

The background of the entire page is a collage. It features a top-down view of several black metal press brake tool inserts and dies, some with blue pins. These are overlaid on a light blue grid pattern. On the right side, there are blue technical line drawings of various metal profiles. A diagonal band of blue and white stripes runs from the top right towards the bottom right. A large, semi-transparent yellow rectangle is positioned in the lower-left to center area, containing the main title and subtitle.

WILSON AMERICAN PRECISION® PRESS BRAKE SOLUTIONS

Standards, Specials and Accessories

PUNCH 6

- 6 American Style Tooling
- 8 Acute Block Punch - 3.75"
- 8 Acute Gooseneck Punch - 5.75"
- 9 Arrow Punch - 3.75"
- 10 Large Gooseneck Punch - 3.75"
- 11 Large Gooseneck Punch - 5.75"
- 12 Sash Gooseneck Punch - 3.75"
- 13 Sash Gooseneck Punch - 5.75"
- 14 Block Punch - 3.75", 5.75"
- 15 Sash / Acute Gooseneck Punch - 8.75"
- 16 Large Gooseneck Punch - 8.75"
- 16 Letter Stamp
- 17 Large Radius Holder and Tip Assembly

DIE 18

- 18 V-Series Black
- 20 Urethane Die
- 22 Stage Acute Die
- 22 Stage Block Die
- 23 Stage Arrow Die
- 23 Large V Die
- 24 Urethane Pads and Holders

STAGE BENDING 21

SETS & HOLDERS 25

- 25 Offset Tool
- 26 Flattening Blocks
- 26 Thrust Absorbing Flattening Die
- 26 Two Stage Hemming
- 27 Replacement V Blocks
- 28 Punch Holder
- 30 Die Holder



BENDING THICK MATERIALS 31

BEND LIMIT GRAPHS 32

- 32 3.75" Acute Punch - 30°
- 33 5.75" Acute Punch - 30°
- 34 3.75" Large Gooseneck Punch 75°
- 35 3.75" Large Gooseneck Punch 90°, 88°
- 36 5.75" Large Gooseneck Punch - 75°
- 37 5.75" Large Gooseneck Punch - 90°, 88°
- 38 3.75" Sash Punch - 75°
- 39 3.75" Sash Punch - 90°, 88°
- 40 5.75" Sash Punch - 75°
- 41 5.75" Sash Punch - 90°, 88°
- 42 3.75" Arrow Punch - 90°, 88°, 75°
- 43 3.75" & 5.75 Block Punch 88°, 85°, 75°
- 44 8.75" Large Gooseneck Punch - 90°, 88°, 75°
- 45 8.75" Sash Punch - 90°, 88°, 75°
- 46 8.75" Acute Punch - 30°



SPECIALS 47

- 48 Custom Hemming
- 50 Offset Tools
- 51 Adjustable Dies
- 51 Replaceable Shoulder Die
- 52 Large Radii Applications
- 53 Strengthening Rib, V Rib
- 54 Forming Applications
- 54 Open Hat
- 54 Window Application
- 54 Rod Bending
- 55 Stamping Application
- 56 Channel Applications
- 58 Curl Tool Set
- 59 Center Curl Application
- 59 Double Decker Tool Set
- 60 Special Punch Shapes
- 61 Holders
- 62 Wiping and Rotary Bending
- 63 Deep Box Bending
- 63 Swing Ear Sections
- 64 Turret Adapter
- 65 C-Frame Tooling

ACCESSORIES 66

- 66 Hand Tools
- 67 Measuring Tools
- 67 Urethane 100' Roll
- 68 Tool Storage Cabinets

REFERENCE 69

- 69 Tip Modifications
- 69 Ear Piece
- 70 Tonnage Estimates
- 71 Specials Checklist
- 73 Air Bending Force Charts

Prices and product availability are subject to change without notice.

THE WILSON TOOL DIFFERENCE

COMPANY OVERVIEW

From very humble beginnings in a small manufacturing facility in St. Paul, Minnesota, Wilson Tool has added manufacturing facilities and sales channels around the world to better serve our thousands of global customers. Throughout our International expansion, our mission has never wavered - we continue to offer products and services that help you be more successful. Every product you buy, every employee with whom you communicate, and every training event you attend, are designed to help customers just like you be more successful.

The products included in this catalog represent the results of over 50 years of helping customers resolve their most challenging fabrication issues. And don't be concerned if the challenge you are currently facing can't be resolved with a product included in this catalog. Give us a call and let us put our many decades of expertise to the test. We will work with you to find the best possible solution to whatever challenge you may be facing.

And, as always, if you are not happy with the final solution we provide, we will either find a way to help you succeed or we will refund your money.

From all of us at Wilson Tool, we thank you for the trust you have placed in us to provide products and services that are critical to your success. We look forward to your continued success as we move forward.

Sincerely,

Brian Robinson
Wilson Enterprises

The Wilson Tool Punching Division **continues to drive the industry with new levels of quality, delivery service and innovation.**

From the early days of Series 80 tooling to Wilson Wheels to innovative EXP technology, our punching division has been the leading innovation driver in the industry. When combined with the most experienced customer support professionals in the industry, the solutions offered from Wilson Tool continue to raise the bar on performance and innovation. Thick turret, Trumpf, Salvagnini, or any other style of punch press you may be using, Wilson Tool offers the most complete line of tooling solutions available today.

PUNCHING



BENDING

Wilson Tool's Bending Division **delivers the most complete line of tooling and clamping solutions available anywhere. Period.**

Whether you use American, European, or Wila/Trumpf style precision tooling or conventional style tooling, Wilson Tool has a solution for you. Our clamping options cover these styles as well. With hydraulic push button options, quick release mechanical options, or standard manual clamps, Wilson Tool has a clamping solution for any style of machine or budget. And our custom tooling manufacturing capabilities have quickly become the envy of the industry with innovative solutions for very complex bending challenges. And with manufacturing facilities located in the USA and Canada, our delivery times to North American fabricators are the fastest in the industry.

Wilson Tool's Stamping division (aka Impax Tooling Solutions) offers high quality punch and die components for the stamping industry.

Innovative products such as our Accu-Lock retainer inserts, and extensive coating options combined with our world-class customer service have enabled us to quickly grow into a world-class provider. With a direct sales force throughout North America, we deliver products straight from the factory to you, enabling the fastest deliveries in the industry.

Our custom tooling expertise is second to none with many customers coming to us for their most difficult stamping challenges.

STAMPING



ACCESSORIES

Whether you need tooling storage systems, urethane rolls, hand tools or other types of related supplies, our accessory products offer a wide range of solutions to help you be more productive.

From small to large items, our accessories will help your shop be more organized and efficient.



AMERICAN PRECISION PRESS BRAKE TOOLING

AMERICAN PRECISION TOOLING FEATURES:

- Tools can be loaded by a single operator.
- Easy to store.
- Sectionalized tools come in ten different lengths.
- Most sectionalized punches include two ear pieces (horns).
- Heat treat options include Nitrex® and laser hardening
- Each tool laser marked with significant information.
- Special tooling available. Contact the application sales desk.
- Lengths longer than 36" (914.4mm) available.



PRECISION MANUFACTURED FOR CONSISTENT RESULTS.

Wilson American Precision press brake tooling is precision manufactured to a tolerance of $\pm .0008"$ (.02mm) on all critical dimensions to achieve the same precision and quality associated with European style press brake tooling. Available long (36"/914.4mm), short (18"/457.2mm) and sectionalized (35.87"/911.2mm) tooling can be mixed and matched for consistent bending quality throughout multiple jobs.

PUSH BUTTON TECHNOLOGY

Load and unload tools instantly with Wilson Tool's unique click-in feature. Wilson's patented push button technology eliminates the need for special clamps, holders or dedicated upper beams, significantly reducing costly downtime.

STAGE TOOLING

Achieve maximum tool change over efficiency by reducing set ups and making a complete part in one handling. See page 21 for additional details.

SWING EAR SECTIONS

Box bending with return flanges.

Ear(s) will recess/fall in left to right .500" - .750" *(not to be confused with vertical movement.)*

There will be approximately 1.0" - 1.5" of relief to rotate and drop the finished part.

See page 63 for additional information.

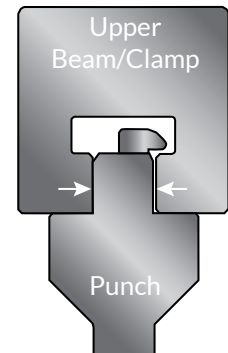
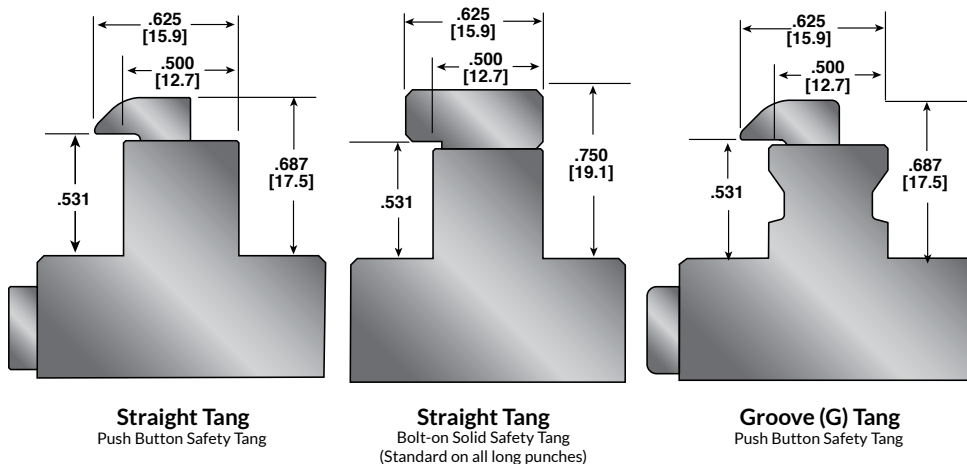


Left and right ear sections shown in illustration.



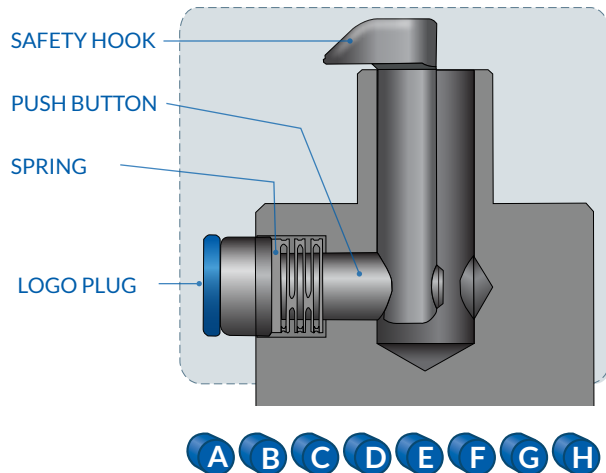
See this tool in action on the Wilson Tool YouTube Channel

AMERICAN PRECISION PRESS BRAKE TOOLING



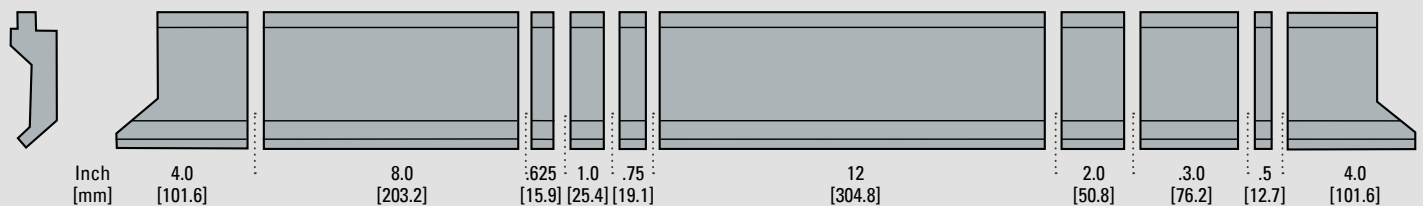
ATTENTION:

Upper beam/clamp opening should not exceed .531" [13.5mm]. Exceeding specified opening on upper beam/clamp opening may result in release of punch.

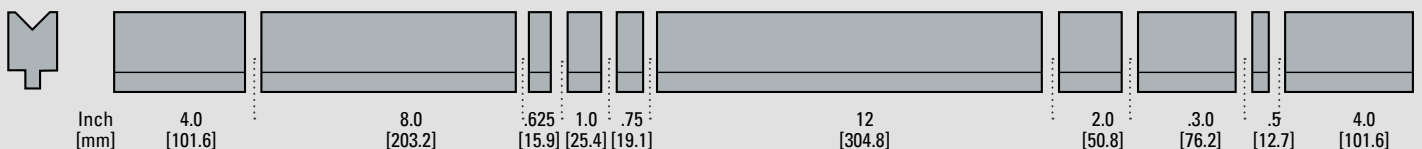


PUSH BUTTON COMPONENTS			
CAT. NO.		DESCRIPTION	
50071	A	Push button for .625 C/L	order spring 8140
50072	B	Push button for .687 C/L	order spring 8140
50073	C	Push button for .750 C/L	order spring 8141
50074	D	Push button for .875 C/L	order spring 8141
50075	E	Push button for 1.000 C/L	order spring 8141
50076	F	Push button for 1.250 C/L	order spring 8141
50077	G	Push button for 1.500 C/L	order spring 8141
50078	H	Push button for 1.875 C/L	order spring 8141
8140		Spring Ø.375 X .300 in length	
8141		Spring Ø.360 X .438 in length	
50079		Logo plug - blue	
51083		Safety hook	

STANDARD PUNCH SECTION LENGTHS



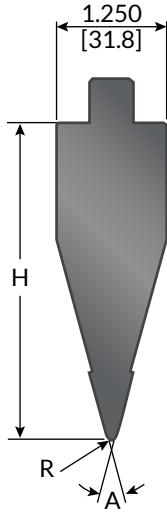
STANDARD DIE SECTION LENGTHS



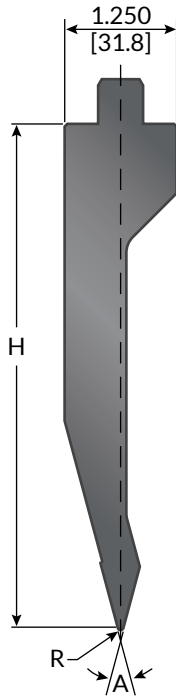
SHORT (S) 18" [457.2mm]

LONG (L) 36" [914.4mm]

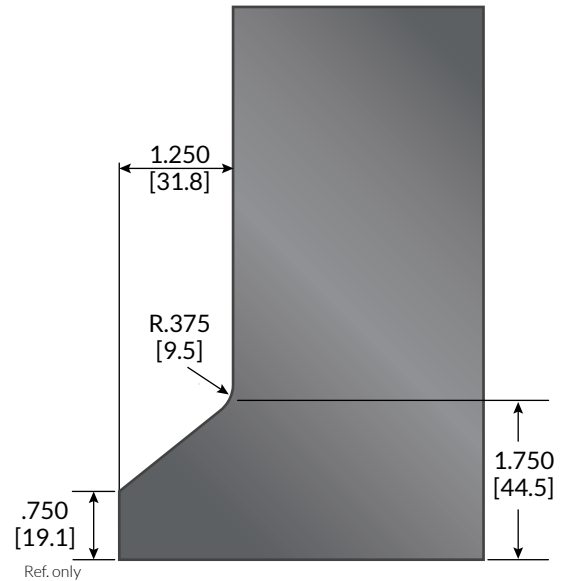
SECTIONALIZED (X) 35.875" [911.2mm]



**3.75" ACUTE
BLOCK**



**5.75" ACUTE
GOOSENECK**



**5.75" TALL ONLY
Ear pieces (horns)**



3.75" ACUTE BLOCK PUNCH												
CAT. NO.			A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft=		Button	PRICE			
Straight		Groove				L&S	X		L 36"	S 18"	X 35.87"	
50045		50045G	30°	.031 [0.8]	3.661 [93.0]	30	30	A				Bend Limit Graph page 32
50046		50046G		.062 [1.6]	3.571 [90.7]	40		A				
50047		50047G		.125 [3.2]	3.392 [86.2]			A				
Approximate Gross Weight [lbs.], unboxed									35	18	35	

Bend Limit
Graph
page 32

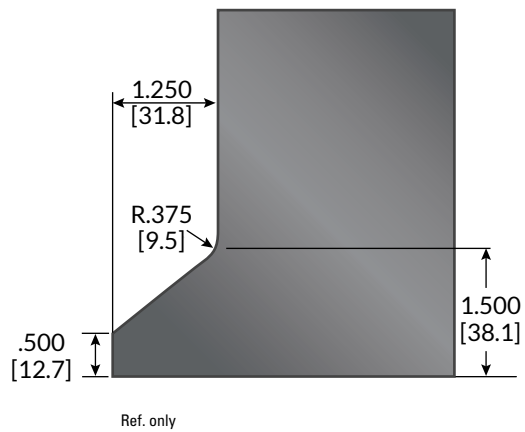
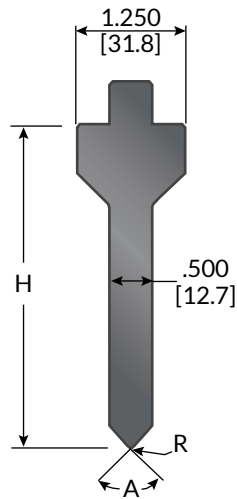
Note: Sectionalized version does not include ear pieces (horns).
Ear pieces (horns) available at an additional cost.



5.75" ACUTE GOOSENECK PUNCH												
CAT. NO..			A Angle	R Tip Radius inch [mm]	H Height inch [Max Ton/ ft=		Button	PRICE			Bend Limit Graph page 33
Straight	Groove						L&S		X	L 36"	S 18"	
50209	50209G		30°	.031 [0.8]	5.661 [143.8]	30		A				
50221	50221G			.062 [1.6]	5.571 [141.5]	40	30	A				
50227	50227G			.125 [3.2]	5.392 [137.0]			A				
Approximate Gross Weight [lbs.], unboxed									42	21	38	

Bend Limit
Graph
page 33

All tonnages are based on direct load and do not apply for thrusting applications.

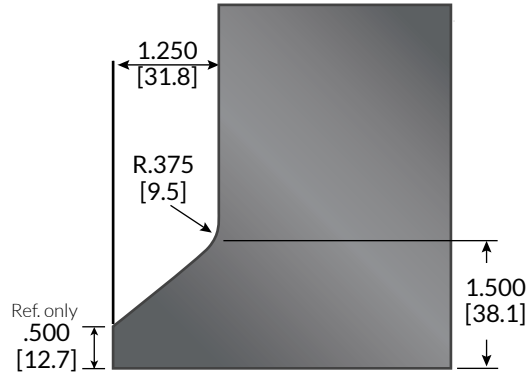
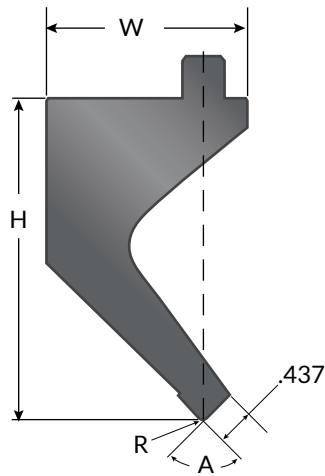


3.75" ARROW PUNCH												
CAT. NO.			A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ ft=		Button	PRICE			
Straight	Groove	L&S				X	L 36		S 18	X 35.87		
50273	50273G	M	75°	.031 [0.8]	3.730 [94.7]	30	27	A				Bend Limit Graph page 42
50274	50274G	M		.062 [1.6]	3.710 [94.2]	35		A				
50275	50275G	M		.125 [3.2]	3.670 [93.2]	50		A				
50169	50169G	M	88°	.016 [0.4]	3.743 [95.1]	30		A				
50170	50170G	M		.031 [0.8]	3.736 [94.9]	30		A				
50171	50171G	M		.062 [1.6]	3.723 [94.6]	40		A				
50172	50172G	M		.125 [3.2]	3.695 [93.9]	50		A				
50050	50050G	M	90°	.016 [0.4]	3.744 [95.1]	30		A				
50051	50051G	M		.031 [0.8]	3.737 [94.9]	30		A				
50052	50052G			.062 [1.6]	3.724 [94.6]	40		A				
Approximate Gross Weight [lbs.], unboxed									27	14	25	

Bend Limit
Graph
page 42

All tonnages are based on direct load and do not apply for thrusting applications.

M Made To Order

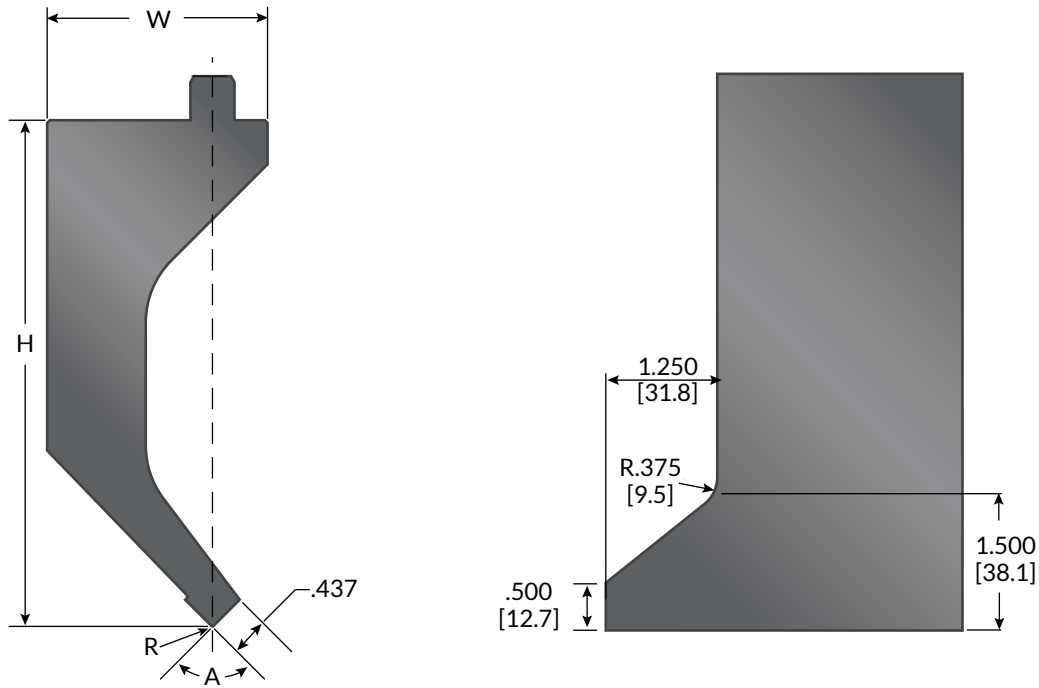


3.75" LARGE GOOSENECK PUNCH

CAT. NO.			A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	Max Ton/ ft=		Button	PRICE			
Straight	Groove	L&S					X	L 36"		S 18"	X 35.87"		
50236	50236G		75°	.031 [0.8]	3.730 [94.7]	2.125 [54.0]	28	21	G				Bend Limit Graph page 34
50277	50277G	M		.062 [1.6]	3.710 [94.2]	2.125 [54.0]	35		G				
50278	50278G			.125 [3.2]	3.670 [93.2]	2.125 [54.0]			G				
50289	50289G	M		.250 [6.3]	3.589 [91.2]	2.125 [54.0]			G				
Approximate Gross Weight [lbs.], unboxed										46	23	42	
50184	50184G		88°	.031 [0.8]	3.736 [94.9]	2.375 [60.3]	28	21	H				Bend Limit Graph page 35
50185	50185G	M		.062 [1.6]	3.723 [94.6]	2.375 [60.3]			H				
50186	50186G	M		.125 [3.2]	3.695 [93.9]	2.375 [60.3]			H				
50067	50067G	M	90°	.031 [0.8]	3.737 [94.9]	2.375 [60.3]			H				
Approximate Gross Weight [lbs.], unboxed										51	26	47	

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5.75" LARGE GOOSENECK PUNCH



PUNCH

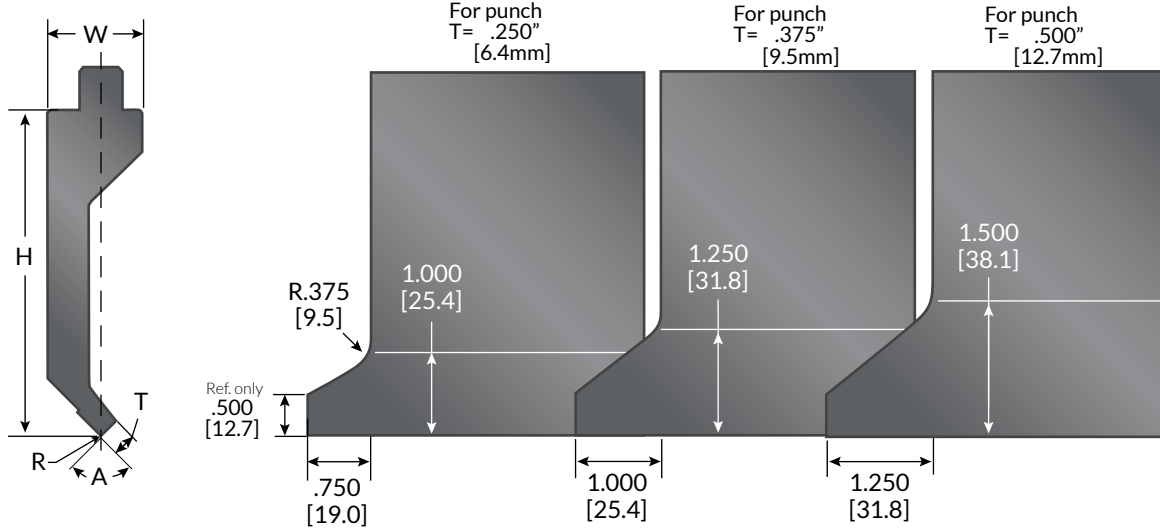


5.75" LARGE GOOSENECK PUNCH

CAT. NO.			A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	Max Ton/ft=		Button	PRICE			
Straight	Groove	L&S					X	L 36"		S 18"	X 35.87"		
50248	50248G		75°	.031 [0.8]	5.730 [145.5]	2.125 [54.0]	35	21	G				Bend Limit Graph page 36
50249	50249G			.062 [1.6]	5.710 [145.0]	2.125 [54.0]			G				
50250	50250G			.125 [3.2]	5.670 [144.0]	2.125 [54.0]			G				
50266	50266G			.250 [6.3]	5.589 [141.0]	2.125 [54.0]			G				
Approximate Gross Weight [lbs.], unboxed										68	34	62	
50208	50208G		88°	.016 [0.4]	5.743 [145.9]	2.500 [63.5]	24	18	H				Bend Limit Graph page 37
50220	50220G			.031 [0.8]	5.736 [145.7]	2.500 [63.5]			H				
50226	50226G	M		.062 [1.6]	5.723 [145.4]	2.500 [63.5]			H				
50232	50232G	M		.125 [3.2]	5.695 [144.7]	2.500 [63.5]			H				
50219	M 50219G	M	90°	.031 [0.8]	5.737 [145.7]	2.500 [63.5]			H				
Approximate Gross Weight [lbs.], unboxed										77	39	70	

All tonnages are based on direct load and do not apply for thrusting applications.

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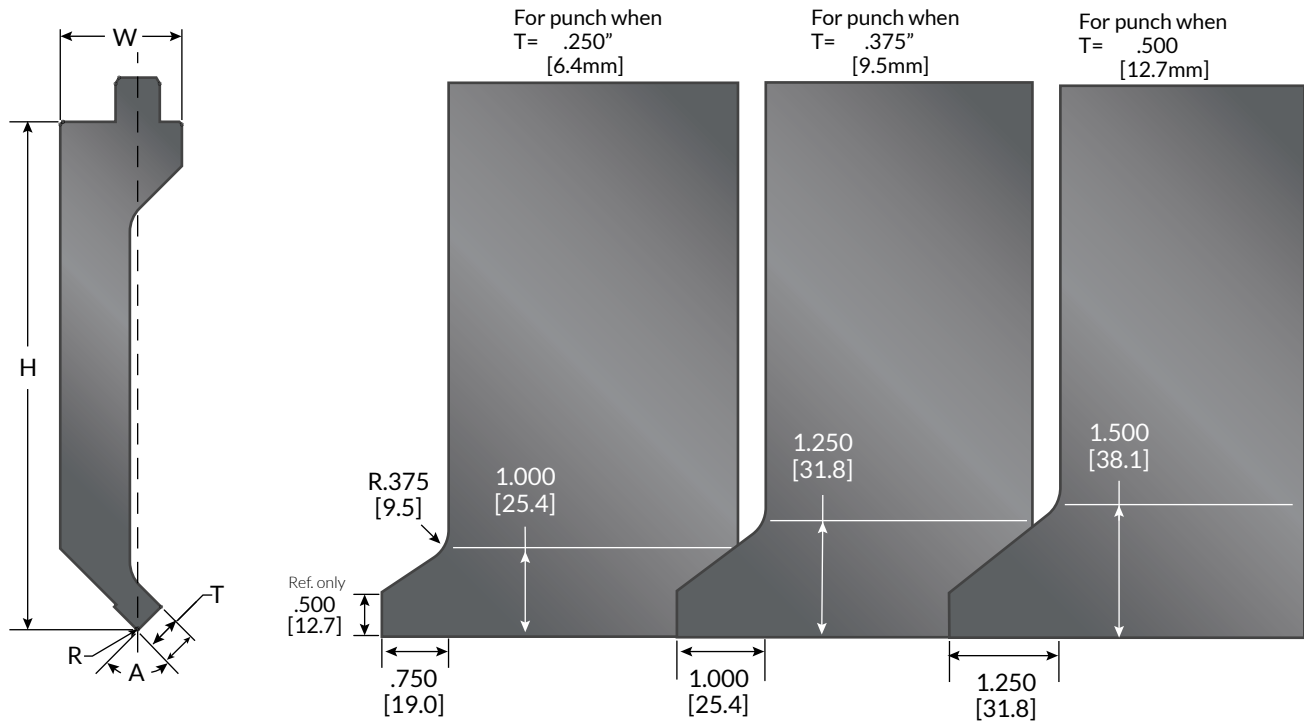


3.75" SASH GOOSENECK PUNCH

CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	T Tip Flat inch [mm]	W Width inch [mm]	Max Ton/ ft=		Button	PRICE					
Straight	Groove						L&S	X		L 36"	S 18"	X 35.87"			
50281	50281G	75°	.031 [0.8]	3.730 [94.7]	.375 [9.5]	1.375 [34.9]	25	17	D				Bend Limit Graph page 38		
50282	50282G		.062 [1.6]	3.710 [94.2]	.375 [9.5]	1.375 [34.9]	25	17	D						
50286	M 50286G		M	.031 [0.8]	3.730 [94.7]	.500 [12.7]	1.375 [34.9]	25	17	D					
50287	M 50287G		M	.062 [1.6]	3.710 [94.2]	.500 [12.7]	1.375 [34.9]	30	17	D					
Approximate Gross Weight [lbs.], unboxed											35	18	32		
50173	50173G	M	88°	.016 [0.4]	3.743 [95.1]	.250 [6.4]	1.125 [28.6]	14	8	A				Bend Limit Graph page 39	
50174	50174G			.031 [0.8]	3.736 [94.9]	.250 [6.4]	1.125 [28.6]	14	8	A					
50175	50175G	M		.062 [1.6]	3.723 [94.6]	.250 [6.4]	1.125 [28.6]	14	8	A					
Approximate Gross Weight [lbs.], unboxed											27	14	25		
50159	50159G	M	88°	.016 [0.4]	3.743 [95.1]	.375 [9.5]	1.375 [34.9]	20	17	D					
50177	50177G	M		.031 [0.8]	3.736 [94.9]	.375 [9.5]	1.375 [34.9]	20	17	D					
50178	50178G	M		.062 [1.6]	3.723 [94.6]	.375 [9.5]	1.375 [34.9]	20	17	D					
50181	M 50181G	M		.031 [0.8]	3.736 [94.9]	.500 [12.7]	1.375 [34.9]	25	20	D					
50160	M 50160G	M		.062 [1.6]	3.723 [94.6]	.500 [12.7]	1.375 [34.9]	25	20	D					
Approximate Gross Weight [lbs.], unboxed											36	18	33		
50054	50054G	M	90°	.016 [0.4]	3.744 [95.1]	.250 [6.4]	1.125 [28.6]	14	8	A				Bend Limit Graph page 39	
50055	50055G			.031 [0.8]	3.737 [94.9]	.250 [6.4]	1.125 [28.6]	14	8	A					
50058	M 50058G	M		.016 [0.4]	3.744 [95.1]	.375 [9.5]	1.375 [34.9]	20	17	A					
Approximate Gross Weight [lbs.], unboxed											27	14	25		
50059	50059G	M	90°	.031 [0.8]	3.737 [94.9]	.375 [9.5]	1.375 [34.9]	20	17	D					
50063	50063G	M		.031 [0.8]	3.737 [94.9]	.500 [12.7]	1.375 [34.9]	25	20	D					
Approximate Gross Weight [lbs.], unboxed											36	18	33		

M Made To Order

5.75" SASH GOOSENECK PUNCH



PUNCH



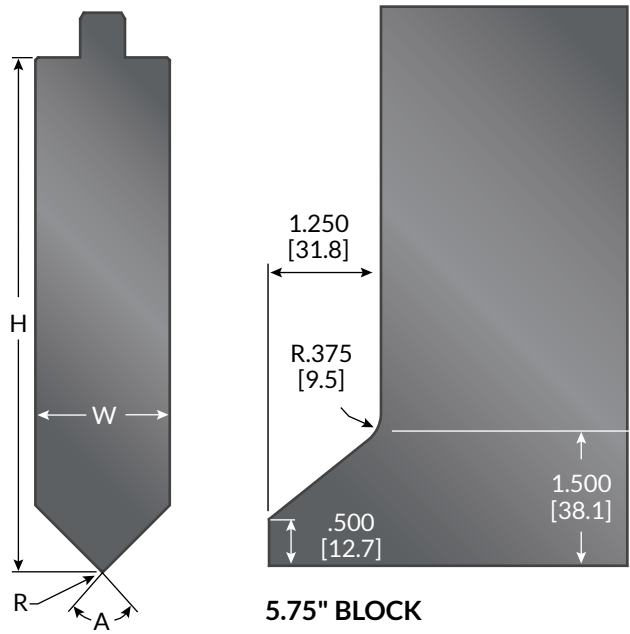
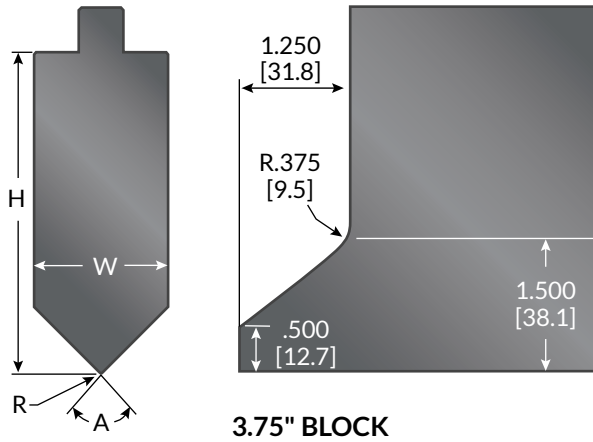
5.75" SASH GOOSENECK PUNCH															
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	T Tip Flat inch [mm]	W Width inch [mm]	Max Ton/ft=		Button	PRICE					
Straight	Groove						L&S	X		L 36"	S 18"	X 35.87"			
50326	50326G	M	75°	.031 [0.8]	5.730 [145.5]	.375 [9.5]	1.375 [34.9]	25	20	D				Bend Limit Graph page 42	
50327	50327G	M		.062 [1.6]	5.710 [145.5]	.375 [9.5]	1.375 [34.9]	30	20	D					
Approximate Gross Weight [lbs.], unboxed											48	24	45		
50263	50263G		75°	.062 [1.6]	5.710 [145.5]	.500 [12.7]	1.375 [34.9]	30	20	D					
Approximate Gross Weight [lbs.], unboxed											51	26	47		
50303	50303G		88°	.031 [0.8]	5.736 [145.7]	.250 [6.4]	1.125 [28.6]	20	8	D				Bend Limit Graph page 43	
50304	50304G			.062 [1.6]	5.723 [145.4]	.250 [6.4]	1.125 [28.6]	20	8	D					
Approximate Gross Weight [lbs.], unboxed											48	24	45		
50317	50317G	M	88°	.031 [0.8]	5.736 [145.7]	.375 [9.5]	1.375 [34.9]	30	17	D					
50257	50257G	M		.031 [0.8]	5.736 [145.7]	.500 [12.7]	1.375 [34.9]	30	20	D					
Approximate Gross Weight [lbs.], unboxed											51	26	47		
50307	M	50307G	M	90°	.031 [0.8]	5.737 [145.7]	.250 [6.4]	1.125 [28.6]	20	8	D				
Approximate Gross Weight [lbs.], unboxed											48	24	45		
50322	M	50322G	M	90°	.062 [1.6]	5.724 [145.4]	.375 [9.5]	1.375 [34.9]	30	17	D				
50254	M	50254G			.062 [1.6]	5.724 [145.4]	.500 [12.7]	1.375 [34.9]	35	20	D				
Approximate Gross Weight [lbs.], unboxed											51	26	48		

Bend Limit
Graph
page 42

Bend Limit
Graph
page 43

All tonnages are based on direct load and do not apply for thrusting applications.

M Made To Order

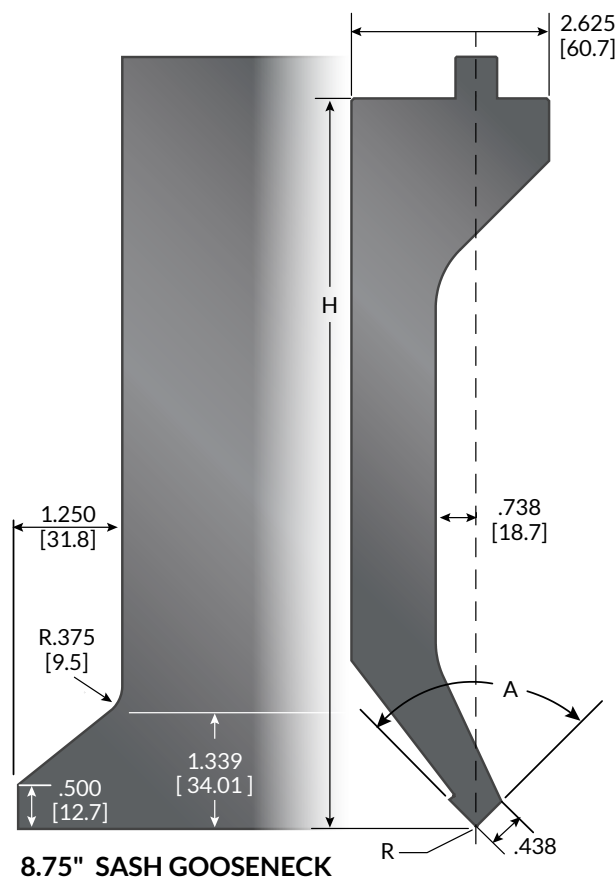


3.75" BLOCK PUNCH														
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	Max Ton/ft=		Button	PRICE					
Straight	Groove					L&S	X		L 36"	S 18"	X 35.87"			
50270	50270G	M	75°	.125 [3.2]	3.670 [93.2]	1.250 [31.8]	50	40	A				Bend Limit Graph page 43	
50271	50271G	M		.250 [6.3]	3.590 [91.2]	1.250 [31.8]			A					
50279	50279G	M		.375 [9.5]	3.509 [89.1]	1.250 [31.8]			A					
50284	50284G	M		.500 [12.7]	3.429 [87.1]	1.250 [31.8]			A					
Approximate Gross Weight [lbs.], unboxed										46	23	42		
50008	M	50008G	M	85°	.125 [3.2]	3.690 [93.7]	1.500 [38.1]	50	40	C				
Approximate Gross Weight [lbs.], unboxed										53	27	50		
50009	M	50009G	M	85°	.188 [4.8]	3.660 [93.0]	2.000 [50.8]	50	40	E				
Approximate Gross Weight [lbs.], unboxed										68	31	64		
50166	M	50166G	M	88°	.062 [1.6]	3.660 [93.0]	1.250 [31.8]	50	40	A				
50168	M	50168G	M		.125 [3.2]	3.695 [93.9]	1.250 [31.8]			A				
Approximate Gross Weight [lbs.], unboxed										46	23	43		

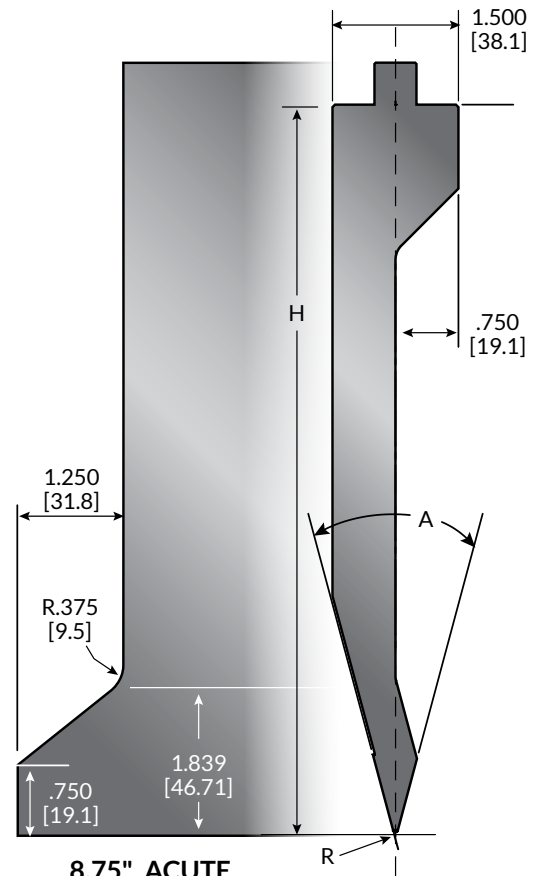
M Made To Order



5.75" BLOCK PUNCH														
CAT. NO.				A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	Max Ton/ft=		Button	PRICE			
Straight		Groove						L&S	X		L 36"	S 18"	X 35.87"	
50245		50245G		75°	.125 [3.2]	5.670 [144.0]	1.500 [38.1]	50	40	C				Bend Limit Graph page 43
50246		50246G			.250 [6.3]	5.590 [142.0]	1.500 [38.1]			C				
50251		50251G			.375 [9.5]	5.509 [139.9]	1.500 [38.1]			C				
50260	M	50260G			.500 [12.7]	5.429 [137.9]	1.500 [38.1]			C				
50210	M	50210G	M	85°	.125 [3.2]	5.690 [144.5]	1.500 [38.1]	50	40	C				
50222	M	50222G	M		.188 [4.8]	5.660 [143.8]	1.500 [38.1]			C				
50228	M	50228G	M		.250 [6.4]	5.630 [143.0]	1.500 [38.1]			C				
50234	M	50234G	M		88°	.125 [3.2]	5.695 [144.7]			1.500 [38.1]	C			
Approximate Gross Weight [lbs.], unboxed											84	42	78	



8.75" SASH GOOSENECK



8.75" ACUTE

All 8.75" Punches:

Short = solid safety tang

X = solid safety tang on 8" and 12" sections.

C H

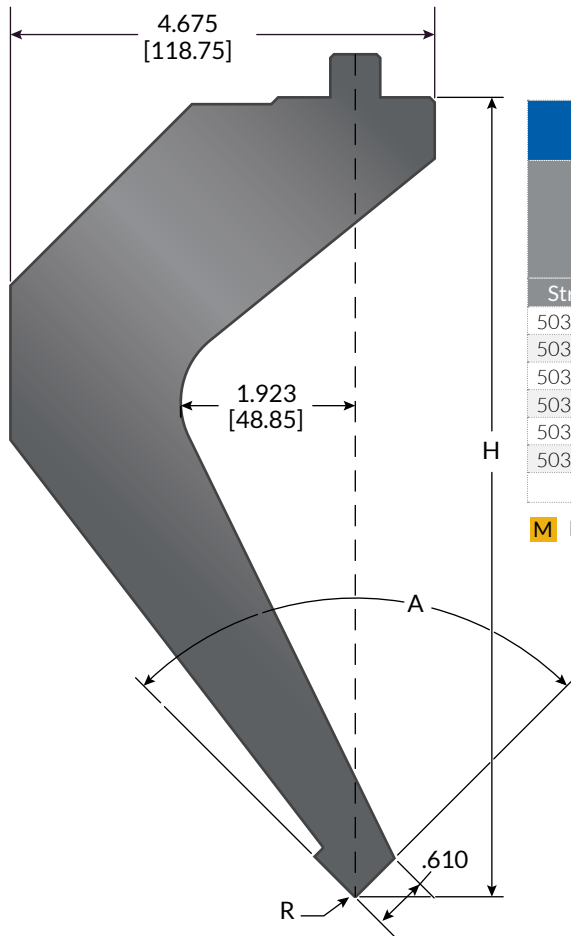
8.75" SASH GOOSENECK PUNCH									
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft= S & X	Button	PRICE		
Straight	Groove						S 18	X 35.87	
50373	50373G	M	.031 [0.8]	8.730 [221.7]	25	H			Bend Limit Graph page 45
50374	50374G	M	.062 [1.6]	8.710 [221.2]	35	H			
50375	M 50375G	M	.125 [0.8]	8.670 [220.2]		H			
50376	M 50376G	M	.031 [0.8]	8.736 [220.2]		H			
50377	M 50377G	M	.062 [1.6]	8.723 [221.6]	35	H			
50378	M 50378G	M	.031 [0.8]	8.737 [221.9]		H			
50379	M 50379G	M	.062 [1.6]	8.724 [221.6]		C			
Approximate Gross Weight [lbs.], unboxed							56	102	

C H

8.75" ACUTE PUNCH									
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft= S & X	Button	PRICE		
Straight	Groove						S 18"	X 35.87"	
50363	50363G	M	.031 [0.8]	8.661 [220.0]	30	C			Bend Limit Graph page 46
50364	50364G	M	.062 [1.6]	8.571 [217.7]	35	C			
50365	M 50365G	M	.125 [0.8]	8.392 [213.2]	35	H			
Approximate Gross Weight [lbs.], unboxed							35	71	

All tonnages are based on direct load and do not apply for thrusting applications.

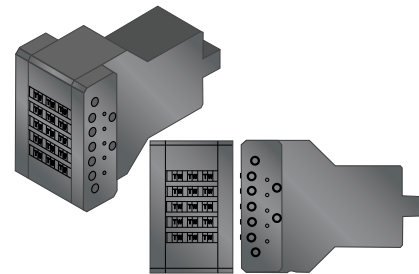
M Made To Order



8.75" LARGE GOOSENECK PUNCH

CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ ft=	PRICE \$ 18"	Bend Limit Graph page 44
Straight	Groove						
50382	M 50382G	M	75°	.031 [0.8]	8.730 [221.7]		
50383	50383G	M		.062 [1.6]	8.710 [221.2]		
50384	M 50384G	M	88°	.031 [0.8]	8.736 [221.9]	35	
50385	M 50385G	M		.062 [1.6]	8.723 [221.6]		
50386	M 50386G	M	90°	.031 [0.8]	8.737 [221.9]		
50387	M 50387G	M		.062 [1.6]	8.724 [221.6]		
Approximate Gross Weight [lbs.], unboxed						83	

M Made To Order

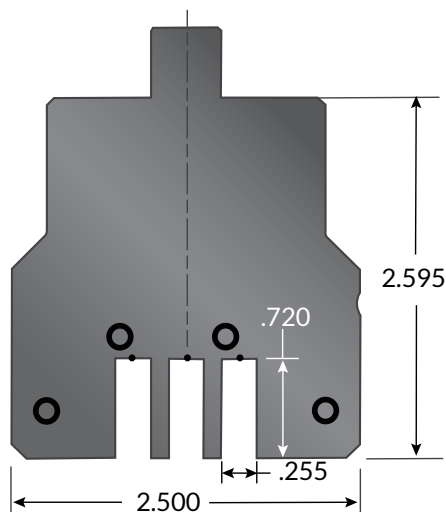


E

3.75" LETTER STAMP

CAT. NO.	DESCRIPTION	SIZE	PRICE
5LSP25	Punch Character Holder	3.75" Staged	
50049S	Flattening Block Die		
6898	M Character	1/16"	
6898	M Character	3/32"	
6896	Character	1/8"	

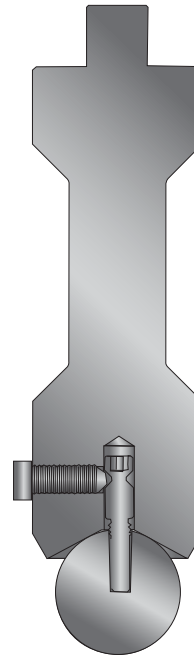
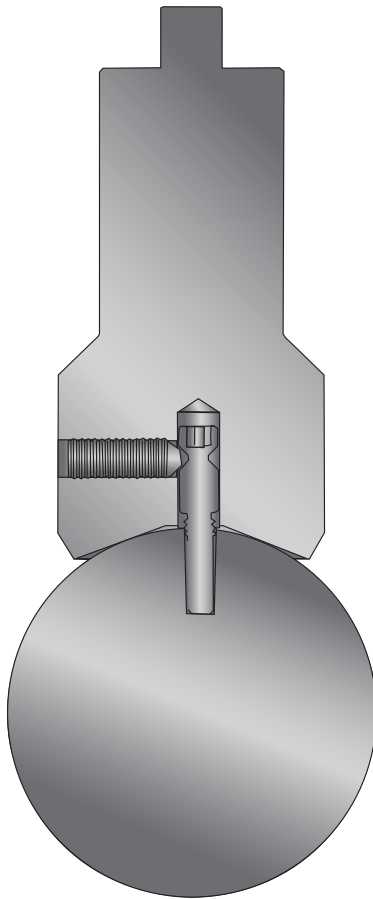
M Made To Order



LARGE RADIUS HOLDER & TIP ASSEMBLY



HOLDER



CAUTION: Do not load the radius tip into the holder while in the machine. Remove the holder from the machine to change radius.

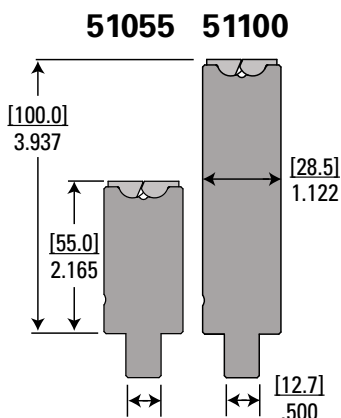


See this tool in action on the Wilson Tool YouTube Channel

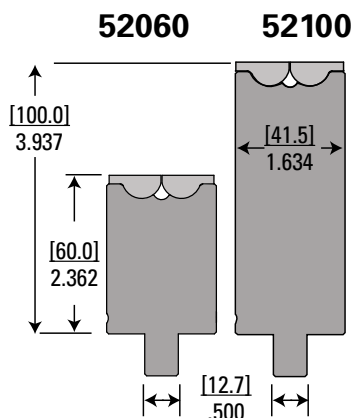
LARGE RADIUS AND HOLDER					LENGTH: 19.685" [500mm]				
Radius Material #	Radius Size inch [mm]	Radius Price	Radius Approx. Weight [lbs]	Holder Material #	Holder Width inch [mm]	Holder Price	Holder Approx. Weight [lbs]	Holder & Radius Assembled Height inch [mm]	MAX Ton / Ft
6R095-500	.375 [9.5]		3	54T35-500 54T35-500G	1.3778 [35]		25	4.511 [114.5]	21
6R127-500	.500 [12.7]		5					4.781 [121.4]	
6R158-500	.625 [15.8]		7					5.050 [128.3]	
6R190-500	.750 [19.0]		10					5.319 [135.1]	
6R222-500	.875 [22.2]		14					5.589 [141.9]	
6R254-500	1.000 [25.4]		18	54T55-500 54T55-500G	2.165 [55]		38	5.858 [148.9]	
6R381-500	1.500 [38.1]		40					5.669 [144.0]	
6R508-500 MTO	2.000 [50.8]		72					6.747 [171.37]	
								7.824 [198.7]	

NOTE: The large radius assemblies shown above are not designed to stage bend. Contact our sales desk if stage bending is needed. Make to order (MTO) sizes are available upon request.

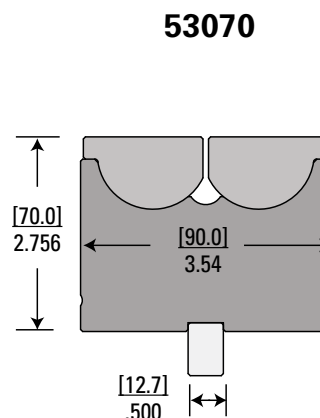
MODEL 1



MODEL 2



MODEL 3



MODEL 1 AMERICAN PRECISION V-SERIES BLACK

Height	9.84" [250mm]			19.68" [500mm] SOLID				21.65" [550mm] SECTIONAL				SPRINGS		
	Assembly CAT. NO.	WT. [lbs.]	PRICE	Assembly CAT. NO.	WT. [lbs.]	PRICE	250 Insert CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	500 mm QTY	550 mm QTY
55	51055-250	6		51055-500	11		(4) 980872A	51055-550	13		980873A and 980874A	980682	40	44
100	51100-250	10		51100-500	20			51100-550	22			981031		

MODEL 2 AMERICAN PRECISION V-SERIES BLACK

Height	9.84" [250mm]			19.68" [500mm] SOLID				21.65" [550mm] SECTIONAL				SPRINGS		
	Assembly CAT. NO.	WT. [lbs.]	PRICE	Assembly CAT. NO.	WT. [lbs.]	PRICE	250 Insert CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	500 mm QTY	550 mm QTY
60	52060-250	9		52060-500	15		(4) 980948	52060-550	17		980949 and 980950	980682	40	44
100	52100-250	14		52100-500	25			52100-550	29			981032		

MODEL 3 AMERICAN PRECISION V-SERIES BLACK

Height	9.84" [250mm]				17.91" [455mm]				SPRINGS			
	Assembly CAT. NO.	WT. [lbs.]	PRICE	250 Insert CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	WT. [lbs.]	500 mm QTY	550 mm QTY
70	53070-250	27		980959	53070-455	47		980960 and 980977	980881	.25	8	18

INSTALLATION TOOLS

DESCRIPTION	CAT. NO.	PRICE
Spring Installation Tool Kit	981002	
Spring Extension Wire (short)	981003	
Spring Extension Wire (long)	981004	



ZIP-MAR URETHANE SHOULDER STRIPS [54' Roll, .020" Thick]

DESCRIPTION	CAT. NO.	PRICE
Model 1, 1/2" wide	980953	
Model 2, 3/4" wide	980954	
Model 3, 1-5/8" wide	980955	



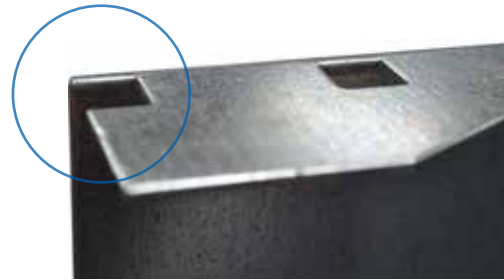
See this tool in action on the Wilson Tool YouTube Channel

V-SERIES BLACK SPECIFICATIONS

Model	Material Thickness inch [mm]	Min. Outside Flange inch [mm]	Ton/ FT	Min. Angle	Punch Tip Required to Achieve Angle	Max OR Radius @ Min. Angle inch [mm]	Max OR Radius @ 90° inch [mm]	Tonnage Cap/FT	T/M	kN/M
1	.018 [.45]	.118 [3.0]	1.8	34°	0.054	.125 [3.17]	.175 [4.45]	34	112	1100
	.020 [.50]		1.8		0.052					
	.024 [.60]		2.0		0.047					
	.030 [.80]		2.5		0.042					
	.036 [.90]	3.3	0.036							
	.040 [1.0]	4.0	0.031							
	.048 [1.2]	5.8								
	.063 [1.5]	.165 [4.2]			9					
2	.074 [1.9]	.335 [8.5]	7	42°	0.122	.216 [5.5]	.354 [9.0]	50	168	1650
	.105 [2.9]	.347 [8.8]	13		0.112					
	.118 [3.0]	15	0.099							
	.126 [3.2]	.366 [9.3]	20	55°	0.091	.276 [7.9]				
	.135 [3.4]	22	0.082							
3	.157 [4.0]	.886 [22.5]	9	65°	0.078	.453 [11.5]	.797 [20.2]	60	204	2000
	.187 [4.75]		26		0.094					
	.250 [6.35]		28		0.125					

V OPENING AND SHOULDER RADIUS DIMENSIONS

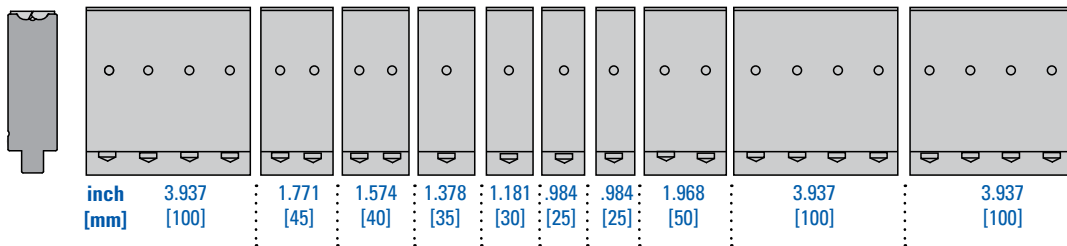
MODEL	SHOULDER RAD inch/[mm]	DESIRED ANGLE	THEORETICAL V - METRIC	THEORETICAL V - IMPERIAL
1	.040 [1.0]	90°	7.2	0.283
		34°	6.5	0.256
2	.051 [1.3]	90°	13.9	0.547
		42°	13.3	0.524
3	.236 [6.0]	90°	33.0	1.299
		65°	31.4	1.236



V-SERIES BLACK STANDARD LENGTHS

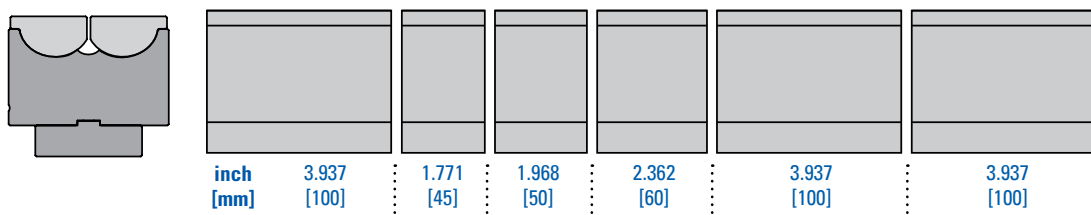
19.68" [500mm] Solid Total Length
21.65" [550mm] Sectional (Shown) Total Length

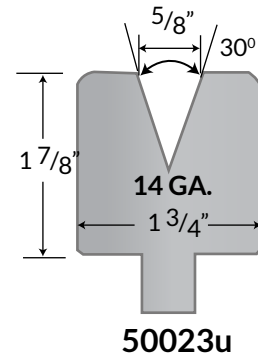
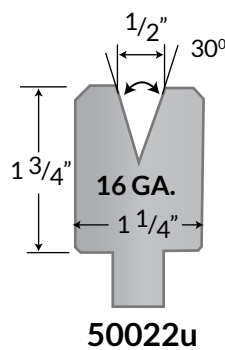
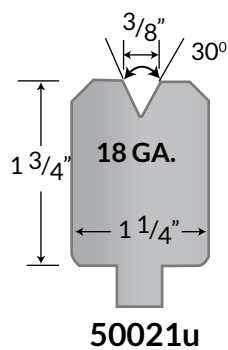
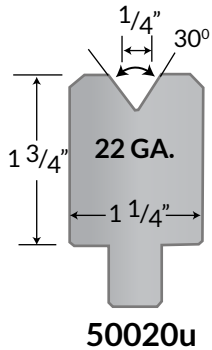
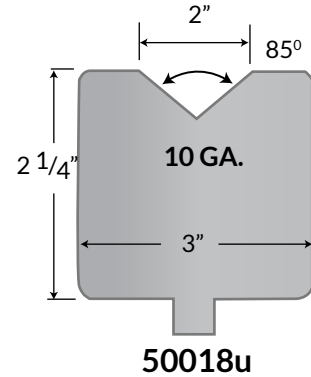
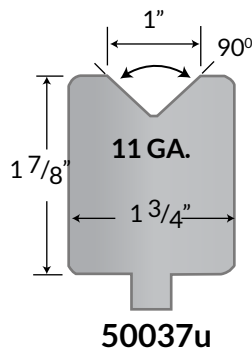
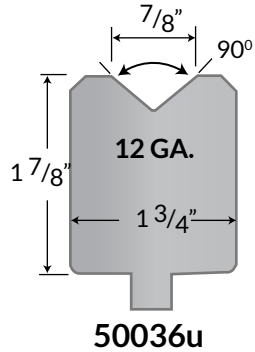
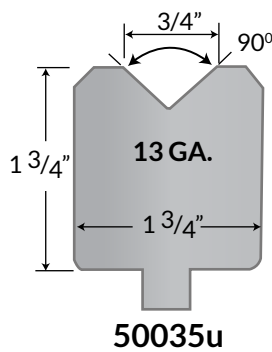
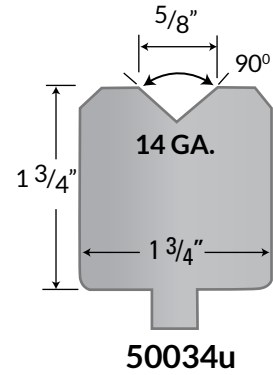
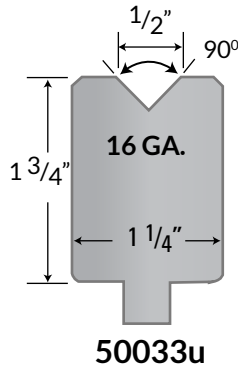
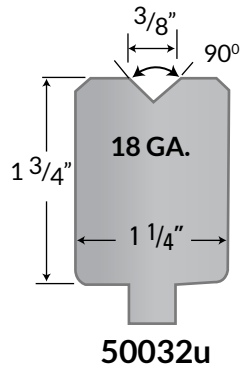
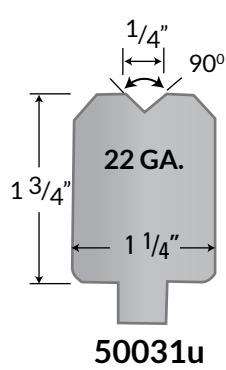
Model 1 & 2



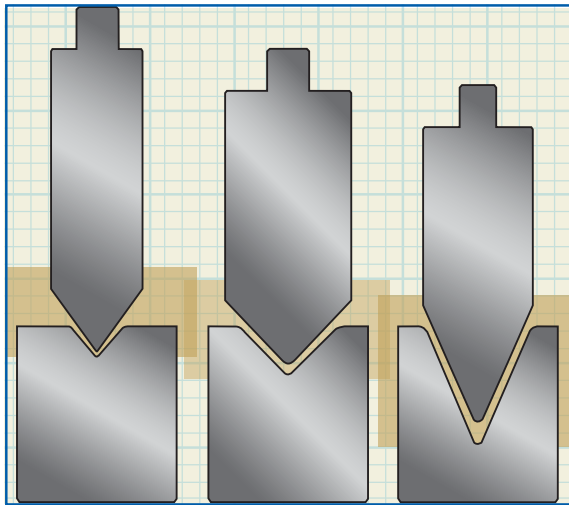
9.84" [250mm] Solid Total Length
17.91" [455 mm] Sectional (Shown) Total Length

Model 3

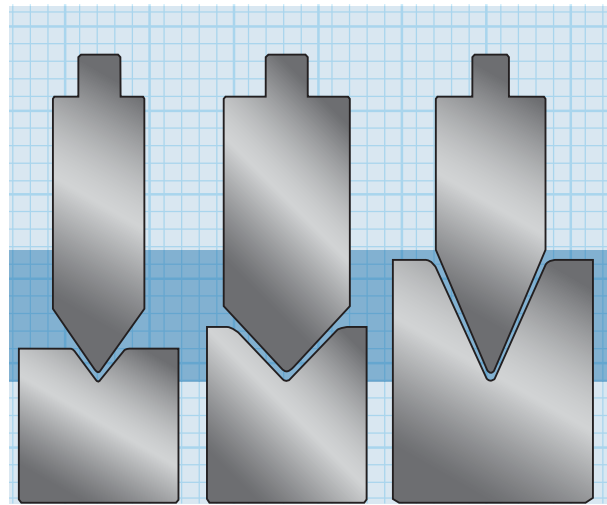




URETHANE DIES								
CAT. NO.	ANGLE	V Opening	H Height	W Width	Approx. Gross Weight [lbs]		PRICE	
					Length 48"	Length 96"	Length 48"	Length 96"
50031u	90°	1/4"	1-3/4"	1-1/4"	5	12		
50032u		3/8"	1-3/4"	1-1/4"	5	12		
50033u		1/2"	1-3/4"	1-1/4"	6	12		
50034u		5/8"	1-3/4"	1-3/4"	7	16		
50035u		3/4"	1-3/4"	1-3/4"	7	16		
50036u		7/8"	1-7/8"	1-3/4"	7	16		
50037u		1"	1-7/8"	1-3/4"	7	17		
50018u	85°	2"	2-1/4"	3"	5	N/A		
50020u	30°	1/4"	1-3/4"	1-1/4"	5	12		
50021u		3/8"	1-3/4"	1-1/4"	5	12		
50022u		1/2"	1-3/4"	1-1/4"	7	16		
50023u		5/8"	1-7/8"	1-3/4"	7	16		



TRADITIONAL NON-STAGE BENDING
3 Different Shut Heights



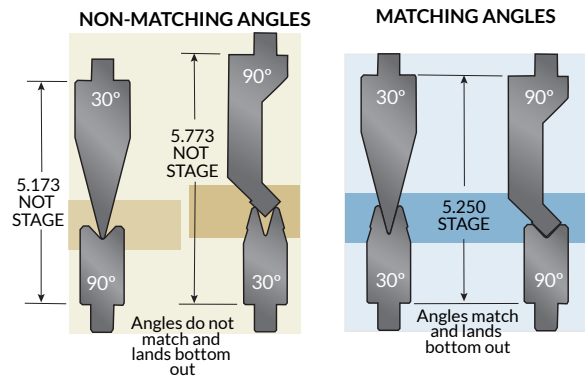
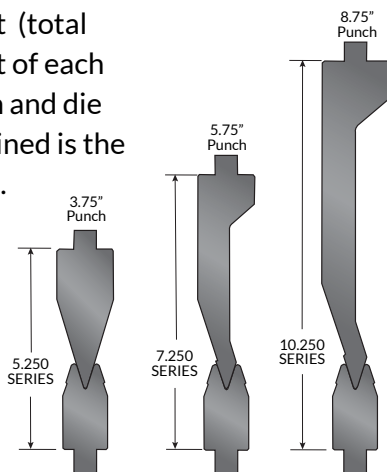
STAGE BENDING
1 Common Shut Height

WHAT IS STAGE BENDING?

In a press brake, stage bending is the process of developing multiple tooling setups that have a common shut height or 'Stage Bending'. This enables press brake operators to carry out multiple bends with a single setup. Groups of tools are set up progressively along the press brake, then all bends on a single part are performed in succession.

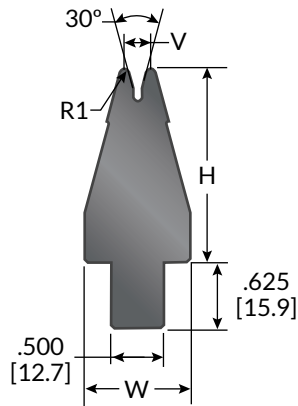
To successfully accomplish stage tooling, each tool in a set must share:

A common shut height (total height of each punch and die combined is the same).

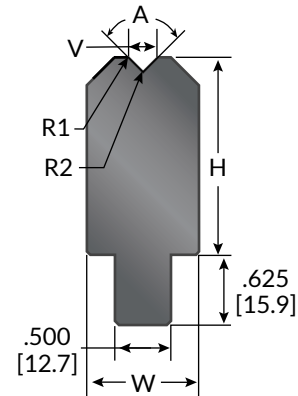
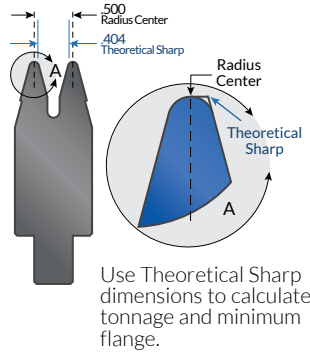


See this tool in action on the
Wilson Tool YouTube Channel

Stage bending simplifies complex jobs by eliminating unproductive repetitive tasks - significantly reducing setup time, part handling and work-in-progress.



STAGE



BLOCK

STAGED ACUTE DIES

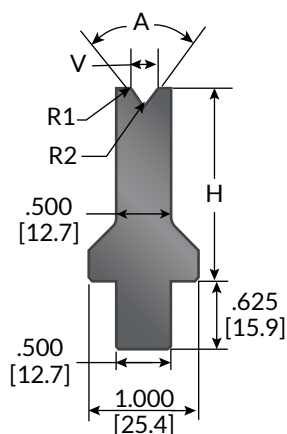
CAT. NO.	V V-OPENING inch [mm]	H Height inch [mm]	W Width inch [mm]	R1 SH. Radius inch [mm]	Radius Center [inch]	Theoretical Sharp [inch]	Max Ton/ft=		Approx. Gross Weight [lbs]			PRICE		
							L, S & X		L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50020	.250 [6.4]	1.832 [46.5]	1.000 [25.4]	.047 [1.2]	.250	.178	16		17	9	17			
50021	.375 [9.5]	2.066 [52.5]	1.000 [25.4]	.047 [1.2]	.375	.303	20		20	10	20			
50022	.500 [12.7]	2.254 [57.3]	1.000 [25.4]	.062 [1.6]	.500	.404	25		23	12	23			
50023	.625 [15.9]	2.487 [63.2]	1.375 [34.9]	.062 [1.6]	.625	.529	25		31	16	31			
51024	.750 [19.1]	2.631 [66.8]	1.500 [38.1]	.094 [2.4]	.750	.606	25		36	18	36			
51025	.875 [22.2]	2.864 [72.7]	1.750 [44.5]	.094 [2.4]	.875	.731	25		44	22	44			
51026	1.000 [25.4]	3.097 [90.5]	2.000 [50.8]	.094 [2.4]	1.000	.856	25		42	26	51			

STAGED BLOCK DIES

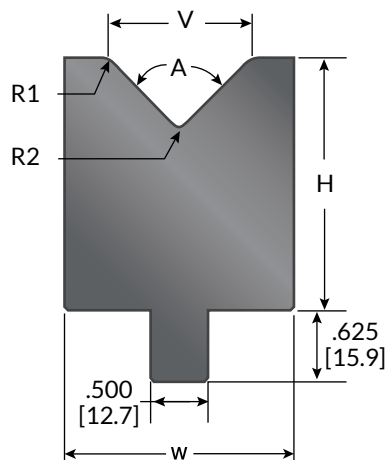
CAT. NO.	A Angle	V V-OPENING inch [mm]	H Height inch [mm]	W Width inch [mm]	R1 SH. Radius inch [mm]	R2 V Radius inch [mm]	Max Ton/ft=		Approx. Gross Weight [lbs]			PRICE		
							L&S	X	L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50293	75°	.250 [6.4]	1.663 [42.2]	1.000 [25.4]	.031 [0.8]	.016 [0.4]	30	25						
50237		.375 [9.5]	1.744 [44.3]	1.000 [25.4]	.047 [1.2]	.016 [0.4]								
50238		.500 [12.7]	1.826 [46.4]	1.000 [25.4]	.062 [1.6]	.016 [0.4]			21	11	21			
50294		.625 [15.9]	1.907 [48.4]	1.000 [25.4]	.078 [2.0]	.016 [0.4]								
50239		.750 [19.1]	1.989 [50.5]	1.250 [31.8]	.156 [4.0]	.031 [0.8]								
50295		.875 [22.2]	2.070 [52.6]	1.250 [31.8]	.156 [4.0]	.031 [0.8]			21	14	27			
50190	88°	.250 [6.4]	1.629 [41.4]	1.000 [25.4]	.031 [0.8]	.016 [0.4]								
50191		.375 [9.5]	1.694 [43.0]	1.000 [25.4]	.047 [1.2]	.016 [0.4]								
50205		.500 [12.7]	1.759 [44.7]	1.000 [25.4]	.062 [1.6]	.016 [0.4]			21	11	21			
50192		.625 [15.9]	1.824 [46.3]	1.000 [25.4]	.078 [2.0]	.031 [0.8]								
50193		.750 [19.1]	1.888 [48.0]	1.250 [31.8]	.156 [4.0]	.031 [0.8]								
50194		.875 [22.2]	1.953 [49.6]	1.250 [31.8]	.156 [4.0]	.031 [0.8]			26	13	26			
50031	90°	.250 [6.4]	1.625 [41.4]	1.000 [25.4]	.031 [0.8]	.016 [0.4]								
50032		.375 [9.5]	1.688 [42.9]	1.000 [25.4]	.047 [1.2]	.016 [0.4]								
50033		.500 [12.7]	1.750 [44.5]	1.000 [25.4]	.062 [1.6]	.016 [0.4]			21	20	20			
50034		.625 [15.9]	1.813 [46.1]	1.000 [25.4]	.078 [2.0]	.031 [0.8]								
50035		.750 [19.1]	1.875 [47.6]	1.250 [31.8]	.156 [4.0]	.031 [0.8]								
50036		.875 [22.2]	1.938 [49.2]	1.250 [31.8]	.156 [4.0]	.031 [0.8]			26	13	26			

All tonnages are based on direct load and do not apply for thrusting applications.

1.75" tall dies available upon request.



ARROW



LARGE V

STAGED ARROW DIES

CAT. NO.	A Angle	V V OPENING inch [mm]	H Height inch [mm]	R1 SH. Radius inch [mm]	R2 V Radius inch [mm]	Max Ton/ft= L,S & X	Approx. Gross Weight [lbs]			PRICE		
							L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50290	75°	.250 [6.4]	1.663 [42.2]	.031 [0.8]	.016 [0.4]	21	14	7	14			
50291		.313 [8.0]	1.704 [43.3]	.031 [0.8]		14						
50292		.375 [9.5]	1.744 [44.3]	.047 [1.2]		12						
50198	88°	.250 [6.4]	1.629 [41.4]	.031 [0.8]		27						
50199		.313 [8.0]	1.662 [42.2]	.031 [0.8]		21						
50200		.375 [9.5]	1.694 [43.0]	.047 [1.2]		21						
50004	90°	.250 [6.4]	1.625 [41.3]	.031 [0.8]		26						
50005		.313 [8.0]	1.656 [42.1]	.031 [0.8]		22						
50006		.375 [9.5]	1.688 [42.9]	.047 [1.2]		21						

STAGED LARGE V DIES

CAT. NO.	A Angle	V V OPENING inch [mm]	H Height inch [mm]	W Width inch [mm]	R1 SH. Radius inch [mm]	R2 V Radius inch [mm]	Max Ton/ft= L,S & X	Approx. Gross Weight [lbs]			PRICE		
								L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50240	75°	1.000 [25.4]	2.152 [54.7]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	33	17	33			
50296		1.125 [28.6]	2.233 [56.7]	1.500 [38.1]	.156 [4.0]	.063 [1.6]	35						
50297		1.250 [31.8]	2.315 [58.8]	2.000 [50.8]	.188 [4.8]	.094 [2.4]	40	45	23	45			
50298		1.500 [38.1]	2.477 [62.9]	2.500 [63.5]	.188 [4.8]	.094 [2.4]	40	59	30	59			
50299		2.000 [50.8]	2.803 [71.2]	3.000 [76.2]	.219 [5.6]	.125 [3.2]	50	76	38	75			
50300		2.500 [63.5]	3.129 [79.5]	3.500 [88.9]	.250 [6.4]	.188 [4.8]	50	94	47	94			
50371		3.000 [76.2]	3.455 [87.8]	4.000 [101.6]	.281 [7.1]	.313 [8.0]	50	N/A	57	114	N/A		
50371R		3.000 [76.2]	3.455 [87.8]	4.000 [101.6]	.281 [7.1]	.313 [8.0]	50	N/A	56	112	N/A		
50372		4.000 [101.6]	4.107 [104.3]	5.000 [127.0]	.375 [9.5]	.313 [8.0]	50	N/A	80	59	N/A		
50372R		4.000 [101.6]	4.107 [104.3]	5.000 [127.0]	.375 [9.5]	.313 [8.0]	50	N/A	59	155	N/A		
50016	85°	1.250 [31.8]	2.182 [55.4]	2.000 [50.8]	.188 [4.8]	.094 [2.4]	40	44	22	43			
50017		1.500 [38.1]	2.319 [58.9]	2.500 [63.5]	.188 [4.8]	.094 [2.4]	40	56	28	56			
50018		2.000 [50.8]	2.591 [65.8]	3.000 [76.2]	.219 [5.6]	.125 [3.2]	50	71	36	71			
50019		2.500 [63.5]	2.864 [72.7]	3.500 [88.9]	.250 [6.4]	.188 [4.8]	50	88	44	88			
50203	88°	1.000 [25.4]	2.018 [51.3]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	32	16	32			
50204		1.125 [28.6]	2.083 [52.9]	1.500 [38.1]	.156 [4.0]	.063 [1.6]	35	32	16	32			
50037	90°	1.000 [25.4]	2.000 [50.8]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	31	16	31			
50015		1.125 [28.6]	2.063 [52.4]	1.500 [38.1]	.156 [4.0]	.063 [1.6]	35	32	16	32			

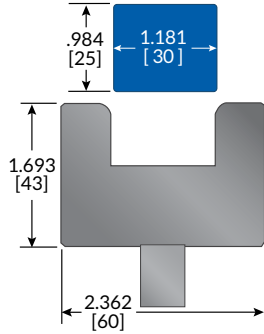
All tonnages are based on direct load and do not apply for thrusting applications.

1.75", 2.25", 2.75" tall dies available upon request.

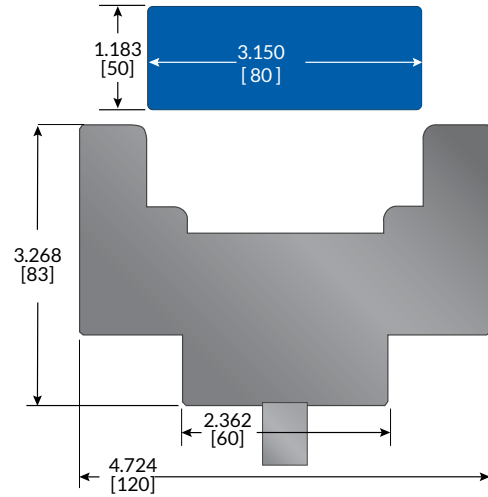
NOTE:

All urethane die holders are machined from 6061-T6 aluminum.
Check height against machine stroke prior to ordering.

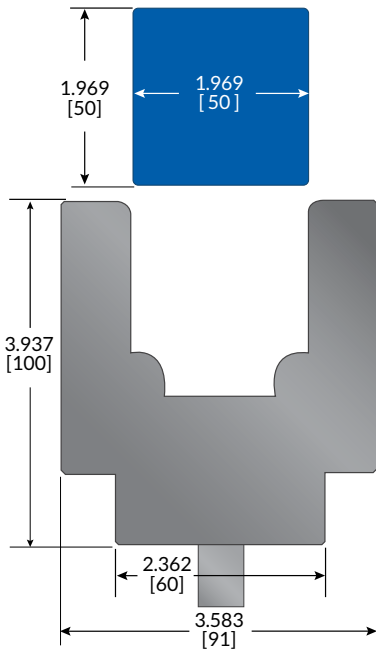
DIES



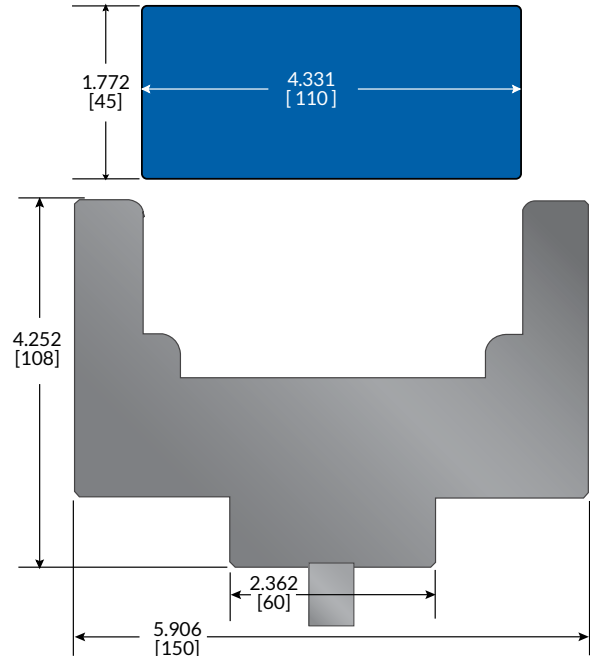
CAT. NO.		SHORE HARDNESS	Approx. Gross Weight [lbs]		PRICE	
			L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42501c	M Holder	N/A	10	6	Call for Price	
42511	Pad	80A/Red	2	1		
42521	Pad	90A/Blue	2	1		



CAT. NO.		SHORE HARDNESS	Approx. Gross Weight [lbs]		PRICE	
			L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42503c	M Holder	N/A	35	19	Call for Price	
42513	Pad	80A/Red	6	3		
42523	Pad	90A/Blue	6	3		



CAT. NO.		SHORE HARDNESS	Approx. Gross Weight [lbs]		PRICE	
			L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42502c	M Holder	N/A	33	17	Call for Price	
42512	Pad	80A/Red	6	3		
42522	Pad	90A/Blue	6	3		



CAT. NO.		SHORE HARDNESS	Approx. Gross Weight [lbs]		PRICE	
			L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42504c	M Holder	N/A	52	27	Call for Price	
42514	Pad	80A/Red	11	6		
42524	Pad	90A/Blue	11	6		

M Made To Order

** T= Offset dimension top of sheet to top of form

Offset tools can be used as a punch or a die.

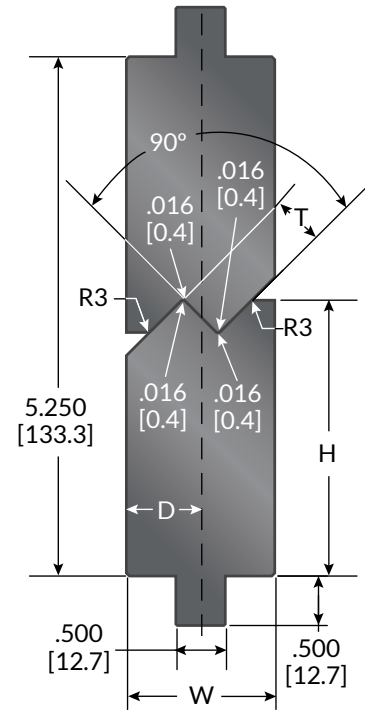
Sold as a set - individual tools available.

Dimensions are shut height requirements less material thickness.

Offset height may vary as much as -.020"[0.5mm] after bending as all angles will be obtuse.

Special offset sizes available at additional cost.

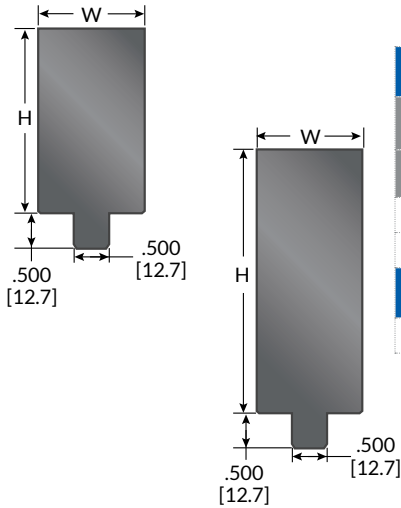
All tonnages are based on direct load and do not apply for thrusting applications.



3.75" OFFSET PUNCH AND DIE SET

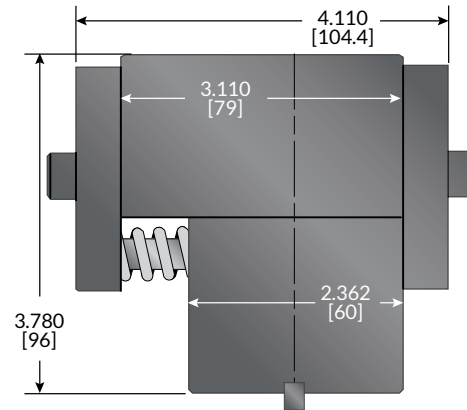
CAT. NO.		M	**T Offset Dim. inch [mm]	H Height inch [mm]	W Width inch [mm]	R3 SH. Radius inch [mm]	D Centerline Dim. inch [mm]	Max Ton/ft=		Approx. Gross Weight [lbs]			Button	PRICE		
Straight	Groove							L&S	X	L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
50087	50087G	M	.125 [3.2]	2.663 [66.6]	1.250 [31.8]	.062 [1.6]	.625 [15.9]	30	25	71	35	71	A			
50088	50088G	M	.188 [4.8]	2.685 [68.2]	1.250 [31.8]	.062 [1.6]	.625 [15.9]						A			
50089	50089G	M	.250 [6.4]	2.707 [68.8]	1.250 [31.8]	.094 [2.4]	.625 [15.9]						A			
50090	50090G	M	.375 [9.5]	2.745 [69.7]	1.250 [31.8]	.125 [3.2]	.625 [15.9]						A			
50091	50091G	M	.500 [12.7]	2.789 [70.8]	1.500 [38.1]	.125 [3.2]	.750 [19.1]			86	43	86	C			
50092	50092G	M	.625 [15.9]	2.833 [72.0]	1.750 [44.5]	.125 [3.2]	.875 [22.2]			100	50	100	C			
50093	50093G	M	.750 [19.1]	2.877 [73.1]	2.000 [50.8]	.125 [3.2]	.875 [22.2]			114	58	114	C			

T X 1.414" = Effective V

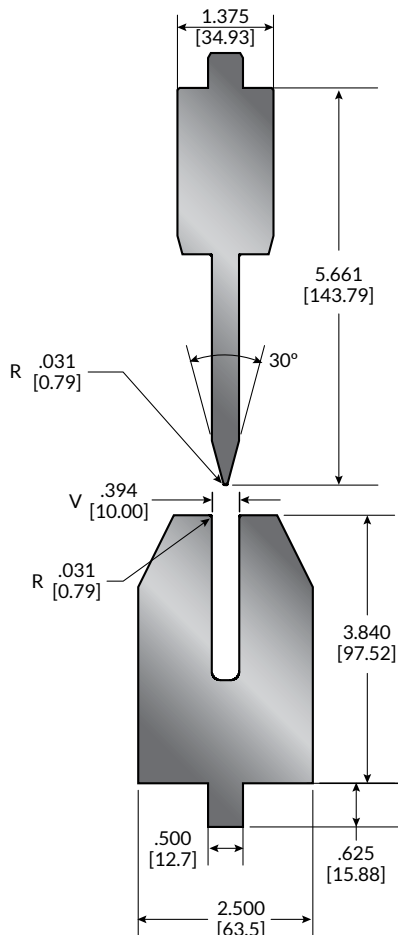


3.75" FLATTENING PUNCH AND DIE SET													
CAT. NO.			H Height inch [mm]	W Width inch [mm]	Max Ton/ ft=		Approx. Gross Weight [lbs]			Button	PRICE		
Straight	Groove				L&S	X	L 36"	S 18"	X 35.87"			L 36"	S 18"
50048	50048G	M	2.625 [66.7]	1,500 [38.1]	40	35	76	43	87	C			
50049	50049G	M	2.625 [66.7]	2,500 [63.4]			139	70	138	F			
5.75" FLATTENING PUNCH AND DIE SET													
50265	50265G	M	3.625 [92.1]	1,500 [38.1]	40	35	116	58	120	C			

5.75" FLATTENING PUNCH AND DIE SET												
50265	50265G	M	3.625 [92.1]	1.500 [38.1]	40	35	116	58	120	C		



THRUST ABSORBING FLATTENING DIE			
CAT. NO.	MAX. TON FT/METER LT & ST	PRICE	
		L 32.87" [835mm]	S 16.34" [415mm]
42311c	30 / 100	Call for Price	



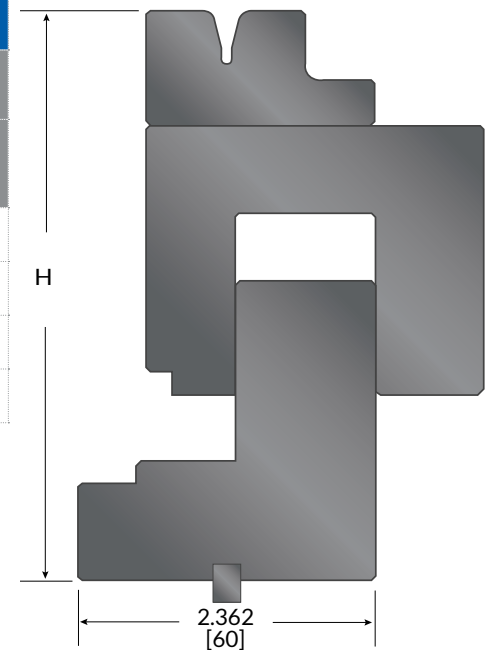
5.75" TWO STAGE HEMMING PUNCH AND DIE SET											
CAT. NO.				Max Ton/ ft=	Weight /inch			Button	PRICE		
Straight	Groove			L, S, X	L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
51919	51919G	M	Punch	25	54	29	54	B			
53594	NA	M	Die	21	83	42	83	-			

All tonnages are based on direct load and do not apply for thrusting applications.

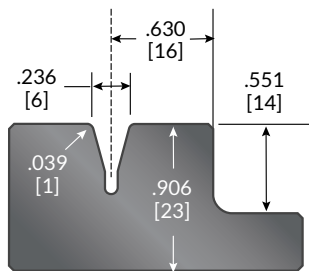
Note: Maximum material is 16 ga. cold rolled steel.

M Made To Order

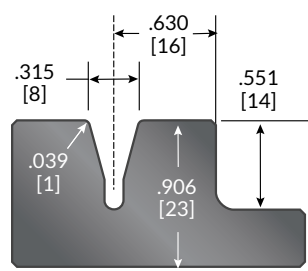
TWO STAGE HEMMING DIE								
CAT. NO.	V1 INCHES [mm]	H HEIGHT INCHES [mm]	MAX. TON FT/METER (LT & ST)	Approx. Gross Weight [lbs]		MAX MATERIAL	PRICE	
				LT 32.87" [835mm]	ST 16.34" [415mm]		LT 32.87" [835mm]	ST 16.34" [415mm]
42601c	.236 [6.0]	4.587 [116.5]	20 / 67	86	43	20 GA. CRS	Call for Price	
42602c	.315 [8.0]	4.587 [116.5]	20 / 67	86	43	16 GA. CRS	Call for Price	
42603c	.394 [10.0]	4.902 [124.5]	20 / 67	89	45	14 GA. CRS	Call for Price	
42608c	.394 [10.0]	5.402 [137.2]	20 / 67	103	52	14 GA. CRS	Call for Price	



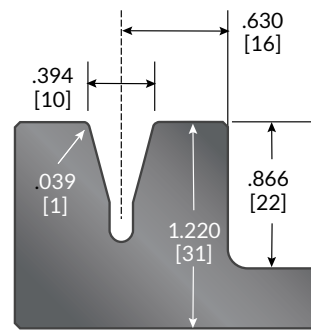
HEMMING



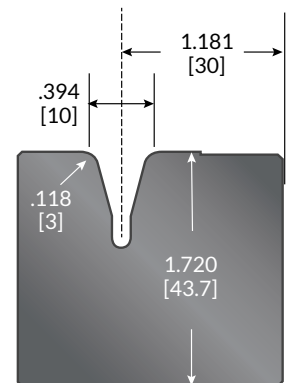
CAT. NO. 43522



CAT. NO. 43523

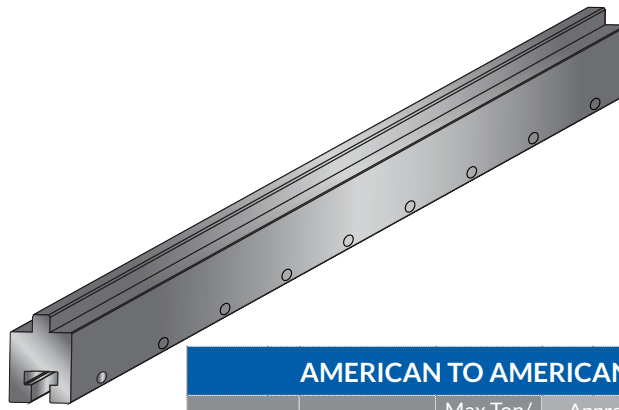
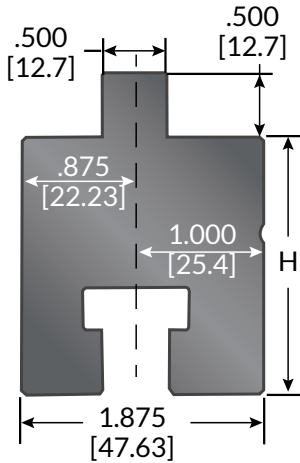


CAT. NO. 43524



CAT. NO. 43528

HEMMING REPLACEMENT V-BLOCKS							
CAT. NO	MAX. TON FT / METER (LT & ST)	Approx. Gross Weight [lbs]		MAX MATERIAL	V1 INCHES [mm]	PRICE	
		LT 32.87" [835mm]	ST 16.34" [415mm]			LT 32.87" [835mm]	ST 16.34" [415mm]
43522	20 / 67	12	6	20 GA. CRS	.236 [6.0]		
43523	20 / 67	12	6	16 GA. CRS	.315 [6.0]		
43524	20 / 67	15	8	14 GA. CRS	.394 [10.0]		
43528	25 / 83	29	15	14 GA. CRS	.394 [10.0]		



D E

AMERICAN TO AMERICAN STRAIGHT TANG

CAT. NO.	H Height inch [mm]	Max Ton/ ft= L, S, X	Approx. Gross Weight [lbs]			Button	PRICE		
			L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
50157	2.000 [50.8]	30	36	18	35	E			
50081	3.000 [76.2]		54	27	53	D			
50082	4.000 [101.6]		73	37	73	E			

Note: All holders include clamping set screws every 2" [50.8mm]

E

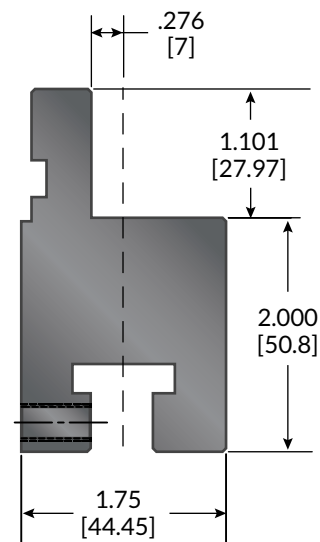
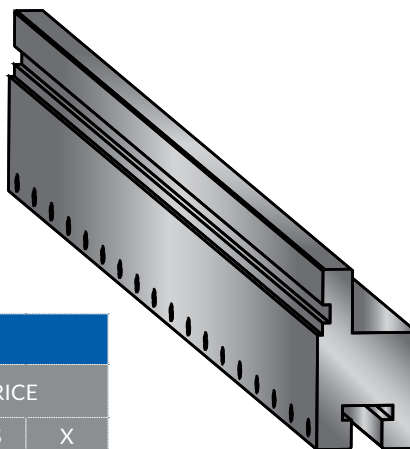
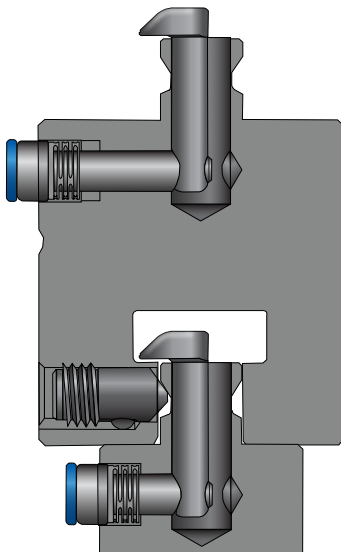
GROOVE CLAMPING TO GROOVE PUNCH TANG

CAT. NO.	H Height inch [mm]	Max Ton/ ft= L, S, X	Approx. Gross Weight [lbs]			Button	PRICE		
			L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
50158G M	2.000 [50.8]	30	35	18	37	E			
50096G M	4.000 [101.6]		75	37	78	E			

M Made To Order

Note: All holders include clamping set screws every 2" [50.8mm]

All tonnages are based on direct load and do not apply for thrusting applications.

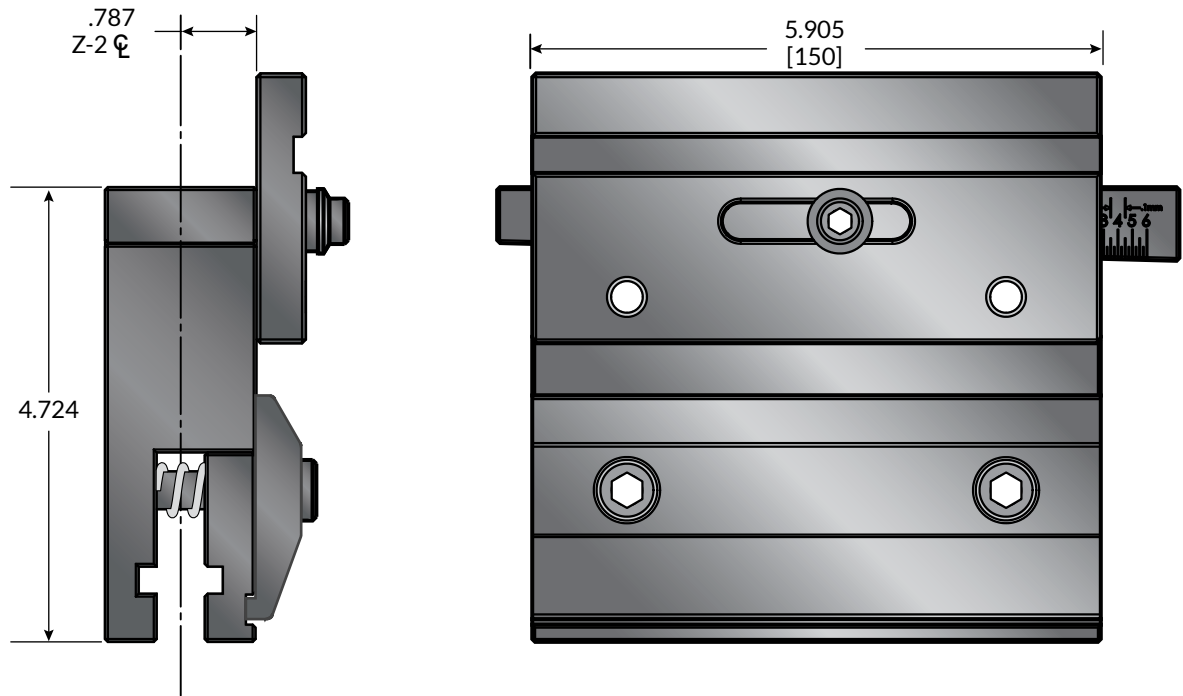


EUROPEAN Z1 TO AMERICAN

CAT. NO.	Approx. Gross Weight [lbs]			Max Ton/ft= L, S, X	PRICE		
	L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
43851	33	16	32	30			

Note: All holders include clamping set screws every 2" [50.8mm]

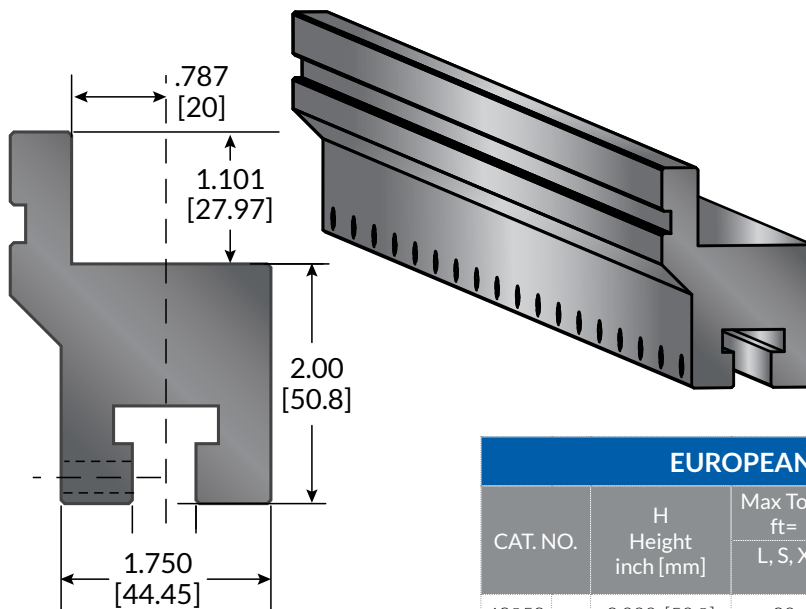
All tonnages are based on direct load and do not apply for thrusting applications.



HOLDER

Z2 SERIES WITH DUAL AMERICAN AND EUROPEAN CLAMPING

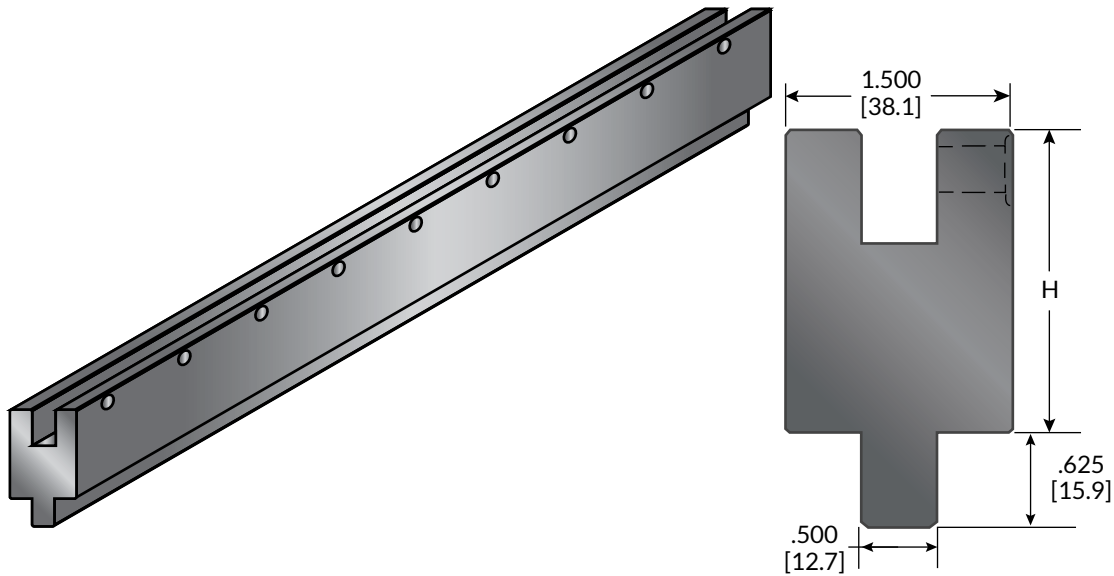
CAT. NO.	Approx. Gross Weight [lbs]	Max Ton/ft=	PRICE
43853	15	30	



EUROPEAN Z2 TO AMERICAN

CAT. NO.	H Height inch [mm]	Max Ton/ ft= L, S, X	Approx. Gross Weight [lbs]			PRICE		
			L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
43852	2.000 [50.8]	30	35	18	35			

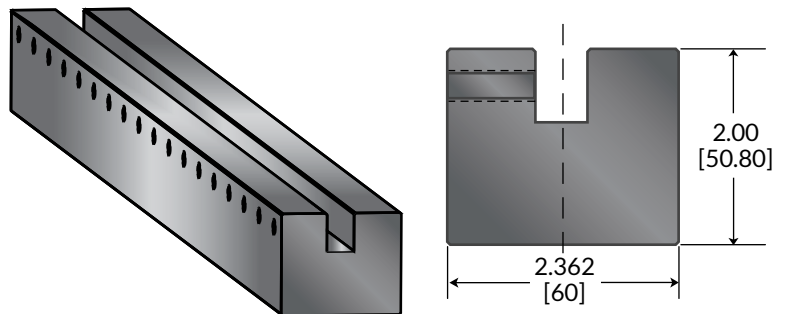
Note: All holders include clamping set screws every 2" [50.8mm]



AMERICAN TO AMERICAN								
CAT. NO.	H Height inch [mm]	Max Ton/ft=	Approx. Gross Weight [lbs]			PRICE		
		L, S, X	L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50084	2.000 [50.8]	40	30	15	30			
50085	3.000 [76.2]		45	23	45			
50086	4.000 [101.6]		60	30	60			
Custom	M Specify		-	-	-	Call for Pricing		

M Made To Order

EUROPEAN TO AMERICAN					
CAT. NO.	Approx. Gross Weight [lbs]		Max Ton/ft=	PRICE	
	L 36"	S 18"		L 36"	S 18"
43590	44	49	40		



Note: All holders include clamping set screws every 2" [50.8mm]

All tonnages are based on direct load and do not apply for thrusting applications.

Wilson Tool also offers several solutions for manufacturers who use thick, heavy materials in their manufacturing process.

ADJUSTABLE V DIE

[see page 53](#)

The Exacta Adjustable V dies are a great solution when bending thick materials and you need the flexibility to adjust the width of the V opening. Instead of buying several dies with different V openings, Exacta Adjustable V dies enable you to adjust the width, rather than changing out the die.

Adjustable V openings range from 1 to 24 inches and can be adjusted in 1 inch increments. Adjustable V dies are induction hardened and are capable of withstanding tonnage of up to 200 tons per foot, allowing you to easily bend thick material. Hard chrome rollers help reduce required tonnage by as much as 20%.

REPLACEABLE SHOULDER DIE

[see page 53](#)

When you work with heavy or abrasive materials such as stainless, hardened steel or parts that are not completely de-burred, you can wear out the shoulders of a die long before the entire die is worn out. With Wilson Tool's Replaceable Shoulder Dies, you eliminate the need to replace the entire die every time a shoulder wears out. Just simply replace the shoulder in the existing die body. This will save you money on every purchase, and because the shoulder inserts are not fixed in place like on an ordinary die, you may see reduced marking as well

CONVENTIONAL PRESS BRAKE TOOLING

Wilson Tool offers a complete selection of conventional press brake tooling. Standard or special forming tools can be manufactured in one-piece lengths of up to 20 feet or can be sectionalized to any length required.

If additional surface hardness is needed for working with abrasive or hard material, we offer induction-hardening treatments on punch tips and die openings.

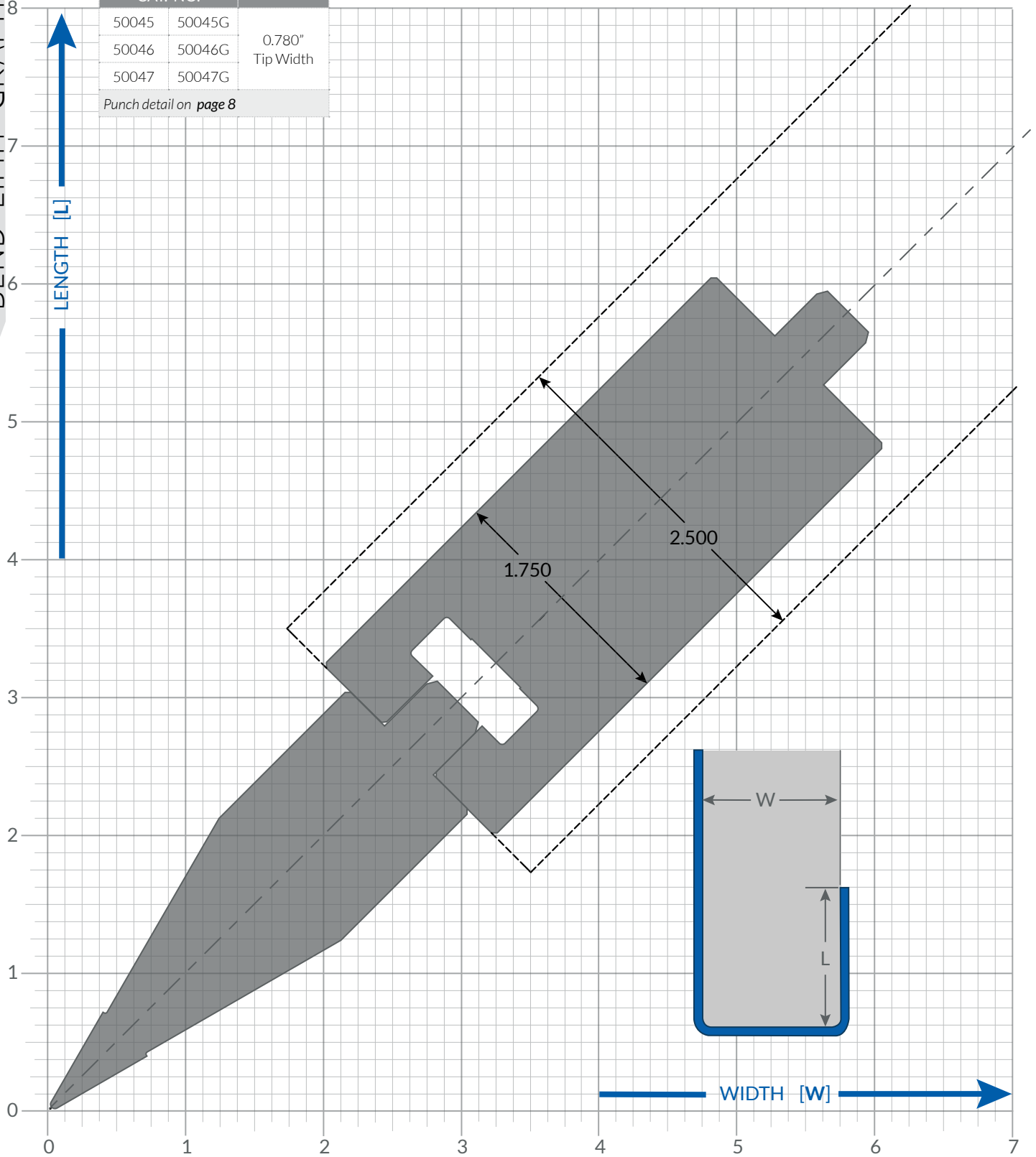
THICK MATERIAL BENDING CONSIDERATIONS:

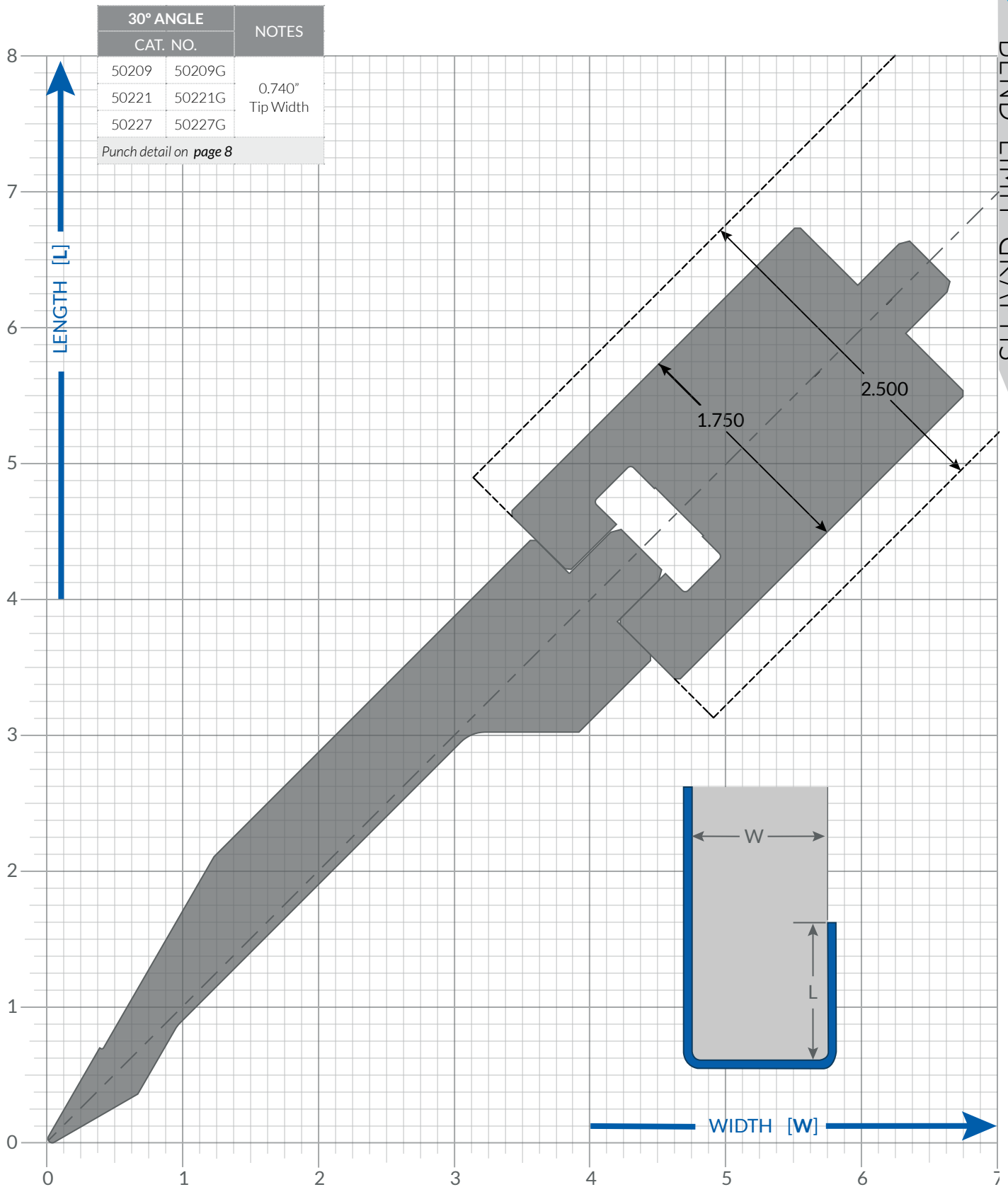
- Check your Tonnage and Upsize for Strength
- Consider Heat Treat Options
- Increase Punch Radius
- Increase Die Shoulder Radius



30° ANGLE		NOTES
CAT. NO.		
50045	50045G	0.780" Tip Width
50046	50046G	
50047	50047G	
Punch detail on page 8		

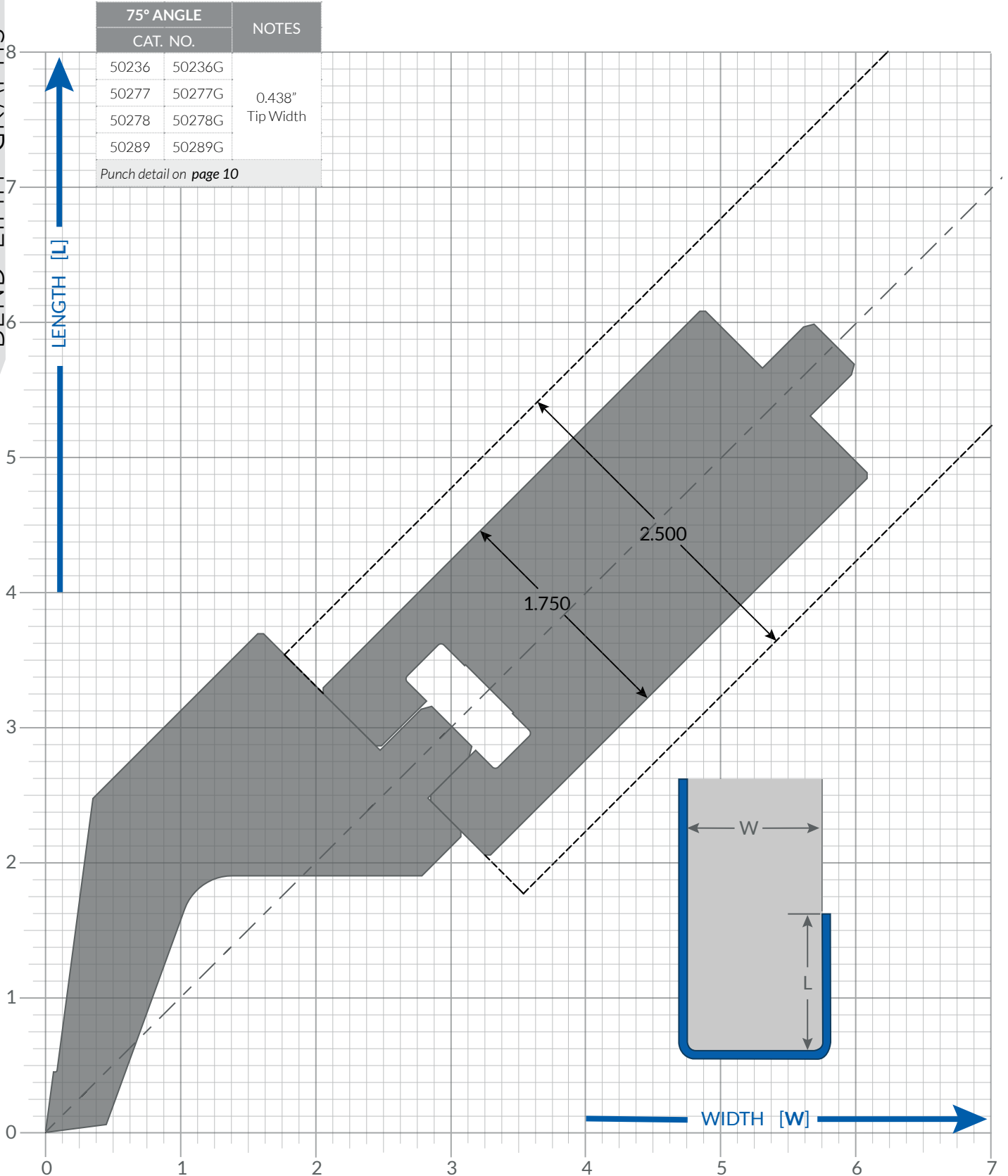
BEND LIMIT GRAPHS





BEND LIMIT GRAPHS

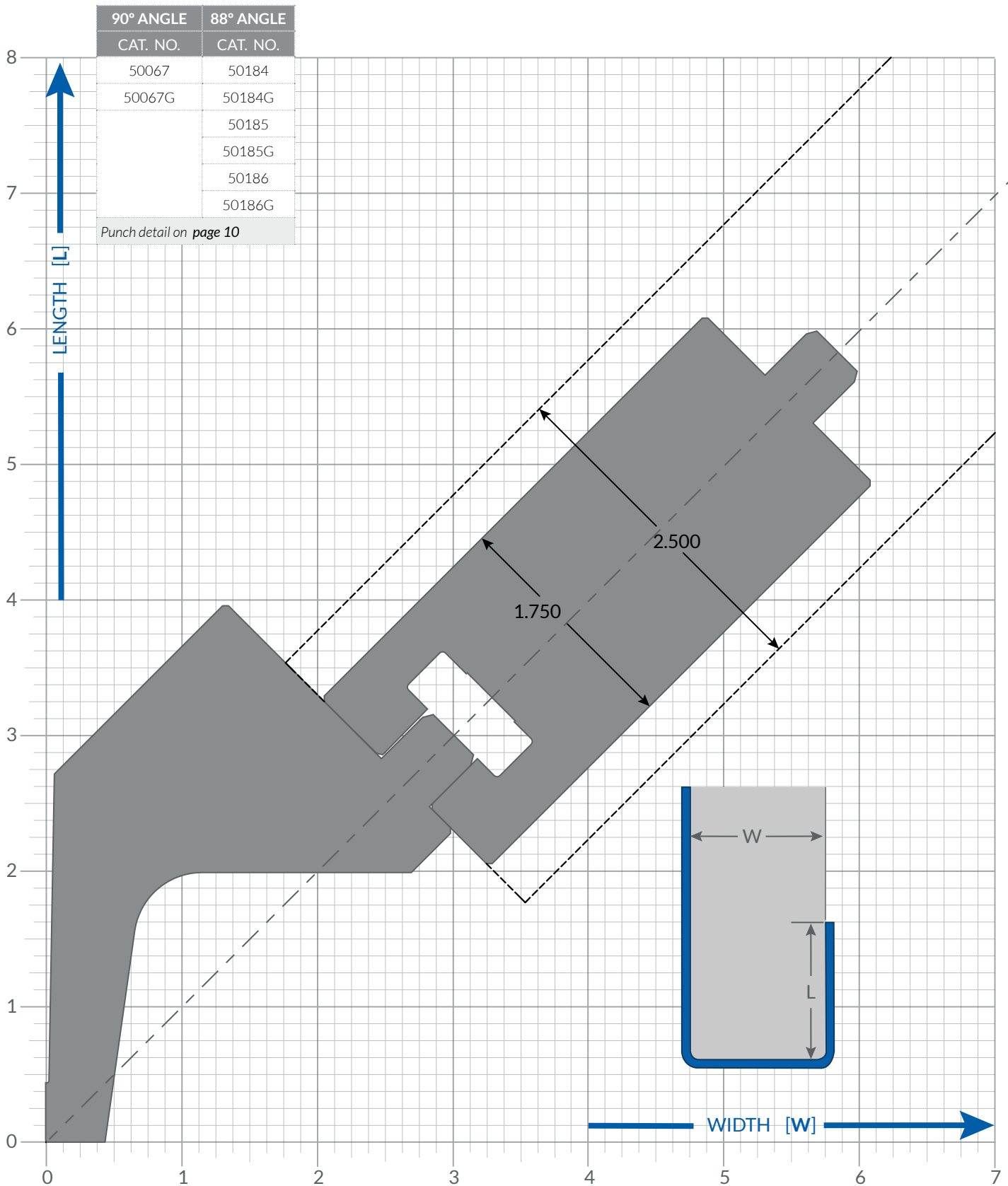
BEND LIMIT GRAPHS



3.75" LARGE GOOSENECK PUNCH - 90°, 88°

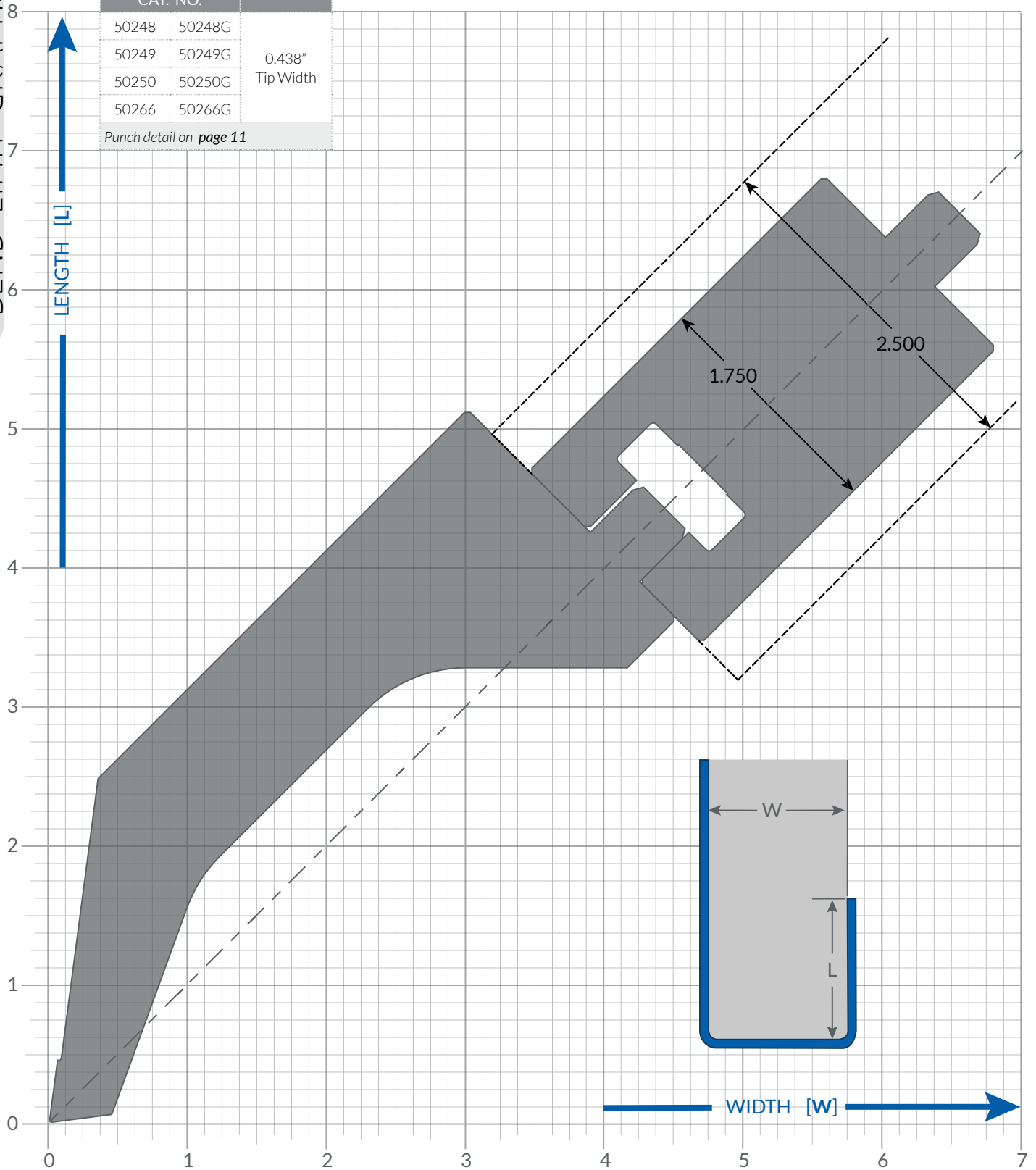


BEND LIMIT GRAPHS



75° ANGLE		NOTES
CAT. NO.		
50248	50248G	0.438" Tip Width
50249	50249G	
50250	50250G	
50266	50266G	
Punch detail on page 11		

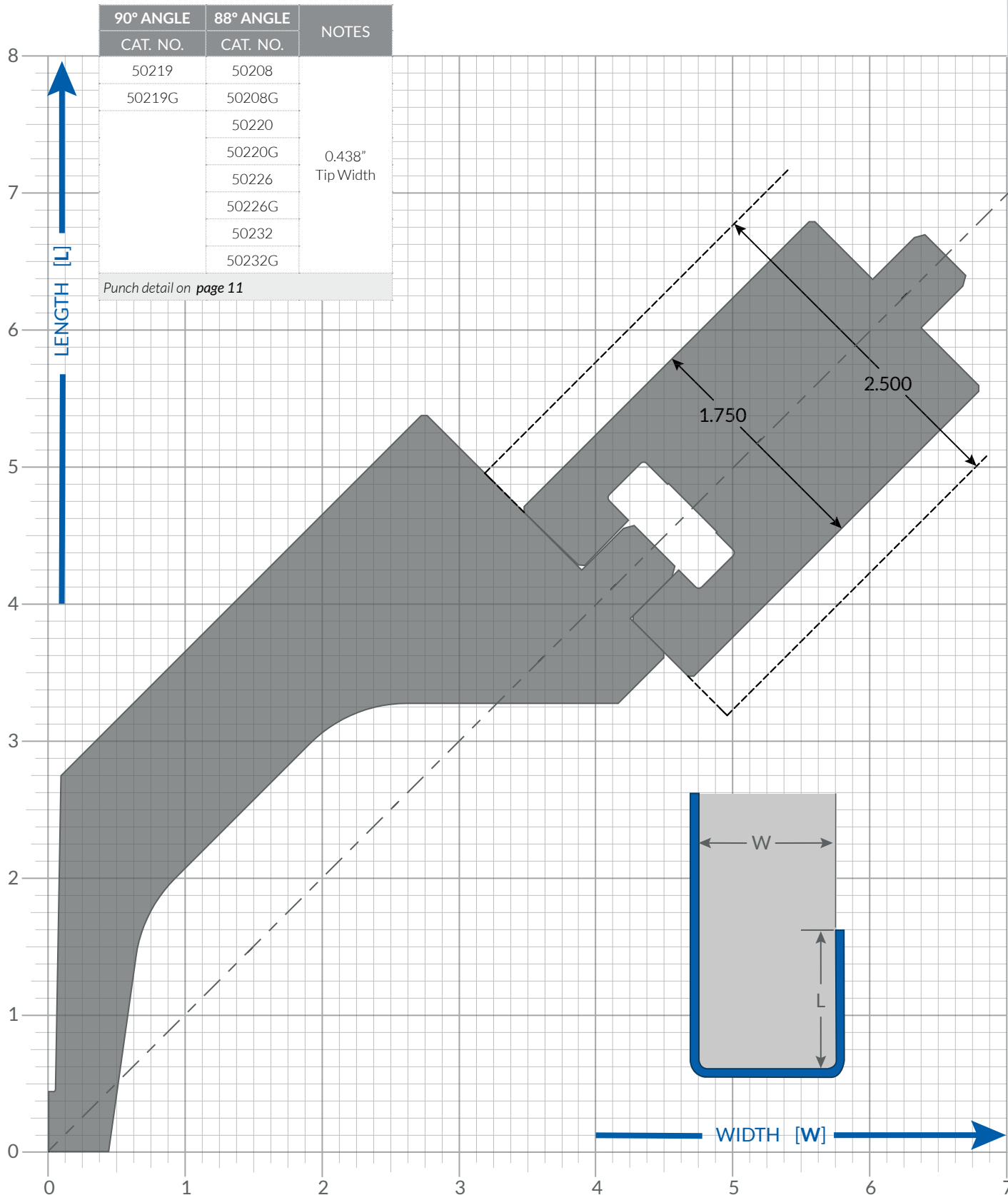
BEND LIMIT GRAPHS



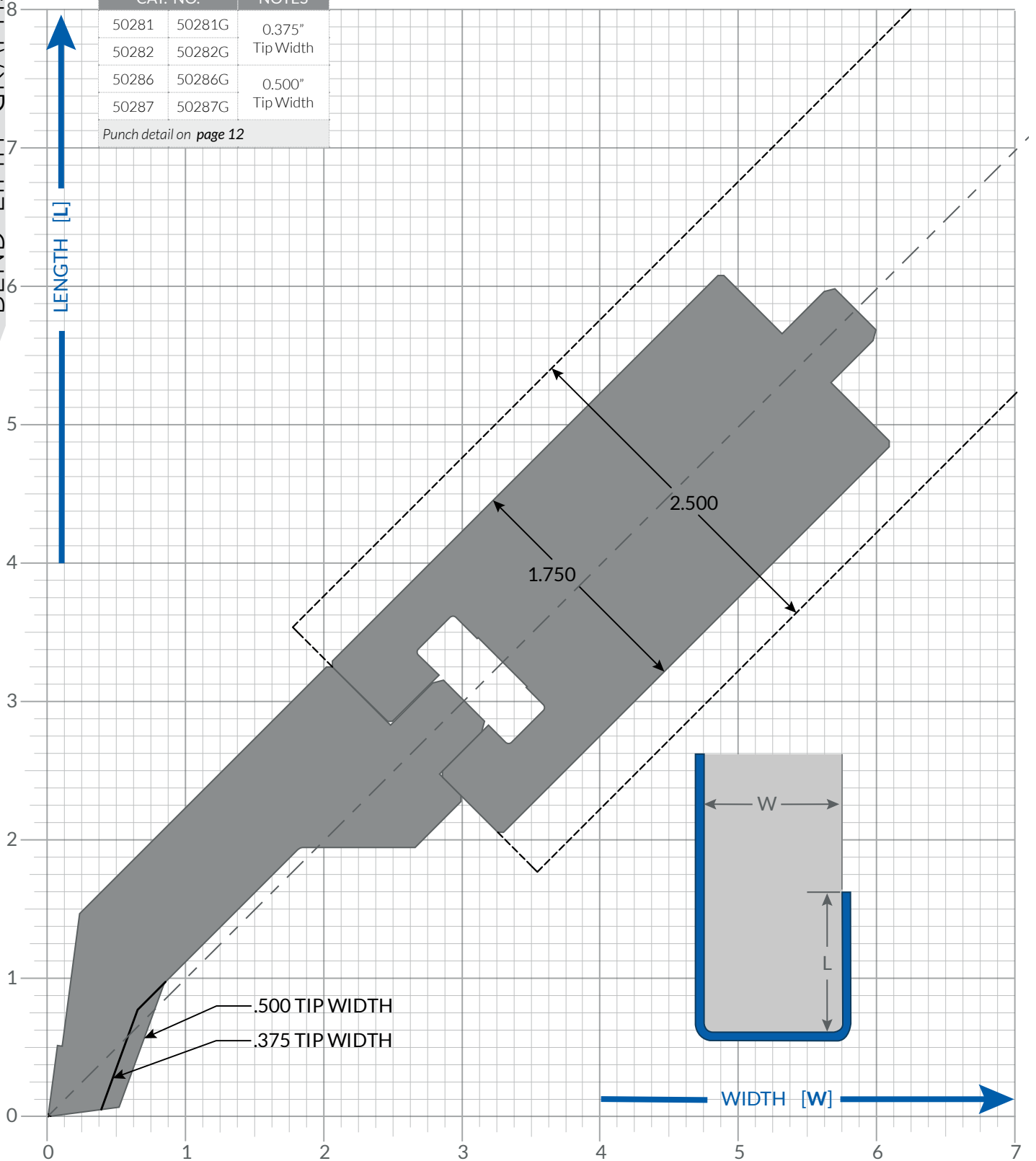
5.75" LARGE GOOSENECK PUNCH - 90°, 88°



BEND LIMIT GRAPHS



BEND LIMIT GRAPHS



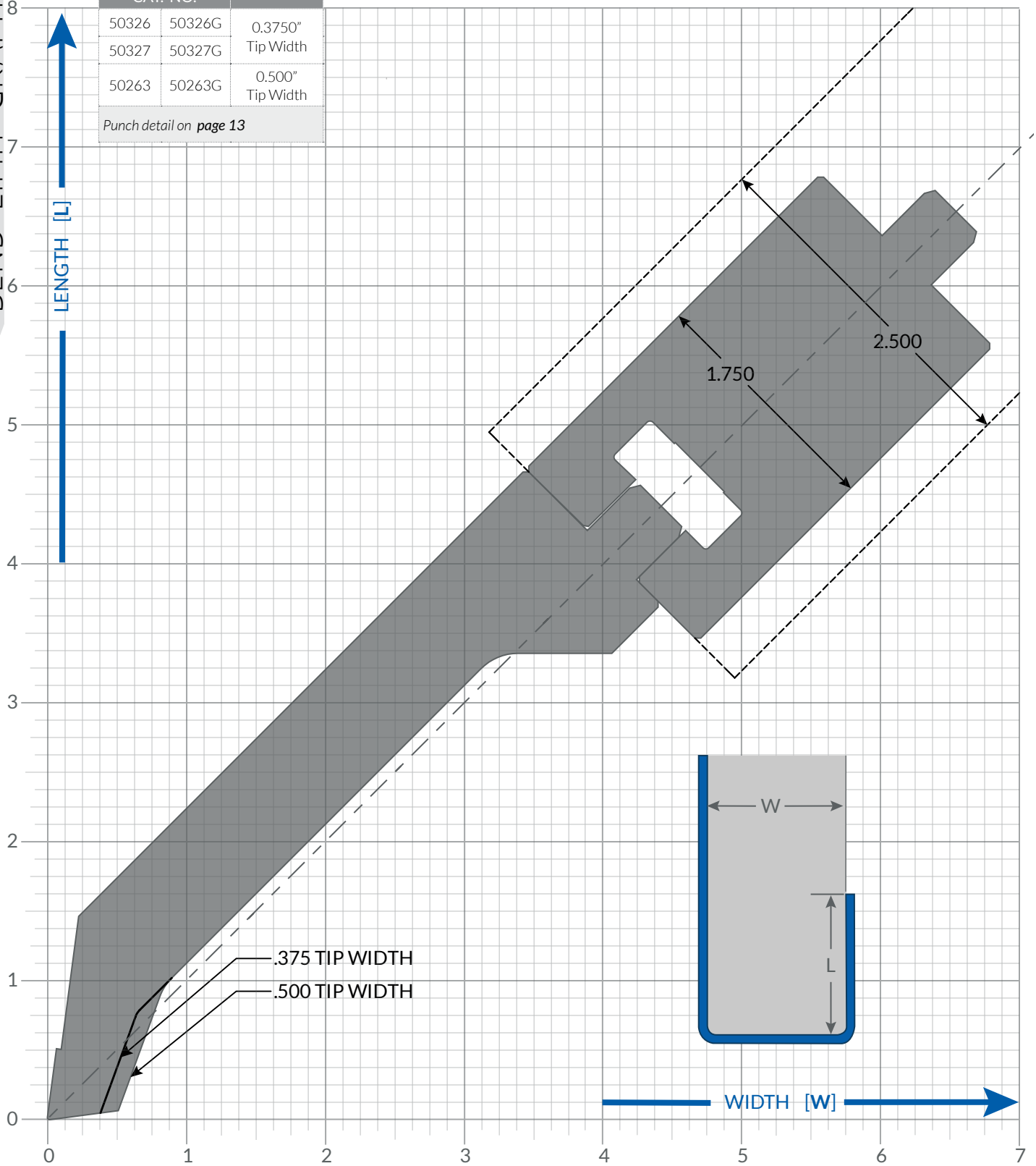
Punch detail on page 12



BEND LIMIT GRAPHS

75° ANGLE		NOTES
CAT. NO.		
50326	50326G	0.3750" Tip Width
50327	50327G	
50263	50263G	0.5000" Tip Width

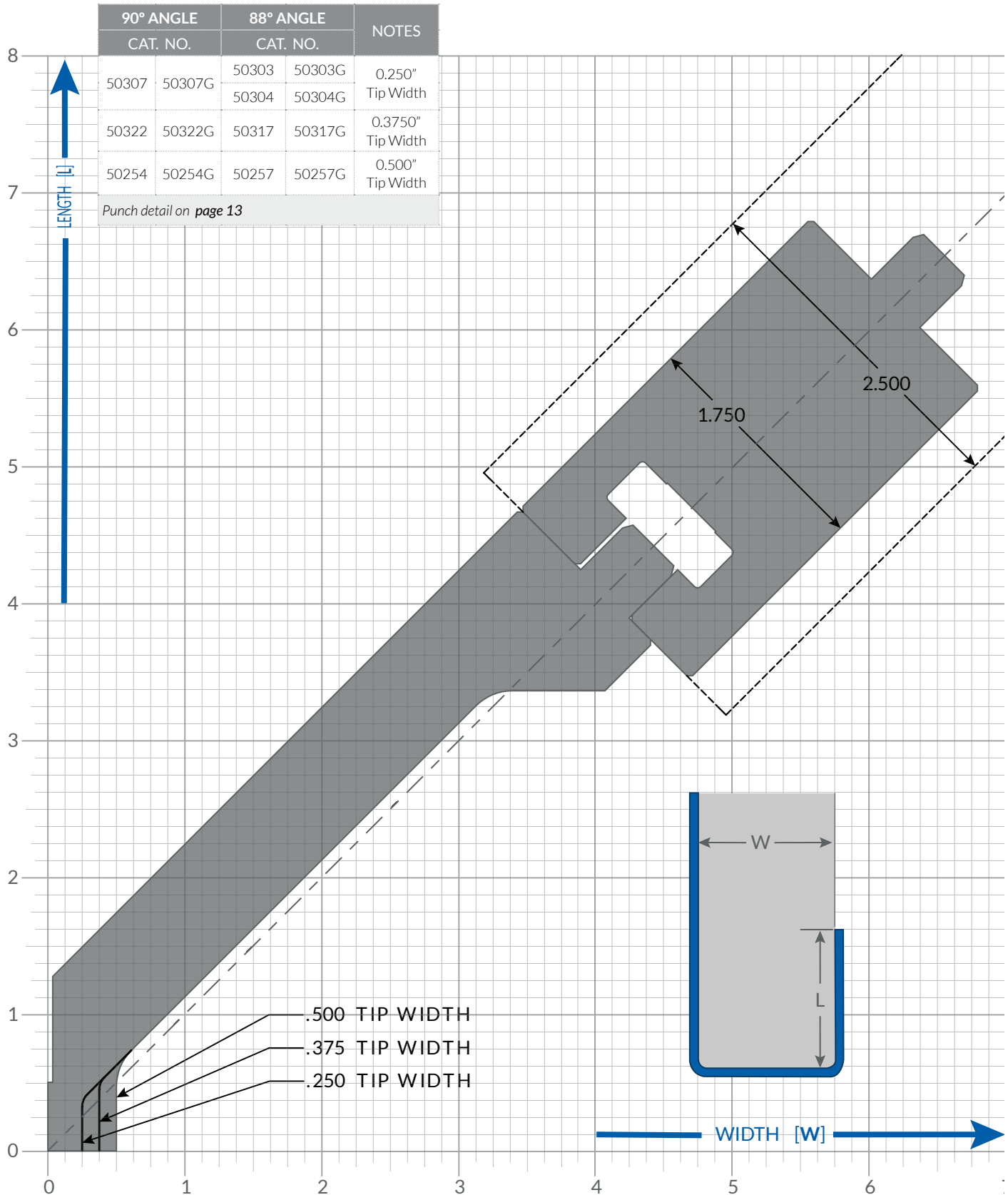
Punch detail on **page 13**



5.75" SASH PUNCH - 90°, 88°



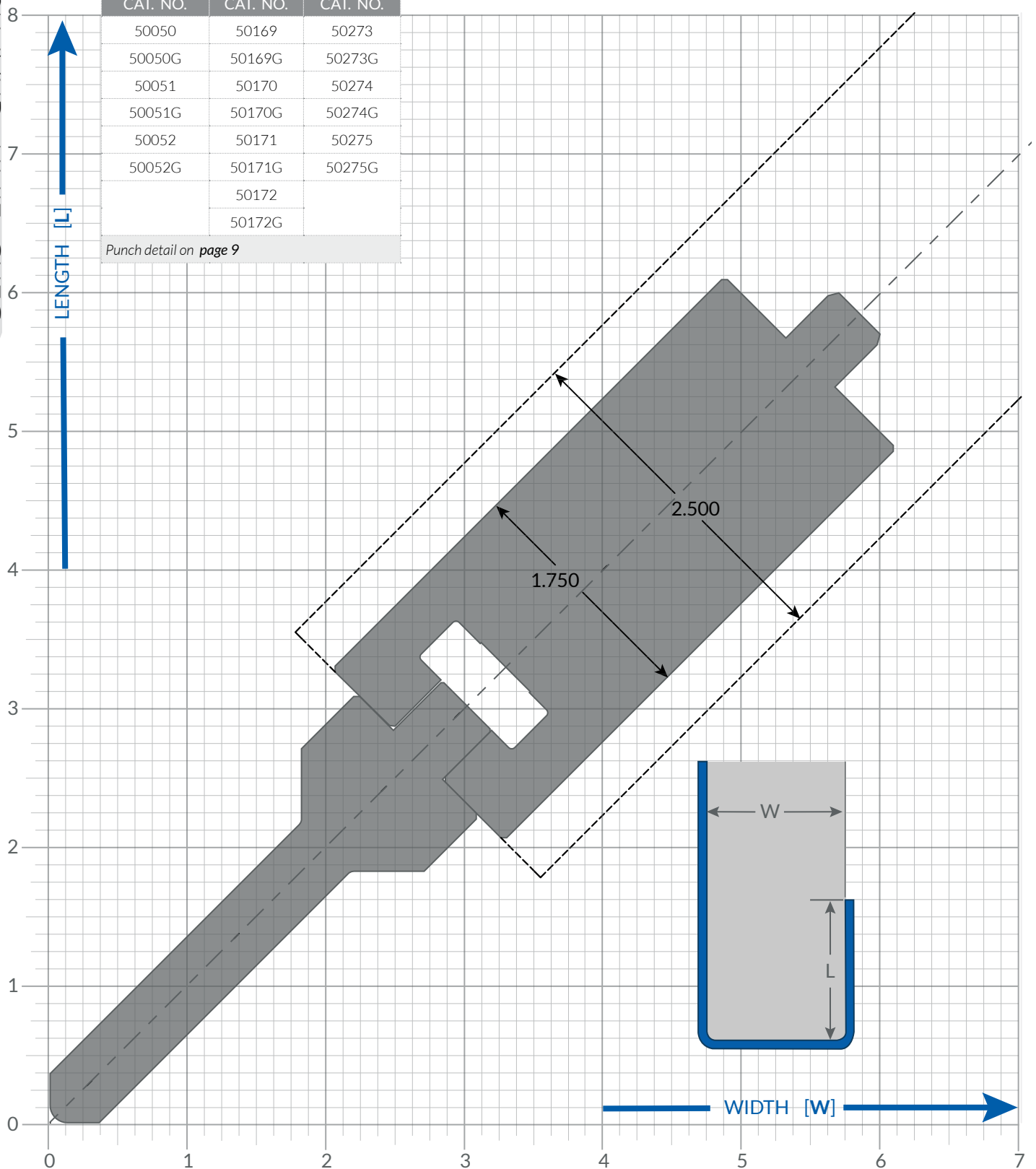
BEND LIMIT GRAPHS



90° ANGLE	88° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50050	50169	50273
50050G	50169G	50273G
50051	50170	50274
50051G	50170G	50274G
50052	50171	50275
50052G	50171G	50275G
	50172	
	50172G	

Punch detail on [page 9](#)

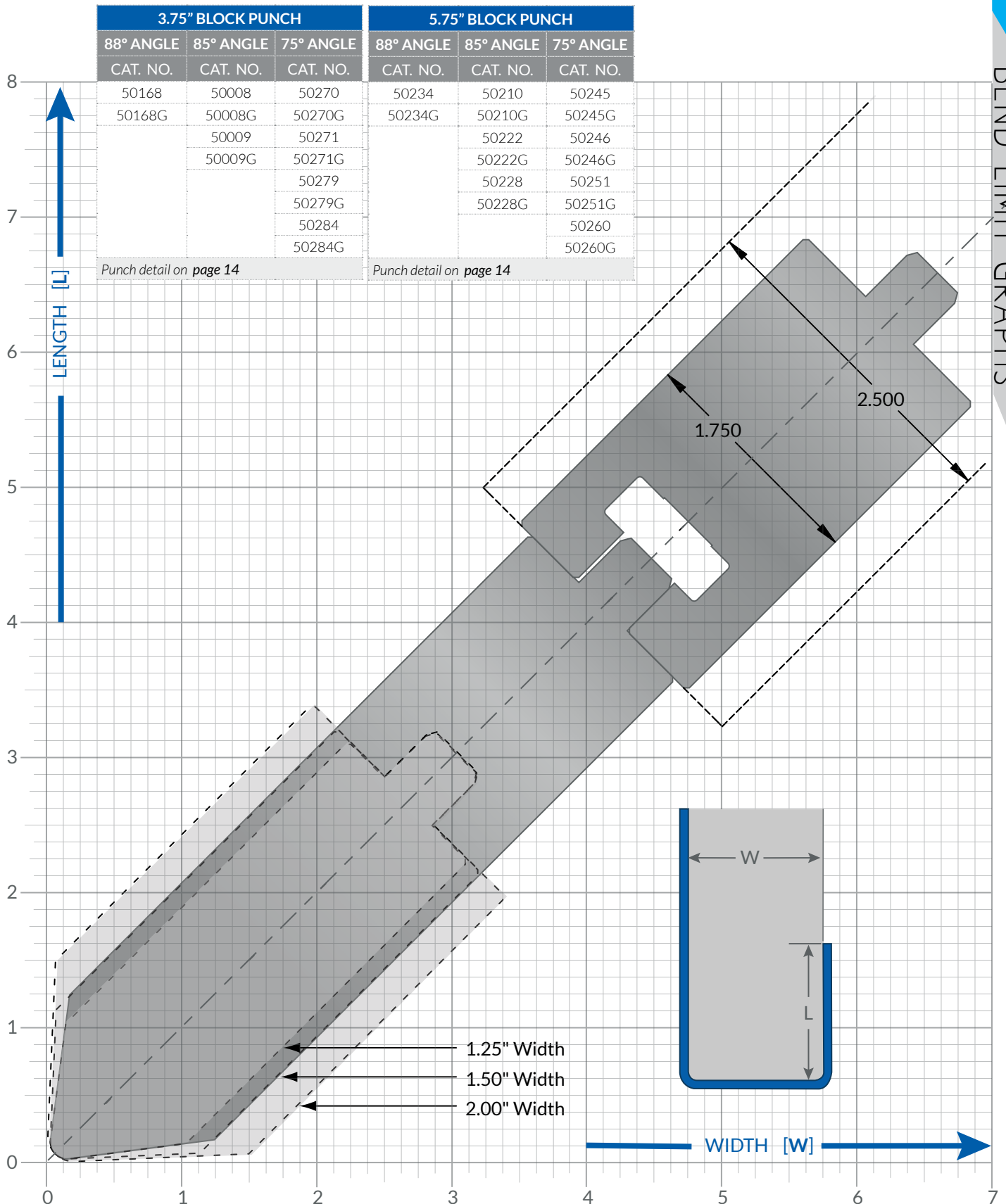
BEND LIMIT GRAPHS



3.75" & 5.75" BLOCK PUNCH - 88°, 85°, 75°



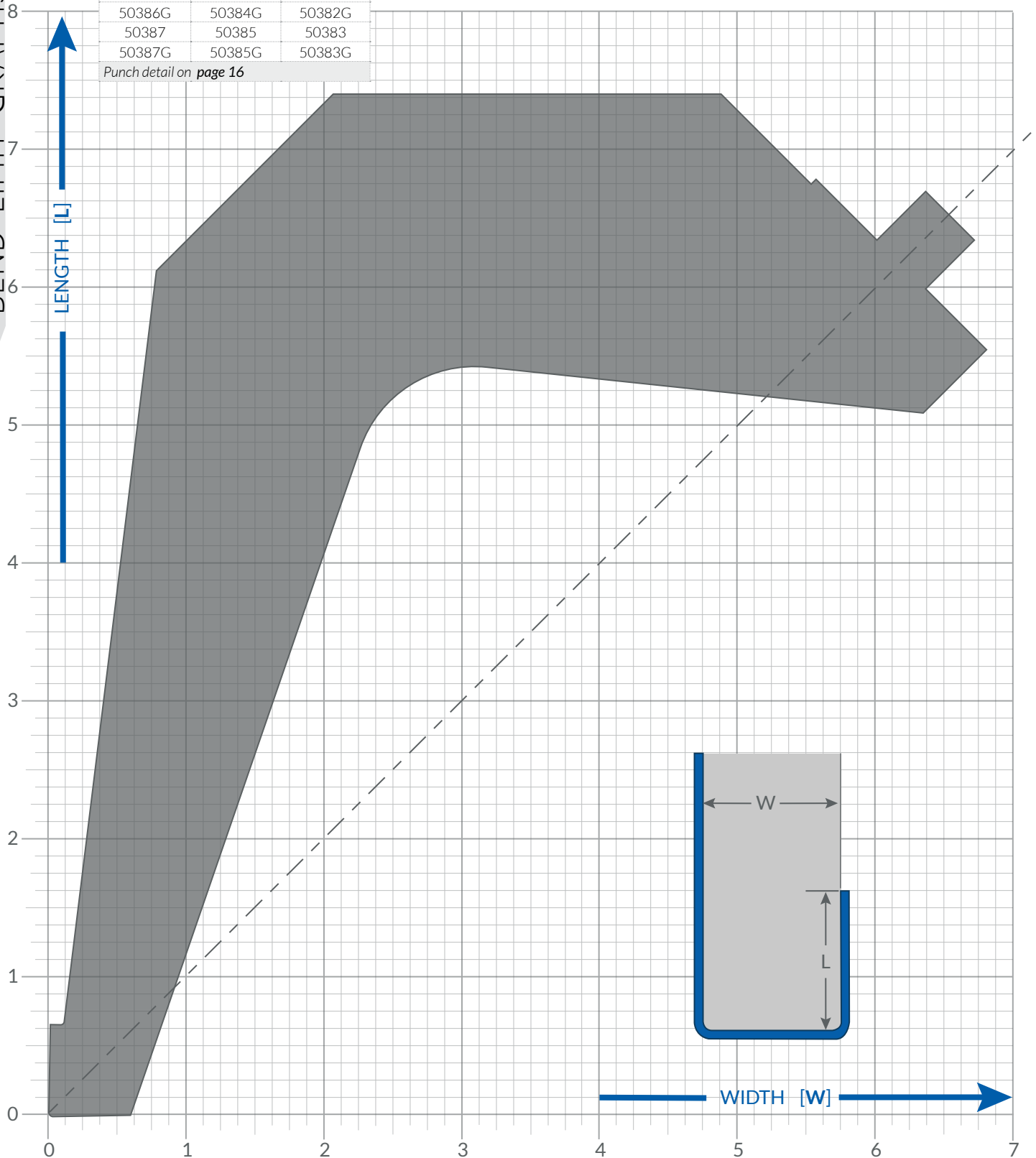
BEND LIMIT GRAPHS

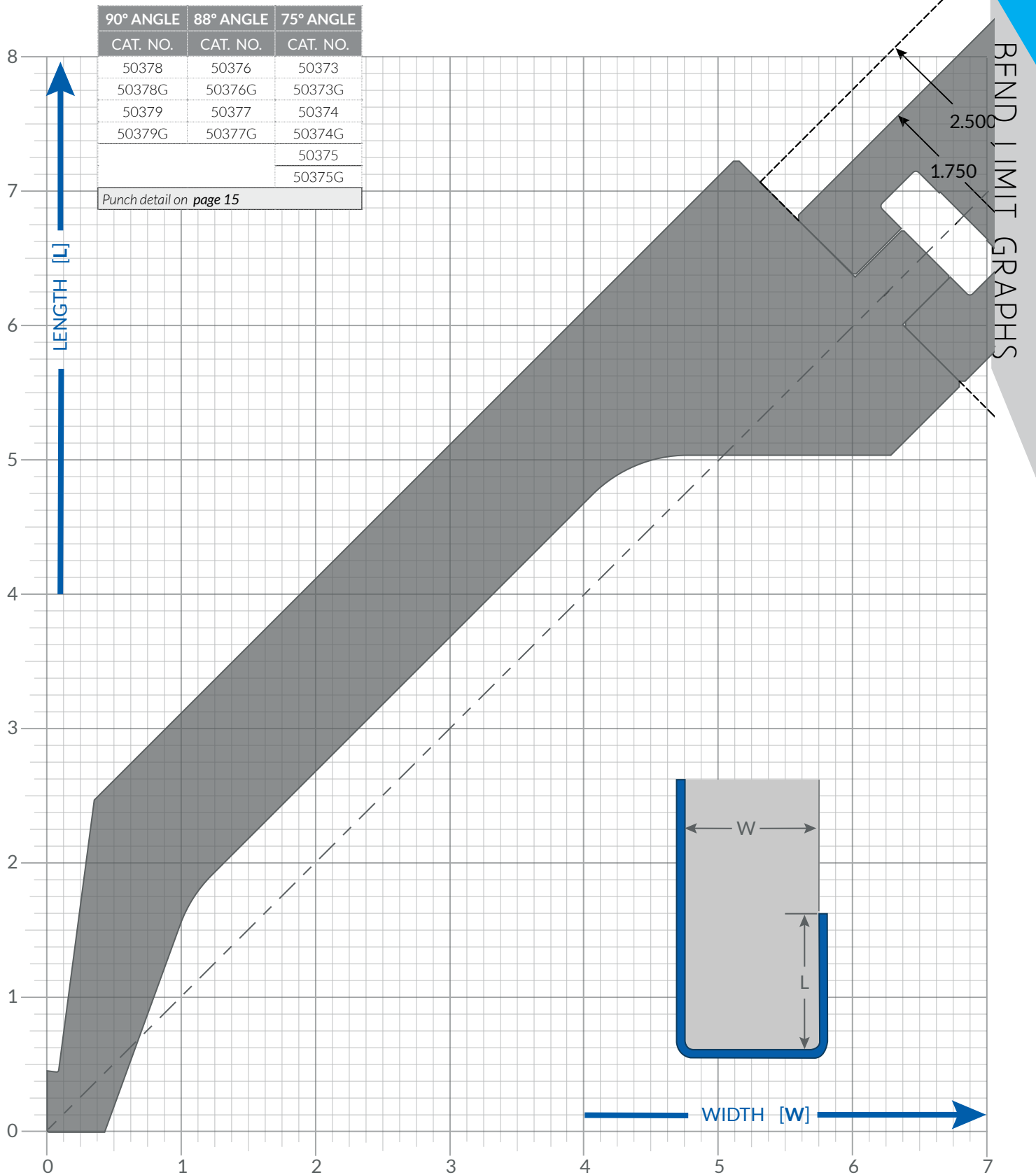


90° ANGLE	88° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50386	50384	50382
50386G	50384G	50382G
50387	50385	50383
50387G	50385G	50383G

Punch detail on [page 16](#)

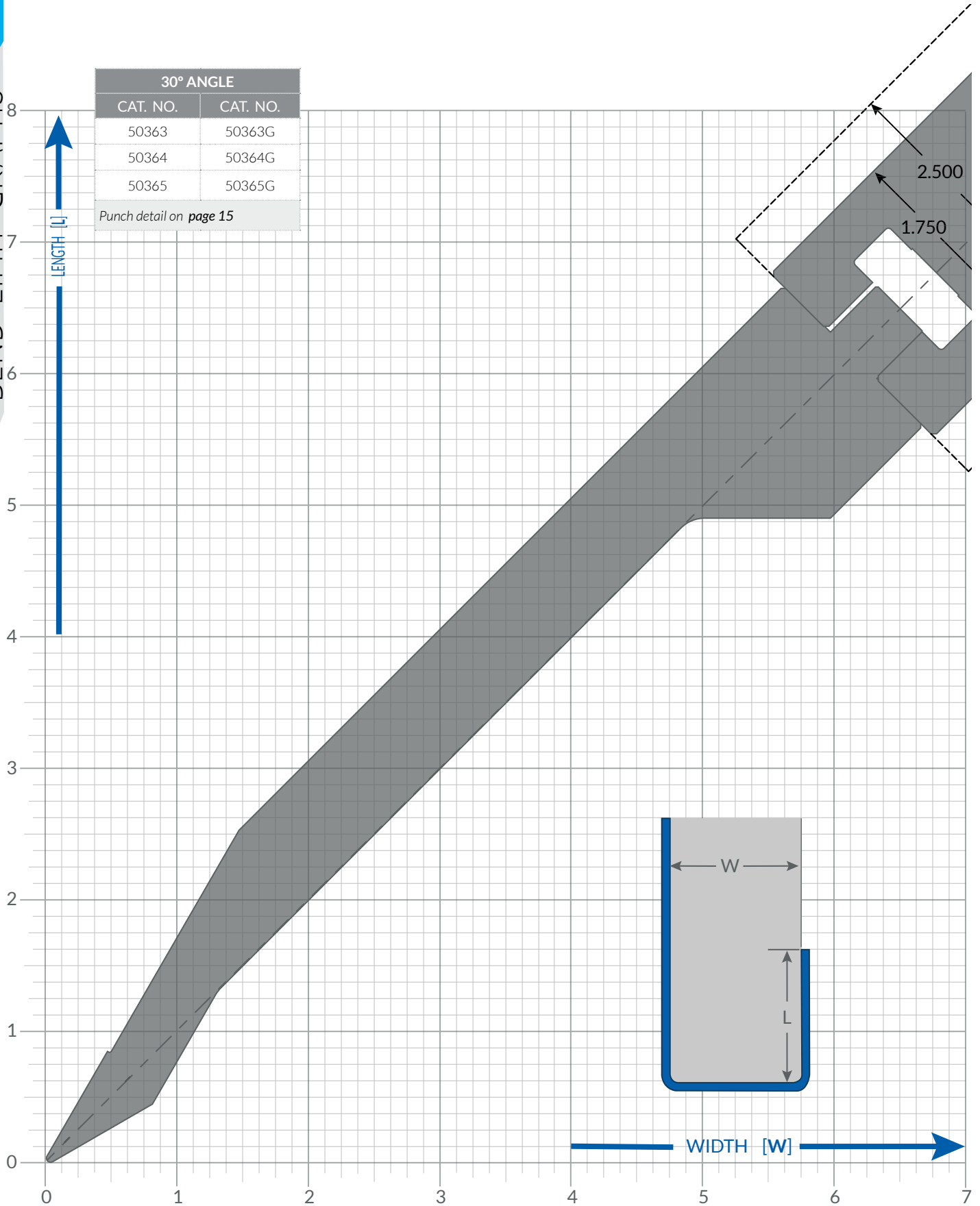
BEND LIMIT GRAPHS





BEND LIMIT GRAPHS

30° ANGLE	
CAT. NO.	CAT. NO.
50363	50363G
50364	50364G
50365	50365G
Punch detail on page 15	



SPECIALS



CHALLENGE US!

OUR “NEVER SAY NO” ATTITUDE

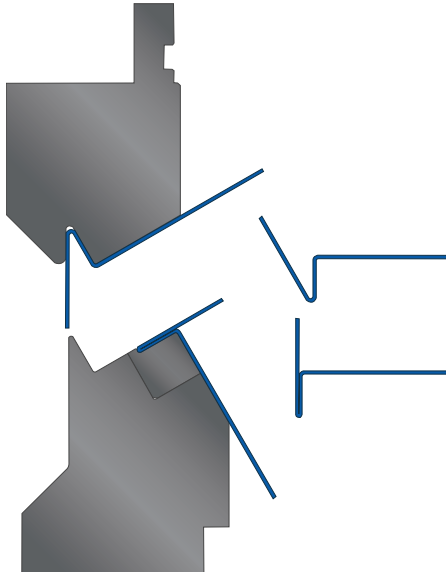
We regularly help customers with their most challenging applications. Our innovative solutions simplify complex bends and make the impossible possible. We are defined by our ‘never say no’ attitude. Bring us your most complex problem and we will work with you until we’ve found an effective solution.

QUALITY MATERIALS. QUALITY CONTROL.

We combine premium materials with specialized manufacturing systems to produce extraordinary products that outlast the competition.

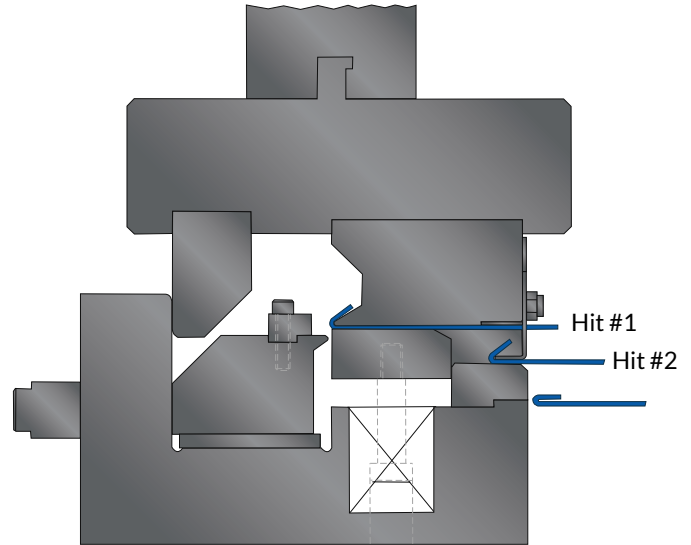
QUICK QUOTES. SHORT LEAD TIMES.

With the fastest lead times in the industry, our tool might ship before the competition provides a quote.



AH1 ANGLE HEM

Typically used to form seams in excess of 1/2 inch.

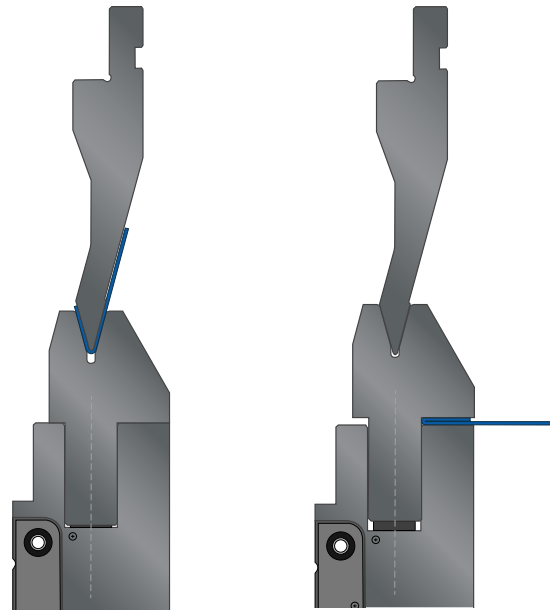


FSH1 FLAT SHEET HEM



HDH1 HEAVY DUTY HEM

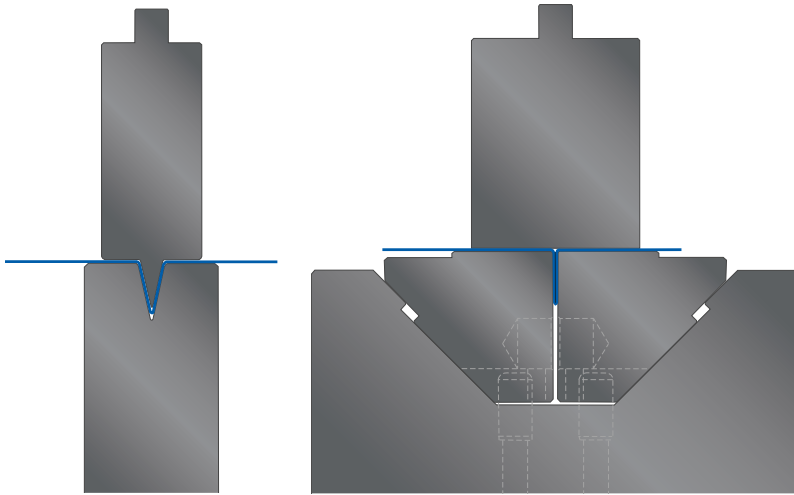
Heavy Duty Hemming for thick gauge applications.



See this tool in action on the
[Wilson Tool YouTube Channel](#)

PH1 PNEUMATIC HEM

This tool set introduces pneumatic cylinders to rapidly open and close the pre-form insert. This set removes the inconsistency associated with pre-forming or acute bending on a spring actuated insert.

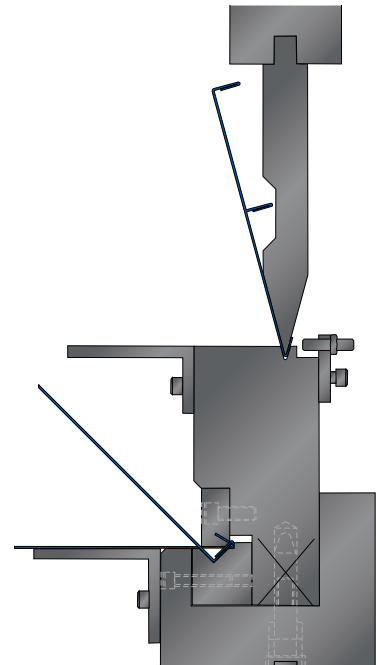


SH1 SEAM HEM

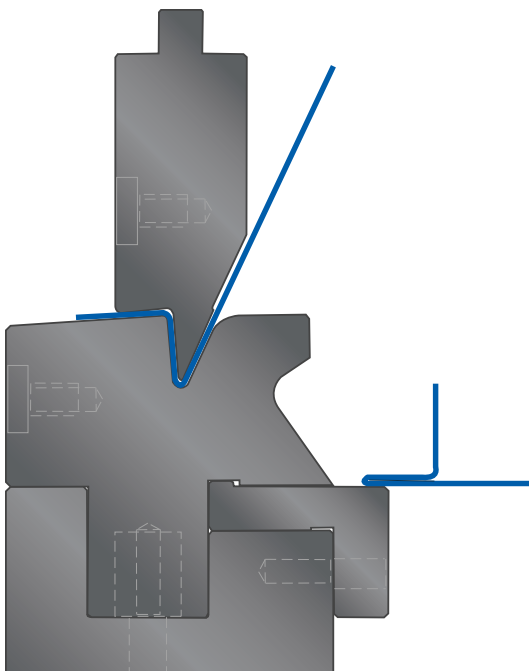
Two tool sets.
Two machine strokes.



See this tool in action on the
[Wilson Tool YouTube Channel](#)

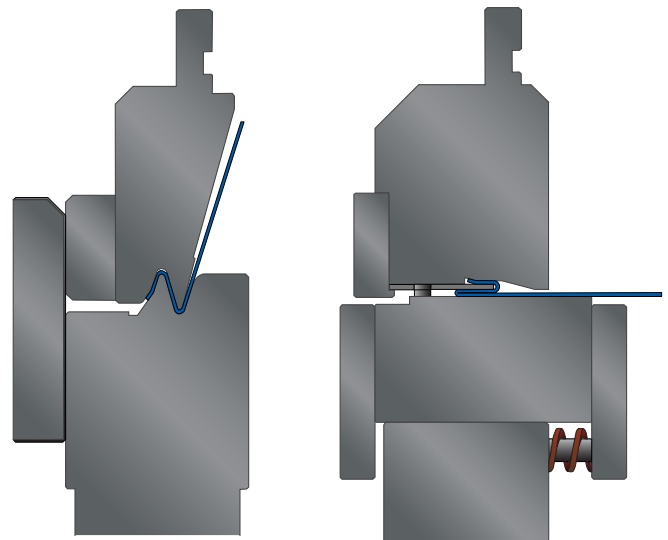


SSH2 STANDING SEAM HEM



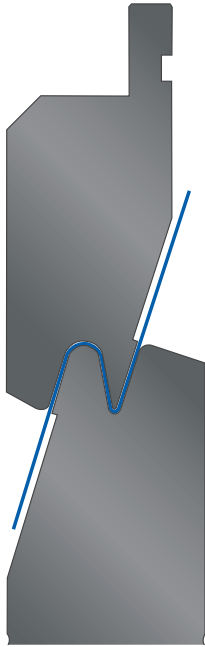
SSH1 STANDING SEAM HEM

Used to form a standing seam in 2 strokes.
The first stroke forms an acute angle
offset, the second stroke closes the seam.

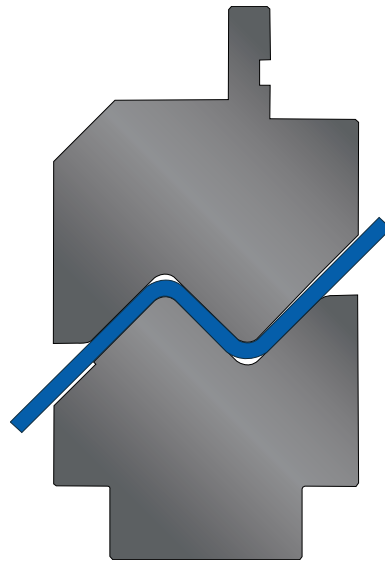


ZH1 Z HEM

Creates a Z-hem or a Clip hem.
Shim can be built in to maintain a gap in the hem.
Two tool sets.
Two machine strokes.

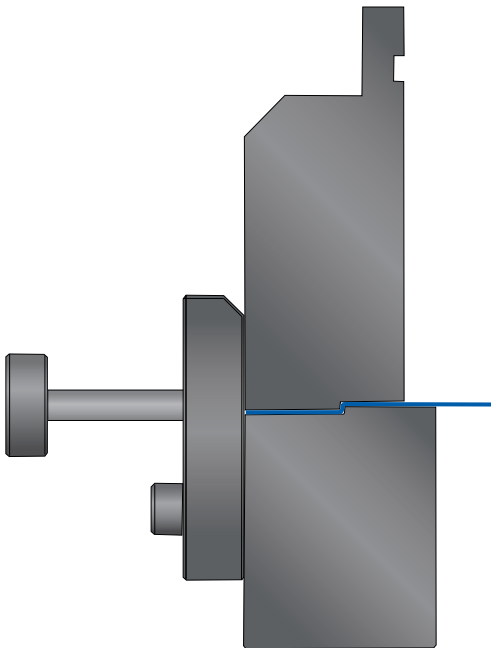


AO1 ANGLED OFFSET



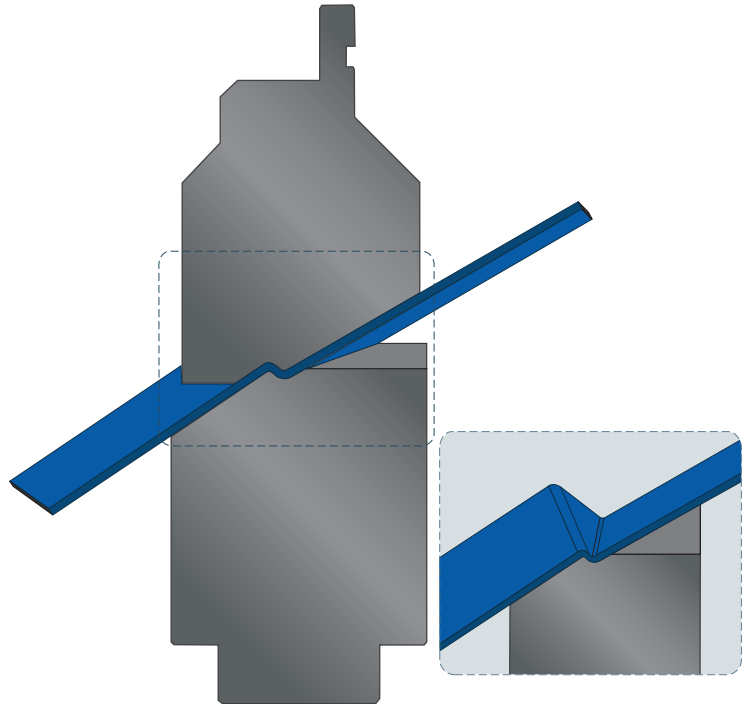
LO1 LARGE OFFSET

Used for heavy gauge, large offset bending.



HO1 HORIZONTAL OFFSET

For offsets that are approximately one material thickness. Prevents material whip up. Thrust plates and adjustable back gauging are provided.

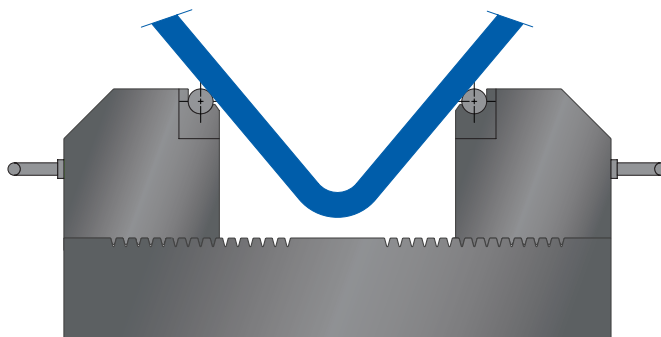


NPO1 NON PARALLEL OFFSET

For offsets that have nonparallel flanges. Inset shows punch hidden for a clear view of the formed sheet.

ADJUSTABLE DIE

- Can be configured to remain on the press permanently and function as a standard die holder.
- 1 - 24" openings available.
- Cover bellows available to keep the grooves that are used to adjust the dies free from dirt and dust.
- Clamping options for side blocks:
 - » Manual clamping.
 - » Hydraulic clamping, manual movement.
 - » Hydraulic clamping, automated movement.



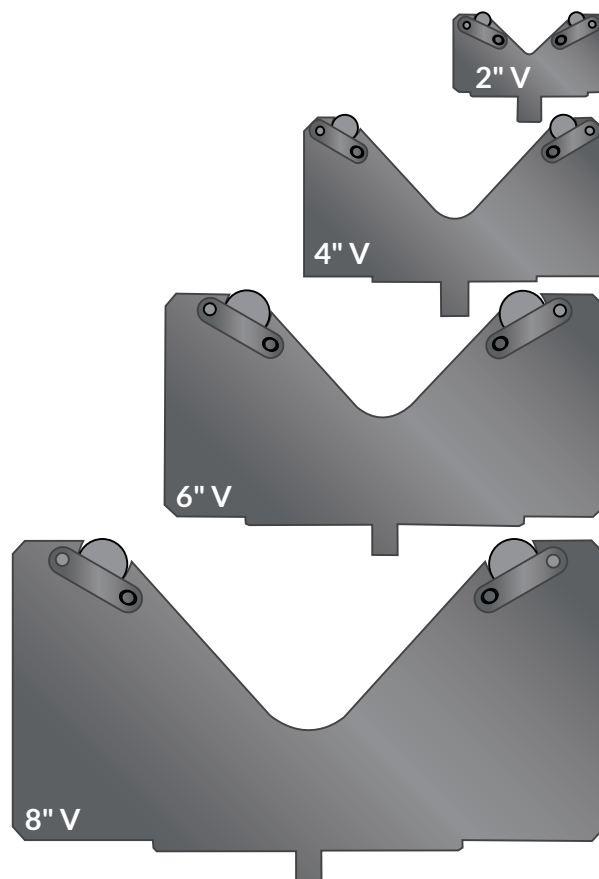
See this tool in action on the
Wilson Tool YouTube Channel

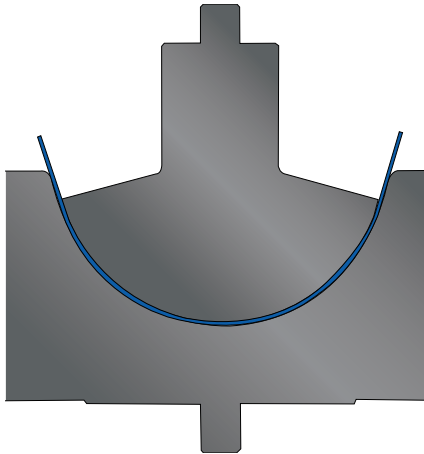
REPLACEABLE SHOULDER DIE

Replaceable shoulder dies are ideal for extreme wear conditions created then forming heavy plate and abrasive materials.

Replaceable inserts eliminate the need for replacing the entire die when the die shoulders wear.

Available in multiple V sizes and 75° and 85° configurations.



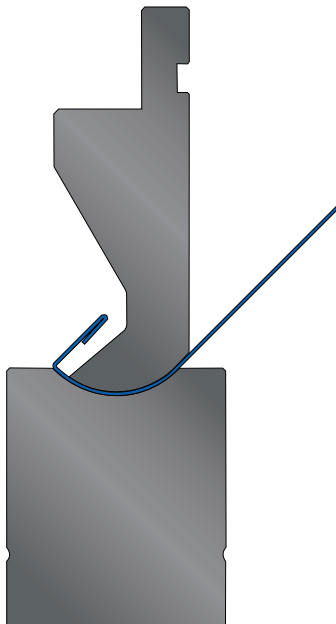


LR1 LARGE RADIUS

Bottoming radius set with spring-back allowance built in. It is manufactured to form a radius in a specific type and thickness of material for tight tolerance requirements.

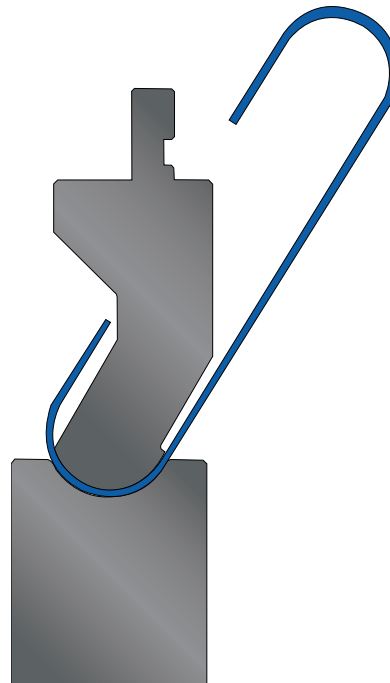


See this tool in action on the
Wilson Tool YouTube Channel



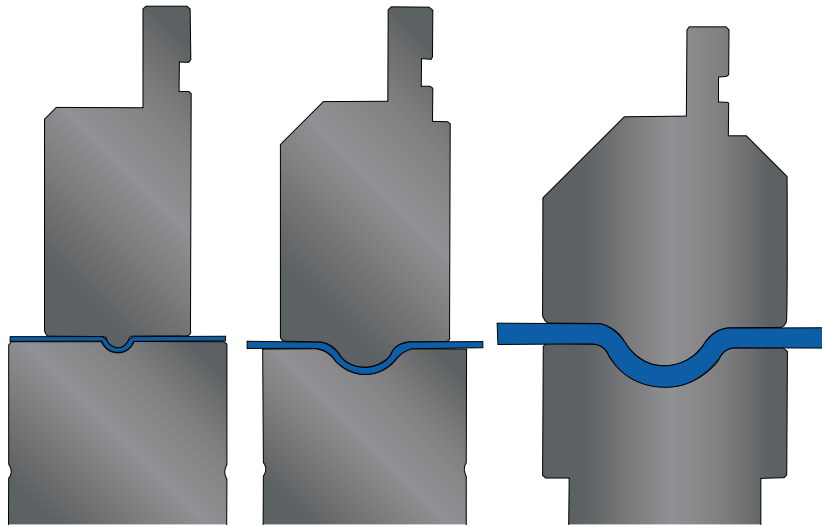
LR2 MULTI-HIT RADIUS

Used when a full radius is required before the flange. The solution may require multiple strokes.



LR3 MULTI-HIT RADIUS

Used when the return flange starts at the radius end. The solution may require multiple strokes.

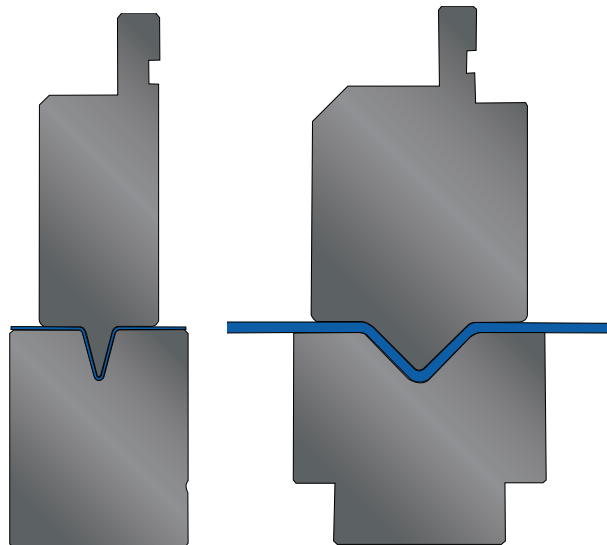


SR1 STRENGTHENING RIB

Produce a strengthening rib in one stroke. Spring back allowance is built in. Closed end and open end ribs are available.

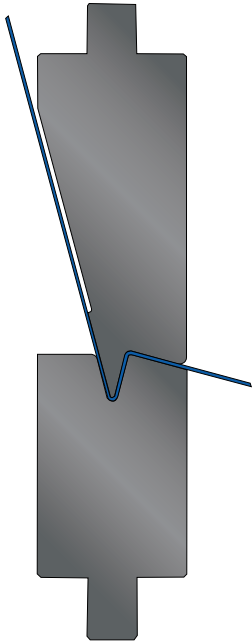


[See this tool in action on the Wilson Tool YouTube Channel](#)

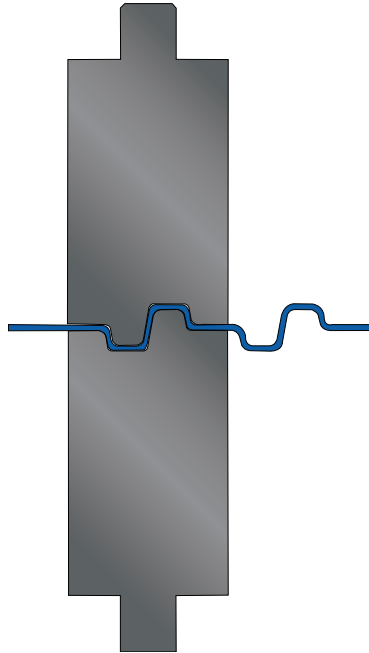


VR1 V RIB

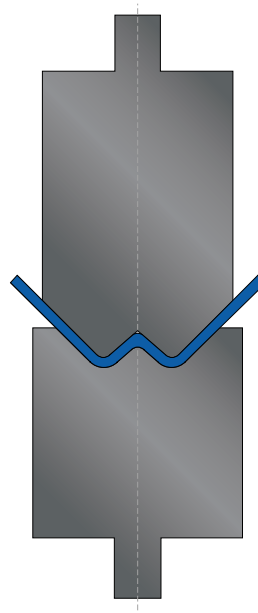
Produce a V rib in one stroke. Spring back allowance is built in.



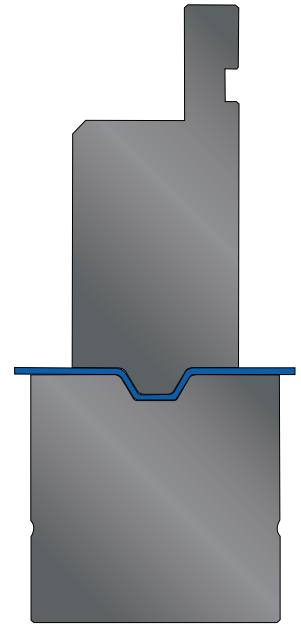
FM1 FORMING



FM2 FORMING

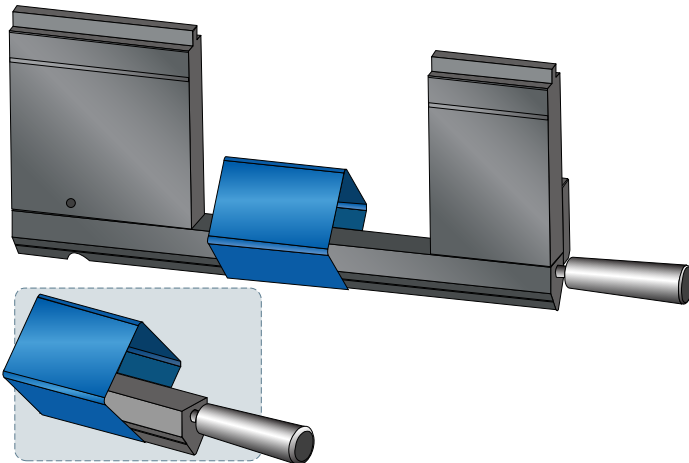


FM3 FORMING



OH1 OPEN HAT

A large variety of custom forming sets are available.
Custom built to suit any specific requirement.
Call for specific application requirements.

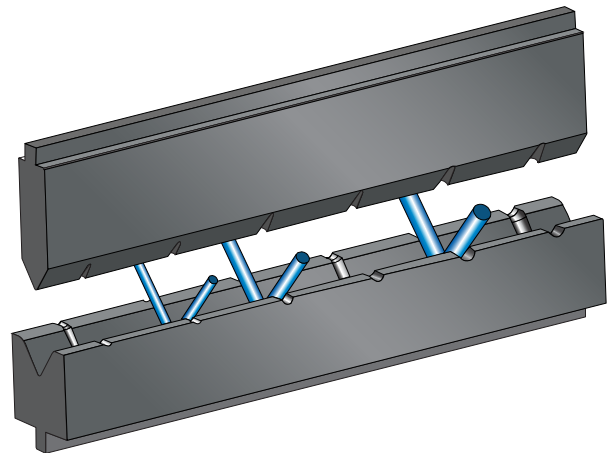


W1 WINDOW

Used when minimum return flange clearance is required.

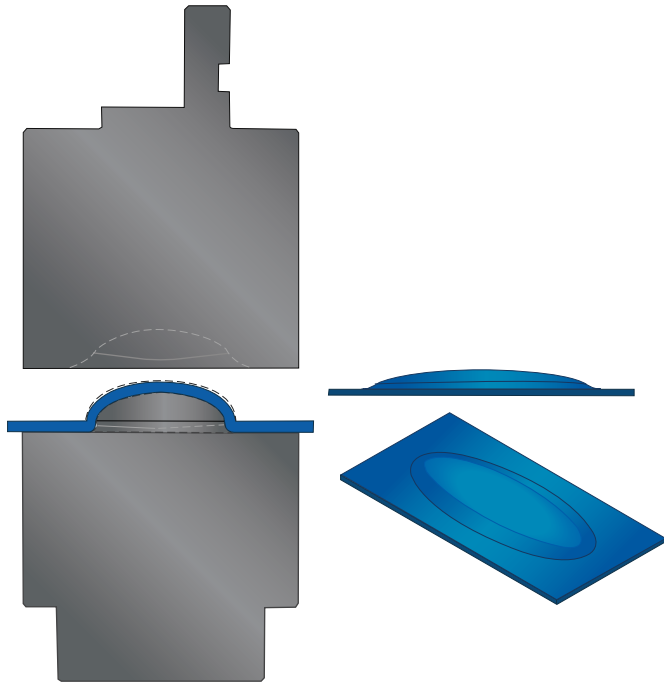


See this tool in action on the [Wilson Tool YouTube Channel](#)



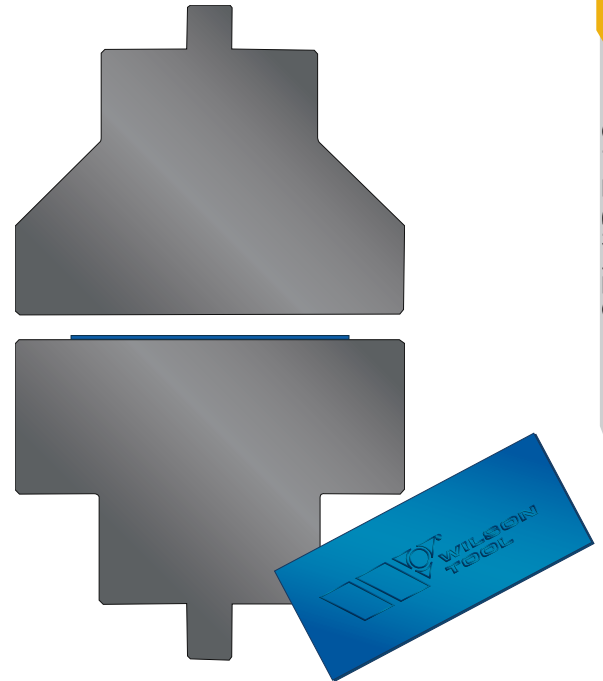
RB1 ROD BENDING

Provides nesting for the rod during the forming process.

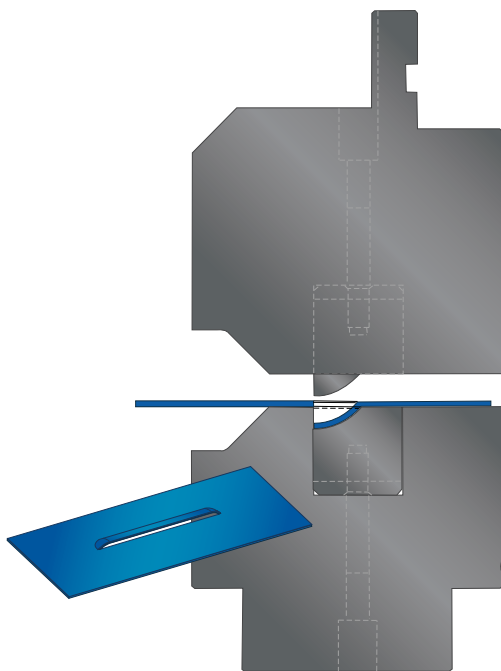


EM1 EMBOSS

A variety of raised emboss and chisel point emboss sets are available.

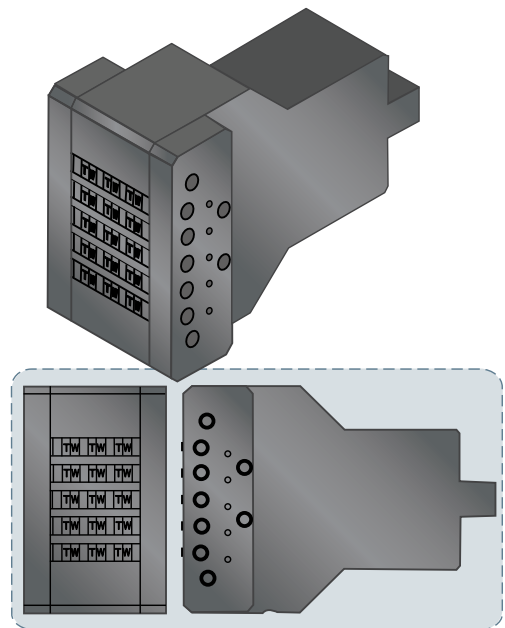


LG1 LOGO



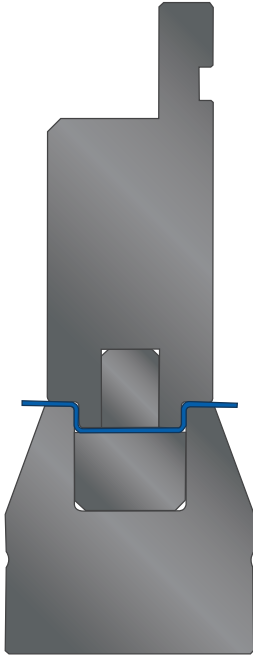
LL1 LOUVER

Multiple louver configurations are available. For louver forming, sheet must be pre-slit.

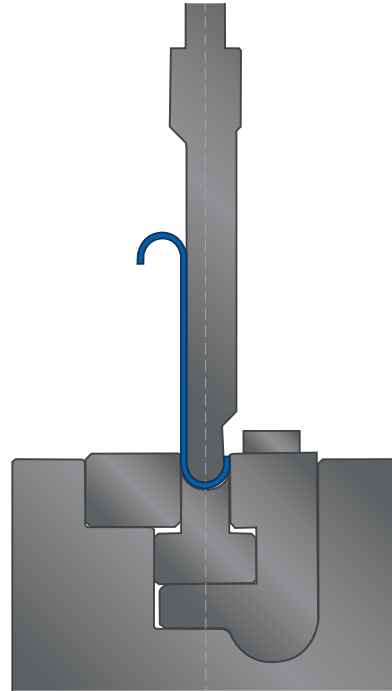


LS1 LETTERSTAMP

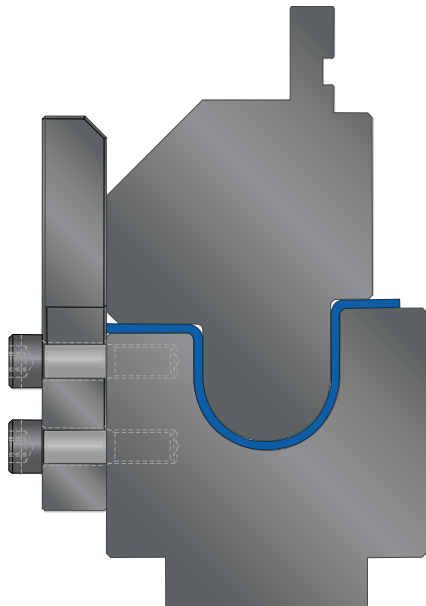
Provides chisel point embossing with interchangeable characters. Single row or multi-row available.


HT1 HAT CHANNEL

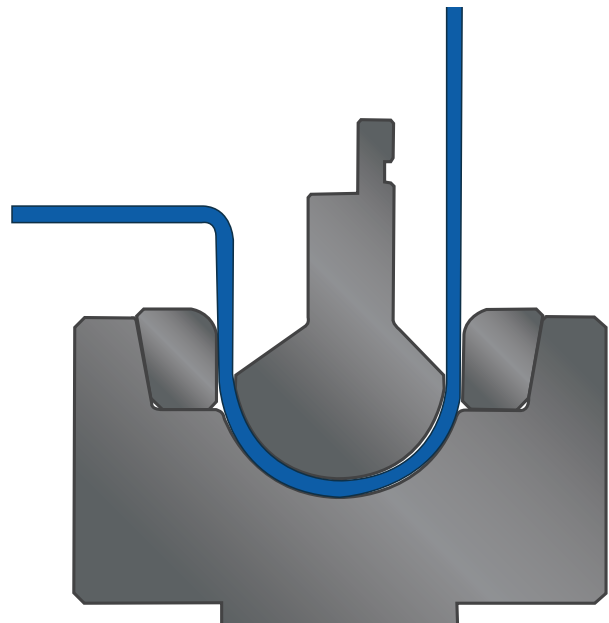
Provides straight wall or angled wall hat channel bending in one stroke.
Spring back allowance built in.


UC1 U CHANNEL

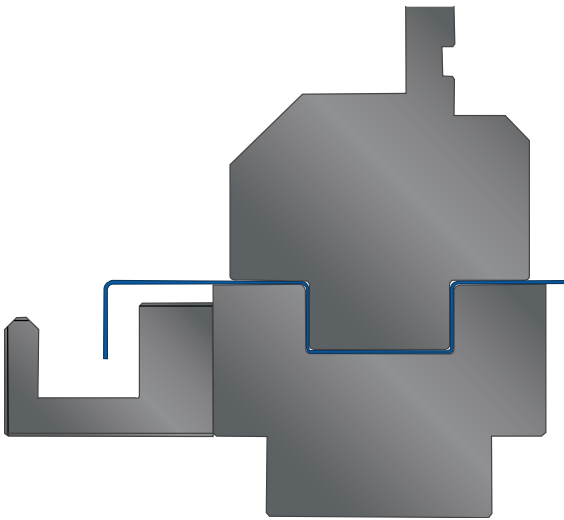
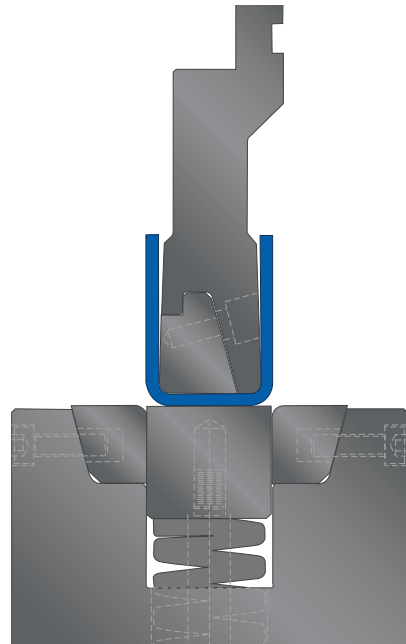
Recommended for applications where considerable spring back is encountered. Secondary flattening operations may be required.


UC2 U CHANNEL

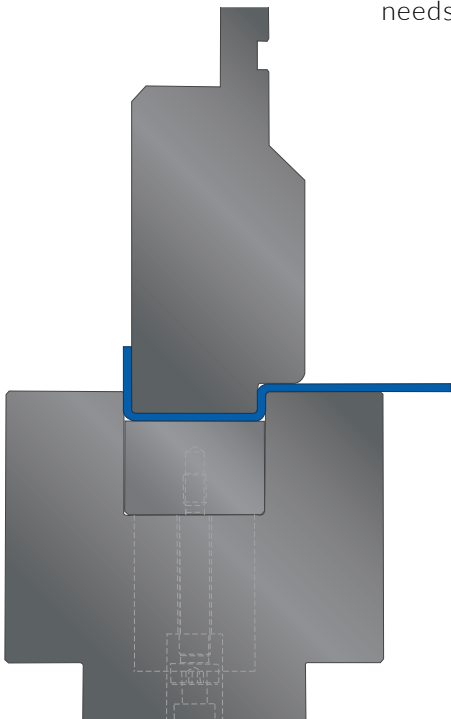
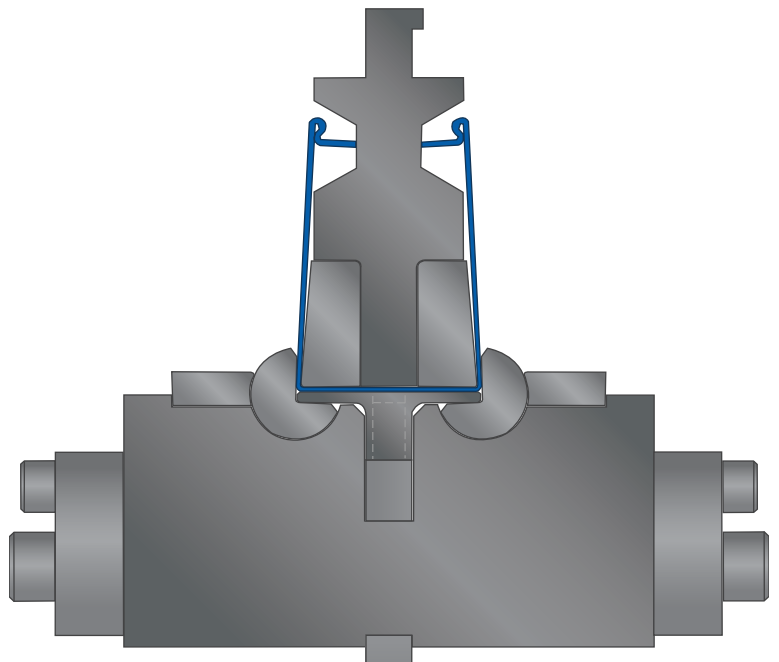
Recommended for applications where considerable spring back is encountered. Secondary flattening operations may be required.

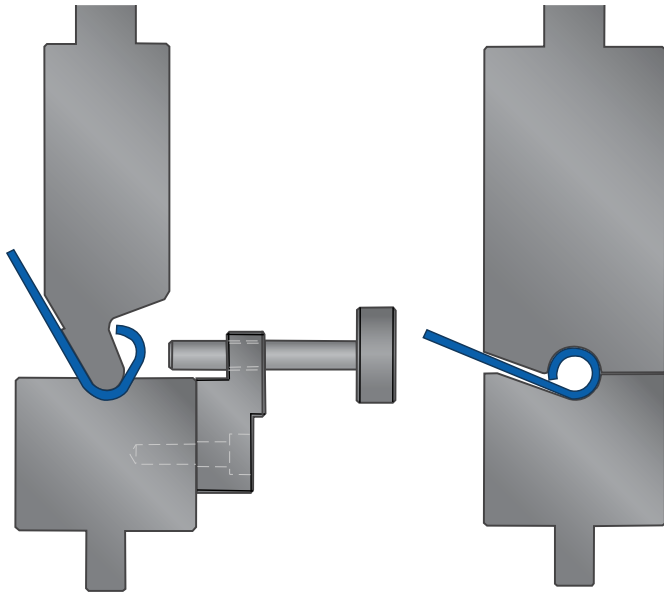

UC3 U CHANNEL

Recommended for applications where considerable spring back is encountered. Secondary flattening operations may be required.

**C1 CHANNEL****C2 CHANNEL**

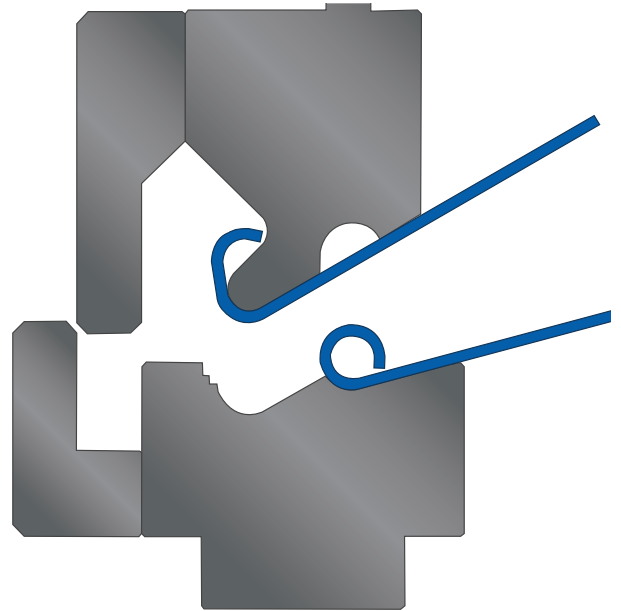
These applications are for deep channels when the channel bottom needs to remain flat.

**C3 CHANNEL****C4 ROTARY BEND CHANNEL**



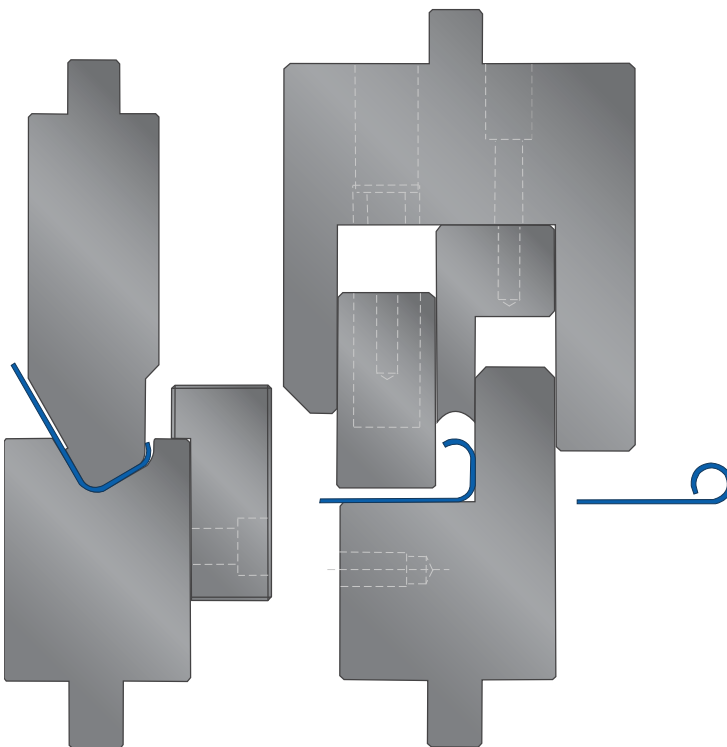
CL1 CURL TOOL SET

2 tool sets, 3 machine strokes.



CL2 CURL TOOL SET

Typically used for thick materials and large diameter curls.
1 tool set, 3 machine strokes.

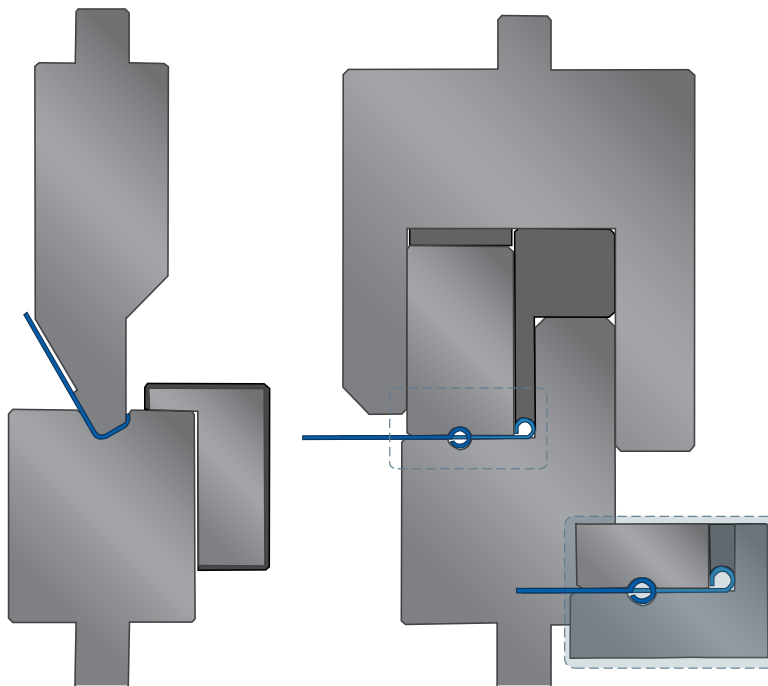


CL3 CURL

Used for hinges and corner beading. 2 tool sets, 2 machine strokes.



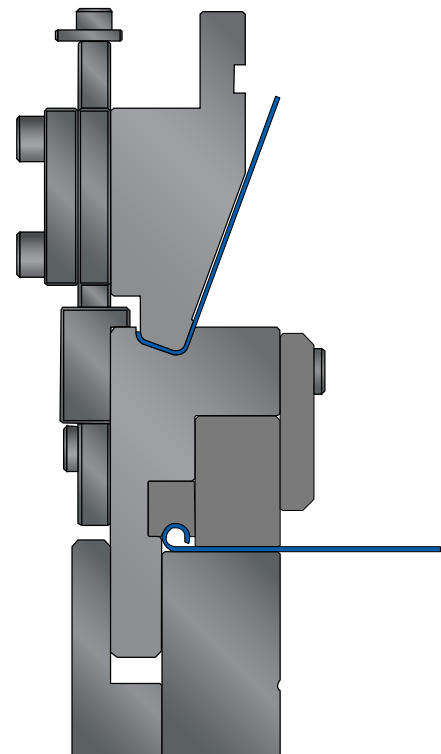
See this tool in action on the
[Wilson Tool YouTube Channel](#)

**CL4 CENTER CURL APPLICATION**

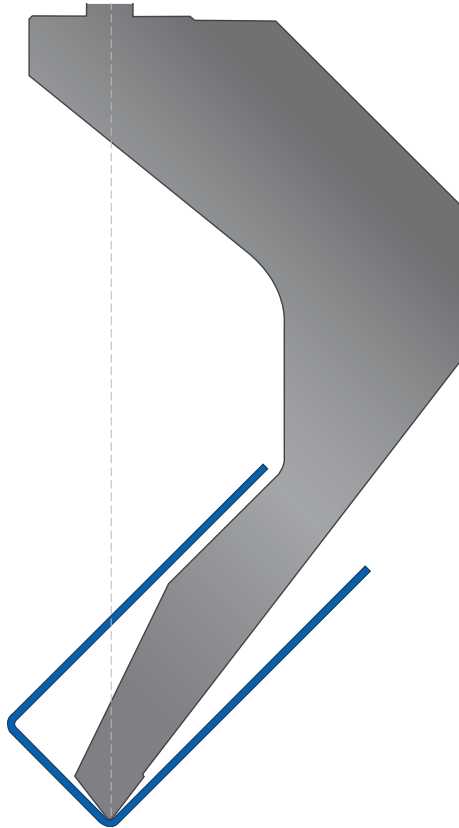
2 tool sets, 3 machine strokes.



See this tool in action on the
Wilson Tool YouTube Channel

**CL5 DOUBLE DECKER TOOL SET**

Used for hinges and corner
beading.
1 tool set, 2 machine strokes.



PR1



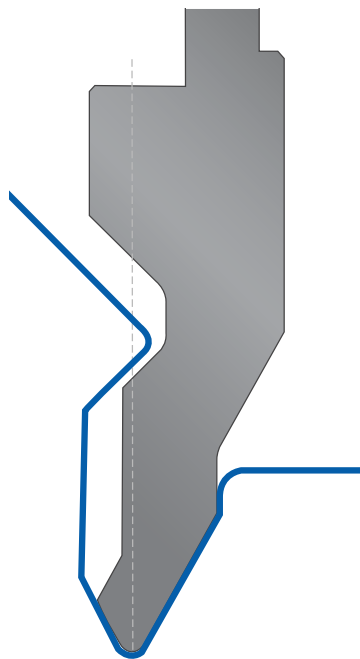
PR2



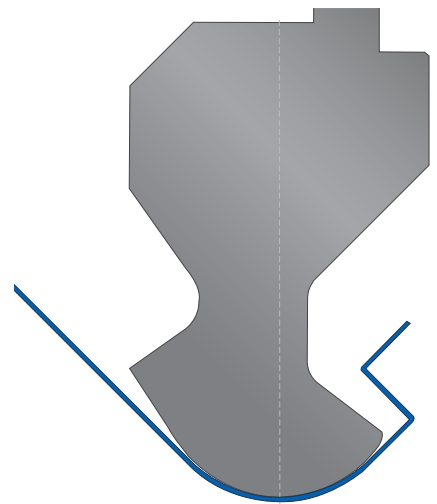
PR3



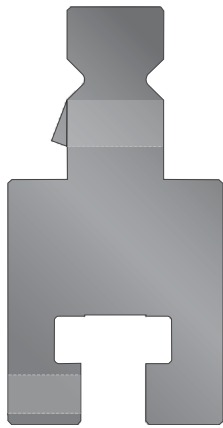
PR4



PR5



PR6



WT - AMERICAN



**AMERICAN SELF-SEAT
HOLDER**

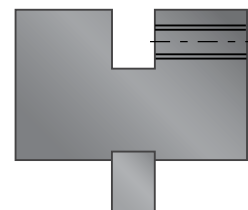


**AMERICAN DEEP
GOOSENECK HOLDER**

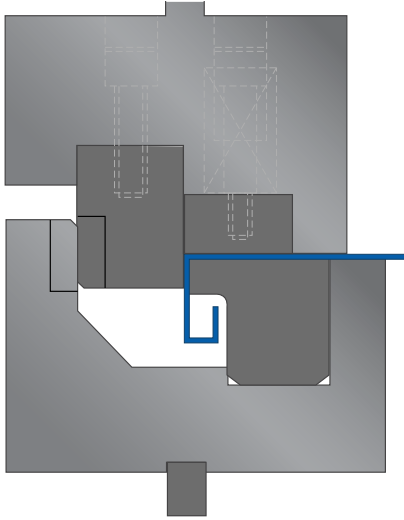


EURO Z1 OR Z2 CLAMPING

Cat. No. 43002



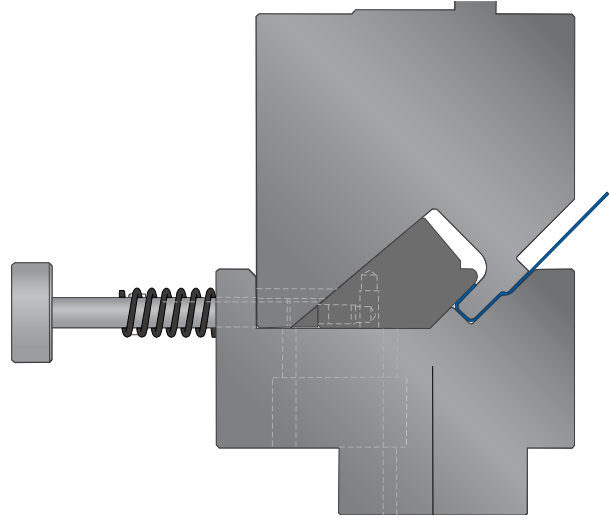
DIE HOLDER



WD1 WIPE DOWN

Holds the sheet flat while wiping the flange down.

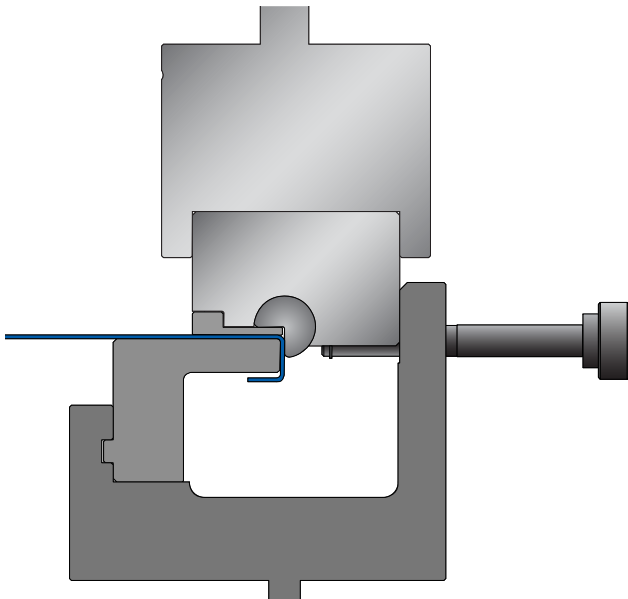
Ideal for large panels and high production.



WO1 WIPING FORM

Holds the sheet flat while wiping the flange up or down.

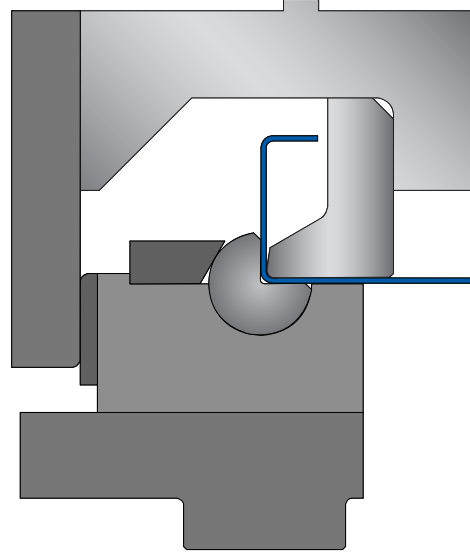
Ideal for large panels and high production.



RTD ROTARY FLANGE FORMING FORM DOWN

Holds the sheet flat while forming. Overbend allowance is built in to compensate for material springback.

Ideal for large panels and high production.



RTU ROTARY FLANGE FORMING FORM UP

Holds the sheet flat while forming. Overbend allowance is built in to compensate for material springback.

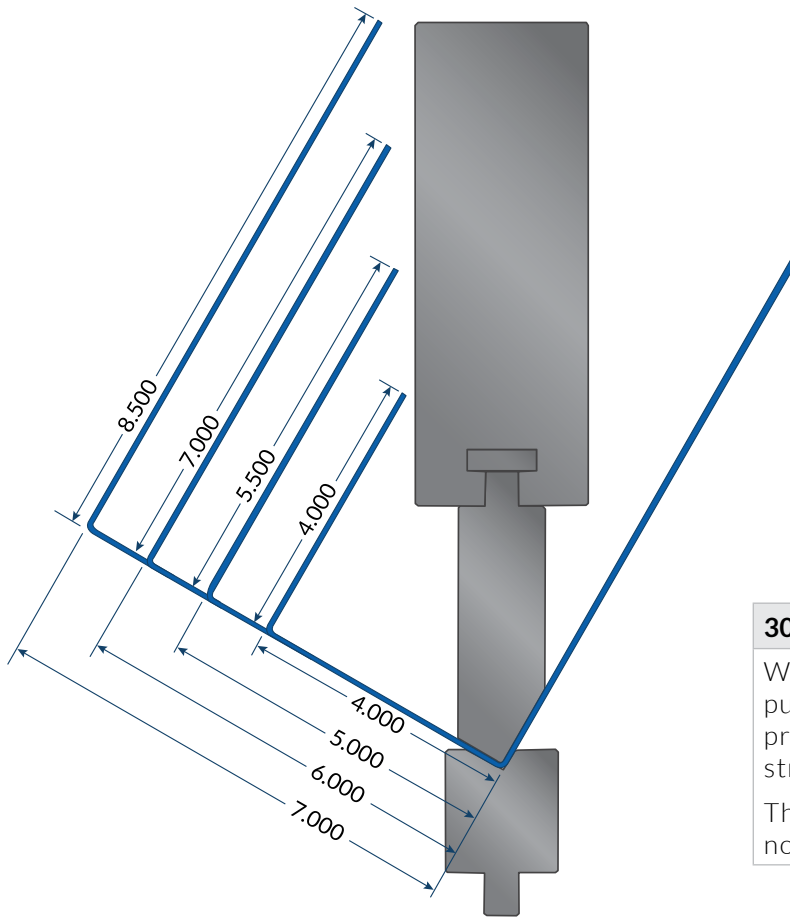
Ideal for large panels and high production.



See this tool in action on the Wilson Tool YouTube Channel



See this tool in action on the Wilson Tool YouTube Channel



30/60 DEEP BOX BENDING

When forming a 4-sided box, the punch must be sufficient height to prevent the pre-formed side from striking the upper beam.

This is a thrusting application and not suitable for all press brakes.

SWING EAR SECTIONS

Box bending with return flanges.

Standard bend length 150mm each ear on all punch profiles, 100mm length available on select profiles.

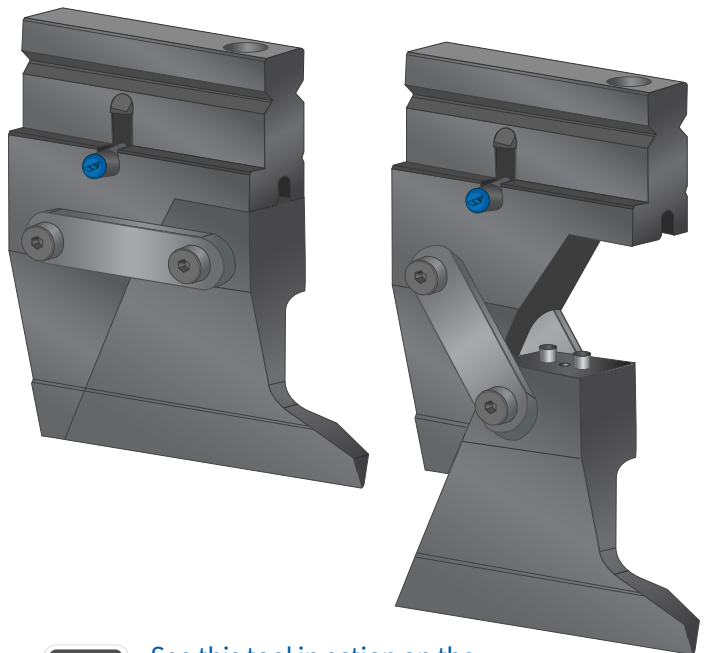
Ear(s) recess/fall in left to right .500" - .750", not to be confused with vertical movement. There will be approximately 1.0" - 1.5" of relief to rotate and drop the finished part.

Punch profile will match the standard profile only in height, angle and radius. Width will be wider where hinged.

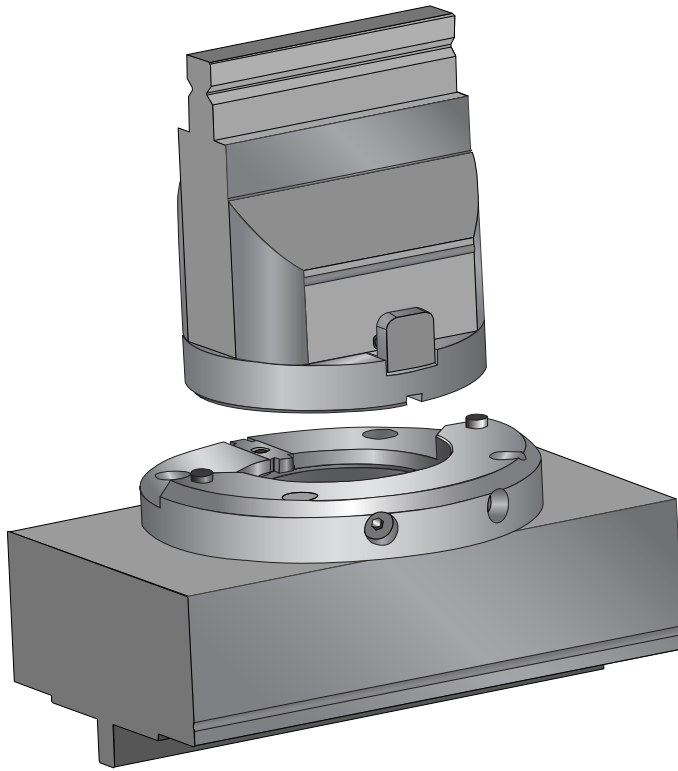
Consider open height and stroke with the additional height achieved by ear movement.

Application driven - consult with sales desk to review expected results prior to ordering.

Priced per pair (total 12" length), singles priced upon request.



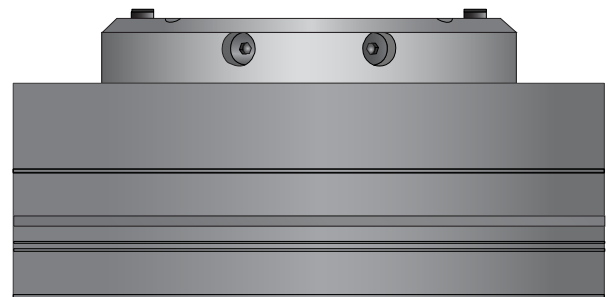
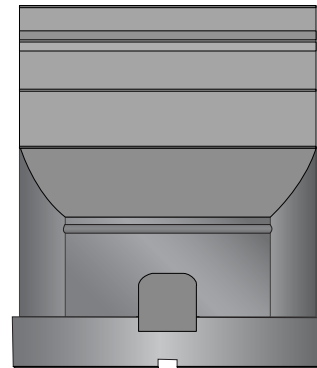
See this tool in action on the
Wilson Tool YouTube Channel



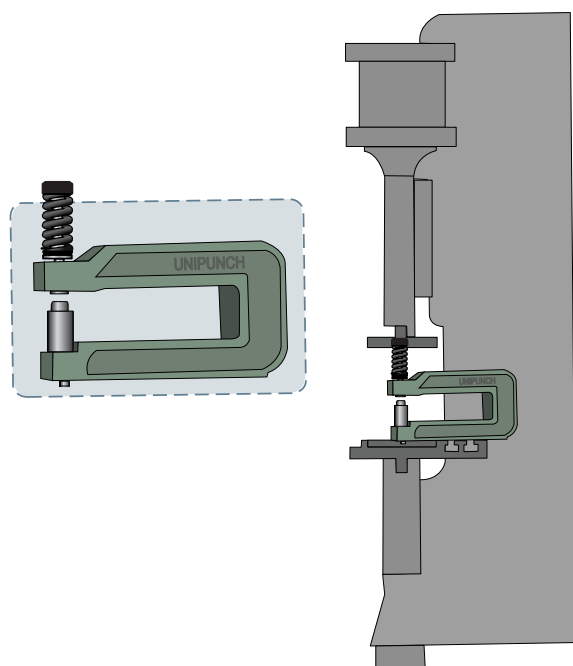
TA1 TURRET ADAPTER

This tooling set adapts punch press tooling to use in a press brake.

Multiple configurations and options are available.

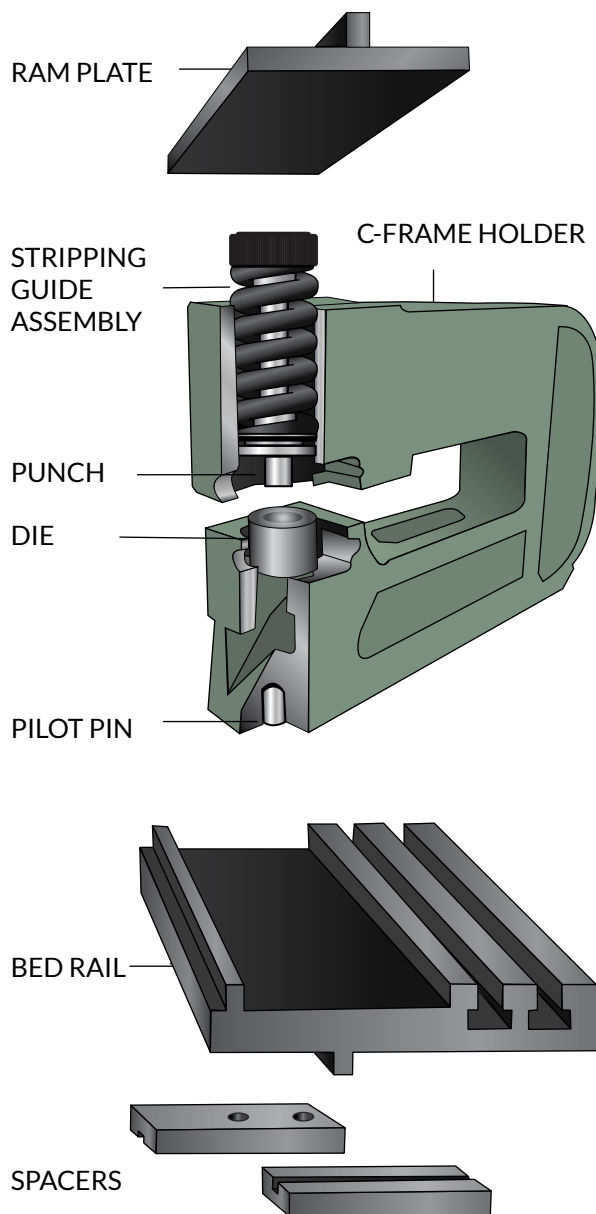


FRONT VIEW



C-FRAME TOOLING

Enables operation of single station thin turret tooling in a press brake.



METRIC HEX KEY WRENCH SET

Press Brake Compatible
.....
Punch Press Compatible



Metric 9 piece long arm set.
Contains 1.5x77, 2x83, 2.5x90,
3x98, 4x106, 5x118, 6x137,
8x156, and 10x170.

.....
Cat. No. 6105

SOFT FACE HAMMER

Press Brake Compatible
.....
Punch Press Compatible



Polyurethane dead-blow hammer.
Steel pellets inside hammer head
impact a split second after the
hammer face, reducing rebound.

.....
Cat. No. 6106

MAGNET SQUARE

Press Brake Compatible
.....
Punch Press Compatible



ON/OFF work holding magnet
150 lb [70 kg] of hold force.
Size: [30] Square

.....
Cat. No. 974150

MAGNETIC SQUARING ARM

Press Brake Compatible
.....
Punch Press Compatible



DESCRIPTION	CAT. NO.
Magnetic Squaring Arm LEFT	42750L
Magnetic Squaring Arm RIGHT	42750R
30° Die Adapter	42750A

Not intended for use with American Precision style arrow dies.

DIGITAL ANGLE CUBE

Press Brake Compatible

Punch Press Compatible



The compact size of the Digital Cube allows you to quickly read bend angles of work material.

- Real time display of angle comparison.
- Magnets on three sides
- Self rotating display for 180° readings.

Cat. No. 974119

DIGITAL PROTRACTOR SET

Press Brake Compatible

Punch Press Compatible



Lightweight, easy-to-use, highly accurate protractors measure angles from 0° to 360°.

- Accuracy: +/- .01 degrees.
 - Set angles in .05 degree increments
 - Front locking lever to hold the arm position.
- A hold function and reverse reading capability.

Cat. No. 980065

DIGITAL THICKNESS GAUGE

Press Brake Compatible

Punch Press Compatible



- Compact size with spring loaded jaw mechanism
- Accuracy to 0.002"
- Readings in millimeters, inches and fractions

Cat. No. 974117

DIGITAL EASY READ CALIPER

Press Brake Compatible

Punch Press Compatible



- Large digital readout [0.875" x 2.375"]
- Measuring range 0 - 6"
- Accuracy to 0.001"

Cat. No. 974118

URETHANE 100' ROLLS

Press Brake Compatible

Punch Press Compatible

Urethane dies are also available for mark-free bending. Contact our sales desk for pricing and availability.
See page 24 for Urethane Pads and Holders.



DESCRIPTION	CAT. NO.
.015" x 6" [.4 X 152mm]	42530
.030" x 6" [.8 x 152mm]	42531
.022" x 6" [.56 x 152mm]	42532

DUROMETER:

42530 and 42531	85A
42532	95A

TOOL STORAGE CABINET

6 Drawer Tool
Storage Cabinet

Cat. No. 90020



Extended wheel base
prevents the cabinet from
tipping.



PUNCH STORAGE:

- Punches held in upright custom steel U-channels
- 12 punch channels for button style tooling
- 4 punch channels for solid tang tooling
- Additional separators available

ADDITIONAL SPECIFICATIONS:

- Solid steel construction
- Mobile base with heavy duty casters.
- Extended leg base to prevent tipping.
- Rated capacity of 3600 lbs.
- Drawers lined with industrial strength rubber mat
- Total weight capacity: 400 lbs per drawer
- Retainer top with rubber mat
- Ships via truck freight.

TOOL STORAGE CABINET

10 Drawer Tool
Storage Cabinet

Cat. No. 90021



Extended wheel base
prevents the cabinet from
tipping.



PUNCH STORAGE:

- Lay down storage allowing visibility of laser marking for easy tool identification.

ADDITIONAL SPECIFICATIONS:

- Solid steel construction
- Mobile base with heavy duty casters.
- Extended leg base to prevent tipping.
- Rated capacity of 3600 lbs.
- Drawers lined with industrial strength rubber mat
- Total weight capacity: 400 lbs. per drawer
- Retainer top with rubber mat
- Ships via truck freight.

CUSTOM COLOR OPTIONS

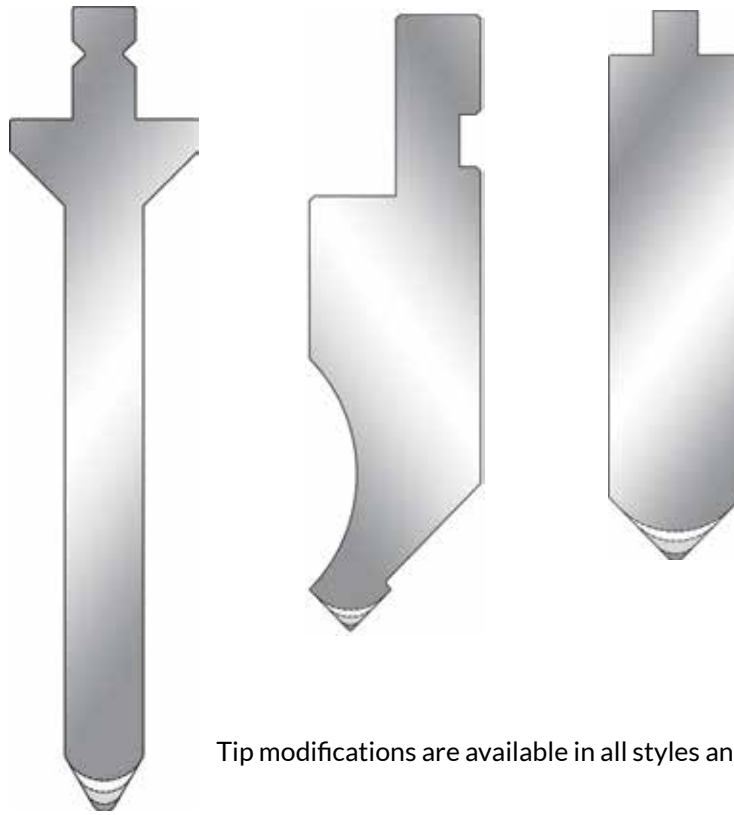
CAT. No.	Lead Time (Days)	Height inches	Width inches	Depth inches	Drawers Included			
					2" [50mm]	3" [76mm]	4" [101mm]	7" [175mm]
90020	5-15	48	48.0	24.0	2	1	N/A	3
90021	5-15	51.5	48.0	27.0	2	6	2	N/A

Additional tooling cabinets available.
Contact application sales desk for pricing and lead times.

055 Avalanche Blue	061 Frost White
051 Everest Blue	071 Light Gray
052 Classic Blue	072 Charcoal Gray
057 Midnight Blue	208 Yellow
102 Boreal Green	085 Sienna Orange
091 Black	081 Flame Red
041 Beige	616 White

*Colors may differ slightly from those illustrated.
Allow 15 days lead time for custom colors.

TIP MODIFICATIONS

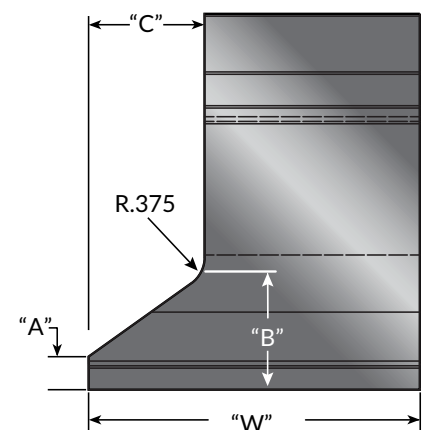

















Tip modifications are available in all styles and sizes.

REFERENCE

EAR PIECE

When ordering a special ear section from Wilson Tool, please indicate the dimensions on the diagram.



MULTI-BEND ALLOWANCES			
SHAPE	DESCRIPTION	AIRFORM	BOTTOMING
	VEE DIE	60	150
	WIPING	--	250
	OFFSET	150	300/600
	MATERIAL THICK OFFSET	300	600
	CHANNEL	300	600
	VEE RIB	200	600
	W DIE	300	600
	OPEN HAT CHANNEL	300	450
	SQUARE HAT CHANNEL	--	600
	PREFORM CURL	--	300
	PREFORM CURL	--	200
	CLOSED CURL	--	300
	RADIUS	--	180/300
	(Air) TEAR DROP	--	200
	CRUSHED HEM	--	400
SHAPE CONSIDERATIONS		Large Radii Angle Variation Concave or Convex sides	Material Thick Radii Min. Angle Variation Maintain Flatness

MAKING MULTIPLE BENDS FORMULA ON A PRESS BRAKE:

For shape as shown, in mild steel with radii equal to the metal thickness unless otherwise noted.

Multiply metal thickness by factor = Tons Per Foot.

Stainless Steel
Aluminum

Brass

[18-8 Annealed] Type 304 ...	1.55
3303-H14 [1/2Hard]35
5052-H34 [1/2Hard]65
6061-T6475
70/30 [1/2Hard]	1.10

SPECIALS CHECKLIST



COMPANY: _____

CONTACT: _____

PHONE: _____ SALES ENGINEER: _____

QUOTE #: _____ SALES DESK CONTACT: _____

MACHINE SPECIFICATIONS:

Brake Make / Model: _____

Open Height: _____

Tonnage: _____

TOOLING AND APPLICATION:

Tooling Type: ☐ American ☐ European ☐ WT ☐ Other

Length of Bend: _____

Material Type: _____ Thickness: _____

Is customer currently performing this bend? ☐ YES ☐ NO

If YES, specify if this is a : ☐ Wilson Tool repeat

☐ Replicate Customer Tool

☐ Redesign

Explain: _____

TOLERANCE BLOCK:

Part Radii Tolerance: _____

Tolerances tighter than +/- 5% may affect price / lead time.

Part Bend Angle Tolerance: _____

Tolerances tighter than +/- 2% may affect price / lead time.

Estimated Annual Usage: _____

WILSON TOOL OFFERS FREE SEMINARS, WEBINARS AND IN-PERSON TRAINING.

We regularly share time-tested fabrication tips and tricks and new product innovations that we've honed over the years through online or in-person trainings. Our free webinars offer training in solutions to common fabrication issues in a brief, convenient format. Attend one of our highly rated **Fabrication Forums** where you will be taught by our tooling experts in-house.

Visit the Wilson Tool newsroom at wilsontool.com for the latest seminar, webinar and events schedules.

Register at wilsontool.com to receive our free monthly newsletter and regular e-mail updates on tips and tricks and Wilson Tool products and services. Past issues can be viewed in the Wilson Tool newsroom.



wilsontool.com



Our highly trained technical staff has a combined 190+ years of experience in the industry, giving you access to one of the most knowledgeable press brake teams around.

AIR BENDING FORCE CHART

IMPERIAL TONNAGE • IMPERIAL V OPENINGS



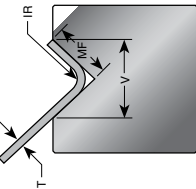
STANDARD FORMULAS FOR SELECTING A V-OPENING

MATERIAL THICKNESS: .105" OR LESS = T x 6

.120" - .313" = T x 8

.375" - .500" = T x 10

.625" & THICKER = T x 12



	GAUGE	DEC. inch [mm]	TONS PER FOOT																	
			V (")	0.250	0.313	0.375	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.500	2.000	2.500	3.000	3.500	4.000	5.000
			MF	0.180	0.225	0.270	0.360	0.450	0.540	0.630	0.720	0.810	0.900	1.080	1.440	1.800	2.159	2.519	2.879	3.599
			IR <td>0.042</td> <td>0.052</td> <td>0.063</td> <td>0.084</td> <td>0.104</td> <td>0.125</td> <td>0.146</td> <td>0.167</td> <td>0.188</td> <td>0.209</td> <td>0.251</td> <td>0.334</td> <td>0.418</td> <td>0.501</td> <td>0.585</td> <td>0.668</td> <td>0.835</td>	0.042	0.052	0.063	0.084	0.104	0.125	0.146	0.167	0.188	0.209	0.251	0.334	0.418	0.501	0.585	0.668	0.835
20	0.036 [9]			2.9	2.2	1.7	1.2	1.0												
18	0.048 [1.2]			7.0	4.0	2.9	2.2	1.6	1.3											
16	0.060 [1.5]				7.8	5.6	3.6	2.7	2.2	1.7										
14	0.075 [1.9]					11.7	6.0	4.5	3.4	3.0	2.5	2.1								
13	0.090 [2.3]						12.2	6.8	5.4	4.3	3.7	3.3	2.9							
12	0.105 [2.7]							10.1	7.4	6.3	5.4	4.4	4.0	3.2						
11	0.120 [3]								10.5	8.8	7.2	6.2	5.4	4.3	3.2					
10	0.135 [3.4]									11.3	9.6	8.4	7.0	5.6	4.1					
9	0.150 [3.8]										13.1	11.9	9.0	6.7	5.2	3.5				
7	0.188 [4.8]											16.4	14.0	11.2	7.6	5.8	4.5			
1/4"	0.250 [6.35]												28.8	22.0	15.3	11.5	9.1	7.5	6.2	
5/16"	0.312 [8]													38.0	26.0	19.2	16.0	12.5	10.6	
3/8"	0.375 [9.5]														41.0	29.9	24.0	19.4	16.0	
7/16"	0.438 [11.1]															45.2	35.0	28.0	24.0	
1/2"	0.500 [12.7]																47.9	39.0	33.1	
5/8"	0.625 [16]																	69.5	58.0	
3/4"	0.750 [19]																		92.0	
7/8"	0.875 [22]																			
1"	1.000 [25.4]																		104.0	

Larger v-openings generate less tonnage.

Tonnage increases with smaller v-openings.

Applications in red are not recommended.

T = MATERIAL THICKNESS • V = V-OPENING • MF = MINIMUM FLANGE LENGTH • IR = INSIDE RADIUS

NOTE: The above formulas and chart are for reference only.

The chart above is based on mild steel (tensile strength of 60,000 PSI) formed to an included angle of 88°.

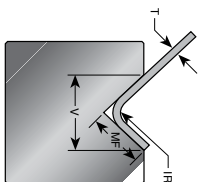
See chart to the right for other materials.

Forming to other angles will change the Minimum Flange (MF), Inside Radius (IR) and tonnage.

Soft Brass	Tons x 50%
Soft Aluminum	Tons x 50%
Heat Treated Aluminum Alloys	Tons x 100%
Stainless Steel	Tons x 150%
High Strength Steel	Tons x 275%

AIR BENDING FORCE CHART

IMPERIAL TONNAGE • METRIC V OPENINGS



STANDARD FORMULAS FOR SELECTING A V-OPENING

MATERIAL THICKNESS:

2.6mm OR LESS = T x 6
 3.00mm - 8.0mm = T x 8
 9.00mm - 12.00mm = T x 10
 14.00mm & THICKER = T x 12

		V																								
		[mm]																								
		4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	250				
		V(°)	0.157	0.236	0.276	0.315	0.394	0.472	0.551	0.630	0.709	0.787	0.984	1.260	1.575	1.969	2.480	3.150	3.937	4.921	6.299	7.874	9.843			
		MF	0.110	0.165	0.193	0.220	0.276	0.331	0.397	0.454	0.510	0.567	0.709	0.945	1.181	1.476	1.860	2.362	2.953	3.789	4.850	6.063	7.579			
GAUGE	DEC. inch [mm]	IR	0.026	0.039	0.046	0.052	0.066	0.079	0.092	0.105	0.118	0.131	0.164	0.210	0.262	0.328	0.413	0.525	0.656	0.820	1.050	1.312	1.640			
20	0.036 [.9]		5.4	3.6	3.0	2.5	2.0	1.7																		
18	0.048 [1.2]			7.2	5.8	4.8	3.7	2.7	2.4	2.0																
16	0.060 [1.5]					7.8	6.0	5.0	4.2	3.5	3.1	2.7														
14	0.075 [1.9]						11.3	7.5	7.1	5.6	4.8	4.1	3.2													
13	0.090 [2.3]							12.5	10.1	8.2	7.2	5.4	3.7													
12	0.105 [2.7]							15.8	13.0	10.5	9.5	7.5	5.6	4.0												
11	0.120 [3]									16.1	13.1	10.1	7.2	5.0	3.8											
10	0.135 [3.4]											12.0	8.1	6.2	4.7	3.5										
9	0.150 [3.8]												13.1	9.0	6.7	5.2										
3/16	0.188 [4.8]												24.1	15.0	11.3	7.5	5.8									
1/4	0.250 [6.35]													30.0	20.0	15.0	10.5	8.5								
5/16	0.313 [8]														37.6	25.0	18.8	13.1	10.0							
3/8	0.375 [9.5]															38.3	28.1	22.5	15.0	11.3						
1/2	0.500 [12.7]																52.0	39.0	30.0	22.0	16.0					
5/8	0.625 [16]																	70.0	52.5	37.5	27.5	20.0	15.0			
3/4	0.750 [19]																			66.0	45.0	32.3	22.5			
1	1.000 [25.4]																				90.0	60.0	44.0			
1-1/4	1.250 [32]																					102.5	75.0			

TONS PER FOOT

Tonnage increases with smaller v-openings.

Applications in red are not recommended.

Larger v-openings generate less tonnage.

T = MATERIAL THICKNESS • V = V-OPENING • MF = MINIMUM FLANGE LENGTH • IR = INSIDE RADIUS

NOTE: The above formulas and chart are for reference only.

The chart above is based on mild steel (tensile strength of 60,000 PSI) formed to an included angle of 88°.

See chart to the right for other materials.

Forming to other angles will change the Minimum Flange (MF), Inside Radius (IR) and tonnage.

Soft Brass
 Soft Aluminum
 Heat Treated Aluminum Alloys
 Stainless Steel
 High Strength Steel

Tons x 50%
 Tons x 50%
 Tons x 100%
 Tons x 150%
 Tons x 275%

From standard tooling solutions for **American Precision®**, **European Style**, **WT Style Precision™** and **Conventional press brake tooling** to customized tooling for the most unique bending applications. Wilson Tool provides the broadest selection of tooling options to press brake fabricators around the world.

Clamping Innovations - Fast Tool Changes

Whether you're looking for cost-effective mechanical clamping, simple push-button setups or an ultra-fast hydraulic solution, Wilson Tool has a clamping system to meet your needs.

ExpressRail Hydraulic Clamping

The ExpressRail™ hydraulic clamping system reduces set-up time with a wireless pendant control that clamps and seats your press brake tooling in seconds. This system also gives you more open height and extended clamp life. The ExpressRail hydraulic clamping system works with WT Style or American Precision G Series tooling.

PowerExpress Hydraulic Clamping

The PowerExpress hydraulic clamping system offers easy installation, lightning fast changeouts, long-term reliability and increased bending capacity. Clamp and seat straight-tanged American style tooling in a single operation.

Express Clamps

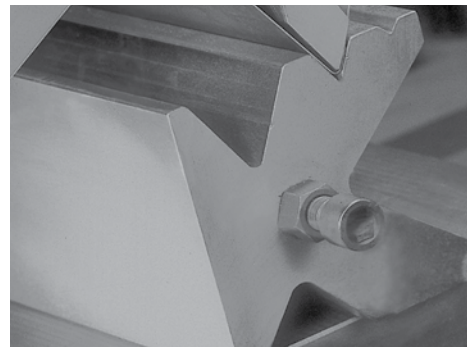
Instantly lock European style press brake punches in place with the push of a lever. Express Clamps are uniquely designed to increase your productivity and reduce your operating costs. Available for virtually any make and model of press brake.



EUROPEAN STYLE



WT STYLE



CONVENTIONAL

Almost 200 years of experience is just a phone call or email away.

Our highly trained technical staff has a combined 190 years of experience. Our staff of engineers, designers, and customer support team are highly qualified to find the best tooling solutions for you. From your first inquiry into tooling until your business is more successful than you imagined, we are here to help.

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Email: verkauf@wilsontool.eu.com

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