

PREMIUM THIN TURRET TOOLING SYSTEM



Strength. Performance. Innovation.

TECHNOLOGY FOR INCREASED TOOL LIFE

Optima® Coating

The New Standard in Tooling Performance!

Optima® is a proprietary TiCN (titanium carbo-nitride) coating that was custom engineered at our in-house coating facilities. It features unique properties that significantly enhance tooling performance. This coating, which is available only to Wilson Tool customers, provides a level of surface hardness, wear resistance and lubricity never before associated with coated or uncoated punch press tooling.

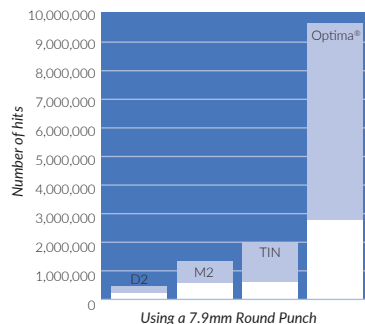
Some of the many benefits that you will enjoy with our Optima® coating include:

- Longer Tool Life
- Increased wear resistance
- More hits between sharpenings
- Reduced adhesion (galling)
- Reduced slug pulling
- Reduced corner breakdown
- Improved special tooling performance
- Lower overall tooling costs
- In-house coating facilities allow us to deliver faster and maintain total quality control

PUNCH LIFE

Punch Life

Nibbling 14ga. (1.9mm) 304 Stainless Steel



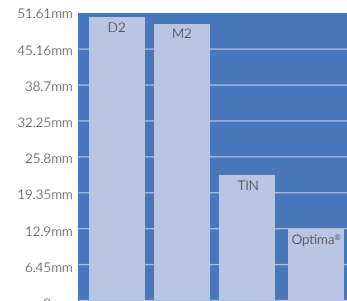
Using a 7.9mm Round Punch

The white area indicates actual results achieved through three tool sharpenings of 0.25mm each. The complete graph indicates projected results with a total of 6mm removed for sharpening.

MATERIAL ADHESION

Square mm of Material Adhesion (Galling) on Punch Tips

Nibbling 12ga. (2.1mm) Aluminium

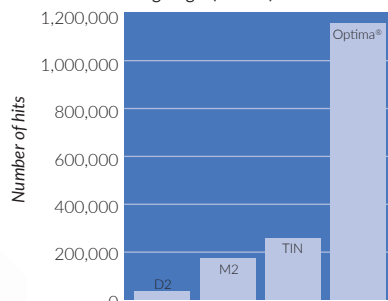


Using a 6.3mm Square Punch (At 20,000 hits)

NUMBER OF HITS

Number of Hits Before First Sharpening

Nibbling 14ga. (1.9mm) 304 Stainless Steel

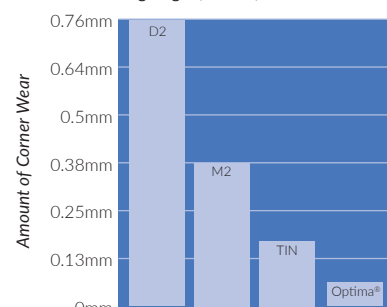


Using a 7.9mm Round Punch

TIP WEAR

Punch Tip Corner Wear

Nibbling 14ga. (1.9mm) 304 Stainless Steel



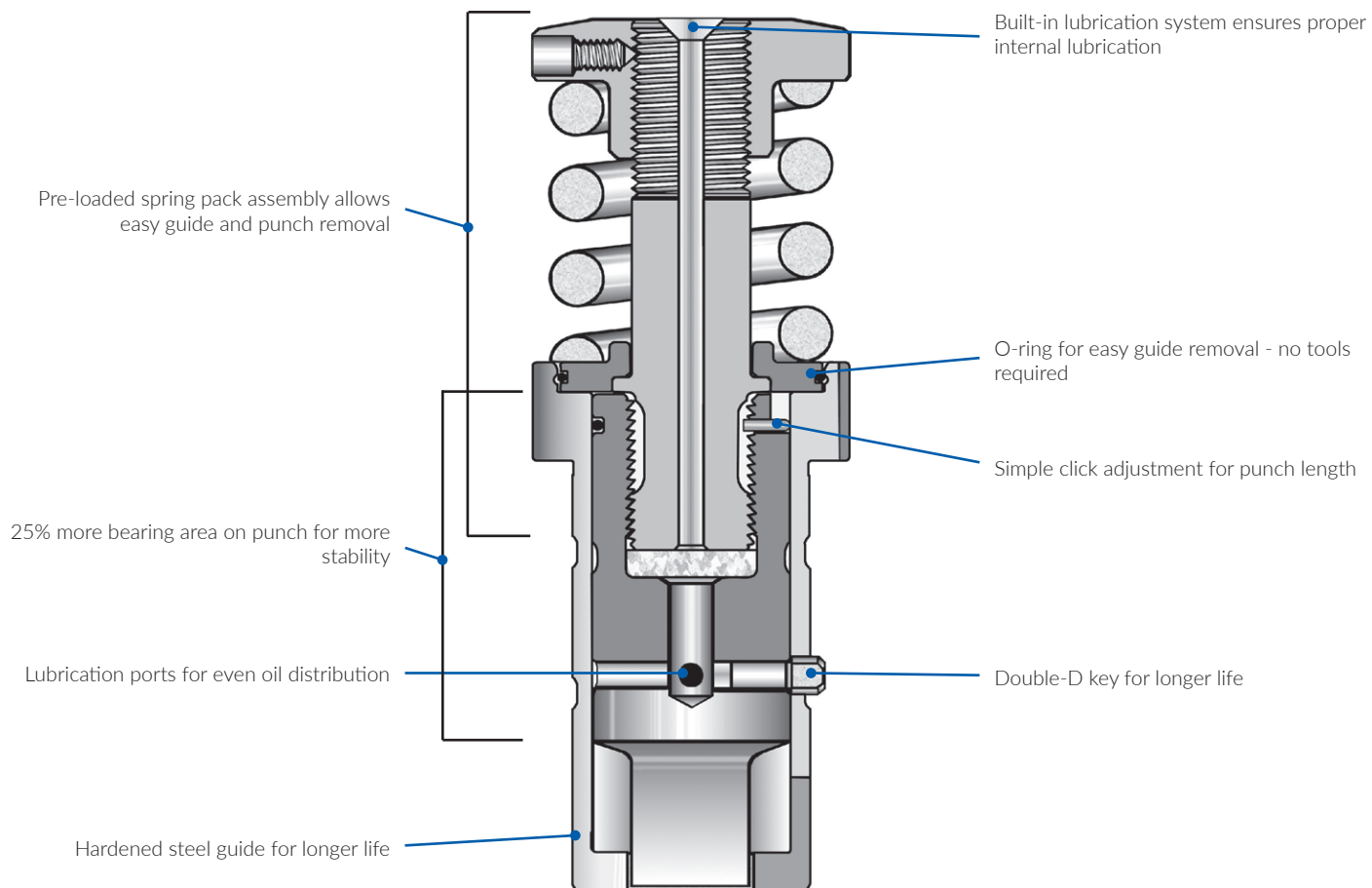
Using a 6.3mm Square Punch (At 25,000 hits)

Optima®
TECHNOLOGY AT THE CUTTING EDGE

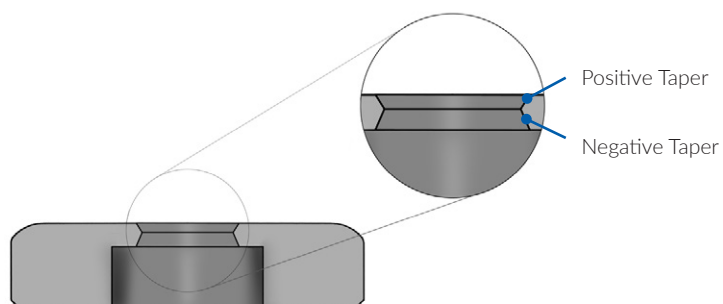
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FEATURES AND BENEFITS

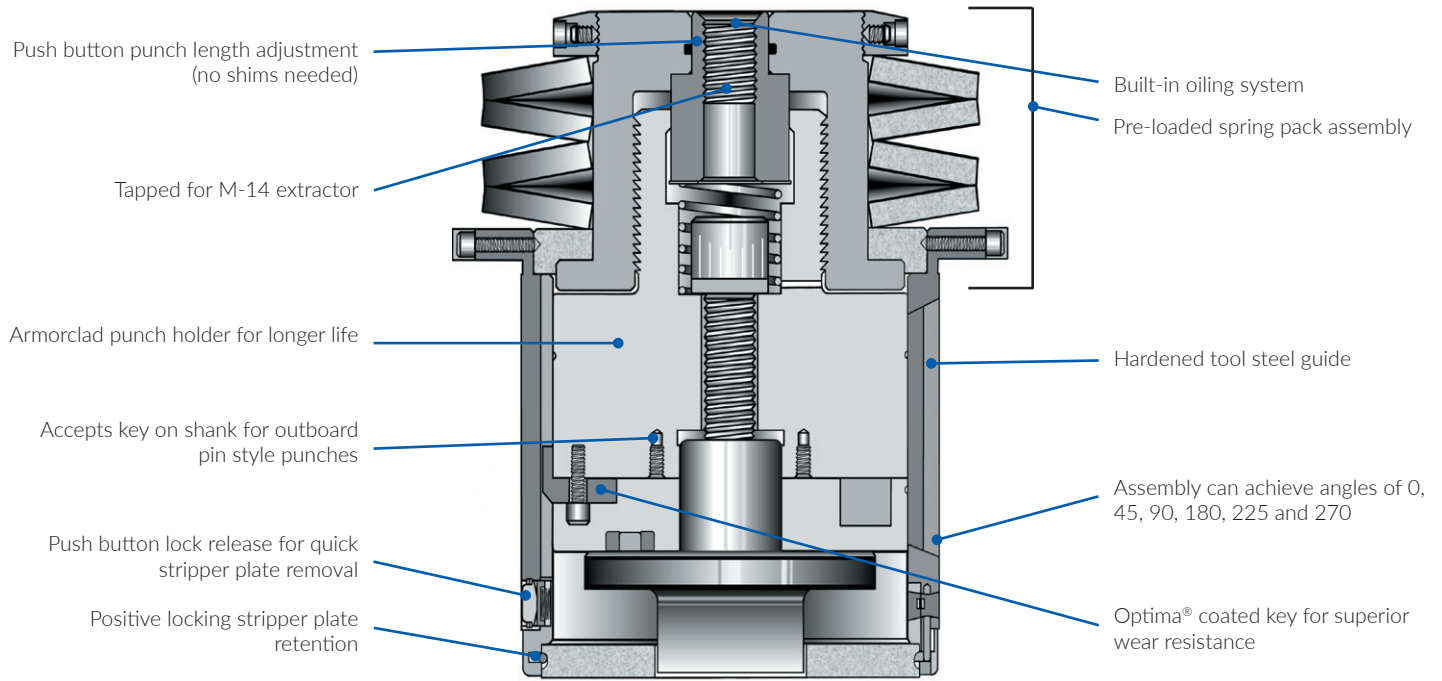
B Station



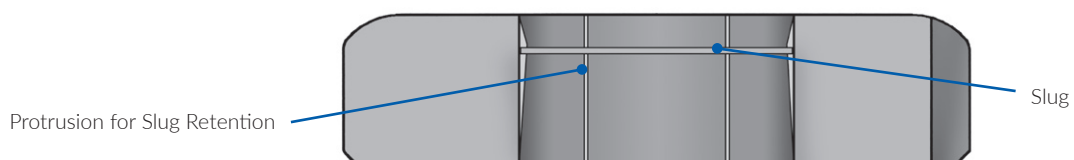
Standard Die



D Station

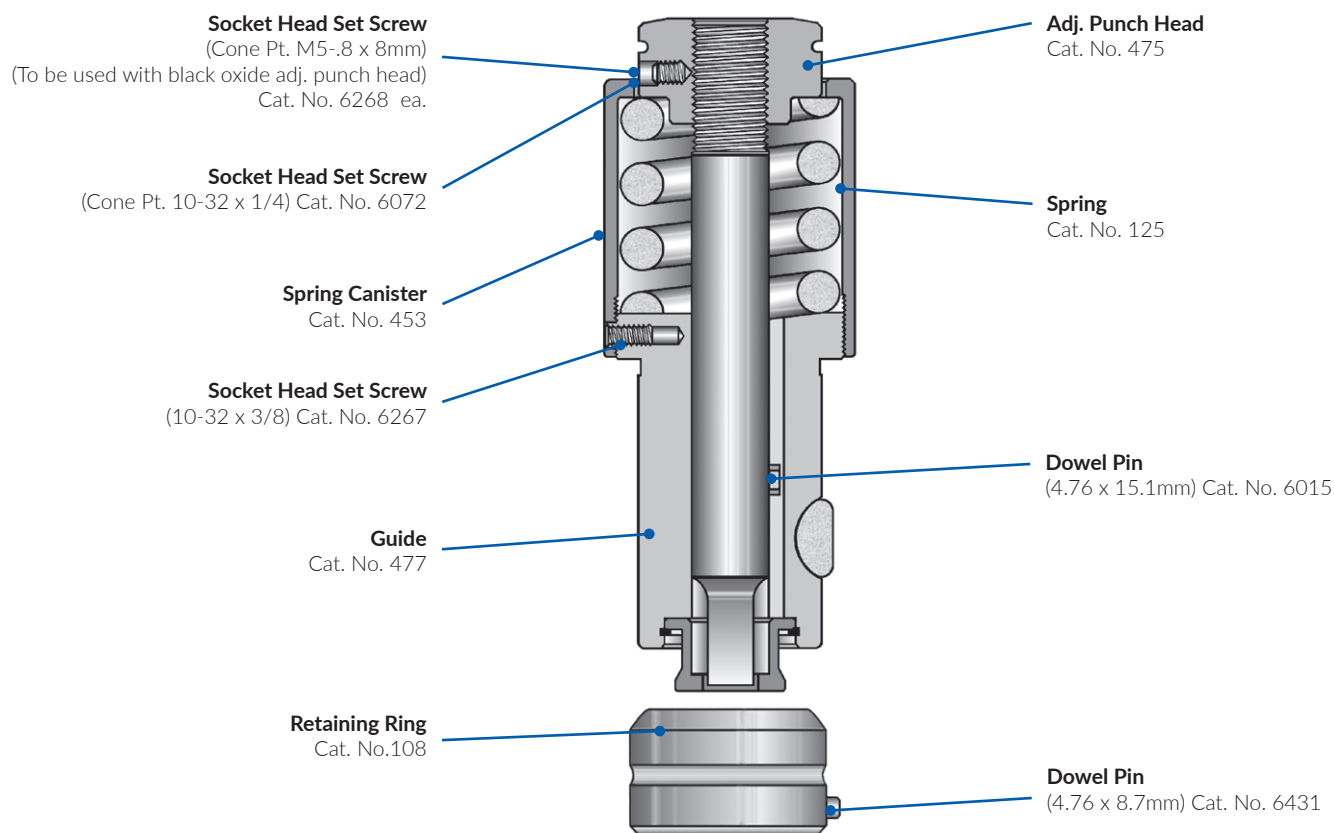


Slug Hugger 2® Die



5/8" DROP IN

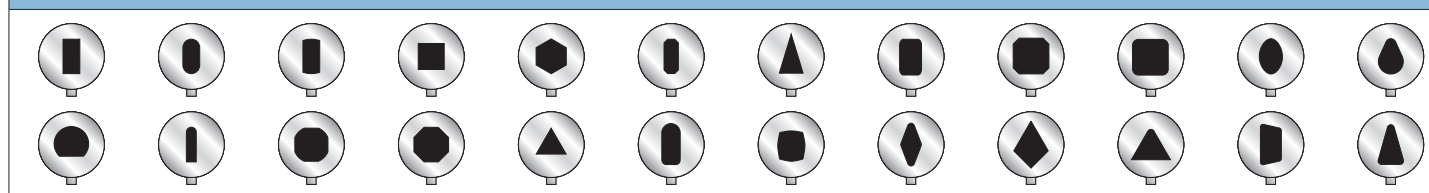
(Not for use in Auto-Index stations)

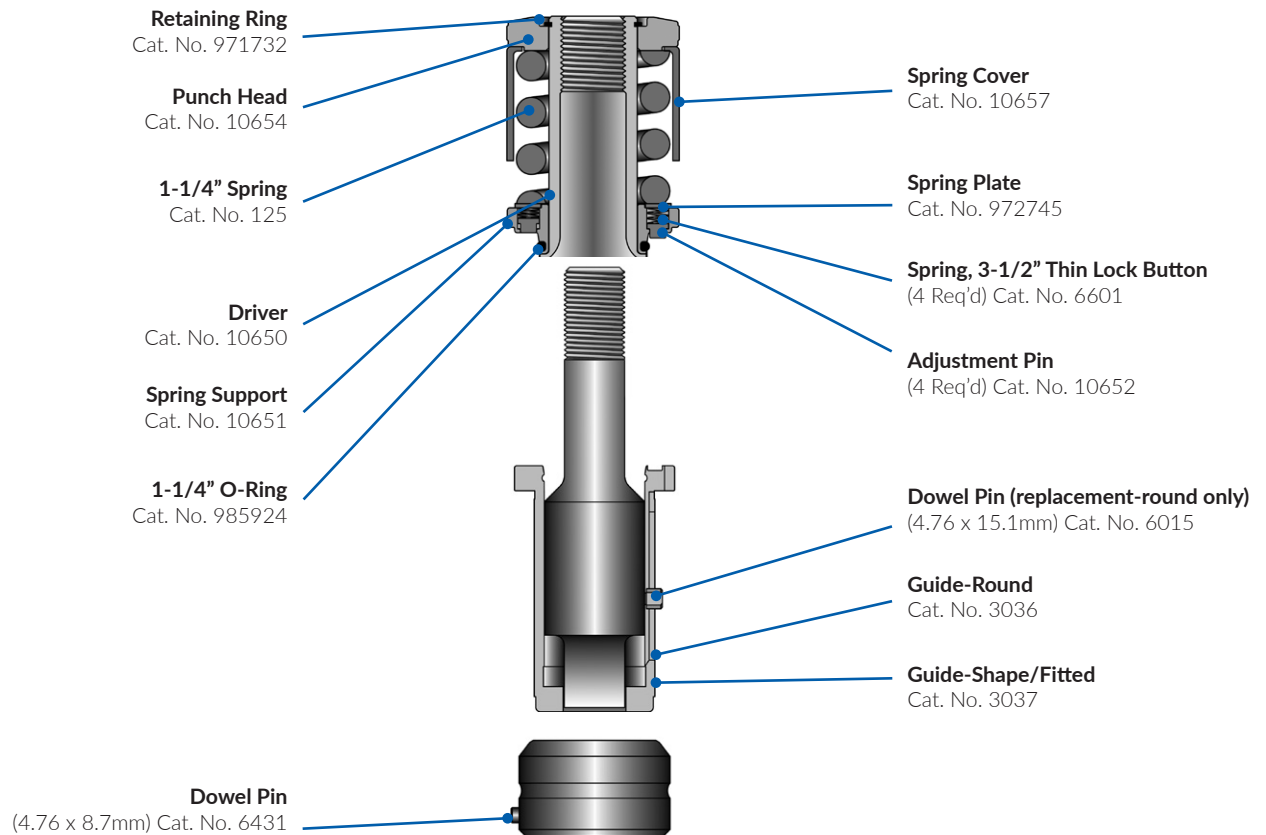


Maximum punching force = 9 Tonnes

Description	Cat. No.	Price	Notes
Guide Assembly w/.625 (15.88mm) dia. Closed Round Stripper Plate	476		* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. For add ons go to page 18
Punches - Round - Shape - Optima® Add On	445 446 -		
Strippers - Round - Shape Fitted	478 479		
Dies - Round Slug Hugger®* - Round Positive - Shape Slug Hugger®* - Shape Positive - Shape Negative	454 3011 456 3039 3040		

Standard Shapes & Key Locations (Die View)

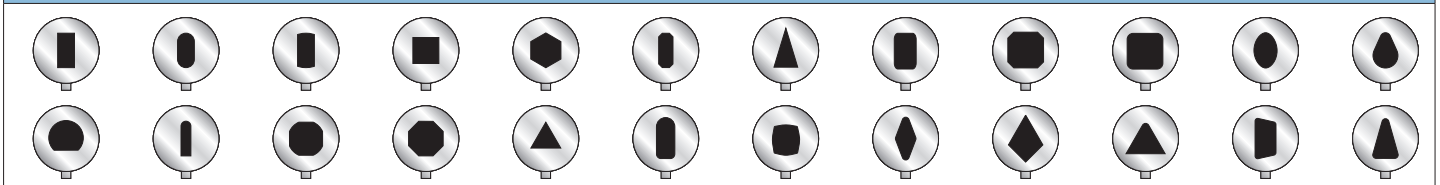




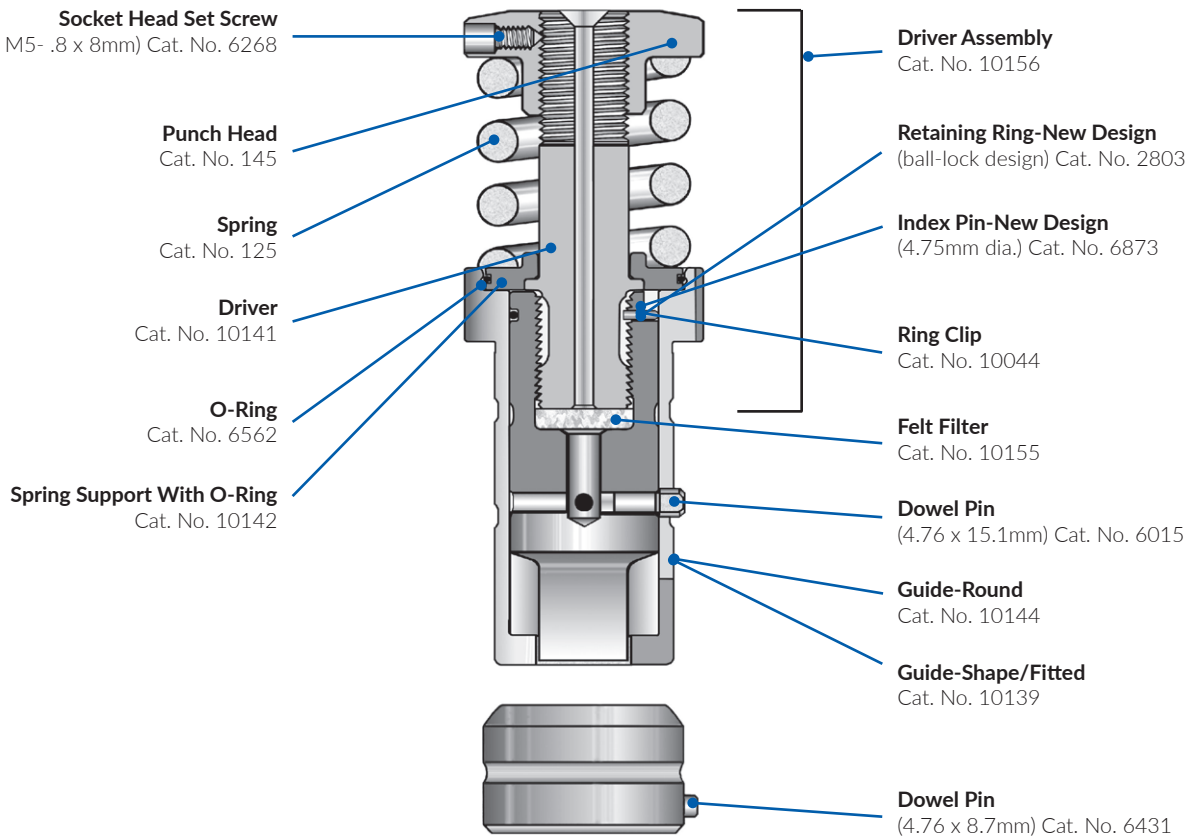
Maximum punching force = 13.6 Tonnes

Description	Cat. No.	Price	156.80Notes
Quick Adjust Spring Pack Assembly	10649		* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. • For add ons go to page 18
Punch & Guide Assembly			
• Round w/Closed Round Guide • Shape w/Fitted Guide • Optima® Add On	10456 10389 -		
Punches			
• Round • Shape • Optima® Add On	10457 3030 -		
Guides			
• Round • Shape	3036 3037		
Dies			
• Round Slug Hugger®* • Round Standard • Shape Slug Hugger®* • Shape Positive • Shape Negative	454 3011 456 3039 3040		

Standard Shapes & Key Locations (Die View)

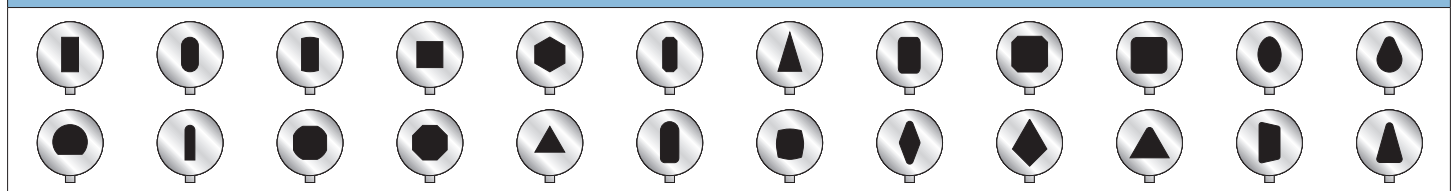


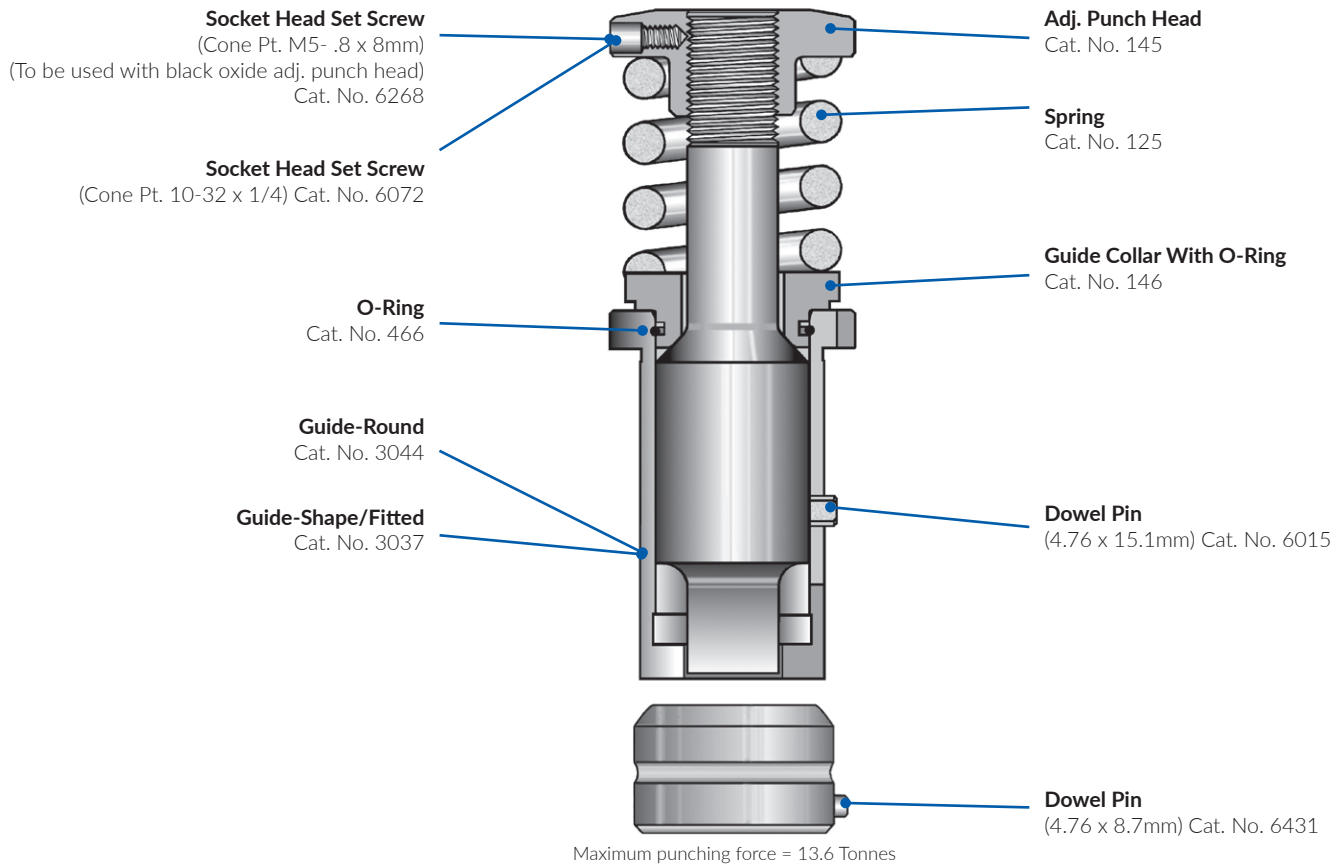
SERIES 90® B STATION



Description	Cat. No.	Price	Notes
Punch & Guide Assembly - Round w/Closed Rd. Guide - Shape w/Fitted Guide - Optima® Add On	10143 10145 -		* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. • For add ons go to page 18
Punches - Round - Shape - Optima® Add On	10137 10136 -		
Dies - Round Slug Hugger®* - Round Standard - Shape Slug Hugger®* - Shape Positive - Shape Negative	454 3011 456 3039 3040		

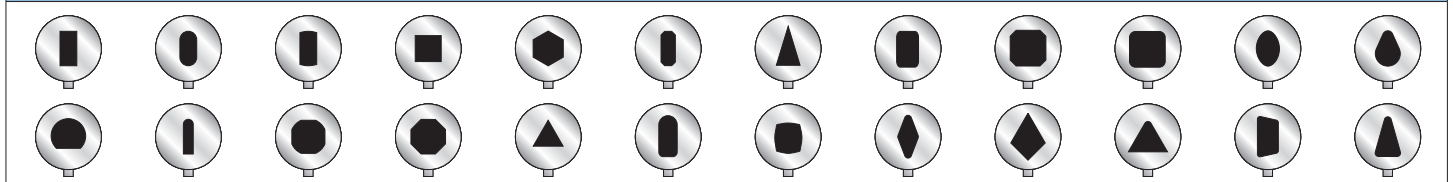
Standard Shapes & Key Locations (Die View)



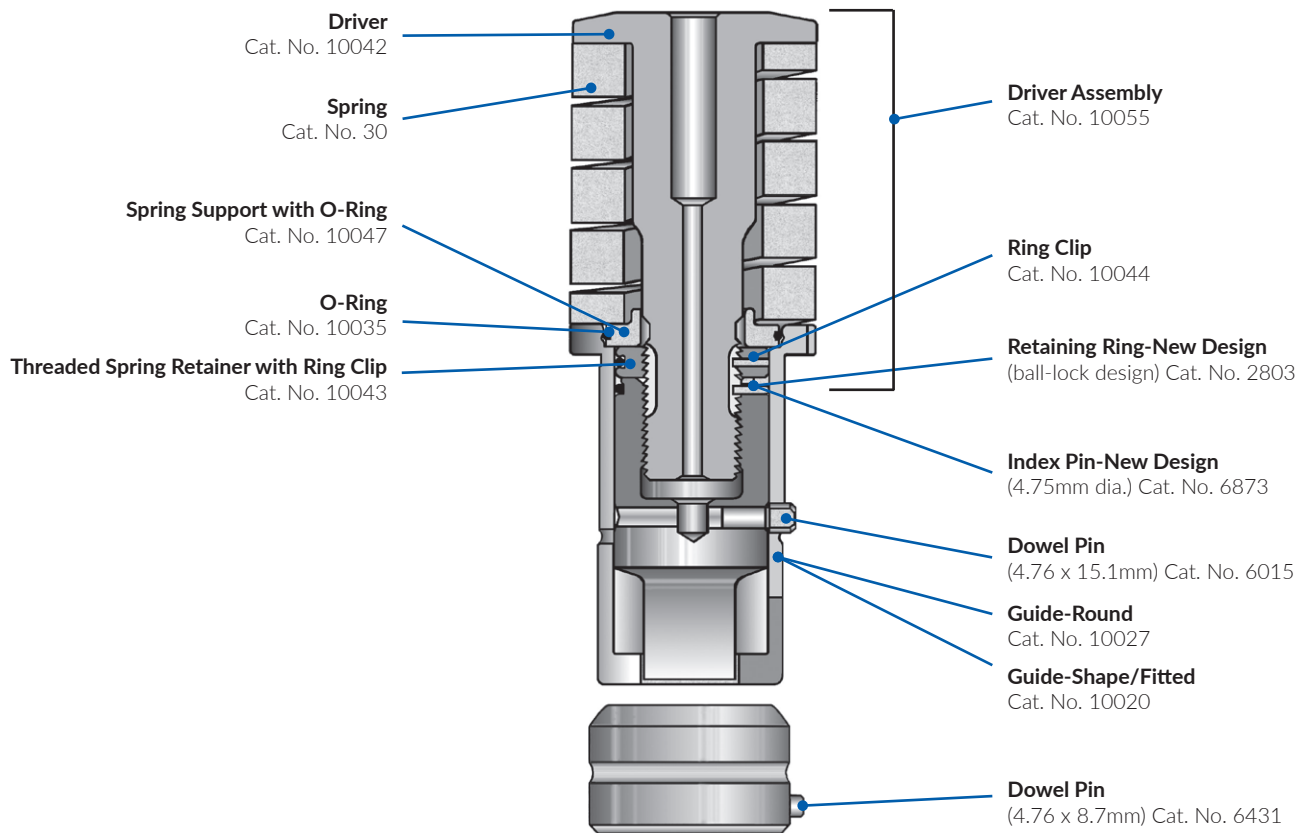


Description	Cat. No.	Price	Notes
Punch & Guide Assembly - Round w/ Closed Rd. Guide - Shape w/ Fitted Guide - Optima® Add On	3041 3024 -		* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. • For add ons go to page 18
Punches - Round - Shape - Optima® Add On	3043 3030 -		
Dies - Round Slug Hugger®* - Round Standard - Shape Slug Hugger 2®* - Shape Positive - Shape Negative	454 3011 456 3039 3040		

Standard Shapes & Key Locations (Die View)

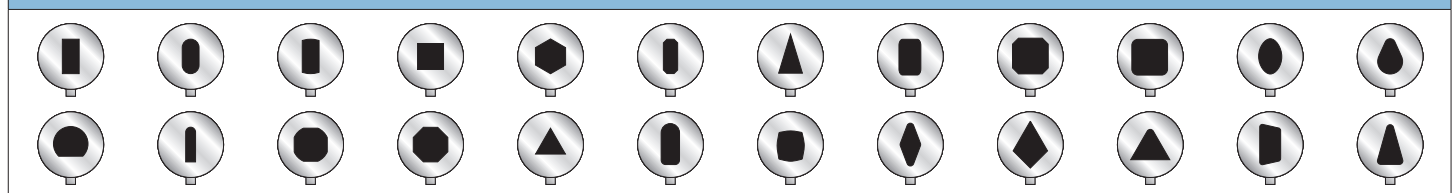


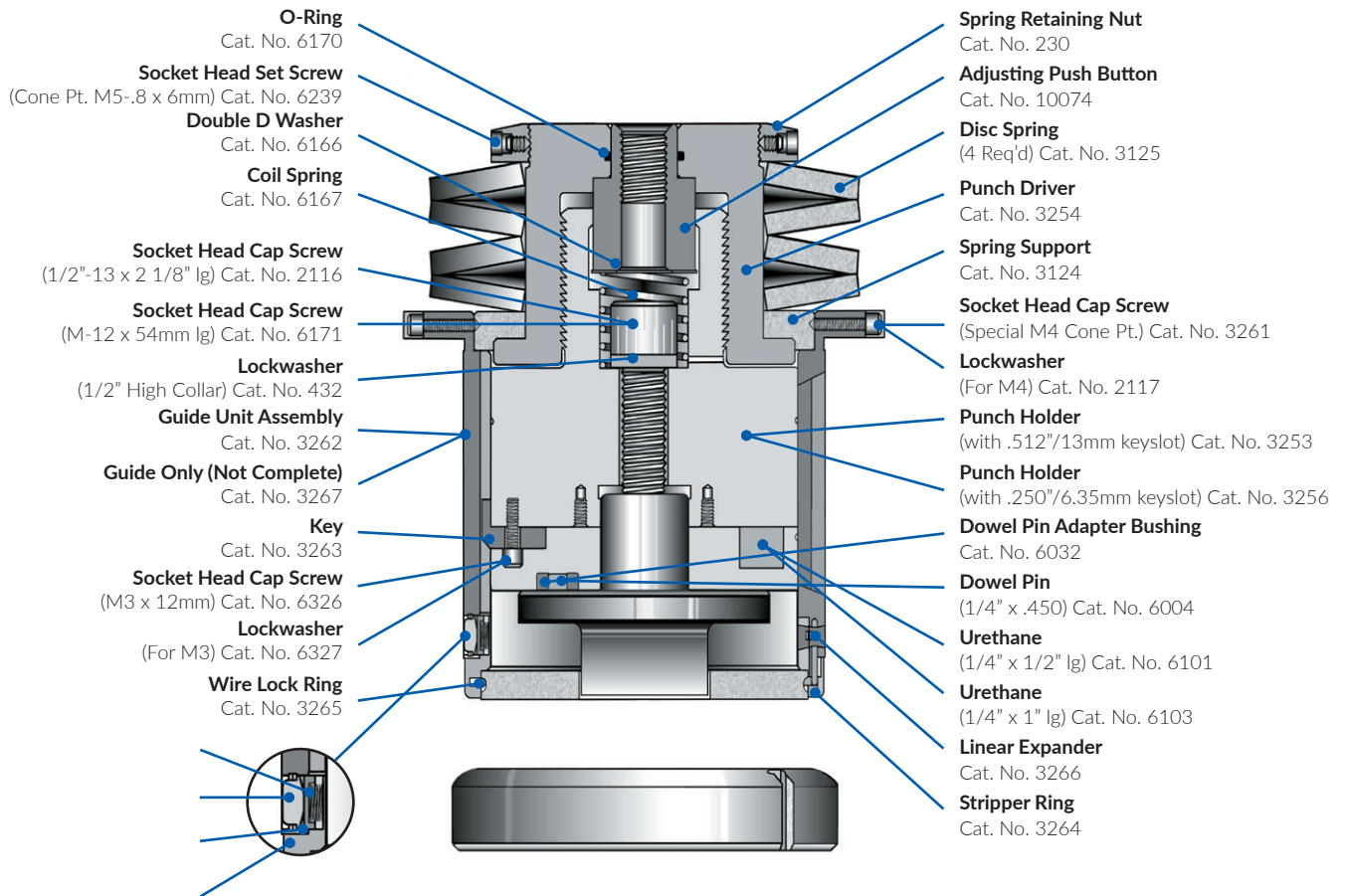
SERIES 90® HEAVY DUTY B STATION



Description	Cat. No.	Price	Notes
Punch & Guide Assembly - Round w/Closed Rd. Guide - Shape w/Fitted Guide - Optima® Add On	10039 10040 -		* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. - For add ons go to page 18 - Spherical concave shear & Optima® standard on 25.4mm, 25mm and 31.75mm diameters.
Punches - Round - Shape w/Ring Clip - Optima® Add On	10046 10045 -		
Dies - Round Slug Hugger®* - Round Standard - Shape Slug Hugger®* - Shape Positive - Shape Negative	454 3011 456 3039 3040		

Standard Shapes & Key Locations (Die View)

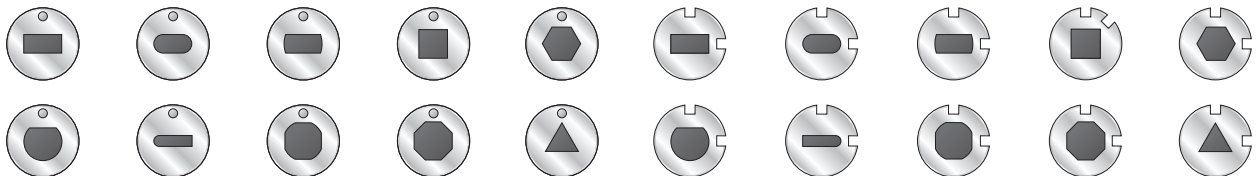




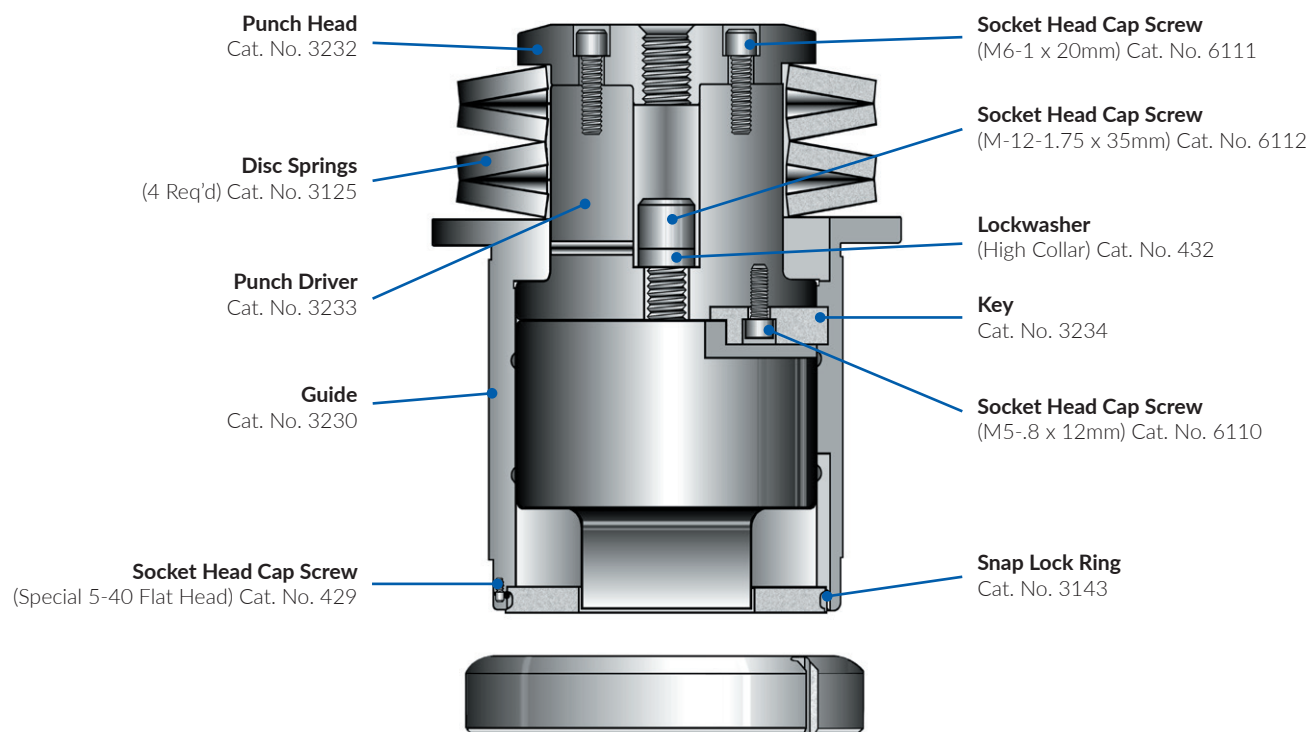
Description	Cat. No.	Price
Guide Assembly (.512"/13mm Keyslot)	3358	
Punches - Round - Shape - Optima® Add On	3181 3190 -	
Strippers - Round Closed - Shape Fitted	3116 3115	
Dies - Round Slug Hugger®* - Round Standard - Shape Slug Hugger®* - Shape Standard - Ultima® Add On (Round) - Ultima® Add On (Shape)	2198 1865 2199 13810 - -	

Notes
* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. • For add ons go to page 18 • Series 90® Guide Assemblies are keyed for shapes at 0°, 45°, 90°, 180°, 225° and 270° • 1.6mm Rooftop shear is given to all punches with 'A' dimension† greater than 50.8mm and width greater than 6.35mm, at no extra charge. • All punches 6.35mm and under in width will be shipped with no shear unless specified. • Square dies are keyed for shape at 0° and 45°; all other shaped dies are keyed for shape at 0° and 90°

Standard Shapes & Key Locations (Die View)



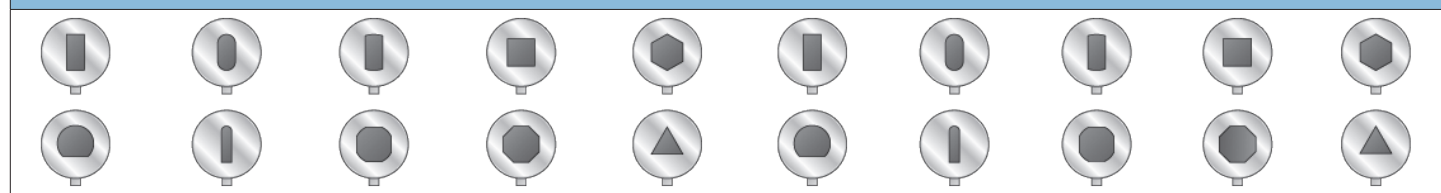
D STATION - FULL BODY

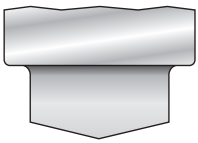
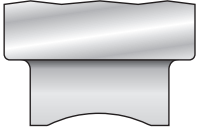
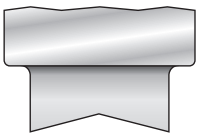
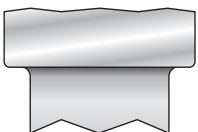
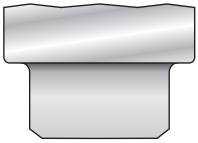


Description	Cat. No.	Price
Guide Assembly Keyed for shapes at 0° & 90°	3231	
Punches - Round (M-12 Thread) - Shape (M-12 Thread) - Optima® Add On	3183 3184 -	
Strippers - Round - Shape	3116 3115	
Dies - Round Slug Hugger®* - Round Standard - Shape Slug Hugger®* - Shape Standard - Ultima® Add On (Round) - Ultima® Add On (Shape)	2198 1865 2199 13810 - -	

Notes
* Slug Hugger dies must be ordered punch size plus clearance, 2.49mm min. dia. on rounds, 1.53mm min. width on shapes, 0.15mm min. clearance † 'A' Dimension = longest distance across shape. • For add ons go to page 18 • 1.6mm Rooftop shear is given to all punches with 'A' dimension† greater than 50.8mm and width greater than 6.35mm, at no extra charge. • All punches 6.35mm and under in width will be shipped with no shear unless specified. • Square dies are keyed for shape at 0° and 45°; all other shaped dies are keyed for shape at 0° and 90°

Standard Shapes & Key Locations (Die View)



Type of Shear		Benefit	Limitation
	Rooftop	Best shear for punching at maximum tonnages	When nibbling, bite must be 75% of punch dimensions or excessive side loading will result
	Concave or Double Concave	Best shear for nibbling because it inverts stresses	The punch is less resistant to breakage when punching at high tonnages because of inverted stresses
	Inverted Rooftop	Also good shear for nibbling because it inverts stresses	More susceptible to breakage because of sharp focal point for stresses, use with great care
	Double Valley Shear	Best shear for nibbling when shape is long and narrow	The punch is less resistant to breakage when punching at high tonnages because of inverted stresses
	JK Shear	A special punch tip shear that allows you to punch high strength materials with a reduced risk of breakage	Can only be used on punches up to 1.000" (25.4mm) diameter or 'A' dimension

Special Shears					
Station	'A' Dimensions†	Inverted Rooftop or Single Concave		Double Valley or Double Concave	
		1.6mm Shear	3.2mm Shear	1.6mm Shear	3.2mm Shear
B	Within 31.75mm		N/A		N/A
D	Within 88.9mm				

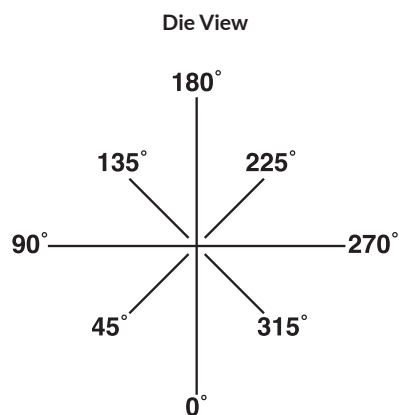
Notes
1.6mm rooftop shear is given to all punches with 'A' dimension† greater than 50.8mm and width greater than 6.35mm at no extra charge. All Punches 6.35mm and under in width will be shipped with no shear unless specified. - In some instances, inverted rooftop is substituted for single and double concave shears.

JK Shear	
Shape	Add On Price
Round	
Rectangle, Square, Hexagon, Single DB, Double DB	
Obround	

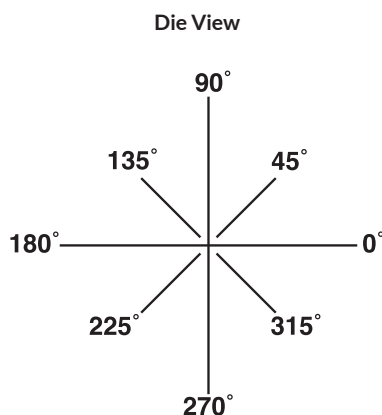
† 'A' Dimension = Longest dimension across shape

NON STANDARD KEYING

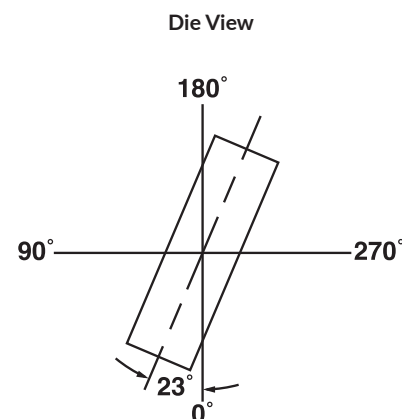
When ordering shapes at non-standard angles, use the diagram below to eliminate any confusion.



Front of Machine
Wilson Tool keying diagram



Front of Machine



Example
Shape at 23°

Shape at single angles other than standard or 45° (Note: no additional charge for shape at 45°)			
Station	Punches	Dies	Guides or Strippers
B			Not Applicable
D Std. & Full Body			Not Applicable

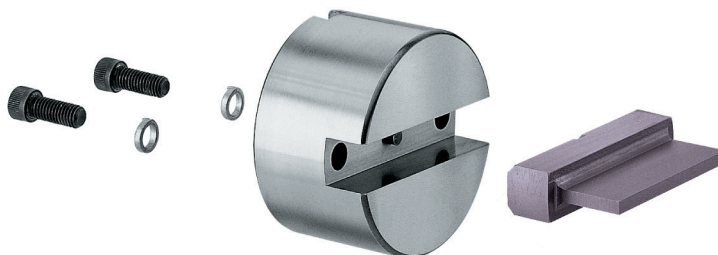
Standard keying, plus extra pins or keys for shapes at other than 45° increments			
Station	Punches	Dies	Guides or Strippers
5/8"	Not Available	Not Available	Not Available
B	Not Available	Not Available	Not Available
D Std. & Full Body			Not Applicable

Notes
* Per pin or key

Standard keying, plus extra pins or keys for shapes at 45° increments						
Station	Punches		Dies		Guides or Strippers	
	Available Options	Add On Price	Available Options	Add On Price	Available Options	Add On Price
5/8"	Not Available	Not Available	0° & 45° 0° & 180°		*0° & 45° or 0° & 180°	
B	0° & 45° 0° & 180°		0° & 45° 0° & 180°		Closed round guide or 2 fitted guides required	
D Std. & Full Body	45° Increments		45° Increments			
					Not Available	Not Available

REPLACEABLE INSERT ASSEMBLY

For D Station



Replaceable Insert Assembly

Station	Body (M - 12)		Punch Insert		Set (M - 12)	
	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
D Stn. Full Body	3192		3193		3191	
Parts Description					Cat. No.	Price
Socket Head Cap Screw - 3/8" - 16 x 1" long					6019	
High Collar Lock Washer for 3/8" screw					2129	
Dowel Pin - 1/4" Dia. x .450" long					6004	

Notes

Optima® is standard on punch inserts

- Blade insert punches under 9.53mm in width will be shipped with no shear unless specified.
- Double Valley Shear is recommended for widths of 4.75mm thru 9.53mm and minimum lengths of 50.8mm when used for nibbling. See Shear chart page 13.
- For widths less than 2.36mm, consult the sales desk.
- Maximum width 19mm
- Inserts are available as obround to be used with rectangle dies, to eliminate "Saw Tooth Effect".



Aligning Tools

Description	Cat. No.	Price
B Station		
Upper Unit	494	
Lower Unit	495	£184.60
C Station		
Upper Unit	3350	
Lower Unit	1841	
D Station		
Upper Unit	3251	
Lower Unit	1948	

Note: Not for use in Auto Index Station

CLOSE TO CLAMPS TOOLING



D Station - Series 80 Plus® Relieved Guide Assembly for Punching Close to Clamps

Description	Cat. No.	Price
Guide Assembly	3248	
Guide Only	3249	
Punches	3250	
Strippers Relieved both sides Relieved one side only	3245 N/A	
Dies Slug Hugger®* (relief 2 sides, shp at 90°) Slug Hugger®* (relief 2 sides, shp at 0°-90°) Slug Hugger®* (relief 1 side, shp at 90°) Slug Hugger®* (relief 1 side, shp at 0°-90°) Positive (relief 2 sides, shp at 90°) Positive (relief 2 sides, shp at 0°-90°) Positive (relief 1 side, shp at 90°) Positive (relief 1 side, shp at 0°-90°) Negative (relief 2 sides, shp at 90°) Negative (relief 2 sides, shp at 0°-90°) Negative (relief 1 side, shp at 90°) Negative (relief 1 side, shp at 0°-90°)	5157 5330 2464 5333 5101 5328 2462 5331 5156 5329 2463 5332	

Notes

- All punches 6.35mm and under in width will be shipped with no shear unless specified.
- Slug Hugger® dies must be ordered punch size plus clearance, 1.53mm min. width shapes, 0.15mm min & Slug Hugger® 2 0.1mm. clearance

Punch Shims			
0.060 Thick (1.5mm)			
Individually			
Station	Qty.	Cat. No.	Price
B	1	152	
D Full Body	1	2088	
Package			
Station	Qty.	Cat. No.	Price
B	25	98	
C Full Body	10	2169	
D Full Body	5	2170	

Die Shims			
0.25mm Thick			
Individually			
Station	Qty.	Cat. No.	Price
B	1	2097	
D	1	2081	
Package			
Station	Qty.	Cat. No.	Price
B	25	2209	
D	5	2211	

Die Shims			
0.76mm Thick			
Individually			
Station	Qty.	Cat. No.	Price
B	1	2723	
D	1	2727	
Package			
Station	Qty.	Cat. No.	Price
B	25	2724	
D	5	2728	

Die Shims			
1.5mm Thick			
Individually			
Station	Qty.	Cat. No.	Price
B	1	2100	
D	1	2084	
Package			
Station	Qty.	Cat. No.	Price
B	25	2173	
D	5	2175	

Die Shims for Multi-Tools®							
Machine Type				Individual		Package 15 ea.	
	Station	Shape	Thickness	Cat. No.	Price	Cat. No.	Price
Finn-Power®	MT 12 & 20 - 8	Round	0.25mm	6802		6817	
Finn-Power®	MT 12 & 20 - 8	Round	0.76mm	6803		6818	
Finn-Power®	MT 12 & 20 - 8	Shape	0.25mm	6804		6819	
Finn-Power®	MT 12 & 20 - 8	Shape	0.76mm	6805		6820	
Finn-Power®	MT 6 & 10 - 16		0.25mm	6806		6821	
Finn-Power®	MT 6 & 10 - 16		0.76mm	6807		6822	
Finn-Power®	MT 6 & 10 - 24		0.25mm	6808		6823	
Finn-Power®	MT 6 & 10 - 24		0.76mm	6809		6824	

ADD ONS

B Station Add Ons			
Add ons for Rounds			
Small Diameter	Punch	Die	Stripper
0.79 - 1.50mm Clearance < 0.10mm			N/C N/C
Add ons for Shapes			
Small Widths	Punch	Die	Stripper
0.79 - 1.0mm Clearance < 0.10mm			N/C
Add £6.50 to round or shape punch for extra straight before radius, extra back taper, or no back taper.			

D Station Add Ons			
Add ons for Rounds			
Small Diameter	Punch	Die	Stripper
< 29.21mm 29.21 - 31.72mm Clearance < 0.10mm		N/C N/C	N/C N/C N/C
Add ons for Shapes			
Small Width	Punch	Die	Stripper
0.79 - 1.0mm			
Small 'A' Dimension†	Punch	Die	Stripper
< 29.21mm 29.21 - 31.72mm Clearance < 0.10mm		N/C N/C	N/C N/C N/C
Add to round or shape punch for extra straight before radius, extra back taper, or no back taper.			

EUROPE / MIDDLE EAST / AFRICA

Wilson Tool - United Kingdom

Tel (Free): 0800-373748 | Tel: +44 1793 831818
Fax (Free): 0800-373758 | Fax: +44 1793 831945 or 46
Email: sales@wilsontool.eu.com

Wilson Tool - Germany

Tel: +49 5723 747 0
Fax: +49 5723 747 10
Email: verkauf@wilsontool.eu.com

Wilson Tool - Denmark

Tel: +45 44 53 1699
Email: salesdk@wilsontool.eu.com

Wilson Tool - France

Tel: +33 (0) 1 64 13 47 80
Email: ventes@wilsontool.eu.com

Toolspress - Italy

Tel: +39 0521 850510 / 850677
Fax: +39 0521 850796
Email: info@toolspress.com

WORLD HEADQUARTERS

Wilson Tool International - United States

Tel (Free): 800-328-9646 | Tel: 651-286-6001
Fax (Free): 800-222-0002 | Fax: 651-286-5959
Email: sales@wilsontool.com

NORTH AMERICA

Wilson Tool - Canada

Punching and Stamping Division
Tel: 800-268-5573 | Fax: 800-668-9314
Email: punching@wilsontoolcanada.com

Wilson Tool - Canada

Press Brake Division
Tel: 800-268-4180 | Fax: 905-840-1032
Email: bending@wilsontoolcanada.com

Wilson Tool - Mexico

Tel: 52 (81) 1665 1249
Email: americalatina@wilsontool.com

SOUTH AMERICA

Milling Ferramentas - Brazil

Tel/Fax: 55 11 5621-2100
Email: vendas@milling.com.br