65147	66353
	50	61044	65148	64914
	60	61045	65149	61155
	80	61046	65150	64941
	100	61047	65151	64917
	120	61048	65152	61169
	150	61049	65153	64786
	180	61050	65154	64916
3"	24	61051	65156	64919
	36	61052	65158	66875
	40	61055	65160	61214
	50	61056	65161	64938
	60	61057	65162	64939
	80	61058	65163	64940
	100	61059	65164	66183
	120	61060	65165	66191
	150	61061	65166	66189
	180	61062	65167	66184
4"	24	61063	65168	64340
	36	61064	65169	66187
	40	61065	65171	66225
	50	61066	65173	63205
	60	61070	65176	66265
	80	61071	65177	64860
	100	61072	—	64788
	120	61073	65179	64601
	150	61074	65180	66472
	180	61075	65181	64342
4"	24	61076	65182	66473
	36	61078	65184	64843

*Quick-Change Discs In Other Styles & Grits Also Available, Please Inquire*

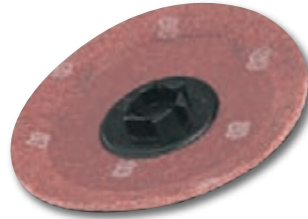
### ALO Plus Quick-Change Cloth Discs

Featuring a grinding aid, these run cooler and more efficiently for grinding exotic alloys.

ALO Plus Discs				
Dia.	Grit	Type I	Type II	Type III
3/4"	36	64345	—	64467
	40	64346	—	—
	50	—	67464	64469
	60	64349	—	64470
	80	64350	67466	64471
	120	64361	67468	64473
1"	36	—	—	64475
	40	64364	—	—
	50	64365	67479	64477
	60	64366	67480	64478
	80	64368	67481	64479
	120	64370	—	64481
1-1/2"	36	64392	66881	64483
	40	64393	—	64484
	50	64394	—	—
	60	—	—	64486
	80	64396	—	64487
	120	64398	—	64489
2"	36	—	66896	—
	40	—	66897	64492
	50	64402	66898	64493
	60	—	66899	64494
	80	—	66900	64495
	120	64428	66902	64496
3"	36	64430	66911	64498
	40	64431	66912	64499
	50	64432	—	64500
	60	64433	66914	64501
	80	64434	66915	64502
	120	64436	66917	64509
4"	36	64459	63959	64511
	40	64460	63960	—
	50	—	63961	—
	60	64462	63962	64527
	80	—	63963	64536
	120	—	63965	—

**Merit® Quick-Change FlexEdge Discs**

- Manufactured with a flexible aluminum oxide abrasive cloth.
- Outer 3/8" is more flexible than the rest of the disc.
- Great for softer metals & contour grinding of structural pieces.
- Order discs one size larger than the quick-change holder you use.



Dia.	Grit	Type I	Type II	Dia.	Grit	Type I	Type II
1"	50	64309	63706	2"	50	—	63721
	60	64296	60394		60	64334	60403
	80	61194	60395		80	64335	60404
	100	64215	60396		100	—	66959
	120	64216	60397		120	64337	—
1-1/2"	180	—	—		180	64339	60405
	50	—	63713	3"	50	—	63728
	60	—	67333		60	64353	60406
	80	—	60399		80	64354	61282
	100	—	63714		100	64355	66974
	120	64318	60401		120	64356	63729
	180	64320	60402		180	64358	60407

Type I	Type II	Description
63995	68539	2" Cam Lock Holder (required for 3" discs)

**Note:** 3" discs use the special cam lock holders shown above (max. 30,000 RPM). All other sizes use quick-change disc holders shown below.

**Merit® Quick-Change Disc Holders**

- Use hard pads for flat work & more aggressive removal.
- Use softer pads for feathering, edging, contour work, corners & fillets.

**Quick-Change Type I:**  
Snap-on/snap-off fastener equivalent to Norton TP fastener.

**Quick-Change Type II:**

Roll-on/roll-off fastener equivalent to Std. Abrasives Soc-Att® or Norton TS fastener.

**Quick-Change Type III:**

Turn-on/turn-off fastener equivalent to 3M Roloc or Norton TR fastener.



Dia.	Max. RPM	Style	Type I	Type II	Type III
3/4"	40,000	Medium	64001	64206	64038
1"	40,000	Medium	64002	64651	64037
1-1/2"	30,000	Medium	64003	64146	61174
1-1/2"	30,000	Hard	63996	—	—
2"	30,000	Soft	63949	61625	64641
2"	30,000	Medium	64004	64198	64922
2"	30,000	Hard	63997	64624	64643
3"	20,000	Soft	63948	64626	64644
3"	20,000	Medium	64005	64113	64949
3"	20,000	Hard	63998	61626	64036
4"	15,000	Medium	64006	64135	64655

**Merit® Quick-Change Buffing Discs**

- Non-woven nylon fiber impregnated with abrasive.
- Produces a uniform finish at higher buffing speeds without fly-offs.

**Note:** Uses quick-change disc holders shown below left.

Diameter	Grit	Type I	Type II	Type III
1-1/2" (100 per box)	V-Fine	66333	66406	66417
	Fine	66332	66393	66369
	Medium	66292	66392	66368
	Coarse	66294	66391	61647
2" (50 per box)	V-Fine	66282	66405	66305
	Fine	66281	66396	66304
	Medium	66280	66395	66303
	Coarse	61627	66394	61649
3" (25 per box)	V-Fine	66286	66403	66310
	Fine	66285	66399	66309
	Medium	—	66398	66308
	Coarse	66293	66397	61651
4" (25 per box)	V-Fine	66297	66404	66316
	Fine	66296	66402	66315
	Medium	66295	—	66314
	Coarse	—	66400	61654

**Merit® Quick-Change Surface Prep Discs**

- Thick abrasive grain bonded to a reinforced non-woven nylon pad.
- More rigid & aggressive than buffing pads.
- Great for removing heavy rust & blending machine marks & flaws.

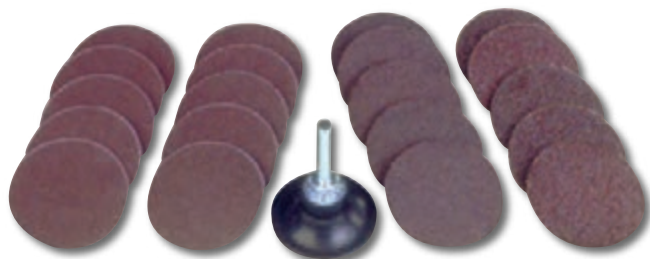
**Note:** Uses quick-change disc holders shown at left.

Diameter	Grit	Type I	Type II	Type III
1-1/2" (100 per box)	Coarse	66334	—	—
2" (50 per box)	V-Fine	—	—	66318
	Medium	66272	66288	66290
	Coarse	—	—	66289
3" (25 per box)	Medium	66276	—	—
	Coarse	—	—	66322
4" (25 per box)	Coarse	—	—	66327



## FILES & ABRASIVES

### Shur-Kut® Quick-Change Disc Kits



#### Includes:

Twenty Shur-Kut® Quick-Change Discs (five each: 36, 60, 80 & 120 grit) & 1/4" Shank Medium Density Holder

Part Number	Diameter	Maximum RPM
01-74100	2"	30,000
01-74101	3"	20,000

### Shur-Kut® Cartridge Roll Test Kit



#### Includes:

Assortment of Straight & Tapered Rolls (1" & 1-1/2" long, resin bond) in 80 & 120 Grit & Two 1/4" Shank Mandrels

Part Number	Diameter	Maximum RPM
28802	1/4" to 1/2"	18,000 to 25,000

### Shur-Brite® Quick-Change Disc Kits

Surface  
Conditioning



#### Includes:

Fifteen Shur-Brite® Quick-Change Discs (five each: very fine, medium & coarse) & 1/4" Shank Medium Density Holder

Part Number	Diameter	Maximum RPM
34311	2"	30,000
34312	3"	20,000

### Shur-Brite® Surface Conditioning Stars



- Die cut from reinforced surface conditioning material.
- Great for cleaning & polishing the I.D. of tubing & recessed areas.
- Will quickly provide a smooth finish on steel, aluminum or plastic.

Grade	23,000 Maximum RPM		20,000 Max. RPM
	1-1/2" Diameter	2" Diameter	3" Diameter
Very Fine	28834	28837	28840
Medium	28833	28836	28839
Coarse	28832	28835	28838

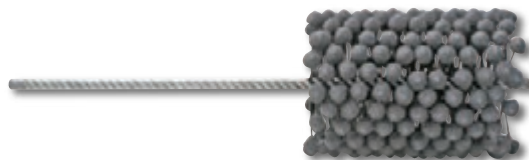
### Shur-Brite® Mounted Duplex Wheels



- Interleaf design cushions abrasive flaps for extra smooth operation.
- For polishing, deburring & removal of pits, burrs & scratches.

Grit	8600 Maximum RPM	
	3" x 1" x 1/4"	3" x 2" x 1/4"
80	10467	10470
120	10468	10471
180	10469	10472

### Heavy-Duty Flex Hones



- A resilient, flexible honing tool with a soft cutting action.
- Independently suspended abrasive points are self-centering.
- Tool will self-compensate for wear & self align to the bore.
- Extremely efficient for providing crosshatch oil retention grooves.

Part Number	Diameter	For Bore Sizes	Overall Length
70594	3-3/4"	3-1/2" to 3-3/4"	13-1/2" (343 mm)
70595	4"	3-3/4" to 4"	13-1/2" (343 mm)
70596	4-1/4"	4" to 4-1/4"	13-1/2" (343 mm)
70597	4-1/2"	4-1/4" to 4-1/2"	13-1/2" (343 mm)
70598	5"	4-1/2" to 5"	17-1/2" (445 mm)
70599	5-1/2"	5" to 5-1/2"	17-1/2" (445 mm)
70600	6"	5-1/2" to 6"	17-1/2" (445 mm)

**Merit® Micro Mini Flap Wheels**

1/8"  
Shank

- Fast & light deburring of internal work spaces as small as 1".
- Many other sizes & styles available, please inquire.

**Note:** All diameters sold in packs of 10.

Dia. x Width	80 Grit	120 Grit	180 Grit	240 Grit	320 Grit
3/8" x 3/8"	37471	37472	37473	37474	37475
5/8" x 5/8"	37481	37482	37483	37484	37485
5/8" x 3/4"	37541	37542	37543	37544	37545
3/4" x 3/16"	37551	37552	37553	37554	37555
3/4" x 3/8"	37561	37562	37563	37564	37565
3/4" x 1/2"	37571	37572	37573	37574	37575
3/4" x 5/8"	37581	37582	37583	37584	37585
3/4" x 3/4"	37591	37592	37593	37594	37595
1-3/16" x 1/8"	37491	37492	37493	—	37495
1-3/16" x 3/16"	37501	37502	37503	37504	37505
1-3/16" x 3/8"	37511	37512	37513	37514	37515

**Merit® Abrasive Test Kits**

- Determine what abrasives are best suited to your application needs.
- Versatile & economical - selection continues on next page.

**'D' Quick-Change Disc Test Kit:**

150 Quick-Change Discs (1-3", assorted grits includes zirconia alumina & flex edge discs) & Three Quick-Change I Holders

Part Number	Description
65001	'D' Quick Change Disc Test Kit

**Merit® Abrasive Test Kits (cont'd)****'BP' Bore Polisher Test Kit:**

Ten Bore Polishers & Two Mini Grind-O-Flex Wheels (assorted sizes & grits) mounted on 1/4" Mandrels

Part Number	Description
54181	BP Bore Polisher Test Kit

**'MMC' Micro-Mini Test Kit:**

Five Micro-Mini Grind-O-Flex Wheels (3/8" to 1-3/16" dia.) mounted on 1/8" Hardened Steel Shanks

Part Number	Description
31493	MMC Micro-Mini Test Kit

**'CMM' Mandrel-Mounted Mini Grind-O-Flex Test Kit:**

Ten Mini Grind-O-Flex Wheels (1" to 3" dia. in various grits) mounted on 1/4" Mandrels

Part Number	Description
38004	CMM Mini Grind-O-Flex Test Kit

**'CQ' Mini Grind-O-Flex Test Kit:**

Ten Mini Grind-O-Flex Wheels (1" to 3" diameter, 1/4"-20 thread) & 1/4" Quick Change Adapter

Part Number	Description
38001	CQ Mini Grind-O-Flex Test Kit



## Merit® Blaze High Performance Abrasive Test Kit



*Next-  
Generation  
Ceramic  
Grain*

- Handy kit includes mandrels and a variety of Blaze cartridge rolls & spiral rolls in popular sizes & grits.
- 50% to 300% longer life than any product currently available.
- Cuts cooler and lasts longer on stainless steel, cobalt, inconel, titanium & other hard-to-grind materials.

Part Number	Description
66726	Blaze Abrasive Test Kit

## Rubberized Abrasive Kits

*Perfect For Light Deburring,  
Smoothing, Cleaning & Polishing*

- Unique cushioned action cuts smoothly & softly without gouging or digging into the work surface and resists clogging.
- Ideal for metallic & non-metallic surfaces that must be worked without loss of dimensional tolerances or control.
- Abrasives can be shaped with conventional wheel dressers and will not harden or soften during use or in storage.
- Selection continues on next page.



88-174-8

### Tool Room Assortment:

100 Cylinder Points, 100 Bullet Points, 200 Tapered Wheels, 300 Straight Wheels (all in various grits), 48 Point Mandrels, 48 Wheel Mandrels & Carrying Case

Part Number	Description
88-174-8	Complete 796 PC Kit

## Rubberized Abrasive Kits (cont'd)



88-170-6

### Polishing Kit:

16 Cylinder Points, 32 Bullet Points, 16 Tapered Points (all in various grits), 4 Point Mandrels & Carrying Case

Part Number	Description
88-170-6	Complete 68 PC Kit



88-172-2

### Cone Kit:

8 Tapered Cones, 4 Cylinder Cones, 4 Pointed Cones, 2 Bullet Cones (all in various grits), 2 Cone Mandrels & Carrying Case

Part Number	Description
88-172-2	Complete 20 PC Kit



88-180-5

### Finishing Kit A:

4 Round Pencils, 4 Rectangular Sticks, 4 Tapered Cones, 4 Cylinder Cones, 4 Straight Wheels (all in various grits), 1 Cone Mandrel, 1 Wheel Mandrel & Carrying Case

Part Number	Description
88-180-5	Complete 22 PC Kit

### Finishing Kit B:

12 Bullet Points, 12 Tapered Wheels, 36 Straight Wheels (all in various grits), 1 Point Mandrel, 3 Wheel Mandrels & Carrying Case

Part Number	Description
88-184-7	Complete 64 PC Kit



## Rubberized Abrasive Kits (cont'd)

**Small Wheel Kit:**

112 Straight Wheels, 8 Straight Points (all in various grits), 7 Wheel Mandrels & Carrying Case

Part Number	Description
88-164-9	Complete 127 PC Kit

**Point Kit A:**

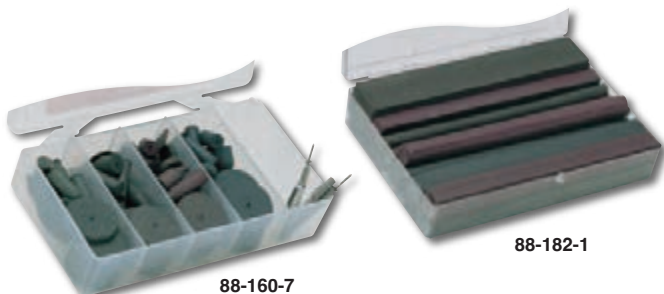
40 Bullet Points (various grits), 4 Point Mandrels & Carrying Case

Part Number	Description
88-162-3	Complete 44 PC Kit

**Point Kit B:**

100 Bullet Points (various grits), 2 Point Mandrels & Carrying Case

Part Number	Description
88-186-2	Complete 102 PC Kit

**Utility Kit:**

16 Cylinder Points, 24 Bullet Points, 8 Tapered Wheels, 24 Straight Wheels, 8 Straight Points (all in various grits), 4 Wheel Mandrels & Carrying Case

Part Number	Description
88-160-7	Complete 84 PC Kit

**Hand Finishing Kit:**

8 Round Pencils, 4 Rectangular Sticks, 4 Square Sticks (all in various grits) & Carrying Case

Part Number	Description
88-182-1	Complete 16 PC Kit

## Sanding Drum &amp; Sleeve Kits

*True Running, No Wobble*

SDK-15



- Precision ground, extruded live rubber for better life & performance.
- Aluminum oxide, resin bond sanding sleeves with cloth backing.
- Abrasive sleeves are easily secured in place by user controlled expansion of the solid rubber drum spindle.
- Will not break apart even under the most demanding tasks.

**General Purpose Kit:**

Five Drums (1/2" x 1/2", 3/4" x 1", 1" x 1", 1-1/2" x 1-1/2", 2" x 1-1/2") & Ten Sleeves (1 fine & 1 coarse for each drum size)

**2" Extra Long Kit:**

Four Drums (1/2" x 2", 3/4" x 2", 1" x 2", 1-1/2" x 2") & Eight Sleeves (1 fine & 1 coarse for each drum size)

Part Number	Type	Shank Diameter
SDK-15	General Purpose Kit	1/8" & 1/4"
SDK-12	2" Extra Long Kit	1/4"

## Replacement Spiral Coated Sanding Sleeves



- Aluminum oxide, resin bond with cloth backing.
- Will not break apart even under the most demanding tasks.
- Replacement drums shown on next page.

**General Purpose 6 PC Sleeve Packs - For Kit SDK-15**

Dia. x Width	Coarse	Medium	Fine	9 PC Mix*
1/2" x 1/2"	808-6-C	808-6-M	808-6-F	808-9
3/4" x 1"	1216-6-C	1216-6-M	1216-6-F	1216-9
1" x 1"	1616-6-C	1616-6-M	1616-6-F	1616-9
1-1/2" x 1-1/2"	2424-6-C	2424-6-M	2424-6-F	2424-9
2" x 1-1/2"	3224-6-C	3224-6-M	3224-6-F	3224-9

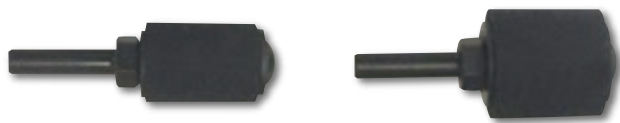
**2" Extra Long 6 PC Sleeve Packs - For Kit SDK-12**

Dia. x Width	Coarse	Medium	Fine	9 PC Mix*
1/2" x 2"	832-6-C	832-6-M	832-6-F	832-9
3/4" x 2"	1232-6-C	1232-6-M	1232-6-F	1232-9
1" x 2"	1632-6-C	1632-6-M	1632-6-F	1632-9
1-1/2" x 2"	2432-6-C	2432-6-M	2432-6-F	2432-9

\*Mix packs include three sleeves in each grade.

## FILES & ABRASIVES

### Replacement Sanding Drums



#### 1/4" Shank, Standard Lock Style

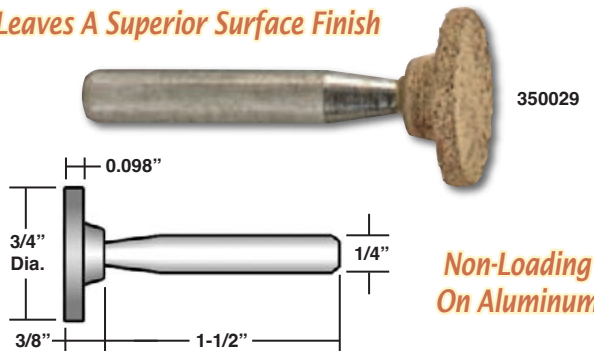
- Rubber expansion is controlled by turning hex nut
- Rubber spindle is seated directly on the mandrel (arbor).

**NOTE:** Other sizes and styles available, please inquire.

Part Number	Drum Diameter	Drum Width
8008-02NL	1/2"	1/2"
8032-04NL	1/2"	2"
12016-04NL	3/4"	1"
12032-04NL	3/4"	2"
16016-04NL	1"	1"
16032-04NL	1"	2"
24024-04NL	1-1/2"	1-1/2"
24032-04NL	1-1/2"	2"
32024-04NL	2"	1-1/2"

### Seat Track Cleaners

*Leaves A Superior Surface Finish*



*Non-Loading  
On Aluminum*

- Remove caked on dirt and grime from all interior surfaces of aircraft seat tracks in one operation.
- Controlled cleaning with chatter free operation.
- Each point will clean approximately 30 feet of seat track.

Part Number	Grit	Head Diameter	Shank	Overall Length
350029	Coarse	3/4"	1/4" x 1-1/2"	1-7/8" (48 mm)
350030	Medium	3/4"	1/4" x 1-1/2"	1-7/8" (48 mm)

### Cotton Fiber Mounted Point Test Kits

- Non-loading on aluminum, brass, and other non-ferrous metals.
- Smooth chatter free grinding, deburr & polish in one easy step.
- Controlled metal removal without changing part geometry.
- Ideal for stainless steel, aluminum, mild steel & exotics.

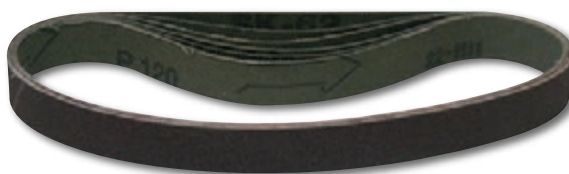
Part Number	Description	Shank
70383	13 PC Mini Assortment	1/8"
70385	13 PC Standard Assortment	1/4"



### High Performance Abrasive Belts

- Premium quality - recommended for medium to heavy grinding & finishing.
- For use on regular & high tensile steel, cast iron, non-ferrous materials & alloys.

Grain	Bond	Backing	Structure
Aluminum Oxide	Resin Over Resin	'X' Weight Poly Cotton	Closed Coat



**Note:** Many other styles & sizes available, please inquire.

Diameter x Width	36 Grit	40 Grit	50 Grit	60 Grit	80 Grit	100 Grit	120 Grit	180 Grit
12" x 1/4"	—	—	—	23030	14-1591	—	25540	14-1596
12" x 1/2"	10675	10676	10677	10678	10679	10680	10681	10682
12" x 1"	10708	—	10710	10711	10712	10713	10714	—
18" x 3/4"	10691	10692	10693	10694	10695	10696	10697	10698
24" x 1/8"	—	—	—	—	—	—	—	33526
24" x 1/4"	—	—	—	—	14315	—	—	—
24" x 1/2"	10683	10684	10685	10686	10687	10688	10689	10690
24" x 1"	—	—	—	—	—	—	—	14514
30" x 1"	—	10727	—	10729	10730	10731	10732	10733
48" x 6"	11032	11033	11034	11035	11036	11037	11038	11039
60" x 4"	10969	10970	10971	10972	10973	10974	10975	10976

**Reciprocating Saw**


- Low vibration & excellent balance.
- Variable speed motor with ball & needle bearings.
- Includes two blades, protective boot & swivel air inlet.

**Note:** Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

1.0 hp (0.7 kW) - 1800 Strokes Per Minute			
Part Number	Stroke	Overall Length	Weight
1300	5/8"	17-1/8" (435 mm)	7.8 lbs (3.5 kgs)

5-Pack Reciprocating Saw Blades			
Part Number	Overall Length	Teeth -Inch	Recommended Use
49-1810	6" (152 mm)	14	Metals Over 1/8" Thick
49-1811	6" (152 mm)	18	Metals To 1/8" Thick
49-1812	4" (102 mm)	18	Metals Over 1/8" Thick
49-1813	4" (102 mm)	14	Metals To 1/8" Thick
49-1814	6" (152 mm)	24	Metals To 18 Gauge
49-1815	6" (152 mm)	10	Metals, Hard Rubber & Fiber > 1/4"
49-1816	6" (152 mm)	6	Roughing In On Wood Composition & Non-Ferrous Materials
49-1819	6" (152 mm)	6	Roughing In, Pruning & Light To Medium Sections

**Heavy-Duty Portable Hacksaw Kit**


- Lightweight, easy to handle unit cuts smoothly & quietly.
- Twin pistons provide for continuous smooth power during forward and rearward stroke.
- Uses standard hacksaw, sectional band, or modified reciprocating saw blades (1/2" high by 0.025" to 0.035" thick).
- A true all weather and condition tool - It can be safely used under fresh or salt water, fire retardant foam, oil, mud, slurries and hazardous material.
- Kit includes 6 blades, lubrication & steel carrying case.

6.5 CFM - 0 To 1200 Strokes Per Minute			
Part Number	Stroke	Overall Length	Weight
715	1-3/4"	16" (406 mm)	5.6 lbs (2.5 kgs)

**Note:** Tool operates at 90-110 PSI. 3/8" ID air hose recommended.

Replacement Blades	
Part Number	Description
94324	10 PC Blade Pack

**Bosch® Orbital Action Jigsaw**


- Four stage orbital action adjusts blade motion to match cutting task.
- Tool-free blade change system is fast and easy - simply turn the top handle to release blade.
- Adjustable steel footplate retracts and tilts left and right up to 45° in both directions.
- Exclusive blade clamp mechanism for superior hold.
- Tool comes complete with saw blade set, anti-splinter guard, hose nipple, silencer & allen key.

**Note:** Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

27.5 CFM - 2200 Strokes Per Minute			
Part Number	Stroke	Overall Length	Weight
7561-118	1"	10" (254 mm)	4.2 lbs (1.9 kgs)

**Note:** See bottom of page 185 for applicable replacement blades.

**Chicago Pneumatic® Reciprocating Saw**

*Heavy-Duty*



*Very Low Vibration*

- A premium tool with high power at 10,000 SPM.
- Perfect for cutting aluminum, plastic, fiberglass, wood, and sheet metal up to 16 gauge.
- Includes adjustable blade guide and 360° swivel air inlet.
- Kit includes fitted case and a pack of each type blade shown below.

**Note:** Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

5.5 CFM - 10,000 Strokes Per Minute				
Tool Only	Complete Kit	Stroke	Overall Length	Weight
CP7901	CP7901K	3/8"	9" (229 mm)	1.9 lbs (0.86 kgs)

5-Pack Reciprocating Saw Blades	
Part Number	Teeth Per Inch
8940158775	18
8940158776	24
8940158777	32



## SAWS & ACCESSORIES

### Air Body Saw



**16 Gauge Mild Steel Capacity**

JSG-0822

- Lightweight, slim design for cutting in confined areas.
- Positive blade retention with adjustable blade guide.
- Kick-off throttle & built in regulator for positive speed control.

9 CFM - 10,000 Strokes Per Minute			
Part Number	Stroke	Overall Length	Weight
JSG-0822	1/4"	7-1/8" (181 mm)	1.37 lbs (0.62 kgs)

Replacement Blades	
Part Number	Description
JSB24S	10 PC Blade Pack

### APEX® Adjustable Depth Control Saws



12S1283-02

- Used standard 1/4" arbor hole blades.
- Includes applicable wrenches & oilless blades.

Note: Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

0.3 hp (0.22 kW) - 7/16" Cut Depth, 2" Blade Capacity				
Front Exhaust	Rear Exhaust	RPM	Overall Length	Weight
12S1207-02	12S1283-02	20,000	7-1/8" (181 mm)	1.3 lbs (0.6 kgs)
12S1206-02	12S1282-02	12,000	7-1/8" (181 mm)	1.3 lbs (0.6 kgs)
—	12S1289-02	3600	8-7/8" (225 mm)	1.5 lbs (0.7 kgs)

0.3 hp (0.22 kW) - 7/16" Cut Depth, 2" Blade Cap. - Vacuum Ready			
Part Number	RPM	Overall Length	Weight
12S1274-03	20,000	7-1/8" (181 mm)	2.2 lbs (1.0 kgs)
12S1273-03	12,000	7-1/8" (181 mm)	2.2 lbs (1.0 kgs)

Note: See next page for applicable replacement blades.

### APEX® Oscillating Saws



12L2240-90

- Specially designed for cutting cured & uncured graphite composites.
- Performs equally well on wood, fiberglass, plaster & plastic.
- Uses 3/8" arbor hole oscillating blades.
- Includes applicable wrenches & oilless blades.

### Kett® Panel Saws



70121

**Variable Speed Trigger**

**16 Gauge Mild Steel Capacity**

**Plunge Cutting Head**

- Highly maneuverable.
- Leaves a milled, ready to fabricate finish without burning.
- Easily cut through thicker plastics and other rigid materials.
- Used standard 7/16" arbor hole blades (see below).

Note: Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

0.8 hp (0.6 kW) - 2200 RPM					
Part Number	Blade Sizes	Cutting Capacity	Max. Cut Depth	Overall Length	Weight
70121	2" to 2-1/2"	16 Gauge Steel 3/16" Aluminum	5/8"	14" (356 mm)	6 lbs (2.7 kgs)
70122	1-3/4" to 2"	16 Gauge Steel 1/8" Aluminum	3/8"	13-1/2" (343 mm)	5 lbs (2.3 kgs)

#### Vacuum Model

Accepts standard noses from canister type or in-plant systems.

0.8 hp (0.6 kW) - 2200 RPM Vacuum Head Model					
Part Number	Blade Sizes	Cutting Capacity	Max. Cut Depth	Overall Length	Weight
70123	2" to 2-1/2"	16 Gauge Steel 1/8" Aluminum	5/8"	13-1/2" (343 mm)	6 lbs (2.7 kgs)

High Speed Steel Saw Blades, 7/16" Arbor Hole			
Part No.	Dia.	Teeth	Recommended Use
14-2147	2-1/2"	44	1/4" Alum., 1/2" Plywood & 1/2" Phenolic
14-2146	2-1/2"	80	16 Gauge Steel
14-2928	3-3/8"	80	1/8" Alum., 1/2" Plywood & 1/2" Phenolic
14-2929	3-3/8"	80	20g Steel, Paneling & Plywood
14-2930	3-3/8"	100	20 Gauge Steel, Paneling & Soft Metals

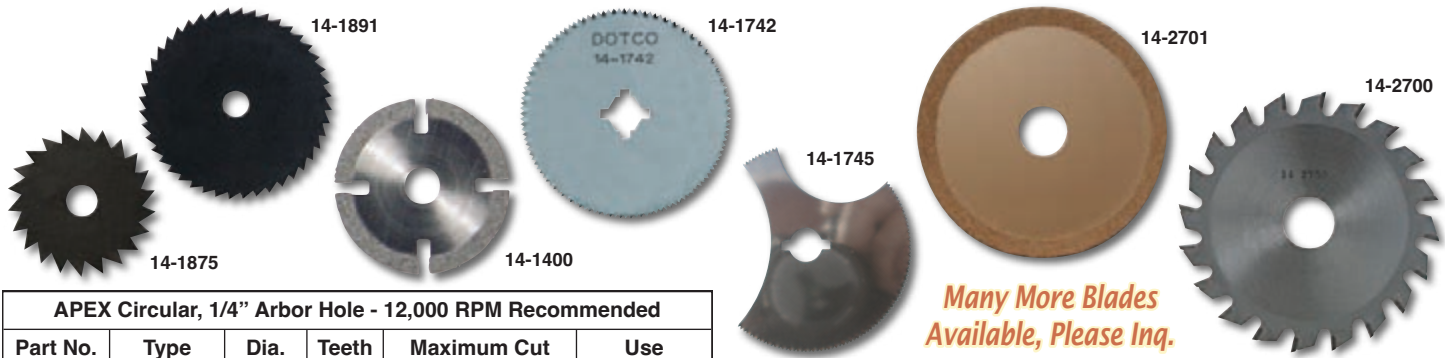
### Perfect For Composite Work

Note: Air Inlet 1/4" NPT (use 3/8" I.D. air hose).

0.6 hp (0.45 kW) - 9/16" Cut Depth, 14,000 CPM - Inline			
Part Number	Blade Cap.	Overall Length	Weight
12L2065-90	2-1/2"	8-7/8" (225 mm)	2.2 lbs (1.0 kgs)

0.6 hp (0.45 kW) - 9/16" Cut Depth, 14,000 CPM - Right Angle			
Part Number	Blade Cap.	Overall Length	Weight
12L2240-90	2-1/2"	10-7/8" (276 mm)	2.2 lbs (1.0 kgs)

Note: See next page for applicable replacement blades.

**Saw Blades**


APEX Circular, 1/4" Arbor Hole - 12,000 RPM Recommended					
Part No.	Type	Dia.	Teeth	Maximum Cut	Use
14-1875	High Speed Steel	1-1/4"	22	3/32" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-0930		1-1/4"	44	3/32" D x 1/16" W	
14-1895		1-1/2"	22	7/32" D x 1/16" W	
14-1890		2"	22	7/16" D x 1/16" W	
14-1891		2"	44	7/16" D x 1/16" W	
14-1892		2"	60	7/16" D x 1/16" W	

APEX Circular, 1/4" Arbor Hole - 20,000 RPM Recommended					
Part No.	Type	Dia.	Teeth	Maximum Cut	Use
14-1396*	Carbide Chip	1-1/2"	30/80	7/32" D x 3/32" W	Fiberglass & Rubber, Only Non-Metallic Materials
14-2395*		2"	Grit	7/16" D x 3/32" W	
14-1398*	Diamond Chip	1-1/2"	40/60	7/32" D x 5/64" W	
14-1400*		2"	Grit	7/16" D x 5/64" W	

APEX Circular Oscillating, 3/8" Arbor Hole					
Part No.	Type	Diameter	Teeth/Grit	Maximum Cut	Recommended Use
14-1740*	Carbide Chip	2"	36/80 Grit	7/16" D x 3/32" W	Fiberglass
14-1741*	Diamond Chip	2"	40/60 Grit	7/16" D x 5/64" W	Fiberglass & Carbon Composites
14-1742	Stainless Steel	2-1/2"	124	9/16" D x 3/64" W	Wood, Composites, Aluminum & Plastic
14-1743	Carbide	2-1/2"	120	9/16" D x 1/16" W	Cured Graphite Composites
14-1744	Razor	2-1/2"	—	9/16" D x 3/64" W	Cardboard & Light Plastic
14-1745	Stainless Steel	2-1/2"	120	9/16" D x 3/64" W	Cardboard & Light Plastic
14-1746	Flush Stainless	2-1/2"	124	9/16" D x 3/64" W	Wood, Composites, Aluminum & Plastic
14-1747	Razor	3"	—	9/16" D x 3/64" W	Cardboard & Light Plastic

APEX Circular, 3/4" Arbor Hole					
Part No.	Type	Diameter	Teeth/Grit	Maximum Cut	Recommended Use
14-2701*	Carbide Chip**	4"	36/80 Grit	1" D x 1/8" W	Fiberglass & Hard Rubber
14-2694*	Carbide Chip	4"	36 Grit	1" D x 11/64" W	Hard Rubber
14-2697*	Carbide Chip	4"	80 Grit	1" D x 1/8" W	Fiberglass
14-2699*	Carbide Tip	4"	20	1" D x 7/64" W	Thin Fiberglass, Plastic Laminates to 1/8"
14-2700*	Carbide Tip	4"	20	1" D x 7/64" W	Fiberglass, Plastic Laminates to 1/2"
14-2710*	Carbide Tip	4"	20	1" D x 7/64" W	Thin Non-Ferrous Materials to 1/8"
14-2711*	Carbide Tip	4"	12	1" D x 7/64" W	Non-ferrous Materials to 1/2"
14-2690*	Diamond Chip	4"	60/80 Grit	1" D x 5/64" W	Fiberglass

\*For sawing non-metallic materials only. \*\*Slim blade for fiberglass cutting with minimal dust.

5-Pack Jig Saw Blades					
Part No.	Type	Overall Length	Teeth Per Inch	Thickness & Width	Recommended Use
49-12300	Bi-Metal	3-5/8" (92 mm)	6	.032" x 5/16"	Particle & Fiber Board
49-12301	Bi-Metal	4" (102 mm)	6	.032" x 5/16"	Wood (fast cut), Particle & Fiber Board
49-12312	Wood	2-3/4" (70 mm)	10	.039" x 5/32"	Wood & Plastic (clean scroll cut)
49-12324	Bi-Metal	3-5/8" (92 mm)	10	.032" x 5/16"	Wood (medium/rough cut) & Plastic
49-12330	Metal	2-3/4" (70 mm)	14	.039" x 5/16"	Non-Ferrous Metal (1/8" to 1/4")
49-12331	Metal	2-3/4" (70 mm)	18	.039" x 5/16"	Mild Steel, Non-Ferrous Metal (1/8" to 3/16")*
49-12354	Bi-Metal	2-3/4" (70 mm)	18	.032" x 5/16"	Metal (1/8" to 3/16")*
49-12361	Bi-Metal	4" (102 mm)	10	.032" x 5/16"	Wood (clean cut), Particle & Fiber Board

## CABLE, WIRE & TUBING TOOLS

### USATCO Safety Wire Twister Kit



#### Includes:

9" Auto Return Safety Wire Twister, Manual Wire Twister, Three 1 lb Safety Wire Spools (.025", .032" & .041") & Canvas Tool Bag

Part Number	Description
53-134K	Complete 6 PC Kit

### Milbar® Safety Wire Twisters



04-11W



04-1W393

*Diagonal Nose*

- High carbon alloy steel forgings.
- 04-5W4 features a left hand twist.
- Spring auto return feature for quick & easy production use.

Part Number	Wire Capacity	Overall Length
04-11W	.041"	6" (152 mm)
04-1W393	.060"	9" (229 mm)
04-5W4	.060"	9" (229 mm)

### Milbar® Tigerwave Rev. Safety Wire Twister

*Reversible*

04-7W

*Diagonal Nose*



*Textured Non-Slip Grip*

*Narrow Head For Tight Spaces*

- Reversible - with improved, smooth operating shift mechanism.
- Patented "One-Click" technology for easy opening and closing.
- Precision machined from high grade 4140 tool steel.
- Wave jaw holds work securely, eliminates wire damage.
- Heat and chemical resistant Viton® cushion throat traps wire cutoffs for no F.O.D..

Part Number	Wire Capacity	Overall Length
04-7W	.041"	9-5/16" (237 mm)

### Milbar® Reversible Safety Wire Twisters

*Aerospace Standard AS567*

04-41W



04-45W



*Reversible*

*Diagonal Nose*

- Patented reversible twist action.
- Quick acting reversible sleeve.
- Spring auto return twist rod & sure grip clutch action knob.

Part Number	Wire Capacity	Overall Length
04-45W	.041"	6" (152 mm)
04-41W	.060"	9" (229 mm)
04-42W	.060"	12" (305 mm)

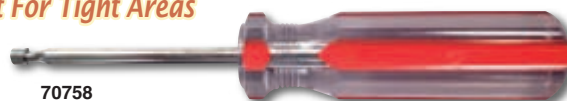
### E.Z. Aircraft Manual Safety Wire Twisters

*Great For Tight Areas*



70758

*Fast, One Handed Operation*



70760



Part Number	Wire Capacity	Overall Length
70758	.060"	6" (152 mm)
70760	.060"	18" (457 mm)
53-70765	Special: Both Tools	



## Milbar® Cushion Throat Safety Wire Twister



- High carbon alloy steel forgings.
- Spring auto return feature for quick & easy production use.
- Cushioned throat catches clipped ends to prevent F.O.D..

Part Number	Wire Capacity	Overall Length
04-3W6	.060"	9" (229 mm)

## Economy Safety Wire Twisters



Affordable auto return models with a fast spiral action.

Part Number	Wire Capacity	Overall Length
04-134SR6	.060"	6" (152 mm)
04-134SR	.060"	9" (229 mm)

## Milbar® Safety Wire Twister Kits



### Pro Kit:

Three Wire Twisters (9" Auto, 6" Auto & 19" Deep Reach), Three 1/4 lb. Spools Of Safety Wire (.020", .032" & .041") & Kit Box

### Limited Access Kit:

Two Wire Twisters (6" Mini & 19" Deep Reach), Three 1/4 lb. Spools Of Safety Wire (.020", .032" & .041") & Kit Box

Part Number	Description	Weight
04-105W	Pro Kit	4 lbs (1.8 kgs)
04-109W	Limited Access Kit	2.75 lbs (1.3 kgs)

Note: 04-105W NSN: 5180-90-986-8939, 04-109W NSN: 5180-01-337-9841.

## Milbar® Deep Reach Manual Wire Twister



- Allows access to deep safety wiring jobs.
- Two included extensions provide an adjustable 13" to 19" reach.

Part Number	Overall Length
04-134	19" (48.3 cm)

## Stainless Steel Aircraft Safety Wire



43-020

43-041

- Conforms to government spec. QQW423, Milspec MS-20995-C.
- Convenient 1 pound center core top dispensers.

Part Number	Diameter	Length
43-020	.020" (0.51 mm)	937' (286 m)
43-025	.025" (0.63 mm)	599' (183 m)
43-032	.032" (0.81 mm)	366' (112 m)
43-041	.041" (1.04 mm)	223' (68 m)

Note: 1/4 lb spools and other diameters available, please inquire.

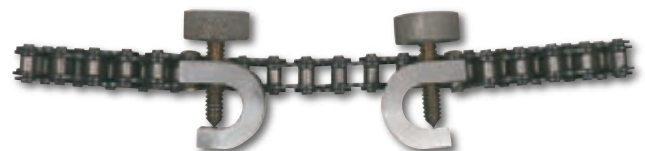
## Bessey® Cable Cutter



Easily cut multi-core cable up to 3/8".

Part Number	Capacity	Overall Length	Weight
D49-2	3/8"	6-1/2" (165 mm)	4 oz (113 g)

## Turnbuckle Wrench Cable Rigging Tool



- Allows free adjustment of the turnbuckle.
- Accommodates all sizes of aircraft cable.
- Consists of two clamps joined by 12" of sprocket type chain.

Part Number	Description
70452	Cable Rigging Tool

## CABLE, WIRE & TUBING TOOLS

### 3-Cavity Swaging Tool



Unit swages 1/16", 3/32" & 1/8" ovals.

Part Number	Overall Length	Weight
P-22-234	14" (36 cm)	2.5 lbs (1.1 kgs)

### 5-Cavity Swaging Tools



Unit swages 1/16", 3/32", 1/8", 5/32" & 3/16" ovals, and 1/16", 3/32", 1/8", 5/32", 3/16" & 7/32" stops.

Part Number	Type	Overall Length	Weight
04-2632H	Hand Held	26-1/2" (67 cm)	6 lbs (2.7 kgs)
04-2632B	Bench Mounted	16" (41 cm)	5 lbs (2.3 kgs)

### Locoloc® Hydraulic Hand Swager Kit

*Exerts 14 Tons  
Of Pressure*



*Rugged & Portable*

A powerful two stage swager with 180° swivel head & relief valve.

#### Includes:

Hydraulic Hand Swager, Six Dies (1/4", 9/32", 5/16", 3/8", 7/16" & 1/2"), Six Matching Gauges & Carrying Case

Part Number	Swager Overall Length	Swager Weight
3-K	23" (58 cm)	13 lbs (5.9 kgs)

### Locoloc® Sleeve Gauges (Go/NoGo)



GA-1P

Part Number	Sleeve Sizes
GA-1P	1/32", 3/64", 1/16", 3/32", 1/8", 5/32" & 3/16"
GA-2P	7/32", 1/4", 9/32" & 5/16"
GA-3P	3/8", 7/16" & 1/2"

### Portable Pneumatic Cable Terminal Swager Kit



520JK

*Certified & Calibrated*

- All swaging & cutting dies of hardened, heat treated steel.
- Cut-off & trim dies manufactured in sizes to cut cable up to 1/4".
- Dies clearly marked for type & size swaged terminal or cable cut.
- Yoke assembly easily accessible for quick changing of dies.
- Meets government specification GGG-S-00825A (GSA-FSS).
- Includes heavy-duty steel carrying case.

#### Includes:

Cylinder & Yoke Ass'y, 27 Dies, Air Hose Ass'y, Single Action Foot Control Valve Ass'y With Lubricator & Air Filter, Baseplate, Hand Cable Cutters, Turnbuckle Wrench, Gauges & Manual

Part Number	Description	Weight
520JK	New Kit	105 lbs (48 kgs)
39-520JK	Rebuilt Kit*	105 lbs (48 kgs)
520J	Swager Only	19 lbs (8.6 kgs)

\*Rebuilt kits subject to availability.

### Swaged Terminal Gauge



Multiple gauges designed to check all swaged terminals within range of 520JK swager shown above.

Part Number	Description
520SG	Swaged Terminal Gauge

## Hydraulic Swager With Enerpac®

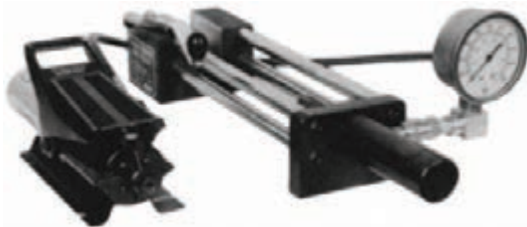
- Swages by applying a designated number of pressure increments while rotating the cable terminal assembly.
- Included adapter accepts standard AT520 family of swaging dies (included w/520JK on prev. page\*).



Part Number	Cable Capacity	Weight
520H	3/8"	100 lbs (45 kgs)

Note: Unit requires 100-120 psi. \*Dies also available separately, please inq.

## Hydraulic Pull Tester Kit



Pull-test swaged terminals made with the 520H shown above.

Part Number	Weight
520HTK	100 lbs (45 kgs)

## Pneumatic Stationary Cable Swager

Swage Over  
90% Of  
Aircraft Type  
Terminals



- Unit can swage ball terminals AN633 to -6 (3/16") & sleeve terminals to -8 (1/4").
- Features a heavy-duty yoke with shock absorber.
- Automatic swaging time controls, 2-stage foot switch.
- Die racks built into sides of unit, includes air filter & lubricator.

Part Number	Dimensions	Weight
520D	12"D x 24"W x 58"H	400 lbs (181 kgs)

## Portable Manual Cable Swager Kit

Portable Roll  
Type Swaging



Unit will swage MS type terminals onto galvanized and stainless steel cables from 1/16" to 3/16" diameter.

### Includes:

Portable Manual Swager, Dies (rolls): 5 Straight Shank Sets (1/16" - 3/16"), 3 Ball Terminal Sets (1/16" - 1/8") & Gauges

Part Number	Weight
04-1K630	64 lbs (29 kgs)

## Bench Mount Manual Swaging Machine Kit

Geared Down Crank  
For Easy Operation



Unit will swage AN or MS type fittings onto galvanized and stainless steel cables from 1/16" to 3/8" diameter.

### Includes:

Swager With Bench Mount, Dies (rolls): 10 Straight Shank Sets (1/16" - 3/8") & 7 Ball Terminal Sets (1/16" - 1/4"), Straight Shank Die Auxiliary Adapter, Appropriate Gauges, Spring Clip & Adjustable Stop Guide Assemblies

Note: Bench not included.

Part Number	Weight
04-2K630	240 lbs (136 kgs)



## CABLE, WIRE & TUBING TOOLS

### Portable Pneu. Swaged Terminal Pull Tester Kit



520CTK

- Can pull test all types and sizes of terminals to 1/4" diameter.
- Lightweight & compact, requires no experience to use.
- Includes heavy-duty steel carrying case.

#### Includes:

Pull Tester, Terminal Adapters: AN667 (5/32" - 1/4"), AN663/664 (1/16" - 3/16"), AN666/669 Right Thread (1/16" - 7/32"), AN666/669 Left Thread (1/16" - 1/4"), AN667/668 (3/16" - 3/8") Terminal Pins, Jaws (1/16" - 1/4" cables)

Part Number	Description	Weight
520CTK	Complete Kit	70 lbs (32 kgs)
39-520CTK	Rebuilt Kit*	70 lbs (32 kgs)

\*Rebuilt kits subject to availability.

### Pull Tester Calibration Kit

Save Time  
& Money



- Includes adapters required to certify 520CTK shown above.
- A quality assurance tool recognized by the Boeing company.

Note: NSN: 4920-00-949-9409.

Part Number	Weight
520CGC	7 lbs (3.2 kgs)

### USATCO 37° Single & Double Lap Flaring Tool Kit



53-256-FK

#### Foam Fitted Case Helps Prevent F.O.D.

- Portable or vise mounted, sliding handle for maximum leverage.
- Adapters revolve for quick size change.
- Unit can also flare single 37° S.A.E. standard & oversize.

#### Flaring Capacity:

3/16", 1/4", 5/16", 3/8" & 1/2" O.D. In Soft Copper & Aluminum

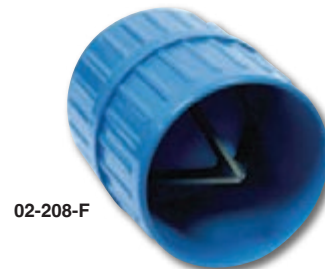
#### Flaring Tool Kit Includes:

Flaring Tool (04-256-F), Inner-Outer Reamer (02-208-F), Tubing Cutter (02-512), Four Protrusion Gauges with Case, Instructions & Foam Fitted Carrying Case

Part Number	Description
53-256-FK	Complete 9 PC Kit
04-256-F	Flaring Tool, Gauges & Case Only

### Inner-Outer Reamers

Reams tube edges with three hollow ground tool steel cutters.



02-208-F

#### Standard Model:

3/16" to 1-1/2" O.D. In Aluminum & Soft Metal

#### Heavy-Duty Model:

3/16" to 1-1/2" O.D. In Stainless, Copper, Brass & Other Metal

Standard	Heavy-Duty	Weight
02-208-F	02-208-FSS	0.6 lbs (0.3 kgs)

## 37° Flaring Tool

- Forms 37° tubing flares to government specifications.
- Positive stop gauge assures correct size of flare.
- Special burnishing action polishes flare face.
- Roller action cuts effort required to flare and maintains original wall thickness which eliminates stress concentration in the material.

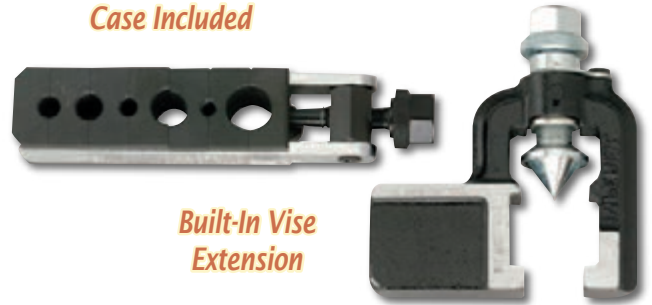
### Flaring Capacity:

3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D. In Steel, Stainless Steel (including MIL-T-6845), Titanium & Other Metals

Part Number	Weight
04-400-F	2.5 lbs (1.1 kgs)

*Case Included*

*Built-In Vise Extension*



## Heavy-Duty 37° Flaring Tool



*Case Included*

04-447-F

### Flaring Capacity:

1/8", 3/16", 1/4", 5/16", 3/8" & 1/2" O.D. In Annealed Stainless (MIL-T-6345 or AMS5566), Cold Drawn Stainless, Annealed Copper & Aluminum

Part Number	Weight
04-447-F	3.25 lbs (1.5 kgs)

## Large Size 37° Flaring Tool



*Built-In Vise Extension*

*Case Included*

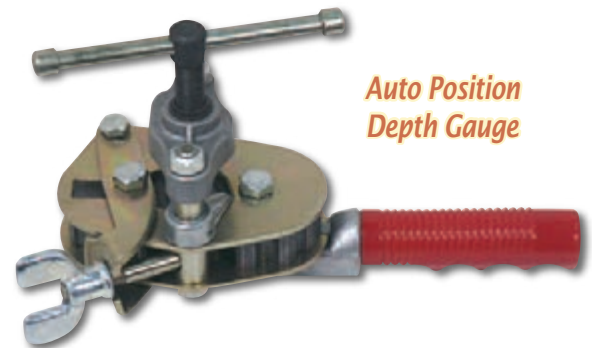
04-537-F

### Flaring Capacity:

3/4", 7/8", 1" & 1-1/4" O.D. In Soft Steel, Copper, Aluminum & Annealed Stainless

Part Number	Weight
04-537-F	13 lbs (5.9 kgs)

## Rolo-Flair® 37° Rotary Flaring Tool



*Auto Position Depth Gauge*

### Flaring Capacity:

1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" & 3/4" O.D. In Copper & Aluminum Alloys

Part Number	Weight
212-FB	3 lbs (1.4 kgs)

## Rol-Air 37° Flaring Tool



*Case Included*

04-507-FB

- Faceted, hard chrome cone for perfect scoreless flares.
- Slip on yoke permits use in tight quarters.

### Flaring Capacity:

3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D. In Soft Copper, Aluminum & Brass

Part Number	Weight
04-507-FB	1.8 lbs (0.8 kgs)

## CABLE, WIRE & TUBING TOOLS

### 90° Triple Header Tube Benders



*Quick  
& Easy*

- Make up to 90° bends on soft copper, alum. & thin wall steel tubing.
- Calibrated markings for accurate left, right or offset bends.
- 90° starting point requires less effort.

Part Number	O.D. Tube Capacity*	Weight
04-367-FH	1/8", 3/16" & 1/4"	0.5 lbs (0.2 kgs)
04-368-FH	3/16", 1/4", 5/16" & 3/8"	1.0 lbs (0.5 kgs)

\*Radius to center of tube for 04-367-FH: 1/8": 5/8", 3/16": 19/32", 1/4": 9/16".  
Radius to center of tube for 04-368-FH: 3/16" & 1/4": 1-1/64", 5/16": 1", 3/8": 15/16".

### Lever Type Tube Benders



- Each tool bends one size, no scoring or flattening of tubing.
- Open side design slips over tube at any point.
- Calibrated markings with up to 180° bend.
- Wide hook grips tubing securely for smooth, tight radius bends.

Part Number	O.D. Tube Capacity	Radius To Center Of Tube	Weight
04-364-03	3/16"	7/16"	0.5 lbs (0.2 kgs)
04-364-04	1/4"	9/16"	1 lbs (0.5 kgs)
04-364-05	5/16"	11/16"	1 lbs (0.5 kgs)
04-364-06	3/8"	15/16"	1.75 lbs (0.8 kgs)
04-364-08	1/2"	1-1/2"	3.5 lbs (1.6 kgs)

### 180° Triple Header Tube Bender

*Lightweight Die-Cast Aluminum*



*Cushioned Grips & Adjustable Hook*

- For soft copper, aluminum & thin wall steel tubing.
- Make smooth, tight radius bends up to 180°.
- Calibrated markings for accurate left, right & offset bends.

Part Number	O.D. Tube Capacity*	Weight
370-FH	3/16", 1/4", 3/8 & 1/2"	2.4 lbs (1.1 kgs)

\*Radius to center of tube: 3/16" & 1/4": 11/16", 3/8": 1-1/8", 1/2": 1-1/2".

### 180° Roto-Lok™ Triple Header Tube Bender

*Two-Stage, Indexed Handle For Easier Control*



*Lightweight & Compact Design*

*Rugged & Precise*

*Cushioned Grips*

- For soft copper, aluminum & thin wall steel tubing.
- Makes smooth, tight radius bends up to 180° with less effort.
- Calibrated markings for accurate left, right & offset bends.

Part Number	O.D. Tube Capacity*	Weight
470-FH	3/16", 1/4", 5/16 & 3/8"	1.3 lbs (0.6 kgs)

\*Radius to center of tube: 3/16" & 1/4": 9/16", 5/16": 11/16", 3/8": 15/16".

### Cable Tie Tensioning Tool

- Designed to work with standard 175 lb as well as thinner 125 lb cable ties.
- Adjustment knob allows user to set desired tension (do not over tighten - adjust only with fingers).

**NEW**

*Auto Cut-Off Feature*

*Adjustable Tension*



Part Number	Length	Weight
TY6	8-1/2" (22 cm)	15 oz (425 g)



## Compact Tube Cutter

- Enclosed feed requires only 1-1/4" clearance.
- Replaceable hardened steel cutter wheel with two friction reducing steel rollers.



Part Number	Capacity	Weight
02-123R	1/8" to 5/8" O.D.	3 ozs (85 g)

## Heavy-Duty Industrial Tube Cutter



Easily cut copper, aluminum, brass & thin wall stainless steel.

Part Number	Capacity	Weight
02-512	1/8" to 1-5/8" O.D.	6.5 ozs (184 g)

## Pro Tube Beading Kit



- Makes perfect, mar-free beads in aluminum, copper, brass & mild steel tubes ranging from 1/4" to 1" diameter.
- Simple, reliable tools with ground, hardened & polished surfaces & high-polymer gripping jaws - lifetime guarantee.
- Meets MILSPEC MS33660D & SAE AS5131 standards.

Part Number	Description	Weight
70821	12 PC Kit	7 lbs (3.2 kgs)

## Rapid Action Ratchet Tube Wrenches

### Heavy-Duty Construction



### Ideal For Closed System Fittings



- Unique open jaw design speeds installation of tube fittings & valves, hex nuts, bolts & fasteners in hard to reach areas.
- 12-point contact distributes torque pressure evenly in hex flats.
- Hardened steel jaws & heavy gauge alloy steel handles.

Part Number	Hex OD Size	Overall Length
195-05	5/16"	5-1/2" (140 mm)
195-06	3/8"	5-1/2" (140 mm)
195-07	7/16"	5-3/8" (137 mm)
195-08	1/2"	5-1/2" (140 mm)
195-09	9/16"	7-1/4" (184 mm)
195-10	5/8"	7-5/32" (182 mm)
195-11	11/16"	7-1/4" (184 mm)
195-12	3/4"	7-5/16" (186 mm)
195-13	13/16"	9-1/8" (232 mm)
195-14	7/8"	9-3/32" (231 mm)
195-15	15/16"	9-1/4" (235 mm)
195-16	1"	9-9/32" (236 mm)



7 PC Wrench Kit With Carrying Pouch	
Part Number	Sizes Included
195-7STDS	3/8", 7/16", 1/2", 9/16", 5/8", 11/16" & 3/4"

## Steinel® Professional Heat Gun

HL1920E

*Integrated  
Upright Support  
Stand*

*Ceramic  
Heating  
Element*

**NEW**

*Ergonomic  
Design*

*Hanging  
Loop*

- High-quality construction and optimum weight balance.
- Nine temperature settings and three airflow settings\*.
- 6' industrial grade rubber power cord.
- Other models and options available, please inquire.

Part Number	Temperature Range	Power	Weight
<b>HL1920E</b>	120° To 1100°F (50° To 600°C)	120V - 50/60Hz 13.2 A - 1500W	1.85 lbs (0.84 kgs)

\*Air flow settings: 4 CFM, 4-8 CFM & 6-13 CFM.



### Heat Gun Kit Includes:

HL1920E Heat Gun, 20mm Reduction Nozzle, 9mm Reduction Nozzle, 75mm Spreader Nozzle, 14mm Reflector Nozzle, 39mm Reflector Nozzle & Heavy Duty Carrying Case

7PC Heat Gun Kit	
Part Number	Weight
<b>HL1920E-K</b>	6 lbs (2.7 kgs)

## Steinel® Professional Digital Heat Gun

HG2320E

*Integrated  
Upright Support  
Stand*

*Ceramic  
Heating  
Element*

**NEW**

*Ergonomic  
Design*

*LCD  
Display*

*Hanging  
Loop*

- LCD information display with residual heat indicator.
- Four customizable preset temperature programs.
- High-quality construction and optimum weight balance.
- Lockable toggle temperature control and three airflow settings\*.
- 6' industrial grade rubber power cord.
- Other models and options available, please inquire.

Part Number	Temperature Range	Power	Weight
<b>HG2320E</b>	120° To 1200°F (50° To 650°C)	120V - 50/60Hz 13.5 A - 1600W	1.66 lbs (0.75 kgs)

\*Air flow settings: 4 CFM, 4-8 CFM & 6-13 CFM. Temp. control in 10°F increments.



### Heat Gun Kit Includes:

HG2320E Heat Gun, 9mm Reduction Nozzle, 14mm Reflector Nozzle, 39mm Reflector Nozzle, 9mm Reflector Nozzle & Heavy Duty Carrying Case

6PC Heat Gun Kit	
Part Number	Weight
<b>HG2320E-K</b>	6 lbs (2.7 kgs)

T5 Aircraft Cable Tensiometers



T5-2000 Series

*Rugged & Accurate*



T5-8000 Series

*Small & Lightweight*



*Fitted Case Included*

- These highly accurate and reliable precision instruments won't suffer from temperature error.
- No need for preliminary adjustments and can be used continuously without resetting or checking.
- All models include appropriate riser blocks, cable gauge, documentation & soft fitted case\*.

\*Optional USATCO hard shell case shown on next page.



Replacement Riser Blocks				
#1	#2	#2C	#3	#3A
38-T5-1	38-T5-2	38-T5-2C	38-T5-3	38-T5-3A

T5-2000 Series				
Tensiometer Part Number	For Use On Cables	Reading Interval	Ranges	Riser Used
T5-2002-101-00	1/16", 3/32" & 1/8"	5 (10 to 50) lbs	10 to 100 lbs	#1
	5/32" & 3/16"	10 (50 to 150) lbs	15 to 150 lbs	#2C
	7/32" & 1/4"	10 (50 to 150) lbs	25 to 150 lbs	#3
T5-2002-104-00	1/16", 3/32" & 1/8"	10 (30 to 200) lbs	30 to 200 lbs	#1
	5/32" & 3/16"	20 (200 to 300) lbs	30 to 300 lbs	#2C
	7/32" & 1/4"	20 (200 to 300) lbs	30 to 300 lbs	#3
T5-2002-401-00	1/16", 3/32" & 1/8"	5 (10 to 50) lbs	10 to 100 lbs	#1
	5/32" & 3/16"	10 (50 to 150) lbs	15 to 150 lbs	#2C
	7/32" & 1/4"		25 to 150 lbs	#3
	5 & 10 CWT	5 (10 to 50) lbs	10 to 100 lbs	#1
	15 CWT	10 (50 to 150) lbs	15 to 150 lbs	#2C
	20 & 25 CWT	10 (50 to 150) lbs	15 to 150 lbs	#2C
	70 CWT	10 (50 to 150) lbs	25 to 150 lbs	#3

T5-8000 Series				
Tensiometer Part Number	For Use On Cables	Reading Interval	Ranges	Riser Used
T5-8002-104B-00	1/16"	For All Cables	10 to 300 lbs	#1
	3/32" & 1/8"	5 (10 to 50) lbs	10 to 300 lbs	#2
	5/32" & 3/16"	10 (60 to 100) lbs	10 to 300 lbs	#2C
	7/32" & 1/4"	20 (120 to 300) lbs	10 to 300 lbs	#3A
T5-8005-110-00	3/16"	50 (300 to 1600) lbs	300 to 1600 lbs	#2
	7/32" & 1/4"	50 (300 to 1600) lbs	300 to 1600 lbs	#2C
	5/16"	50 (300 to 1600) lbs	300 to 1600 lbs	#3A
T5-8005-111-00	3/16"	50 (500 to 1000) lbs	500 to 2000 lbs	#2
	7/32" & 1/4"	100 (1000 to 2000) lbs	500 to 2000 lbs	#2C
	5/16"	100 (1000 to 2000) lbs	500 to 2000 lbs	#3A
T5-8008-106-00	1/8" & 5/32"	20 (40 to 600) lbs	40 to 600 lbs	#2
	3/16"	20 (40 to 600) lbs	40 to 600 lbs	#2C
	1/4"	20 (40 to 600) lbs	40 to 600 lbs	#3



## TESTING & MEASURING

### Hard Shell T5 Tensiometer Case

Helps  
Prevent  
F.O.D.



Protect  
Your  
Instrument

Part Number	Description
62-2002	Foam Fitted Plastic Case

### Type T60 Aircraft Cable Tensiometers

Handy Built-In  
Cable Gauge



Dial  
Pointer  
Lock



Fitted Case Included

T60-1001-C8-1A

- Positive 3-point cable gap & no alternate risers (no losable parts).
- Unit is not damaged by cable tensions above stated range.
- Unit includes fitted carrying case & instructions.

Part Number	Ranges	For Use On Cables
T60-1001-C8-1A	10 to 200 lbs	1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"
T60-100-C9-1A	150 to 450 lbs	1/8", 5/32", 3/16", 7/32" & 1/4"

### USATCO TENSIO METER CALIBRATION

USATCO's well equipped facility has 50 years of experience (we can test with 'british' cables). Our test weights are certified traceable to N.B.S. Washington DC. It is recommended that tensiometers be calibrated annually to ensure proper functioning of the device. Send us your tensiometer for repair, test, calibration or certification. Or send us your unit(s) for rebuild or trade-in quote. Please send to our NY facility:  
60 Fleetwood Court, Ronkonkoma, NY 11779-6907

### Digital Protractor / Inclinometers

70576



- Versatile digital level, 360° protractor & inclinometer for instant and accurate measurements of level, angle & tilt.
- Rugged sensors & high-impact machined aluminum frame.
- Hold button freezes the displayed angle.
- 'V' grooves in edges for accurate reading on curved surfaces.
- Floating zero - provides zero selection anywhere in the 360° range.

Pro 360 - 0.10° Resolution			
Part Number	Range	Overall Length	Weight
70576	360° (4 x 90°)	6" (152 mm)	10.2 oz (289 g)

Accuracy:  $\pm 0.1^\circ$  (level  $\pm 10^\circ$ ),  $\pm 0.1^\circ$  (plumb  $\pm 10^\circ$ ),  $\pm 0.2^\circ$  maximum error.



70577

#### Pro 3600

- Features greater accuracy & SPC output.
- SPC uses serial port (RS-232) & 10 pin rectangular connector.

Pro 3600 - 0.01° Resolution (0° to $\pm 10^\circ$ ), 0.10° (10° to 90°)			
Part Number	Range	Overall Length	Weight
70577	360° (4 x 90°)	6" (152 mm)	10.4 oz (295 g)

Accuracy:  $\pm 0.05^\circ$  (0° to 10°),  $\pm 0.20^\circ$  (10° to 80°),  $\pm 0.10^\circ$  (80° to 90°).

### Protractor & Depth Gauge



- Stainless steel construction with permanently etched gradations.
- Locking nut for making both depth & angle measurements.
- Narrow depth gauge has etched gradations in 32nds & 64ths.

Part Number	Depth Gauge	Angle Range
19	6" x 1/4"	$\pm 180^\circ$

### Starrett® Angle Protractor

Hands-Free  
Magnetic Base



- Easily measure any angle for pitch or slope.
- Handy rise, run, angle and pitch information on back of the tool.

Part Number	Range
L36P	0° to 90°

### Fowler® IP54 Digital Micrometers



*Protected To IP54  
Specification*

- Carbide measuring faces & large easy to read display.
- RS-232 output for data export readings to a computer\*.
- Includes wrench, battery & fitted plastic case (not shown).

Friction Thimble - 0.00005" Resolution

Part Number	Accuracy	Range
P54-860-001	± 0.0016"	0" to 1" (0 to 25 mm)
P54-860-002**	± 0.0016"	1" to 2" (25 to 51 mm)
P54-860-003**	± 0.0020"	2" to 3" (51 to 76 mm)

\*Requires cable, not included. \*\*Includes standard.

### Fowler® Digital Calipers



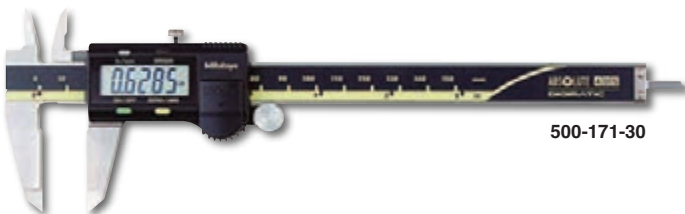
P54-100-000

- Absolute ceramic scale will never lose its reference point.
- Stainless steel frame & large easy to read display.
- Includes battery & fitted plastic case (not shown).

± 0.001" Accuracy - 0.0005" Resolution

Part Number	Range
P54-100-004	0" to 4" (10.2 cm)
P54-100-000	0" to 6" (15.2 cm)
P54-100-008	0" to 8" (20.3 cm)
P54-100-112	0" to 12" (30.5 cm)

### Mitutoyo® Digimatic Calipers



500-171-30

- Delivers highly accurate, four-way measurement capabilities.
- Functions include zero setting, data hold & error alarm\*.
- Includes battery & fitted plastic case (not shown).

± 0.001" Accuracy - 0.0005" Resolution

Part Number	Range
500-171-30	0" to 6" (15.2 cm)
500-172-20	0" to 8" (20.3 cm)

\*Many other sizes and models with SPC data output available, please inquire.

### Mitutoyo® Digimatic Measurement Kits



64PKA076

- Sturdy fitted mahogany case with accessory compartments.
- Kits include either a standard digital ratchet micrometer or a digital friction thimble micrometer which provides a higher degree of positive repeatability.
- Micrometers conform to IP65 specification.
- Calipers include Absolute Encode technology allowing the user to zero at any point for incremental comparison measurements.

#### Includes:

Digimatic Micrometer (0" to 1" ), Digimatic Caliper (0" to 6" ), Micrometer Spanner, Batteries & Mahogany Case

0.00005" Micrometer Resolution - 0.0005" Caliper Resolution

Part Number	Description
64PKA076	Measurement Kit with Ratchet Micrometer
64PKA077	Measurement Kit with Friction Thimble Micrometer

### Dividers & Calipers



- Special caliper steel with hardened point dividers.
- Hardened & tempered bow springs & fulcrum spools assure uniform tension without side play.
- Meets government specification GGG-C-95.

Part Number	Description	Range	Reach
450-6	Flat Leg Divider	0 to 6-1/4" (159 mm)	6" (152 mm)
452-6	Outside Caliper	0 to 6-5/16" (161 mm)	6-1/8" (156 mm)
454-6	Inside Caliper	0 to 6-1/2" (165 mm)	6-5/16" (161 mm)

## TESTING & MEASURING

### Fowler® Electronic Depth Gauge



- Six interchangeable extensions provide a large 0-22" capacity.
- Carbide contact point with two extra points for small work.
- Hardened steel base, ground and microlapped for accuracy\*.
- Direct inch-metric conversion, zero reset and hold feature.

Part Number	Range	Travel**	Resolution
54-125-777	0-22" (0-550mm)	0-1"	0.0005" (0.01mm)

\*Base size is 4" x 0.630". \*\*Electronic indicator stem is 3/8".

### Telescoping Gauge Sets



- Contact points constructed of hardened tool steel that are precision ground on the end measuring radius.
- Self-centering rigid handle for uniform contact pressure.

Part Number	Type	Measuring Range
10-933-0	Mitutoyo® Deluxe	5/16" to 6" (8 to 152 mm)
57-430-1	Economy	

### Feeler (Thickness) Gauges



- Knurled lock nut holds leaves in desired position.
- Easy to read numbers include thousandths and mm equivalents.

Part Number	Range	Leaves	Leaf Size
230	0.0015" to 0.025"	26	3" (76 mm)
231	0.002" to 0.025"	15	3" (76 mm)
232	0.002" to 0.025"	15	6" (152 mm)

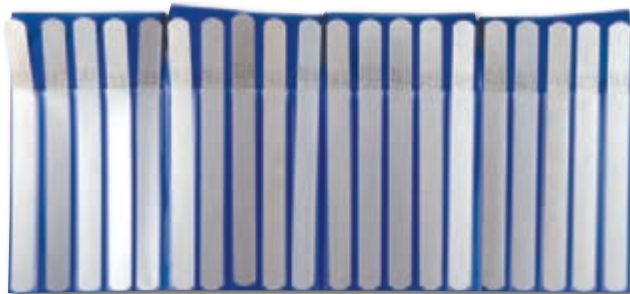
#### Precision Feeler Gauge Set

- Made of high-grade precision gauge steel.
- Meets government specification GG-G-86b.

Part Number	Range	Leaves	Leaf Size
226	0.0015" to 0.025"	26	3" (76 mm)

### SPI® Feeler (Thickness) Gauge Sets

Tempered Steel Hardened To 45 RC



- Thickness permanently etched on each leaf.
- Accuracy meets federal specifications.
- Plastic case with individual blade pockets included.

Part Number	Range	Leaves	Leaf Size
91-343-4	0.001" to 0.025"	20	6" (152 mm)
91-344-2	0.05 to 1.00 mm	20	6" (152 mm)

## MORE GAUGES & MEASURING DEVICES



BRFZ (C'Sink Go / No-Go) ..... 77

Cherry Blind Rivet Gauges ..... 117

Drill Bit Gauges ..... 15



Hi-Shear Grip Gauge ..... 130

Hi-Shear Pin Protrusion Gauges ..... 130

Rivet Gauges ..... 39



Sleeve Gauges (Locoloc) ..... 188

Swaged Terminal Gauges ..... 188

Visu-Lok & Composi-Lok Gauges ..... 130





## SPI® Countersink Gauges

### Simple, One Handed Operation

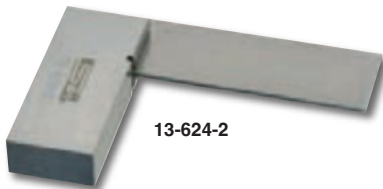
- Fast and accurate measurement of countersink diameter.
- Direct major reading of countersink angles to 0.002°.
- Dial readings are held until reset.
- Convenient 5" pocket size.
- Includes setting ring & foam lined, fitted storage case.



20-541-9

± 0.0005" Accuracy		
Part Number	Diameter Range	Countersink Angle
20-541-9	0.160 - 0.360"	100°
20-542-7	0.360 - 0.560"	100°

## SPI® Machinist Squares & Sets



13-624-2

- Blades permanently secured to beam ensures rigidity.
- Hardened steel, precision ground for straightness & parallelism.
- Working edges of blades lapped to accuracy.

Part Number	Size (blade length)	Beam Length	Accuracy (square, parallel)
13-624-2	2"	2"	0.0010", 0.0005"
13-625-9	3"	2-1/2"	0.0011", 0.0006"
13-626-7	4"	3"	0.0012", 0.0006"
13-627-5	6"	4"	0.0014", 0.0007"
13-628-3	9"	5-1/2"	0.0017", 0.0009"
13-629-1	12"	7-1/2"	0.0020", 0.0010"

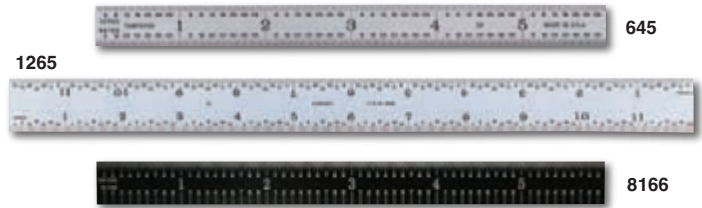
13-634-1



Sets Include  
Fitted Plastic Case

Machinist Square Sets		
Part Number	Description	Included Sizes
13-632-5	3 PC Set	2, 3 & 4"
13-633-3	3 PC Set	2, 4 & 6"
13-634-1	4 PC Set	2, 3, 4 & 6"
13-635-8	4 PC Set	4, 6, 9 & 12"

## Ultratest® Steel Rulers



- Ultra fine black graduations on hard satin chrome finish.
- Easy read type are black with white graduations.

5R Graduations				
Part Number Satin Chrome	Part Number Easy Read	Type	Width	Overall Length
645	8166	Flex	1/2"	6" (152 mm)
665	—	Rigid	3/4"	6" (152 mm)
1245	8266	Flex	1/2"	12" (305 mm)
1265	—	Rigid	1"	12" (305 mm)
1845	8766	Flex	3/4"	18" (457 mm)
1865	8767	Rigid	1-1/8"	18" (457 mm)
2445	8866	Flex	3/4"	24" (610 mm)
2465	—	Rigid	1-1/8"	24" (610 mm)

## Lufkin® P1000 Tape Measures

PHV1425



Hi-Visibility  
Case

Accuracy Exceeds  
NIST Standards

Comfortable & Durable

- Super tough ABS case with comfortable non-slip rubber overmold.
- Patented long-life end hook & full length clear-coated blade.

Part Number	Blade Width	Blade Length	Scale
PHV1316	3/4" (19 mm)	16' (5 m)	Inch
PHV1425	1" (25 mm)	25' (7.5 m)	Inch
PHV1425ED	1" (25 mm)	25' (7.5 m)	Inch, 10ths, 100ths

## Sheet Metal Gauge

Hardened & Tempered  
Chrome Finished Tool Steel

- American standard wire gauge (0 to 36) for non-ferrous metals.
- Stamped numbers with decimal equivalents stamped on reverse.



Part Number	Thickness	Diameter
20	3/32"	3-1/4" (83 mm)

## TESTING & MEASURING

### SPI® Pin Gauge Sets



*Certificate Of Accuracy Included*

13-123-5

*Quick & Precise*

- Measure hole size, slot width, use as go/nogo gaging, etc.
- Inspected with equipment calibrated & traceable to NIST.
- 2" hardened drill rod RC 60-62, 10 micro finish or better.
- Includes pin gauge holder & attractive molded plastic case.

Accuracy +0.0002" -0"	Accuracy -0.0002" +0"	Range	Set
13-120-1	13-121-9	0.011" to 0.060"	50 PC
13-122-7	13-123-5	0.061" to 0.250"	190 PC
13-124-3	13-125-0	0.251" to 0.500"	250 PC
13-126-8	13-127-6	0.501" to 0.625"	125 PC
13-128-4	13-129-2	0.626" to 0.750"	125 PC
13-130-0	13-131-8	0.751" to 0.832"	82 PC
13-132-6	13-133-4	0.833" to 0.916"	84 PC
13-134-2	13-135-9	0.917" to 1.000"	84 PC

### SPI® Precision Inspection Gauge Ball Sets



10-193-1

*Meets All Grade 24 AFBMA Standards*

- Within 0.0001" / 0.0025 mm of actual size.
- Spherical accuracy within 0.000025" / 0.0006 mm.
- 63 HRC chrome alloy steel - surface finish to 1.5 micro-inches.

Part Number	Type	Includes
10-193-1	Inch	26 Pairs, 1/8" to 1"
10-194-9	Metric	25 Pairs, 1 mm to 25 mm

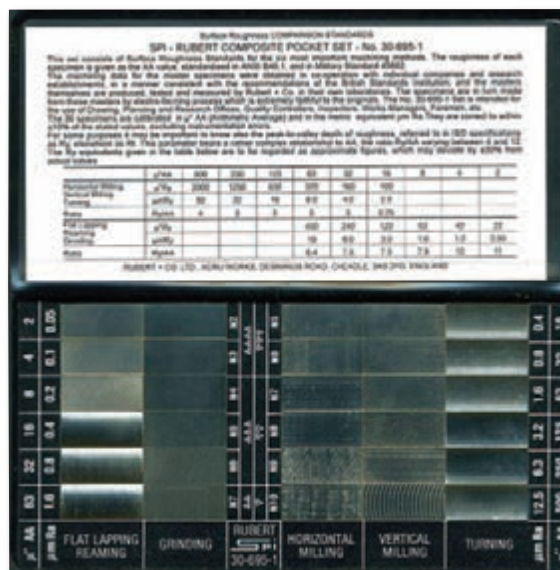
### Bolt Gauge



- Sizes all bolts up to 5/8" diameter and 5" long.
- Complete instructions & bolt identification data on reverse.

Part Number	Overall Dimensions
1350	5-1/2" x 6"

### SPI® Surface Roughness Standards Set



Economy set of 30 (7/8" x 3/8") electro formed, solid nickel specimens. Each type of surface finish is truly and consistently reproduced, offering a realistic idea of the feel, appearance & texture of the machined components. Conforms to S.A.E. & military specifications for visual & tactile inspections. Includes instructions and graph correlating inch & metric surface finish values plus ISO "N" scale.

#### Specimens Included:

Three Flat Lapping (2, 4 & 8  $\mu$ "), Three Reaming (16, 32 & 63  $\mu$ "), Six Grinding (2, 4, 8, 16, 32 & 63  $\mu$ "), Six Horizontal Milling (16, 32, 63, 125, 250 & 500  $\mu$ "), Six Vertical Milling (16, 32, 63, 125, 250 & 500  $\mu$ ") & Six Turning (16, 32, 63, 125, 250 & 500  $\mu$ ")

Part Number	Description
30-695-1	Roughness Standards Set
30-695-1CAL	Roughness St. Set w/Long Form Calibration Report

## SPI® Hardness Testing File Set



- Practical, inexpensive method to quickly determine approx. hardness of heat treated workpieces & materials.
- Handy, color coded set of size testing files covers nominal hardness from 40 RC to 65 RC in increments of 5 RC.
- Special curved design for easy access in hard to reach places.

Part Number	Description
98-720-6	Hardness Testing File Set

## Spring Scale



Accuracy Certified

Part Number	Capacity
71035	10 lbs (5 kgs), 4 oz (100 g) Increments

## TTL® Analog Aircraft Tire Gauges



TTL-300-ATG-1

- New inverted gauge orientation for easier reading.
- Includes custom fitted case and accredited certification.

Part Number	Range	Accuracy
TTL-160-ATG	0-160 PSI	± 1% of Full Scale
TTL-300-ATG-1	0-300 PSI	± 1% of Full Scale

Note: 2-1/2" gauge diameter, 1/4" NPT.

## TTL® Digital Aircraft Tire Gauges



- Inverted gauge orientation for easier reading.
- Includes custom fitted case and accredited certification.

Part Number	Range	Accuracy
TTL-300-DTG-HA	0-300 PSI	± 0.25% of Full Scale

Note: 3" gauge diameter, 1/4" NPT.

## Tire & Pressure Gauges

- Bourdin type dial gauge, 7" hose & 6" dual chuck.
- Includes recalibration screw for adjustments & metal carrying case.



Part Number	Range	Overall Length
8885	0 to 200 psi	18" (45.7 cm)
8844	0 to 400 psi	18" (45.7 cm)
8844B*	0 to 400 psi	18" (45.7 cm)

\*Includes three metal valve extensions.

## TTL® Analog Aircraft Strut Gauge



- Accurate, wide range for proper strut inflation.
- Assembly includes strut fitting, soft seat valve & air bleed valve.

Part Number	Range	Accuracy
TTL-3000-ASG	0-3000 PSI	± 1% of Full Scale

Note: 2-1/2" gauge diameter, 1/4" NPT.



## TESTING & MEASURING

### Hydraulic Shock Strut Gauges



8874

- Screw type locking chuck securely attaches to valve.
- Includes drain cock for bleeding pressure & plastic carrying case.

Part Number	Range	Overall Length
8874*	0 to 400 psi	18" (45.7 cm)
8875	0 to 1,500 psi	18" (45.7 cm)
8876	0 to 3,000 psi	18" (45.7 cm)

\*8874 also includes three metal valve extensions (not shown).

### TTL® Analog Aircraft Tire Inflator

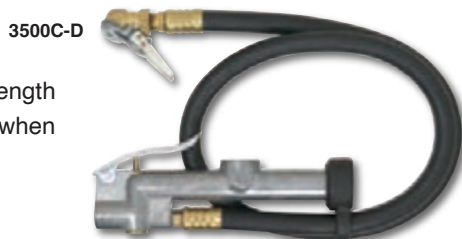


- Over pressure blow-off valve for safety & accuracy.
- Assembly also includes bleeder valve, clip-on chuck & inflation control ball valve.

Part Number	Range	Accuracy
TTL-300-ATI	0-300 PSI	± 1% of Full Scale

Note: 2-1/2" gauge diameter, 1/4" NPT.

### Schrader® Lever Control Type Inflating Gauges



Three foot hose length for safe distance when mounting tires.

Part Number	Air Chuck	Range
3500C-D	Clip-On	10 to 120 psi
3651C-D	Dual Foot	10 to 120 psi

### TTL® Digital Aircraft Tire Master Kit



Ensure a safe flight with this accurate, certified kit.



#### Kit Includes:

Digital Pressure Gauge, Quick Connect Dual Foot Chuck, Long & Short Straight Chuck, Tire Tread Depth Tool & Fitted Case

Part Number	Range	Accuracy
TTL-300-DTG-K-HA	0-300 PSI	± 0.25% of Full Scale

Note: 3" gauge diameter, 1/4" NPT.

### High Pressure Strut Valve

- A high pressure hose coupling in gooseneck or straight style.
- 1/8" NPT female thread.



SK-2043-C

Part Number	Style	Max. Working Pressure
SK-2043-C	Gooseneck	5,000 psi
SK-2043-S	Straight	5,000 psi
SK-2043-5	Replacement Seal	

### Replacement Lock Chucks

Part No.	Type	Thread
9043	T-Handle, Std. Bore	.307"-32
8927	T-Handle, Large Bore	.482"-26
9044	No Handle, Std. Bore	.307"-32



9044

Note: 3/8"-24 side hose connector. 3000 psi maximum working pressure.

### Valve Core Removal Tool

*Rapid & Safe  
Tire Deflation*



- Knurled design for easy handling.
- Exhausts air towards wheel & traps the valve core within the tool.

Part Number	Description
ATSK3614	Valve Core Removal Tool

**KH® Industrial LED Lights**

*Slim Design For Tight Spaces*



*Made In The USA*

- Reflective tube shields for focused & intensely bright task lighting.
- Long lasting LEDs are instant on - no humming or flickering.

**2' Models - 10 Watt LED (1200 Lumens)**

Part Number	Cord	Dimensions
LE08F-16M-S18FA	25' (7.5 m)	30-1/2" L x 2-1/8" OD (77 x 5 cm)
LE08F-16M-S18KA	50' (15 m)	

**4' Models - 18 Watt LED (2160 Lumens)**

Part Number	Cord	Dimensions
LE18F-16M-S18FA	25' (7.5 m)	53" L x 2-1/8" OD (135 x 5 cm)
LE18F-16M-S18KA	50' (15 m)	

**Note:** 120VAC/60HZ. Unit comes with two hanging clips (not shown).

**KH® 'Add-A-Light' Industrial LED Lights**

*Slim Design For Tight Spaces*



*Made In The USA*

- Reflective tube shields for focused & intensely bright task lighting.
- Long lasting LEDs are instant on - no humming or flickering.
- Heavy-duty KH flip seal plugs included.
- Feed through outlets for easy daisy chain or power tool plug in.

**2' Models - 10 Watt LED (1200 Lumens) - Reflective Tube Shield\***

Part Number	Cord	Type	Dimensions
LE08F-16B-J14YW	6' (1.75 m)	Feed Through Model	30-1/2" L x 2-1/8" OD (77 x 5 cm)
LE08F-16B-J14FW	25' (7.5 m)		
LE08F-16F-J14YA	6' (1.75 m)	End Cap Model	
LE08F-16F-J14FA	25' (7.5 m)		

**4' Models - 18 Watt LED (2160 Lumens) - Reflective Tube Shield\***

Part Number	Cord	Type	Dimensions
LE18F-16B-J14YW	6' (1.75 m)	Feed Through Model	53" L x 2-1/8" OD (135 x 5 cm)
LE18F-16B-J14FW	25' (7.5 m)		
LE18F-16F-J14YA	6' (1.75 m)	End Cap Model	
LE18F-16F-J14FA	25' (7.5 m)		

**Note:** 120VAC/60HZ. Includes hanging clips (not shown). \*Clear avail., please inq.

**KH® HazRay Hazardous Location LED Lights**

*Made In The USA*



*Ergo Handle & Hanging Hook*

*Great For Small Spaces*

- 120° beam angle LED with shatter resistant glass lens also includes replaceable, protective diffused lens cover.
- Durable, impact-modified ESD engineered thermoplastic body.

**17 Watt LED (1700 Lumens)**

Part Number	Cord	Size & Weight
HRD117C-SAAA01-B16F	25' (7.5 m)	5" Diameter (13 cm), 1.8 lbs (0.8 kgs)
HRD117C-SAAA01-B16K	50' (15 m)	
HRD117C-SAAA01-B16U	100' (30 m)	

**Note:** 120VAC/60HZ. Plug not included. Many options available, please inquire.

**KH® 'Quad Light' Wide Area LED Lighting**

*Mounting Straps Included*



*Protected On/Off Switch*

*Made In The USA*

- Stand, mount or hang in a variety of positions for lighting flexibility.
- Long lasting LEDs are highly shock and vibration resistant.
- Tool free relamping & user serviceable replacement parts.
- Feed through ready - daisy chain up to twenty units.

**All Models Include:**

Quad Light Fixture, Four LED Lamps, SJOW 14/3 Cord, NEMA 5-15 Grounded Plug-Connector & Flexible Mounting Straps

**2' Models - 40 Watt LED (5000 Lumens) - Clear Tube Shield\***

Part Number	Cord	Dimensions
QL410C-16A-10A	10' (3 m)	27-3/4" x 7-1/4" x 5-3/4" (70 x 18 x 14 cm)
QL410C-16A-25A	25' (7.5 m)	

**4' Models - 80 Watt LED (7200 Lumens) - Clear Tube Shield\***

Part Number	Cord	Dimensions
QL420C-16A-10A	10' (3 m)	52" x 7-1/4" x 5-3/4" (132 x 18 x 14 cm)
QL420C-16A-25A	25' (7.5 m)	

**Note:** 120VAC/60HZ. \*Reflective tube shield available, please inquire.

## LIGHTING & INSPECTION

### Mag-Lite® Flashlights

*Made In The USA*



71085

*Limited Lifetime Warranty*

- High-strength and durable aluminum alloy case is o-ring sealed for water resistance.
- Includes spare lamp safely secured in the tail cap.
- 3-position self cleaning rotary switch & cam action focus.

**Note:** Batteries not included. Battery life rated for continuous on (approximate).

#### Maglite - 14 Hour Battery Life

Part Number	Batteries*	Weight (with batteries)	Overall Length
71084	2 D-Cell	1.5 lbs (0.7 kgs)	10" (254 mm)
71085	3 D-Cell	1.9 lbs (0.9 kgs)	12-11/32" (314 mm)



71086

#### Mini Maglite - 6 Hour Battery Life

Part Number	Batteries*	Weight (with batteries)	Overall Length
71086	2 AA	3.78 oz (107 g)	5-3/4" (146 mm)



71087

#### Mini Maglite & Black Polypropylene Holster - 6 Hour Battery Life

Part Number	Batteries*	Weight (with batteries)	Overall Length
71087	2 AA	3.78 oz (107 g)	5-3/4" (146 mm)

#### Replacement Lamps

Part Number	For Use With	Pack Size
100161	Mini Maglite	2 Pack
100163	Maglite	1 Pack

### Light Loupe Magnifying Flashlight

*10X Magnification*



- Great for close inspection jobs in low light areas.
- Crystal clear 10X lens shielded by a hard plastic holder.
- Magnifier can be used with or without flashlight.

Part Number	Weight	Overall Length
70663	0.18 lbs (0.08 kgs)	6-7/8" (175 mm)

**Note:** Unit requires 2 'C' cell batteries, not included.

### Steelman® Bend-A-Light Pro

*Durable Handle With Brass Shafts*



5221

*Two AA Batteries Included*

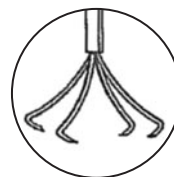
- High intensity flexible light bends & holds position.
- Protective cover can be used as handle extension.

Part Number	Description	Overall Length
5221	Bend-A-Light Pro	16" (40.6 cm)
56091	Replacement Bulb	

### Flexible Spring Claw



*Perfect For Objects Dropped In Hard To Reach Areas*



Part Number	Overall Length
16	23-1/2" (60 cm)

### Bessey® Pyrometer-Thermometer



*Probe Rated To 1200°F (650°C)*

*Probe & Flex Cord Included*

- Multi-purpose measuring device for bearings, gears etc..
- Digital readout from -58°F (-50°C) to 2000°F (1300°C).

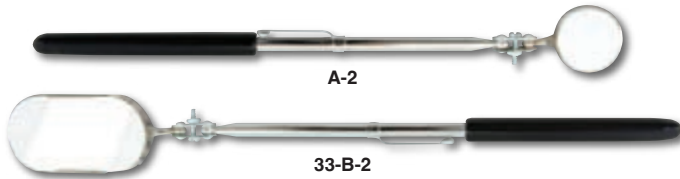
**Note:** Replacement probe with handle available, please inquire.

Part Number	Weight
HH-11 A	2.0 lbs (0.9 kgs)

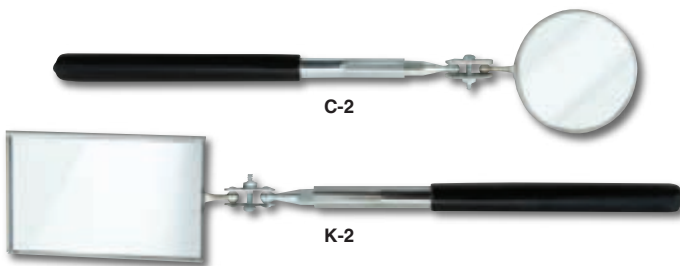


**Ullman® All-Angle Inspection Mirrors**

- All-angle joints hold firm to allow fast & accurate 360° inspection.
- Replaceable clear glass mirror & insulating grip.
- Inner hex rods on telescoping models prevent mirror swing.

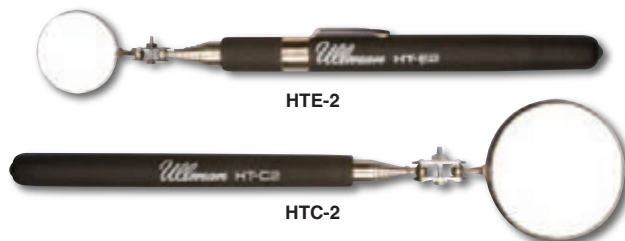


Standard (non-telescoping)		
Part Number	Mirror Size	Overall Length
A-2	7/8" Diameter	7-1/2" (19.1 cm)
33-B-2	1" x 2" Oval	8-1/2" (21.6 cm)
E-2	1-1/4" Diameter	8" (20.3 cm)



Telescoping			
Part No.	Mirror Size	Overall Length	Extends To
C-2	2-1/4" Diameter	10" (25.4 cm)	14" (35.6 cm)
K-2	2-1/8" x 3-1/2"	11-1/4" (28.6 cm)	15-1/4" (38.7 cm)
S-2	3-1/4" Diameter	11" (27.9 cm)	15" (38.1 cm)

Telescoping & Magnifying			
Part No.	Mirror Size	Overall Length	Extends To
C-2M	2-1/4" Diameter	10" (25.4 cm)	14" (35.6 cm)
C-2ML	2-1/4" Diameter	16" (40.6 cm)	26" (66.0 cm)
K-2M	2-1/8" x 3-1/2"	11-1/4" (28.6 cm)	15-1/4" (38.7 cm)
K-2ML	2-1/8" x 3-1/2"	17-1/4" (43.8 cm)	27-1/2" (69.9 cm)



**Deluxe Telescoping Inspection Mirrors**

- Stainless steel telescoping handle is strong & lightweight.
- Comfortable textured grip keeps hands secure even when wet.

Deluxe Telescoping			
Part No.	Mirror Size	Overall Length	Extends To
HTE-2	1-1/4" Diameter	6-1/2" (16.5 cm)	35" (88.9 cm)
HTC-2	2-1/4" Diameter	6-1/2" (16.5 cm)	36-3/8" (92.4 cm)
98669	3-1/4" Diameter	10-1/2" (26.7 cm)	29-1/2" (74.9 cm)

**Ullman® All-Angle Inspection Mirrors (cont'd)**



Pocket Telescoping With Magnetic Pick-Up			
Part No.	Mirror Size	Overall Length	Extends To
A-2TM	7/8" Diameter	7-1/4" (18.4 cm)	27-1/2" (69.9 cm)
B-2TM	1" x 2" Oval	8-1/4" (20.9 cm)	28-3/4" (73.0 cm)
E-2TM	1-1/4" Diameter	7-5/8" (19.4 cm)	27-3/4" (70.5 cm)

Replacement Head Ass'y	
Part Number	For Model
A-2HD	A-2
B-2HD	33-B-2
C-2HD	C-2
E-2HD	E-2
K-2HD	K-2
S-2HD	S-2
C-2MHD	C-2M, C-2ML
K-2MHD	K-2M, K-2ML

Replacement Mirror Only	
Part Number	For Model
B-2R	33-B-2
K-2R	K-2
K-2MR	K-2M, K-2ML

Note: Other models available, please inq.

**Ullman® All-Angle LED Light Inspection Mirrors**



- Compact LED lights illuminate dark areas for perfect inspection.
- All-angle ball joint holds mirror firmly for easy viewing.
- Stainless steel telescoping mechanism & cushioned handle.

Part Number	Mirror Size	Extension
HTE-2LT	1-3/8" Diameter	8-3/4" to 36"
HTC-2LT	2-3/8" Diameter	10" to 37"
HTS-2LT	3-3/8" Diameter	11" to 30-1/8"

**Ullman® All-Angle Telescoping Magnifying Glass**



- Durable shatter-resistant magnifying head.
- Stainless steel telescoping mechanism & cushioned handle.

Part No.	Mirror Size	Overall Length	Extends To
MG-2	2-3/8" Diameter	9-1/2" (24.1 cm)	36-1/4" (92.7 cm)

## LIGHTING & INSPECTION

### Ullman® All-Angle Inspection Mirror Kit

*Versatile & Economical*



#### Includes:

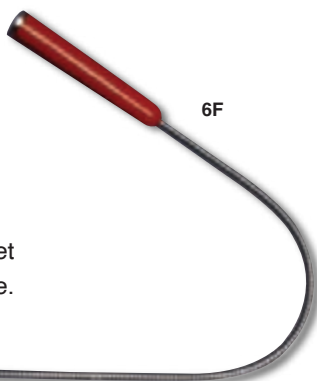
Three Standard (1" x 2" oval, 7/8" & 1-1/4" dia.) & Three Telescoping (2-1/8" x 3-1/2" rectangular, 2-1/4" & 3-1/4" dia.)

Part Number	Description
53-70315	Complete 6 PC Kit

### Ullman® Spring Flex Magnetic Retrievers

*Probe Easily Into The Most Inaccessible Areas*

- Tightly wound flexible shaft of spring tempered steel links.
- High-power permanent magnet provide lifetime of pulling force.



Part Number	Overall Length
6F	17-1/2" (44.5 cm)

### Ullman® All-Angle LED Light Magnetic Retrievers

*Retrieve Objects Up To 8 Pounds*



*Steel Magnetic Head*

HTLP-1

- Compact LED light illuminates dark areas for perfect retrieval.
- Stainless steel telescoping mechanism & cushioned handle.

Part Number	Type	Extension
HTLP-2	Standard	8" to 32-3/4"
HTLP-1	Rotating Head*	6-3/4" to 27-3/4"

\*Includes sliding magnet shield to prevent unwanted attachments.

### Ullman® All-Angle Magnetic Retrievers

*Perfect for Use In Water, Oil etc.*



2

*Molded Nylon Heads*

High-power permanent magnet provides lifetime of pulling force.

Telescoping		
Part Number	Overall Length	Extends To
1	16-3/4" (42.5 cm)	26-3/4" (68 cm)
2	10-5/8" (27 cm)	14-5/8" (37 cm)

Standard (non-telescoping)	
Part Number	Overall Length
3	6" (folded) to 8-1/2" (21.6 cm)



Pocket Telescoping		
Part Number	Overall Length	Extends To
4T	4" (10.2 cm)	19-1/2" (49.5 cm)



#### Mechanic's Insulated Pocket Retriever

- Insulating polypropylene unaffected by oil or gasoline.
- Pencil shaped with pocket clip - virtually unbreakable.

Mechanic's Pocket Retriever	
Part Number	Overall Length
9	6" (152 mm)

### Hook & Pick Sets



PH-4

MP-6

- Ideal for separating wires, removing or retrieving small parts.
- High-carbon polished steel permanently attached to alum. handle.

Part Number	Type	Picks Included
PH-4	4 PC Set	Straight, Complex, 90° & Hook
MP-6	5 PC Micro Set	Straight, Bayonet, Double Angle, 45° & Hook (Includes Vinyl Pouch)

**4 PC Interchangeable Tip Hook & Pick Set**

*Zipper-Top Vinyl Pouch Included*



*Built-In  
Retrieval  
Magnet*

- Ideal for separating wires, removing or retrieving small parts.
- Aluminum handle with magnet picks up small nuts, bolts etc.

Part Number	Tips Included
HW4	Straight, 90°, Hook & Combination

**General® Lighted Tweezer Set**

*Includes Heavy-Duty Nylon Carrying Case*



*Batteries Included*

- Bright white LED illuminates dark & confined work areas.
- Anti-glare heat treated steel with non-slip comfort grips.
- Includes smooth point, serrated bent & serrated blunt tweezers.

Part Number	Description
71171	3 PC Lighted Tweezer Set

**SPI® Stainless Steel Precision Tweezer Set**



- Stainless steel construction for corrosion resistance and long life.
- This versatile set contains AA, OO, 2A, 3C, #5 & #7 pattern tip, SA-precision tweezers with a 4-3/4" overall length.
- Anti-magnetic - suitable for electronics use.
- Includes protective plastic pouch with closing snaps.

Part Number	Description
90-990-3	6 PC Tweezer Set

**Dykem® Cross-Check Torque Seal**



*Handy  
1 oz  
Tube*

- Provides a convenient visual method for identification of vibratory loosening or tampering in nuts, bolts, fasteners, and assemblies.
- Highly visible under ambient light and fluorescent under UV light.
- Excellent adhesion to metal and other substrates.
- Meets BOEING specification, BMS8-45 Type II.

Part Number	Color
96556	Orange
96557	Red
96558	Yellow
96559	Blue
96561	White

**Dykem® Brite-Mark Paint Markers**

96-696-0



96-699-4



96-701-6



96-702-6



- Non-xylene based formula makes bright, permanent marks on metal, rubber, plastic, glass, vinyl, etc..
- Heavy-duty aluminum body with valve actuated mechanism that stops paint from drying in the barrel when cap is off.
- The quick drying, indoor/outdoor paint resists fading and chipping.

Part Number	Color
96-696-0	Blue
96-697-8	Black
96-698-6	White
96-699-4	Yellow

Part Number	Color
96-700-0	Orange
96-701-6	Red
96-702-6	Green



## AIR HOSE & ACCESSORIES

### Flexeel® Reinforced Polyurethane Straight Hose



- An excellent alternative to bulkier rubber & plastic hoses.
- Lightweight & tough, retains flexibility even in cold environments.
- Reinforced construction & reusable strain relief fitting.

Temperature Range: -40°F to +165°F. Working Pressure: 200 PSI (@70°F).

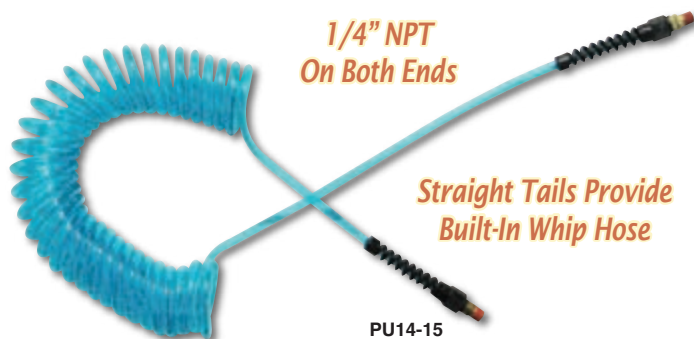
1/4" MPT Fitting, 1/4" I.D.	
Part Number	Length
PFE40254	25' (7.6 m)
PFE40504	50' (15.3 m)
PFE41004	100' (30.5 m)

3/8" MPT Fitting, 3/8" I.D.	
Part Number	Length
PFE60256	25' (7.6 m)
PFE60506	50' (15.3 m)
PFE61006	100' (30.5 m)

1/2" MPT Fitting, 1/2" I.D.	
Part Number	Length
PFE80258T	25' (7.6 m)
PFE80508T	50' (15.3 m)
PFE81008T	100' (30.5 m)

Note: 1/4" & 3/8" I.D. hose available in transparent blue, red or yellow (please specify when ordering). 1/2" I.D. hose available only in transparent blue.

### Flexcoil® Polyurethane Self Storing Air Hose



- Toughest recoil hose available - highly kink & abrasion resistant.
- Resistant to most oils & fuels.
- Lightweight yet extremely durable with outstanding coil memory.

Part Number	Overall Length	I.D.	O.D.
PU14-15	15' (4.6 m)	1/4"	3/8"
PU14-25	25' (7.6 m)	1/4"	3/8"
PU38-15	15' (4.6 m)	3/8"	9/16"
PU38-25	25' (7.6 m)	3/8"	9/16"

### Ultra Light Air Hose



1/4" NPT  
On Both Ends

- Approximately 1/3 to 1/2 the weight of ordinary air hose.
- Does not lose air flow characteristics because of lighter weight.
- Extremely flexible, less fatigue with continuous use.

Standard Hose - 200 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3600-25	25' (7.6 m)	1/4"	.472"
3600-50	50' (15.2 m)	1/4"	.472"

Leader Hose - 200 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3600-6	6' (1.8 m)	1/4"	.475"

### General Purpose Safety Hose

- Flexible & abrasion resistant with non-marking cover.
- Complies with RMA Class B designation for medium oil resistance.

Safety Hose - 250 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3660-25	25' (7.6 m)	1/4"	1/2"
3660-50	50' (15.2 m)	1/4"	1/2"
3760-25	25' (7.6 m)	3/8"	5/8"
3760-50	50' (15.2 m)	3/8"	5/8"

### Flexeel® Reinforced Polyurethane Leader Hose



- Helps eliminate stress and wear points from bending & pulling.
- Easier & wider range of motion with shock absorbing action.
- Lightweight & tough, retains flexibility even in cold environments.

Temperature Range: -40°F to +165°F. Working Pressure: 200 PSI (@70°F).

1/4" NPT Fitting, 1/4" I.D.		1/4" NPT Fitting, 3/8" I.D.	
Part Number	Length	Part Number	Length
FP0412BS	12" (30 cm)	FP06124BS	12" (30 cm)
FP0418BS	18" (46 cm)	FP06184BS	18" (46 cm)
FP0424BS	24" (61 cm)	FP06244BS	24" (61 cm)

## Dynabrade® Dynaswivel Air Line Connectors



- Patented universal joint swivels 360° at two pivot points.
- Allows air line to drop to the floor & provides superb tool handling.

Aluminum Construction			
Part No.	Thread Size	Air Flow Range	Weight
95460	1/4" NPT	0 to 25 CFM	0.20 lbs (0.09 kgs)
95461	3/8" NPT	26 to 45 CFM	0.40 lbs (0.18 kgs)
95462	1/2" NPT	46 to 65 CFM	0.80 lbs (0.36 kgs)

Aluminum Construction With Flow Control			
Part No.	Thread Size	Air Flow Range	Weight
95734	1/4" NPT	0 to 25 CFM	0.25 lbs (0.11 kgs)

No-Mar Composite Construction			
Part No.	Thread Size	Air Flow Range	Weight
94300	1/4" NPT	0 to 33 CFM	0.15 lbs (0.06 kgs)

## Ball Swivel Connectors

- Combines the features of ball swivel fittings & connectors.
- No additional fitting needed.
- Nickel plated hardened steel connector & nut, all brass fitting.



Part Number	Interchange	Thread Size
15-04BS	Industrial	1/4" NPT
14-04BS	ARO	

## ARO Type 14 Air Hose Quick Connects



Plug, Female Thread	
Part Number	Type
15-300	Plug 1/4" NPT



Plug, Male Thread	
Part Number	Type
15-202	Plug 1/8" NPT
15-200	Plug 1/4" NPT



Female Thread	
Part Number	Type
15-100	Auto 1/4" NPT
15-106	Auto 3/8" NPT



Male Thread	
Part Number	Type
15-101	Auto 1/4" NPT
15-107	Auto 3/8" NPT

Note: 100 PSIG inlet, 25 SCFM pressure drop @5 PSIG, 34 SCFM pressure drop @10 PSIG.

## Multiple Connection Manifolds

3122



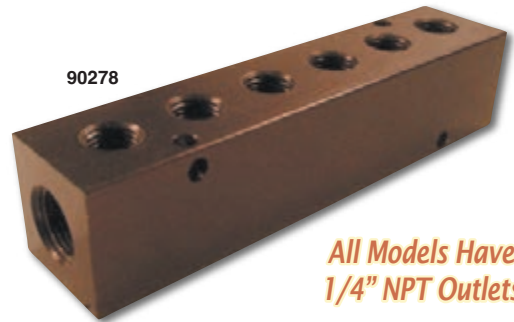
90272



Solid Brass Flat Hex		
Part Number	Type	Weight
3122	3 Port, 1/4" Inlet	0.3 lb. (0.1 kgs)
3132	3 Port, 3/8" Inlet	0.3 lb. (0.1 kgs)

Solid Aluminum Tri-Pod		
Part Number	Type	Weight
90272	3 Port, 1/4" Inlet	0.3 lb. (0.1 kgs)
90274	3 Port, 3/8" Inlet	0.3 lb. (0.1 kgs)

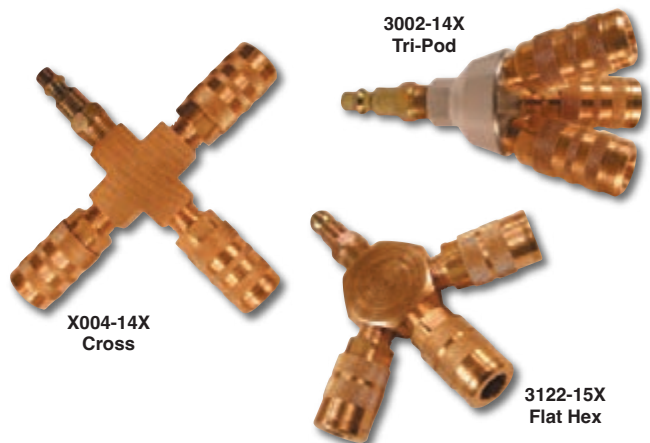
90278



*All Models Have  
1/4" NPT Outlets*

Anodized Aluminum Straight		
Part Number	Type	Weight
90276	4 Port, 1/4" Inlet	0.5 lb. (0.2 kgs)
90278	6 Port, 1/4" Inlet	0.7 lb. (0.3 kgs)

## Multiple Connection Manifold Assemblies



Includes 1/4" air line connector & three 1/4" six ball couplers.

Assemblies			
Tri-Pod	Flat Hex	Cross	Coupler
3002-14X	3122-14X	X004-14X	ARO Interchange
3002-15X	3122-15X	X004-15X	Industrial Interchange

## AIR HOSE & ACCESSORIES

### Swivel Manifold



3032S

- Ports rotate 360° for flexible multi-directional connections.
- Chrome plated brass for superior corrosion resistance.
- 1/4" MPT supply & output (accepts 1/4" quick-disconnects).

Part Number	Style
3032S	Three Port

### Conical Mufflers

- Offers an economical method of reducing noise levels below 90 dBA, conforming with OSHA standards.
- Nickel plated body, 40 micron sintered bronze element.
- Easy to install - threads into your air tool exhaust port.

CMF18



CMF28



CMF48



Part Number	Size	Hex	Overall Length
CMF18	1/8"	7/16"	29/32" (23 mm)
CMF28	1/4"	9/16"	1-1/4" (32 mm)
CMF38	3/8"	11/16"	1-9/16" (40 mm)
CMF48	1/2"	7/8"	1-3/16" (30 mm)

### Speed Control Mufflers

MF102S



*Compact*

- Governs air flow accurately while reducing exhaust noise.
- Brass body with knurled knob & sintered bronze element.
- Lock nut prevents adjustment changes due to vibration.

Part Number	Size	Part Number	Size
MF101S	1/8" MPT	MF103S	3/8" MPT
MF102S	1/4" MPT	MF104S	1/2" MPT

### Air Tool Cleaner

*Keep Tools Running At Maximum Efficiency*

- Removes varnish, sludge, rust & dirt.
- Will not harm internal seals.
- Prevents harmful build-up when used regularly.

Part Number	Size
ATC004	4 oz (113 g)



### Filter - Regulator - Lubricator Assemblies

*Traditional Trio Design*



15-528-2

- Standard assemblies have zinc die cast bodies.
- Gauge provided uninstalled for installation on either side.

Standard Assemblies		Mini Assemblies	
Part Number	Pipe Size	Part Number	Pipe Size
15-628-2	1/4"	15-528-1	1/8"
15-628-3	3/8"	15-528-2	1/4"
15-628-4	1/2"		

### Air Tool Lubricant

ATL128



ATL016

ATL004

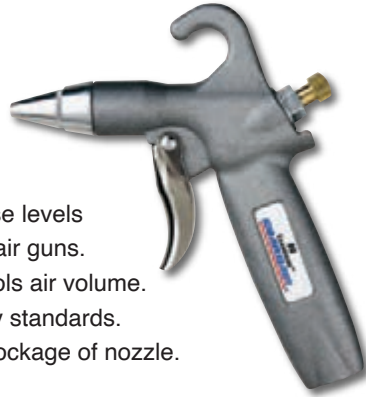
- Specially formulated high grade 10 weight lubricant.
- Adheres to motor parts, giving better and longer lubrication.
- Prevents rust and removes moisture for longer tool life.

Part Number	Size
ATL004	4 oz (113 g)
ATL016	1 pint (0.4 liters)
ATL032	1 quart (1.9 liters)
ATL128	1 gallon (3.8 liters)



**Guardair® Whisper Jet Safety Air Gun**

*Durable Cast Aluminum Body*



- Unique nozzle reduces noise levels 6-20 dB from conventional air guns.
- Knurled adjusting nut controls air volume.
- Meets OSHA noise & safety standards.
- Solid tip design prevents blockage of nozzle.

Part Number	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-80	1/4" NPT	1.1 lbs	20 CFM	0.7 lbs (0.32 kgs)

**Guardair® Jet Guard Safety Air Gun**

*Durable Cast Aluminum Body*



- Patented protective air cone protects operator from dangerous chip fly-back.
- Knurled adjusting nut controls air volume.
- Delivers high thrust with pinpoint accuracy.
- Meets OSHA noise & safety standards.

Part Number	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-74SK	1/4" NPT	0.4 lbs	35 CFM	0.7 lbs (0.32 kgs)

**Guardair® Syphon Spray Air Gun**

*Durable Cast Aluminum Body*



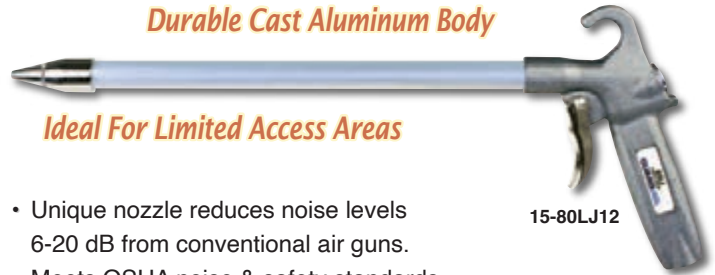
- High vacuum syphon delivers up to sixteen gallons per hour.
- 12" extension great for limited access areas.
- Includes six foot syphon hose with sinker.
- Adjustable trigger & nozzle tip to control volume & spray pattern.
- Spray oils, solvents, cleaners, mold release agents & coatings.

Part Number	Air Inlet	Flow Rate @100PSI	Air Usage	Weight
15-79SG012	1/4" NPT	16 gph	9 CFM	1.1 lbs (0.5 kgs)

**Guardair® Whisper Jet Extended Safety Air Guns**

*Durable Cast Aluminum Body*

*Ideal For Limited Access Areas*



15-80LJ12

- Unique nozzle reduces noise levels 6-20 dB from conventional air guns.
- Meets OSHA noise & safety standards.
- Solid tip design prevents blockage of nozzle.
- Other lengths up to 72" also available, please inquire.

Part Number	Extension Length	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-80LJ6	6"	1/4" NPT	1.5 lbs	29 CFM	0.7 lbs (0.32 kgs)
15-80LJ12	12"				0.8 lbs (0.36 kgs)

**Long Reach Angled Blow Gun**

*Insulated Handle*

*No-Mar Nozzle Cap*



**NEW**

*High Impact, Lightweight Plastic*

- Long 4-1/2" angled nozzle gets into limited access areas.
- Ergonomically designed for better comfort and control.
- High impact plastic body includes hanging loop.

Part Number	Air Inlet	Maximum Pressure	Air Usage
70889	1/4" NPT	125 PSI	9.8 CFM

**Coilhose® Safety Blow Gun**

*Ergonomic Design*

*OSHA Compliant*



- Tough zinc die cast body, replaceable tip & vinyl thumb grip.
- Four self-lubricating O-Rings prevent valve leakage.
- Large operating lever reduces operator fatigue & discomfort.

Part Number	Air Inlet	Maximum Pressure	Air Usage	Weight
600S-DL	1/4" NPT	150 PSI	11 CFM	0.36 lbs (0.16 kgs)

## APPLICATION TOOLS & ACCESSORIES

### Air Operated Sealant Guns



- Smooth, uniform flow applied exactly where you want it.
- Zinc plated, corrosion resistant retainer prevents cartridge split.

**Note:** Hose assembly ordered separately on next page.

Pistol Grip (250-A)	Palm Grip (250-B)	Included Retainer
72-C04076	72-C04074	2.5 Ounce
72-C04090	72-C04087	6 Ounce
72-C04068	72-C04066	12 Ounce
72-C04093	—	No Retainer

### Air Operated Sealant Gun Retainers

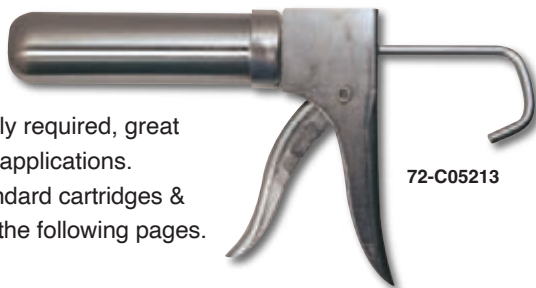
Corrosion resistant zinc plated retainers prevent cartridge split.

72-C04091



2.5 Ounce	6 Ounce	12 Ounce
72-C04077	72-C04091	72-C04069

### Manual Operated Sealant Guns



- No air supply required, great for 'in-field' applications.
- Utilizes standard cartridges & nozzles on the following pages.

Part Number	Cartridge Capacity
72-C05214	2.5 Ounce
72-C05213	6 Ounce
72-C05212	12 Ounce

#### Replacement Retainers

2.5 Ounce	6 Ounce	12 Ounce
226819	226820	226822

### Air Operated Sealant Gun Kits



72-C27128

#### Includes:

Pistol Grip Sealant Gun, 5 Cartridges With Plungers, Cartridge Caps (5 each: 72-C05215 & 72-C04159), Assorted Nozzles (5 each: 72-C04125, 72-C08608, 72-C04127 & 72-C04136), Air Hose & Plastic Carrying Case

Part Number	Description
72-C27127	2.5 Ounce Capacity Kit
72-C27128	6 Ounce Capacity Kit
72-C27129	12 Ounce Capacity Kit

### Battery Powered Sealant Gun Kit



*Lightweight,  
Ergonomic Design*

*Powered &  
Portable*

**NEW**

- Smooth, uniform flow applied exactly where you want it.
- Fully charged battery can dispense 50-60 six ounce cartridges.
- For use with wiper plunger cartridges.
- Charger base completely charges battery in just one hour.
- Variable dispensing speed control on rear of gun.

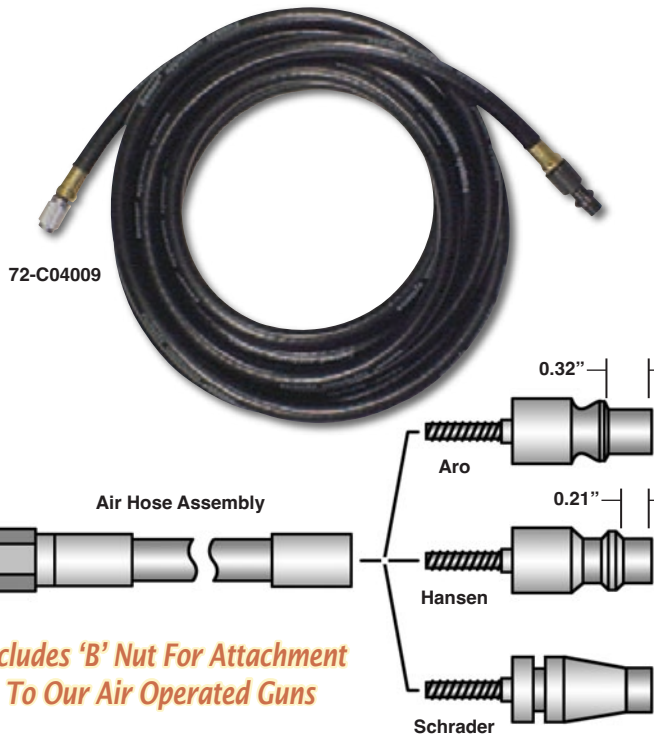
#### Includes:

Cordless Sealant Gun, Two 12V Lithium-Ion Batteries, Two Threaded Plastic Retainers (2.5 & 6 ounce), Charger Base & Charging Cord

**NOTE:** Charger cord comes std. with US plug (UK, EU, AU also avail., please inq.).

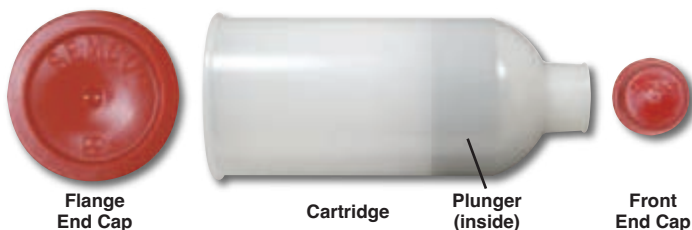
Part Number	Description
1250	Complete 7PC Kit

## Air Hose Assemblies



Aro Connect	Hansen Connect	Schrader Connect	Overall Length
72-C04008	72-C04025	72-C04044	5' (1.5 m)
72-C04009	72-C04026	72-C04045	10' (3.0 m)
72-C04010	72-C04028	72-C04047	15' (4.6 m)
72-C04011	72-C04029	72-C04048	20' (6.1 m)
72-C04012	72-C04030	72-C04049	25' (7.6 m)
72-C04013	72-C04031	72-C04050	30' (9.1 m)

## Disposable Plastic Cartridges, Plungers & Caps



- For use with air or manual operated dispensing devices.
- Made of low density polyethylene construction (also available in high-density polyethylene, please inquire).

Cartridge Only	Cartridge & Plunger	Capacity
72-C04107	72-C04104	2.5 Ounce
72-C04088	72-C04159	6 Ounce
72-C04067	72-C04057	12 Ounce

Part Number	Description
72-C04105	Plastic Plunger
72-C04142	Front End Cap (threads into neck)
72-C05215	Flange End Cap (stops plunger backout)

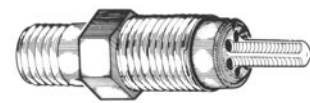
## High-Pressure Injection Gun



Designed for post assembly injection of sealants of the MIL-S-8802 Class B viscosity range into confirmed areas & voids, as in channel sealing & areas requiring material to be injected into small orifices under pressure. Threaded gun cap accepts 1/8" pipe thread needle nozzle or zerk connector.

Part Number	Description
507-A	High-Pressure Injection Gun

## Semco® Spring Loaded Rivet Nozzles

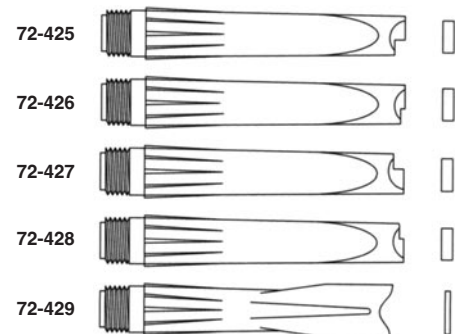


- Apply required amount of sealant to countersink & rivet holes.
- Spring-loaded tip allows a precisely dispensed shot of sealant.

Part Number	Hole Size	Color Code	Orifices*
234285	3/32"	Green	(6) .030"
226837	1/8"	Blue	(6) .031"
226838	5/32"	Black	(6) .035"
226839	3/16"	White	(6) .060"
226840	1/4"	Red	(6) .044"

\*Six dispensing holes for even distribution of sealant.

## Fillet Nozzles



- For application of sealant fillets over lap joints.
- Can eliminate the need for working of sealant with spatulas.
- Built-in step guides nozzle along lap joint.

3-3/4" Overall Length	
Part Number	Step
72-425	.12" Right
72-426	.06" Right
72-427	.12" Left
72-428	.06" Left
72-429	No Step



## Specialty Application Nozzles

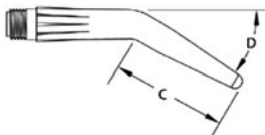
Precision  
Molded

1/4"  
NPT

**Bent Nozzles:** Most styles can be furnished with a bend. To order, use the part number of the nozzle style required, then add the desired angle of bend (D) and the length of bend from the tip (C).

**Example:** To order an 8" long, 1/8" orifice nozzle with a 20° bend 2" from the tip, use part number 72-C04123-20-2

**Note:** For ordering help & pricing on bent nozzles, please inquire.



**Note:** Semco reference #252-220538.

Part Number	Orifice	Overall Length
72-C04141	1/16"	2-1/2" (64 mm)



**Note:** Semco reference #254-220540.

Part Number	Orifice	Overall Length
72-C04138	1/8"	2-1/2" (64 mm)



**Note:** Semco reference #410-220542.

Part Number	Orifice	Overall Length
72-C04136	1/32"	4" (102 mm)



**Note:** Semco reference #415-227613.

Part Number	Orifice	Overall Length
72-415	No Orifice	4" (102 mm)



**Note:** Semco reference #420-220544.

Part Number	Orifice	Overall Length
72-C04132	1/16"	4" (102 mm)



**Note:** Semco reference #430-220548.

Part Number	Orifice	Overall Length
72-C04131	3/32"	4" (102 mm)



**Note:** Semco reference #440-220550.

Part Number	Orifice	Overall Length
72-C04129	1/8"	4" (102 mm)

## Specialty Application Nozzles (cont'd)



**Note:** Semco reference #620-220553.

Part Number	Orifice	Overall Length
72-C04127	1/16"	6" (152 mm)



**Note:** Semco reference #640-220555.

Part Number	Orifice	Overall Length
72-C04125	1/8"	6" (152 mm)



**Note:** Semco reference #650-224494.

Part Number	Orifice	Overall Length
72-C04115	3/8"	6" (152 mm)



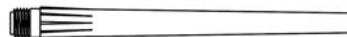
**Note:** Semco reference #820-220557.

Part Number	Orifice	Overall Length
72-C04124	1/16"	8" (203 mm)



**Note:** Semco reference #840-220559.

Part Number	Orifice	Overall Length
72-C04123	1/8"	8" (203 mm)



**Note:** Semco reference #8690-220606.

Part Number	Orifice	Overall Length
72-8690	3/32" Vent Duck	9" (229 mm)



**Note:** Semco reference #1002-2205617.

Part Number	Orifice	Overall Length
72-C04122	1/16"	10" (254 mm)



**Note:** Semco reference #1004-220563.

Part Number	Orifice	Overall Length
72-C04120	1/8"	10" (254 mm)



**Note:** Semco reference #1010-220565.

Part Number	Orifice	Overall Length
72-C04119	5/16"	10" (254 mm)



**Note:** Semco reference #8607-220568.

Part Number	Orifice	Overall Length
72-8607	1/16" x 1/4"	6" (152 mm)

## Specialty Application Nozzles (cont'd)



Note: Semco reference #220569.

Part Number	Orifice	Overall Length
72-8608	11/64" Cup	4" (102 mm)



Note: Semco reference #220570.

Part Number	Orifice	Overall Length
72-8610	3/64" x 9/64"	4-1/2" (114 mm)



Note: Semco reference #220572.

Part Number	Orifice	Overall Length
72-8613	3/64" x 3/8"	5" (127 mm)



Note: Semco reference #8613-220572.

Part Number	Orifice	Overall Length
72-C04116	1/16" x 1/2"	4" (102 mm)



Note: Semco reference #220585.

Part Number	Orifice	Overall Length
72-8642	3/16"	4" (102 mm)



Note: Semco reference #8643-220586.

Part Number	Orifice	Overall Length
72-C04117	1/8" x 3/4"	4-1/2" (114 mm)



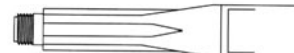
Note: Semco reference #220587.

Part Number	Orifice	Overall Length
72-8645	1/8" x 1"	4-3/8" (111 mm)



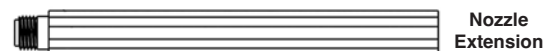
Note: Semco reference #220588.

Part Number	Orifice	Overall Length
72-8646	1/16"	3-15/16" (100 mm)



Note: Semco reference #220589.

Part Number	Orifice	Overall Length
72-8648	1/8"	5-3/16" (132 mm)



Note: Semco reference #220552.

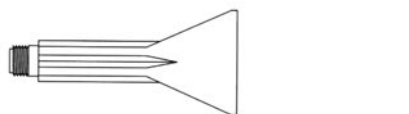
Part Number	Orifice	Overall Length
72-600E	Male To Female 1/4" NPT	6-3/8" (162 mm)

## Specialty Application Nozzles (cont'd)



Floorboard  
Nozzle

Part Number	Orifice	Overall Length
72-231674	(12) 1/32" Diameter	1-3/8" (35 mm)

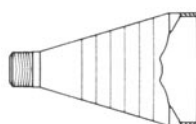


Part Number	Orifice	Overall Length
72-8630	1-3/4"	4" (102 mm)



Funnel  
Nozzle

Part Number	Orifice	Overall Length
72-231718	7/8"	1-3/8" (35 mm)



Funnel  
Nozzle

Part Number	Orifice	Overall Length
72-231348	1-27/32"	3-1/8" (79 mm)

## Roller Nozzles

## Faster &amp; More Efficient Than Standard Nozzles

- Apply sealant evenly over a wide area of substrate.
- Ideal for the application of faying surface sealants.
- Chemically resistant threaded roller holder (1/4" male NPT) can be solvent cleaned for re-use.
- Use with our disposable cartridges (see page 213).



Roller Assembly	Replacement Roller	Roller Width
232693	232701	1" (25 mm)
232692	232702	2" (51 mm)

## Sealant Mixer

Securely chucks into your drill for mixing Semkit sealant tubes.



Quick  
& Easy

Part Number	Shank
70337	1/4" Hex

## APPLICATION TOOLS & ACCESSORIES

### Sealant Spatulas

*Reinforced Plastic Construction*

226241



226242



226243



*7-1/4" Overall Length*

Part Number	End Widths
226241	0.19" & 0.38" (4.82 & 9.65 mm)
226242	0.13" & 0.28" (3.30 & 7.11 mm)
226243	0.48" & 0.38" (12.19 & 9.65 mm)

#### Sealant Spatula Set

Part Number	Description
226244	All Three Spatulas With Plastic Case

### Stainless Steel Sealant Spatula Set



*Surgical Stainless Steel Construction*

- Four double-end tools with different angles & knife shapes.
- Great for shaping & spreading sealant & other soft materials.

Part Number	Description
57-104-2	Complete 4 PC Set

### Sealant Smoothing Tool

*Fiberglass Reinforced Plastic Construction*



*For Tooling & Smoothing Sealants*

Part Number	Overall Length
231349	9-1/2" (241 mm)

### Solid Brass Sealant Smoothing Tool

*Non-Sparking Solid Brass Construction*



*Perfect For Aerospace Work*

Part Number	Overall Length
70799	9" (229 mm)

### Sealant Spreaders

*Reinforced Plastic Construction*



229394



229395

Part Number	Type	Dimensions
229394	Standard	4.0" x 2.8" (102 x 71 mm)
229395	Comb	3.0" x 3.0" (76 x 76 mm)

### Sealant Wipes

- Safely removes uncured or partly cured sealant by breaking the surface tension between the material and substrate.
- Made of a unique, non-woven fabric impregnated with non-toxic aqueous solution.
- Great for sealants, mastics, silicone bonding compounds etc.



Part Number	Shank
93385	150 Wipes In Resealable Tub

### Nylon Sealant Tape Roller

*For Applying Sealant Tape*

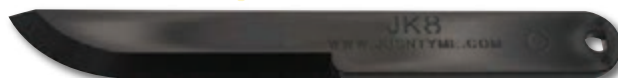


Allows maximum pressure for a leak-proof & smooth seal.

Part Number	Roller Diameter	Roller Width
70339	1-1/4" (32 mm)	2" (51 mm)

### Masking Tape Scraper

*Durable Acrylic Plastic Construction*



Note: May scratch new sheet metal.

Part Number	Dimensions
70796	8"L (3/16" thick) x 1" Wide



## Sioux® Sealant Removal Angle Die Grinder Kit

Updated  
Drill Motor



Fitted  
Case

Perfect For  
Limited Access Areas

- Remove aircraft sealants quickly & safely with minimal effect on paint, primer or aircraft metal.
- 800 RPM drill includes both 45° & 90° angle head assemblies.
- Eliminates the need to use chemical solvents for better worker health & safety, as well as easier cleanup.

### Includes:

800 RPM Drill Motor, 45° & 90° Angle Head Assemblies, Five 96933 Cutters, Five 96935 Cutters & Fitted Carrying Case

Part Number	Description
SDR4A8SF-SRK	Complete 14 PC Kit

## Dynabrade® Sealant Removal Angle Drill

49455

Low Profile 1/2" Angle Head



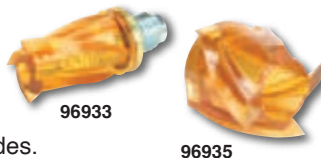
- Safe, aggressive & efficient sealant removal.
- Tool can also be used as a standard angle drill.
- Governor-controlled motor maintains speed under load.
- For use with sealant removal cutters shown below (not included).

Sealant Removal Angle Drill, 0.4 hp (0.30 kW)			
Rear Exhaust	Free RPM	Overall Length	Weight
49455	950	13" (329 mm)	2.1 lbs (0.9 kgs)

NSN: 5130-01-549-8848

## Sealant Removal Cutters

- Aggressively removes sealant without damaging substrate.
- Internal cavity on 96935 for use over standard fasteners & rivets.
- Bottom & side cutting plastic blades.



Part Number	Diameter	Recommended RPM	Max RPM	Thread
96933	.40"	950	3,200	1/4"-28
96935	.83"			

## Dynabrade® Sealant Removal Angle Die Grinder

Lightweight  
Ergonomic  
Design

Safe, Aggressive  
& Efficient



1/4" & 6 MM  
Collets Included

- Safe, aggressive & efficient sealant removal.
- Kevlar® phenolic vanes for longer tool life
- Tool can also be used as a standard die grinder.
- For use with sealant removal discs shown below (not included).

47800

Sealant Removal Angle Die Grinder, 0.4 hp (0.30 kW)				
Part No.	Exhaust	RPM	Overall Length	Weight
47800	Front	12,000	6" (150 mm)	1.0 lbs (0.45 kgs)
48315	Rear	12,000	6-1/2" (164 mm)	1.0 lbs (0.45 kgs)

## Sealant Removal Bristle Discs

- Abrasive, particle filled discs remove up to 1/16" of sealant.
- Bristles remove sealant without damaging underlying surface.

96937

96458



Bristle Disc Arbor & Two Caps	
Part Number	Capacity
96458	1/8" to 1/4" & 3/8" to 1/2"

Bristle Discs			
Part Number	Diameter	Recommended RPM	Max RPM
96937	2"	12,000	20,000
96939	3"	12,000	20,000

## USATCO 'Extreme Edge' Sealant Scraper Kit

Chemical Resistant,  
Long Edge Life

### Scraper Kit Includes:

Four Scrapers with various profiles & Fabric Carrying Pouch



Part Number	Description
70800	Complete 5 PC Kit

## APPLICATION TOOLS & ACCESSORIES

### USATCO 'Extreme Edge' Sealant Scrapers

*Chemical Resistant, Long Edge Life*



94176

- Non-metallic construction perfect for aerospace work.
- Great for removing sealants, adhesives, stickers etc.
- Resharpenable, non-marring scrapers are strong & lightweight.

Part Number	Uses
94176	Specially designed for scraping tubes & pipes.



94177

Part Number	Uses
94177	Great for internally radiused surfaces.



94178

Part Number	Uses
94178	Perfect for removing gaskets on alum. or steel.



94179

Part Number	Uses
94179	Concentrated scraping into corners & edges.



94180

Part Number	Uses
94180	Allows angle scraping in both directions.



94181

Part Number	Uses
94181	For narrow channels, slots & detail scraping.

*Many Other Profiles Available, Please Inquire*



*For .401 Shank 'Extreme Edge' Scrapers See Page 37*

### Phenolic Scraper

*Resharpenable*

*Will Not Mar Metal*



- Safely remove sealants, adhesives & stickers without marring.
- Chemically resistant, non-sparking & non-conductive.

Part Number	Size
95052	8" L x 1" W x 3/16" Thick

### USATCO Celcon Sealant Scraper Kit

*Boeing Approved To Avoid Scratching Alclad Aluminum*



*Chemical Resistant*

*Tough Double Angle Tips*

53-93650

All scraper blades are 6" long and 3/16" thick.

#### Kit Includes:

Six Scrapers (2 each: 1/4" Tip, 1" Tip & 2" Tip) & Black Handle

Part Number	Description
53-93650	Complete 7 PC Kit

#### Replacement Parts

Part Number	Description
93633	Celcon Scraper Blade with 1/4" Tip
93634	Celcon Scraper Blade with 1" Tip
93635	Celcon Scraper Blade with 2" Tip
93636	Replacement Handle
93637	Phenolic Scraper Blade w/1" Tip (not included in kit)

**Note:** Acrylic and nylon scraper blades also available, please inquire.

### Celcon Sealant Scrapers

*Boeing Approved To Avoid Scratching Alclad Aluminum*

70792



*Chemical Resistant*



70794

Part Number	Size	Tip Width
70792	6"L (3/16" thick)	3/4"
70794	9"L (3/16" thick)	3/4" & 1/4"

## Specialty Sealant Scrapers



70784



70780

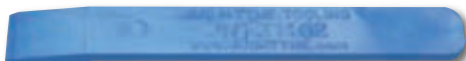
Glass Filled Nylon Plastic Construction, Double Angle Tips For Toughness

Hardened Sealant Scrapers		
Part Number	Size	Tip Width
70784	8"L (3/16" thick)	2" & 3/4"
70780	9"L (3/16" thick)	3/4" & 1/4"



Glass Filled Nylon Plastic Construction, Double Angle Tips For Toughness

Hardened Sealant & Seat Track Scraper		
Part Number	Size	Tip Width
70782	9"L (3/16" thick)	3/4" & 1/4"



Acrylic Plastic Construction, Long Angled Edge, Single End With Rounded Handle

Soft Sealant Scraper		
Part Number	Size	Tip Width
70786	6"L (3/16" thick)	3/4"



Acrylic Plastic Construction, Long Angled Edge

Soft & Wet Sealant Scraper		
Part Number	Size	Tip Width
70788	9"L (3/16" thick)	3/4" & 1/4"



Acrylic Plastic Construction, Double Angle Tips For Toughness

Soft Sealant Scraper		
Part Number	Size	Tip Width
70790	9"L (3/16" thick)	1" & 1/4"

**Note:** May scratch new sheet metal. No-Mar scrapers available on previous page.

## Hand Scraper



Specially blended plastic designed for sealants, paint, glues etc.

Part Number	Overall Length
11493	5-7/8" (149 mm)

## Automatic Semkit Package Mixers



*Easy To Operate*

*285 Portable Models*

*Reduce Mixing Labor & Worker Fatigue*

*388 Stationary Models*

**Model 388** Semkit package mixers are stationary, pneumatic and pneumatic-electric units that provide automatic mixing of filled Semkit packages. Use of the mixer reduces worker fatigue and assures the user a more thorough and consistent mix, kit to kit.

- Auto mixing of Semkit packages for a thorough & uniform mix.
- Timer automatically shuts off mixer at preset mix time.
- Additional unit capacities available, please inquire.

**Note:** Operates @ 40-90 PSI, 1.2 CFM & 115 VAC.

388 Pneumatic Semkit Auto Package Mixers			
Part Number	Type	Capacity	Weight
221269	Pneumatic / Electric 110V	2.5, 6 & 8 oz	75 lbs (34 kgs)
221269-220	Pneumatic / Electric 220V		
232523	Full Pneumatic		

**Model 285** Semkit package mixers are portable, electric units that provide automatic mixing of filled Semkit packages. Use of the mixer reduces worker fatigue and assures the user a more thorough and consistent mix, kit to kit.

- Electric, semi-auto mixing for a thorough & uniform mix.
- User moves cartridge vertically while drive spindle rotates.
- Bell timer signals completion of mix.

285 Portable Electric Semkit Semi-Auto Package Mixers		
Part Number	Power	Weight
229340	115 VAC	14 lbs (6.3 kgs)
234535	230V / 50 Hz	
233500	Pneumatic	



## APPLICATION TOOLS & ACCESSORIES

### Heavy-Duty Hand Operated Grease Guns



#### Pistol Grip Model

- Heavy-duty construction with comfortable ergonomics.
- Variable stroke piston allows for high pressure, low volume (short stroke) or low pressure, high volume (long stroke).
- Can be bulk filled or used with standard 14 ounce cartridges.
- Includes high pressure 3-jaw coupler & 12" flexible hose.

Pistol Grip Model			
Part Number	Pressure	Capacity	Weight
K32-01	Up To 10,000 PSI	14 oz	3.5 lbs (1.6 kgs)

#### Lever Grip Model

- Heavy-duty construction with comfortable ergonomics.
- Long lever handle for high pressure, high volume greasing that can easily clear blocked or damaged grease nipples.
- Can be bulk filled or used with standard 14 ounce cartridges.
- Includes high pressure 3-jaw coupler & 6" rigid offset hose.

Lever Grip Model			
Part Number	Pressure	Capacity	Weight
K40-01	Up To 12,000 PSI	14 oz	3.5 lbs (1.6 kgs)

### Minilube® Manual Grease Pump



- Provides high volume, low pressure and high pressure, low volume greasing in a compact and highly portable package.
- Efficient foot operated pump provides 30 shots per prime.
- Unit is fully sealed to prevent contamination.
- Comfortable & rugged one piece aluminum gun housing.
- Compatible with other, similar capacity containers.

#### Includes:

Minilube Pump Unit with Rubber Edged Follower Plate, Grease Gun, 3-Jaw Coupler, Grease Container, 5' Rubber Grease Hose, 360° Ball Swivel & Instruction Manual

Part Number	Grease Capacity	Volume Per Shot @ Max. Pressure	Weight
K7-24	5 lb (1 gal)	0.45 g @ 10,000 PSI	9 lbs (4.1 kgs)
K7-67	10 lb (2 gal)	1.25 g @ 5000 PSI	10 lbs (4.5 kgs)

### Heavy-Duty Air Operated Grease Guns

- Heavy-duty pistol grip construction.
- Single shot air power for effortless operation.
- Can be bulk filled or used with standard 14 ounce cartridges.
- Includes high pressure 3-jaw coupler & 9" flexible hose extension.

Note: Air inlet 1/4" NPT.

Lever Grip Model			
Part Number	Pressure	Capacity	Weight
K53-01	Up To 6000 PSI	14 oz	4.5 lbs (2 kgs)



## Superlube® Manual Grease Pump

### Portable High Pressure Or High Volume Output

- Provides high volume, low pressure and high pressure, low volume greasing in a compact and highly portable package.
- Efficient hand operated pump provides 60 shots per prime.
- Comfortable & rugged one piece aluminum gun housing.
- Sliding bung adaptor for use with different height grease containers.



#### Includes:

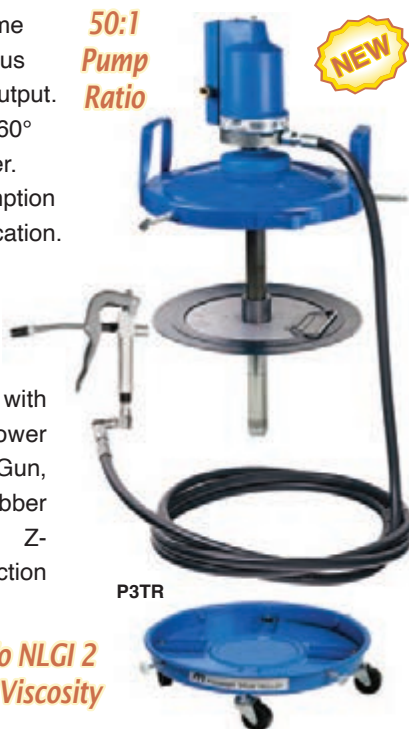
Superlube Pump Unit with Rubber Edged Follower Plate, Grease Gun, 3-Jaw Coupler, 5' Rubber Grease Hose, 360° Ball Swivel & Instruction Manual

**Note:** Works with grease containers up to 35 lb (5 gal) - containers not included.

Part Number	Grease Capacity	Volume Per Shot @ Max. Pressure	Weight
K4-01	35 lb (5 gal)	0.45 g @ 10,000 PSI 1.25 g @ 5000 PSI	17 lbs (7.7 kgs)

## Powerlube® Pneumatic Grease Pump

- Designed for high volume work requiring continuous high pressure grease output.
- Booster gun includes 360° Z-swivel & 3-jaw coupler.
- Efficient low air consumption motor requires no lubrication.



#### Includes:

Powerlube Pump Unit with Rubber Edged Follower Plate, Grease Booster Gun, 3-Jaw Coupler, 13' Rubber Grease Hose, 360° Z-Swivel, Trolley & Instruction Manual

**Note:** Grease containers not included. Air inlet 1/4" NPT (60-150 PSI, 3 CFM req'd).

Part Number	Grease Capacity	Maximum Pressure	Volume Output	Weight
P3TR	35 lb (5 gal)	10,000 PSI	16 oz/min	24 lbs (11 kgs)
P6TR	120 lb (15 gal)			31 lbs (14 kgs)

## Grease Gun & Pump Accessories



### 3-Jaw High Pressure Grease Coupler

Part Number	Notes
KY	For pressures up to 12,000 PSI. 1/8" NPT (F).



### Needle Nose Grease Coupler

Part Number	Notes
KZD	For recessed fittings and restricted areas. Push-on.



### Grease Injector Needle

Part Number	Notes
KIN	For sealed bearings & U-joints. Push-on.



### 360° Thread Swivel Adapter

Part Number	Notes
L2420	For 1/8" NPT Extensions



### 8" Straight Rigid Extension

Part Number	Notes
KDE8	Includes 3-jaw coupler. Push-on.



### 13" Angled Rigid-Flex Extension

Part Number	Notes
KFR	Slide sleeve converts from rigid to flexible. 1/8" NPT.

## APPLICATION TOOLS & ACCESSORIES

### Grease Pump Booster Gun



*Up To 10,000 PSI  
Pressure Boost*

- For high pressure delivery with any air powered grease pump.
- Includes 3-jaw coupler & 360° Z-Swivel assembly.

Part Number	Connection
B2-01	1/4" NPT (F)

### Z-Swivel Assembly



*For Grease Pump  
Control Guns*

Part Number	End Connections
ZSB	1/8" NPT (M) x 1/4" NPT (F)

### Grease 'Whip' Hoses



KDF-21

Flexible grease extensions ideal for working in confined spaces.

Part Number	End Connections	Overall Length
KF9	1/8" BSP (M) to 1/8" BSP (M)	12" (31 cm)
KDF13	Push-On to 3-Jaw Coupler	13" (33 cm)
KF17	1/8" BSP (M) to 1/8" BSP (M)	17" (43 cm)
KDF21	Push-On to 3-Jaw Coupler	21" (53 cm)

### Zerk Extractors



*Easy Removal Of  
Broken NPT Threads*

Part Number	Use
GNES	Taps 1/4" NPT, Wrench Fits 5/16" & 3/8" Hex
GNEL	Taps 1/8" NPT, Wrench Fits 7/16" & 3/8" Hex

### Aviation Lube Kit



- Create custom setups for almost any situation.
- Includes one of each accessory listed below, case & parts list.

Part Number	Description
ACK2	Complete 14 PC Kit

#### Replacement Accessories

Part Number	Description
KY	Standard Supergrip Coupler
KDN	90° Needlepoint Coupler
KDR	90° Limited Access Coupler
KZHY	Hypodermic Needlepoint Coupler
KZDXL	Straight Needlepoint Coupler (4-1/4")
KZLNJ	'J' Needlepoint Coupler (12")
KZLNS	Straight Needlepoint Coupler (12")
KZLNR	90° Needlepoint Coupler (12")
KZLN45	45° Needlepoint Coupler (12")
KZSNR	90° Needlepoint Coupler (4-1/4")
KDE8	Rigid Extension (8")
KDF21	Flex Extension (21")
J65	Filler Nozzle Adapter

### Suction Gun



- Heavy-duty double lipped follower.
- Positive grip handle & flexible vinyl hose.

Part Number	Capacity
L1700	16 oz



## Grease Fitting Assortments



L5900



L5910

### Standard 8 PC Includes:

1/4"-28 Fittings: (4) Short Straight (2) 45° & (2) 90°

Part Number	Use
L5900	Replacing damaged fittings, converting from plugs.

### Metric 8 PC Includes:

6MM x 1MM Fittings: (4) Short Straight, (2) 45° & (2) 90°

Part Number	Use
L5910	For domestic & foreign cars & trucks.



L5950

### Standard 83 PC Includes:

1/4"-28 Fittings: (18) Short Straight, (10) 45° & (10) 90°

1/8" MNPT Fittings: (25) Short Straight, (10) 45° & (10) 90°

Part Number	Use
L5950	Most popular sizes with refillable plastic box.

## Heavy-Duty Arbor Presses

*For All Production & Assembly Operations*



AP-0

- Precision cut steel rams & pinions for accurate operation.
- Tables and slotted table plates are flat & parallel to provide accurate support.

Part Number	Pressure	Capacity	Height	Weight
AP-0	0.5 ton	4-3/4" H x 6-5/8" Dia.	10-3/8" (26.4 cm)	19 lbs (8.6 kgs)
AP-1	1.0 ton	5-1/8" H x 8" Dia.	12" (30.5 cm)	27 lbs (12.3 kgs)
AP-2	2.0 ton	7-1/2" H x 10-3/4" Dia.	16-1/4" (41.3 cm)	68 lbs (30.8 kgs)

## Wilton® Shop Vises

*Replaceable Serrated Jaws*



63301

- 360° base with double lockdown for quick & easy positioning.
- Built-in pipe jaws handle a variety of pipe sizes.
- Large anvil work surface & rubber pinch point safety guards.

Part Number	Jaw Width	Jaw Cap.	Pipe Jaw Capacity	Height	Weight
63300	4"	4"	5/8" to 2"	6.5" (165 mm)	20.3 lbs (9.2 kgs)
63301	5"	5"	5/8" to 2-3/8"	8.4" (213 mm)	28.2 lbs (12.8 kgs)
63302	6"	6"	5/8" to 2-1/2"	9.7" (246 mm)	41.9 lbs (19.0 kgs)
63304	8"	8"	3/4" to 3"	11.4" (290 mm)	65.3 lbs (29.6 kgs)

## SHOP TOOLS

### Portable Vise With Vacuum Base & Tilt Head

#### Highly Maneuverable

- Lightweight & portable - mounts on any clean, flat surface.
- Cast aluminum body with 360° swivel base & 180° tilt head.
- Steel V-grooved jaws with removable rubber jaw faces.



Part Number	Jaw Width	Jaw Capacity	Weight
63500	2-3/4"	2-1/2"	3.5 lbs (1.6 kgs)

### JET® Variable Speed Vertical Bandsaws

F.O.B. FACTORY

- Designed for cutting of both ferrous & non-ferrous metals.
- Heavy-duty, completely enclosed steel frame.
- Large, multi-tilting work table.
- Variable speed two speed gearbox offers high efficiency cutting.



#### All Models Include:

Work Lamp, Chip Blower, Workpiece Guide, Blade & Tire Cleaning Brush, Tool Set, Bi-Metal Blade, Blade Welder, Grinder & Cutter

Model	VBS-1408	VBS-1610	VBS-2012
Motor Power	1.5 hp, 115/230V, 1Ph, 14/7 A, 60Hz, Pre-Wired 115V	2 hp, 230/460V, 3Ph, 6.2/3.1A, 60Hz, Pre-Wired 230V	2 hp, 230/460V, 3Ph, 6.2/3.1A, 60Hz, Pre-Wired 230V
Blade Speed	82 to 330 SFPM	82 to 3950 SFPM	65 to 3280 SFPM
Height Capacity	8" (20.3 cm)	10" (25.4 cm)	12" (30.5 cm)
Blade Size	1/8" to 1/2" x 114"	1/8" to 5/8" x 123-1/2"	1/8" to 1" x 150-1/2 to 156-1/2"
Table Size	20" x 20"	22" x 24"	22-1/2" x 24"
Overall Height	68-1/2" (174.0 cm)	72-1/2" (184.2 cm)	84" (213.4 cm)

Part Number	Description	Shipping Weight
VBS-1408	14" Vertical Bandsaw	685 lbs (311 kgs)
VBS-1610	16" Vertical Bandsaw	1015 lbs (460 kgs)
VBS-2012	20" Vertical Bandsaw	1310 lbs (594 kgs)

### Sioux® Pneumatic Tappers



#### Rapid Reverse

- Comfortable pistol grip handle.
- 1/4" steel capacity (5/16" aluminum capacity).

STP10P3C20

Note: Air Inlet 1/4" NPT - 3/8" (10 mm) air hose recommended.

1.0 hp (0.75 kW), 400 in.-lb Torque (45 Nm)				
Part Number	Chuck Cap.	Free RPM	O.A.L.	Weight
STP10P3C20	#10-5/16"	300	7.3"	2.9 lbs
STP10P3C32	1/4"-1/2"		(185 mm)	(1.3 kgs)

### Tap Wrench

- Spring tension sliding handle is only 3-3/4" in overall length - perfect for hard to reach areas.
- Hardened for longer life and smoother operation.
- Stepped recess for #0 to #10.



Made In The USA

Part Number	Tap Capacity
12001	#0 to 1/4" (6.35 mm)

### Tap & Hexagon Die Kit

#### High-Carbon Steel Taps & Hexagon Dies



#### Includes:

Offset Adjustable Handle Tap Wrench (0 to 1/2"), Plain Die Stock, Tap & Dies (1/4"-20, 1/4"-28, 5/16"-18, 5/16"-24, 3/8"-16, 3/8"-24, 7/16"-14, 7/16"-20, 1/2"-13 & 1/2"-20), 1/8"-27 Pipe & Plastic Storage Case

Part Number	Description
24614	Complete 24 PC Kit



## Machine, Fractional &amp; Metric Tap &amp; Hex Die Sets

*Comprehensive & Portable*

26377

**76 PC Set Includes:**

Machine Screw Plug Tap & 5/8" Hexagon Dies (4-40 NC, 6-32 NC, 8-32 NC, 10-24 NC, 10-32 NF, 12-24 NC), Fractional Plug Tap & 1" Hexagon Dies (1/4"-20 NC, 1/4"-28 NF, 5/16"-18 NC, 5/16"-24 NF, 3/8"-16 NC, 3/8"-24 NF, 7/16"-14 NC, 7/16"-20 NF, 1/2"-13 NC, 1/2"-20 NF), Metric Plug Tap & 5/8" Hexagon Dies (3mm-0.50, 4mm-0.70, 4mm-0.75, 5mm-0.80, 5mm-0.90, 6mm-1.00), Metric Plug Tap & 1" Hexagon Dies (7mm-1.00, 8mm-1.00, 8mm-1.25, 9mm-1.00, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50, 12mm-1.75), Pipe Thread Plug Tap & 1" Hexagon Dies (1/8"-27 NPT, 1/8"-28 BSP), Threading Tools: Adjustable Die Stock (1" Dies), Plain Die Stock (5/8" Hexagon Dies), Adj. Handle Tap Wrench (#0 to 1/2"), Two-in-One Tap Wrench (1/4" to 1/2"), T-Handle Wrench (#0 to 1/4"), Thread Pitch Gauges (16 Leaf Metric & 18 Leaf Standard), Fitted Carrying Case

Part Number	Description
26376	Complete 76 PC Kit

**117 PC Includes:**

All tools in the above kit, Drill Bits (Wire Gauge #3, 7, 9, 16, 19, 20, 21, 25, 29, 30, 36, 39, 43, Letter B, F, H, I, J, O, Q, R, S, U, Z, Fractional 5/64", 7/64", 5/32", 1/4", 19/64", 5/16", 21/64", 3/8", 25/64", 13/32", 27/64", 29/64"), Spiral Flute Screw Extractors (EX-1, EX-2, EX-3, EX-4, EX-5)

Part Number	Description
26377	Complete 117 PC Kit

## Tap &amp; Adjustable Round Die Kit

*High-Carbon Steel Taps & Adjustable Round Dies***Includes:**

T-Handle Tap Wrench (0 to 1/4"), Adj. Handle Tap Wrench (0 to 1/2"), Adj. Die Stock, 18 Leaf Thread Pitch Gauge, Screwdriver, Tap & Dies (4-40, 6-32, 8-32, 10-24, 10-32 & 12-24), Fractional Tap & Dies (1/4"-20, 1/4"-28, 5/16"-18, 5/16"-24, 3/8"-16, 3/8"-24, 7/16"-14, 7/16"-20, 1/2"-13 & 1/2"-20), 1/8"-27 Pipe & Plastic Storage Case

Part Number	Description
25914	Complete 39 PC Kit

## Tap &amp; Drill Kit

- High carbon steel taps & high speed steel drill bits.
- Produces a strong thread that is easy to tap.
- 135° split point drill bits for fast, precise drilling.

**Includes:**

T-Handle Tap Wrench, Tap & Drills (4-40, 6-32, 8-32, 10-24, 10-32 & 1/4"-20) & Plastic Storage Case

Part Number	Description
80187	Complete 13 PC Kit

## Carbide Broken Tap Remover Kit



- Tough sub-micron carbide easily cuts through hardened HSS taps of any style (straight flute, spiral flute etc.).
- Will also drill through broken bolts, drills, pins etc.
- Quickly removes broken taps with simple four step process.

**Note:** For use with conventional or CNC milling machines.

Part Number	Description
97-320-6	Complete 8 PC Kit



## Screw Extractors



### Straight Flute

ST-6

- Designed for softer and thin walled materials.
- Eases extraction because it does not expand material.
- Removes both left and right hand threaded parts.

Part No.	Drill Size	Removes Bolts & Screws
ST-1	9/64"	3/16" - 5/16", 5 - 8 mm, #10
ST-2	3/16"	3/8", 10 mm
ST-3	15/64"	7/16", 1/8" NPT, 1/8" BSP, 10 mm
ST-4	5/16"	1/2" - 9/16", 1/4" NPT, 1/4" BSP, 12 - 14 mm
ST-5	3/8"	5/8", 3/8" NPT, 3/8" BSP, 16 mm
ST-6	15/32"	3/4", 1/2" NPT, 1/2" BSP, 20 mm



### Spiral Flute

EX-6

- Designed to remove broken studs, bolts, screws and fittings.
- Aggressive left hand spiral design for extra gripping power.

Part No.	Drill Size	Removes Bolts & Screws
EX-1	5/64"	3/32" - 5/32", 2.5 - 4 mm, #3 - #6
EX-2	7/64"	5/32" - 7/32", 4 - 6 mm, #6 - #12
EX-3	5/32"	7/32" - 9/32", 6 - 8 mm, #12
EX-4	1/4"	9/32" - 3/8", 1/8" NPT, 1/8" BSP, 8 - 10 mm
EX-5	19/64"	3/8" - 5/8", 3/8" NPT, 3/8" BSP, 10 - 16 mm
EX-6	13/32"	5/8" - 7/8", 3/8" NPT, 3/8" BSP, 16 - 22 mm

## Screw Extractor Sets



70254

### Straight Flute Set

Extractors will not expand material removed (easier removal).

### Spiral Flute Set

Extractors have an aggressive left hand spiral for extra power.

Straight Flute	Spiral Flute	Extractors Included
70258	70252	#2, 3, 4 & 5
70260	70254	#1, 2, 3, 4 & 5
70262	70256	#1, 2, 3, 4, 5 & 6

## Spiral Flute Extractor & Drill Bit Set



- Aggressive left hand spiral for extra power.
- Each extractor is paired with the correct size cobalt drill bit.

Part No.	Extractors Included	Cobalt Drill Bits Included
70245	#1, 2, 3, 4 & 5	5/64", 7/64", 5/32", 1/4" & 19/64"

## El Brutus® "Johnson Bar" Screw Extractor



96380

*Folds Up For Easy Storage*

*Made In The USA*

- Heat-treated, plated and built for a lifetime.
- Works on Phillips, Tri-Wing and Hi-Torque screws.
- Chosen to standardize aircraft & missile maintenance DOD wide.

Note: Bits & ratchet not included.

Part Number	For Screws	Weight	Overall Length
96380	#8 to 1/4"	3.2 lbs (1.4 kgs)	17" (43.2 cm)
96560	1/4" to 3/8"	4.5 lbs (2.0 kgs)	18-3/4" (47.4 cm)

Note: 96380 NSN number: 5120-01-398-2869, 96560 NSN number: 5120-01-398-2868.

## E-Z Grip Friction Drops

*Easy To Use, No Waiting*

- Instant traction to lock on to stripped or worn fastener heads for easy removal.
- Eliminates cutting, chiseling or drilling.
- Extends your tool life & keeps fastener heads from stripping.
- Non-toxic, contains no silicones.
- Conforms or exceeds applicable ASTM testing requirements.



Part Number	Size
70390	3 Ounce Squeeze Bottle

## Drill-Out Broken Bolt Extractors



Style A



Style B

*Quick & Easy*

- Removes broken bolts and studs without damaging threads.
- High quality H.S.S., heat treated and precision ground.
- Suitable for removal of inch as well as metric broken studs.

### Style A

Special left-handed drill bits with unique extractor collet, conveniently use with any reversible power drill.

### Style B

Reversible combination tool with drill-out bit on one end and extractor on the opposite end.

Style A		Style B	
Part Number	Removes	Part Number	Removes
97-526-8	1/4" & 6 mm	97-576-3	#5, #6 & 3 mm
97-527-6	5/16" & 8 mm	97-577-1	#8 & 4 mm
97-528-4	3/8" & 10 mm	97-578-9	#10 & 5 mm
97-529-2	1/2" & 12 mm	97-579-7	1/4" & 6 mm

### Extractor Kit

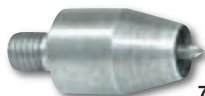
Includes seven extractors (#5 to 1/2" range) and fitted case.

Part Number	Description
97-580-5	Complete 8 PC Kit

## Paint Cutters & Arbors



90425



70420

- Cuts a ring into paint around the screw head.
- Reduces excess paint chip during screw removal process.
- Straight shank arbors are 1/4"-28 female thread, 3/8" body dia..

Cutters, 1/4"-28 Thd. Shank		Arbors, 1/4" Straight Shank		
Part Number	Screw Size	Part Number	Body Length	Shank Length
70420	#4	90425	2"	7/8"
70422	#6	90426	4"	7/8"
70424	#8	90427	6"	7/8"
70426	#10			
70428	1/4"			

## Acid Swab Brushes

*Economical & Versatile*



*Stiff Horsehair Fill*

Part Number	Brush Width	Overall Length
11131	3/8"	6-1/32" (153 mm)
13132	1/2"	6-1/16" (154 mm)

## Pencil End Wire Brushes

*Ideal For Aircraft Maintenance*



70193

- Small brushes designed for cleaning blind holes and small crevices.
- For use with chucked tools.



**Note:** For pilot bonding brushes see page 93.

1/4" Shank Diameter, .012" Wire Diameter			
Part Number	Wire Type	RPM	'T' Trim Length*
70193	Carbon Steel	4000 to 6000 (8000 max.)	3/8" (3/16" diameter)
70194	Stainless Steel (INOX)	3000 to 5000 (8000 max.)	3/8" (3/16" diameter)

\*The metal shank/tube can be cut back to expose desired filament length.

## Non-Marring Pry Wedges

*Great For Tight Spaces*



70220

70221

*Specially Designed Slim Profile*

- Orange polyethylene wedges are perfect for gentle prying jobs.
- Black polycarbonate wedges are designed for tough prying work.

Part Number	Description	Color
70220	3PC Polyethylene Set (flexible)	Orange
70221	3PC Polycarbonate Set (hard)	Black

## Sureshot Sprayer

*Air Powered Aerosol Alternative*

- Refillable, rechargeable and completely portable.
- Perfect for lubricants, cleaners, solvents, penetrating oils etc. \*

*Made In The USA*



\*Not for use with flammable liquids. Not recommended for paint.

Part Number	Capacity
70043	32 oz.

## Heavy-Duty Wet/Dry Vacuum Kits



- Picks up the heaviest of chips, dust, debris, liquids & sludge.
- Dual venturi model adds 63% more vacuum flow.
- Additional accessories & options available, please inquire.

### Vacuum Kits Include:

Vacuum Generating Head, Cartridge Filter, Drum, Drum Dolly, 20' Vinyl Vacuum Hose, 12" Wet/Dry Metal Floor Tool with 4" Wand, 24" Long Crevice Tool & 20' Air Supply Hose (3/4")

Single Venturi Vacuum Kits					
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Vacuum Lift (H2O)	Weight
15-551BC	55 gal	2"	89 CFM	185 CFM	100 lbs (45 kgs)
15-301DC	30 gal	1-1/2"	60 CFM	213 CFM	96 lbs (44 kgs)

Note: 1/2" air inlet. Minimum compressor required: 551BC - 15 HP, 551DC - 10HP.

Dual Venturi Vacuum Kit					
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Vacuum Lift (H2O)	Weight
15-552BC	55 gal	2"	163 CFM	163 CFM	108 lbs (49 kgs)

Note: 3/4" air inlet, Minimum compressor required - 24 HP.

## Compact Heavy-Duty Wet/Dry Vacuum Kits



- Picks up the heaviest of chips, dust, debris, liquids & sludge.
- Additional accessories & options available, please inquire.

### Compact Vacuum Kits Include:

Canister Drum with Carry Handle, Single Venturi Vacuum Generating Head, Exhaust silencer, Standard Cartridge Filter, Air Shutoff Valve with 3/8" Industrial Interchange Connector, 12' Air Hose with Fittings, 10' Vinyl Vacuum Hose, 9-1/2" Plastic Curved Tool Coupler, 20" Plastic Extension Wand, 3" Plastic Round Brush Tool, 9" Plastic Crevice Tool & 5" Plastic Utility Tool with Brush

Single Venturi Compact Vacuum Kits					
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Vacuum Lift (H2O)	Weight
15-051MC	5 gal	1-1/4"	56 CFM	100 CFM	20 lbs (9 kgs)
15-101MC	10 gal	1-1/4"	56 CFM	100 CFM	38 lbs (17 kgs)

Note: 3/8" air inlet. Minimum compressor required - 4.4 HP.

## Heavy-Duty Wet/Dry Vacuum Head Kits



### Vacuum Head Kits Include:

Vacuum Generating Head, Cartridge Filter, Air Shut-Off Valve with Connector, 20' Vinyl Vacuum Hose, 12" Wet/Dry Metal Floor Tool with 4" Wand & 24" Long Crevice Tool

Single Venturi Vacuum Head Kits					
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Vacuum Lift (H2O)	Weight
15-551B	55 gal	2"	89 CFM	185 CFM	42 lbs (19 kgs)
15-551D	55 gal	1-1/2"	60 CFM	213 CFM	38 lbs (17 kgs)
15-301B	30 gal	2"	89 CFM	185 CFM	38 lbs (17 kgs)
15-301D	30 gal	1-1/2"	60 CFM	213 CFM	33 lbs (15 kgs)

Note: 1/2" air inlet. Min. compressor req.: 551B & 301B - 15 HP, 551D & 301D - 10HP.

Dual Venturi Vacuum Head Kits					
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Vacuum Lift (H2O)	Weight
15-552B	55 gal	2"	163 CFM	163 CFM	50 lbs (23 kgs)

Note: 3/4" air inlet. Minimum compressor required - 24 HP.



## Heavy-Duty Vacuum Accessories



15-2000F1

15-635-B



For 5 & 10 Gallon Vacuums	
Part Number	Description
15-2000F1	Standard Filter Assembly (incl. filter frame & cloth internal filter with gasket)

For 30 & 55 Gallon Vacuums	
Part Number	Description
15-635PK	Standard Cartridge Filter (package of six)
15-635-B	Internal Filter Bag (for maximum filter life & performance)

## USATCO Supersonic Junior Air Vac

15-1580



- Locking trigger.
- Lightweight (8.5 oz) venturi design with 1" I.D.
- 18" flex hose included.
- 1/4" air inlet.

Part Number	Description
15-1580	Junior Air Vac with 18" Flex Hose
38-1580-1	Replacement Bag

## Mini Air Vac

**One Piece Aluminum Construction**



15-1780

- Locking trigger.
- Lightweight (8.5 oz), venturi type design with 1" I.D.
- Hose included. 1/4" air inlet.

Part Number	Description
15-1780	Mini Air Vac with 12" Flex Hose
15-1980	Mini Air Vac with 12" Rigid Hose
38-1580-1	Replacement Bag

## USATCO Supersonic Air Vac



53-A1080

- No moving parts to burn out.
- Safe, non-electric power source.
- Lightweight (only 1 lb) & heavy-duty one piece construction.

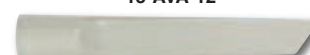
**Lightweight & Economical**

Part Number	Accessories Included
53-A1080	Round Brush, Slim Crevice Tool & 5" Wide Nozzle
53-A1082	18" Flex Hose Extension
53-A1092	Round Brush, Crevice Tool & 18" Rigid Ext. Wand

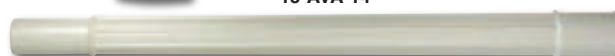
15-AVA-11



15-AVA-12



15-AVA-14



Air Vac Accessories	
Part Number	Description
15-AVA-11	Round Brush
15-AVA-12	Crevice Tool
15-AVA-13	5" Wide Nozzle
15-AVA-14	18" Rigid Extension Wand
15-AVA-15	18" Flex Hose Extension
38-AVP8	Replacement Bag
38-AVP2-B	Fully On Air Flow Plug*

\*Useful where on-off control is done with a remote.

## USATCO Decimal Conversion Charts

**Quick & Convenient**

Handy reference charts showing the decimal conversion of fractional, wire gauge, metric & letter sizes (0.1 mm to 1"). Poster also includes useful tap and drill conversion charts.

90389

Part No.	Type	Size
90389	Pocket Card	3-1/8" x 5"
90396	Poster	22" x 32"



## Hearing Protection



90441

### Ear Plugs

- One size fits all soft silicone rubber effectively seals the ear.
- Can be boiled or sterilized for proper cleaning.

Part Number	Includes
90441	Ear Plugs & Carrying Case



90440

### Ear Covers

- Rugged & comfortable, with swivel earcup construction.
- Universal fit, contoured earcups for use with safety hats, etc.

Part Number	Weight
90440	8 oz (227 g)

## Light Duty Spark Guard Face Shield



*Lightweight,  
Comfortable  
& Adjustable*

*Cushioned  
Sweatband*

- Spark guard is positively stopped in working position.
- Room allowance for safety or prescription glasses.

Part Number	Description
90479	Spark Guard Face Shield

## Impacto® Anti-Impact Gloves

*Perfect  
For  
Riveting*



401-30

- Impact absorbing visco-elastic polymer padding in the palm.
- Nylon back & soft pearl leather palm ensure dexterity and comfort.
- Available in sizes XS, S, M, L & XL (please specify when ordering\*).

\*It is best to order 1 size smaller than your normal size.

Part Number	Specifications
401-30	Half Finger, Full Palm VEP, Nylon Back

## Bruder Safeguard® Knee & Elbow Pads



40150

### Knee Pads

- Hinged hard cover & velcro straps.

### Elbow Pads

- Grain leather covered viscoelastic pad & stretch fabric over elbow.

Part Number	Type	Size
40150	Knee Pads (pair)	One Size Fits All
40311S	Elbow Pads (pair)	Small
40311M	Elbow Pads (pair)	Medium
40311L	Elbow Pads (pair)	Large

## Protective Rubber Gloves



*Rolled  
Edge*

For use with acids, alkalis, salts & ketones.

Part Number	Overall Length
96856	14" (356 mm)

**Safety Goggles**

*Comfortable  
Soft Vinyl  
Body*



*Fits Over  
Prescription Glasses*

- Polycarbonate lenses exceed specs for impact resistance.
- Sub-freezing to 275°F temperature range.
- Meets all optical standards for prism, power & definition.

Part Number	Description
90460	Safety Goggles

**Deluxe Visitor Spectacles**

*High Impact Resistance*



*Distortion  
Free Lenses*

- Comfortable & lightweight (will fit over prescription glasses).
- Exclusive wraparound side shields & anti-glare brow guard.

Part Number	Description
90455	Visitor Spectacles

**Dewalt® Detachable Tote Toolbox**

*Sturdy Metal Handle*



*Heavy-Duty, High Impact  
Polypropylene Construction*

- Convenient two-in-one storage system: a tough lower case for larger tools and detachable top tote for small parts and tooling.
- Easy, front-located push button detaches top tote from base.
- Lockable lid (lock not included) with rust resistant metal latches.

Part Number	L x W x H	Weight
62-54405	26-3/8" x 12-3/4" x 11-1/4"	7.4 lbs (3.4 kgs)

**Stanley® Multi-Purpose Toolboxes**

*Lightweight & Sturdy Polypropylene Construction*



62-54404

*Updated Design*



62-54406

- Removable tool tray with handle.
- Convenient top organizer compartments for small parts storage.
- Latch with geometric lock for smooth, easy use & padlock eyelet.

Part Number	L x W x H	Weight
62-54404	16" x 8" x 7-3/8"	2.1 lbs (1.0 kgs)
62-54406	19" x 10" x 10"	2.9 lbs (1.3 kgs)

**Mechanics Canvas Tool Bags**

62-279



- Large brass zippered main compartment.
- Heavy-duty rugged cotton web carry handles.
- Inside dividers & two outside snap accessory compartments.

*Hard Fiber  
Bottom*

Part Number	Color
62-279	Black
62-280	Green



## SHOP TOOLS

### Stanley® Shop Tool Chests

*Durable Steel Construction*

62-54407  
(top)



62-70433  
(bottom)

- Internal keyed locking system protects valuable tool collections.
- Full extension ball bearing drawer slides hold 85 lbs per drawer.

#### 5-Drawer Tool Chest (top)

- Gas struts provide smooth top lid opening and closing.
- Two recessed side handles for easy movement.

Part Number	D x W x H	Weight
62-54407	12" x 26" x 20-1/2"	64 lbs (29 kgs)

#### 5-Drawer Rolling Tool Chest (bottom)

- 650 lb overall capacity, 4-1/2" casters (two swivel & locking).
- Non-slip open weave top mat helps protect the cabinet surface.

Part Number	D x W x H	Weight
62-70433	18" x 26-1/2" x 40-1/2"	116 lbs (52.6 kgs)

### Fastener Storage Cases

*High Impact Polystyrene Plastic Case*

96370



*Keep Rivets And Other Small Parts Organized*

- See-through & spring loaded compartment covers.
- Curved tray bottoms for quick and easy part removal.

Part No.	Sections	L x W x H	Part No.	Sections	L x W x H
96365	2	12-3/8" x 7-1/4" x 2"	96368	5	12-3/8" x 7-1/4" x 2"
96366	3		96369	6	
96367	4	6-3/8" x 7-1/4" x 2"	96370	8	

### Air Scribe Kit



CP9361



*Write On Material Up To 64R Hardness*

CP9361-1

*Lightweight & Easy To Operate*

*Writes Like A Ballpoint Pen*

- Simple piston supplied power for trouble free use.
- Change of stylus converts tool to scaler or hammer.
- Graduated sleeve throttle permits accurate power selection.

#### Complete Kit Includes:

Air Scribe, Anvil, Flat Chisel, Chisel Blank, Round Nose Chisel, 2 Carbide Tipped Stylus, 8' Air Hose (3/16" ID), Air Filter Assembly & Carrying Case

Part Number	Description
CP9361-1	Complete 10 PC Kit
CP9361	Air Scribe, Stylus, Hose & Filter Ass'y Only

#### Replacement Parts Kit Includes:

Anvil, Flat Chisel, Chisel Blank, Rounded Nose Chisel, Carbide Tipped Stylus & Two 'O' Rings

Part Number	Description
P058425	Complete 7 PC Kit
P054177	Carbide Tipped Stylus Only

**Fixed Two Point Machinist Scriber***Durable Hardened & Ground Points*

- Knurled body with hardened & ground steel needle points.
- One straight point & one 90° point.

Part Number	Overall Length
80	8-7/16" (214 mm)

**Hand & Stamp Sets**

- Suitable for use on steel, cast iron & other metals.
- Hardened & tempered tips.

*Made In The USA*

Number Sets (1 to 9)	Letter Sets (A to Z & Dot)	Character Size
HSN-1/16	HSL-1/16	1/16"
HSN-3/32	HSL-3/32	3/32"
HSN-1/8	HSL-1/8	1/8"
HSN-3/16	HSL-3/16	3/16"
HSN-1/4	HSL-1/4	1/4"
HSN-3/8	HSL-3/8	3/8"
HSN-1/2	HSL-1/2	1/2"



HSN-3/32

**Cordless Electric Kevlar Scissor Kit**

70224

*Carbide Blades*

- Cuts aramid fibers, kevlar and other tough materials.
- Lightweight & maneuverable with superior ergonomic design.
- Short rapid strokes for intricate work & long lasting battery.

**Includes:**

Tool, Standard Blade Assembly (for straight, quick cuts), Blade Assembly with Shoe (for patterns & fabric), Rechargeable DC Battery, Battery Charger, AC Adaptor & 110V Transformer with Power Cord

**Note:** Not recommended for material over 1/8" thick due to short stroke.

Part Number	Description
70224	Complete 7 PC Kit

94126



94128



Replacement Blade Assemblies	
Part Number	Description
94126	Standard Blade Ass'y (for straight, quick cuts)
94128	Blade Ass'y with Shoe (for patterns & fabric)

**Boelube® Lubricant**

70200-00

- High-strength polar lubricating film reduces friction & heat generation.
- Greatly improves tool life, surface finish & hole quality.
- Superior lubricity when machining aluminum, titanium and inconel.
- Non-corrosive, non-flammable and chemically stable, with no hazardous substances.

*Perfect For All Metal Drilling, Cutting And Machining Operations*

70307-12



70200-40



70200-13



70305-12

*Solid, Liquid Or Paste*

Part Number	Size	Color	Type
70200-00	14.5 oz Cartridge	White	Solid
70200-13	1.6 oz Push Tube	White	
70200-40	3.5 oz Push Tube	White	
70307-02	2 oz Jar	Blue (medium)	Paste
70307-L	4 oz Jar	Blue (medium)	
70307-12	12 oz Jar	Blue (medium)	
70305-12	12 oz Jar	Pink (hard)	



70104-04



70104-05

Part Number	Size	Color	Type
70090-L	4 oz Bottle	Clear	Liquid
70104-04	1 Gallon Container	Red	
70104-05	5 Gallon Pail	Red	
70104-07	15 Gallon Drum	Red	
70104-09	55 Gallon Drum	Red	

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