



Toll Free US & Canada: **800-645-8180**

**Eastern Division**

60 Fleetwood Ct., Ronkonkoma, NY 11779-6907  
Telephone: (631) 471-3300 Fax: (631) 471-3308

**Western Division**

1219 W. Mahalo Place, Rancho Dominguez, CA 90220-5446  
Telephone : (310) 632-5400 Fax: (310) 632-3900

*Supplying the Aerospace, Defense & Metal Working Industries Since 1951!*

**Minimum Order**

\$100.00 List Price

**Terms**

Net 30 days on approved credit only.  
Approved credit cards.  
Prepaid via check or wire transfer.

**No C.O.D. shipments.**

**Returns**

Return authorization is required.  
Merchandise must be sent freight prepaid to the facility from which it was purchased.  
A 20% restocking charge is applicable.

**All claims must be made within 7 days of receipt of goods.**

**Freight**

F.O.B. shipping point.

**Special Orders**

All special orders may require prepayment.

**Currency**

All prices are in US dollars.

**Overseas Customer Terms**

Same as above, only **prepayment via bank wire transfer (all fees for buyers account) or by bank check.**

US Air Tool Company (also known as USATCO) has been a family owned and operated business since 1951. We are now a US manufacturer and worldwide distributor of high quality tools for the aviation industry with offices in New York & California. In addition, from the beginning of the homebuilder era in the 1970's, USATCO has been providing tools and equipment to craftsmen around the world who build and fly their own aircraft. These "sheet-metal artists" are now flying thousands of planes built and maintained with USATCO tools.

USATCO offers the highest quality products at competitive prices, with the knowledge and experience necessary for expert advice in product selection. Our courteous staff will be pleased to assist you. And of course, all the products we offer are fully guaranteed. If you don't see what you are looking for, please don't hesitate to contact us. We work hard to provide our customers with straightforward & reliable business. Try us & see!

**USATCO.com**

Don't forget to check out USATCO Online, with monthly sales, homebuilder specials, surplus items & an easy to use interface its a great place to shop for tools on the web. **www.USATCO.com**

**Government IMPAC Cards Accepted**

**USATCO Tool Repair**

We repair all major brand pneumatic tools on our premises. We are an official repair station for Cherry Textron<sup>®</sup>, Chicago Pneumatic<sup>®</sup>, and Cooper<sup>®</sup> Power Tools (including Dotco<sup>®</sup>, Gardener Denver<sup>®</sup>, Buckeye<sup>®</sup> and Doler<sup>®</sup>). In addition, we have our own manufacturing and modification facilities. We are riveting and product assembly specialists!

We will be happy to examine your tools free of charge and give you an estimate of repair cost. Ship prepaid to any of our facilities. Please send tensiometers to our New York Lab only.

**Please ask about our tool rental policy!**

**Limited Warranty**

*If for any reason you are not completely satisfied with any item purchased from us you may request a return authorization within seven (7) days of receipt of goods. When obtained, send us the item (transportation prepaid) for replacement, repair or refund. Tools manufactured by USATCO are warrantied for one (1) year from date of purchase. We cannot assume liability for abuse, misuse or alteration of goods. Any tampering with tools or attempted repairs of same will nullify this warranty. Warranties from other manufacturers available upon request.*

# PUNCH & CUTTING TOOLS

## Micro-Stop Countersink Cage



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

1/4"-28 Countersink Thread					
Tool w/Plastic Footpiece	Tool w/Steel Footpiece	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-441	02-441S	5/8"	5/16"	0.001"	3000

### Countersink Cage Kits:

- Includes tool, footpiece & H.S.S. countersink cutters listed below.

Countersink Cage Kits		
Kit w/Plastic Footpiece	Kit w/Steel Footpiece	Included Cutters (1/2" body diameter)
53-441K	53-441SK	3/32", 1/8", 5/32" & 3/16"
53-441K1	53-441SK1	#10, 21, 30 & 40
53-441K2	53-441SK2	3/32", 1/8", 5/32", 3/16", #10, 21, 30 & 40

### Optional Footpieces (for use with standard skirt only):

- Available separately or installed on tool.

Optional Footpieces		
Footpiece Only	Footpiece w/Tool	Type
94278	02-441-1X	Phenolic
94279	02-441-2X	Nylon
94280	02-441-3X	Nylon Flanged
94281	02-441-4X	Chrome
94282	02-441-5X	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	Cutaway
Skirt Only	95391	95394
Skirt w/Tool	02-441D	02-441F

Skirt Type		
	Std. w/Steel Footpiece	Std. w/Nylon Footpiece
Skirt Only	95396	95397
Skirt w/Tool	02-441S	02-441N

## Micro-Stop Countersink Cutter Kit

*New Fitted Case Helps Prevent F.O.D.*



### Includes:

*Versatile & Portable*

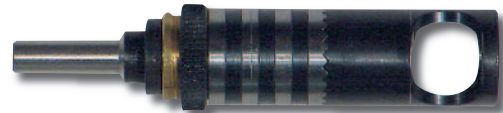
Countersink Cage, Two Replacement Skirts (insert collar & flange type), Four Footpieces (phenolic, nylon, nylon flanged & chrome), Nine 1/2" Diameter H.S.S. Cutters (3/32", 1/8", 5/32", 3/16", 1/4", #40, #30, #21 & #10) & Plastic Case

Note: Elliptical countersink cutter kit also available, please inquire.

Part Number	Description
53-590	Complete 17 PC Kit

## Mini Micro-Stop Countersink Cage

*Perfect For Use In Seat Tracks*



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



*For Diamond Plated Countersinks See Page 89*

**Full Flange Skirt Micro-Stop Countersink Cage**

*Compact*

*Heavy-Duty*



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

1/4"-28 Countersink Thread				
Part 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**

02-1533



- Hardened & ground spindles, bronze bearings & precision depth control.
- Dual bearings for upper & lower spindle support.

Note: Jumbo cutters with required 3/8"-24 thread shown on next page.

3/8"-24 Countersink Thread				
Part 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.
- Chucking flats to accommodate drill chuck.
- Safety locking knurled adjustment ring.
- Flanged skirt type (other styles available, please inquire).

1/4"-28 Countersink Thread				
Part 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

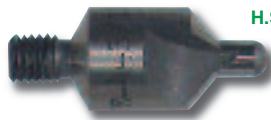
**Threaded Shank Micro-Stop Countersink Cage**

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



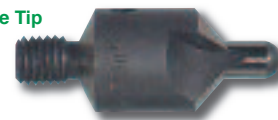
1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-141	1/2"	3/32"	0.001"	3000

**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.			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32	02-305-3	—	3/32"
02-304-1/8	02-305-4	—	1/8"
02-304-5/32	02-305-5	02-307-5	5/32"
02-304-3/16	02-305-6	02-307-6	3/16"
02-304-7/32	02-305-7	02-307-7	7/32"
02-304-1/4	02-305-8	02-307-8	1/4"
02-304-40	02-306-40	02-307-40	#40
02-304-30	02-306-30	02-307-30	#30
02-304-21	02-306-21	02-307-21	#21
02-304-10	02-306-10	02-307-10	#10
02-304-F	02-306-F	02-307-F	F

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

# PUNCH & CUTTING TOOLS

## Cobalt Integral Pilot Countersink Cutters

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

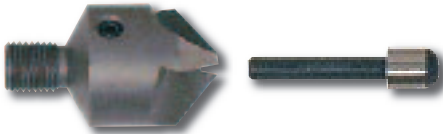


**Integral Pilot 1/4"-28 Thread, 100° Cobalt**

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°

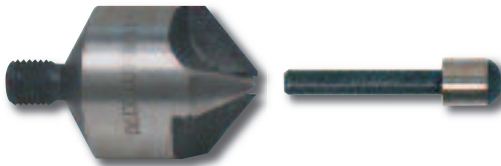
**.086" Replaceable Pilots**

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

**.086" Replaceable Pilots**

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

## Jumbo Replaceable Pilot C'Sink Cutters & Pilots



**Replaceable Pilot Cutters 3/8"-24 Thread - .170" Pilot Hole**

H.S.S.	Body Diameter
02-434-1	3/4"
02-434-2	7/8"
02-434-3	1"
02-434-4	1-1/8"
02-434-5	1-1/4"

**.170" Replaceable Pilots**

Part Number	Pilot Diameter
02-A184-6	3/16"
02-A184-8	1/4"
02-A184-10	5/16"
02-A184-12	3/8"
02-A184-14	7/16"
02-A184-16	1/2"
02-A184-20	5/8"

Note: 100° cutting angle standard, 82° avail.

Jumbo cutters also available in carbide and integral pilot style, please inquire.

## Undercut Body Countersink Cutters



- Undercut body diameter provides faster chip ejection.
- Designed for close tolerance work & to eliminate sheet damage.
- Two flute, high speed steel construction with a 100° cutting angle.

**3/8" Body Diameter, 100° Cutting Angle**

Part Number	Shank Size	Pilot Diameter
02-100-210-0960	.210"	.0960"
02-100-256-0980	.256"	.0980"
02-100-256-1222	.256"	.1222"
02-100-256-1265	.256"	.1256"
02-100-317-1570	.317"	.1570"
02-100-386-1915	.386"	.1915"

## Extended Footpiece Micro-Stop C'Sink Cage



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

**1/4"-28 Countersink Thread**

Part Number	Capacity	Footpiece Extension	Shaft Travel	Depth Adj.	Max. RPM
02-284	3/8"	2-3/4"	5/16"	0.001"	3000
02-284-4	3/8"	4"	5/16"	0.001"	3000
02-284-D	5/8"	2-3/4"	5/16"	0.001"	3000

## Extended Footpiece Micro-Stop C'Sink Cutters

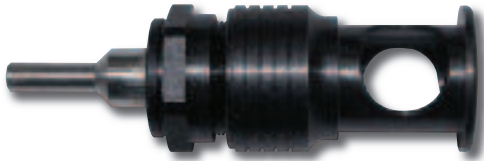


Note: 100° cutting angle standard.

**Integral Pilot 1/4"-28 Thread - 3/8" Body Diameter**

H.S.S.	Carbide Tipped	Pilot Diameter
02-303-3/32	02-303-3/32C	3/32"
02-303-1/8	02-303-1/8C	1/8"
02-303-5/32	02-303-5/32C	5/32"
02-303-3/16	02-303-3/16C	3/16"
02-303-7/32	02-303-7/32C	7/32"
02-303-1/4	02-303-1/4C	1/4"
02-303-40	02-303-40C	#40
02-303-30	02-303-30C	#30
02-303-21	02-303-21C	#21
02-303-10	02-303-10C	#10

**BRFZ Micro-Stop Countersink Cages**



For use with Boeing® BRFZ rivet cutters shown below.

Standard Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441SBACR15FT	5/8"	5/16"	0.001"	3000
02-441SBACR15FT-1	5/8"	5/16"	0.0005"	3000

Flanged Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441FBACR15FT	5/8"	5/16"	0.001"	3000
02-441FBACR15FT-1	5/8"	5/16"	0.0005"	3000

**Countersink Cutters For BRFZ Rivets**



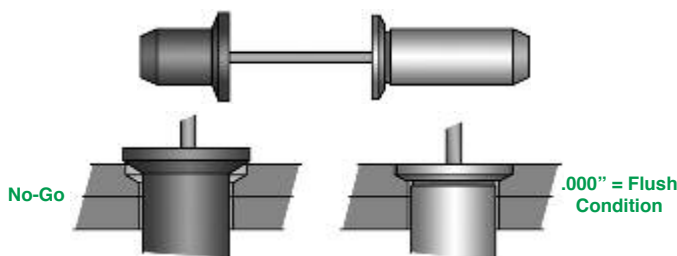
- Designed for Boeing® BRFZ rivets, MS14218.
- Creates both counterbore & countersink in one operation.
- Manufactured from M42 H.S.S., heat-treated to 63-66 Rc.

Integral Pilot 1/4"-28 Thread 3/8" Body Diameter, H.S.S.		
Part No.	Rivet Size	Diameter
02-438-3	-3	3/32"
02-438-4	-4	1/8"
02-438-5	-5	5/32"
02-438-6	-6	3/16"
02-438-7	-7	7/32"

Integral Pilot 1/4"-28 Thread 1/2" Body Diameter, H.S.S.		
Part No.	Rivet Size	Diameter
02-438-8	-8	1/4"
02-438-9	-9	9/32"
02-438-10	-10	5/16"

Note: 1/4"-28 thread.  
120° cutting angle standard.

**BRFZ Dual Gauges**



Go / no-go gauge determines proper Boeing® BRFZ rivet installation.

Part No.	Nom. Dia.	No Go	Part No.	Nom. Dia.	No Go
06-439-3	3/32"	.1265"	06-439-7	7/32"	.3170"
06-439-4	1/8"	.1655"	06-439-8	1/4"	.3640"
06-439-5	5/32"	.2140"	06-439-9	9/32"	.4110"
06-439-6	3/16"	.2625"	06-439-10	5/16"	.4600"

**Carbide Tip Replaceable Pilot Stop Counterbores**

- For use with all popular micro-stop countersink cages.
- Perfect for highly abrasive, difficult to machine & exotic materials.



Part Number	Cutter Dia.	Shank Thread	Pilot Hole
02-730-1	3/8"	1/4"-28	3/32"
02-730-2	7/16"	1/4"-28	1/8"
02-730-3	1/2"	1/4"-28	1/8"
02-730-4	9/16"	1/4"-28	1/8"
02-730-5	5/8"	1/4"-28	1/8"
02-730-6A	11/16"	3/8"-24	3/16"
02-730-6B	11/16"	7/16"-20	3/16"
02-730-7A	3/4"	3/8"-24	3/16"
02-730-7B	3/4"	7/16"-20	3/16"
02-730-8A	13/16"	3/8"-24	3/16"
02-730-8B	13/16"	7/16"-20	3/16"
02-730-9A	7/8"	3/8"-24	3/16"
02-730-9B	7/8"	7/16"-20	3/16"
02-730-10A	15/16"	3/8"-24	3/16"
02-730-10B	15/16"	7/16"-20	3/16"
02-730-11A	1"	3/8"-24	3/16"
02-730-11B	1"	7/16"-20	3/16"
02-730-12A	1-1/8"	3/8"-24	3/16"
02-730-12B	1-1/8"	7/16"-20	3/16"
02-730-13A	1-1/4"	3/8"-24	3/16"
02-730-13B	1-1/4"	7/16"-20	3/16"

Note: 1/64" corner radius. Replaceable pilots available on page 81.

**Countersink Extensions**



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

1/4"-28 Threaded Shank		
Part Number	Body Length	Shank Length
90442	1"	5/16"
90443	2"	5/16"
90444	4"	5/16"

1/4" Straight Shank		
Part Number	Body Length	Shank Length
90425	2"	7/8"
90426	4"	7/8"
90427	6"	7/8"

**Straight Shank Zero Flute C'Sink Cutters**

*Fast Stock Removal*

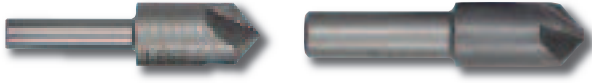


Single cutting edge for chatter free finish in all materials.

1/4" Straight Shank, 100° Cutting Angle		
Part Number	Capacity	Overall Length
100130	3/32" - 1/4"	1-1/2" (38.1 mm)
100131	1/8" - 27/64"	1-11/16" (42.8 mm)
100132	3/16" - 35/64"	1-7/8" (47.6 mm)

# PUNCH & CUTTING TOOLS

## Straight Shank Aircraft Countersink Cutters



- Radial relief ground angle to assure free cutting clearance & prevent chatter.
- Available in 82°, 100° & 120° cutting angles.\*

\* Select the cutter required, then add the desired cutting angle (82, 100 or 120).  
**Example:** For a H.S.S. 1/4" dia. one flute cutter with a 100° angle, use no. **02-112-1-100**.

One Flute			
H.S.S.	Carbide	Diameter	Shank
02-112-1	02-112-1C	1/4"	1/4"
02-112-2	02-112-2C	5/16"	1/4"
02-112-3	02-112-3C	3/8"	1/4"
02-112-5	02-112-5C	1/2"	1/4"
02-112-6	02-112-6C	5/8"	3/8"

Four Flute			
H.S.S.	Carbide	Diameter	Shank
02-312-1	02-312-1C	1/4"	3/16"
02-312-2	02-312-2C	5/16"	1/4"
02-312-3	02-312-3C	3/8"	1/4"
02-312-5	02-312-5C	1/2"	3/8"
02-312-6	02-312-6C	5/8"	3/8"

Six Flute Chatterless			
H.S.S.	Carbide	Diameter	Shank
02-612-1	02-612-1C	1/4"	3/16"
02-612-2	02-612-2C	5/16"	1/4"
02-612-3	02-612-3C	3/8"	1/4"
02-612-5	02-612-5C	1/2"	3/8"
02-612-6	02-612-6C	5/8"	3/8"

## Str. Shank Integral Pilot Extension Countersinks

*M42 High Speed Steel Construction*



100° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-100-0938	3/16"	3/32"
02-1875-100-1250	3/16"	1/8"
02-1875-100-1562	3/16"	5/32"
02-1900-100-1562	.1900"	3/32"
02-2500-100-0938	1/4"	3/32"
02-2500-100-1250	1/4"	1/8"
02-2520-100-1250	.2520"	1/8"
02-2830-100-1395	.2830"	.1395"
02-3125-100-1250	5/16"	1/8"
02-3125-100-1562	5/16"	5/32"
02-3400-100-1562	.3400"	5/32"
02-3750-100-0938	3/8"	3/32"
02-3750-100-1250	3/8"	1/8"
02-3750-100-1562	3/8"	5/32"
02-3750-100-1875	3/8"	3/16"
02-4050-100-1875	.4050"	3/16"
02-4375-100-2188	7/16"	7/32"
02-4375-100-2500	7/16"	1/4"
02-5000-100-0938	1/2"	3/32"
02-5000-100-1250	1/2"	1/8"
02-5000-100-1562	1/2"	5/32"
02-5000-100-1875	1/2"	3/16"
02-5000-100-2188	1/2"	7/32"
02-5000-100-2500	1/2"	1/4"
02-5300-100-2500	.5300"	1/4"

120° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-120-0938	3/16"	3/32"
02-2500-120-1250	1/4"	1/8"
02-3125-120-1562	5/16"	5/32"
02-3750-120-0938	3/8"	3/32"
02-3750-120-1250	3/8"	1/8"
02-3750-120-1562	3/8"	5/32"
02-3750-120-1875	3/8"	3/16"
02-5000-120-2500	1/2"	1/4"

90° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-90-0938	3/16"	3/32"
02-2500-90-1250	1/4"	1/8"
02-3125-90-1562	5/16"	5/32"
02-3750-90-1875	3/8"	3/16"
02-5000-90-2500	1/2"	1/4"

**Note:** All countersinks are furnished with a 1-3/4" length x 3/16" diameter shank, a 3/8" pilot length & are 2-1/2" overall length.

## Interchangeable Pilot Aircraft Counterbore Kits

### 16 Piece Short Series Kit:

Five Counterbores (1/4", 5/16", 3/8", 7/16" & 1/2"), Eight Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4" & 5/16"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-29	53-29CT	Complete 16 PC Kit

### 40 Piece Short Series Kit:

Thirteen Counterbores (1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" & 1"), Twenty Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4", 9/32" & 5/16" - 3/16" Shank: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32" & 1/2"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-39	53-39CT	Complete 40 PC Kit



53-29

**Interchangeable Pilot Aircraft Counterbores**



*Short Flute Type*

- 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.		
Part Number	Cutter Dia.	Pilot Hole
02-275-1	1/4"	3/32"
02-275-2	9/32"	3/32"
02-275-3	5/16"	3/32"
02-275-4	11/32"	3/32"
02-275-5	3/8"	3/32"
02-275-6	13/32"	1/8"
02-275-7	7/16"	1/8"
02-275-8	15/32"	1/8"
02-275-9	1/2"	1/8"
02-275-10	17/32"	1/8"
02-275-11	9/16"	1/8"
02-275-12	19/32"	1/8"
02-275-13	5/8"	1/8"
02-275-14	21/32"	3/16"
02-275-15	11/16"	3/16"
02-275-16	23/32"	3/16"
02-275-17	3/4"	3/16"
02-275-18	25/32"	3/16"
02-275-19	13/16"	3/16"
02-275-20	27/32"	3/16"
02-275-21	7/8"	3/16"
02-275-22	29/32"	3/16"
02-275-23	15/16"	3/16"
02-275-24	31/32"	3/16"
02-275-25	1"	3/16"

1/4" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole
02-275-1C	1/4"	3/32"
02-275-2C	9/32"	3/32"
02-275-3C	5/16"	3/32"
02-275-4C	11/32"	3/32"
02-275-5C	3/8"	3/32"
02-275-6C	13/32"	1/8"
02-275-7C	7/16"	1/8"
02-275-8C	15/32"	1/8"
02-275-9C	1/2"	1/8"
02-275-10C	17/32"	1/8"
02-275-11C	9/16"	1/8"
02-275-12C	19/32"	1/8"
02-275-13C	5/8"	1/8"
02-275-14C	21/32"	3/16"
02-275-15C	11/16"	3/16"
02-275-16C	23/32"	3/16"
02-275-17C	3/4"	3/16"
02-275-18C	25/32"	3/16"
02-275-19C	13/16"	3/16"
02-275-20C	27/32"	3/16"
02-275-21C	7/8"	3/16"
02-275-22C	29/32"	3/16"
02-275-23C	15/16"	3/16"
02-275-24C	31/32"	3/16"
02-275-25C	1"	3/16"

1/2" Shank H.S.S.		
Part Number	Cutter Dia.	Pilot Hole
02-275-26	1-1/16"	3/16"
02-275-27	1-1/8"	3/16"
02-275-28	1-3/16"	3/16"
02-275-29	1-1/4"	3/16"
02-275-30	1-5/16"	3/16"
02-275-31	1-3/8"	3/16"
02-275-31B	1-7/16"	3/16"
02-275-32	1-1/2"	3/16"

1/2" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole
02-275-26C	1-1/16"	3/16"
02-275-27C	1-1/8"	3/16"
02-275-28C	1-3/16"	3/16"
02-275-29C	1-1/4"	1/4"
02-275-30C	1-5/16"	1/4"
02-275-31C	1-3/8"	1/4"
02-275-31BC	1-7/16"	1/4"
02-275-32C	1-1/2"	1/4"

**Aircraft Counterbore Pilots**



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

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"

1/8" 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"

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"

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"

**Note:** Also used with threaded shank stop counterbores on page 79.

**Counterbore Extension**

*Great For Limited Access Areas*



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

# PUNCH & CUTTING TOOLS

## 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"
02-208-6J	02-208-6JC	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.

53-590S

*Convenient & Economical*

### 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		Standard Pilots	
Part Number	Pilot Dia.	Part Number	Pilot Dia.
02-285-1	3/32"	02-285-6	5/16"
02-285-2	1/8"	02-285-7	3/8"
02-285-3	5/32"	02-285-8	1/2"
02-285-4	3/16"	02-285-9*	5/8"
02-285-5	1/4"	02-285-10*	3/4"

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"

\* Furnished with double drive bayonet lock.



*For Composite Cutting Hole Saws See Page 91*

**Fine & Coarse Tooth Hole Saws**

**Fine Tooth**

- For use with aluminum, sheet steel & plastics.

**Coarse Tooth**

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



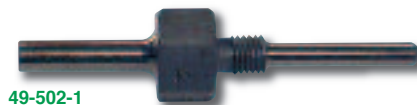
Part Number (prefix)	Description
49-500	Fine Tooth
49-501	Coarse Tooth

**Note:** Select the type saw (chart above), then add the diameter number (chart below).  
**Example:** For fine tooth with a 3/8" diameter, the part number would be **49-500-1**.

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

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

**Hole Saw Arbors**



49-502-1

*Precision Ground  
To Ensure  
Concentricity*

1/4" Shank, 5/16"-24 Thread		1/2" Shank, 1/2"-20 Thread	
Part Number	Pilot Diameter	Part Number	Pilot Diameter
49-502-1	3/16"	49-502-3	1/4"
49-502-2	1/4"	49-502-4	3/8"

# PUNCH & CUTTING TOOLS

## Blair® Hole Cutter Kits

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



02-11075

*Patented Tooth  
Geometry Prevents  
Chip Clogging*

*Precision  
Ground  
M2 H.S.S.*



02-13218

### 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

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"	3/4"
11100	11104	11108	11112	11116	11120	11124	11132

### 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"
13200	13202	13204	13206	13208	13210	13212

\* Can be mounted on air feed drill units.



02-11091

### 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
02-11091	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



02-14006

### 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	

**BAHCO® Hole Saw Sets**



**NEW**

862013

**Seven Piece Set Includes:**

Five Hole Saws (7/8", 1", 1-1/8", 1-1/4" & 1-1/2"), Arbor & Adaptor (fits 9/16" to 13/16" and 1-1/4" to 6" hole saws) & Fitted Plastic Case

**Thirteen Piece Set Includes:**

Nine Hole Saws (3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4" & 2-1/2"), Two Arbors & Adaptor (fits 9/16" to 1-3/16" and 1-1/4" to 6" hole saws), Pilot Drill & Fitted Plastic Case

Part Number 7PC Set	Part Number 13PC Set
862007	862013

**Hole Cutter**

*20 Gauge Sheet Metal Capacity*



61-13551

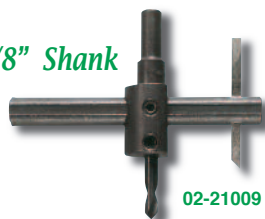
*Lightweight Aluminum Frame*

- Use with any standard 1/4" drill (tool includes drill bit & allen key).
- Patented shoe feature permits smooth finishing of holes.

Part Number	Hole Cutting Range	Replacement Bit
61-13551	2" to 12" (5.1 to 30.5 cm)	02-13548
61-14551	2" to 20" (5.1 to 50.8 cm)	

**Circle Cutters**

*3/8" Shank*



02-21009

- 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**

*Hardened Steel Cutting Heads*



AX1301

**NEW**

- Quickly punch precision bolt holes in flange gaskets.
- Patented locking system allows rapid change of cutting heads.
- Unique design punches single dia. holes (bolt holes) as well as dual diameter rings (washers) in one operation.

Part Number	Description	Hole Sizes	Weight
AX1301	16 PC Imperial Kit	1/8" to 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**

*Simple, Fast & Accurate*

61-250

- 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.



**NEW**

Part No.	I.D. (hole)	O.D.
61-100	1"	2"
61-125	1-1/4"	2-1/4"
61-150	1-1/2"	2-1/2"
61-175	1-3/4"	2-3/4"
61-200	2"	3"
61-225	2-1/4"	3-1/4"
61-250	2-1/2"	3-1/2"
61-275	2-3/4"	3-3/4"

Part No.	I.D. (hole)	O.D.
61-300	3"	4"
61-312	3-1/8"	4-1/8"
61-325	3-1/4"	4-1/4"
61-350	3-1/2"	4-1/2"
61-375	3-3/4"	4-3/4"
61-400	4"	5"
61-500	5"	6"
61-600	6"	7"

Note: Special shapes/sizes available on request, please inq.

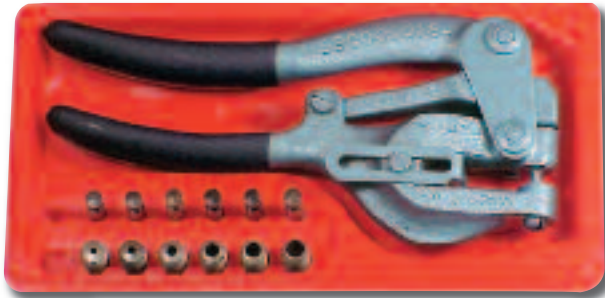


53-81551

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

# PUNCH & CUTTING TOOLS

## Hand Metal Punch Kits



04-5

### 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	Size
38-098	#40
38-129	#30
38-159	#21
38-194	#10
38-5094	3/32"

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



04-2222

### 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

### Precision Spot Marking



- 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

70231



70440

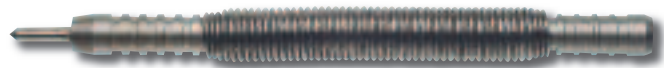


- Spring-loaded operation is adjustable for light or heavy strokes.
- Ground & hardened replaceable point.

Part Number	Body Type	Overall Length
70231	Steel	5" (127 mm)
70440	Aluminum	5" (127 mm)

## NOXON® Chisel & Punch Rivet Removal Set

### 3500 PSI Driving Force



- Hammerless spring design is great for use in tight areas.
- Use the 5/16" cold chisel to shear protruding steel or aluminum rivets without damaging surface material.
- Use the H.S.S. center punch to easily remove mandrel.
- Center punch designed to mark most hardened materials.

Part Number	Description
ACRR02	5/16" Cold Chisel & H.S.S. Center Punch

**SPI® Fine Optical Center Punch**

*High Accuracy Center Punching Made Simple*

- 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"

**Hand Punch Sets**



61-14085



61-14087



61-14086

- Hardened & tempered tool steel with ground points of 45-52 Rc.
- Knurled punch body for better grip.
- Includes fitted case with clear size markings.

5 PC Center Punch Set, 4" Overall Length	
Part No.	Point Sizes Included
61-14085	1/16", 5/64", 3/32", 9/64" & 5/32"

8 PC Drive Pin Set, 4" Overall Length	
Part No.	Point Sizes Included
61-14086	1/16", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4" & 5/16"

5 PC Extra Long Drive Pin Set, 8" Overall Length	
Part No.	Point Sizes Included
61-14087	1/8", 3/16", 1/4", 5/16" & 3/8"

**Round Shank Center Punches**

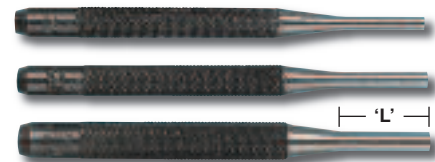


- Points are ground to size for maximum strength & penetration.
- Knurled hand grip stamped with size for quick identification.

Part Number	Punch Diameter	Overall Length
61-74AA	1/16"	3-1/16" (78 mm)
61-74A	5/64"	3-19/32" (91 mm)
61-74B	3/32"	3-7/8" (98 mm)
61-74C	9/64"	4" (102 mm)
61-74D	5/32"	4" (102 mm)

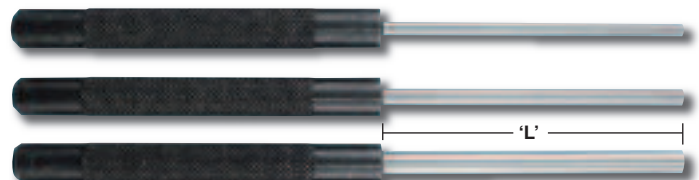
**Drive Pin Hand Punches**

*Knurled Hand Grips*



- Durable tool steel uniformly heat treated & centerless ground.
- Ends are ground square for accurate pin driving.

Standard, 4" (102 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-75A	1/16"	3/4" (19 mm)
61-75B	3/32"	
61-75C	1/8"	
61-75D	5/32"	
61-75E	3/16"	1" (25 mm)
61-75F	7/32"	
61-75G	1/4"	
61-75H	5/16"	



**Extra Long Drive Pin Punches**

- For use on work not accessible with shorter punches.
- Conforms to government spec GGG-P-831E.

Extra Long, 8" (203 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-76A	1/8"	3-1/2" (89 mm)
61-76B	3/16"	
61-76C	1/4"	
61-76D	5/16"	
61-76E	3/8"	

## PUNCH & CUTTING TOOLS

### Blind Hole Spotter Set Kits

- A fast and easy way to locate opposite centers.
- Six of each size packed in individual plastic tubes.
- Includes sturdy steel storage case.

61-18108



Part Number	Description	Sizes Included
61-18108	108 PC Set	1/8" to 21/32" (x 32nds)
61-1111	66 PC Set	11/16" to 1" (x 32nds)

### Duplicating Punches

#### Tight Tolerance Hole Duplication



AT507-10

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

Part Number	Punch Size	Overall Length
AT507-1	3/32"	3-1/2" (89 mm)
AT507-2	#40	3-1/2" (89 mm)
AT507-3	1/8"	3-1/2" (89 mm)
AT507-4	#30	3-1/2" (89 mm)
AT507-10	1/4"	3-1/2" (89 mm)
AT507-11	5/16"	3-1/2" (89 mm)



AT507KT

#### Duplicating Punch Kit:

Fourteen Punches (3/32", #40, 1/8", #30, 5/32", #19, 3/16", #10, 7/32", 1/4", 5/16", 3/8", 7/16" & 1/2") & Fitted Plastic Case

Part Number	Description
AT507KT	Complete 15 PC Kit

### Transfer Punch Sets

#### Includes Indexed Stand

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



61-50728

Part 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

### Cold Chisels

#### Heavy-Duty Industrial Grade

70746



- For cutting, shaping and removing metal softer than the cutting edge of the chisel.
- Works great with the punch & chisel holder shown below.

Part Number	Stock Size	Blade Width	Overall Length
70746	7/16"	1/2"	6" (15.2 cm)
70747	7/8"	1"	8" (20.3 cm)

### Comfort Grip Punch & Chisel Holder

#### Handle Resistant To Solvents, Gas & Oil



- Keeps your hands safely away from striking tool.
- Adjustable screw allows use with most punches and chisels.

Part Number	Capacity
28449	0 to 1-1/2" (0 to 38 mm)