

**TOOLS &
EQUIPMENTS**



**AVIATION HAND TOOL &
STORAGE SOLUTION**

Commercial
Government & Defence
Military & Rotorcraft
Mechanic & Avionic

STRUCTURAL TOOLS & EQUIPMENTS

**CIVIL AEROSPACE-GOVERNMENTAL & MILITARY-MRO
AIRCRAFT - ROTORCRAFT - UAV**



**A PLACE FOR
EVERYTHING,
AND EVERYTHING
IN ITS PLACE.
ÖZZAIM FOAMED MASTER SETS**

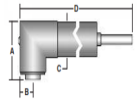
TOOL SET SOLUTIONS FOR AEROSPACE
Let's choose the tools one by one with our
specialists according to your special needs
to create tool set for your work.

**Portable Structural Tool Box
&
Structural Master Tool Kit**

Snake Drill Attachment



90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (C)	Overall Length (D)
20-131-4	11/16" - 18 mm	5/8" - 16 mm	11/16" - 18 mm	22" - 56 cm

Offset 'Pancake' Snake Drill Att



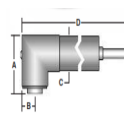
Flat Offset Head, 1/4" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (C)	Overall Length (D)
20-T-635	7/16" - 11 mm	2.5/16"-59 mm	3.3/16" - 81 mm	30" - 76 cm

360° Snake Drill Attachment



Flat Offset Head, 1/4" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (C)	Overall Length (D)
20-128-360	3" - 76 mm	0.385" - 10 mm	0.608" - 15 mm	30" - 76 cm

Angle Drill Attachments



90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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

Quickly Connect To Any Drill Chuck Convenient & inexpensive close quarter drilling tools.



90° Mini Angle Head, 1/4" Capacity, 10-32 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (C)	Overall Length (D)
20-133-20	1.3/16" - 30 mm	0.212" - 5 mm	1/2" - 13 mm	6" - 155 mm



45° Angle Head, 5/32" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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



Includes Adapter, 1/4" Chuck & Chuck Key

90° Angle Head With Keyed Chuck, 5/32" Capacity				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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

Angle Drill Attachments



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

360° Rotating Offset Head, 1/4" Capacity, 1/4"-28 Thread				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (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

Angle Drill Attachment Kit



PN Code#	Description
53-127K	Complete 9 PC 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)

Socket Drive Angle Drill Attachment



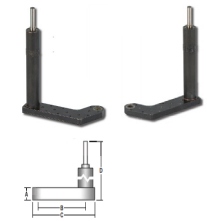
Fits any 1/4" square drive ratchet or wrench.

90° Angle Head, 1/4" Square Drive				
PN Code#	Head Height (A)	Side To Centre (B)	Diemeter (C)	Overall Length (D)
20-350	1.60" - 41 mm	1.3/8" - 35 mm	3/4" - 19 mm	7"-178 mm

Thin Offset Angle Drill Attachments



Straight - 1/4" Offset Thickness (A)			
PN Code#	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	2-7/16" (62 mm)	3-3/16" (81 mm)	5-3/16" (132 mm)



30° Offset - 0.290" Offset Thickness (A)			
PN Code#	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-845	Right	4" (102 mm)	4-5/16" (110 mm)
20-855	Left	3-3/16" (81 mm)	5-3/16" (132 mm)

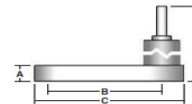
Thin Offset Angle Drill Attachments



Straight - 3/8" Offset Thickness (A)			
PN Code#	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	2-7/16" (62 mm)	3-3/16" (81 mm)	4-9/16" (116 mm)

30° Offset - 3/8" Offset Thickness (A)			
PN Code#	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)

Flat Offset Angle Drill Attachments



1/8" Capacity - 1/4" Offset Thickness (A)			
PN Code#	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)			
PN Code#	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)

IRWIN Unibit® Step Drill Sets



PN Code#	Description	Hole Sizes-1/8" Material (max.)	Hole Sizes-1/8" 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"

Aircraft Quality Jobber's Length Drills

Made to NAS907 Specifications **Wire Gauge** Sold 12 per pack (all sizes).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).

Example: For a #25 H.S.S. (118° split point) drill, the number would be 02-R18A-25



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"	•	•	•	•	•	•

Made to NAS907 Specifications **Wire Gauge** Sold 12 per pack (all sizes).

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)
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

Made to NAS907 Specifications **Fractional** Sold 12 per pack (1/16"-19/64"), 6 per pack (5/16"-1/2").

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"	•	•	•	•	•	•

Aircraft Quality Jobber's Length Drills

Made to NAS907 Specifications **Letter** Sold 12 per pack (A-N) & 6 per pack (O-Z)

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).
 Example: For a "A" H.S.S. (135° split point) drill, the number would be 02-R15B-A



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"	•	•	•	•	•

Aircraft Quality Jobber's Length Drills

Made to NAS907 Specifications **Metric** Sold 12 per pack (0.35-7.50mm).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).
Example: For a 1,6mm H.S.S. (118° split point) drill, the number would be 02-2A-160



Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
0,35	.0138"	3 mm	19 mm	•	N/A
0,4	.0158"	5 mm	20 mm	•	N/A
0,45	.0177"	5 mm	20 mm	•	N/A
0,5	.0197"	5 mm	22 mm	•	N/A
0,55	.0217"	6 mm	24 mm	•	N/A
0,6	.0236"	8 mm	24 mm	•	N/A
0,65	.0256"	10 mm	26 mm	•	N/A
0,7	.0276"	10 mm	28 mm	•	N/A
0,75	.0295"	13 mm	28 mm	•	N/A
0,8	.0315"	13 mm	30 mm	•	N/A
0,85	.0335"	16 mm	30 mm	•	N/A
0,9	.0354"	16 mm	32 mm	•	N/A
0,95	.0374"	16 mm	32 mm	•	N/A
1	.0394"	17 mm	34 mm	•	•
1,05	.0413"	17 mm	34 mm	•	•
1,1	.0433"	19 mm	36 mm	•	•
1,15	.0453"	19 mm	36 mm	•	•
1,2	.0472"	22 mm	38 mm	•	•
1,25	.0492"	22 mm	38 mm	•	•
1,3	.0512"	22 mm	38 mm	•	•
1,35	.0531"	22 mm	40 mm	•	•
1,4	.0551"	22 mm	40 mm	•	•
1,45	.0571"	22 mm	40 mm	•	•
1,5	.0591"	22 mm	40 mm	•	•
1,55	.0610"	22 mm	43 mm	•	•
1,6	.0630"	22 mm	43 mm	•	•
1,65	.0650"	25 mm	43 mm	•	•
1,7	.0669"	25 mm	43 mm	•	•
1,75	.0689"	25 mm	46 mm	•	•
1,8	.0709"	25 mm	46 mm	•	•

Made to NAS907 Specifications **Metric** Sold 12 per pack (0.35-7.50mm).

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°)
1,85	.0728"	25 mm	46 mm	•	•
1,9	.0748"	25 mm	46 mm	•	•
1,95	.0768"	25 mm	49 mm	•	•
2	.0787"	25 mm	49 mm	•	•
2,05	.0807"	29 mm	49 mm	•	•
2,1	.0827"	29 mm	49 mm	•	•
2,15	.0846"	29 mm	53 mm	•	•
2,2	.0866"	32 mm	53 mm	•	•
2,25	.0886"	32 mm	53 mm	•	•
2,3	.0906"	32 mm	53 mm	•	•
2,35	.0925"	32 mm	53 mm	•	•
2,4	.0945"	35 mm	57 mm	•	•
2,45	.0965"	35 mm	57 mm	•	•
2,5	.0984"	35 mm	57 mm	•	•
2,6	.1024"	37 mm	57 mm	•	•
2,7	.1063"	37 mm	61 mm	•	•
2,75	.1083"	37 mm	61 mm	•	•
2,8	.1102"	38 mm	61 mm	•	•
2,9	.1142"	41 mm	61 mm	•	•
3	.1181"	41 mm	61 mm	•	•
3,1	.1220"	41 mm	65 mm	•	•
3,2	.1260"	41 mm	65 mm	•	•
3,25	.1280"	41 mm	65 mm	•	•
3,3	.1299"	44 mm	65 mm	•	•
3,4	.1339"	44 mm	70 mm	•	•
3,5	.1378"	44 mm	70 mm	•	•
3,6	.1417"	48 mm	70 mm	•	•
3,7	.1457"	48 mm	70 mm	•	•
3,75	.1476"	48 mm	75 mm	•	•
3,8	.1496"	48 mm	75 mm	•	•
4,3	.1693"	54 mm	80 mm	•	•
4,4	.1739"	56 mm	80 mm	•	•

Made to NAS907 Specifications **Metric**

Sold 12 per pack (0.35-7.50mm).



Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
4,5	.1772"	56 mm	80 mm	•	•
4,6	.1811"	56 mm	80 mm	•	•
4,7	.1850"	59 mm	80 mm	•	•
4,75	.1870"	59 mm	86 mm	•	•
4,8	.1890"	59 mm	86 mm	•	•
4,9	.1929"	62 mm	86 mm	•	•
5	.1968"	62 mm	86 mm	•	•
5,1	.2008"	62 mm	86 mm	•	•
5,2	.2047"	64 mm	86 mm	•	•
5,25	.2067"	64 mm	86 mm	•	•
5,3	.2087"	64 mm	86 mm	•	•
5,4	.2126"	64 mm	93 mm	•	•
5,5	.2165"	64 mm	93 mm	•	•
5,6	.2205"	67 mm	93 mm	•	•
5,7	.2244"	67 mm	93 mm	•	•
5,75	.2264"	67 mm	93 mm	•	•
5,8	.2283"	67 mm	93 mm	•	•
5,9	.2323"	67 mm	93 mm	•	•
6	.2362"	70 mm	93 mm	•	•
6,1	.2402"	70 mm	101 mm	•	•
6,2	.2441"	70 mm	101 mm	•	•
6,25	.2461"	70 mm	101 mm	•	•
6,3	.2480"	70 mm	101 mm	•	•
6,4	.2520"	73 mm	101 mm	•	•
6,5	.2559"	73 mm	101 mm	•	•
6,6	.2598"	73 mm	101 mm	•	•
6,7	.2638"	73 mm	101 mm	•	•
6,75	.2657"	73 mm	109 mm	•	•
6,8	.2677"	73 mm	109 mm	•	•
6,9	.2717"	73 mm	109 mm	•	•
7	.2756"	73 mm	109 mm	•	•
7,1	.2795"	75 mm	109 mm	•	•
7,2	.2835"	75 mm	109 mm	•	•
7,25	.2854"	75 mm	109 mm	•	•
7,3	.2874"	75 mm	109 mm	•	•
7,4	.2913"	78 mm	109 mm	•	•
7,5	.2953"	78 mm	109 mm	•	•

Made to NAS907 Specifications **Metric**

Sold 12 per pack (0.35-7.50mm).



Aircraft Quality Extension Length Drills

Made to NAS907 Specifications **Wire Gauge**

Sold 12 per pack (6": #1-60, 12": #11-60) & 6 per pack (12": #1-10)

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)
1	.2280"	2-5/8"	•	•	•	•	•	•
2	.2210"	2-5/8"	•	•	•	•	•	•
3	.2130"	2-1/2"	•	•	•	•	•	•
4	.2090"	2-1/2"	•	•	•	•	•	•
5	.2055"	2-1/2"	•	•	•	•	•	•
6	.2040"	2-1/2"	•	•	•	•	•	•
7	.2010"	2-7/16"	•	•	•	•	•	•
8	.1990"	2-7/16"	•	•	•	•	•	•
9	.1960"	2-7/16"	•	•	•	•	•	•
10	.1935"	2-7/16"	•	•	•	•	•	•
11	.1910"	2-5/16"	•	•	•	•	•	•
12	.1890"	2-5/16"	•	•	•	•	•	•
13	.1850"	2-5/16"	•	•	•	•	•	•
14	.1820"	2-3/16"	•	•	•	•	•	•
15	.1800"	2-3/16"	•	•	•	•	•	•
16	.1770"	2-3/16"	•	•	•	•	•	•
17	.1730"	2-3/16"	•	•	•	•	•	•
18	.1695"	2-1/8"	•	•	•	•	•	•
19	.1660"	2-1/8"	•	•	•	•	•	•
20	.1610"	2-1/8"	•	•	•	•	•	•
21	.1590"	2-1/8"	•	•	•	•	•	•
22	.1570"	2"	•	•	•	•	•	•
23	.1540"	2"	•	•	•	•	•	•
24	.1520"	2"	•	•	•	•	•	•
25	.1495"	1-7/8"	•	•	•	•	•	•
26	.1470"	1-7/8"	•	•	•	•	•	•
27	.1440"	1-7/8"	•	•	•	•	•	•
28	.1405"	1-3/4"	•	•	•	•	•	•
29	.1360"	1-3/4"	•	•	•	•	•	•
30	.1285"	1-5/8"	•	•	•	•	•	•



Aircraft Quality Extension Length Drills

Made to NAS907 Specifications **Wire Gauge**

Sold 12 per pack (6": #1-60, 12": #11-60) & 6 per pack (12": #1-10)

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).

Example: For a #31, 6" cobalt (135° split point) drill, the number would be 02-501-6-31C

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)
31	.1200"	1-5/8"	•	•	•	•	•	•
32	.1160"	1-5/8"	•	•	•	•	•	•
33	.1130"	1-1/2"	•	•	•	•	N/A	N/A
34	.1110"	1-1/2"	•	•	•	•	N/A	N/A
35	.1100"	1-1/2"	•	•	•	•	N/A	N/A
36	.1065"	1-7/16"	•	•	•	•	N/A	N/A
37	.1040"	1-7/16"	•	•	•	•	N/A	N/A
38	.1015"	1-7/16"	•	•	•	•	N/A	N/A
39	.0995"	1-3/8"	•	•	•	•	N/A	N/A
40	.0980"	1-3/8"	•	•	•	•	N/A	N/A
41	.0969"	1-3/8"	•	•	•	•	N/A	N/A
42	.0935"	1-1/4"	•	•	•	•	N/A	N/A
43	.0890"	1-1/4"	•	•	•	•	N/A	N/A
44	.0860"	1-1/8"	•	•	•	•	N/A	N/A
45	.0820"	1-1/8"	•	•	•	•	N/A	N/A
46	.0810"	1-1/8"	•	•	•	•	N/A	N/A
47	.0785"	1"	•	•	•	•	N/A	N/A
48	.0760"	1"	•	•	•	•	N/A	N/A
49	.0730"	1"	•	•	•	•	N/A	N/A
50	.0700"	1"	•	•	•	•	N/A	N/A
51	.0670"	1"	•	•	•	•	N/A	N/A
52	.0635"	7/8"	•	•	•	•	N/A	N/A
53	.0595"	7/8"	•	•	•	•	N/A	N/A
54	.0550"	7/8"	•	•	•	•	N/A	N/A
55	.0520"	7/8"	•	•	•	•	N/A	N/A
56	.0465"	3/4"	•	•	•	•	N/A	N/A
57	.0430"	3/4"	•	•	•	•	N/A	N/A
58	.0420"	11/16"	•	•	•	•	N/A	N/A
59	.0410"	11/16"	•	•	•	•	N/A	N/A
60	.0400"	11/16"	•	•	•	•	N/A	N/A



Aircraft Quality Extension Length Drills

Made to NAS907 Specifications **Letter**

Sold 12 per pack (6": A-F), 6 per pack (6": G-Z, 12": A-R) & 3 per pack (12": S-Z)

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).

Example: For a "A", 6" H.S.S. (135° split point) drill, the number would be 02-502-6-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)
A	.2340"	2-5/8"	•	•	•	•
B	.2380"	2-3/4"	•	•	•	•
C	.2420"	2-3/4"	•	•	•	•
D	.2460"	2-3/4"	•	•	•	•
E	.2500"	2-3/4"	•	•	•	•
F	.2570"	2-7/8"	•	•	•	•
G	.2610"	2-7/8"	•	•	•	•
H	.2660"	2-7/8"	•	•	•	•
I	.2720"	2-7/8"	•	•	•	•
J	.2770"	2-7/8"	•	•	•	•
K	.2810"	2-15/16"	•	•	•	•
L	.2900"	2-15/16"	•	•	•	•
M	.2950"	3-1/16"	•	•	•	•
N	.3020"	3-1/16"	•	•	•	•
O	.3160"	3-1/16"	•	•	•	•
P	.3230"	3-5/16"	•	•	•	•
Q	.3320"	3-7/16"	•	•	•	•
R	.3390"	3-7/16"	•	•	•	•
S	.3480"	3-1/2"	•	•	•	•
T	.3580"	3-1/2"	•	•	•	•
U	.3680"	3-5/8"	•	•	•	•
V	.3770"	3-5/8"	•	•	•	•
W	.3860"	3-3/4"	•	•	•	•
X	.3970"	3-3/4"	•	•	•	•
Y	.4040"	3-7/8"	•	•	•	•
Z	.4130"	3-7/8"	•	•	•	•



Aircraft Quality Extension Length Drills

Made to NAS907 Specifications **Fractional**

Sold 12 per pack (6": 1/16"-1/4", 12": 1/16"-11/64"), 6 per pack (6": 17/64"-1/2", 12": 3/16"-11/32") & 3 per pack (12": 23/64"-1/2").

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).

Example: For a 1/4", 6" H.S.S. (135° split point) drill, the number would be 02-500-6-1/4



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)
1/16	.0625"	7/8"	•	•	•	•	N/A	N/A
5/64	.0781"	1"	•	•	•	•	N/A	N/A
3/32	.0938"	1-1/4"	•	•	•	•	N/A	N/A
7/64	.1094"	1-1/2"	•	•	•	•	N/A	N/A
1/8	.1250"	1-5/8"	•	•	•	•	•	•
9/64	.1406"	1-3/4"	•	•	•	•	•	•
5/32	.1562"	2"	•	•	•	•	•	•
11/64	.1719"	2-1/8"	•	•	•	•	•	•
3/16	.1875"	2-5/16"	•	•	•	•	•	•
13/64	.2031"	2-7/16"	•	•	•	•	•	•
7/32	.2188"	2-1/2"	•	•	•	•	•	•
15/64	.2344"	2-5/8"	•	•	•	•	•	•
1/4	.2500"	2-3/4"	•	•	•	•	•	•
17/64	.2656"	2-7/8"	•	•	N/A	N/A	•	•
9/32	.2812"	2-15/16"	•	•	N/A	N/A	•	•
19/64	.2969"	3-1/16"	•	•	N/A	N/A	•	•
5/16	.3125"	3-3/16"	•	•	N/A	N/A	•	•
21/64	.3281"	3-5/16"	•	•	N/A	N/A	•	•
11/32	.3438"	3-7/16"	•	•	N/A	N/A	•	•
23/64	.3594"	3-1/2"	•	•	N/A	N/A	•	•
3/8	.3750"	3-5/8"	•	•	N/A	N/A	•	•
25/64	.3906"	3-3/4"	•	•	N/A	N/A	•	•
13/32	.4062"	3-7/8"	•	•	N/A	N/A	•	•
27/64	.4219"	3-15/16"	•	•	N/A	N/A	•	•
7/16	.4375"	4-1/16"	•	•	N/A	N/A	•	•
29/64	.4531"	4-3/16"	•	•	N/A	N/A	•	•
15/32	.4688"	4-5/16"	•	•	N/A	N/A	•	•
31/64	.4844"	4-3/8"	•	•	N/A	N/A	•	•
1/2	.5000"	4-1/2"	•	•	N/A	N/A	•	•

Aircraft Quality Stubby Length Drills

Made to NAS907 Specifications **Wire Gauge**

Sold 12 per pack (#1-60).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).

Example: For a #1 TiN coated (135° split point) drill, the number would be 02-R41C-1T



Wire Gauge Part Number (Prefix)				02-R41C	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)
1	.2280"	1-5/16"	2-7/16"	•	•	•
2	.2210"	1-5/16"	2-7/16"	•	•	•
3	.2130"	1-1/4"	2-3/8"	•	•	•
4	.2090"	1-1/4"	2-3/8"	•	•	•
5	.2055"	1-1/4"	2-3/8"	•	•	•
6	.2040"	1-1/4"	2-3/8"	•	•	•
7	.2010"	1-3/16"	2-1/4"	•	•	•
8	.1990"	1-3/16"	2-1/4"	•	•	•
9	.1960"	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"	•	•	•
14	.1820"	1-1/8"	2-3/16"	•	•	•
15	.1800"	1-1/8"	2-3/16"	•	•	•
16	.1770"	1-1/8"	2-3/16"	•	•	•
17	.1730"	1-1/8"	2-3/16"	•	•	•
18	.1695"	1-1/16"	2-1/8"	•	•	•
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"	•	•	•
23	.1540"	1"	2-1/16"	•	•	•
24	.1520"	1"	2-1/16"	•	•	•
25	.1495"	1"	2-1/16"	•	•	•
26	.1470"	1"	2-1/16"	•	•	•
27	.1440"	1"	2-1/16"	•	•	•
28	.1405"	15/16"	1-15/16"	•	•	•
29	.1360"	15/16"	1-15/16"	•	•	•
30	.1285"	15/16"	1-15/16"	•	•	•

Aircraft Quality Stubby Length Drills

Made to NAS907 Specifications **Wire Gauge**
 Sold 12 per pack (#1-60).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).
 Example: For a #31 TiN coated (135° split point) drill, the number would be 02-R41C-31T

Wire Gauge Part Number (Prefix)				02-R41C	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)
31	.1200"	7/8"	1-7/8"	•	•	•
32	.1160"	7/8"	1-7/8"	•	•	•
33	.1130"	7/8"	1-7/8"	•	•	•
34	.1110"	7/8"	1-7/8"	•	•	•
35	.1100"	7/8"	1-7/8"	•	•	•
36	.1065"	13/16"	1-13/16"	•	•	•
37	.1040"	13/16"	1-13/16"	•	•	•
38	.1015"	13/16"	1-13/16"	•	•	•
39	.0995"	13/16"	1-13/16"	•	•	•
40	.0980"	13/16"	1-13/16"	•	•	•
41	.0969"	13/16"	1-13/16"	•	•	•
42	.0935"	3/4"	1-3/4"	•	•	•
43	.0890"	3/4"	1-3/4"	•	•	•
44	.0860"	3/4"	1-3/4"	•	•	•
45	.0820"	3/4"	1-3/4"	•	•	•
46	.0810"	3/4"	1-3/4"	•	•	•
47	.0785"	11/16"	1-11/16"	•	•	•
48	.0760"	11/16"	1-11/16"	•	•	•
49	.0730"	11/16"	1-11/16"	•	•	•
50	.0700"	11/16"	1-11/16"	•	•	•
51	.0670"	11/16"	1-11/16"	•	•	•
52	.0635"	11/16"	1-11/16"	•	•	•
53	.0595"	5/8"	1-5/8"	•	•	•
54	.0550"	5/8"	1-5/8"	•	•	•
55	.0520"	5/8"	1-5/8"	•	•	•
56	.0465"	1/2"	1-3/8"	•	•	•
57	.0430"	1/2"	1-3/8"	•	•	•
58	.0420"	1/2"	1-3/8"	•	•	•
59	.0410"	1/2"	1-3/8"	•	•	•
60	.0400"	1/2"	1-3/8"	•	•	•



Aircraft Quality Stubby Length Drills

Made to NAS907 Specifications **Fractional**
 Sold 12 per pack (1/16"-19/64") & 6 per pack (5/16"-1/2").

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix).
 Example: For a 1/16" TiN coated (135° split point) drill, the number would be 02-R40C-1/16T

Fractional Part Number (Prefix)				02-R40C	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)
1/16	.0625"	5/8"	1-5/8"	•	•	•
5/64	.0781"	11/16"	1-11/16"	•	•	•
3/32	.0938"	3/4"	1-3/4"	•	•	•
7/64	.1094"	13/16"	1-13/16"	•	•	•
1/8	.1250"	7/8"	1-7/8"	•	•	•
9/64	.1406"	15/16"	2-15/16"	•	•	•
5/32	.1562"	1"	2-1/16"	•	•	•
11/64	.1719"	1-1/16"	2-1/8"	•	•	•
3/16	.1875"	1-1/8"	2-3/16"	•	•	•
13/64	.2031"	1-3/16"	2-1/4"	•	•	•
7/32	.2188"	1-1/4"	2-3/8"	•	•	•
15/64	.2344"	1-5/16"	2-7/16"	•	•	•
1/4	.2500"	1-3/8"	2-1/2"	•	•	•
17/64	.2656"	1-7/16"	2-5/8"	•	•	•
9/32	.2812"	1-1/2"	2-11/16"	•	•	•
19/64	.2969"	1-9/16"	2-3/4"	•	•	•
5/16	.3125"	1-5/8"	2-13/16"	•	•	•
21/64	.3281"	1-11/16"	2-15/16"	•	•	•
11/32	.3438"	1-11/16"	3"	•	•	•
23/64	.3594"	1-3/4"	3-1/16"	•	•	•
3/8	.3750"	1-13/16"	3-1/8"	•	•	•
25/64	.3906"	1-7/8"	3-1/4"	•	•	•
13/32	.4062"	1-15/16"	3-5/16"	•	•	•
27/64	.4219"	2"	3-3/8"	•	•	•
7/16	.4375"	2-1/16"	3-7/16"	•	•	•
29/64	.4531"	2-1/8"	3-9/16"	•	•	•
15/32	.4688"	2-1/8"	3-5/8"	•	•	•
31/64	.4844"	2-3/16"	3-11/16"	•	•	•
1/2	.5000"	2-1/4"	3-3/4"	•	•	•



Left Hand Spiral Drills

Left Hand Spiral Drill Packs* - 135° Split Point

- 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 extractor.



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)

Chipfree Acrylic Drills

Acrylic Drill Packs* - 60° Point

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



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)

Jobber's Length Drill Sets

Jobber's Length Drill Sets
High Performance MADE IN USA



Drill Sets - Heavy Duty, 118° Non-Split Point			
Part No.	Construction	Included Sizes	Bits
02-C13-H	HSS	1/16" to 1/4" (x 64ths)	13
02-C21-H	HSS	1/16" to 3/8" (x 64ths)	21
02-C15-H	HSS	1/16" to 1/2" (x 32nds)	15
02-C29-H	HSS	1/16" to 1/2" (x 64ths)	29
02-C1-H	HSS	#1 to #60	60
02-CAZ-H	HSS	A to Z	26
02-C115-H	HSS	1/16"-1/2", A-Z, #1-#60	115
02-C112-H*	HSS	1 to 6 mm (x 0.5 mm)	11
02-C252-H*	HSS	1 to 13 mm (x 0.5 mm)	25

Drill Sets - Heavy Duty, 118° Split Point			
Part No.	Construction	Included Sizes	Bits
02-CB115-H	Cobalt	1/16"-1/2", A-Z, #1-#60	115
02-CT15-H*	H.S.S. TIN Coated	1/16" to 1/2" (x 32nds)	15

Drill Sets - Heavy Duty, 135° Split Point			
Part No.	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 32nds)	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

Chucking Reamer Sets



Reamers are straight shank, straight flute, right hand cut.

Chucking Reamer Sets			
Part No. H.S.S.	Part No. Cobalt	Included Sizes	Bits
02-127S02	02-CB127S02	1/16" to 1/2" (x 64ths)	29
02-127S11	02-CB127S11	#1 to #60	60
02-127S14	02-CB127S14	A to Z	26

H.S.S. Adjustable Hand Reamers



- 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 No.	Range Of Adjustment	Blade L.	Overall Length
02-8A	1/4" - 9/32" (6.3 - 7.1 mm)	1-11/32"	3-1/4" (82.6 mm)
02-7A	9/32" - 5/16" (7.1 - 7.9 mm)	1-11/32"	3-1/2" (88.9 mm)
02-6A	5/16" - 11/32" (7.9 - 8.7 mm)	1-1/2"	4-1/8" (104.8 mm)
02-5A	11/32" - 3/8" (8.7 - 9.5 mm)	1-1/2"	4-3/8" (111.1 mm)
02-4A	3/8" - 13/32" (9.5 - 10.3 mm)	1-1/2"	4-3/4" (120.7 mm)
02-3A	13/32" - 7/16" (10.3 - 11.1 mm)	1-1/2"	5" (127 mm)
02-2A	7/16" - 15/32" (11.1 - 11.9 mm)	1-5/8"	5-1/4" (133.4 mm)

5PC Adjustable Hand Reamer Set (includes fitted case)		
Part No.	Included Reamers	Range Of Adjustment
RS-AHR-4	02-8A, 02-7A, 02-6A & 02-5A	1/4" - 3/8" (6.3 - 9.5 mm)

Chucking Reamers



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

HIGH SPEED STEEL				COBALT	
Type	Straight Flute	Left Spiral Flute	Right Spiral Flute	Type	Straight Flute
Shank	Straight	Straight	Straight	Shank	Straight
Part No. (Prefix)	700	720	740	Part No. (Prefix)	700C

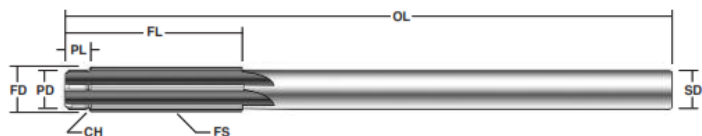
Carbide Tipped					Solid Carbide	
Type	Straight Flute	Straight Flute	Expansion Flute	Expansion Flute	Type	Straight Flute
Shank	Straight	Taper	Straight	Taper	Shank	Straight
Part No. (Prefix)	400	402	465	467	Part No. (Prefix)	1564

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.

Key

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



Chucking Reamers



Size	Decimal	Size	Decimal	Size	Decimal	Size	Decimal	Size	Decimal	Size	Decimal
(Suffix)	Equiv.	(Suffix)	Equiv.	(Suffix)	Equiv.	(Suffix)	Equiv.	(Suffix)	Equiv.	(Suffix)	Equiv.
41	.0960"	21	.1590"	A	.2340"	O	.3160"	7/16	.4375"	19mm	.7480"
40	.0980"	20	.1610"	15/64	.2344"	P	.3230"	4385	.4385"	3/4	.7500"
2.5mm	.0984"	19	.1660"	6mm	.2362"	21/64	.3281"	11.5mm	.4528"	19.5mm	.7677"
39	.0995"	18	.1695"	B	.2380"	Q	.3320"	29/64	.4531"	25/32	.7812"
38	.1015"	11/64	.1719"	C	.2420"	8.5mm	.3346"	15/32	.4687"	20mm	.7874"
37	.1040"	17	.1730"	D	.2460"	R	.3390"	12mm	.4724"	20.5mm	.8071"
36	.1065"	16	.1770"	2480	.2480"	11/32	.3437"	31/64	.4844"	13/16	.8125"
7/64	.1094"	4.5mm	.1772"	2490	.2490"	S	.3480"	12.5mm	.4921"	21mm	.8268"
35	.1100"	15	.1800"	2495	.2495"	9mm	.3543"	4980	.4980"	27/32	.8437"
34	.1110"	14	.1820"	1/4	.2500"	T	.3580"	4980	.4990"	21.5mm	.8465"
33	.1130"	13	.1850"	2510	.2510"	23/64	.3594"	4995	.4995"	22mm	.8661"
32	.1160"	1855	.1855"	6.5mm	.2559"	U	.3680"	1/2	.5000"	7/8	.8750"
3mm	.1181"	1865	.1865"	F	.2570"	3730	.3730"	5010	.5010"	22.5mm	.8858"
31	.1200"	1870	.1870"	G	.2610"	3740	.3740"	13mm	.5118"	23mm	.9055"
1230	.1230"	3/16	.1875"	17/64	.2656"	9.5mm	.3740"	17/32	.5312"	29/32	.9062"
1240	.1240"	1885	.1885"	H	.2660"	3745	.3745"	13.5mm	.5315"	23.5mm	.9252"
1247	.1247"	12	.1890"	I	.2720"	3/8	.3750"	14mm	.5512"	15/16	.9375"
1/8	.1250"	11	.1910"	7mm	.2756"	3760	.3760"	9/16	.5625"	24mm	.9449"
1260	.1260"	10	.1935"	J	.2770"	V	.3770"	14.5mm	.5709"	24.5mm	.9646"
30	.1285"	9	.1960"	K	.2810"	W	.3860"	15mm	0,591	31/32	.9687"
29	.1360"	5mm	.1968"	9/32	.2812"	25/64	.3906"	19/32	.5937"	25mm	.9843"
3.5mm	.1378"	8	.1990"	L	.2900"	10mm	.3737"	15.5mm	.6102"	1	1.0000"
28	.1405"	7	.2010"	M	.2950"	X	.3970"	5/8	.6250"	1-1/16	1.0625"
9/64	.1406"	13/64	.2031"	7.5mm	.2953"	Y	.4040"	16mm	.6299"	1-1/8	1.1250"
27	.1440"	6	.2040"	19/64	.2969"	13/32	.4062"	16.5mm	.6496"	1-3/16	1.1875"
26	.1470"	5	.2055"	N	.3020"	Z	.4130"	21/32	.6562"	1-1/4	1.2500"
25	.1495"	4	.2090"	3105	.3105"	10.5mm	.4134"	17mm	.6693"	1-5/16	1.3125"
24	.1520"	3	.2130"	3115	.3115"	27/64	.4219"	11/16	.6875"	1-3/8	1.3750"
23	.1540"	5.5mm	.2165"	3120	.3120"	11mm	.4331"	17.5mm	.6890"	1-7/16	1.4375"
5/32	.1562"	7/32	.2187"	5/16	.3125"	4355	.4355"	18mm	.7087"	1-1/2	1.5000"
22	.1570"	2	.2210"	3135	.3135"	4365	.4365"	23/32	.7187"		
4mm	.1575"	1	.2280"	8mm	.3150"	4370	.4370"	18.5mm	.7283"		

Collet Chucks

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

Part Number	Size
20-4010	#10
20-4011	#11
20-4020	#20
20-4021	#21
20-4027	#27
20-4030	#30
20-4040	#40
20-4257	F

Part Number	Size
20-4013	3/32"
20-4014	1/8"
20-4015	5/32"
20-4016	3/16"
20-4017	7/32"
20-4018	1/4"
20-41516	5/16"
20-41318	3/8"



4 PC Collet Chuck Kit	
Part Number	Sizes Included
53-92964	#10, #21, #30 & #40

Angle Drill Upgrade Kit

Part Number	Description
53-99757	Complete 10 PC Kit

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



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
AD1457	3,7	.1457"
AD1496	3,8	.1496"
AD1535	3,9	.1535"
AD1575	4	.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	.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"

Metric Sizes		
Part No.	Size	Decimal
AD0315	0,8	.0315"
AD0354	0,9	.0354"
AD0394	1	.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	.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	.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"

H.S.S. Threaded Shank Reamers

- 1/4"-28 shank 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)

Threaded Shank 'Rosebud' C'sink Cutters

For angle drills, drill attachments & similar threaded shank tools.



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.



Threaded Shank Adapter Drills

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
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
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
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
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
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

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 Shank Countersink Extensions

Versatile - for use with countersinks, drill bits etc.
1/4"-28 threaded shank & 1/4"-28 female thread.

Part Number	Body Length	Body Dia.	Shank Length
90442	1" (25.4 mm)	3/8"	5/16"
90443	2" (50.8 mm)		
90444	4" (101.6 mm)		



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



Rivet Removal Tools

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

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
02-2972-3/32	3/32"
02-2972-1/8	1/8"
02-2972-5/32	5/32"
02-2972-3/16	3/16"

Rivet Fan Spacing Tools

- 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	Standart	20	38" (97 mm)
46-051	Mini	10	18" (46 mm)



Rivet Fan Spacing Tools



Tapered back end is convenient for prying apart sheets.

Punch Type (marks sheet from hidden pilot hole)		
Part Number 6-1/4" Reach (L')	Part Number 13-1/4" Reach (L')	Drill Size & Pilot Diameter
46-230-1	46-230-21	#40
46-230-2	46-230-22	#30
46-230-3	46-230-23	#21
46-230-4	46-230-24	#19
46-230-5	46-230-25	#10
46-230-6	46-230-26	#5
46-230-7	46-230-27	1/4"
46-230-8	46-230-28	F



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 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

Strap Duplicator Sets



Part Number	Type	Includes (1 each):
53-70369	Bushing, 6-1/4" Reach	46-231-1, 2, 3 & 5
53-70370	Bushing, 13-1/4" Reach	46-231-21, 22, 23 & 25
53-70371	Inverted, 6-1/4" Reach	46-232-1, 2, 3 & 5
53-70372	Inverted, 13-1/4" Reach	46-232-21, 22, 23 & 25

Chip Chasers

Part Number	Blade Length
04-100	2-3/4"
04-200	5-7/8"



Drill Stands & Threaded Bushings

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		3/4"-16 Thread Bushings	
Part Number	Drill Size	Part Number	Drill Size
18-1213-40	#40	18-1215-9/32	9/32"
18-1213-3/32	3/32"	18-1215-5/16	5/16"
18-1213-30	#30	18-1215-11/32	11/32"
18-1213-1/8	1/8"	18-1215-3/8	3/8"
18-1213-21	#21	18-1215-7/16	7/16"
18-1213-5/32	5/32"	18-1215-1/2	1/2"
18-1213-10	#10		
18-1213-3/16	3/16"		
18-1213-7/32	7/32"		
18-1213-1/4	1/4"		



Interchangeable & Hardened Bushings

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

Drill Stand Kit



Fitted Case Helps Prevent F.O.D.

Part Number	Description
53-590DBK	Complete 13 PC Kit

Drill Stand & Slip Bushings

Drill Stand (order bushings below)		Description
Part Number	Height	Clear & Durable Lexan Stand
18-5210	1.3/4"	

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



1/2" OD Slip Bushings	
Part Number	Drill Size
18-1040	#40
18-1041	3/32"
18-1042	#30
18-1043	1/8"
18-1044	#21

1/2" OD Slip Bushings	
Part Number	Drill Size
18-1045	5/32"
18-1046	#10
18-1047	3/16"
18-1048	7/32"
18-1049	1/4"

Drill Stand & Slip Bushing Sets

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



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")

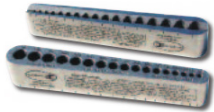
Big Gator Drill Guide

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

Durable heat-treated, alloyed steel construction.

17 holes with marked centerlines for proper hole alignment.

"V" groove on bottom for easy drilling on corners and rounds.



"Bombsite" Precision Optical Hole Locator

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



Made of virtually unbreakable optical grade clear acrylic. Permanently etched crosshairs provide an extremely accurate and magnified reference point accurate to ±0.001" of dead center. Works with all standard 1/2" diameter slip bushing tools.

Drill Stand & Slip Bushing Kit

Part Number	Description
53-16045	18 PC Set

18 PC Kit Includes: 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



Drill Bar

*This adjustable, slip-type drill bar provides accurate placement and alignment of drilled holes. Includes lock screw and liner.

*Use it with the spotter (above) to center the drill bar within ±0.001". Once centered replace the spotter with a slip bushing and drill.

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



Threaded Channel Drill Stands

*Keep drills a perfect 90° to the work surface

*Use with 1/2"-13 threaded bushings offered on previous page.

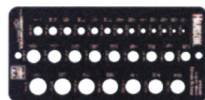
- Three hole type allows more efficient work with multiple bushings ready to go.
- Bottom feet allow for quick chip ejection.

Part Number	Type
18-13186	One Hole
18-13187	Three Hole



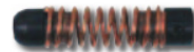
Drill Gauges

Part No.	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	Same As Above, Easy Read Type
18-15	Number (1 to 60)
18-15E	Same As Above, Easy Read Type
18-35	Metric (to 13 mm x .05 mm)



Drill Stops

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



Part No.	Drill Size	O.A.L.
18-DS-21	#21	1-1/2" (38 mm)
18-DS-20	#20	
18-DS-17	#17	
18-DS-16	#16	
18-DS-12	#12	
18-DS-11	#11	
18-DS-10	#10	
18-DS-6	#6	2-1/8" (54 mm)
18-DS-1	#1	
18-DS-1/4	1/4"	
18-DS-5/16	5/16"	
18-DS-7/32	7/32"	
18-DS-9/32	9/32"	
18-DS-3/8	3/8"	
18-DS-7/16	7/16"	

Part No.	Drill Size	O.A.L.
18-DS-50	#50	1-5/16" (33 mm)
18-DS-41	#41	
18-DS-40	#40	
18-DS-30	#30	
18-DS-28	#28	
18-DS-27	#27	

Drill Stop 4 PC Set	
Part Number	Included Sizes (1 each)
53-1234	#10, #21, #30, #40

Drill Stops

No-Mar Drill Stops

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



Part Number	Color	Size
18-DS-40NM	Zinc	#40
18-DS-30NM	Copper	#30
18-DS-21NM	Black	#21

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

H.S.S. Nut Plate Drill Bits



'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"

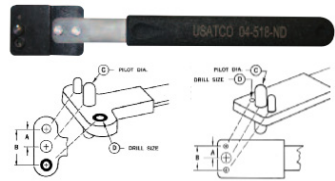
- 100° countersink, 8-32 thread.
- Cobalt nut plate drill bits also available, please inquire.

Nut Plate Drill Jigs

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

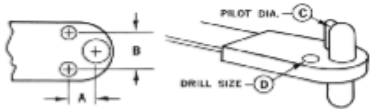
Two Lug Type Style 1					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-A	#6	.344"	.688"	.139"	#40
04-518-B	#8	.344"	.688"	.164"	#40
04-518-C	#10	.344"	.688"	.191"	#40
04-518-D	1/4"	.500"	1.000"	.248"	#40
04-518-E	5/16"	.500"	1.000"	.312"	#30
04-518-F	3/8"	.500"	1.000"	.372"	#30
04-518-M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



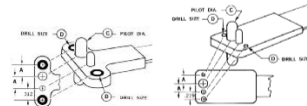
Two Lug Type Style 1 Two Lug Type Style 2

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



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

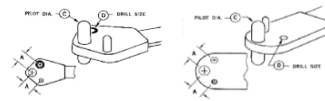
One Lug Type Style 2				
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size
04-518-PA	#4	.203"	.112"	#40
04-518-PB	#6	.218"	.139"	#40
04-518-PC	#8	.234"	.164"	#40
04-518-PD	#10	.250"	.191"	#40
04-518-PE	1/4"	.281"	.248"	#40



One Lug Type Style 1 One Lug Type Style 2

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

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

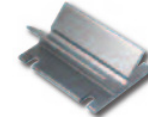


Corner Lug Type Style 1 Corner Lug Type Style 2

Tube Drilling Jig

Part No.	Description
70189	Tube Drilling Jig

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



Drill Rite™ Precision Drill Guide

Part No.	Capacity (pipe or round stock)
70400	1/2" to 2-1/2" Diameter

- Allows hand drills to perform like a professional drill press.
- High quality aircraft grade aluminum construction.
- 3/16" & 1/4" drill bushings included with tool.



Rivet Gun Retainer Springs

Retainer Spring Set	
Part Number	Include
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 Gun Power Regulators

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



Regulates air intake for accurate adjustment of hammer blow.

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, 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	Mod. Br. AN456	Univ. AN470
1/4"	—	—	—	4558	—	—
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"	—	—	—	—	—	4707
1/4"	4308	4358	4428	—	4568	4708
9/32"	—	—	—	—	—	4709

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)

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



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

Bell Type 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, 2-1/2" O.A.L. straight rivet set with an 1/8" 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

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

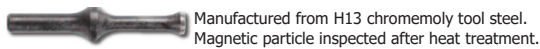
RIVET GUNS ACCESSORIES

Boeing® BACR15FT Modified Univ. Rivet Sets



.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-C401-6-37	3/16"	.656"	3/4"	2.31" (59 mm)
ST1112B-C401-8-53	1/4"	.406"	1-3/4"	3.31" (84 mm)
ST1112B-C401-8-37	1/4"	.656"	3/4"	2.31" (59 mm)

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

AN470 Gooseneck Rivet Sets



.401 Shank			
Part Number	Rivet Size	Rivet Style	Overall Length
07-135-500H	—	Flat	7-1/4" (184 mm)
07-135-4703	3/32"	AN470	
07-135-4704	1/8"	AN470	
07-135-4705	5/32"	AN470	
07-135-4706	3/16"	AN470	
07-135-4708	1/4"	AN470	

AN470 Double Offset Rivet Sets



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

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

Straight & Offset Flush Rivet Sets



.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)

'Shortie' Flush Mushroom Rivet Sets



.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)	

Flush Mushroom Sets



.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)	

Swivel Flush Sets



.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)

Offset Flush Mushroom Sets



.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)

Swivel Flush Sets With Rubber Guard



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

Flush Sets With Polyurethane Guard



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

.401 Shank		
Part Number	Face Diameter	Overall Length
ST1111B-V401K-1	3/4" (19 mm)	2-1/2" (64 mm)
ST1111B-V401K-2	1" (25 mm)	2-1/2" (64 mm)
ST1111B-V401K-3	1-1/4" (32 mm)	2.33" (59 mm)

No-Mar Flush Sets



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)

RIVET GUNS ACCESSORIES

Cupped Sets For Jiffy Type Rivet Guns (Series B)



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

Flush Sets For Jiffy Type Rivet Guns (Series B)



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)	

Rivet Gun Set Packs



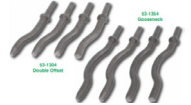
Straight .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-106	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush with Guard	3-1/2" (89 mm)
53-156	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush with Guard	2-1/2" (64 mm)
53-104BAC	4 PC BACR15FT Straight	3/32", 1/8", 5/32", 3/16" AN470 (Modified Universal)	3-1/2" (89 mm)
53-115	5 PC Straight	1/8", 5/32", 3/16" AN470 (Uni- versal), Flush & Mushroom Flush	5-1/2" (140 mm)
53-105	5 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Uni- versal) & Mush- room Flush	3-1/2" (89 mm)



Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-214	4 PC Offset	3/32", 1/8", 5/32" AN470 (Uni- versal) & Flush	5-1/2" (140 mm)
53-204	4 PC Offset	3/32", 1/8", 5/32" AN470 (Uni- versal) & Mushroom Flush	3-1/2" (89 mm)
53-205	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Flush	3-1/2" (89 mm)
53-2050	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Uni- versal) & Mush- room Flush	3-1/2" (89 mm)
53-215	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Flush	5-1/2" (140 mm)
53-204BAC	4 PC BACR15FT Offset	3/32", 1/8", 5/32", 3/16" AN470 (Modified Universal)	3-1/2" (89 mm)

Rivet Gun Set Packs

Straight & Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-10208	8 PC Straight & Offset	3/32", 1/8", 5/32", 3/16" AN470 (Uni- versal)	3-1/2" (89 mm)
53-11218	8 PC Straight & Offset	3/32", 1/8", 5/32", 3/16" AN470 (Uni- versal)	5-1/2" (140 mm)



Gooseneck .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-1354	4 PC Gooseneck	3/32", 1/8", 5/32" AN470 (Universal) & Flush	7-1/4" (184 mm)
53-1355	5 PC Gooseneck	3/32", 1/8", 5/32", 3/16" (Universal) & Flush	7-1/4" (184 mm)


Double Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-1304	4 PC Double Offset	3/32", 1/8", 5/32" AN470 (Uni- versal) & Flush	5-1/2" (140 mm)
53-1314	4 PC Double Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	7-1/2" (190 mm)

Jiffy .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-5104	4 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	Assorted
53-5105	5 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mush- room Flush with Guard	Assorted

Mushroom Flush .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-905	5 PC Mushroom Flush	2-1/2" x 1", 3" x 1", 5-1/2" x 1", 2-1/4" x 1-1/8" & 3/4" D with Rubber Guard	Assorted


Limited Access Flush 'J' Rivet Set

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

Compact profile is excellent for hard to reach areas. 


Limited Access Flush 'T' Rivet Set

.401 Shank	Overall Length
07-10710	7" (178 mm)


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

Limited Access Offset Flush Rivet Set

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

 Flush 60° angle is perfect for limited access areas.

Limited Access Offset Rivet Sets

 Use Squeezer Sets With Your Rivet Gun. Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank	Type	Overall Length
07-PA	.250" Set Hole	5-1/2" (140 mm)
07-PA-1	.187" Set Hole	

Limited Access Rivet Set

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



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"	5/6"	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"	5/6"	3/8"
4	5	6	8	10	12

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)

Rivet Punch-Out Tools




Holder .401 Shank	
Part Number	Capacity
07-JPK-1	1/4"
07-JPK-2	3/8"

Punches For 07-JPK-1 Holder, 1-1/2" Overall Length			
Hi-Shear	Rivet	Sheet Metal	Rivet Size
—	07-PR-1-3	07-PS-1-3	3/32"
07-PH-1-4	07-PR-1-4	07-PS-1-4	1/8"
07-PH-1-5	07-PR-1-5	07-PS-1-5	5/32"
07-PH-1-6	07-PR-1-6	07-PS-1-6	3/16"

Rubber Guard	
Part Number	Capacity
07-PG-1	1/4"
07-PG-2	3/8"

Punches For 07-JPK-2 Holder, 2" Overall Length			
Hi-Shear	Rivet	Sheet Metal	Rivet Size
07-PH-2-8	07-PR-2-8	07-PS-2-8	1/4"
07-PH-2-10	07-PR-2-10	07-PS-2-10	5/16"
07-PH-2-12	07-PR-2-12	07-PS-2-12	3/8"

6 PC Rivet Punch-Out Kit



Note: All parts offered individually on left.

.401 Shank	
Part Number	Kit Includes
53-90131	Holder, Rubber Guard & 4 Rivet Punches (3/32", 1/8", 5/32" & 3/16")

One Piece Knockout Punches

Part Number	Rivet Size	Part Number	Rivet Size
07-141A-3	3/32"	07-141A-8	1/4"
07-141A-4	1/8"	07-141A-10	5/16"
07-141A-5	5/32"	07-141A-12	3/8"
07-141A-6	3/16"	53-141A	Set of 4 *


USATCO 'Extreme Edge' Plastic Scrapers

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




Chemical Resistant Long Edge Life


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




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



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




Part Number	Uses
94106	Corner scraping without changing hold angle



Part Number	Uses
94107	Great for internally radiused surfaces.


Hi-Shear One Piece Knockout Punches




* Includes 3/32", 1/8", 5/32" & 3/16"

Part Number	Rivet Size	Part Number	Rivet Size
07-140A-3	3/32"	07-140A-8	1/4"
07-140A-4	1/8"	07-140A-10	5/16"
07-140A-5	5/32"	07-140A-12	3/8"
07-140A-6	3/16"	53-140A	Set of 4 *


USATCO 'Extreme Edge' Plastic Scrapers



Part Number	Uses
94108	Concentrated scraping into corners & edges.



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



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

Phenolic Scraper




Resharpenable
Will Not Mar Metal

Safely remove sealants, adhesives & stickers without marring. Chemically resistant, non-sparking & non-conductive. Can also be used as a handheld scraper.

.401 Shank	
Part Number	Dimensions
95051	3/8" Thick x 2" Wide x 6-1/2" Long* * Overall length is 6-1/2", 4-1/2" less shank.

Chisel & Cutter Tools



Part Number	Description	Shank	Uses
07-666	Rivet Buster	0,401	For shearing all types of rivets (5/8" blade width).
07-2	Chisel	0,401	For splitting nuts, shearing etc. (3/4" blade width).
07-2B	Chisel	0,498	For breaking spot welds, splitting nuts, shearing etc. (3/4" blade width).
07-2204	Extension Chisel	0,401	Same as 07-2 only 11" long (3/4" blade width).
07-68	Scraper	0,401	For removing sealant & deadener without heat (1-5/16" blade width).
07-1955	Ripper	0,401	For clean, short radius cuts. Very tough.
07-1957	Cutter	0,401	For straight & radius cuts. More precise.
07-1959	Sheet Metal Trimmer	0,401	For edging sheet metal without stretch or distortion. Little touch-up grinding needed.
07-1960	Spot Weld Breaker	0,401	For cutting spot welds, works well on molding & rivets.
07-1961	Radius Cutter	0,401	For cutting a tight radius fast & smooth.

USATCO Break Loose Tools




Fits All .401 Shank Rivet Guns
Utilizes The Vibratory Force Of A Rivet Gun

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)

Swivel Dimpling Combo With Punch & Die Block



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

.401 Shank, Style 'A' Punch & Die Block Combo		.401 Shank, Style 'B' Punch & Die Block Combo	
Part Number	Rivet Die.	Part Number	Rivet Die.
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"

Squeezer Set Adapter



*Allows use of squeezer sets with your rivet gun.
*Accepts standard squeezer sets, dimple punch & die sets.

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

Shank Adapter Sleeve

*Convert any .401 shank rivet set to .498 shank.
*Excellent where tooling space is limited - quick & easy.
Note: Rivet set not included.



Part Number	Set Hole Size
07-99705	.401 Shank Sets

Retainer Spring Shank Adapters

Includes Retainer Spring



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

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

Extension Shank Adapters

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



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

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

Shank Adapter



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

Snap Soc Rivet Set 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"	White
10004	1/8"	Red
10005	5/32"	Green
10006	3/16"	Yellow
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

Riveter's Tape

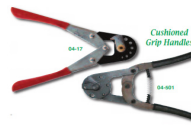


Reduce Manpower On Large Riveting Jobs

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
72-183-0	3/4" (19.1 mm)	4 mil	108' (32.9 m)
72-183-1	1" (25.4 mm)		
72-183-2	2" (50.8 mm)		
72-183-4	4" (101.6 mm)		

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"

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"

Heavy-Duty Rivet Chopper



- Steps vary in 1/16" increments.
- Bench or vise mounted.

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"

Heavy-Duty Rivet Chopper



- Easily separate two pieces of metal.
- All steel construction is heat-treated to allow slight flexibility.

Part Number	Description	Dimensions
14085	Single Tool	7" Long x 1" Wide x 1/4" Thickness
16085	3PC Set	

USATCO Bucking Bar Sets

Three Piece Kit: 08-669, 08-111 & 08-670

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)

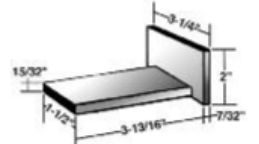
Fifteen Piece Kit:
53-10BK (above), 08-702, 08-736, 08-112, 08-646 & 08-633

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

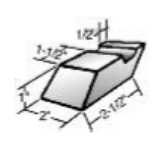


Convenient & Economical

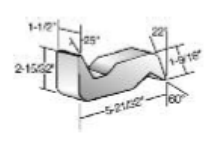
Precision Cast Bucking Bars



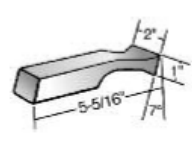
Part No.	Weight
08-1023	1.25 lbs (0.6 kgs)



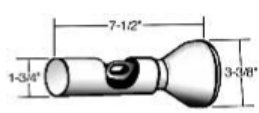
Part No.	Weight
08-1090	1.4 lbs (0.6 kgs)



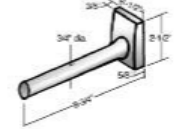
Part No.	Weight
08-111	3.0 lbs (1.4 kgs)



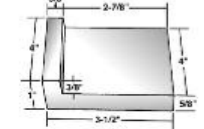
Part No.	Weight
08-112	1.5 lbs (0.7 kgs)



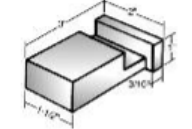
Part No.	Weight
08-603	6.5 lbs (2.9 kgs)



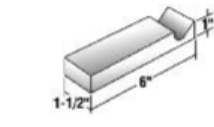
Part No.	Weight
08-604A	2.0 lbs (0.9 kgs)



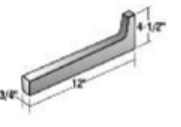
Part No.	Weight
08-607	2.5 lbs (1.1 kgs)



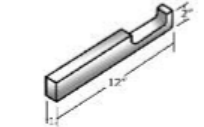
Part No.	Weight
08-619	1.3 lbs (0.6 kgs)



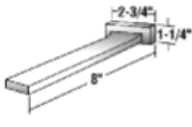
Part No.	Weight
08-622	2.5 lbs (1.1 kgs)



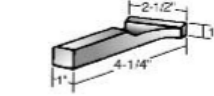
Part No.	Weight
08-625	6.5 lbs (2.9 kgs)



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



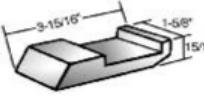
Part No.	Weight
08-630	1.5 lbs (0.7 kgs)



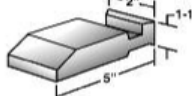
Part No.	Weight
08-633	1.25 lbs (0.6 kgs)



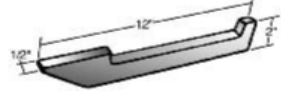
Part No.	Weight
08-634	1.2 lbs (0.6 kgs)



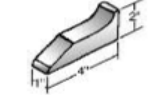
Part No.	Weight
08-638	1.25 lbs (0.6 kgs)



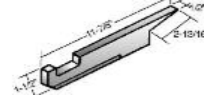
Part No.	Weight
08-640	3.0 lbs (1.4 kgs)



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



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

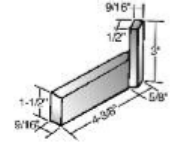


Part No.	Weight
08-649	2.0 lbs (0.9 kgs)

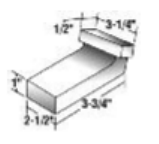


Part No.	Weight
08-653	3.0 lbs (1.4 kgs)

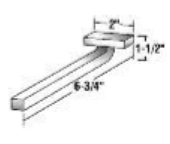
Precision Cast Bucking Bars



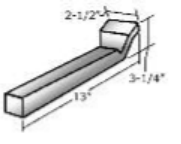
Part No.	Weight
08-656	1.0 lbs (0.45 kgs)



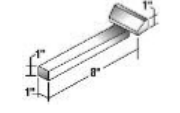
Part No.	Weight
08-658	3.75 lbs (1.7 kgs)



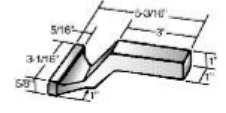
Part No.	Weight
08-662	0.75 lbs (0.3 kgs)



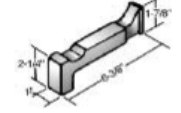
Part No.	Weight
08-666	9.25 lbs (4.2 kgs)



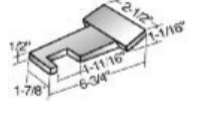
Part No.	Weight
08-668	3.0 lbs (1.4 kgs)



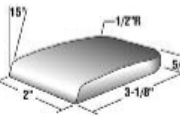
Part No.	Weight
08-669	1.5 lbs (0.7 kgs)



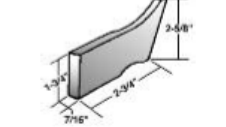
Part No.	Weight
08-670	2.0 lbs (0.9 kgs)



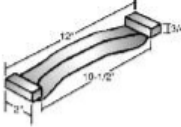
Part No.	Weight
08-671	2.25 lbs (1.0 kgs)



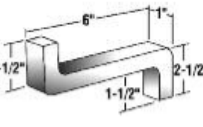
Part No.	Weight
08-6721A	1.0 lbs (0.45 kgs)



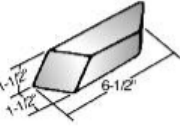
Part No.	Weight
08-676	0.75 lbs (0.34 kgs)



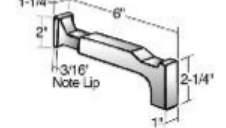
Part No.	Weight
08-686	4.25 lbs (1.9 kgs)



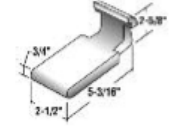
Part No.	Weight
08-690	2.5 lbs (1.1 kgs)



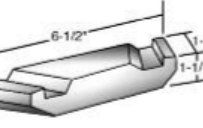
Part No.	Weight
08-692	3.0 lbs (1.4 kgs)



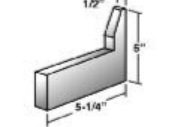
Part No.	Weight
08-694	2.0 lbs (0.9 kgs)



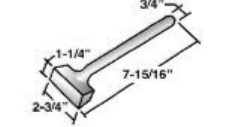
Part No.	Weight
08-701	2.75 lbs (1.2 kgs)



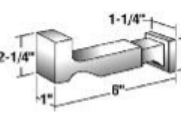
Part No.	Weight
08-702	2.0 lbs (0.9 kgs)



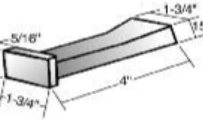
Part No.	Weight
08-716	2.0 lbs (0.9 kgs)



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

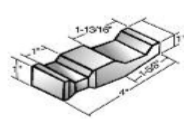
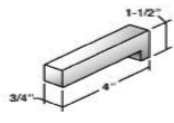
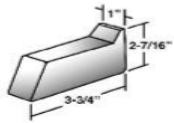


Part No.	Weight
08-719	2.0 lbs (0.9 kgs)



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

Precision Cast Bucking Bars

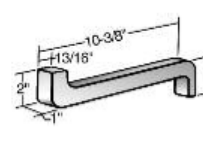
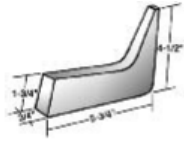
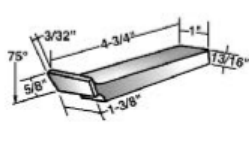
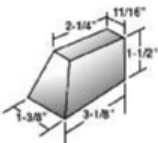


Part No.	Weight
08-721	1.75 lbs (0.79 kgs)

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)

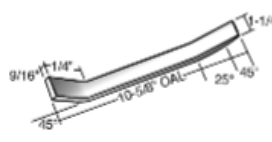
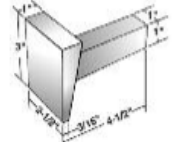
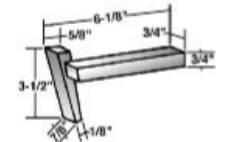
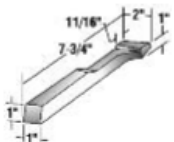


Part No.	Weight
08-750G-1	1.3 lbs (0.59 kgs)

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)

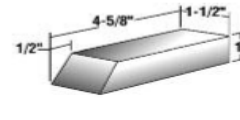
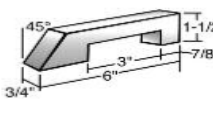
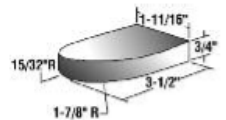
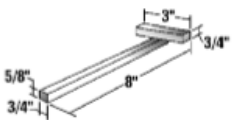


Part No.	Weight
08-751U-1	1.25 lbs (0.6 kgs)

Part No.	Weight
08-7522-1	1.125 lbs (0.5 kgs)

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

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

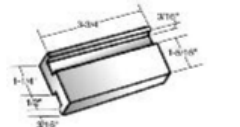
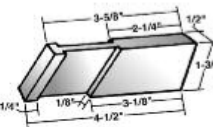
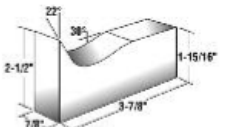
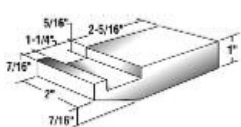


Part No.	Weight
08-753	1.75 lbs (0.8 kgs)

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)



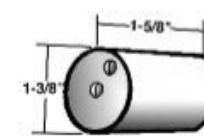
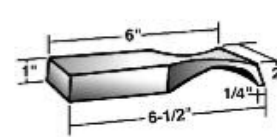
Part No.	Weight
08-78-24C	2.0 lbs (0.9 kgs)

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)

Precision Cast Bucking Bars



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

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

Trauma Reducing Bucking Bar Kit



- Significantly reduces vibration associated with hammering rivets.
- 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 No.	Description
1001K	Complete 8 PC Kit

Tungsten Bucking Bars - Made in USA



Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
08-1100T	1.16 lbs (0.53 kgs)	08-1101T	1.07 lbs (0.49 kgs)	08-1102T	2.87 lbs (1.30 kgs)	08-1103T	1.31 lbs (0.59 kgs)



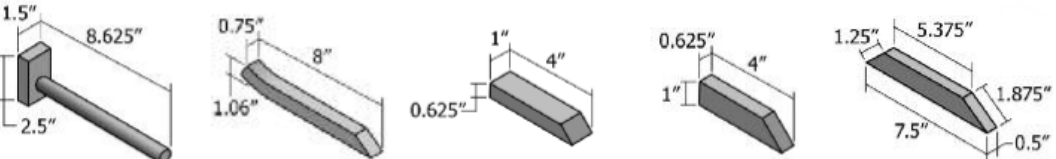
Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
08-1104T	1.20 lbs (0.54 kgs)	08-1105T	2.62 lbs (1.19 kgs)	08-1106T	2.19 lbs (0.99 kgs)	08-1107T	2.93 lbs (1.33 kgs)



Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
08-1108T	1.70 lbs (0.77 kgs)	08-1109T	1.92 lbs (0.87 kgs)	08-1110T	2.52 lbs (1.14 kgs)	08-1111T	5.90 lbs (2.68 kgs)



Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
08-1112T	2.73 lbs (1.24 kgs)	08-1113T	2.81 lbs (1.28 kgs)	08-1114T	2.34 lbs (1.06 kgs)	08-1115T	2.63 lbs (1.19 kgs)



Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
08-1116T	3.87 lbs (1.76 kgs)	08-1117T	2.58 lbs (1.17 kgs)	08-1119T	1.53 lbs (0.69 kgs)	08-1160T	1.44 lbs (0.65 kgs)	08-1161T	1.79 lbs (0.81 kgs)

Stainless Steel Hand Rivet Squeezers



1/16" to 5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-THS10	53-THS10	1"	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"

Stainless steel construction designed for lasting performance. Takes standard .187" shank rivet sets. Heat-treated on all wear & deflecting components.
Stainless Steel Squeezer Kit:
 Includes tool, 3 univ. AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

Replacement Yokes			Replacement Yokes		
Part No.	Reach	Gap	Part No.	Reach	Gap
THY10	1"	1-1/4"	THY30	3"	1-1/4"
THY101	1"	1" Flush	THY35	3-1/2"	1-1/4"
THY15	1-1/2"	1-1/4"	THY40	4"	1-1/4"
THY20	2"	1-1/4"	THY50	5"	1-1/4"
THY22	2"	2"	THY60	6"	1-1/4"
THY25	2-7/8"	1-1/4"			

360° Swivel Hand Rivet Squeezers



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"

Full 360° yoke can be locked in any position. Takes standard .187" shank rivet sets. Tool has a 3/8" stroke & 5/8" ram adjustment (no washers needed).
Swivel Squeezer Kit:
 Includes tool, 3 univ. AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

DA Series 360° Swivel Hand Rivet Squeezers



Full 360° yoke can be locked in any position. Uses squeezer sets or 3/8"-24 adapter dolly (below).
DA Series Squeezer Kit:
 Includes hand rivet squeezer, three universal AN470 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"

USATCO Hand Rivet Squeezers



• Includes 3 universal AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

Tool With Single Yoke - 1/16" to 5/32" Capacity (aluminum)		
Part Number	Reach	Gap
53-420-1A	1"	1-1/4"
53-420-2A	2"	1-1/4"
53-420-3A	3"	1-1/4"

Note: Dimpling capacity is 1/16" to 3/16" in material up to 0.040".

Tool With Extra Yokes	
Part Number	Yokes Included
53-420-12A	1" & 2"
53-420-13A	1" & 3"
53-420-23A	2" & 3"
53-420-123A	1", 2" & 3"

USATCO Hand Rivet Squeezers



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

Deep throat with ample leverage & heat-treated tool steel jaws. Takes standard .187" shank rivet sets.
Power Hand Squeezer Kit:
 Includes power hand rivet squeezer, four universal AN470 sets (3/32", 1/8", 5/32" & 3/16") & two flush sets.

Cupped Squeezer Sets



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

.187" Shank, 3/8" Dia.		.187" Shank, 3/8" Dia.		.187" Shank, 3/8" Dia.		.187" Shank, 3/8" Dia.		.187" Shank, 3/8" 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

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"

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

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.

RIVET SQUEEZERS & ACCESSORIES

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	
Part Number	Body Length
26-211B	1/4"
26-212B	3/8"
26-213B	1/2"
26-214B	5/8"

.187" Shank	
Part Number	Body Length
26-215B	3/4"
26-216B	7/8"
26-217B	1"

Spacer Shims

.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"

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



Hard Steel

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.

Huck & Hi-Shear Squeezer Sets



Hi-Shear .187" Shank		Huck Lockbolt .187" Shank	
Part Number	Rivet Size	Part Number	Rivet Size
HS 26-200-4	1/8"	H 26-205-4	1/8"
HS 26-200-5	5/32"	H 26-205-5	5/32"
HS 26-200-6	3/16"	H 26-205-6	3/16"
HS 26-200-8	1/4"	H 26-205-8	1/4"
		H 26-205-10	5/16"

Hi-Shear .250" Shank		Huck Lockbolt .250" Shank	
Part Number	Rivet Size	Part Number	Rivet Size
HS 26-220-4	1/8"	—	1/8"
HS 26-220-5	5/32"	H 26-225-5	5/32"
HS 26-220-6	3/16"	H 26-225-6	3/16"
HS 26-220-8	1/4"	H 26-225-8	1/4"
HS 26-220-10	5/16"	H 26-225-10	5/16"
HS 26-220-12	3/8"	H 26-225-12	3/8"

Flush Squeezer Sets

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"

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"		

Adapto® Hand Flaring Kit



Ideal For Prototype & Small Runs

Now Includes Riveting Block

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

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.

Rivet Squeezer Set Kits

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



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

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



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

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	02-441-5X	Plastic

Optional Skirts:

Available separately or installed on tool.

Skirt Type			
	2 Leg	Bell	Flange
Skirt Only	95390	95393	95395
Skirt w/Tool	02-441A	02-441B	02-441C

Skirt Type			
	Insert Collar	Close	Cutaway
Skirt Only	95391	95392	95394
Skirt w/Tool	02-441D	02-441E	02-441F

Micro-Stop Countersink Cage

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

Includes:

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

New Fitted Case Helps Prevent F.O.D.



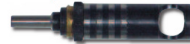
Versatile & Portable

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



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-241	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



Dual bearings for continuous high-speed use.
Positive stop to connect shaft eliminates work damage.

1/4"-28 Countersink Thread				
Part No.	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



- 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 No.	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.
- Safety locking knurled adjustment ring.
- Flanged skirt type (other styles available, please inquire).

1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351B-A	7/8"	0.340"	0.001"	5000

M6 x 1 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351A-A	7/8"	0.340"	0.001"	5000

Threaded Shank Micro-Stop Countersink Cage

- 1/4"-28 shaft thread.
- Positive adjustment lock.
- Only 1.38" - 1.77" overall length.



1/4"-28 Countersink Thread				
Part No.	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 flutes available, please inquire.



Carbide Tip

Integral Pilot 1/4"-28 Thread, 100° H.S.S.				Integral Pilot 1/4"-28 Thread, 100° Carbide Tip			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter	7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32	02-305-3	—	3/32"	02-304-3/32C	02-305-3C	—	3/32"
02-304-1/8	02-305-4	—	1/8"	02-304-1/8C	02-305-4C	—	1/8"
02-304-5/32	02-305-5	02-307-5	5/32"	02-304-5/32C	02-305-5C	02-307-5C	5/32"
02-304-3/16	02-305-6	02-307-6	3/16"	02-304-3/16C	02-305-6C	02-307-6C	3/16"
02-304-7/32	02-305-7	02-307-7	7/32"	02-304-7/32C	02-305-7C	02-307-7C	7/32"
02-304-1/4	02-305-8	02-307-8	1/4"	02-304-1/4C	02-305-8C	02-307-8C	1/4"
02-304-40	02-306-40	02-307-40	#40	02-304-40C	02-306-40C	02-307-40C	#40
02-304-30	02-306-30	02-307-30	#30	02-304-30C	02-306-30C	02-307-30C	#30
02-304-21	02-306-21	02-307-21	#21	02-304-21C	02-306-21C	02-307-21C	#21
02-304-10	02-306-10	02-307-10	#10	02-304-10C	02-306-10C	02-307-10C	#10
02-304-F	02-306-F	02-307-F	F	02-304-FC	02-306-FC	02-307-FC	F

Cobalt Integral Pilot Countersink Cutters

Solid M42 cobalt construction for use on harder materials. Three flute, 100° countersink angle standard.



Integral Pilot 1/4"-28 Thread, 100° Cobalt		
Part Number	Pilot Diameter	Body Diameter
02-8056-40	#40	1/2"
02-8056-30	#30	1/2"
02-8056-21	#21	1/2"
02-8056-10	#10	1/2"
02-8056-1/4	1/4"	1/2"
02-80565	Complete 5PC Set	

Replaceable Pilot C'Sink Cutters & Pilots

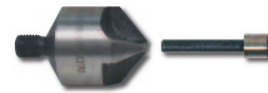
Precision Ground



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°

Part Number	Pilot Diameter	Part Number	Pilot Diameter
02-A181-3	3/32"	02-A181-6	3/16"
02-A181-4	1/8"	02-A181-7	7/32"
02-A181-5	5/32"	02-A181-8	1/4"

Jumbo Replaceable Pilot C'Sink Cutters & Pilots



Replaceable Pilot Cutters 3/8"-24 Thread - .170" Pilot Hole		.170" Replaceable Pilots	
H.S.S.	Body Diameter	Part Number	Pilot Diameter
02-434-1	3/4"	02-A184-6	3/16"
02-434-2	7/8"	02-A184-8	1/4"
02-434-3	1"	02-A184-10	5/16"
02-434-4	1-1/8"	02-A184-12	3/8"
02-434-5	1-1/4"	02-A184-14	7/16"
		02-A184-16	1/2"
		02-A184-20	5/8"

Note: 100° cutting angle standard, 82° avail. Jumbo cutters also available in carbide and integral pilot style, please inquire.

Extended Footpiece Micro-Stop C'Sink Cage



02-284

Hardened & ground spindles, bronze bearings & precision depth control.

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°

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 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

Interchangeable Pilot Aircraft Counterbores



- Used with chucked drills to cut flat area around hole for bolt or nut installation.
 - The OD is precision ground 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 inquire).

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"

1/2" Shank H.S.S.			1/2" 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"

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



Interchangeable Pilot Aircraft Counterbores

3/32" Shank	
Part No.	Head Dia.
02-276-1	3/32"
02-276-2	1/8"
02-276-3	5/32"
02-276-4	#20
02-276-5	3/16"
02-276-6	#10
02-276-7	7/32"
02-276-8	1/4"
02-276-9	F

1/8" Shank	
Part No.	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"



- Made from precision ground, finest quality tool steel.
- Fits most standard aircraft counterbores.

5/32" Shank	
Part No.	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"

3/16" Shank	
Part No.	Head Dia.
02-276-5C	3/16"
02-276-6C	#10
02-276-7C	7/32"
02-276-8C	1/4"
02-276-9C	F
02-276-10C	9/32"
02-276-11C	5/16"
02-276-12C	11/32"
02-276-13C	3/8"
02-276-14C	13/32"
02-276-15C	7/16"
02-276-16C	15/32"
02-276-17C	1/2"
02-276-18C	17/32"
02-276-19C	9/16"
02-276-20C	19/32"
02-276-21C	5/8"

1/4" Shank	
Part No.	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"
02-276-25D	3/4"

Counterbore Extension



Part No.	Shank	Shank Cap.	O.A.L.
02-275-EX	1/4"	1/4"	4" (102 mm)

4-Flute Back Countersink Cutters

- Precision ground with 100° cutting angle.
- For restricted areas where conventional countersinks cannot be utilized.
- * These models carbide tipped, not solid carbide.



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"

4-Flute Back Spotfacers

- Precision ground.
- For restricted areas where conventional spotfacers cannot be utilized.
- Note: Corner radii: 1/32" H.S.S., 1/64" Carbide.* These models carbide tipped, not solid carbide.



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"

Back Countersink & Back Spotfacer Kits

- Precision ground with correct 100° cutting angle, for use in restricted areas.
- 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") & Heavy-Duty Polyethylene Case

14 PC Back Countersink Kits	
High Speed Steel	Solid Carbide
53-590TA	53-590TAC

14 PC Back Spotfacer Kits	
High Speed Steel	Solid Carbide
53-590S	53-590SC

Back Countersink & Back Spotfacer Pilots

- Interchangeable among countersink & counterbore cutters.
- Standard 6" overall length.
- Units with double drive bayonet lock 8" overall length.



Standard Pilots	
Part Number	Pilot Dia.
02-285-1	3/32"
02-285-2	1/8"
02-285-3	5/32"
02-285-4	3/16"
02-285-5	1/4"

Standard Pilots	
Part Number	Pilot Dia.
02-285-6	5/16"
02-285-7	3/8"
02-285-8	1/2"
02-285-9*	5/8"
02-285-10*	3/4"

Step Pilots		
Part Number	Pilot Dia.	Step Dia.
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"

PUNCH & CUTTING TOOLS

Fine & Coarse Tooth Hole Saws

Fine Tooth

- For use with aluminum, sheet steel & plastics.



Part Number (prefix)	Description
49-500	Fine Tooth
49-501	Coarse Tooth

Coarse Tooth

- For use with thicker materials.
- Deep teeth for proper chip flow.

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.

* 3/8" to 1-1/4" diameter is 5/16"-24 thread, 1-5/16" to 3" diameter is 1/2"-20 thread.

Suffix	Diameter*	Suffix	Diameter*	Suffix	Diameter*	Suffix	Diameter*
1	3/8" (9.5 mm)	13	3/4" (19 mm)	25	1-1/4" (32 mm)	37	2" (51 mm)
2	13/32" (10.3 mm)	14	25/32" (19.8 mm)	26	1-5/16" (33 mm)	38	2-1/8" (54 mm)
3	7/16" (11 mm)	15	13/16" (20.6 mm)	27	1-3/8" (35 mm)	39	2-1/4" (57 mm)
4	15/32" (11.8 mm)	16	27/32" (21.4 mm)	28	1-7/16" (36 mm)	40	2-3/8" (60 mm)
5	1/2" (12.8 mm)	17	7/8" (22.2 mm)	29	1-1/2" (38 mm)	41	2-1/2" (64 mm)
6	17/32" (13.5 mm)	18	29/32" (23 mm)	30	1-9/16" (40 mm)	42	2-5/8" (67 mm)
7	9/16" (14.2 mm)	19	15/16" (23.7 mm)	31	1-5/8" (41 mm)	43	2-3/4" (70 mm)
8	19/32" (15 mm)	20	31/32" (24.5 mm)	32	1-11/16" (43 mm)	44	2-7/8" (73 mm)
9	5/8" (15.8 mm)	21	1" (25 mm)	33	1-3/4" (44 mm)	45	3" (76 mm)
10	21/32" (16.6 mm)	22	1-1/16" (27 mm)	34	1-13/16" (46 mm)		
11	11/16" (17.4 mm)	23	1-1/8" (29 mm)	35	1-7/8" (47.5 mm)		
12	23/32" (18.2 mm)	24	1-3/16" (30 mm)	36	1-15/16" (49 mm)		

Hole Saw Arbors



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"

Blair® Hole Cutter Kits

Produces clean, burr-free holes with no damage or deforming of the surrounding material. Excellent for steel, sheet metal and plastics.

Heavy-Duty* Hole Cutter Kit: Arbor With Spring Loaded Retractable Pilot, Extra Pilot, Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Allen Wrench, Stop Washers & Carrying Case

Blaircutter Hole Cutter Kit: Arbor With Spring Loaded Retractable Pilot, 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
02-13218	3/16"

Replacement Cutters (sold individually)							
1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"
11100	11104	11108	11112	11116	11120	11124	11132

* Can be mounted on air feed drill units.



Part Number	Material Capacity
02-11075	1/4"

Replacement Cutters (sold individually)							
1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	
13200	13202	13204	13206	13208	13210	13212	



Rotabroach Large Diameter Hole Cutter Kit: 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
02-111091	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	



Automotive & Fabricator's Hole Cutter Kit: 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
02-14006	1/8"

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	

PUNCH & CUTTING TOOLS

BAHCO® Hole Saw Set

Sandflex® Bi-Metal Holesaw Set for Metal/Wood Boards 22 mm-64 mm - 9 Pcs . 22-29-35-44-51-64mm, arbor 14-30mm, arbpr 32-210mm, drill



Part Number	Material Capacity
3834-SET-65-22/64	22 mm-64 mm - 9 Pcs

Hole Cutter



- 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)	

Circle Cutters



- Replaceable 3/16" H.S.S. blade & 1/4" pilot drill.
- Includes allen key (not shown).

Circle Cutters	
Part Number	Cutter Range
02-21003	7/8" to 4"
02-21009	1" to 6"

Replacement Parts	
Part Number	Description
02-27012	Pilot Drill
02-27009	Cutting Blade

Allpax® Gasket Cutter Kits

- Quickly punch precisionbolt 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 3/16"	2.5 lbs (1.1 kgs)
AX1351	16 PC Metric Kit	2 mm to 50 mm	1.1 lbs (0.5 kgs)

Aircraft Punch & Flare Dies

- Designed to punch the required hole size and follow with a 35-degree straight angle (leg length of 1/8").
- Hand or arbor press operation in alum. or mild steel 0.020" to 0.040".
- Just drill a pilot hole for the draw bolt, then apply the tool and tighten for a smooth, flared hole.



Part No.	Diameter	Part No.	Diameter
61-100	1" (25 mm)	61-300	3" (76 mm)
61-125	1-1/4" (32 mm)	61-325	3-1/4" (83 mm)
61-150	1-1/2" (38 mm)	61-350	3-1/2" (89 mm)
61-175	1-3/4" (44 mm)	61-375	3-3/4" (95 mm)
61-200	2" (51 mm)	61-400	4" (102 mm)
61-225	2-1/4" (57 mm)	61-500	5" (127 mm)
61-250	2-1/2" (64 mm)	61-600	6" (152 mm)
61-275	2-3/4" (70 mm)		

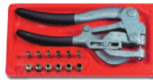


Aircraft Punch & Flare Kits		
Part Number	Description	Hole Range
53-81551	5 Piece Kit	1" to 2" Diameter
53-81661	9 Piece Kit	1" to 3" Diameter
53-81991	13 Piece Kit	1" to 4" Diameter

Hand Metal Punch Kits

Standard Metal Punch Kit:Hand Metal Punch, Six Punch & Die Sets (3/32", 1/8", 5/32", 3/16", 7/32" & 1/4") & 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	Description
38-098	#40
38-129	#30
38-159	#21
38-194	#10
38-5094	3/32"

Replacement Punch & Die Sets	
Part Number	Description
38-5125	1/8"
38-5156	5/32"
38-5188	3/16"
38-5250	1/4"
38-2812	9/32"

Hand Metal Punch Kits

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") & 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"

Replacement Punch & Die Sets	
Part Number	Size
38-6188	3/16"
38-6250	1/4"

NOXON® Combo Prick Punch & Center Punch

- Designed with the professional metalworker in mind.
- 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 for better visibility.
- Can be adjusted for light or heavy strokes.



Part Number	Description
61-860	Tool with Centering Point

Automatic Center Punches

- 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)

NOXON® Chisel & Punch Rivet Removal Set

- 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

SPI® Fine Optical Center Punch

- 9X magnification spotting lens with center dot and circle.
- Solid, precision guide base with scratch protection.
- Ground center punch made of hardened tool steel.
- Includes fitted case.



Part Number	Accuracy
14517	0.002"

High Accuracy Center Punching Made Simple

Midget Pin Punches

Stock No.	Hex Size, inches	Point/ Edge, inches	Length, inches
PPC402A	9/32	1/16	3
PPC403A	9/32	1/8	3-1/4
PPC404A	9/32	3/32	3-5/8
PPC405A	9/32	1/16	3-3/4
PPC406B	9/32	3/16	3-7/8
PPC407B	9/32	5/32	4
PPC408B	—	5/16	4-1/8



Roll Pin Punches

Stock No.	Hex Size, inches	Point/ Edge, inches	Length, inches
PPR2	—	1/16	3-5/32
PPR2-1/2	—	5/64	3-1/2
PPR3	—	3/32	3-29/32
PPR4	—	1/8	4-1/4
PPR5	—	5/32	4-5/8
PPR6	—	3/16	5
PPR7	—	7/32	5-3/8
PPR8	—	1/4	5-3/4
PPR10	—	5/16	6-1/8
PPR12	—	3/8	6-1/8
PPR14	—	7/16	6-1/8
PPR16	—	1/2	6-1/8



Flat Chisels

Stock No.	Hex Size, inches	Point/ Edge, inches	Length, inches
PPC808A	1/4	1/4	5
PPC812B	5/16	3/8	5-1/2
PPC816B	7/16	1/2	6
PPC820B	1/2	5/8	6-1/2
PPC824B	5/8	3/4	7-1/4
PPC828B	11/16	7/8	8
PPC832B	7/8	1	9
BPPC1878*	7/8	1	18
PPC820LB	1/2	5/8	16



Bronze Pin Punches

Stock No.	Hex Size, inches	Point/ Edge, inches	Length, inches
PPB408A	—	1/4	4
PPB612A	—	3/8	6



Punch and Chisel Set

Part Number	Description
PPC710BK	11 pc Punch and Chisel Set



Long Pin Punch Set

Part Number	Description
PPCL60BK	6 pc in KB2184 kit bag



Duplicating Punch Kit

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

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.

Part Number	Description	Sizes Included
61-18108	108 PC Set	1/8" to 21/32" (x 32nds)
61-11111	66 PC Set	11/16" to 1" (x 32nds)

Transfer Punch Sets

- Heat-treated & tempered tool steel construction.
- Transfer punches available individually, please inquire.
- Punches are 4-7/8" O.A.L.

Part No.	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



Duplicating Punches

- Accurately center punch hole location from one sheet to another.
- Manufactured from heat-treated, oil hardened drill rod.

Tight Tolerance Hole Duplication



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)

Comfort Grip Punch & Chisel Holder

Part Number	Description
J2108	Holds punches and chisels up to 1" in diameter reducing the risk of injury.



Solid Carbide Brad Point Drills

- Specifically designed for drilling graphite and aramid fiber (KEVLAR®) reinforced composite materials.
- Specially modified tip keeps fibers in tension whilecutting in shear eliminating delamination for a more precise hole.

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.

Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal
02-GDRS-40	#40	0.0980"
02-GDRS-1/8	1/8"	0.1250"
02-GDRS-30	#30	0.1285"
02-GDRS-5/32	5/32"	0.1562"
02-GDRS-21	#21	0.1590"
02-GDRS-20	#20	0.1610"

Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal
02-GDRS-3/16	3/16"	0.1875"
02-GDRS-10	#10	0.1935"
02-GDRS-8	#8	0.1990"
02-GDRS-1/4	1/4"	0.2500"
02-GDRS-5/16	5/16"	0.3125"



Solid Carbide Dagger Drills

- Drill holes in graphite materials (including graphite- aluminum) up to 1/4" thick without delamination.

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"



General Purpose Diamond Plated Twist Drills

Perfect for drilling graphit epoxy, carbon, boron and fiberglass

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 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)

Available Grits				
A	B	C	D	E
30/40	40/60	60/80	120/140	220/270

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.



COMPOSITE CUTTING TOOLS

Kevlar Fabric Hand Shears & Scissors



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)

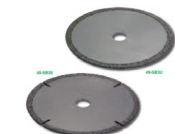
Diamond Plated Jigsaw Blades

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)



Arbor Mount Diamond Plated Saw Blades

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)	
49-SB6S	49-SB6U	6" (152 mm)	
49-SB7S	49-SB7U	7" (178 mm)	
49-SB8S	49-SB8U	8" (203 mm)	.090" to .110"
49-SB10S	49-SB10U	10" (25.4 cm)	



Note: Please specify arbor diameter & blade thickness when ordering. Larger size blades are also available, please inquire.

Mounted Diamond Plated Saw Blades

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-SMS-1/2U	3-1/2" (89 mm)	
49-MS4S	49-MS4U	4" (102 mm)	
49-MS4-1/2S	49-MS4-1/2U	4-1/2" (114 mm)	
49-MSSS	49-MSSU	5" (127 mm)	.130" to .150"
49-MS6S	49-MS6U	6" (152 mm)	

Note: Please specify shank diameter & blade thickness when ordering. Larger size blades are also available, please inquire.



Diamond Plated Integral Shank Hole Saws

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)



2" drilling depth (inside depth). Furnished with windows & slots.

Arbor Mount Diamond Plated Hole Saws

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-MHSS	5" (127 mm)



- MHS series, "Black & Decker" type.
- Furnished with windows & slots.
- 1-1/2" drilling depth (inside depth).
- For use with arbors shown below.

Diamond Plated Routers

40/60 Grit - 1/8" Outside Diameter				
Unfluted, Square End	Unfluted, Radius End	Fluted, Square End	Fluted, Radius End	Head Length
49-R1US	49-R1UR	—	—	1/4" (6.35 mm)
49-R2US	49-R2UR	—	—	1/2" (13 mm)

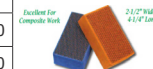
40/60 Grit - 1/4" Outside Diameter				
Unfluted, Square End	Unfluted, Radius End	Fluted, Square End	Fluted, Radius End	Head Length
49-R3US	49-R3UR	49-R3FS	49-R3FR	1/4" (6.35 mm)
49-R4US	49-R4UR	49-R4FS	49-R4FR	1/2" (13 mm)
49-R5US	49-R5UR	49-R5FS	49-R5FR	3/4" (19 mm)
49-R6US	49-R6UR	49-R6FS	49-R6FR	1" (25 mm)
49-R7US	49-R7UR	49-R7FS	49-R7FR	1-1/2" (38 mm)

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.



Flexible Diamond Hand Sanding Pads

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		



These diamond hand sanding pads work best when used wet.

MHS Series Hole Saw Arbors

For 9/16" 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 6" Diameter Hole Saws			
Part Number	Screw Thread	Shank Size	Chuck Size
49-NA-05	5/8"-18	7/16" Hex	1/2"



- Setscrew body for pilot drill adjustment.
 - Quick release for change of hole saws with arbor in chuck.
- Note: Also available with pilots, please inquire.

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

- 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



Burnishing Tool

- Designed to remove blemishes & scratches in sheet metal.
- Heat-treated blade is hard chrome plated & mirror polished.



Replacement Blades	
Part Number	Overall Length
04-515	6-5/8" (168 mm)

Shaviv® Deburr Tool

- 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.



Replacement Blades	
Part Number	Description
04-22022	Multi-Burr 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.

Shaviv® Aeroburr Deburring Sets

- 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 (see below) 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	Thin pointed, standard-duty 2.6 mm thick blade.
04-E-111P	Thin pointed, heavy-duty 3.2 mm thick blade.

Shaviv® Telescoping Deburr Tools

- 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

Part Number	Description
90073	Tool w/1.02" Capacity Cutter

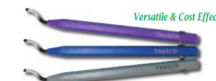
Replacement Cutter	
Part Number	Capacity
29147	1.02"



- Quick rotational chamfering of pipes, tubes etc. up to 1" OD.
- For use on steel, aluminum, copper, stainless and plastics.

Slim-Grip Disposable Burrs

- For removing burrs from steel & aluminum.
- Heavy-duty E-100 blade is non-replaceable.



Part Number	Overall Length
E01000	5-1/2" (140 mm)

'Speed Driver' Hole Deburring Tool



- 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" Dia. 100° Cutter



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

SPI® Fine Deburring Set

- 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"



Burr-Off® Tools

Part No.	Hole Sizes	Shank	Part No.	Hole Sizes	Shank	Part No.	Hole Sizes	Shank	Part No.	Hole Sizes	Shank
CP-6	.093" to .109"	.092"	CP-11	.172" to .187"	.171"	CP-16	.250" to .266"	.249"	CP-21	.328" to .343"	.327"
CP-7	.109" to .125"	.139"	CP-12	.187" to .203"	.186"	CP-17	.266" to .281"	.265"	CP-22	.093" to .109"	.092"
CP-8	.125" to .140"	.124"	CP-13	.203" to .219"	.202"	CP-18	.281" to .297"	.280"	CP-23	.359" to .375"	.358"
CP-9	.140" to .156"	.139"	CP-14	.219" to .234"	.218"	CP-19	.297" to .313"	.296"			
CP-10	.156" to .172"	.155"	CP-15	.234" to .250"	.233"	CP-20	.313" to .328"	.312"			

• The original 'clothespin' tool, with its integral cutting edges, deburrs thousands of holes and may be reground for even longer life.

• Suited to high production, automated deburring operations.
• Open slot design allows chips to clear easily.



Debur 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

Burr-Off® Tools

- 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.



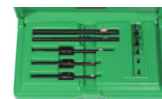
Adjustable Blade Tension

Easily Debur Both Sides In One Pass

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"

Burraway Deburring Tool Kit



Includes:

Five Burraway Tools with Blade (1/8", 5/32", 3/16", 7/32" & 1/4"), Five Replacement Blades & Fitted Plastic Case

Part Number	Description
70398	Complete 11 PC Kit

Ground-Wire Hole Burnishing Kits



Specifically designed to clean ground-wire attachment holes.
Includes: 4 Extensions, 4 Burnishing Pads, Burnishing Heads: 2 Screw-in Type (pos. & neg.), 1 Collet Type (pos.) & Fitted Plastic Case

Part Number	Size	Part Number	Size
ATSK3767-10	#10	ATSK3767-30	#30
ATSK3767-20	#20	ATSK3767-40	#40

Piloted (Bonding) Wire Rivet Hole Brushes



44-6233-3/32
Stainless Steel Wire

- Designed to remove surface material and coatings for grounded contact points.
- Cleans paint, dirt, rust etc. from around rivet holes.

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.



5 PC Brush Set (1/2" body diameter)
• Includes 5 brushes & plastic carrying case (not shown).

Part Number	Wire Dia.	Pilot Sizes Included
53-70303	0.005"	3/32", 1/8", 5/32", 3/16" & 1/4"

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"
0.008" 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"

0.010" 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"
0.014" 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"

H.S.S. Taper Router Bits

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"

For clearance cutting or routing & trimming of aircraft assemblies.



Part Number	Description
53-1492	Complete 5 PC Kit

Taper Router Kit: Four Routers (one each above) & Plastic Case (not shown)

H.S.S. Aircraft Router Bit

Taper Router Kit: Four Routers (one each above) & Plastic Case (not shown)



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)



Solid Carbide Router Bits

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

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.
- A 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/s2

Air Consumption .09 SCFM / cycle (2.55 L / cycle)

G747 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G747	.437"	2100 lbs (953 kgs)	3.5 lbs (1.6 kgs)

G747 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G747	.437"	2100 lbs (953 kgs)	3.5 lbs (1.6 kgs)

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 1	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 *

G747 Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available
- For full specifications on pulling heads below please pages
- Extensions are available for extending the pulling heads to reach limited access areas



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



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.
 • A 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/s²

Air Consumption .25 SCFM / cycle (7.08 L / cycle)

G746A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G746A	.875"	1850 lbs (839 kgs)	4.25 lbs (1.9 kgs)

G746A Routine Maintenance Kit	
Part Number	Includes
G746KS	All Required Seals, 'O' Rings, Gaskets & Hardware

G746A 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" ***	-9 *
			MBC L/C	1/8", 5/32", 3/16"	-9 *
			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
H781A-456 H782 1	Offset	—	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-4 *
H9015-3C	Straight	704A9	MS ††	3/32"	All
H9015-4C	Straight	704A9	MS ††	1/8"	All
H9015-5C	Straight	704A9	MS ††	5/32"	All
H9015-6C	Straight	704A9	MS ††	3/16"	All
H955-3	Straight	—	CherryLOCK 'A'	3/32"	-9 *
H955-4	Straight	—	CherryLOCK 'A'	1/8"	-9 *
H955-5	Straight	—	CherryLOCK 'A'	5/32"	-9 *
H955-6	Straight	—	CherryLOCK 'A'	3/16"	-9 *
H746-4MBC	Straight	—	Std. MBC	1/8"	All
H746-5MBC	Straight	—	Std. MBC	5/32"	All
H746-6MBC	Straight	—	Std. MBC	3/16"	All

G746A Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available
- For full specifications on pulling heads below pages
- Extensions are available for extending the pulling heads to reach limited access areas



G746A CherryMAX Kit	
Part Number	Installs
G746ACMRB	-4, -5, -6 CherryMAX*

Pulling Heads Included: H701B-456, H781A-456 & H753A-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 CherryMAX Kit	
Part Number	Installs
G746ACMRW	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



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.

- A 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/s²

Air Consumption .16 SCFM / cycle (4.53 L / cycle)

G704B Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G704B	.510"	3100 lbs (1406 kgs)	4.25 lbs (1.9 kgs)

G704B Routine Maintenance Kit	
Part Number	Includes
G704KS	All Required Seals, 'O' Rings, Gaskets & Hardware

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
H781A-456 H782 1	Offset	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
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 *

G704B Pulling Heads

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available
- For full specifications on pulling heads below pages
- Extensions are available for extending the pulling heads to reach limited access areas



G704B CherryMAX Kit	
Part Number	Installs
G704BCMR	-4, -5, -6 CherryMAX

Pulling Heads Included: H701B-456, H781A-456 & H753A-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



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 Split Power Riveters				
Part Number	Hose Length	Stroke	Pulling Force	Weight
G704B-SR	3' (91.5 cm)	.518"	3136 lbs (1423 kgs)	4.5 lbs (2.0 kgs) (power unit only)
G704B-40SH	10' (305 cm)			

G704B- Routine Maintenance Kits		
Part Number	For Tool	Includes
G704KS	G704B-SR	All Req'd Seals, 'O' Rings, Gaskets & Hardware
G704B-40SR/40SHKS	G704B-40SH	All Req'd Seals, 'O' Rings, Gaskets & Hardware

G784 Hydro-Shift CherryLOCK® Power Riveter



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

- A 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/s²

Air Consumption .27 SCFM / cycle (7.65 L / cycle)

G784 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G784	7/8"	2,600 lbs (1,179 kgs)	8 lbs (3.6 kgs)

G784 Routine Maintenance Kit	
Part Number	Includes
G784KS	All Required Seals, 'O' Rings, Gaskets & Hardware

- G704B-SR & G704B-40SH Pulling Heads
- Pulling heads not incl. with riveter, please order from chart below.
 - Interchangeable nosepiece pulling heads also available
 - For full specs on pulling heads below pages
 - Extensions are available for extending the pulling heads to reach limited access areas

G704B-SR & G704B-40SH Pulling Heads				
Part Number	Head Style	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 *
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	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

G704B-SR & G704B-40SH Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
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 *



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

Accessories Included: 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, P1395 Molded Plastic Case & All Necessary Manuals

G784 CherryLock Kit	
Part Number	Installs
G784CLRA	1/8" to 3/16", NAS 1398/9 'A' Type & CherryLock

G784 Basic Kit	
Part Number	Installs
G784CLRB	No Pulling Heads Included

G784 Hydro-Shift CherryLOCK® Power Riveter

G784 Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see page 115.

G784 Pulling Heads For Standard CherryLOCK Rivets (NAS1398 & 1399)							
Rivet Part	Aluminum		Monel		St. Steel		
	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	
							CR2642
							CR2652
	CR2162	CR2563			CR2643	CR2662	
	CR2163	CR2164 †			CR2562	CR2653	CR2664 †
	CR2263	CR2262			CR2564 †	CR2663	CR2644 †
Pulling	Aluminum	Aluminum	Monel	Monel	St. Steel	St. Steel	
Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	
H681-3C	—	—	—	—	All	All	
H681-4C	All	All	All	All	All	All	
H681-5C	-8	-9	-8	-9	-8	-9	
H681-6C	-8	-9	-8	-9	-8	-9	
H681-8C	-8	-9	-8	-9	—	—	

G784 Pulling Heads For Bulbed CherryLOCK Rivets (NAS1738 & 1739)							
Rivet Part Number	Aluminum		Monel		Inconel		
	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	
		CR2235 *					
		CR2239					
	CR2245 *	CR2238	CR2539	CR2538	CR2839	CR2838	
	CR2249	CR2248	CR2545 *	CR2540 *	CR2845 *	CR2840 **	
Pulling	Aluminum	Aluminum	Monel	Monel	Inconel	Inconel	
Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	Univ. Head	Ctsk. Head	
H681-4C	All	All	All	All	All	All	
H681-5C	All	All	All	All	All	All	
H681-6C	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

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.
- A 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/s²

Air Consumption .09 SCFM / cycle (2.55 L / cycle)

G702A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G702A	3/4"	1,100 lbs (499 kgs)	3.5 lbs (1.6 kgs)

G702A Routine Maintenance Kit

Part Number	Includes
G702AKS	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 116.

G702A Pulling Head & Inserts					
Part Number	Head Style	Rivet Insert	Rivet Type	Rivet Diameters	Max. Grip
H702-3NPR	Straight	728A9-3 *	Nut Plate	3/32", 2.5 mm	-12 **
		728A9-104 *	Nut Plate	1/8", 3.0 mm	-12 **
		728A9-3	SPR	3/32"	All

G902 Lightweight Nut Plate Power Riveters



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 and 3/32" CherryLOCK 'A' rivets.

Specifications

Air Pressure 90 PSI (6.2 bar) min./120 PSI (8.2 bar) max.
Cycle Time approximately one second
Noise Level 60 dB (A)
Vibration less than 2.5 m/s²

Air Consumption .05 SCFM / cycle (1.42 L / cycle)

G902 & G902-15 Power Riveters				
Part Number	Type	Stroke	Pulling Force*	Weight
G902	Feed-Through	3/4"	550 lbs (250 kgs)	2 lbs (0.9 kgs)
G902-15	Side Eject			

* Force rated at 90 PSI. Pulling force at 120 PSI is 730 lbs (331 kgs).

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 115-116.

G902 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Max. Grip
H902-3NPR	Nut Plate	3/32", 2.5 & 3 mm	-8 *
	SPR	3/32"	-8 *
H9055-3	CherryLOCK 'A'	3/32"	-8 *
H902-4NPR	Nut Plate	1/8"	-8 *
H701B-456			

G902-15 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Max. Grip
H9015-3C	Nut Plate	3/32", 2.5 & 3 mm	-9 *
	SPR	3/32"	-9 *
H9055-3	CherryLOCK 'A'	3/32"	-9 *
H9015-4C	Nut Plate	1/8"	-9 *

G83A Lightweight Lockbolt Installation Tool



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.

- A 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/s²

Air Consumption .16 SCFM / cycle (4.53 L / cycle)

G83A Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G83A	7/16"	3,750 lbs (1,701 kgs)	4.95 lbs (2.3 kgs)

G83A Routine Maintenance Kit	
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 pages

* 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.

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	—	—	—	

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 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 Maxibolt Pulling Heads (S Type)			G83A & G84 Adapters	
Part Number	Head Style	Maxibolt Diameters	Part Number	To Adapt To Tool Mounting System
H83B-5MB	Straight	5/32"	744-100	G85D & G87D
H83B-6MB	Straight	3/16"	744-200	G744
H84B-568	Straight	5/32", 3/16"	744-300	G704B, G747 & G746A

G83A Installation Tool Kits



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

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

G84 Installation Tool 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 Lightweight Lockbolt Installation Tool



Compatible With Huck 352 & 230 Pulling Heads

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.

- A 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/s2

Air Consumption .29 SCFM / cycle (8.21L / cycle)

G84 Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G84	9/16"	5,750 lbs (2,608 kgs)	7.7 lbs (3.5 kgs)

G84 Routine Maintenance Kit	
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 pages

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" alum. CherryMAX 'AB' rivets; pulls 3/16 in monel and stainless steel only.

G84-LS Split Power Installation Tool

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 rivet- less 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/s2

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 lbs (2608 kgs)	11.8 lbs (5.4 kgs)

G84-LS Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below page

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 ***



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 Routine Maintenance Kit	
Part Number	Includes
G84-LSKS	All Required Seals, 'O' Rings, Gaskets & Hardware

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
H83B-6MB	Straight	744-700	MS21141U05xx *
			MS90353S06xxW
H83B-6MBU	Straight	744-700	MS90354S06xxW
			MS90353U06xx
H828-6MB	Right Angle	744-500	MS90354U06xx
			MS21140S06xxW
			MS21140U06xx **
			MS21141S06xxW
			MS21141U06xx **

G87D Lockbolt Installation Tool



Extremely Powerful

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.

- A 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/s²

Air Consumption .60 SCFM / cycle (17 L / cycle)

G87D Power Riveter

Part Number	Stroke	Pulling Force*	Weight
G87D	9/16"	9,500 lbs (4,309 kgs)	10.75 lbs (4.9 kgs)

G87D Pulling Heads

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see pages 115-117.

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)	1/4"
H513-06-60 *	—	—	—	6" (152 mm)	
—	H513S-08-24	H513SR-08-24	—	2-3/8" (60 mm)	
H513-08-35 *	H513S-08-35 *	—	—	3-1/2" (89 mm)	5/16"
—	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)	
—	H513S-10-42	H513SR-10-42	—	4-3/16" (106 mm)	3/8"
—	H513S-12-27	H513SR-12-27	—	2-11/16" (68 mm)	
—	H513S-12-42	H513SR-12-42	—	4-3/16" (106 mm)	

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
H84A-8	Straight	552
H827-8	Offset	560-070
H828-8	Right Angle	560-070

* Fits directly on Cherry G83A & Huck 352, requires the 552 adapter when used on Cherry G87D, G85D or Huck 353.

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"

G87D Routine Maintenance Kit

Part Number	Includes
G85D/G87D-KS	All Required Seals, 'O' Rings, Gaskets & Hardware

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
G800	3/4"	Up To 6000 lbs	1.7 lbs (0.8 kgs)

G800 Routine Maintenance Kit

Part Number	Includes
G800KS	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 pages

Part No.	Jaw	Follower	Nosepiece	Rivet Type	Rivet Dia.				
H800 (straight)	701B18 *	753A14A *	782-456 *	CherryMAX, CherryMAX 'AB'	-4, -5, -6 **				
				Blindbolt 'S' Type	-04, -05				
				MBC	-4, -5, -6				
				NAS1900 'U' Type	-4, -5				
				886-003	CherryLOCK 'A'	-3			
				886-004	CherryLOCK 'A'	-4			
				886-005	CherryLOCK 'A'	-5			
				782-010	886-002	886-006	CherryLOCK 'A'	-6	
				H753A-456 (rt. angle) †	701B18	753A14A	782-4MBC	Standard MBC	-4
								782-5MBC	Standard MBC
782-6MBC	Standard MBC	-6							
	CherryMAX 'AB' Alum.	-6							
H782 (offset) ††	782-010	866-002	782-6AL					NAS1900	-4, -5, -6
								SPR	3/32"
								NP Pull Through	-3
								782-4NAS	NAS1900 (no shift washer)
701B18	753A14A	782-5NAS	782-5NAS					NAS1900 (no shift washer)	-5
			782-6NAS					NAS1900 (no shift washer)	-6

G800 Heavy-Duty Pulling Head

Part No.	Jaw	Nosepiece	Rivet Type	Rivet Dia.
HD800-8 (straight)	652-043 *	652-024 *	CherryMAX, 'AB', 'A'	-8
		652-065	Maxibolt Plus	-5, -6, -8
		652-035	Maxibolt 'S' Type	-8
	865C25	652-065	Maxibolt 'U' Type	-8
		652-038	Maxibolt 'S' Type	-6
		652-067	Maxibolt 'U' Type	-6



G800 Installation Kit

Part Number	Installs
G800CMR	-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 & 782-5B8 Accessories Included: 269CS Grip Selector Gauge, Molded Plastic Case & All Necessary Manuals* Except -6 all aluminum.

G27 CherryMAX® Hand Riveter



The G27 is an efficient, compact and lightweight tool for installing CherryMAX rivets. Includes the 728A9-4 insert shown in the chart shown on right.

Part Number	Overall Length	Weight
G27	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G27 CherryMAX Insert			
Part Number	CherryMAX	SST	MBC L / C
728A9-4	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



- Pulling head is an integral part of tool.
- Convenient handle storage of nosepieces.

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 on right.

Part Number	Overall Length	Weight
G29	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G29 Inserts			
Part Number	Rivet Type	Rivet	Rivet Dia.
728A9-3	SPC	CR1122	-3
		CCR244	-3
		CCR264	-3
	Nut Plate	CCR264	-3
		CCR274	-3
		CCMR244	-25
Metric Nut Plate	CCMR264	-25	
	CCMR274	-25	
	Nut Plate	CCR244	-4
CCR264		-4	
CCR274		-4	
Metric Nut Plate		CCMR244	-30, -35
	CCMR264	-30, -35	
	CCMR274	-30, -35	

G30 CherryLOCK® Hand Riveter



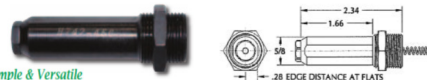
Part Number	Overall Length	Weight
G30	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G30 CherryLOCK Insert			
Part Number	Rivet Type	Rivet	Rivet Dia.
728-33	CherryLOCK 'A'	CR2672	3/32"
		CR2673	3/32"
		NAS1399C3A()	3/32"
		NAS1398C3A()	3/32"

- 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.

Cherry® H747-456 Straight Universal Pulling Head



Simple & Versatile

- A new, more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H747-456 as purchased will install CherryMAX rivets, CherryMAX AB, MBC L/C & MaxiBolt -04 & -05 products. Additional nosepieces offered below.

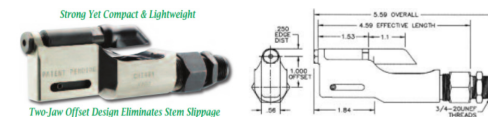
Note: Uses CherryMAX mounting system (G704B, G746A, G747).

Part Number	Stroke	Force	Weight
H747-456	w/G704B: 1/2"	w/G704B: 3100 lbs	0.15 lbs (0.07 kgs)
	w/G746A: 7/8"	w/G746A: 1850 lbs	
	w/G747: 7/16"	w/G747: 2200 lbs	

Available Nosepieces	
Part Number	Installs
782-456 (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
782-4NAS	NAS1900 -4 (no shift washer)
782-5NAS	NAS1900 -5 (no shift washer)
782-6NAS***	NAS1900 -6 (no shift washer)
782-4MBC	Standard MBC -4
782-5MBC	Standard MBC -5
782-6MBC***	Standard MBC -6
782-3**	3/32" SPR & -3 pull thru Nut Plate Rivets
782-5BB	Blindbolt 'U' Type -05
782-6AL***	CherryMAX AB -6 Alum., NAS1900 -4, -5 & -6
886-003**	CherryLOCK 'A' Code -3
886-004	CherryLOCK 'A' Code -4
886-005	CherryLOCK 'A' Code -5
886-006***	CherryLOCK 'A' Code -6

Replacement Parts		
Jaw	Jaw Follower	Notes
701B18	753A14A	701B18 & 753A14A Included with Tool
	955-011	Req'd for 886-003 & 782-3 Nosepieces
782-010	886-002	Req'd for 886-006, 782-6MBC, 782-6AL & 782-6NAS Nosepieces

Cherry® H782 Offset Universal Pulling Head



- A new, more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H782 is capable of installing CherryMAX rivets, CherryLOCK 'A' code rivets, MaxiBolt 'S' type blind bolts, MBC rivets, SPR rivets, 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
H782	w/G704B: 1/2"	w/G704B: 3100 lbs	0.84 lbs (0.36 kgs)
	w/G746A: 7/8"	w/G746A: 1850 lbs	
	w/G747: 7/16"	w/G747: 2200 lbs	
	w/G800: 0.78"	w/G800: 4200 lbs	

Available Nosepieces	
Part Number	Installs
782-456 (included with pulling head)	CherryMAX & CherryMAX AB -4, -5 & -6*
	Blindbolt 'S' Type -04 & -05
	MBC Lock Creator -4, -5 & -6
782-4NAS	NAS1900 -4
	NAS1900 -5
782-4MBC	Standard MBC -4
782-5MBC	Standard MBC -5
782-6MBC**	Standard MBC -6
782-3	3/32" SPR & -3 pull thru Nut Plate Rivets
782-5BB	Blindbolt 'U' Type -05
782-6AL**	CherryMAX AB -6 Aluminum
886-003	CherryLOCK 'A' Code -3
886-004	CherryLOCK 'A' Code -4
886-005	CherryLOCK 'A' Code -5
886-006**	CherryLOCK 'A' Code -6

Cherry® Compact Single Jaw Offset Pulling Head

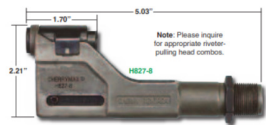


- Works directly with G746A, G747, G704B & G800 (no adapters).
- Continuously adjustable jaw grip to compensate for wear.

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



Part Number	Installs
H827-8	1/4" Nominal & Oversize CherryMAX Rivets (G744 Only)

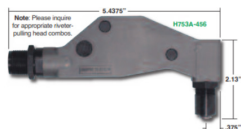
CherryMAX® Straight Pulling Heads



Part Number	Installs
H701B-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets
H846A-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets (G744 Only)
H744A-8	1/4" Nominal & Oversize CherryMAX Rivets (G744 Only)

CherryMAX® Right Angle Pulling Heads

Part Number	Installs
H753A-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets
H828-8	1/4" Nominal & Oversize Cherry- MAX Rivets (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)	
Part Number	Rivet Dia.
H681-3C	3/32"
H681-4C	1/8"
H681-5C	5/32"
H681-6C	3/16"
H681-8C	1/4"

Countersunk (NAS 1097)	
Part Number	Rivet Dia.
H681-4S	1/8"
H681-5S	5/32"
H681-6S	3/16"
H681-8S	1/4"

Countersunk (156°)	
Part Number	Rivet Dia.
H681-4F	1/8"
H681-5F	5/32"
H681-6F	3/16"

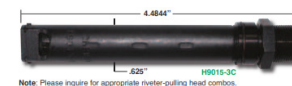
Uni-Sink	
Part Number	Rivet Dia.
H681B166-4	1/8"
H681B166-5	5/32"
H681B166-6	3/16"

CherryLOCK® 'A' H955 Straight Pulling Heads

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



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

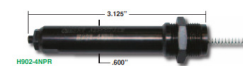


For G702A Riveter	
Part Number	Installs
H702-3NPR *	3/32" & 1/8", 2.5 mm & 3 mm Nut Plate

* Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8"). 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

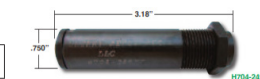
* Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8").



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 Nutplate Pulling Heads

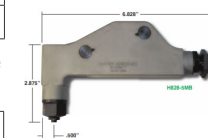


- Rivetless nutplates require a single drilled hole only.
- Improves the fatigue life of structure compared to rivet nut plates.
- Meets or exceeds NASM25027 specs (0.062" & longer grips).

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



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"

Cherry® LockBOLT Pulling Heads



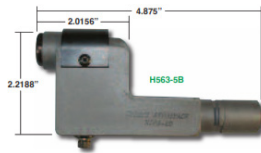
* Fits directly on Cherry G83 & Huck 244, requires a 552 adapter (see next page) when used on Cherry G87D, G85D or Huck 245.

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)	
H513-08-35 *	H513S-08-35 *	—	—	3-1/2" (89 mm)	1/4"
—	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)	

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"



Pulling Head Extensions



• Great for limited access areas. • Any combination may be used to reach desired length.

For G701A, G704B, G749A, G746 & G747 Riveters				For G744 Riveters			
Part Number	Length	Part Number	Length	Part Number	Length	Part Number	Length
704A12-2	2" (51 mm)	704A12-6	6" (152 mm)	744B35-2	2" (51 mm)	744B35-6	6" (152 mm)
704A12-4	4" (102 mm)	704A12-12	12" (305 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	Rivet Grip & Diameter Gauge
269C5	Material Thickness & Grip Gauge
269B12	Maxibolt Gauge

Cherry® 209 Type Hand Nipper



Part Number	Description
04-57	Rivet Trimmer

Cherry® Riveter Service Kits



Part No.	For Tool	Part Number	For Tool
G702AKS	G702A	G800KS	G800
G704KS	G704B, G704B-SR	G83KS	G83
G746KS	G746A	G83AKS	G83A
G747KS	G747	G84KS	G84
G784KS	G784	G84-LSKS	G84-LS

Part Number	For Tool
G704B-40SR/40SHKS	G704B-40SH
G85D/G87D-KS	G87D

Huck® 200 Power Riveter



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 lbs (1338 kgs)	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	-5	
78973 *		
99-459	-6	
78980 *		
99-600	-5	MS21140 (B100-EU), MS21141 (BP-EU) MS90353 (B100-T), MS90354 (BP-T) OBP-EU & OB100EU OBP-T & OB100-T
99-589	-6	7B100-EU & 7B120-EU 4B100-T06/EU06

Huck® 2012 Power Riveter



• 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 lbs (1211 kgs)	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 UBPMV/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

Part Number	Stroke	Pulling Force	Weight
2013	0.650"	2670 lbs (1211 kgs)	4.5 lbs (2.0 kgs)

Nose Assemblies				
Part Number Straight	Part Number Offset	Part Number Rt. Angle	Fastener Dia.	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	—	—		

• Uses your existing CherryMAX noses without an adapter.

• Longer stroke than G704B or G747 - less double stroking.

• Less o-ring & seals than comparable Cherry tools for less maintenance and downtime.

Huck® 202 Power Riveter



• 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 lbs (1769 kgs)	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
99-2707	-6	OSBP-EU/OSB100-T UBPMV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06

Huck® 2025 Power Riveter



Part Number	Stroke	Pulling Force	Weight
2025	0.675"	5290 lbs (2400 kgs)	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	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T
99-2701	-5	
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 2ASPFF/PP
99-2645	17/64 (08)	
99-2648	21/64 (10)	

Huck® 2440SX Power Riveter

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	
99-2651	-4	
99-2549S/T	-5	NAS Shear Lockbolts: NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V NAS Tension Lockbolts: 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
99-2555	-6	
99-2561	-8	
99-2651	-4	
99-2549S/T	-5	GP Lockbolts GPL3S/6S/7T/8T
99-2555	-6	
99-2561	-8	
99-2573	4mm	
99-2579	5mm	MGP Lockbolts MGPL28T
99-2585	6mm	



Part Number	Stroke	Pulling Force	Weight
244X	0.5620"	4606 lbs (2089 kgs)	5.7 lbs (2.6 kgs)
2440SX	0.6245"		

A lightweight and powerful tool designed to install at high volumes lockbolt & blind fasteners through 1/4".

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** ASPPFF/2ASP509F/P 2ASPPF/FP 2ASPPF/PP
99-2645	17/64 (08)	
99-2648	21/64 (10)	

Huck® 245 & 255 Power Riveters

Factory Tested
For 2000 Cycles



- 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 lbs (3402 kgs)	9.3 lbs (4.2 kgs)

Part Number	Stroke	Pulling Force	Weight
255	0.625"	7750 lbs (3515 kgs)	8.8 lbs (4.0 kgs)

Nose Assemblies			
Part No. Straight	Part No. Offset***	Fastener Diameter	Installs Fasteners
99-2725*	99-3715	-4	NAS1919/21"S" OSMLSP OSMLS100 SMLSP-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	NAS Shear Lockbolts: NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V NAS Tension Lockbolts: 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	GP Lockbolts GPL3S/6S/7T/8T
99-2559	99-3704	-6	
99-2565	99-3705	-8	
99-2568	99-3720	-10	
99-2642*	99-3728	13/64 (06)	ASP Fasteners*** ASPFF/2ASP- 509F/P 2ASPPF/FP 2ASPPF/PP
99-2645*	99-3729	17/64 (08)	
99-2648*	99-3730	21/64 (10)	

Nose Assemblies			
Part No. Straight	Part No. Offset***	Fastener Diameter	Installs Fasteners
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	MLGP Lockbolts
99-2534	99-3710	5mm	
99-2540	99-3711	6mm	
99-2543	99-3721	8mm	
99-2642*	99-3728	13/64 (06)	ASP Fasteners*** ASPFF/2ASP- 509F/P 2ASPPF/FP 2ASPPF/PP
99-2645*	99-3729	17/64 (08)	
99-2648*	99-3730	21/64 (10)	

Huck® 246 Power Riveter



Factory Tested For 2000 Cycles

- 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 (4530 kgs)	12.3 lbs (5.6 kgs)

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	

POP® Hand Riveter



One Handed Operation PS15 Comfortable Contoured Grips

- Robust aluminum casting & vanadium steel handle design.
- For all popular rivets to 3/16" - includes nosepiece wrench.

Part No.	Nosepieces Included	Overall Length	Weight
PS15	3/32", 1/8", 5/32" & 3/16"	9.65" (245 mm)	1.3 lbs (0.6 kgs)



Part Number	Description
PS15-KIT	267 PC Kit

Hand Riveter 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

Cordless Blind Riveter Tool Kit

- Fast & efficient, with 3000 lbs of pulling force and a .787" stroke, 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 re-charge).

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.

A Powerful & Portable Riveting Tool



Part Number	Case Dimensions
PT-4000-MIL-1	14" x 11-1/2" x 4-1/2"

Klik-Turn 360° Swivel Hand Riveter



360° Head Rotation 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 For installing aluminum or steel engineered threaded fasteners.

For Standard Rivnuts*			For Large Size Rivnuts*		
Part Number	Size	Thread	Part Number	Size	Thread
C845-440	#4	4-40	C722-3118	5/16"	5/16"-18
C845-632	#6	6-32	C722-3124	5/16"	5/16"-24
C845-832	#8	8-32	C722-3716	3/8"	3/8"-16
C845-1024	#10	10-24	C722-3724	3/8"	3/8"-24
C845-1032	#10	10-32	C722-5013	1/2"	1/2"-13
C845-2520	1/4"	1/4"-20	C722-5020	1/2"	1/2"-20
C845-2528	1/4"	1/4"-28	C722-M7	M7	M7 x 1.00
C845-M3	M3	M3 x 0.5	C722-M8	M8	M8 x 1.25
C845-M4	M4	M3 x 0.7	C722-M10	M10	M10 x 1.50
C845-M5	M5	M3 x 0.8			
C845-M6	M6	M3 x 1.0			

Part Number	Size	Thread	Part Number	Size	Thread
C1000-440	#4	4-40	C1000-2520	1/4"	1/4"-20
C1000-632	#6	6-32	C1000-2528	1/4"	1/4"-28
C1000-832	#8	8-32	C1000-M4	M4	M3 x 0.7
C1000-1024	#10	10-24	C1000-M5	M5	M3 x 0.8
C1000-1032	#10	10-32	C1000-M6	M6	M3 x 1.0

USATCO Plus Type Drivers



High Speed Push-Pull Spiral Action For installing slotted (plus type) rivet nuts. Metric sizes also available, please inquire.

Part Number	Conversion Kit Part Number	Replacement Stud Part No.	Thread Size
10-L7000-4	10-JP4-C	38-U-16-4	4-40
10-L7000-6	10-JP6-C	38-U-16-6	6-32
10-L7000-8	10-JP8-C	38-U-16-8	8-32
10-L7000-10	10-JP10-C	38-U-16-10	10-32
10-L7000-1/4*	10-JP1/4-C	38-U-16-1/4	1/4"-28

USATCO RIVETNUT Drivers



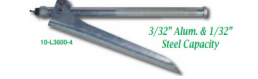
Part Number	Conversion Kit Part Number	Replacement Stud Part No.	Thread Size
10-JP4	10-JP4-C	38-U-16-4	4-40
10-JP6	10-JP6-C	38-U-16-6	6-32
10-JP8	10-JP8-C	38-U-16-8	8-32
10-JP10	10-JP10-C	38-U-16-10	10-32
10-JP1/4*	10-JP1/4-C	38-U-16-1/4	1/4"-28
10-JP2520	10-JP2520-C	38-U-16-2520	1/4"-20

Includes: RIVETNUT Driver, 6-32, 8-32 & 10-32 Large Flange Aluminum RIVETNUTS (25 each), Two Nosepieces With Conversion Kits & Molded Plastic Case



Part Number	Description
53-JP6810	Complete 81 PC Kit

Notcher/Key Seating Tools



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

Reversible Ratchet Wrench Assemblies

1/4" Drive (ATHR250)			1/2" Drive (ATHR500)		
Part Number	Socket Hex	Hex Key Size	Part Number	Socket Hex	Hex Key Size
ATHA1	3/16"	1/16"	ATHA26	9/16"	1/8"
ATHA2	7/32"	1/16"	ATHA27	9/16"	5/32"
ATHA3	1/4"	1/16"	ATHA28	9/16"	3/16"
ATHA4	9/32"	1/16"	ATHA29	5/8"	5/32"
ATHA5	5/16"	1/16"	ATHA30	11/16"	5/32"
ATHA6	11/32"	1/16"	ATHA31	11/16"	7/32"
ATHA7	7/32"	5/64"	ATHA32	3/4"	3/16"
ATHA8	1/4"	5/64"	ATHA33	7/8"	7/32"
ATHA9	9/32"	5/64"	3/4" Drive (ATHR750)		
Part Number	Socket Hex	Hex Key Size	Part Number	Socket Hex	Hex Key Size
ATHA10	5/16"	5/64"	ATHA34	15/16"	1/4"
ATHA11	11/32"	5/64"	ATHA35	1"	1/4"
ATHA12A	3/8"	5/64"	ATHA36	1-1/8"	5/16"
ATHA13	5/16"	3/32"			
ATHA14	11/32"	3/32"			
ATHA15A	3/8"	3/32"			
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"			



Hi-Lok® Ratchet Wrenches



Snap-on

Hi-Lok® Ratchet

- Snap-on® ratchets are designed to have the lowest profile and work with the shortest swing arc, providing better access to restricted areas
- Dual 80® Ratchet Technology features dual-pawls and a 72 tooth gear providing for more power in less lateral space
- 6 teeth in full contact with gear to provide strength and durability
- A mere 5 degree ratcheting arc
- Sealed head helps keep dirt and other contaminants out of the head mechanism
- For use with standard or Hi-Lok® sockets

Part Number	Square Drive Inches	Gear Teeth	Swing Arc	Overall Length
TY72	1/4"	72	5 degree	4-5/8"
FCY72	3/8"	72	5 degree	4-5/8"

Hi-Lok® Flex-Head Ratchet Wrenches



Snap-on

Flex-Head Hi-Lok® Ratchet

- Snap-on® ratchets are designed to have the lowest profile and work with the shortest swing arc, providing better access to restricted areas
- Dual 80® Ratchet Technology features dual-pawls and a 72 tooth gear providing for more power in less lateral space
- 6 teeth in full contact with gear to provide strength and durability
- A mere 5 degree ratcheting arc
- Sealed head helps keep dirt and other contaminants out of the head mechanism
- For use with standard or Hi-Lok® sockets

Part Number	Square Drive Inches	Gear Teeth	Swing Arc	Overall Length
TFY72	1/4"	72	5 degree	6-1/4"

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)

Mini Reversible Ratchet Wrench



72 tooth spindle engages ratchet in only 5° of handle movement.

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)

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)

Double Box Ratchet Wrenches

Hex#1 & Hex#2	6 Point	12 Point
1/4"-5/16"	R810SC	R810C
5/16"-11/32"	-	R1011C
5/16"-3/8"	-	R1012C
3/8"-7/16"	R1214SC	R1214C
1/2"-9/16"	R1618SC	R1618C



Double Box Ratchet Wrenches 25° Offset

Hex#1 & Hex#2	12 Point
1/4"-5/16"	RYA810
5/16"-11/32"	RYA1011
3/8"-7/16"	RYA1214
1/2"-9/16"	RYA1618C



Double Box Ratchet Wrenches

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)

- 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).



'Tight Squeeze' Installation Tool Assemblies



- 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.
- Interchangeable hex keys and sockets fit an entire range of pin/collar combinations.

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 shown on right and 'Tight Squeeze' hex keys below.

Replacement 'Tight Squeeze' Hex Keys

Part Number	Key Size
TSQ062	1/16"
TSQ078	5/64"
TSQ094	3/32"



Roller Ratchet Installation Tools



- 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)

Hi-Lok® & Hi-Lite® Installation Sockets



- For the installation of Hi-Lok® & Hi-Lite® fasteners.
- Anti-FOD set screw provides positive square drive engagement.

1/4" Drive Socket		3/8" Drive Socket		1/2" Drive Socket	
Part No.	Hex	Part No.	Hex	Part No.	Hex
ATHS187	3/16"	ATHS375	3/8"	ATHS562	9/16"
ATHS218	7/32"	ATHS437	7/16"	ATHS625	5/8"
ATHS250	1/4"	ATHS500	1/2"	ATHS687	11/16"
ATHS281	9/32"			ATHS750	3/4"
ATHS312	5/16"	3/4" Drive Socket		ATHS875	7/8"
ATHS343	11/32"	Part No.	Hex		
ATHS375A	3/8"	ATHS937	15/16"		
		ATHS1000	1"		
		ATHS1125	1-1/8"		

Handi-Hex® Drivers



- General use & production assembly using socket screw products.
- Includes adjustable, replaceable allen bit & bit change key.
- Replacement blades available, please inquire.

Part Number	Key Size	Part Number	Key Size
57400	.028"	57410	3/32"
57402	.035"	57412	7/64"
57404	.050"	57414	1/8"
57406	1/16"	57416	9/64"
57408	5/64"		

Savi-Socket® Collar Removal Sockets

- New 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. Made in the USA.

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)

'Savi-Socket' Collar Removal Socket Sets



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

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® 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

Hi-Lok® Collar Removal Sockets

- Patented design efficiently removes Hi-Lok® & Eddie-Bolt® collars.
- Tough 17-4 tool steel, heat treated for high wear resistance.
- Best suited for use on aluminum collars.



1/4" Square Drive		
Part Number	Pin Dash	Collar Size
3581-5/32	-5	5/32"
3581-3/16	-6	3/16"
3581-1/4	-8	1/4"
3581-5/16	-10	5/16"
3581-3/8	-12	3/8"
3581-7/16	-14	7/16"

Part Number	Description
53-3581	Set of 4 (-5, -6, -8 & -10)

HI-SHEAR INSTALLATION & REMOVAL

Hi-Lok® & Eddie-Bolt® Collar Removal Sockets



- Driven with hand or pneumatic tools with a 3/8" square drive.
- Sockets 'bite' into the collar allowing it to be unscrewed.

Part	Nominal Pin	Part	Nominal Pin
Number	Diameter	Number	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"

Hi-Shear® Six-Wing Collar Removal Assemblies



- 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"

K-Fast® 8-Spline Installation & Removal Sockets



- Uses standard square drive ratchet wrenches.
- For Kaynar KFN fasteners (Airbus aircraft, A10 Thunderbolt etc.).

1/4" Square Drive	
Part Number	Size
ATSK3686-2T	#8
ATSK3686-3T	#10
ATSK3686-4T	1/4"

1/2" Square Drive	
Part Number	Size
ATSK3686-7S	7/16"
ATSK3686-8S	1/2"
ATSK3686-9S	9/16"
ATSK3686-10S	5/8"

3/8" Square Drive	
Part Number	Size
ATSK3686-5F	5/16"
ATSK3686-6F	3/8"

Hi-Lok® Fastener Ratchet Extensions



- Continuous through-hole for hex key insertion.
- Set screw secures extension to ratchet.

Part Number	Overall Length
ATSK3594-2X	2" (51 mm)
ATSK3595-3X	3" (76 mm)

Part Number	Overall Length
ATSK3594-4X	4" (102 mm)
ATSK3595-6X	6" (152 mm)

Frangible Collar Hand Removal Tools

- 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)

Thd. Shank Huck® & Hi-Shear® Collar Removers

- Cleanly cuts off the 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"	02-87-6	3/8" L12	.622"
02-86-6	3/8" HS47	.625"	02-87-7	3/8" OS12	.465"



Four-Flute H.S.S.

Hi-Lok® & Hi-Tique® Collar Removal Assemblies



- Driven with hand or pneumatic tools with a 3/8" square drive.
- Sockets 'bite' into the collar allowing it to be unscrewed.

1/4" Square Drive				
Part Number	Size	'A' Height	'B' Width	Overall Length
HLH128-6	3/16"	0.400"	0.800"	1.2" (30.4 mm)
HLH128-8	1/4"	0.400"	0.800"	1.3" (33.0 mm)
HLH128-10	5/16"	0.500"	0.800"	1.4" (35.5 mm)

3/8" Square Drive				
Part Number	Size	'A' Height	'B' Width	Overall Length
HLH128-12	3/8"	0.562"	1.070"	1.7" (43.1 mm)
HLH128-14	7/16"	0.687"	1.150"	1.9" (48.2 mm)
HLH128-16	1/2"	0.687"	1.200"	2.1" (53.3 mm)

Hi-Lok® & Hi-Tique® Collar Removal Tool Kit



Provides close quarter tools to remove Hi-Lok® & Hi-Tique® collars. **Kit Includes:** Six Collar Removal Tools (3/16", 1/4", 5/16", 3/8", 7/16" & 1/2"), Two 1/4" Drive Flex Handles (-6, -8, -10 & -12, -14, -16), Two 1/4" Drive Extensions (-6, -8, -10 & -12, -14, -16), Parts List & Steel Fitted Carrying Case

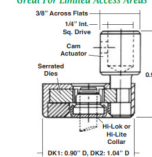
Part Number	Description
HLK10	Complete 12 PC Kit

DK Series Hi-Lok® & Hi-Lite® Collar Rem. Tools

Remove Hi-Lok® & Hi-Lite® collars with or without captive washers. Note: Use with 1/4" male square drive or 3/8" open end wrench (not included).

Part No.	Collar Dia. Range
DK1-1	.239" to .262"
DK1-3	.269" to .290"
DK2-4	.332" to .350"
DK2-5	.370"

Great For Limited Access Areas



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.

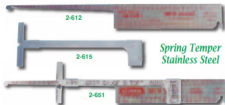
Part Number	Style	Capacity	Overall Length
04-100H	Standard	5/32", 3/16", 1/4" & 5/16"	7-3/8" (187 mm)
ZHP-100B	Offset		6-1/2" (165 mm)
ZHP-200	Standard	5/16", 5/8" & 3/4"	9" (229 mm)
ZHP-200B	Offset		8-1/4" (210 mm)

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'	4, 5, 6, 8, 10 & 12 mm
2-1522HST-B	Hi-Lite® Aerospace 'B'	
2-1522HLM	Hi-Lok® / Hi-Tique® Metric	-14, -16, -18, -20 & -24
2-1522HSTM	Hi-Lite® Metric	
2-1522-B-2	Hi-Lok® Large Diameter	-14, -16, -18 & -20
2-1522HST-2	Hi-Lite® Large Diameter	

Grip Gauges



Part No.	Description
2-612	1/16" Increments To 3", 1 mm Increments To 75 mm
2-615	Grip Gauge Slide (for 2-612 above)
2-651	Grip Gauge Assembly (includes 2-612 & 2-615 above)

Grip Gauges



Part Number	Description
G53453	For Visu-Lok® Jo-Bolt® Fasteners
G53455	For Composi-Lok® Fasteners

Reversible Ratchet Wrench Installation Kit



- Install Hi-Lite®, Hi-Lok® & Hi-Tique® pin and collar combinations.
- Includes all of the tools listed below with a steel carrying case.

Part Number	Description
HLK14	Complete 32 PC Kit

Reversible Ratchet Wrench Assemblies

Part Number	Socket Hex	Wrench Tip Hex
ATHA5	5/16"	1/16"
ATHA10	5/16"	5/64"
ATHA11	11/32"	5/64"
ATHA14	11/32"	3/32"
ATHA16	7/16"	3/32"
ATHA18	7/16"	1/8"
ATHA20	1/2"	5/32"
ATHA28	9/16"	3/16"
ATHA31	11/16"	7/32"

Part Number	Socket Hex	Part No.	Type
ATBR-3134	5/16" & 11/32"	2-1522	Protrusion
ATBR-4350	7/16" & 1/2"	2-612	Grip

Hi-Lok® Installation & Removal Kits



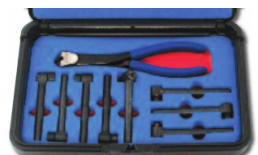
Deluxe Ratchet & Socket Kit: 1/4" & 3/8" Drive Reversible Ratchets, Ten Sockets (3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16" & 1/2"), 1/16" Hex Key, Four T-Hex Keys (5/64", 3/32", 1/8" & 5/32"), Two Extensions (2" & 3") & Fitted Plastic Case

Part Number	Description
ATI3600K	Complete 20 PC Kit



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
ATI3594K	Complete 14 PC Kit



Roller Clutch Ratchet Kit: 1/4" Drive Installation Wrench, Four Hex Installation Wrenches (7/32", 1/4", 5/16" & 11/32"), Diamond Cut Removal Pliers & Fitted Plastic Case

Part Number	Description
ATISK3539A5	Complete 7 PC Kit

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 6 PC Kit

'Liberator' Ratchet Set



- 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-Lok® Pneumatic Installation & Removal Kit



Kit includes: 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

Jo-Bolt® & Visu-Lok® Installation Hand Tools



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 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

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")



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.

Lever Grip Torque Responsive Adapters (includes driver ass'y)

Part No.	Part No.	Part No.	Part No.	Driver
Flush	Protruding	Millable	Reduced Flush	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.	Part No.	Part No.	Part No.	Driver
Flush	Protruding	Millable	Reduced Flush	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



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

Thd. Shank Huck® & Hi-Shear® Collar Removers

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



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

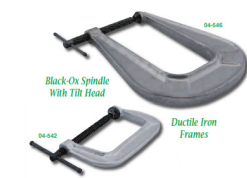
Composi-Lok® Ratchet Hand Tool Kit: HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Fastener Drivers (-5, -6, -8 & -10), Protruding Wrench Adapters (-7 & -8), Flush Nose (-5, -6, -7, -8, -9 & -10), Protruding Nose (-5, -6, -7, -8, -9 & -10), Close Quarter Fastener Drivers (-5, -6, -7, -8, -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-LokII® 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

Wilton® Light Industrial C-Clamps



Deep reach models ideal for many aero-space applications.

Standard			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
04-532	620 lbs	1-1/2" (60 mm)	0 - 1-1/2" (38 mm)
04-542	1430 lbs	2" (51 mm)	0 - 3" (76 mm)
04-543	1400 lbs	3-1/4" (83 mm)	0 - 6" (152 mm)
04-531	1700 lbs	4" (102 mm)	0 - 8" (203 mm)

Deep Reach			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
04-533	350 lbs	3" (76 mm)	0 - 1" (25 mm)
04-544	450 lbs	3-1/2" (89 mm)	0 - 2" (51 mm)
04-536	600 lbs	4" (102 mm)	0 - 2-1/2" (64 mm)
04-537	700 lbs	4-1/2" (114 mm)	0 - 3" (76 mm)
04-545	1600 lbs	4-3/4" (121 mm)	0 - 2-1/2" (64 mm)
04-546	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 and a tilt head.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
20301	3500 lbs	2" (51 mm)	0 - 2" (51 mm)
20302	3500 lbs	2-3/8" (60 mm)	0 - 3" (76 mm)
20303	6200 lbs	2-3/4" (70 mm)	0 - 4" (102 mm)
20304	6600 lbs	3-5/8" (92 mm)	0 - 6" (152 mm)
20305	6900 lbs	4-1/2" (114 mm)	0 - 8" (203 mm)
20306	8000 lbs	5-3/8" (137 mm)	0 - 10" (254 mm)
20307	9500 lbs	5-3/4" (146 mm)	0 - 12" (305 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	2-1/2" (64 mm)	0 - 3" (76 mm)
14302	6200 lbs	3-1/4" (83 mm)	0 - 4-1/4" (108 mm)
14303	6600 lbs	4-1/8" (105 mm)	0 - 6-1/16" (154 mm)
14305	6900 lbs	5" (127 mm)	0 - 8-1/4" (210 mm)
14306	8000 lbs	6" (152 mm)	2 - 10-1/8" (257 mm)
14307	9300 lbs	6-5/16" (176 mm)	2 - 12-1/4" (311 mm)

Wilton® Economy C-Clamps



Part Number	Holding Cap.	Jaw Reach	Jaw Gap
20301	3500 lbs	2" (51 mm)	0 - 2" (51 mm)
20302	3500 lbs	2-3/8" (60 mm)	0 - 3" (76 mm)
20303	6200 lbs	2-3/4" (70 mm)	0 - 4" (102 mm)
20304	6600 lbs	3-5/8" (92 mm)	0 - 6" (152 mm)
20305	6900 lbs	4-1/2" (114 mm)	0 - 8" (203 mm)
20306	8000 lbs	5-3/8" (137 mm)	0 - 10" (254 mm)
20307	9500 lbs	5-3/4" (146 mm)	0 - 12" (305 mm)

Nylon Tip C-Clamps

- High strength to weight ratio.
- Nylon tip cap & nylon inserts are securely fastened to the foot of the clamp.
- 550 lbs holding capacity.



Part No.	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)

Bessey® Deep Reach Malleable Cast C-Clamp



Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Weight
CM34DR	900 lbs	4-1/2" (102 mm)	2-3/4" (70 mm)	1.5 lbs (0.68 kgs)

Fast Action Universal Clamps



- Plates made from durable high tensile steel.
- Meets federal specification GGG-406 Type V.

'T' Handle		'T' Handle Deep Throat	
Part Number	Jaw Capacity	Part Number	Jaw Capacity
04-401	1" (25 mm)	04-415	4-1/2" (114 mm)
04-405	2" (51 mm)	04-421	6" (152 mm)
04-410	3" (76 mm)	04-435	10" (254 mm)
04-420	6" (152 mm)	Round Handle	
04-430	9" (229 mm)	Part Number	Jaw Capacity
04-440	12" (305 mm)	04-396	3/4" (19 mm)
'T' Handle No Mar Rubber Pads		04-401-1	1" (25 mm)
Part Number	Jaw Capacity	04-405-1	2" (51 mm)
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)		

Wilton® Light Duty Steel F-Clamps



- 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)

Bessey® VarioClippix® Sliding Arm Spring Clamps



- Versatile sliding arm design with optimum handling.
- Rapid-action adj. jaw does the work of 4 different clamps.
- Lightweight, strong & corrosion resistant polyamide construction.

Single Sliding Arm			
Part Number	Jaw Reach	Jaw Gap	Weight
XV3-50	1-1/2" (38 mm)	2-1/8" (54 mm)	3 oz (85 g)
XV5-100	2" (51 mm)	4" (102 mm)	6.4 oz (181 g)
Double Sliding Arm			
Part Number	Jaw Reach	Jaw Gap	Weight
XV5-170	2" (51 mm)	6-1/2" (165 mm)	7.2 oz (204 g)

Bessey® Clippix® Needle Nose Spring Clamps



- Long tapered nose ideal for delicate & hard to reach areas.
- Lightweight, strong & corrosion resistant polyamide construction.

Part Number	Jaw Reach	Jaw Gap	Weight
XCL2	2" (51 mm)	2" (51 mm)	6.4 oz (181 g)
XCL5	4" (102 mm)	3" (76 mm)	11.2 oz (181 g)

Nickel Plated Spring Clamps



Ergonomic shape with 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" (51 mm)	2" (51 mm)	6" (152 mm)
04-639	3" (76 mm)	3" (76 mm)	9" (229 mm)
04-640	4" (102 mm)	4" (102 mm)	12" (305 mm)

IRWIN® Spring Clamps

- Non-marring soft, pliable pads.
- 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)



Toggle Clamps



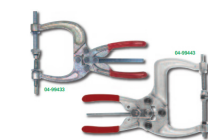
- Extra strong, quality construction.
- Low cost - have a myriad of uses in assembly operations.
- Many more styles available, please inquire.

1/4"-20 Spindle Thread				
Part Number	Holding Capacity	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 Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99311	350 lbs	1-7/8"	1-1/16" (27 mm)	5-11/16" (144 mm)

Quick-Release, 3/8"-16 Spindle Thread				
Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99423	700 lbs	2-1/2"	1-5/8" 41 mm	9-1/2" (241 mm)



Quick-Release, 3/8"-16 Spindle Thread				
Part Number	Holding Capacity	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)

Toggle Clamps



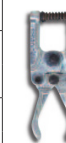
Quick-Release, 5/16"-24 Spindle Thread				
Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99473	700 lbs	2-3/8"	3" (76 mm)	8-1/16" (205 mm)

Offset, 5/16"-24 Spindle Thread				
Part Number	Holding Capacity	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 Capacity	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)

Part Number	Holding Capacity	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)



Spring Tension Clamps

- Assures uniform pressure.
- Apply in a fraction of the time required for ordinary screw clamps.
- Zamac alloy yoke & steel spring provides 70 lbs of force.

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"



Bessey® SuperGrips® Locking Clamp Pliers

- Highly adjustable jaw with cold drawn, profiled steel extension rail.
- Upper lock nut adjusts clamping force.
- Lower lock nut adjusts jaw angle up to 7° for clamping irregular workpieces.

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Weight
SG-4	440 lbs	2-1/2" (64 mm)	4" (102 mm)	2.5 lbs (1.1 kgs)
SG-8	440 lbs	2-1/2" (64 mm)	8" (203 mm)	2.7 lbs (1.2 kgs)



LOCKING STEEL C-CLAMPS

Part Number	Overall Length	Jaw Capacity	Throat Depth
J265XL	6-47/64"	2-23/64"	1-61/64"
J266XL	11-22/64"	4-21/64"	3-40/64"
J267XL	18-1/2"	10-15/64"	10-15/64"
J268XL	24-12/32"	15-3/4"	16-1/8"



LOCKING C-CLAMPS WITH SWIVEL PADS

Part Number	Overall Length	Jaw Capacity	Throat Depth
J269XL	7"	1-31/32"	2-9/32"
J270XL	11-55/64"	3-30/32"	3-35/64"
J271XL	14-3/8"	5-57/64"	5-1/8"
J272XL	18-1/2"	9"	9-13/32"
J273XL	24-25/32"	14-1/2"	15-3/4"

Bessey® Deep Reach Ratchet Spring Clamps



- Ratchet action locks onto workpiece with firm grip.
- Square jaw allows for easy clamping on odd shapes.
- Heavy-duty resin construction & non-slip handles.

Square Jaw Ratchet Spring Clamps			
Part Number	Jaw Reach	Jaw Gap	Weight
XCRU3	2" (51 mm)	2" (51 mm)	8 oz (227 g)
XCRU5	4" (102 mm)	4" (102 mm)	12 oz (340 g)

Round Jaw Ratchet Spring Clamps

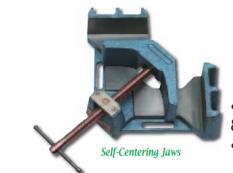
- Convenient set includes four round jaw clamps.



4 PC Round Jaw Ratchet Spring Clamp Set

Part Number	Jaw Reach	Jaw Gap
XCR-4PC	2-1/2" (64 mm)	2" (51 mm)

Bessey® Deep Reach Ratchet Spring Clamps



- Square machined sides and base for secure & precise clamping.
- Bench mounting holes in base.

Part Number	Throat Depth	Miter Cap.	Weight
AC-324	4"	2-3/4"	2.6 lbs (1.2 kgs)

Quick-Clamp Lever Locks



Snaps open or shut with the flick of a thumb.

Part Number	Throat Depth	Jaw Capacity	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)

Sheet Metal Fastener Pliers



Installs MM, M, ML, MHD & Side Grip Fasteners

Part Number	Type
04-62	Standard
04-63	With Plastigrip Handles
04-64	With Black-Ox Coating

Monogram® Sheet Metal Fasteners (CLECOS)



Monogram® Sheet Metal Fasteners (CLECOS)

'MM' Type Mini		
Part Number	Material Capacity	Drill Size
04-MM-3/32	0 to 1/4"	#40
04-MM-1/8	0 to 1/4"	#30
04-MM-5/32	0 to 1/4"	#20
04-MM-3/16	0 to 1/4"	#10

'ML' Type		
Part Number	Material Capacity	Drill Size
04-ML-3/32	1/4 to 1/2"	#40
04-ML-1/8	1/4 to 1/2"	#30
04-ML-5/32	1/4 to 1/2"	#20
04-ML-3/16	1/4 to 1/2"	#10

'M' Type Standard		
Part Number	Material Capacity	Drill Size
04-M-1/16	0 to 1/4"	1/16"
04-M-3/32	0 to 1/4"	#40
04-M-1/8	0 to 1/4"	#30
04-M-5/32	0 to 1/4"	#20
04-M-3/16	0 to 1/4"	#10
04-M-7/32	0 to 7/32"	#2
04-M-1/4	0 to 5/16"	1/4"

'MHD' Type		
Part Number	Material Capacity	Drill Size
04-MHD-3/32	0 to 1/2"	#40
04-MHD-1/8	0 to 1/2"	#30
04-MHD-5/32	0 to 1/2"	#20
04-MHD-3/16	0 to 1/2"	#10
04-MHD-7/32	0 to 7/32"	#2
04-MHD-1/4	0 to 1/2"	1/4"

'Side Grip' Type		
Part Number	Material Capacity	Reach
04-EL-1/2-1/2	0 to 1/2"	1/2"
04-EL-3/4-1/2	0 to 3/4"	1/2"
04-EL-1/2-1	0 to 1/2"	1"
04-EL-3/4-1	0 to 3/4"	1"

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



- Lightweight & efficient with a unique cylindrical design.
 - Lasting reusability with a maximum 100 lbs clamping pressure.
- Spring Loaded Models**
- For use in wet sealant & liquid shim applications.
 - Eliminate the need for re-torquing after installation.

3/32" Hole Diameter - #40 Drill Size - Zinc			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/32	0 to 1/2"	04-CSX-3/32	0 to 1/2"
04-CBXL-3/32	0 to 1"	04-CSXL-3/32	1/2 to 1"
04-CBXEL-3/32	1/2 to 1-1/2"	04-CSXEL-3/32	1/2 to 1-1/2"

1/8" Hole Diameter - #30 Drill Size - Copper			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-1/8	0 to 1/2"	04-CSX-1/8	0 to 1/2"
04-CBXL-1/8	0 to 1"	04-CSXL-1/8	1/2 to 1"
04-CBXEL-1/8	1/2 to 1-1/2"	04-CSXEL-1/8	1 to 1-1/2"
04-CBXK-1/8	1-1/2 to 2-1/2"	04-CSXK-1/8	2 to 2-1/2"

5/32" Hole Diameter - #20 Drill Size - Black			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-5/32	0 to 1/2"	04-CSX-5/32	0 to 1/2"
04-CBXL-5/32	0 to 1"	04-CSXL-5/32	1/2 to 1"
04-CBXEL-5/32	1/2 to 1-1/2"	04-CSXEL-5/32	1 to 1-1/2"
04-CBXK-5/32	1-1/2 to 2-1/2"	04-CSXK-5/32	2 to 2-1/2"

3/16" Hole Diameter - #10 Drill Size - Brass			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/16	0 to 1/2"	04-CSX-3/16	0 to 1/2"
04-CBXL-3/16	0 to 1"	04-CSXL-3/16	1/2 to 1"
04-CBXEL-3/16	1/2 to 1-1/2"	04-CSXEL-3/16	1 to 1-1/2"
04-CBXK-3/16	1-1/2 to 2-1/2"	04-CSXK-3/16	2 to 2-1/2"

Cylindrical Body Temporary Fasteners

7/32" Hole Diameter - #2 Drill Size - Zinc			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-7/32	0 to 1/2"	04-CSX-7/32	0 to 1/2"
04-CBXL-7/32	0 to 1"	04-CSXL-7/32	1/2 to 1"
04-CBXEL-7/32	1/2 to 1-1/2"	04-CSXEL-7/32	1 to 1-1/2"
04-CBXK-7/32	1-1/2 to 2-1/2"	04-CSXK-7/32	2 to 2-1/2"

1/4" Hole Diameter - 'F' Drill Size - Copper			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-1/4	0 to 1/2"	04-CSX-1/4	0 to 1/2"
04-CBXL-1/4	0 to 1"	04-CSXL-1/4	1/2 to 1"
04-CBXEL-1/4	1/2 to 1-1/2"	04-CSXEL-1/4	1 to 1-1/2"
04-CBXK-1/4	1-1/2 to 2-1/2"	04-CSXK-1/4	2 to 2-1/2"

9/32" Hole Diameter - 'L' Drill Size - Brass			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-9/32	0 to 1/2"	04-CSX-9/32	0 to 1/2"
04-CBXL-9/32	0 to 1"	04-CSXL-9/32	1/2 to 1"
04-CBXEL-9/32	1/2 to 1-1/2"	04-CSXEL-9/32	1 to 1-1/2"
04-CBXK-9/32	1-1/2 to 2-1/2"	04-CSXK-9/32	2 to 2-1/2"

5/16" Hole Diameter - 'O' Drill Size - Black			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-5/16	0 to 1/2"	04-CSX-5/16	0 to 1/2"
04-CBXL-5/16	0 to 1"	04-CSXL-5/16	1/2 to 1"
04-CBXEL-5/16	1/2 to 1-1/2"	04-CSXEL-5/16	1 to 1-1/2"
04-CBXK-5/16	1-1/2 to 2-1/2"	04-CSXK-5/16	2 to 2-1/2"

3/8" Hole Diameter - 'V' Drill Size - Black with Brass Cap			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/8	0 to 1/2"	04-CSX-3/8	0 to 1/2"
04-CBXL-3/8	0 to 1"	04-CSXL-3/8	1/2 to 1"
04-CBXEL-3/8	1/2 to 1-1/2"	04-CSXEL-3/8	1 to 1-1/2"
04-CBXK-3/8	1-1/2 to 2-1/2"	04-CSXK-3/8	2 to 2-1/2"

Wing & Bar Nut Manual Temporary Fasteners

1/4" Hole Diameter - 'F' Drill Size - Copper			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-1/4	04-BNXS-1/4	0 to 5/16"	2-3/8"
04-WNX-1/4	04-BNX-1/4	0 to 1/2"	2-7/8"
04-WNXL-1/4	04-BNXL-1/4	0 to 1"	3-7/8"
04-WNXEL-1/4	04-BNXEL-1/4	1/2 to 1-1/2"	4-3/8"
04-WNXK-1/4	04-BNXK-1/4	1-1/2 to 2-1/2"	5-3/8"

5/16" Hole Diameter - 'O' Drill Size - Black			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNX-5/16	04-BNX-5/16	0 to 1/2"	2-7/8"
04-WNXL-5/16	04-BNXL-5/16	0 to 1"	3-7/8"
04-WNXEL-5/16	04-BNXEL-5/16	1/2 to 1-1/2"	4-3/8"
04-WNXK-5/16	04-BNXK-5/16	1-1/2 to 2-1/2"	5-3/8"

3/8" Hole Diameter - 'V' Drill Size - Black with Brass Cap			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNX-3/8	04-BNX-3/8	0 to 1/2"	2-7/8"
04-WNXL-3/8	04-BNXL-3/8	0 to 1"	3-7/8"
04-WNXEL-3/8	04-BNXEL-3/8	1/2 to 1-1/2"	4-3/8"
04-WNXK-3/8	04-BNXK-3/8	1-1/2 to 2-1/2"	5-3/8"



Wing & Bar Nut Manual Temporary Fasteners

5.0 mm Hole Diameter - Brass with Copper Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-5.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-5.0	0 to 25 mm	94.5 mm	99.3 mm

5.5 mm Hole Diameter - Silver with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-5.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-5.5	0 to 25 mm	94.5 mm	99.3 mm

6.0 mm Hole Diameter - Copper			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-6.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-6.0	0 to 25 mm	94.5 mm	99.3 mm

6.5 mm Hole Diameter - Copper with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-6.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-6.5	0 to 25 mm	94.5 mm	99.3 mm

7.0 mm Hole Diameter - Copper with Silver Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-7.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-7.0	0 to 25 mm	94.5 mm	99.3 mm

7.5 mm Hole Diameter - Black with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-7.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-7.5	0 to 25 mm	94.5 mm	99.3 mm

8.0 mm Hole Diameter - Black			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-8.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-8.0	0 to 25 mm	94.5 mm	99.3 mm



'MO' Type Manual Temporary Fasteners

Easy To Operate • User controlled clamping forces of 50 to 300 lbs.

3/32" Hole Diameter - #40 Drill Size - Zinc		METRIC SIZES	
'MO' Type	Grip Range	2.0 mm Hole Diameter - Black with Brass Rivet	
04-MO-3/32	0 to 1/4"	'MO' Type	Grip Range
04-MOL-3/32	1/4" to 1/2"	04-MO-2.0	0 to 6.5 mm

1/8" Hole Diameter - #30 Drill Size - Copper		2.5 mm Hole Diameter - Silver	
'MO' Type	Grip Range	'MO' Type	Grip Range
04-MO-1/8	0 to 1/4"	04-MO-2.5	0 to 6.5 mm
04-MOL-1/8	1/4" to 1/2"		

5/32" Hole Diameter - #20 Drill Size - Black		3.0 mm Hole Diameter - Copper	
'MO' Type	Grip Range	'MO' Type	Grip Range
04-MO-5/32	0 to 1/4"	04-MO-3.0	0 to 6.5 mm
04-MOL-5/32	1/4" to 1/2"		

3/16" Hole Diameter - #10 Drill Size - Brass		3.5 mm Hole Diameter - Copper with Brass Rivet	
'MO' Type	Grip Range	'MO' Type	Grip Range
04-MO-3/16	0 to 1/4"	04-MO-3.5	0 to 6.5 mm
04-MOL-3/16	1/4" to 1/2"		

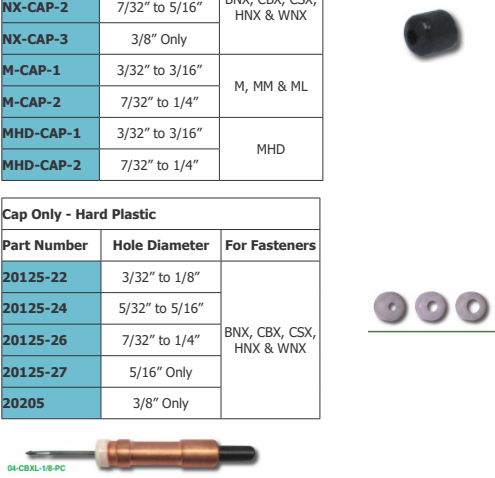
4.0 mm Hole Diameter - Black		4.5 mm Hole Diameter - Silver with Brass Rivet	
'MO' Type	Grip Range	'MO' Type	Grip Range
04-MO-4.0	0 to 6.5 mm		
04-MO-4.5	0 to 6.5 mm		

Protective Caps For Sheet Metal Fasteners

Cap Only - Soft Vinyl		
Part Number	Hole Diameter	For Fasteners
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, MM & ML
M-CAP-1	3/32" to 3/16"	
M-CAP-2	7/32" to 1/4"	MHD
MHD-CAP-1	3/32" to 3/16"	
MHD-CAP-2	7/32" to 1/4"	

Cap Only - Hard Plastic		
Part Number	Hole Diameter	For Fasteners
20125-22	3/32" to 1/8"	BNX, CBX, CSX, HNX & WNX
20125-24	5/32" to 5/16"	
20125-26	7/32" to 1/4"	
20125-27	5/16" Only	
20205	3/8" Only	

Cap & Fastener Assemblies (see instructions below)		
Part Number Suffix	Type	For Fasteners
-PC	Hard Plastic	CBX & CSX
-ALC	Aluminum	HNX & WNX



Note: To order hard plastic & aluminum assemblies, add the required suffix (chart below) to the end of the fastener part number. Vinyl assemblies also available, please inquire.
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.

Skinpins No-Mar Manual Operated Temporary Fasteners

Standard - 0 to 1/4" Capacity			Long - 0 to 1/2" Capacity		
Part Number	Drill Size	Color Code	Part Number	Drill Size	Color Code
04-SSL-3/32	#40	Red	04-SEL-3/32	#40	Red
04-SSL-1/8	#30	Yellow	04-SEL-1/8	#30	Yellow
04-SSL-5/32	#20	Blue	04-SEL-5/32	#20	Blue
			04-SEL-3/16	#10	Black
			04-SEL-1/4	1/4"	White



- 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.

ROTARY BURRS & FILES & ABRASIVES

CLYDRICAL 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
34-644	34-644	SA-11	1/8"	1/2"
34-645	34-645	SA-14	3/16"	5/8"
30-372	30-372	SA-1	1/4"	5/8"
33-936	33-936	SA-1L	1/4"	1"
34-646	34-646	SA-2	5/16"	3/4"
30-471	30-471	SA-3	3/8"	3/4"
30-006	30-006	SA-3L	3/8"	1"
34-647	34-647	SA-4	7/16"	1"
30-858	30-858	SA-5	1/2"	1"
30-162	30-162	SA-6	5/8"	1"
30-065	30-065	SA-7	3/4"	1"
30-009	30-009	SA-9	1"	1"

BALL 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
34-644	34-644D	SA-11	1/8	1/2
30-213	30-213D	SD-11	1/8	3/32
30-297	30-297D	SD-14	3/16	1/8
30-538	30-538D	SD-1	1/4	7/32
30-511	30-511D	SD-2	5/16	1/4
34-641	34-641D	SD-3	3/8	5/16
34-642	34-642D	SD-4	7/16	3/8
30-011	30-011D	SD-5	1/2	7/16
34-643	34-643D	SD-6	5/8	9/16
30-002	30-002D	SD-7	3/4	11/16
30-537	30-537D	SD-9	1	15/16

TREE 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-418	30-418D	SG-1	1/4	5/8
30-474	30-474D	SG-2	5/16	3/4
59-062	30-297D	SG-3	3/8	3/4
30-473	30-473D	SG-13	1/2	3/4
30-446	30-446D	SG-5	1/2	1
30-866	30-866D	SG-6	5/8	1
34-685	34-685D	SG-7	3/4	1
34-686	34-686D	SG-15	3/4	1 1/2

CONE POINTED END 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-477	30-477D	SM-1	1/4	1/2
59-063	59-063D	SM-2	1/4	3/4
34-672	34-672D	SM-3	1/4	1
34-673	34-673D	SM-4	3/8	5/8
30-815	30-815D	SM-5	1/2	7/8
30-003	30-003D	SM-6	5/8	1

CLYDRICAL END CUT 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
34-648	34-648D	SB-11	1/8	1/2
34-649	34-649D	SB-14	3/16	5/8
30-046	30-046D	SB-1	1/4	5/8
30-496	30-496D	SB-1L SB-2	1/4	1
34-650	34-650D	SB-3	5/16	3/4
34-651	34-651D	SB-3L SB-4	3/8	3/4
34-652	34-652D	SB-5	3/8	1
34-653	34-653D	SB-6	7/16	1
30-448	30-448D	SB-7	1/2	1
34-654	34-654D	SB-9	5/8	1
34-655	34-655D		3/4	1
34-656	34-656D		1	1

OVAL 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-913	30-913D	SE-11	3/16	5/16
30-512	30-512D	SE-1	1/4	3/8
34-657	34-657D	SE-3	3/8	5/8
30-575	30-575D	SE-5	1/2	7/8
34-658	34-658D	SE-6	5/8	1

FLAME 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-901	30-901D	SH-1	1/4	5/8
34-667	34-667D	SH-2	5/16	3/4
30-780	30-780D	SH-5	1/2	1 1/4
34-668	34-668D	SH-6	5/8	1 7/16
34-669	34-669D	SH-7	3/4	1 5/8

INVERTED TAPER 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-903	30-903D	SN-1	1/4	5/16
34-674	34-674D	SN-2	3/8	3/8
34-675	34-675D	SN-4	1/2	1/2
34-676	34-676D	SN-6	5/8	3/4
34-677	34-677D	SN-7	3/4	5/8

CLYDR RADIUS END 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-912	30-912D	SC-11	1/8	1/2
34-633	34-633D	SC-14	3/16	5/8
30-787	30-787D	SC-1	1/4	5/8
34-634	34-634D	SC-1L SC-2	1/4	1
34-635	34-635D	SC-3	5/16	3/4
34-636	34-636D	SC-3L SC-4	3/8	3/4
34-637	34-637D	SC-5	3/8	1
34-638	34-638D	SC-6	7/16	1
30-476	30-476D	SC-7	1/2	1
30-369	30-369D	SC-9	5/8	1
34-639	34-639D		3/4	1
34-640	34-640D		1	1

TREE RADIUS END 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
34-660	34-660D	SF-11	1/8	1/2
30-788	30-788D	SF-1	1/4	3/4
34-661	34-661D	SF-3	3/8	3/4
34-662	34-662D	SF-4	7/16	1
34-663	34-663D	SF-13	1/2	3/4
30-449	30-449D	SF-5	1/2	1
34-664	34-664D	SF-6	5/8	1
34-665	34-665D	SF-7	3/4	1

CONE 90° 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-902	30-902D	SK-1	1/4	1/8
34-683	34-683D	SK-3	3/8	3/16
30-784	30-784D	SK-5	1/2	1/4
30-089	30-089D	SK-6	5/8	5/16
30-092	30-092D	SK-7	3/4	3/8
34-684	34-684D	SK-9	1"	1/2

14° TAPER RADIUS END 1/4" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-942	30-942D	SL-1	1/4	5/8
30-320	30-320D	SL-2	5/16	7/8
34-670	34-670D	SL-3	3/8	1 1/16
30-943	30-943D	SL-4	1/2	1 1/8
34-671	34-671D	SL-6	5/8	1 5/16
30-666	30-666D	SL-7	3/4	1 1/2

ROTARY BURRS & FILES & ABRASIVES

CLYDRICAL 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-052	30-052D	SA-41	1/16	1/4
34-544	34-544D	SA-42	3/32	7/16
30-307	30-307D	SA-43	1/8	9/16
30-450	30-450D	SA-52	5/32	1/2
30-453	30-453D	SA-53	3/16	1/2
30-451	30-451D	SA-51	1/4	1/2

CLYDRICAL END CUT 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-344	30-344D	SB-41	1/16	1/4
30-015	30-015D	SB-42	3/32	7/16
30-944	30-944D	SB-43	1/8	9/16
30-016	30-016D	SB-51	1/4	3/16

CLYDR RADIUS END 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-051	30-051D	SC-41	3/32	7/16
30-475	30-475D	SC-42	1/8	9/16
30-017	30-017D	SC-52	5/32	1/2
30-019	30-019D	SC-53	3/16	1/2
30-020	30-020D	SC-51	1/4	1/2

BALL 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-119	30-119D	SD-41	3/32	3/32
30-343	30-343D	SD-42	1/8	1/8
30-152	30-152D	SD-52	5/32	5/32
30-153	30-153D	SD-53	3/16	5/32
30-012	30-012D	SD-51	1/4	7/32

OVAL 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-059	30-059D	SE-41	1/8	7/32
30-031	30-031D	SE-53	3/16	9/32
30-032	30-032D	SE-51	1/4	3/8

TREE RADIUS END 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-080	30-080D	SF-41	1/8	1/4
30-125	30-125D	SF-42	1/8	1/2
30-033	30-033D	SF-53	3/16	1/2
30-034	30-034D	SF-51	1/4	1/2

TREE 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-082	30-082D	SG-41	1/8	1/4
30-049	30-049D	SG-43	1/8	3/8
30-036	30-036D	SG-53	3/16	1/2
30-037	30-037D	SG-51	1/4	1/2

FLAME 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-758	30-758D	SH-41	1/8	1/4
30-576	30-576D	SH-53	3/16	3/8

CONE 60° 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-081	30-081D	SJ-42	1/8	3/32

CONE 90° 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-345	30-345D	SK-42	1/8	1/16

CONE POINTED END 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-079	30-079D	SM-41	1/8	3/8
30-540	30-540D	SM-42	1/8	7/16
30-860	30-860D	SM-43	1/8	5/8
30-541	30-541D	SM-53	3/16	1/2
30-542	30-542D	SM-51	1/4	1/2

Non-Ferrous Carbide Burs

Part Number	Style	Cutter Diameter Inches	Flute Length Inches	Shank Size Inches
30-372NF	SA-1 Non-Ferrous	1/4"	5/8"	1/4"
30-471NF	SA-3 Non-Ferrous	3/8"	3/4"	1/4"
30-858NF	SA-5 Non-Ferrous	1/2"	1"	1/4"
30-162NF	SA-6 Non-Ferrous	5/8"	1"	1/4"
30-065NF	SA-7 Non-Ferrous	3/4"	1"	1/4"
30-046NF	SB-1 Non-Ferrous	1/4"	5/8"	1/4"
34-651NF	SB-3 Non-Ferrous	3/8"	3/4"	1/4"
30-448NF	SB-5 Non-Ferrous	1/2"	1"	1/4"
34-654NF	SB-6 Non-Ferrous	5/8"	1"	1/4"
34-655NF	SB-7 Non-Ferrous	3/4"	1"	1/4"
30-787NF	SC-1 Non-Ferrous	1/4"	5/8"	1/4"
34-636NF	SC-3 Non-Ferrous	3/8"	3/4"	1/4"
30-476NF	SC-5 Non-Ferrous	1/2"	1"	1/4"
30-369NF	SC-6 Non-Ferrous	5/8"	1"	1/4"

14° TAPER RADIUS END 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-048	30-048D	SL-42	1/8	1/2
30-347	30-347D	SL-53	3/16	1/2

INVERTED TAPER 1/8" HEX SIZE



SINGLE CUT PART NUMBER	DOUBLE CUT PART NUMBER	SCTI NUMBER	CUTTER DIAMETER INCHES	FLUTE LENGTH INCHES
30-045	30-045D	SN-41	3/32	1/8
30-047	30-047D	SN-42	1/8	3/16
30-044	30-044D	SN-53	3/16	1/4
30-043	30-043D	SN-51	1/4	5/16



Part Number	Style	Cutter Diameter Inches	Flute Length Inches	Shank Size Inches
34-639NF	SC-7 Non-Ferrous	3/4"	1"	1/4"
30-538NF	SD-1 Non-Ferrous	1/4"	7/32"	1/4"
34-641NF	SD-3 Non-Ferrous	3/8"	5/16"	1/4"
30-011NF	SD-5 Non-Ferrous	1/2"	7/16"	1/4"
34-643NF	SD-6 Non-Ferrous	5/8"	9/16"	1/4"
30-002NF	SD-7 Non-Ferrous	3/4"	11/16"	1/4"
34-657NF	SE-3 Non-Ferrous	3/8"	5/8"	1/4"
30-575NF	SE-5 Non-Ferrous	1/2"	7/8"	1/4"
34-658NF	SE-6 Non-Ferrous	5/8"	1"	1/4"
34-659NF	SE-7 Non-Ferrous	3/4"	1"	1/4"
30-788NF	SF-1 Non-Ferrous	1/4"	5/8"	1/4"
34-661NF	SF-3 Non-Ferrous	3/8"	3/4"	1/4"
30-449NF	SF-5 Non-Ferrous	1/2"	1"	1/4"
34-664NF	SF-6 Non-Ferrous	5/8"	1"	1/4"
34-665NF	SF-7 Non-Ferrous	3/4"	1"	1/4"

Non-Ferrous Carbide Burs

Designed for use on aluminum, non-ferrous metals, soft steel, reinforced plastics, and other soft materials. The burs are designed with a high flute finish for easy chip flow and fast stock removal and excellent work piece finishes. Alumina Cut

CLYDRICAL 1/4" HEX SIZE



PART NUMBER	DESCRIPTION
VWB800D	8 pc Carbide Burr Set

PART NUMBER	DESCRIPTION
VWB400A	4 Pc Carbide Burr Set with Kit Bag

PART NUMBER	DESCRIPTION
VWB200C	6 pc Wide Fluted Carbide Burr Set For use on non-ferrous metals, plastics and softer materials

HAND FILES



FLAT FILES

Bastard	Second	Smooth	Overall Length
1-100-06-1-2	1-100-06-2-2	1-100-06-3-2	6" - 150mm
1-100-08-1-2	1-100-08-2-2	1-100-08-3-2	8" - 200mm
1-100-10-1-2	1-100-10-2-2	1-100-10-3-2	10"-250mm
1-100-12-1-2	1-100-12-2-2	1-100-12-3-2	12"-300mm



ROUND FILES

Bastard	Second	Smooth	Overall Length
1-230-06-1-2	1-230-06-2-2	1-230-06-3-2	6" - 150mm
1-230-08-1-2	1-230-08-2-2	1-230-08-3-2	8" - 200mm
1-230-10-1-2	1-230-10-2-2	1-230-10-3-2	10"-250mm
1-230-12-1-2	1-230-12-2-2	1-230-12-3-2	12"-300mm

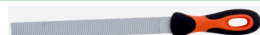


HALF ROUND FILES

Bastard	Second	Smooth	Overall Length
1-210-06-1-2	1-210-06-2-2	1-210-06-3-2	6" - 150mm
1-210-08-1-2	1-210-08-2-2	1-210-08-3-2	8" - 200mm
1-210-10-1-2	1-210-10-2-2	1-210-10-3-2	10"-250mm
1-210-12-1-2	1-210-12-2-2	1-210-12-3-2	12"-300mm

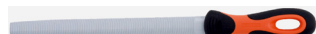
File Cleaners with Steel Wire Card

PART NUMBER	Overall Length
9-467-00-0-0	10" - 250mm



Milled Tooth Filemaster - Flat

PART NUMBER	DESCRIPTION	Overall Length
FM10	Curved teeth: for fast removal of soft metals, lead, aluminium	10"-250mm
FM12	Curved teeth: for fast removal of soft metals, lead, aluminium	12"-300mm



Milled Tooth Filemaster - Half Round

PART NUMBER	DESCRIPTION	Overall Length
HRFM10	Curved teeth: for fast removal of soft metals, lead, aluminium	10"-250mm



Pansar® Milled Tooth Flat Blades

For work in sheet metal, for fast removal of soft metals, lead, aluminium

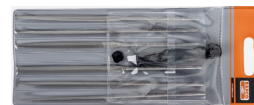
Bastard	Second	Overall Length
3-330-12-1-0	3-330-12-2-0	12"-300mm
3-330-14-1-0	3-330-14-2-3	14" - 356mm

Tunable Holders for Pansar® 3-330, 12" and 14" Flat Blade

PART NUMBER	Overall Length
9-463-14-0-0	14" - 356mm



Needle File Sets

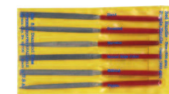


PART NUMBER	DESCRIPTION
2-470-16-1-0	Needle File Set Second Cut, 160 mm - 6 Pcs Shape: flat, flat tapered, half-round, round, three square and square



PART NUMBER	DESCRIPTION
2-471-16-1-0	Needle File Set Second Cut, 160 mm - 9 Pcs Shape: flat, flat tapered, half-round, round, three square, square, oval, crossing and knife

Diamond Needle File Sets



Part No.	Grit	Shank Dia.	Overall Length
607F	Fine (600 Grit)	0.118"	5-1/2" (140 mm)
607C	Coarse (200 Grit)	0.118"	5-1/2" (140 mm)

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
10473	General Purpose A/O	Maroon
10474	Heavy-Duty A/O	Tan
10475	Ultra-Fine S/C	Grey

Part Number	Description
43934	Hand Pad Holder

Merit® Shur-Stik Disc Holders

Part No.	Diameter	Max. RPM
74098	1"	15,000
74100	2"	12,000
74101	3"	10,000
74102	4"	6,000



- Flex tested neoprene rubber pad. • Hardened steel mandrel.

Merit® Shur-Stik Discs

- Pressure sensitive adhesive backing for uses up to 15,000 RPM.
- Protective liner speeds disc changing. • Excellent heat resistant properties.

Note: All diameters sold in packs of 100.



ALO Resin Bond Discs

Grit	1"	2"	3"	4"
24	72143	71158	71173	71188
36	71129	71159	71174	71189
40	71130	71160	71175	71190
50	71131	71161	71176	71191
60	71132	71162	71177	71192
80	71133	71163	71178	71193
100	71134	71164	71179	71194
120	71135	71165	71180	71195

Merit® PowerLock Discs



- The most aggressive quick-change sanding discs available in the industry.
- Laminated construction is tough and durable - virtually eliminates the snagging and shredding that can occur with pressure-sensitive discs.
- Offered in a choice of three safe, easy to use fasteners:



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)

Note: Powerlock holders shown on next page.

ALO Resin Bond PowerLock 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 Plus PowerLock Cloth Discs Featuring a grinding aid, these run cooler and more efficiently for grinding exotic alloys.

Merit® PowerLock Discs

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
	32	61012	65113	64327
	24	61014	65115	64328
	36	61015	65116	66031
	40	61016	65117	61251
	50	61017	65118	64924
	60	61018	65119	61105
	80	61019	65120	66185
	100	61020	65121	61364
	120	61021	65122	61106
1-1/2"	150	61022	65123	64330
	180	61023	65124	66252
	240	61025	65126	66874
	320	61026	65128	64097
	24	61027	65130	64969
	36	61028	65131	64048
	40	61029	65132	64804
	50	61030	65133	64092
	60	61031	65134	64902
	80	61032	65135	61400
100	61033	65136	61288	
120	61034	65137	64905	
150	61035	65138	64810	
180	61036	65139	66251	
240	61037	65141	61602	
320	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"	240	61051	65156	64919
	320	61052	65158	66875
	24	61055	65160	61214
	36	61056	65161	64938
	40	61057	65162	64939
	50	61058	65163	64940
	60	61059	65164	66183
	80	61060	65165	66191
	100	61061	65166	66189
	120	61062	65167	66184
4"	150	61063	65168	64340
	180	61064	65169	66187
	240	61065	65171	66225
	320	61066	65173	63205
	36	61070	65176	66265
	40	61071	65177	64860
	50	61072	65178	64788
	60	61073	65179	64601
	80	61074	65180	66472
	100	61075	65181	64342
120	61076	65182	66473	
180	61078	65184	64843	

ALO Plus Discs				
Dia.	Grit	Type I	Type II	Type III
3/4"	36	64345	67462	64467
	40	64346	67463	64468
	50	64347	67464	64469
	60	64349	67465	64470
	80	64350	67466	64471
1"	120	64361	67468	64473
	36	64363	67477	64475
	40	64364	67478	64476
	50	64365	67479	64477
	60	64366	67480	64478
1-1/2"	80	64368	67481	64479
	120	64370	67483	64481
	36	64392	66881	64483
	40	64393	66882	64484
	50	64394	66883	64485
2"	60	64395	66884	64486
	80	64396	66885	64487
	120	64398	66887	64489
	36	64400	66896	64491
	40	64401	66897	64492
3"	50	64402	66898	64493
	60	64403	66899	64494
	80	64404	66900	64495
	120	64428	66902	64496
	36	64430	66911	64498
4"	40	64431	66912	64499
	50	64432	66913	64500
	60	64433	66914	64501
	80	64434	66915	64502
	120	64436	66917	64509
4"	36	64459	63959	64511
	40	64460	63960	64525
	50	64461	63961	64526
	60	64462	63962	64527
	80	64463	63963	64536
120	64465	63965	64542	

Merit® PowerLock Disc Holders

- Use hard pads for flat work & more aggressive removal.
- Use softer pads for contour work, feathering & edging, corners & fillets.

PowerLock Type I: Snap-on/snap-off fastener equivalent to Norton TP fastener.

PowerLock Type II: Roll-on/roll-off fastener equivalent to Std. Abrasives Soc-Att® or Norton TS fastener.

PowerLock 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	64662	64640
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® PowerLock Surface Preparation 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.



Dia.	Grit	Type I	Type II	Type III
1-1/2" 100 per box	V-Fine	66336	66409	66367
	Medium	66335	66408	66380
	Coarse	66334	66407	66366
2" 50 per box	V-Fine	66273	66317	66318
	Medium	66272	66288	66290
	Coarse	66271	66287	66289
3" 25 per box	V-Fine	66277	66321	66323
	Medium	66276	66320	66291
	Coarse	66275	66319	66322
4" 25 per box	V-Fine	66300	66390	66329
	Medium	66299	66389	66328
	Coarse	66298	66388	66327

Merit® PowerLock Buffing Discs

- Non-woven nylon fiber impregnated with abrasive.
- Produces a uniform finish at higher buffing speeds without fly-offs.



Dia.	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	66284	66398	66308
	Coarse	66293	66397	61651
4" 25 per box	V-Fine	66297	66404	66316
	Fine	66296	66402	66315
	Medium	66295	66401	66314
	Coarse	61652	66400	61654



Dia.	Grit	Type I	Type II	Dia.*	Grit	Type I	Type II
1"	50	64309	63706	2"	50	64333	63721
	60	64296	60394		60	64334	60403
	80	61194	60395		80	64335	60404
	100	64215	60396		100	64336	66959
	120	64216	60397		120	64337	67363
1-1/2"	180	—	—	180	64339	60405	
	50	64375	63713	3"	50	64352	63728
	60	64315	67333		60	64353	60406
	80	64316	60399		80	64354	61282
	100	64317	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)

Shur-Kut® Quick Change Disc Kits

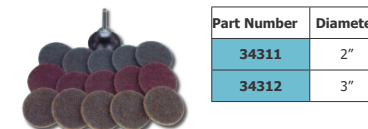
Includes: Twenty Shur-Kut® Quick Change Discs (five each: 36, 60, 80 & 120 grit) & 1/4" Shank Medium Density Holder



Part Number	Diameter
01-74100	2"
01-74101	3"

Shur-Brite® Surface Conditioning Disc Kits

Includes: Fifteen Shur-Kut® Surface conditioning Discs (five each: very fine, medium & coarse) & 1/4" Shank Medium Density Holder



Part Number	Diameter
34311	2"
34312	3"

Shur-Brite® Mounted Duplex Wheels

- Interleaf design cushions abrasive flaps for extra smooth operation.
- For polishing, deburring & removal of pits, burrs & scratches.

Grit	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)



Shur-Kut® Cartridge Roll Assortment 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
28802	1/4" to 1/2"

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	1-1/2"	2"	3"
Very Fine	28834	28837	28840
Medium	28833	28836	28839
Coarse	28832	28835	28838



Merit® Blaze High Performance Abrasives

- 50% to 300% longer life than any product currently available.
- Improved grain retention & resin bond system.
- X-weight cotton backing & advanced grinding aid.
- Cuts cooler and lasts longer on stainless steel, cobalt, inconel, titanium & other hard-to-grind materials.

Note: All Blaze abrasives sold in boxes of 100.



Cartridge Rolls, 1-1/2" Overall Length			
Grit	1/4" Dia.	3/8" Dia.	1/2" Dia.
60	94384	94392	94393
80	94394	94395	94396
120	94397	94398	94399
Mandrel	81209	81209	81208

Full Taper Spiral Rolls, 1-1/2" Overall Length		
Grit	3/8" Diameter	1/2" Diameter
60	94481	94484
80	94490	94492
120	94491	94495
Mandrel	81209	81208

8-Ply Cross Pads, 8-32 Quick Change Eyelet			
Grit	1-1/2" Sq. x 1/2"	2" Sq. x 3/4"	3" Sq. x 1"
60	94496	94502	94504
80	94508	94513	94549
120	94511	94516	94551
Mandrel	83163	21680	21680

Square Pads, 1/4"-20 Quick Change Eyelet			
Grit	2" Sq. x 1/2"	3" Sq. x 1/4"	3" Sq. x 1/2"
60	94520	94531	94528
80	94522	94555	94557
120	94554	94556	94558
Mandrel	21680	21680	21680

Overlap Slotted Discs, 8-32 Quick Change Eyelet			
Grit	1-1/2" Dia.	2" Dia.	3" Dia.
60	01-95051	95054	95057
80	95368	95055	95058
120	95367	95056	95059
Mandrel	83163	21680	21680

Merit® Micro Mini Flap Wheels

- 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	37494	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' Power Lock Disc Test Kit: 150 Power Lock Discs (1" to 3" dia. in assorted grits - includes zirconia alumina & flex edge discs) & 3 Power Lock I Holders

Part Number	Description
65001	D Power Lock Disc Test Kit



Merit® Abrasive Test Kits

'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

Merit® Abrasive Test Kits

'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

- Handy kit includes mandrels and a variety of new 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

- 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.

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 797 PC Kit

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 69 PC Kit

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 21 PC Kit

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 23 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 65 PC Kit

Rubberized Abrasive Kits

Small Wheel Kit: 112 Straight Wheels, 8 Straight Points (all in various grits), 7 Wheel Mandrels & Carrying Case



88-164-9

Part Number	Description
88-164-9	Complete 128 PC Kit

Point Kit A: 45 Bullet Points (various grits), 4 Point Mandrels & Carrying Case



88-162-3

Part Number	Description
88-162-3	Complete 50 PC Kit

Point Kit B: 100 Bullet Points (various grits), 2 Point Mandrels & Carrying Case

Part Number	Description
88-186-2	Complete 103 PC Kit

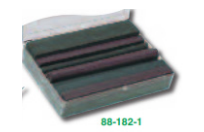
Utility Kit: 16 Cylinder Points, 24 Bullet Points, 8 Tapered Wheels, 24 Straight Wheels, 8 Straight Points (all in various grits), 4 Wheel Mandrels & Carrying Case



88-160-7

Part Number	Description
88-160-7	Complete 85 PC Kit

Hand Finishing Kit: 8 Round Pencils, 4 Rectangular Sticks, 4 Square Sticks (all in various grits) & Carrying Case



88-182-1

Part Number	Description
88-182-1	Complete 17 PC Kit

Sanding Drum & Sleeve Kits



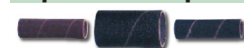
- Precision ground, extruded live rubber for better life & performance.
- Aluminum oxide, resin bond sanding sleeves with cloth backing.
- Abrasive sleeves are easily secured in place by user controlled expansion of the solid rubber drum spindle.
- Will not break apart even under the most demanding tasks.

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.

General Purpose 6 PC Sleeve Packs - For Kit SDK-15				
D x W	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				
D x W	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

Replacement Sanding Drums



Standard Lock Style

- Rubber expansion is controlled by turning hex nut
- Rubber spindle is seated directly on the mandrel (arbor).

Part Number	Drum Dia.	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



- Designed for cleaning all the interior surfaces of the seat track.
- Removes caked on sludge dirt while also removing minor burrs.
- Reinforced non-woven cotton fiber & abrasive grain bonded discs.

Part Number	Grit	Shank	Overall Length
350029	Coarse	1/4" x 1-1/2"	1-7/8" (48 mm)
350030	Medium	1/4" x 1-1/2"	1-7/8" (48 mm)

Cotton Fiber Mounted Point Test Kits



- 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"
70387	13 PC Large Assortment	1/4"

Pencil End Wire Brushes



- Small brushes designed for cleaning blind holes and small crevices.
- For use with chucked tools.

1/4" Shank Diameter, .012" Wire Diameter			
Part Number	Wire Type	RPM	'T' Trim Length*
70193	Carbon	4000 to 6000	3/8"
	Steel	(8000 max.)	(3/16" diameter)
70194	Stainless	3000 to 5000	3/8"
	Steel (INOX)	(8000 max.)	(3/16" diameter)

Non-Marring Pry Wedges



- Orange polyethylene wedges are perfect for gentle prying jobs.
- Black polycarbonate wedges are designed for tough prying work.
- Specially designed slim profile - great for tight spaces.

Part Number	Description	Color
70220	3PC Polyethylene Set (flexible)	Orange
70221	3PC Polycarbonate Set (hard)	Black

Reversible Automatic Wire Twister Pliers-Milbar

Reversible action for left and right twists.
Automatic spring return.
Faster with better control.
6" and 9" models available with cushion throat to hold clipped wire – no Foreign Object Damage (FOD).



Part Number	Nom. Size (Inch)	Return	Twist	Nose	Jaw
25W	6"	Auto	Reversible	Diagonal	Cushion Throat
26W	9"	Auto	Reversible	Diagonal	Cushion Throat

Reversible Automatic Wire Twister Pliers-PROTO®



Part Number	Wire Size (Inch)	Return	Overall Length
J196	.020"- .041"	Auto/Reversible	8-3/4"
J197	.020"- .060"	Auto/Reversible	11"
J198	.020"- .060"	Auto/Reversible	12-1/2"

Safety Wire Twister Pliers - PROTO®



Part Number	Wire Size (Inch)	Twist Direction	Overall Length
J190	.020"- .041"	Right	8-3/8"
J191	.020"- .060"	Right	10-3/8"
J192	.020"- .060"	Right	10-3/8"
J195	.020"- .060"	Left	10-3/8"

Safety Wire Twister Deep Reach - PROTO®

Part Number	Overall Length
J193	18-1/8"



3 Piece Safety Wire Twister Pliers Set PROTO®

Includes 6" and 9" wire twister pliers and deep reach pliers.
J190 -J191-J193



Part Number	Descriptions
J194	3 Piece Safety Wire Twister Pliers Set PROTO®

Safety Wire Twister Pliers - Snap On®

Part Number	Description	Overall Length	Wire Capacity	Wire Retainer
RWTP6	Reversible Wire Twister/Cutters	8-1/2	.020-.041	No
RWTP9	Reversible Wire Twister/Cutters	10-1/2	.020-.051	No
GA311C	Wide range of applications	10-1/2	.060	No
PR311	Similar to GA311C, but not spring loaded. Right hand only with manual return.	10-1/2	.060	No
WT11B	Small size for use in tight quarters	8-1/2	.041	No
WTR1A	Reversible Wire Twister/Cutters	8-3/4	.041	No
WTRW6A	Reversible Wire Twister/Cutters	8-3/4	.041	Yes
WTS6	Reversible Wire Twister	8-3/4	.041	Yes
WTG8	Reversible Wire Twister	8	.015-.031	No
WTG10	Reversible Wire Twister	10	.024-.047	No

Stainless Steel Safety Lock Wire

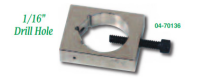
•Conforms to ASTM A580-S30400-Cond.A.
•Conforms to Military Specification NASM20995(MS20995 C).
All Safety Lockwire is made from Stainless Type 304 Steel



Part Number	Wire Diameter (Inch)	Size	Wire Length (ft.)
17WA	.020"	1 lb. Dispenser	937
18WA	.025"	1 lb. Dispenser	599
19WA	.032"	1 lb. Dispenser	366
20WA	.041"	1 lb. Dispenser	223
21WA	.051"	1 lb. Dispenser	144

Safety Wire Jigs

Nut Jig
• Drill nut & bolt heads up to 3/4" diameter.



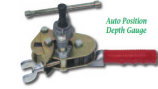
Drill Jig
• Drill holes in bolt sizes 8-32, 10-32, 1/4"-20, 1/4"-28 & 5/16"-24 accurately and without breakage.



Part Number	Description
04-70136	Nut Jig
04-70132	Drill Jig
53-701326	Special: Both Jigs

Rolo-Flair® 37° Rotary Flaring Tool

Flares: Copper & Aluminum Alloys: 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" & 3/4" O.D.



Part Number	Weight
212-FB	3 lbs (1.4 kgs)

USATCO 37° Single & Double Lap Flaring Tool Kit

• 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.

Flares: Soft copper & aluminum to AN standards: 3/16", 1/4", 5/16", 3/8" & 1/2" O.D.

Flaring Tool Kit: 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

Rol-Air 37° Flaring Tool

• Faceted, hard chrome finish cone for perfect scoreless flares.
• Slip on yoke permits use in tight quarters.

Flares: Soft Copper, Alum. & Brass: 3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D.



Part Number	Weight
04-507-FB	2.5 lbs (1.1 kgs)

37° Flaring Tools

• 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 & maintains original wall thickness which eliminates stress concentration.

Standard Model Flares: Steel, Stainless Steel (including MIL-T-6845), Titanium & Other Metal Tubing: 3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D.



Part Number	Model
04-400-F	Standart

Heavy-Duty Model Flares: Annealed Stainless (MIL-T-6345 or AMS5566), Cold Drawn Stainless Steel, Annealed Copper & Aluminum Tubing: 1/8", 3/16", 1/4", 5/16", 3/8" & 1/2" O.D.

Part Number	Model
04-447-F	Heavy-Duty

Large Size Model Flares: Soft Steel, Copper, Aluminum & Annealed Stainless Steel: 04-537-F: 3/4", 7/8", 1" & 1-1/4" O.D. 04-637-F: 1-1/4", 1-1/2" & 2" O.D.



Part Number	Model
04-537-F	Large Size
04-637-F	Large Size

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 A55131 standards.



Part Number	Description
70821	12pc. Kit

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
02-13R	1/8" to 5/8" O.D.



Heavy-Duty Industrial Tube Cutter

• Cuts copper, aluminum, brass & thin wall stainless steel (to 3/16" thickness).
• Includes flare cut-off groove rollers, fold-away reamer & extra cutting wheel.

Part Number	Capacity
02-512	1/8" to 1-1/8" O.D.



Rapid Action Ratchet Tube Wrenches



Ideal For Closed System Fittings

Heavy-Duty Construction

- 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.

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"

11 PC Wrench Kit With Carrying Pouch	
Part Number	Sizes Included
195-11STDS	3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"

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	Tube O.D.	Radius To Center Of Tube
04-364-02	1/8"	3/8"
04-364-03	3/16"	7/16"
04-364-04	1/4"	9/16"
04-364-05	5/16"	11/16"
04-364-06	3/8"	15/16"
04-364-07	7/16"	1-1/2"
04-364-08	1/2"	1-1/2"
04-364-10*	5/8"	2-1/4"
04-364-12*	3/4"	3"
04-364-14*	7/8"	3"
04-364-16*	1"	3-1/2"

90° Triple Header Tube Benders

- Make up to 90° bends.
- For soft copper, aluminum & thin wall steel tubing.
- Calibrated markings for making accurate left, right or offset bends.
- 90° starting point requires less effort.

Part Number	Radius to Centre of Tube	Capacity
04-367-FH	9/16"	1/8", 3/16" & 1/4" O.D.
04-368-FH	15/16"	1/4", 5/16" & 3/8" O.D.



180° Triple Header Tube Benders



- 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	Radius to Centre of Tube	Capacity
370-FH	Varies*	1/4", 3/8 & 1/2" O.D.

* Radius to center: 11/16" (1/4"), 1-1/8" (3/8"), 1-1/2" (1/2").

Part Number	Radius to Centre of Tube	Capacity
470-FH	Varies*	3/16", 1/4", 5/16 & 3/8" O.D.

** Radius to center: 7/16" (3/16"), 9/16" (1/4"), 11/16" (5/16"), 15/16" (3/8").

Worm-Gear Tube Bender Kit

- Precision tool for the highest quality work.
- For aircraft grade stainless (MIL-T-6845) and other metal tubing.
- Unit has 50-1 ratio worm-gear & crank with revolving hand grip.
- Follow bar eliminates drawing action & helps keep tube in virtually perfect round.
- Conforms to federal spec. GGG-B-191b, Type I, Class 2.
- Also meets ANSI spec. B31.1 & ASME Section III Nuclear code.

Included Capacity		
Tube O.D.	Tube Wall Thickness	Radius To Center Of Tube
1/4"	.016" to .049"	3/4"
5/16"	.020" to .065"	1"
3/8"	.028" to .083"	1-1/4"
5/16"	.035" to .083"	2"
3/8"	.042" to .083"	2-1/2"
7/16"	.049" to .083"	3"



Includes Metal Carrying Case

Part Number	Weight
04-600-F	35 lbs (16 kgs)

Inner-Outer Reamers

Standard Model: Alum. & Soft Metal: 3/16" to 1-1/2" O.D.
 Heavy-Duty Model: Stainless Steel, Copper, Brass & Other Metals: 3/16" to 1-1/2" O.D.
 Reams tube edges with three hollow ground tool steel cutters.

Part Number	Model
02-208-F	Standart
02-208-FSS	Heavy-Duty



Type T5 Aircraft Cable Tensiometers



Rugged & Accurate

Small & Lightweight (only 1.2 ounces)

- These reliable instruments won't suffer from temperature error.
- May be used continuously without resetting or checking.
- Includes appropriate riser blocks, case & documentation.

Replacement Riser Blocks				
#1	#2	#2C	#3	#3A
38-T5-1	38-T5-2	38-T5-2C	38-T5-3	38-T5-3A

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
T5-8002-104B-00	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
T5-8005-110-00	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
T5-8005-111-00	7/32" & 1/4"	20 (120 to 300) lbs	10 to 300 lbs	#3A
	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
T5-8008-106-00	5/16"	50 (300 to 1600) lbs	300 to 1600 lbs	#3A
	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
T5-8008-106-00	5/16"	100 (1000 to 2000) lbs	500 to 2000 lbs	#3A
	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

Foam Fitted T5 Tensiometer Case



Helps Prevent F.O.D.

Protect Your Instrument

Part Number	Description
62-2002	Foam Fitted Plastic Case

Digital Aircraft Cable Tensiometers



Store Readings With Memory Function

Adjustable Backlight & Contrast

Lightweight, Only 1.5 lbs

- Large, easy to read graphic display clearly shows selected cable size, tension & battery charge level.
- Preset accuracy is +/- 2% (custom settings are material specific).
- Stores five tension readings & can calculate average value.
- Select tension values to indicate Lbs, Kgs or Newtons.

All Models Include: Digital Tensiometer, Cable Diameter Gauge, Rechargeable NIMH Battery with Power Supply, Instructions, Calibration Certificate & Durable Padded Carrying Case

Standard Preset: 1/16", 3/32", 1/8" & 5/32"		
Part Number	Range	Resolution
90252	20 to 250 lbs	0.5 lbs
Standard Preset: 1/8", 5/32", 3/16" & 1/4"		
Part Number	Range	Resolution
90253	40 to 500 lbs	1.0 lbs
Standard Preset: CWT-5, CWT-10, CWT-15, CWT-20 & CWT-25		
Part Number	Range	Resolution
90254	20 to 250 lbs	0.5 lbs
Standard Preset: 1/16", 3/32", 1/8", 5/32" & CWT-5 to CWT-25		
Part Number	Range	Resolution
90255	20 to 250 lbs	0.5 lbs

Type T60 Aircraft Cable Tensiometers



- Positive 3-point cable gap & no alternate risers (no loose parts).
- Unit is not damaged by cable tensions above stated range.
- Unit includes fitted carrying case & instructions.

Part No.	Ranges	For Use On Cables
T60C81A	10 to 200 lbs	1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"
T60C91A	150 to 450 lbs	1/8", 5/32", 3/16", 7/32" & 1/4"

Rebuilt & Calibrated Aircraft Cable Tensiometers



- Rugged units require no oiling & require a minimum of care.
- Adjustable zero setting dial for cables of different diameters.
- Cable size indicator measures unknown cable diameters.
- Includes reference test bar, fitted carrying case & instructions.

Part No.	Ranges	For Use On Cables*
39-C8	10 to 200 lbs	1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"
	30 to 200 lbs	
	80 to 200 lbs	
39-C9	150 to 450 lbs	1/8", 5/32", 3/16", 7/32" & 1/4"

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"	±180°

Economy Angle Protractor

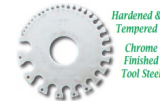
Finds or measures any angle where pitch or slope is necessary. Magnetic base and back.

Part Number	Weight
L36P	0.4 lbs (0.2 kgs)



Sheet Metal Gauge

- American standard wire gauge (0 to 36) for non-ferrous metals.
- Stamped numbers with decimal equivalents stamped on reverse.



Part No.	Thickness	Diameter
20	3/32"	3-1/4" (83 mm)

SPI® Precision Inspection Gauge Ball Sets

- 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

SPI® Pin Gauge Sets

- 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.



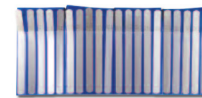
Accuracy +0.0002" -0"	Accuracy -0.0002" +0"	Range	Set
13-120-1	13-121-9	0.011" to 0.060"	50 PC
13-122-7	13-123-5	0.061" to 0.250"	190 PC
13-124-3	13-125-0	0.251" to 0.500"	250 PC
13-126-8	13-127-6	0.501" to 0.625"	125 PC
13-128-4	13-129-2	0.626" to 0.750"	125 PC
13-130-0	13-131-8	0.751" to 0.832"	82 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

Feeler (Thickness) Gauges

PART NUMBER	DESCRIPTION		SIZES	SIZES
J000A	PROTO® 9 BLADE STANDARD FEELER GAUGE SET	Contains 9 short 3 inch blades in steel holder.	Sizes: .003" thru .018"	Blades etched with both decimal size and metric equivalent.
J00MM15	PROTO® 15 BLADE METRIC FEELER GAUGE SET	1/2"x3" metric blades in steel holder.	Sizes: 0.06mm thru 0.70mm.	
J000AA	PROTO® 25 BLADE MASTER FEELER GAUGE SET	1/2"x3" blades in steel holder.	Sizes: .0015" thru .040" except .019"	Blades etched with both decimal size and metric equivalent.
J00MM25	PROTO® 25 BLADE METRIC FEELER GAUGE SET	1/2"x3" metric blades in steel holder.	Sizes: 0.04mm thru 1.00mm.	
J000N	PROTO® 22 BLADE STEP CUT FEELER GAUGE SET	Go / no-go 1/2"x3-5/16" blades in steel holder. Each blade has two different thicknesses.	Sizes: .004/.006" thru .025/.027"	Blades etched with both decimal size and metric equivalent.
J000M	PROTO® 11 BLADE BENT FEELER GAUGE SET	1/2"x4" blades with a 1" bend in steel holder. > Blades are offset at a right angle to help protect hands from a hot manifold while setting an overhead valve.	Sizes: .006" thru .020"	Blades etched with both decimal size and metric equivalent.
J000SL	PROTO® 12 BLADE LONG FEELER GAUGE SET	1/2"x12" blades in steel holder.	Sizes: .0015" thru .020"	Blades etched with both decimal size and metric equivalent.
J000TL	PROTO® 25 BLADE LONG FEELER GAUGE SET	1/2"x12" blades in steel holder.	Sizes: .0015" thru .040"	Blades etched with both decimal size and metric equivalent.
J000BR	PROTO® 6 BLADE NON-MAGNETIC FEELER GAUGE SET	1/2"x3" blades in steel holder. Contains non-magnetic brass feeler blades for checking the air gap in electronic ignition systems for all weather conditions.	Sizes: .006" thru .016"	Blades etched with both decimal size and metric equivalent.
J000J	PROTO® HIGH ENERGY SPARK PLUG GAP GAUGE SET	For use in setting gaps and spark plugs with high energy ignition systems.	Includes blade holder, electrode bender and six bent wire gauges in sizes .044" thru .080"	Gauges marked with both decimal size and metric equivalent.
J000K	SPARK PLUG GAP GAUGE SET	Gauges marked with both decimal size and metric equivalent.	Spark plug electrode bender and eight bent wire gauges in sizes .020" thru .040"	
J000D	PROTO® 10 BLADE IGNITION FEELER GAUGE SET	1/4"x1-3/4" blades in steel holder.	Sizes: .013" thru .040"	Blades etched with both decimal size and metric equivalent.

SPI® Feeler (Thickness) Gauge Sets

- Thickness etched on each leaf, accuracy meets federal specs.
- 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)

SPI® Countersink Gauges

- Fast & accurate measurements of countersink diameters.
- Direct major reading of countersink angles to 0.002"
- Convenient one hand operation, dial reading is held until reset.
- Each gauge includes setting ring & foam lined storage case.

Part Number	Diameter Range	C'sink Angle
20-530-2	0.020 - 0.170"	82°
20-535-1	0.020 - 0.170"	90°
20-536-9	0.160 - 0.360"	90°
20-537-7	0.360 - 0.560"	90°
20-540-1	0.020 - 0.170"	100°

Part Number	Diameter Range	C'sink Angle
20-541-9	0.160 - 0.360"	100°
20-542-7	0.360 - 0.560"	100°
20-545-0	0.020 - 0.170"	110°
20-546-8	0.160 - 0.360"	110°
20-547-6	0.360 - 0.560"	110°



Bolt Gauge

- Sizes all bolts up to 5/8" diameter & 5" long.
- Complete instructions & bolt identification data on reverse side.

Part Number	Overall Dimensions
1350	5-1/2" x 6"



SPI® Machinist Squares & Sets

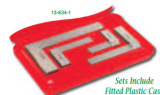
- Hardened steel blades permanently secured to beam ensures rigidity, and working edges of blades lapped to accuracy.
- Precision ground for straightness & parallelism.



Part Number	Linear Dimensions	Accuracy (square, parallel)
13-624-2	2" Blade, 2" Beam	0.0010", 0.0005"
13-625-9	3" Blade, 2-1/2" Beam	0.0011", 0.0006"
13-626-7	4" Blade, 3" Beam	0.0012", 0.0006"
13-627-5	6" Blade, 4" Beam	0.0014", 0.0007"
13-628-3	9" Blade, 5-1/2" Beam	0.0017", 0.0009"
13-629-1	12" Blade, 7-1/2" Beam	0.0020", 0.0010"

Machinist Square Sets

Part Number	Description	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"



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



Steel Rulers Snap On®

Part Number	Overall Dimensions
RULER601	6" stainless-steel rule Graduated in 1/10 and 1/50 increments on one side, 1/32 and mm increments on the other
RULER120	12" stainless-steel rule US/METRIC, 1/32 increments for first 3, 1/16 increments for last 9, Metric edge is etched with mm and cm increments



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	Overall Length
450-6	Flat Leg Divider	6" (152 mm)
452-6	Outside Caliper	6" (152 mm)
454-6	Inside Caliper	6" (152 mm)

SPI® Surface Roughness Standards Sets

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 μ"), Three Reaming (16, 32 & 63 μ"), Six Grinding (2, 4, 8, 16, 32 & 63 μ"), Six Horizontal Milling (16, 32, 63, 125, 250 & 500 μ"), Six Vertical Milling (16, 32, 63, 125, 250 & 500 μ") & Six Turning (16, 32, 63, 125, 250 & 500 μ")



Part Number	Description
30-695-1	Surface Roughness Standards Set

Part Number	Description
30-695-1CAL	Surface Roughness Standards Set With Long Form Calibration Report

Sliding Combination Squares

Part Number	Overall Length
CS150	150 mm
CS300	300 mm
CS400	400 mm



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



Tire & Pressure Gauges



- Bourdin type dial gauge with flexible hose & 6" dual chuck.
- Includes recalibration screw for adjustments & metal carrying case.
- * Includes three metal extensions.

Part Number	Range	Overall Length
8885	10 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)

Hydraulic Shock Strut Gauges



- Includes drain cock for bleeding pressures & metal carrying case.
- Screw type locking chuck securely attaches to valve.
- * Includes three metal extensions.

Part Number	Range	Overall Length
8874*	0 to 400 psi	18" (45.7 cm)
8875	0 to 1,500 psi	25" (63.5 cm)
8876	0 to 3,000 psi	18" (45.7 cm)

Valve Core Removal Tool



- Knurled design for easy handling.
- Exhausts air towards wheel & traps the valve core within the tool.

Part Number	Description
ATSK3614	Valve Core Removal Tool

Digital Pressure Gauge

- Four digit display to 10ths of PSI (also reads in Bar, KPa etc.).
- Pressure bleeder valve, zero button & peak hold reading.
- Swivel fitting dual foot chuck & protective rubber boot.
- Backlight button for low light conditions, manual & auto shutdown.



Part Number	Range	Accuracy
TTL-300-DTG	300 PSI	± 0.5% of Full Scale

High Pressure Hose Couplings

- Gooseneck or straight styles.
- 1/8" NPT female thread.



Part Number	Style	Working Pressure	Proof Pressure
SK-2043-C	Gooseneck	5,000 psi	10,000 psi
SK-2043-S	Straight	5,000 psi	10,000 psi
SK-2043-5	Replacement Seal		

Replacement Lock Chucks

Note: 3/8"-24 side hose connector.

Part No.	Type	Thread
9043	T-Handle	.3075"-32
8927	T-Handle	.485"-26
9044	No Handle	.307"-32



TESTING & MEASURING

Digital Protractor / Inclometers - MITUTOYO

These Digital Protractors present inclination values on an easy-to-read liquid crystal display. The measurements are generated by an electronic gravity sensor and processed by the latest low-power electronic circuit technology.

- Feature
- Full 360° range (90° x 4).
 - Machined aluminum frame.
 - Alternate reference (zero).
 - Reading hold.
 - Simple calibration requiring no special fixtures.
 - Display remains upright to view at all angles. (950-317, Pro 360 Model).
 - RS232C output. (950-318 Pro 3600 Model).



Order No	Model	Accuracy	Battery Life	Cross Axis Error	Output	Repeatability	Resolution	Storage Temperature	Weight	Operating Temperature
950-317	Pro 360	±0.1° Level ±10°, Plumb ±10°, ±0.2° Maximum error	500 Hrs. Standard 9-Volt Battery	Minimal	N/A	±0.1°	0.1°	-20-65°C -4-149°F	289g 10.2oz	-5-50°C 23-122°F
950-318	Pro 3600	0.05° (0° to 10°), 0.1° (80° to 90°), 0.2° (10° to 80°)	500 Hrs. Standard 9-Volt Battery	Minimal	RS-232C Compatible	±0.05°	0.01° (0° to 9.99°), 0.1° (10° to 90°)	-20-65°C -4-149°F	295g 10.4oz	-5-50°C 23-122°F

Telescoping Gage Set- MITUTOYO

- FEATURES
- Spring-loaded plunger expands within the bore (or groove), allowing determination of the internal diameter (or groove width).
 - With a knurled clamp.
 - Supplied in a fitted pouch.

Order No	Range	Total Range	Order No	Range	Total Range
155-121	0.313-0.5in	-	155-127	8-12.7mm	-
155-122	0.5-0.75in	-	155-128	12.7-19mm	-
155-123	0.75-1.25in	-	155-129	19-32mm	-
155-124	1.25-2.125in	-	155-130	32-54mm	-
155-125	2.125-3.5in	-	155-131	54-90mm	-
155-126	3.5-6in	-	155-132	90-150mm	-
155-903	-	.313-6 in Gage Set	155-905	-	8-150 mm Gage Set
155-904	-	.50-5.90 in Gage Set			
155-907	-	.315-2.126 in Gage Set			



Vernier Calipers Series 530 - Standard Model- MITUTOYO

Order No	Range	Accuracy	Vernier Graduation Lower Scale	Vernier Graduation Upper Scale
530-104	0-6in 0-150mm	0.05mm	0.02mm	1/128in
530-114	0-8in 0-200mm	0.05mm	0.05mm	1/128in
530-115	0-12in 0-300mm	0.08mm	0.02mm	1/128in

Order No	Range	Accuracy	Vernier Graduation Lower Scale	Vernier Graduation Upper Scale
530-312	0-6in 0-150mm	0.03mm	0.02mm	.001in

Digital Calipers Series 500 - MITUTOYO

*Without SPC data output

Order No	Range	Accuracy	Graduation	Range Per Rev
505-742	0-6in	.001in	.001in	.1in

Order No	Range	Accuracy	LCD Resolution
500-784	0-6in 0-150mm	.001in	.0005in 0.01mm
500-785	0-8in 0-200mm	.001in	.0005in 0.01mm

MITUTOYO OUTSIDE MICROMETER 6-PIECE SET



Range = 0-1", 1-2", 2-3", 3-4", 4-5", 5-6"
 Accuracy = +/- 0.0001" up to 3", 0.00015 up to 6"
 Graduation = 0.001"
 Data Output = No
 Flatness = 0.000024"
 Measuring Faces = Carbide tipped
 Parallelism = [0.00008 + 0.00004 (L/4)]" L = max range (inch)

Order No	Range
103-904-10	0-1", 1-2", 2-3", 3-4", 4-5", 5-6"

Depth Micrometer Series 129-Interchangeable Rod Type



Order Number	Range	Base Size	Rod Qty
129-132	0-6in	4x63in	6
129-150	0-12in	4x63in	12

Pocket Type Dial Test Indicators- MITUTOYO



Order No	Model	Grad	Range	Accuracy	Dial Reading	Measuring Force	Length
513-518T	FULL SET	.001in	.04in	.001in	0-20-0	.03N or less	26.5m

Magnetic Stand- MITUTOYO



Order No	Description	Applicable holding stem dia.	Dovetail groove	Clamping Force	Remarks
7010S	Magnetic stand	ø6mm, ø8mm, ø9.53mm (3/8")	-	600N	-

Outside Micrometer- MITUTOYO

Order No	Range	Accuracy	Remarks
101-113	0-1 in	±.0001in	with ratchet stop
101-114	1-2 in	±.0001in	with ratchet stop



Digimatic Micrometer Series- MITUTOYO



Order No	Description	Range	Accuracy	Type
293-831-30	Digimatic Micrometer MDC-MX	0-1in 0-25.4mm	±.0001in 2µm	With ratchet stop
293-832-30	Digimatic Micrometer MDC-MX	0-1in 0-25.4mm	±.0001in 2µm	With friction thimble

Inside Micrometer - Caliper Type



Order No	Range	Accuracy
145-194	1-2in	.0003in

Inside Micrometers- MITUTOYO



Order No	Range	Head Travel	Remarks
141-208	2-8in	.5in	with 3 rods

Dial Indicators Series 2-Standard Type, Inch Reading- MITUTOYO

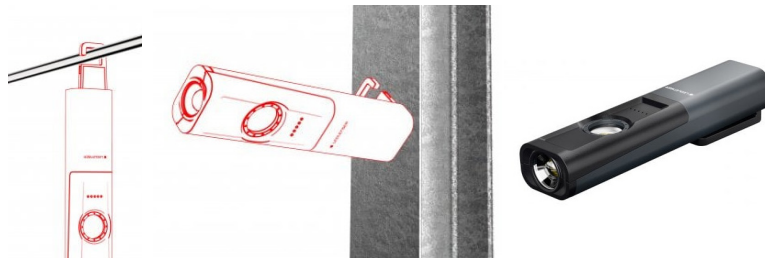


Order No	Graduation	Range Range/Rev	Type	Dial Reading	Accuracy First 2.5 Rev/Overall	Force
2416S	.001in	1" / .1"	w/lug	0-100	.001 / .002	1.8N or less

RECHARGEABLE, MULTI-FUNCTION

The pocket sized iW5R is ready to go when you are, and with a battery indicator you will always know when it's time to pack up and recharge. A built in magnet and flexible bracket let you direct the light exactly where it's needed from any surface so you can get on with your work, hands-free. A metal-coated housing and intelligent technology for even light distribution makes the iW5R a tough and clever industrial lighting solution. With a choice of light options and Ledlensers advanced focus system, the iW5R provides the perfect working light for all situation.

Lumen: Max: 300, Min: 125
 Light Functions: Power, low power
 Burn Time: Max: 6h, Min: 3h
 IPX Rating: 54
 Focus System: Advanced Focus System
 Battery: Rechargeable Li-ion 18650 3.7V
 Size: 39 x 35 x 159mm (W x D x H)
 Weight: 168g including battery
 Charge Time: 210 mins



Part Number	Description
IW5R	Rechargeable, Multi-Function led Flashlight

Torch Flashlight

LED Configuration: 1 x Power LED
 Luminosity: MAX 200 lm - MIN 200 lm
 Lighting Range: MAX 120 m - MIN 120 m
 Battery Duration: MAX 15 h - MIN 15 h



Length (defocused): 163 mm
 Head Diameter: 26 mm
 Weight: 115 g
 Battery: 2 x Mignon (AA) 1.5V
 Battery Capacity: 8.40 Wh
 Water Resistance: IPX4
 dust resistance: IPXX
 Rechargeable: No



Part Number	Description
P6.2	Professional Torch Flashlight

Rechargeable Led Flashlight

LED Configuration: 1 x Xtreme LED
 Luminosity: MAX 1000 lm - MIN 200 lm
 Lighting Range: MAX 210 m - MIN 40 m
 Battery Duration: MAX 40 h - MIN 2 h



Length (defocused): 158 mm
 Head Diameter: 37 mm
 Weight: 210 g
 Battery: 1 x 18650 3.7V
 Battery Capacity: 9.25 Wh
 Water Resistance: IPX4
 dust resistance: IP5X
 Rechargeable: Yes



Part Number	Description
P7R	Rechargeable Led Flashlight

Rechargeable Led Flashlight

LED Configuration: 1 x Xtreme LED
 Luminosity: MAX 1000 lm - MIN 100 lm
 Lighting Range: MAX 450 m - MIN 150 m
 Battery Duration: MAX 60 h - MIN 8 h



Length (defocused): 290 mm
 Head Diameter: 53 mm
 Weight: 715 g
 Battery: 1 x 2x32700 Battery Pack 6.4V
 Battery Capacity: 32.00 Wh
 Water Resistance: IPX4
 dust resistance: IP5X
 Rechargeable: Yes



Part Number	Description
P17R	Rechargeable Led Flashlight

Rechargeable LED Head Torch

High: 200 lumens; 2 hours run-time*; 120 m beam range
 Low: 5 lumens; 50 hours run-time*; 20 m beam range



Part Number	Description
IH6R	Rechargeable Led Head Torch

Pocket Magnifier



Folding magnifier includes dual 3x lenses for combined 6x effect

Part Number	Description
YA537	Folding magnifier includes dual 3x lenses for combined 6x effect

Light Loupe Magnifying Flashlight

- 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)

LED Pocket Magnifier 10X

Part Number	Description
MP-10LED	10X Pocket Magnifier with Led Light & Aspheric Lens



Bendable Light

- 10" flexible shaft with a 3/16" high-intensity lamp
- Heavy-duty barrel handle and switch
- 16" bendable light
- Includes (2) AA batteries



Part Number	Description
ECF1600	10" flexible shaft with a 3/16" high-intensity lamp

Miniature Awls, Hooks and Picks/Soft Grip



Part Number	Description
SGASA204CR	4 pc Instinct® Soft Grip Miniature Pick Set

Hook & Pick Sets

- 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)

Flexible Spring Claw-ZAVIA



Part Number	Description
ZAVIA-1363	Flexible Claw Pick-Up Tool - 3 Prong - 500mm

Flexible Spring Claw



Part Number	Description
DPTC24	Flexible Claw Pick-Up Tool - 4 Prong - 24"

Inspection Mirrors - ZAVIA



Part Number	Description
ZAVIA 1252C-60	Magnetic Flexible LED Light & Inspection Mirror



Part Number	Description
ZAVIA 1102-80	Large Telescoping Inspection Mirror, Ø80mm



Part Number	Description
ZAVIA 1102/55M	Professional Telescoping Magnifying Inspection Mirror



Part Number	Description
ZAVIA 1104V-30	Pocket Type Telescopic Mirror Ø1.1/4"

Magnetic Pickup Tools - ZAVIA



Part Number	Description
ZAVIA 1303	Angle Rotating Magnetic Telescoping Pick-Up Tool



Part Number	Description
ZAVIA 1307	Magnetic Pick-Up Tool with Anti-Magnetic Cover



Part Number	Description
ZAVIA 1351	Flexible Magnetic Pick-Up Tool

Inspection Mirrors - PROTO®



Order No	Mirror Shape	Mirror Size (L x W in)	Mirror Diem. (in)	Overall Length (in)
J2370	Circular	-	7/8	7-1/2
J2374	Circular	-	1-1/4	8
J2372	Circular	-	2-1/4	10 to 14
J2371	Oval	1 x 2	-	8-3/4
J2373	Rectangular	2-1/8 x 3-1/2	-	11-1/4 to 15-1/2

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	6-3/4" to 35-1/2"
HTC-2LT	2-3/8" Diameter	6-3/4" to 37"
HTS-2LT	3-3/8" Diameter	6-3/4" to 30-1/4"

Long Reach Inspection Mirrors - PROTO®



Order No	Mirror Shape	Mirror Diem. (in)	Overall Length (in)
J2370XL	Circular	7/8	8.5 - 30.25
J2372XL	Circular	2-1/4	6.5 - 36.375
J2374XL	Circular	1-1/4	6.5 - 35
J2382XL	Circular	3-1/4	6.5 - 29.5
J2383XL	Circular	1-1/4	5.75 - 27.25
J2373XL	Rectangular	2-9/16 x 3-3/4	6.75 - 29.75

Pocket Magnetic Retrieving Tool - PROTO®



Order No	Overall Length (in)	Order No	Overall Length (in)
J2375	16-3/4to 26-3/4	J2376A	8

Long Reach Magnetic Pickup Tools - PROTO®



Order No	Type	Overall Length (in)	Max. Lift (lbs.)
J2375XL	-	5.5 - 25.5	1.2
J2376XL	-	7.25 - 33.75	3.5
J2377XL	Flexible	29	5
J2378XL	-	8.25 - 30.25	5
J2379XL	-	8.25 - 30.25	16

Guardair® Whisper Jet Safety Air Gun

- 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	0.6 lbs (0.27 kgs)

Guardair® Jet Guard Safety Air Gun

- 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	0.6 lbs (0.27 kgs)

Guardair® Whisper Jet Extended Safety Air Guns

- 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	0.6 lbs (0.27 kgs)
15-80LJ12	12"				0.7 lbs (0.32 kgs)

Guardair® Syphon Spray Air Gun

- 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	1.5 lbs (0.7 kgs)

Coilhose® Safety Blow Gun

- 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)

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.



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	226020	226022

Air Operated Sealant Gun Kits

- 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

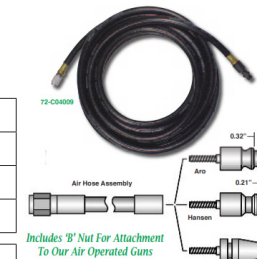
Fuel Tank Repair Kit

- Includes:** Pistol Grip Gun With 2.5 & 6 oz Retainers, High-Pressure Injection Gun (507-A: shown on next page), Metal Nozzle Assortment, Air Hose (male connector, female coupler), Sealant Mixer (229340: for two-part aircraft sealants*) & Metal Fitted Case (not shown)



Part Number	Description
226978	Fuel Tank Repair Kit

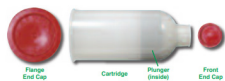
Air Hose Assemblies



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.
- 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

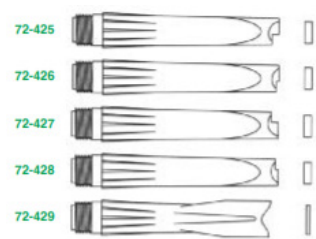
- Apply required amount of sealant to countersink & rivet holes.
- Spring-loaded tip allows a precisely dispensed shot of sealant.



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"

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

Sealant Spatulas



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)

Part Number	End Widths
226244	All Three Spatulas With Plastic Case

Sealant Smoothing Tool



Fiberglass reinforced plastic for tooling & smoothing sealants.

Part Number	Overall Length
231349	9-1/2" (241 mm)

Solid Brass Sealant Smoothing Tool



Part Number	Overall Length
70799	9" (229 mm)

Sealant Spreaders

Part Number	Type	Dimensions
229394	Standart	4.0" x 2.8" (102 x 71 mm)
229395	Comb.	3.0" x 3.0" (76 x 76 mm)



Stainless Steel Sealant Spatula Set



- 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

Nylon Sealant Tape Roller



Part Number	Roller Diameter	Roller Width
70339	1-1/4" (32 mm)	2" (51 mm)

Masking Tape Cutter



Part Number	Dimension
70796	8"L (3/16" thick) x 1" Wide

Sioux® Sealant Removal Angle Die Grinder Kit

- 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
1AM1141/51K	Complete 14 PC Kit

Sealant Removal Cutters

- Bottom & side cutting plastic blades.
- Aggressively removes sealant without damaging substrate.
- Internal cavity on 96935 for use over standard fasteners & rivets.

Part Number	Diameter	Recommended RPM	Max RPM
96933	.40"	950	3.200
96935	.83"	950	3.200



USATCO 'Extreme Edge' Sealant Scraper Kit



Part Number	Description
70800	Complete 5 PC Kit

USATCO Celcon Sealant Scraper Kit

Boeing Approved To Avoid Scratching Alclad Aluminum 53-93650



Double Angle Tips For Toughness, Chemical Resistant

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

Optional Parts	
Part Number	Description
93637	Phenolic Scraper Blade with 1" Tip

Celcon Sealant Scrapers



Celcon Sealant Scrapers		
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



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 Scrapers		
Part Number	Size	Tip Width
70782	9"L (3/16" thick)	3/4" & 1/4"

Glass Filled Nylon Plastic Construction, Double Angle Tips For Toughness



Soft Sealant Scraper		
Part Number	Size	Tip Width
70786	6"L (3/16" thick)	3/4"

Acrylic Plastic Construction, Long Angled Edge, Single End With Rounded Handle



Soft & Wet Sealant Scraper		
Part Number	Size	Tip Width
70788	9"L (3/16" thick)	3/4" & 1/4"

Acrylic Plastic Construction, Long Angled Edge



Soft Sealant Scraper		
Part Number	Size	Tip Width
70790	9"L (3/16" thick)	1" & 1/4"

Acrylic Plastic Construction, Double Angle Tips For Toughness

Hand Scraper	
Part Number	Overall Length
11493	5-7/8" (149 mm)



Specially blended plastic designed for sealants, paint, glues etc.

Heavy-Duty Hand Operated Grease Guns



FLEXIGUN® 400G GREASE GUN
Product Code: K32-01

FLEXIGUN® 450G GREASE GUN
Product Code: K29-01

MINILUBE® GREASING SYSTEM



The K7-67 MINILUBE® (5kg model) is a portable High Pressure Manual Greasing System that provides high-volume/high-pressure greasing in a compact and portable package.
Product Code: K7-67

Heavy-Duty Air Operated Grease Guns



POWERPISTOL™ 450G AIR OPERATED GREASE GUN
Product Code: K53-01

Power Gun



HIGH PERFORMANCE LI-ION GREASE POWER GUN
Product Code: PG450

Portable Manual Greasing System



SUPERLUBE™ GREASING SYSTEM 20kg
Product Code: K4-01

Air-operated pneumatic greasing system



POWERLUBE™ 20kg GREASE KIT, WITH TROLLEY
Product Code: P3-01CTROLLEY

ACCESSORY KIT - AVIATION



Aviation greasing kit containing accessories that are typically required when lubricating aircraft.

- 1x KDN right angle needlepoint coupler
- 1x KDR right angle coupler
- 1x KDE8 rigid extension
- 1x KDF21 533mm (21") push-on flexible extension
- 1x KY SUPERGRIP coupler
- 1x KZDXL straight needlepoint coupler
- 1x KZHY hypodermic needlepoint coupler
- 1x KZLNJ 300mm J needlepoint coupler
- 1x KZLNS 300mm straight coupler
- 1x KZLNR 300mm right angle needlepoint coupler
- 1x KZLN45 300mm 45 degree needlepoint coupler
- 1x KZSNR short right angle coupler
- 1x J65 adaptor assembly

KY® High Pressure Grease Coupler
KY (BSP)
KY-N (NPT)



Large 90° Coupler
KDR



90° Coupler
KDN



90° Needlepoint coupler
KZLNR



Needlepoint coupler
KZLNS



90° Needlepoint coupler
KZSNR



Needlepoint coupler
KZD



Needlepoint coupler
KZDXL



Hypodermic needlepoint coupler
KZHY



45° Needlepoint coupler
KZLN45



180° Needlepoint coupler
KZLNJ



Rigid Extension
KDE8



Grease Containers for MINILUBE®
KT5 (2.5kg)
KT6 (5kg)



Flexible Grease Extensions (Manual Equipment)

- KF9 305mm (12")
- KF17 432mm (17")
- KF30 762mm (30")
- KDF13 330mm (13")
- KDF21 533mm (21")



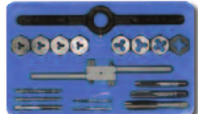
Flexible Grease Extensions (Air Equipment)

- PF9 305mm (12")
- PF17 432mm (17")
- PF30 762mm (30")



Tap & Hexagon Die Kit

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



High-Carbon Steel Taps & Hexagon Dies

Part Number	Description
24614	Complete 24 PC Kit

Tap & Adjustable Round Die Kit

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



High-Carbon Steel Taps & Adjustable Round Dies

Part Number	Description
25914	Complete 39 PC Kit

Tap & 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

Machine, Fractional & Metric Tap & Hex Die Sets



Comprehensive & Portable

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-1.00, 5mm-1.00, 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

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.
- For use on conventional or CNC milling machines.



Part Number	Description
97-320-6	Complete 8 PC Kit

Drill-Out Broken Bolt Extractors

- Removes broken bolts & studs without damaging threads.
- High quality H.S.S., heat treated & 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 & extractor on the opposite end.



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) & fitted case.



Part Number	Description
97-580-5	Complete 8 PC Kit

El Brutus® "Johnson Bar" Screw Extractor

- Heat-treated, plated & built for a lifetime.
- Works on Phillips, Tri-Wing & Hi-Torque screws.
- Chosen to standardize aircraft & missile maintenance DOD wide.



Part No.	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)

Irwin® Screw Extractors

Straight Flute

- Designed for softer & thin walled materials.
- Eases extraction because it does not expand material.
- Removes both left & 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

- Designed to remove broken studs, bolts, screws & 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

Irwin® Screw Extractor Sets

Straight Flute

- Extractors will not expand material removed (easier removal)

Spiral Flute

- 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

Irwin® 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"

Paint Cutters & Arbors

- 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 thd., 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 Horseshair Fill

Part Number	Brush Width	Overall Length
11131	3/8"	6-1/32" (153 mm)
13132	1/2"	6-1/16" (154 mm)

USATCO Supersonic Junior Air Vac

- Locking trigger.
- Lightweight (8.5 oz) venturi design with 1" I.D.
- 18" flex hose included.
- 1/4" air inlet.



Part Number	Accessories Included
15-1580	Junior Air Vac with 18" Flex Hose
38-1580-1	Replacement Bag

USATCO Supersonic Air Vac

- No moving parts to burn out.
- Safe, non-electric power source.
- Lightweight (only 1 lb) & heavy-duty one piece construction.



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



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*

Mini Air Vac

- Locking trigger.
- Lightweight (8.5 oz) venturi design with 1" I.D.
- Hose included. 1/4" air inlet.



Part Number	Description
15-1780	Mini Air Vac with 18" Flex Hose
15-1980	Mini Air Vac with 12" Rigid Hose
15-2180	Mini Air Vac with Hepa Filter Bag & 12" Rigid Hose
38-1580-1	Replacement Bag

CHEMICAL-RESISTANT GAUNTLET GLOVES



Made from 0.75mm-thick natural rubber latex that has been chlorinated for added resistance, the Ansell Extra 87-950 Chemical-Resistant Gauntlet Gloves provide reliable protection against many salts, detergents, ketones, alcohols, alkalis and fats. These gloves are textured on the outside and flocklined inside, and, as a result, promote exceptional grip and enhanced comfort for manual handling and precision tasks.

Part Number	Accessories Included
87-950	ANSELL EXTRA 87-950 CHEMICAL-RESISTANT GAUNTLET GLOVES

PROTECTIVE GLOVES WITH NITRILE COATING



Ansell Manufactured with the unique nitrile formula of VibraGuard®, the glove is grease and oil repellent and offers protection from cuts, punctures and abrasions. The soft Gelfôm padding of the thumb, index finger and palm increase protection against shocks. The glove must not be removed for screwing or handling small parts such as nails. The operation of the switches from and on power tools is much easier with this half-finger version.

Areas of application: Pneumatic chisels, hand grinding machines, pneumatic hammers, impact wrenches and earth rams, foot grinding machines, road drilling machines, concrete vibrators

Part Number	Accessories Included
07-111	Ansell VibraGuard 07-111 protective gloves with nitrile coating

EAR DEFENDER



The 3M™ Peltor™ Optime™ III sealing rings are broad and filled with soft plastic foam for the best fit and low contact pressure, the earmuff stands for effective protection and highest comfort for the wearer.

Part Number	Accessories Included
H540A	H540A 3M PELTOR EAR DEFENDERS HEADBAND

HEAD PROTECTION



Highly stable thermoplastic cap, five-stage adjustable cap strap for better fit and comfort, Pinlock adjustment, impact-resistant over a wide temperature range, easy visor replacement
Comfortable and easy adjustment through precision ratchet on the headband, for an optimal fit

Part Number	Accessories Included
VP96	3M Tuffmaster Window VP96

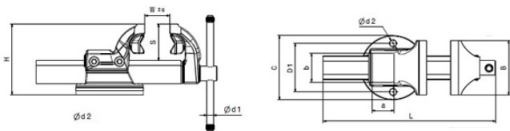
SAFETY GLASSES



Comfortable and Versatile. Featuring an inclinable lens and thin adjustable temples, the 3M™ 2800 Over-Spectacles are designed to fit over most prescription spectacles with minimal interference. Very lightweight for the category (38g), they are available in 2 lens options, including shade 5 for gas welding.

Part Number	Accessories Included
2800 - 3M	3M-2800 Fitover safety glasses clear confort

Shop Vises



FORTISSIMO

All-steel, drop forged (CF45 Steel). Jaws and anvil induction hardened (HRC 52-58). Adjustable jaw alignment system guarantees precision clamping. Sliding guides are protected against contamination. All Vises are equipped with fixtures for removable snap-on pipe jaws for various applications.

Fortissimo			FRT-100	FRT-115	FRT-125	FRT-135	FRT-150	FRT-175	FRT-200
Size			4	4.5"	5"	5.5"	6"	7"	8"
Jaw Width	B	(inch)	4.5"	5.5"	6"	7"	6"	7"	7"
Jaw Opening	W	(inch)	5"	5.5"	6"	6.5"	7"	8"	8"
Total Length	L	(inch)	12"	14"	15"	16.5"	18.5"	20"	20"
Anvil Size	axb	(inch)	1 x 2"	1.5 x 2"	1.5 x 2.5"	2 x 2.5"	2.5 x 3"	2.5 x 3.5"	2.5 x 3.5"
Base Diameter	C	(inch)	4.5"	5"	6"	6"	7"	8"	8"
Hole Distance	D1	(inch)	3.5"	4"	4"	4.5"	5"	6.5"	6.5"
Hole Diameter	d2	(inch)	.45"	.5"	.5"	.6"	.64"	.65"	.65"
Screwhandle	d1	(inch)	.5"	.5"	.5"	.5"	.5"	.65"	.65"
Jaw Depth	S	(inch)	2"	2.5"	2.5"	3"	3.5"	4"	4"
Vise Height	H	(inch)	4.5"	5.5"	5"	6.5"	7"	7.5"	7.5"
Weight	lbs.		11-Apr	17	20-May	30-Aug	40.7	55	57
Clamps pipes from/ to *1	Zoll	(inch)	-	1/4 -3"	1/4 -3"	1/4 -4"	1/4 -5"	1/4 -6"	1/4 -6"
Fortissimo Parallel			FRTPL-100	FRTPL-115	FRTPL-125	FRTPL-135	FRTPL-150	FRTPL-175	FRTPL-200
Clamps from *2	Zoll	inch	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Clamps to *2	Zoll	inch	1 1/4"	1 1/2"	1 1/2"	1 1/2"	2 1/2"	3"	3"

Part #	Size (inch)	A
FRTJP-115	4.5"	1
FRTJP-125	5"	1
FRTJP-135	5.5"	1
FRTJP-150	6"	1
FRTJP-175	7"	1

Plastic Jaw Cap

For protective clamping delicate workpieces. 2 pieces are necessary.



Heavy-Duty Arbor Presses

- Precision cut steel rams & pinions for accurate operation.
- Tables and slotted table plates are flat & parallel to provide accurate support.

For All Production & Assembly Operations



Part Number	Jaw Width	Jaw Cap.	Pipe Jaw Capacity	Height	Weight
63300	4"	4"	5/8" to 2"	6.5" (165mm)	23.25 lbs (10.6 kgs)
63301	5"	5"	5/8" to 2-3/8"	8.4" (213mm)	30.05 lbs (13.6 kgs)
63302	6"	6"	5/8" to 2-1/2"	9.7" (246mm)	45.65 lbs (20.7 kgs)
63304	8"	8"	3/4" to 3"	11.4" (290mm)	70.40 lbs (31.9 kgs)

Portable Vise With Vacuum Base & Tilt Head

- 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)

MOST COMMONLY USED HAND TOOLS BY STRUCTURAL TECHNICIANS

Magnetic Ratchet and Bit Set



- * Ideal for accessing fasteners in tight areas
- * Ratchet features magnetic retention for 1/4 hex bits
- * 72-tooth ratchet engagement with only 5° movement to engage the next tooth
- * 4-7/16" compact overall length

- Includes: SDM211B flat tip bit, SDM213B (9/32) flat tip bit, SDM22211RB (#1) PHILLIPS® ACR® bit, SDM2221RB (#2) PHILLIPS® ACR® bit, SDMT15D (T15) TORX® bit

Part Number	Description
TM72SET	Magnetic Ratchet and Bit Set

Straight Miniature Ratcheting Handle



- Miniature ratcheting handle for use on 1/4" hex bits
- Ideal for working in confined spaces
- 72-tooth ratchet engagement with only 5° movement to engage the next tooth
- Magnetic holder keeps bits in place
- Raised knurled knob for fingertip control
- Reverse lever is easily operated with one hand
- 4-1/2" compact overall length

Part Number	Description
BTWS	Miniature ratcheting handle for use on 1/4" hex bits

25° Offset Miniature Ratcheting Handle



- 25° Reverse Offset
- 72-tooth ratchet engagement with only 5° movement to engage the next tooth
- 25° offset handles help avoid knuckle injuries
- Magnetic holder keeps bits in place

Part Number	Description
BTWROS	25° Reverse Offset Miniature Ratcheting Handle

Ratcheting Screwdrivers



Part Number	Description
SSDMR4B	8-3/4" Ratcheting Standard Screwdriver



Part Number	Description
SSDMR1A	4-5/16" Ratcheting Magnetic Stubby Screwdriver

Screwdriver Set



- SHD1R - Flat Tip .040" Instinct® Hard Grip Red Screwdriver
- SHD2R - Flat Tip .035" Instinct® Hard Grip Red Screwdriver
- SHD4R - Flat Tip .040" Instinct® Hard Grip Red Screwdriver
- SHD6R - Flat Tip .050" Instinct® Hard Grip Red Screwdriver
- SHD8R - Flat Tip .055" Instinct® Hard Grip Red Screwdriver
- SHDP221RR -PHILLIPS® #2 Instinct® Hard Grip Red Screwdriver
- SHDP31IRR -PHILLIPS® #1 Instinct® Mini-Tip Red Screwdriver
- SHDP42IRR -PHILLIPS® #2 Instinct® Hard Grip Standard Screwdriver

Part Number	Description
SHDX80R	8 pc Instinct® Hard Grip Combination Red Screwdriver Set

Miniature Screwdriver Set



- Includes (4) blades in the following flat tip sizes: .055", .070", .080" and .100"
- Includes awl and plastic pouch

Part Number	Description
CM6551A	5 pc Miniature Screwdriver Set

Miniature Awls, Hooks and Picks/Soft Grip



Part Number	Description
SGASA204CR	4 pc Instinct® Soft Grip Miniature Pick Set

Retaining Ring Pliers Set



Part Number	Description
J361	External Retaining Ring Plier Set, Number of Pieces: 18, For Bore Dia.: 2-7/16" to 4"

PROTO® COMB. REVERSIBLE RATCHETING WRENCHES - SPLINE



Part Number	INCH	Overall Length
JSCV07	7/32	5
JSCV08	1/4	5
JSCV09	9/32	5-1/2
JSCV10	5/16	5-1/2
SCV11	11/32	5-15/16
JSCV12	3/8	6-1/4
JSCV14	7/16	6-1/2
JSCV16	1/2	7
JSCV18	9/16	7-1/2

PROTO® FULL POLISH COMBINATION WRENCHES - 12 POINT



Part Number	INCH	Overall Length
J1208-T500	1/4	4-7/8
J1210-T500	5/16	5-3/8
J1211-T500	11/32	5-5/8
J1212-T500	3/8	6
J1214-T500	7/16	6-1/4
J1216-T500	1/2	8
J1218-T500	9/16	8-5/8

Double Box Ratchet Wrenches

Hex#1 & Hex#2	6 Point	12 Point
1/4"-5/16"	R810SC	R810C
5/16"-11/32"	-	R1011C
5/16"-3/8"	-	R1012C
3/8"-7/16"	R1214SC	R1214C
1/2"-9/16"	R1618SC	R1618C



PROTO® BLACK CHROME DOUBLE BOX REVERSIBLE RATCHETING WRENCHES - SPLINE



Part Number	INCH	Overall Length
JSBV0709	7/32 x 9/32	4-1/2
JSBV0810	1/4 x 5/16	4-1/2
JSBV1214	3/8 x 7/16	5-15/16
JSBV1618	1/2 x 9/16	7-1/16

Flank Drive® Midget Combination Wrench Set (3/16-3/8")



Part Number	INCH
OXI707BK	7 pc 12-Point SAE Flank Drive® Midget Combination Wrench Set (3/16-3/8")

Double Box Ratchet Wrenches 25° Offset

Hex#1 & Hex#2	12 Point
1/4"-5/16"	RYA810
5/16"-11/32"	RYA1011
3/8"-7/16"	RYA1214
1/2"-9/16"	RYA1618C



MOST COMMONLY USED HAND TOOLS BY STRUCTURAL TECHNICIANS

Adjustable Wrenches



Part Number	Description
J706	6" Adjustable Wrench
J708	8" Adjustable Wrench

Sheet Metal Fastener Pliers



Part Number	Type
04-62	Standard

Reversible Automatic Wire Twister Pliers-Milbar

Reversible action for left and right twists. Automatic spring return. Faster with better control. 6" and 9" models available with cushion throat to hold clipped wire – no Foreign Object Damage (FOD).



Part Number	Nom. Size (Inch)	Return	Twist	Nose	Jaw
25W	6"	Auto	Reversible	Diagonal	Cushion Throat
26W	9"	Auto	Reversible	Diagonal	Cushion Throat

PROTO® PLIERS

Part Number	Description
J206G	DIAGONAL CUTTING PLIERS W/GRIP - 6-1/16"
J226G	NEEDLE-NOSE PLIERS W/SIDE CUTTER 6-5/8"
J276G	COMBINATION SLIP-JOINT PLIERS W/GRIP - 6-9/16"



PROTO® LOCKING CURVED JAW PLIERS W/CUTTER



Part Number	Description
J294WRXL	LOCKING CURVED JAW PLIERS W/CUTTER - 7-15/32"

GRIP ON - LOCKING CURVED JAW PLIERS



Part Number	Description
111-05-089	LOCKING CURVED JAW PLIERS - 5"
111-10-089	LOCKING CURVED JAW PLIERS - 10"

NUT PLIER



Part Number	Description
2979 D-180	Nut Plier

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)

PLIER SET



Part Number	Description
PL307ACF	7" VectorEdge Diagonal Cutter 8" Talon Grip™ Combination Slip-Joint Pliers 8" Talon Grip™ Needle Nose Pliers

HEX KEY SET

Part Number	Description
AWEF9K	9PC FLDNG HX KY SET



Part Number	Description
J4978	9PC FLDNG HX KY SET



1/4" DRIVE 10 PIECE DEEP SOCKET SET - 12 POINT

Part Number	Description
J471100	PROTO® 1/4" DRIVE 10 PIECE DEEP SOCKET SET 12 POINT - 3/16" TO 9/16"



PROTO® 1/4" DRIVE FLEX SOCKET SET - 12 POINT



Part Number	Description
J471107	1/4" DRIVE UNIVERSAL JOINT 12 POINT SOCKET SET 9PCS. 7/32" - 11/32"

1/4" DRIVE FLEX SOCKET SET - 6 POINT

Part Number	Description
106TMUSA	1/4" DRIVE UNIVERSAL JOINT 6 POINT SOCKET SET 6 PCS. 1/4" - 9/16"

PROTO® BALL PEIN HAMMER



Part Number	Description
J1312PGD	PROTO® 12 OZ. BALL PEIN HAMMER - INDUSTRIAL FIBERGLASS HANDLE
J1316PGD	PROTO® 16 OZ. BALL PEIN HAMMER - INDUSTRIAL FIBERGLASS HANDLE

Combination Hammer

Part Number	Description
J1312PGD	Dead Blow Combination 16-Ounce Hammer-Combination steel and soft face tips



Aviation Snips

Part Number	Description
J303L	PROTO® AVIATION SNIPS - LEFT - HANDLE RED
J303R	PROTO® AVIATION SNIPS-RIGHT- HANDLE GREEN
J303S	PROTO® AVIATION SNIPS-STRAIGHT-HANDLE YELLOW



1/4" DRIVE 10 PCS SHALLOW SOCKET SET - 12 POINT

Part Number	Description
J471104	PROTO® 1/4" DRIVE 10 PIECE SHALLOW SOCKET SET 12 POINT - 3/16" TO 9/16"



1/4" DRIVE 10 PCS SHALLOW SOCKET SET - 6 POINT

Part Number	Description
J471106	PROTO® 1/4" DRIVE 6 POINT SHALLOW SOCKET SET 10 PCS. 3/16"-9/16"

1/4" DRIVE EXTENSIONS

Part Number	Description
J4759	PROTO® 1/4" DRIVE EXTENSION 2"
J4760-04	PROTO® 1/4" DRIVE EXTENSION 4"
J4761	PROTO® 1/4" DRIVE EXTENSION 6"

1/4" DRIVE FLEXI EXTENSIONS

Part Number	Description
J4765	PROTO® 1/4" DRIVE FLEXI EXTENSION 6"

PLASTIC HAMMER

Part Number	Description
BH232A	Soft Face Combination 32-Ounce Hammer

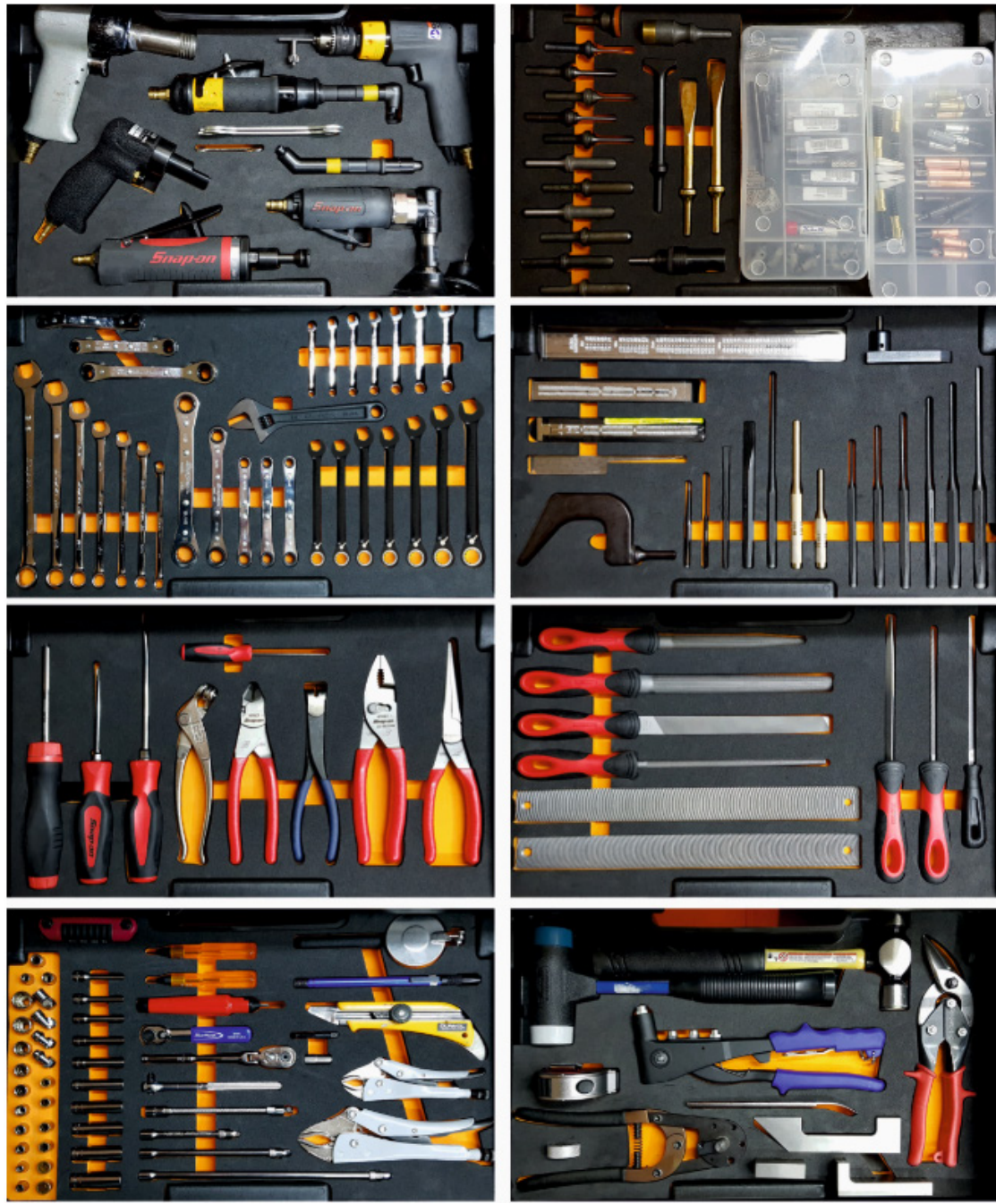










Aviation Offset Snips

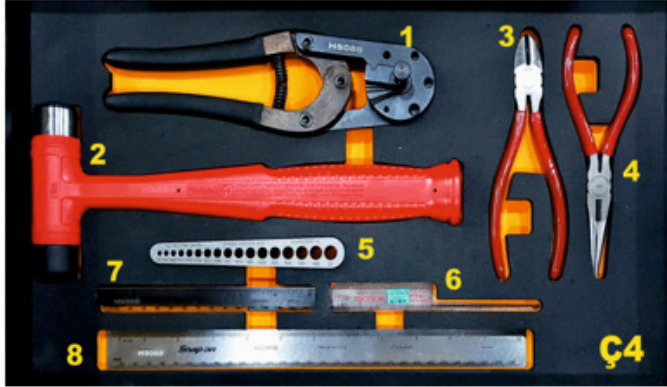
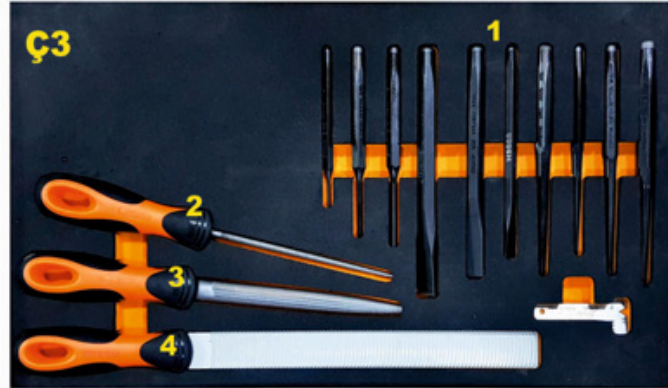
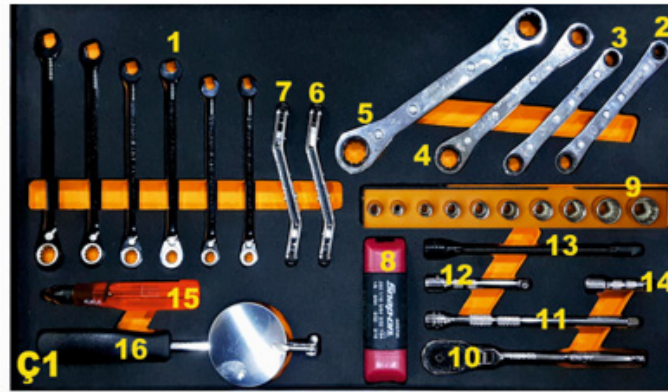
Part Number	Description
J303LS	PROTO® AVIATION SNIPS - LEFT - HANDLE RED
J303RS	PROTO® AVIATION SNIPS-RIGHT- HANDLE GREEN











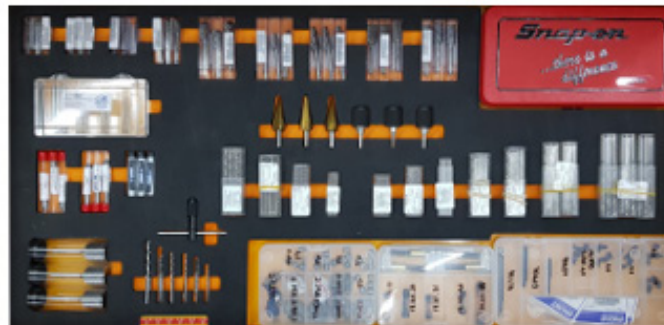
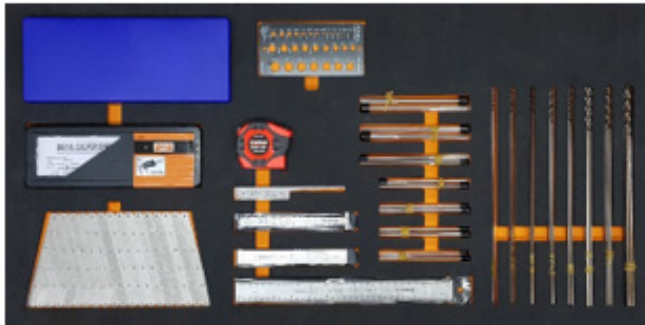
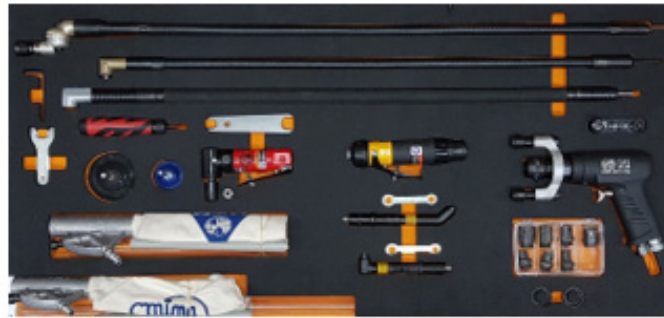
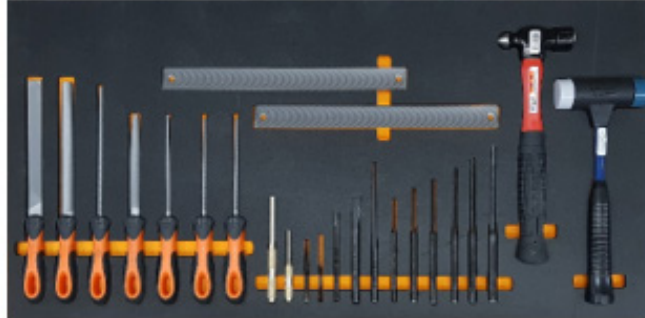
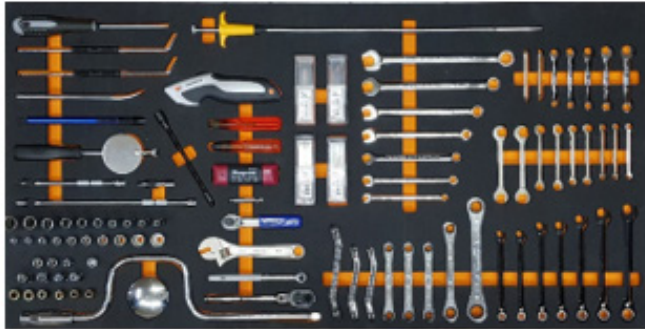




 CORROSION PROOF	 FLIGHT SAFE
 HIGH & LOW TEMP	 SHOCKPROOF
 WATER RESISTANT	 WHEELS
 WATERPROOF	 STRONG MATERIAL



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