WILSON TOOL

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AMERICAN PRECISION
PRESS BRAKE TOOLING

2025

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by Wilson Tool International

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- Access Drawings
- View Invoices
- Track Packages
- View Order History

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TERMS AND CONDITIONS

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AMERICAN PRECISION
PRESS BRAKE TOOLING

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ABOUT WILSON TOOL INTERNATIONAL

From humble beginnings in a small manufacturing facility in St. Paul, Minnesota, Wilson Tool International has added manufacturing facilities and sales channels around the world to better serve our thousands of global customers. Throughout our 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.

At Wilson Tool, we continue to invest in your success through constant innovation. Our tooling and solutions represent decades of knowledge and experience in assisting manufacturers resolve their most challenging fabrication issues. We understand that no two jobs are the same. Change is the only constant in manufacturing. So, working with a tooling supplier who's flexible, nimble, and knowledgeable is important.

Our goal is to deliver exceptional **customer service** along with the most reliable and innovative products and solutions so that our **customers** can be more successful.

When you have a challenge, reach out to us. At Wilson Tool we are more than tools... we are solutions. Your local Sales Engineer is available in person, by phone and through e-mail. 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 every order comes with our guarantee to outperform your current tooling.

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

BENDING

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

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

STAMPING

Wilson Tool's Stamping division, Impax Tooling Solutions®, offers high quality punch and die components, accessories and retainers for the stamping industry.

Innovative products such as our HP 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.

PUNCHING

Wilson Tool's Punching division continues to drive the industry with new levels of quality, delivery, service and innovation.

From the early days of Series 80 to the Wilson Wheel® Family to EXP® technology, our punching division has been the industry-leading innovation driver. Combined with the most experienced customer support professionals in the industry, Wilson Tool continues to raise the bar. Thick turret, TRUMPF-style, Salvagnini-style, or any other style of punch press you may be using, Wilson Tool offers the most complete line of tooling solutions available today.

TRUMPF is a trademark of TRUMPF GmbH + Co. KG.

ACCESSORIES

Whether you need storage systems, grinders, urethane rolls, hand tools or related supplies, we offer a wide range of solutions to help you be more productive, organized and efficient.

AMERICAN PRECISION TOOLING

Features

- Tooling can be loaded by a single operator
- Easy to store
- Standard sectionalized lengths
- Most sectionalized punches include a left and right ear/horn
- All tooling heat treated with Nitrex® and/or laser hardening
- Each tool is laser marked with significant information
- Special tooling available — Contact a Tooling Technician
- Lengths longer than 36″ [914.4mm] available

Precision Manufactured for Consistent Results

American Precision press brake tooling is manufactured to a tolerance of ± .0008″ [.02mm] on all critical dimensions. 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. Taller, heavier punches can be made in lengths to accommodate your preference of buttons or solid safety tangs.

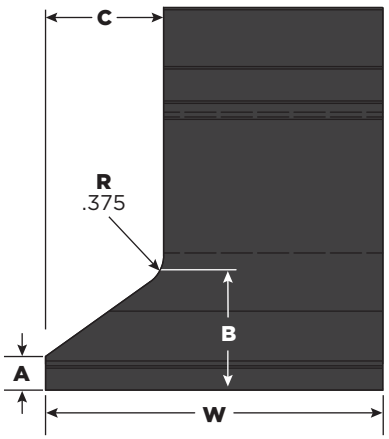
Stage Tooling

Achieve maximum tool change over efficiency by reducing set ups and making a complete part in one handling. See page 41 for additional details.

Swing Ear Sections

Box bending with return flanges. Ear(s) will recess/fall in left to right .500 – .750″ [12.7–19mm] (not to be confused with vertical movement.) There will be approximately 1.0 – 1.5″ [25.4 – 38.1mm] of relief to rotate and drop the finished part. See page 71 for additional information.

Scan QR Code to Watch the Video

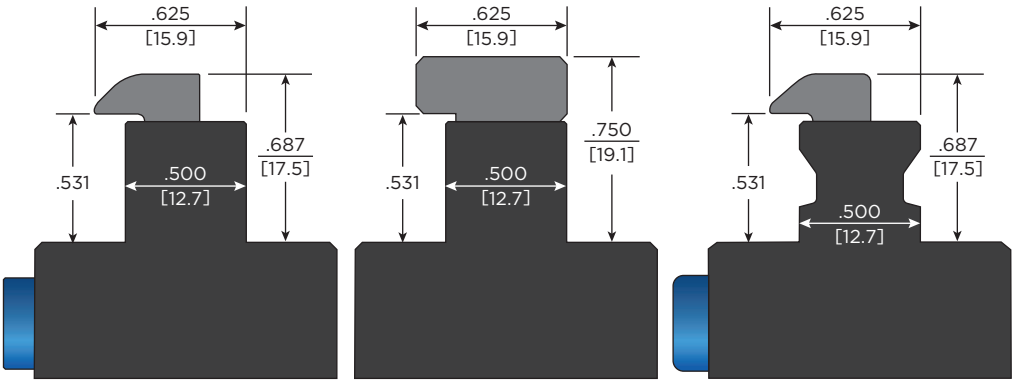


Ear Piece

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

Push Button Technology

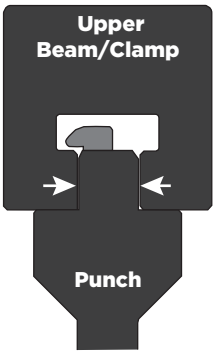
Load and unload tools instantly with Wilson Tool's click-in/click-out button. Our patented push button is available on lengths 18" [457.2mm] and shorter and weigh less than 30 lbs. [13.6kg]. Tools longer and/or heavier have a solid safety tang. All of Wilson Tool's precision American tooling ships with a button or a solid safety tang.



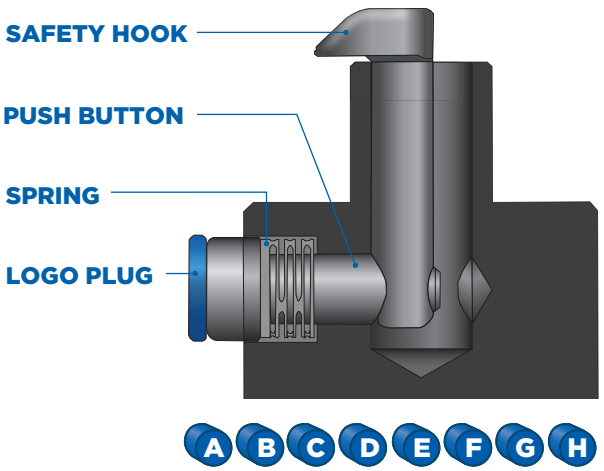
Straight Tang
Push Button Safety Tang

Straight Tang
Bolt-on Solid Safety Tang
(Standard on all long punches)

Groove (G) Tang
Push Button Safety Tang

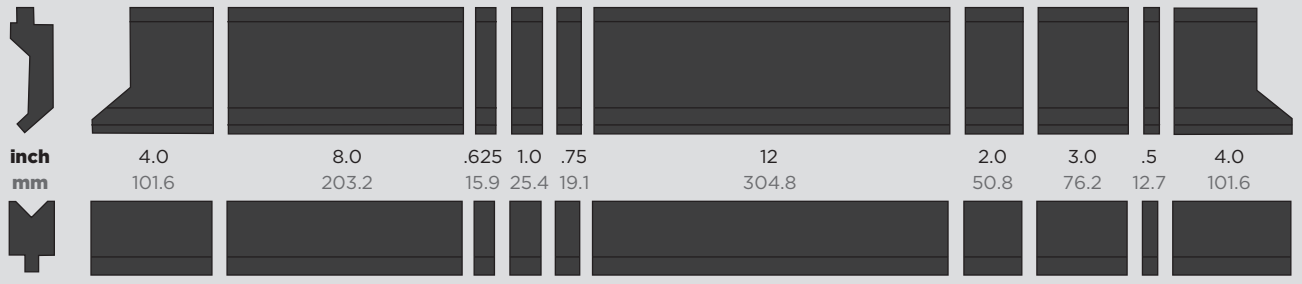


Attention:
Upper beam/clamp opening should not exceed .531" [13.5mm]. Exceeding specified opening on upper beam/clamp opening may result in release of punch.



Part No.		Description	Order Spring
PUSH BUTTON COMPONENTS			
50071	A	Push button for .625 C/L	8140
50072	B	Push button for .687 C/L	8140
50073	C	Push button for .750 C/L	8141
50074	D	Push button for .875 C/L	8141
50075	E	Push button for 1.000 C/L	8141
50076	F	Push button for 1.250 C/L	8141
50077	G	Push button for 1.500 C/L	8141
50078	H	Push button for 1.875 C/L	8141
8140		Spring Ø .375 x .300 length	
8141		Spring Ø .360 x .438 length	
50079		Logo Plug (Blue)	
51083		Safety Hook	

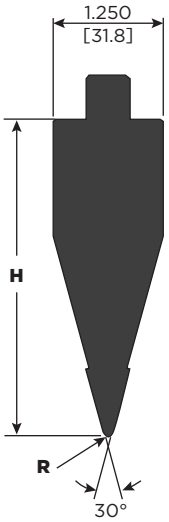
STANDARD SECTIONALIZED PUNCH & DIE LENGTHS



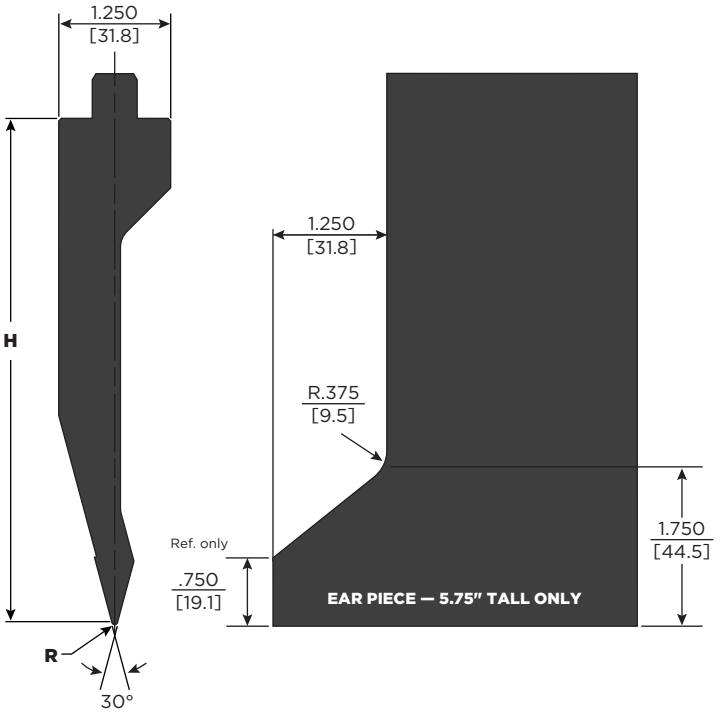
Short (S) 18" [457.2mm] **Long (L) 36" [914.4mm]** **Sectionalized (X) 35.875" [911.2mm]**

AMERICAN PRECISION TOOLING

3.75" ACUTE BLOCK



5.75" ACUTE GOOSENECK



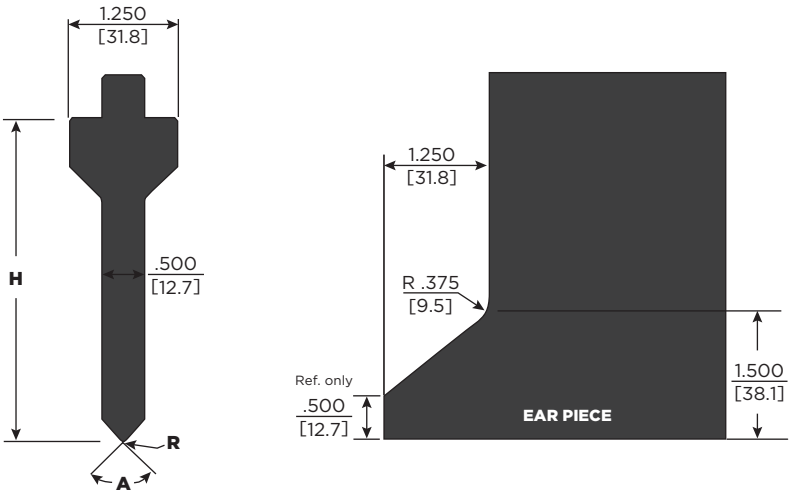
Part No.				A Angle	R Tip Radius inch [mm]	H Height inch [mm]	L & S	X	Button	L	S	X	Bend Limit Graph
Straight		Groove					Max Ton/ft			36"	18"	35.87"	
3.75" ACUTE BLOCK PUNCH													
50045		50045G		30°	.031 [0.8]	3.661 [93.0]	30	30	A				pg. 21
50046		50046G			.062 [1.6]	3.571 [90.7]	40						
50047		50047G			.125 [3.2]	3.392 [86.2]							
Approximate Gross Weight [lbs.], unboxed										35	18	35	

Note: 3.75" sectionalized version does not include ear pieces (horns). Ear pieces (horns) available at an additional cost.

5.75" ACUTE GOOSENECK PUNCH													
50209		50209G		30°	.031 [0.8]	5.661 [143.8]	30	30	A				pg. 22
50221		50221G			.062 [1.6]	5.571 [141.5]	40						
50227		50227G			.125 [3.2]	5.392 [137.0]							
Approximate Gross Weight [lbs.], unboxed										42	21	38	

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

3.75" ARROW

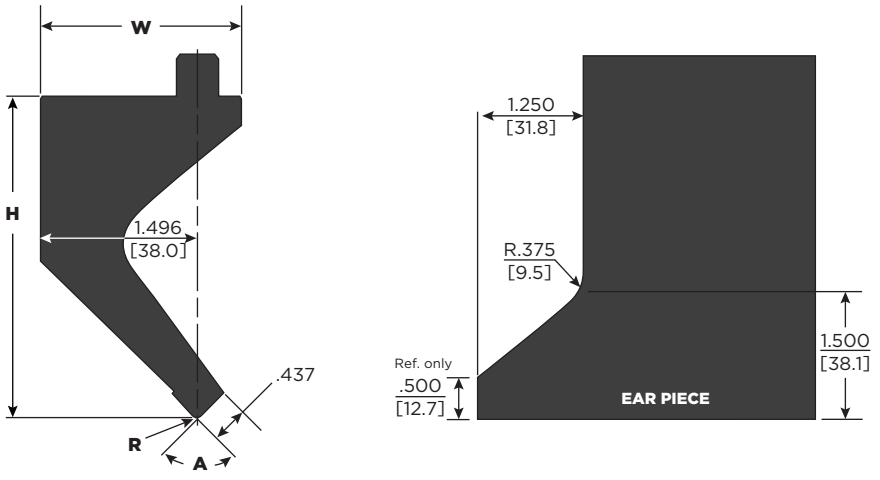


M Made To Order

Part No.				A Angle	R Tip Radius inch [mm]	H Height inch [mm]	L & S	X	Button	L	S	X	Bend Limit Graph
Straight		Groove					Max Ton/ft			36"	18"	35.87"	
3.75" ARROW PUNCH													
50273		50273G	M	75°	.031 [0.8]	3.730 [94.7]	30	27	A				pg. 23
50274		50274G	M		.062 [1.6]	3.710 [94.2]	35						
50275		50275G	M		.125 [3.2]	3.670 [93.2]	50						
50169		50169G	M	88°	.016 [0.4]	3.743 [95.1]	30						
50170		50170G	M		.031 [0.8]	3.736 [94.9]	30						
50171		50171G	M		.062 [1.6]	3.723 [94.6]	40						
50172		50172G	M		.125 [3.2]	3.695 [93.9]	50						
50050		50050G	M	90°	.016 [0.4]	3.744 [95.1]	30						
50051		50051G	M		.031 [0.8]	3.737 [94.9]	30						
50052		50052G			.062 [1.6]	3.724 [94.6]	40						
						Approximate Gross Weight [lbs.], unboxed				27	14	25	

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

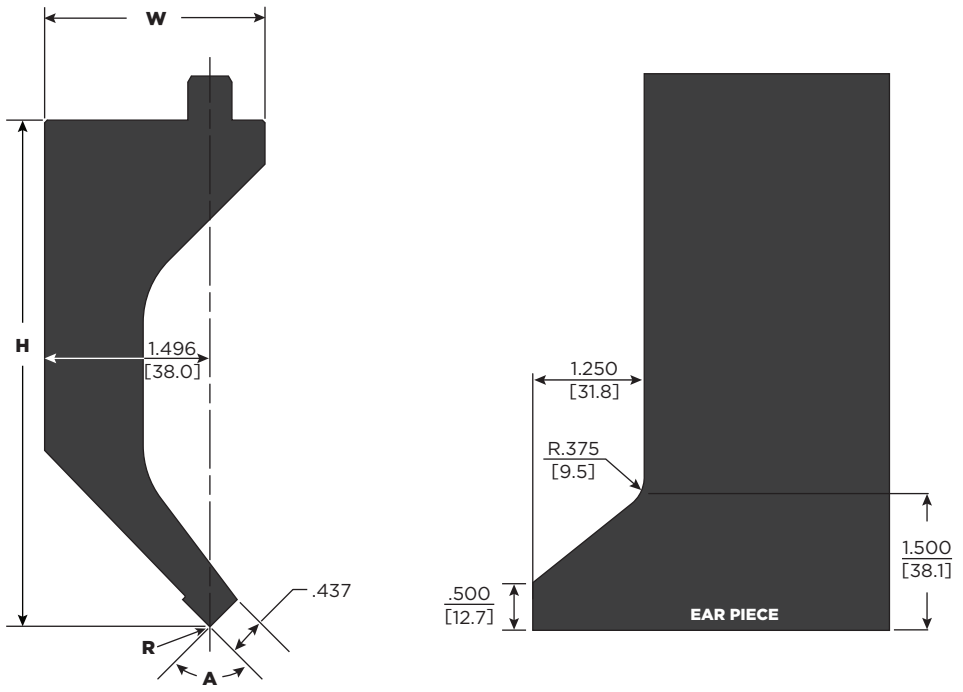
3.75" LARGE GOOSENECK



M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	L & S Max Ton/ft	X Max Ton/ft	Button	L 36"	S 18"	X 35.87"	Bend Limit Graph
3.75" LARGE GOOSENECK PUNCH														
50236		50236G		75°	.031 [0.8]	3.730 [94.7]	2.125 [54.0]	28	21	G				pg. 24
50277		50277G	M		.062 [1.6]	3.710 [94.2]		35						
50278		50278G			.125 [3.2]	3.670 [93.2]								
50289		50289G	M		.250 [6.3]	3.589 [91.2]								
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				pg. 25
50185		50185G	M		.062 [1.6]	3.723 [94.6]								
50186		50186G	M		.125 [3.2]	3.695 [93.9]								
50067		50067G	M	90°	.031 [0.8]	3.737 [94.9]								
Approximate Gross Weight [lbs.], unboxed											51	26	47	

5.75" LARGE GOOSENECK

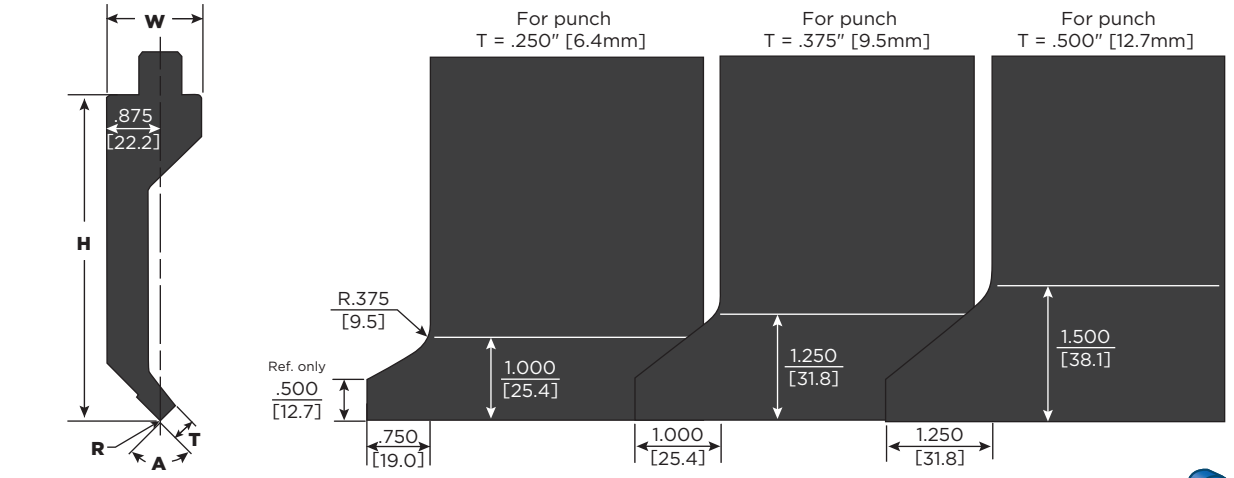


M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	L & S / X Max Ton/ft		Button	L 36"	S 18"	X 35.87"	Bend Limit Graph
5.75" LARGE GOOSENECK PUNCH														
50248		50248G		75°	.031 [0.8]	5.730 [145.5]	2.125 [54.0]	35	21	G				pg. 26
50249		50249G			.062 [1.6]	5.710 [145.0]								
50250		50250G			.125 [3.2]	5.670 [144.0]								
50266		50266G			.250 [6.3]	5.589 [141.0]								
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				pg. 27
50220		50220G			.031 [0.8]	5.736 [145.7]								
50226		50226G	M		.062 [1.6]	5.723 [145.4]								
50232		50232G	M		.125 [3.2]	5.695 [144.7]								
50219	M	50219G	M	90°	.031 [0.8]	5.737 [145.7]								
Approximate Gross Weight [lbs.], unboxed											77	39	70	

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

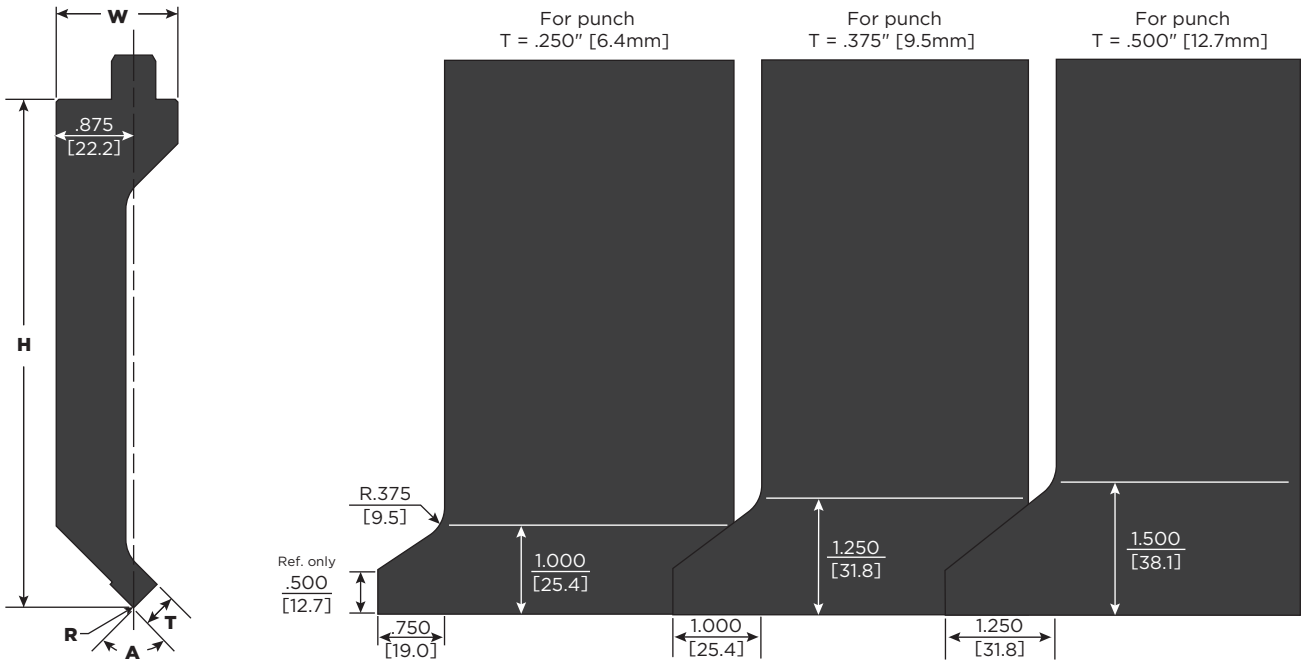
3.75" SASH GOOSENECK



M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	T Tip Flat inch [mm]	W Width inch [mm]	L & S Max Ton/ft	X Max Ton/ft	Button	L 36"	S 18"	X 35.87"	Bend Limit Graph
3.75" SASH GOOSENECK PUNCH															
50281		50281G		75°	.031 [0.8]	3.730 [94.7]	.375 [9.5]	1.375 [34.9]	25	17	D				pg. 28
50282		50282G			.062 [1.6]	3.710 [94.2]									
50286	M	50286G	M		.031 [0.8]	3.730 [94.7]	.500 [12.7]								
50287	M	50287G	M		.062 [1.6]	3.710 [94.2]			30						
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				
50174		50174G			.031 [0.8]	3.736 [94.9]									
50175		50175G	M		.062 [1.6]	3.723 [94.6]									
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				pg. 29
50177		50177G	M		.031 [0.8]	3.736 [94.9]									
50178		50178G	M		.062 [1.6]	3.723 [94.6]									
50181	M	50181G	M		.031 [0.8]	3.736 [94.9]	.500 [12.7]	1.375 [34.9]	25	20					
50160	M	50160G	M		.062 [1.6]	3.723 [94.6]									
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				
50055		50055G	M		.031 [0.8]	3.737 [94.9]									
50058	M	50058G	M		.016 [0.4]	3.744 [95.1]	.375 [9.5]	1.375 [34.9]	20	17					
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				.500 [12.7]		25	20					
Approximate Gross Weight [lbs.], unboxed												36	18	33	

5.75" SASH GOOSENECK

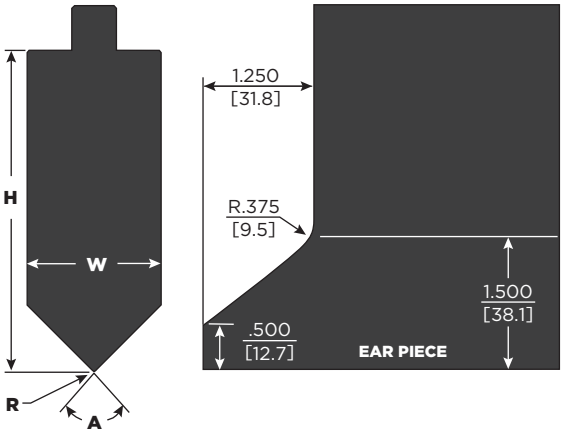


M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	T Tip Flat inch [mm]	W Width inch [mm]	L & S Max Ton/ft	X Max Ton/ft	Button	L 36"	S 18"	X 35.87"	Bend Limit Graph
5.75" SASH GOOSENECK PUNCH															
50326		50326G	M	75°	.031 [0.8]	5.730 [145.5]	.375 [9.5]	1.375 [34.9]	25	20	D				pg. 30
50327		50327G	M		.062 [1.6]	5.710 [145.5]			30						
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				pg. 31
50304		50304G			.062 [1.6]	5.723 [145.4]									
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				.500 [12.7]			20					
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					.500 [12.7]		33	20					
Approximate Gross Weight [lbs.], unboxed												51	26	48	

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

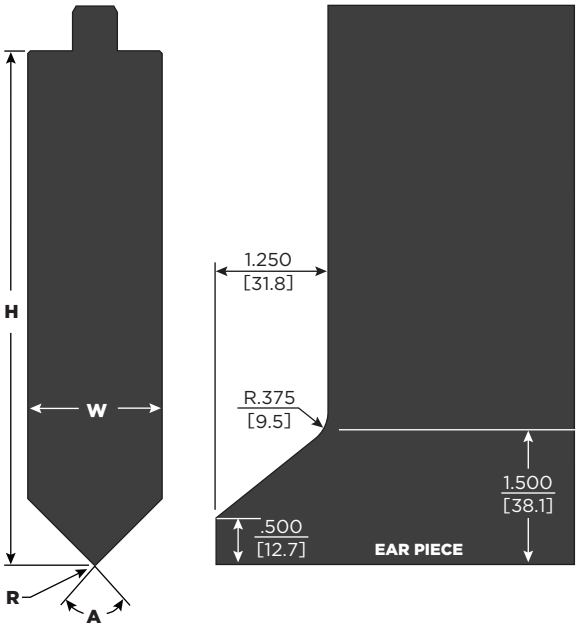
3.75" BLOCK



M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	L & S Max Ton/ft	X Max Ton/ft	Button	L 36"	S 18"	X 35.87"	Bend Limit Graph
3.75" BLOCK PUNCH														
50270		50270G	M	75°	.125 [3.2]	3.670 [93.2]	1.250 [31.8]	50	40	A				PG. 32
50271		50271G	M		.250 [6.3]	3.590 [91.2]								
50279		50279G	M		.375 [9.5]	3.509 [89.1]								
50284		50284G	M		.500 [12.7]	3.429 [87.1]								
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]								
Approximate Gross Weight [lbs.], unboxed											46	23	43	

5.75" BLOCK

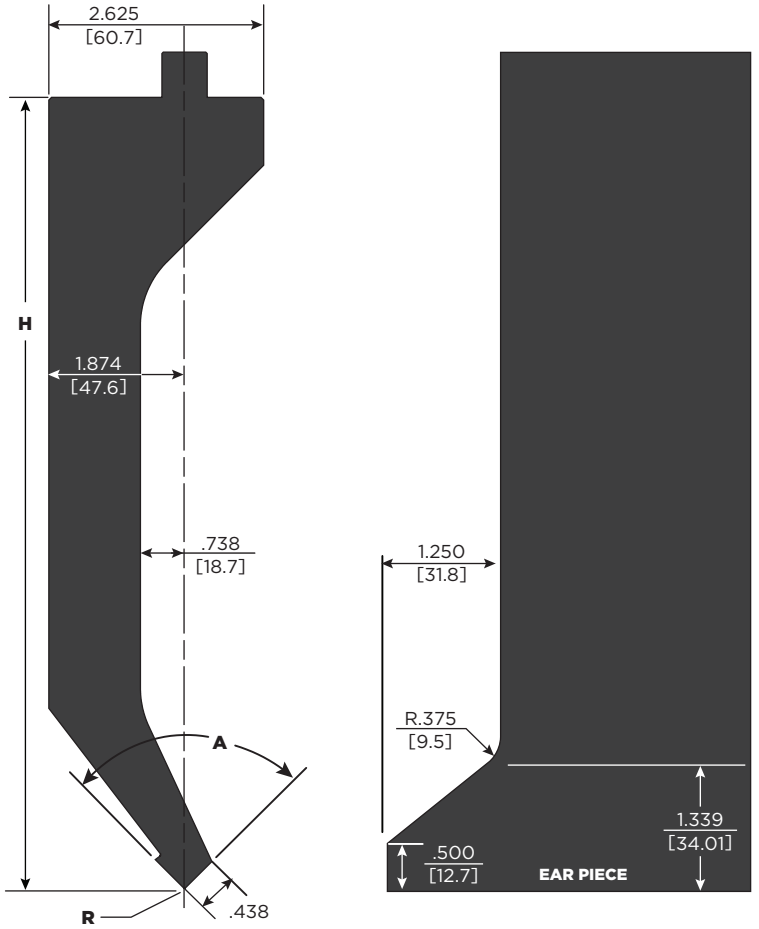


M Made To Order

Part No.				A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	L & S	X	Button	L	S	X	Bend Limit Graph
Straight		Groove						Max Ton/ft			36"	18"	35.87"	
5.75" BLOCK PUNCH														
50245		50245G		75°	.125 [3.2]	5.670 [144.0]	1.500 [38.1]	50	40	C				pg. 32
50246		50246G			.250 [6.3]	5.590 [142.0]								
50251		50251G			.375 [9.5]	5.509 [139.9]								
50260	M	50260G			.500 [12.7]	5.429 [137.9]								
50210	M	50210G	M	85°	.125 [3.2]	5.690 [144.5]								
50222	M	50222G	M		.188 [4.8]	5.660 [143.8]								
50228	M	50228G	M		.250 [6.4]	5.630 [143.0]								
50234	M	50234G	M	88°	.125 [3.2]	5.695 [144.7]								
Approximate Gross Weight [lbs.], unboxed											84	42	78	

PUNCHES

8.75" SASH GOOSENECK



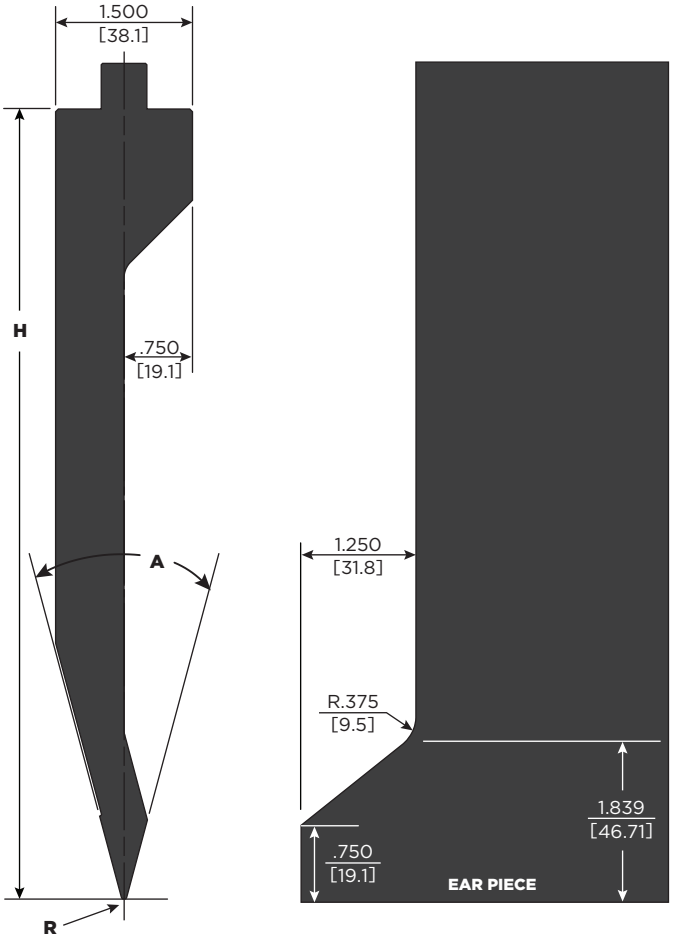
M Made To Order

Part No. Straight		Part No. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	S & X Max Ton/ft	Button	S 18"	X 35.87"	Bend Limit Graph
8.75" SASH GOOSENECK PUNCH											
50373		50373G	M	75°	.031 [0.8]	8.730 [221.7]	25	H			pg. 33
50374		50374G	M		.062 [1.6]	8.710 [221.2]	35				
50375		50375G	M		.125 [3.2]	8.670 [220.2]					
50376	M	50376G	M	88°	.031 [0.8]	8.736 [221.89]	35				
50377	M	50377G	M		.062 [1.6]	8.723 [221.56]					
50378	M	50378G	M	90°	.031 [0.8]	8.737 [221.92]					
50379	M	50379G	M		.062 [1.6]	8.724 [221.59]					
Approximate Gross Weight [lbs.], unboxed									56	102	

All 8.75" Punches
S = solid safety tang X = solid safety tang on 8" and 12" sections

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

8.75" ACUTE



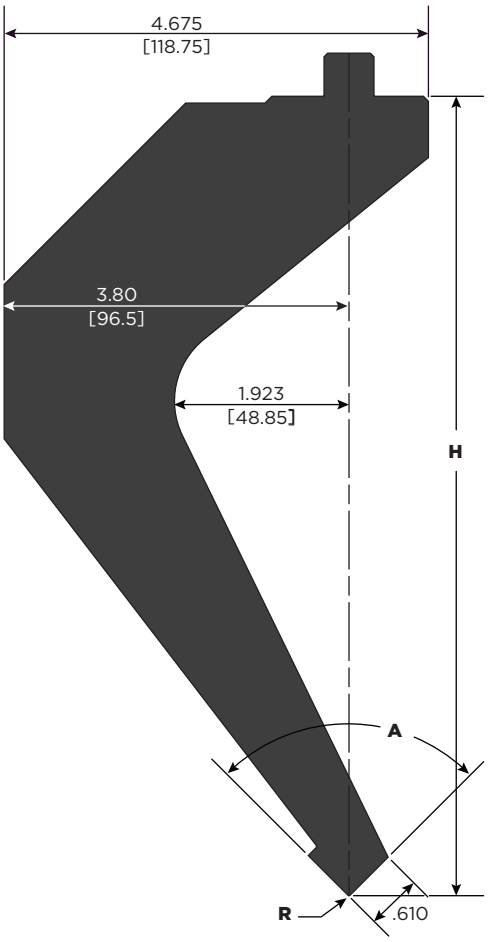
M Made To Order

Part No.				A Angle	R Tip Radius inch [mm]	H Height inch [mm]	S & X	Button	S	X	Bend Limit Graph
Straight		Groove					Max Ton/ft		18"	35.87"	
8.75" ACUTE PUNCH											
50363		50363G	M	30°	.031 [0.8]	8.661 [220.0]	30	C			pg. 34
50364	M	50364G	M		.062 [1.6]	8.571 [217.7]	35				
50365	M	50365G	M		.125 [3.2]	8.392 [213.2]					
Approximate Gross Weight [lbs.], unboxed									35	71	

All 8.75" Punches
S = solid safety tang X = solid safety tang on 8" and 12" sections

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

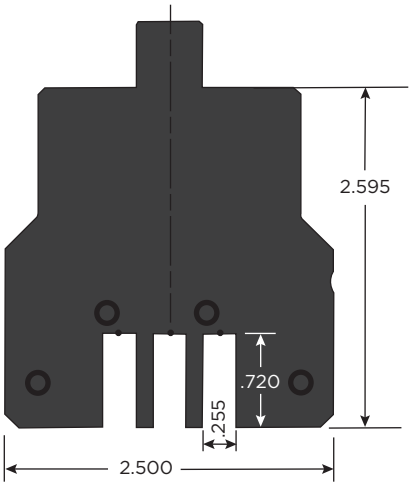
8.75" LARGE GOOSENECK

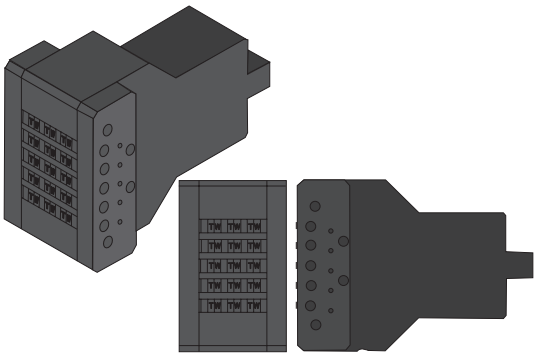


M Made To Order

Straight		Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft	S 18"	Bend Limit Graph
8.75" LARGE GOOSENECK PUNCH									
50382	M	50382G	M	75°	.031 [0.8]	8.730 [221.7]	35		pg. 35
50383		50383G	M		.062 [1.6]	8.710 [221.2]			
50384	M	50384G	M	88°	.031 [0.8]	8.736 [221.9]			
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	

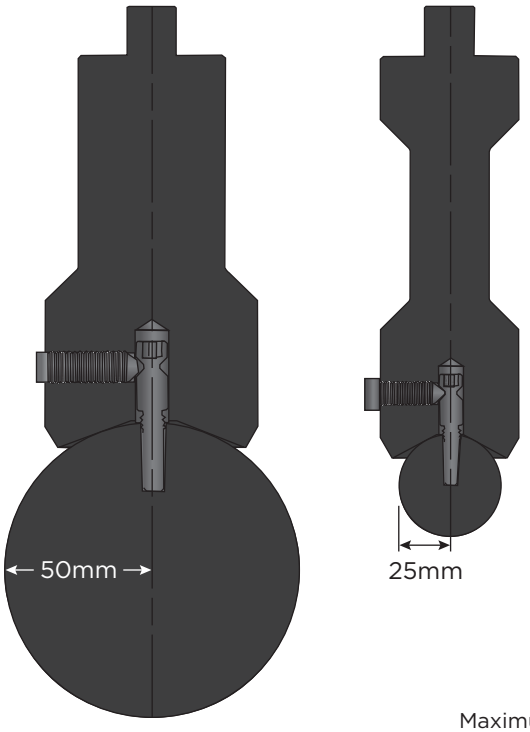
3.75" LETTER STAMP





Part. No.	Description	Size	Price
3.75" LETTER STAMP			
5LSP25/ 5LSP25G	Punch Character Holder	3.75" Staged	
50049SD	Flattening Block Die	—	
6898	Character	3/32"	
6896	Character	1/8"	

REPLACEABLE RADIUS PUNCHES



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

Scan QR Code to Watch the Video

Maximum radius size shown on each holder.

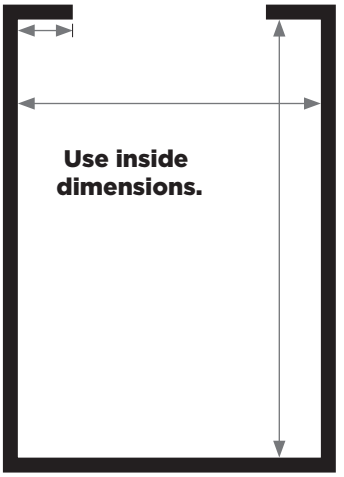
Part No.	Radius inch [mm]	Radius Price	Radius Approx. Weight	Stem Bolt Part No.	Holder Part No.	Holder Width inch [mm]	Holder Price	Holder Approx. Weight	Assembled Height inch [mm]	Max. Ton/ ft.
REPLACEABLE RADIUS PUNCHES & HOLDERS						**LENGTH: 19.69" [500mm]**				
6R095-500	.375 [9.5]		3 lbs.	980101	54T35-500 54T35-500G	1.3778 [35]		25 lbs.	4.511 [114.5]	21
6R127-500	.500 [12.7]		5 lbs.						4.781 [121.4]	
6R158-500	.625 [15.8]		7 lbs.						5.050 [128.3]	
6R190-500	.750 [19.0]		10 lbs.	980102					5.319 [135.1]	
6R222-500	.875 [22.2]		14 lbs.						5.589 [141.9]	
6R254-500	1.000 [25.4]		18 lbs.						5.858 [148.9]	
					54T55-500 54T55-500G	2.165 [55]		38 lbs.	5.669 [144.0]	
6R381-500	1.500 [38.1]		40 lbs.						6.747 [171.4]	
6R508-500	2.000 [50.8] (MTO)		72 lbs.						7.824 [198.7]	
REPLACEABLE RADIUS PUNCHES & HOLDERS						**LENGTH: 9.84" [250mm]**				
6R254-250	1.000 [25.4]		9 lbs.	980102	54T55-250	2.165 [55]		19 lbs.	5.669 [144.0]	21
6R381-250	1.500 [38.1]		20 lbs.						6.747 [171.4]	
6R508-250	2.000 [50.8]		36 lbs.		54T55-250G				7.824 [198.7]	

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

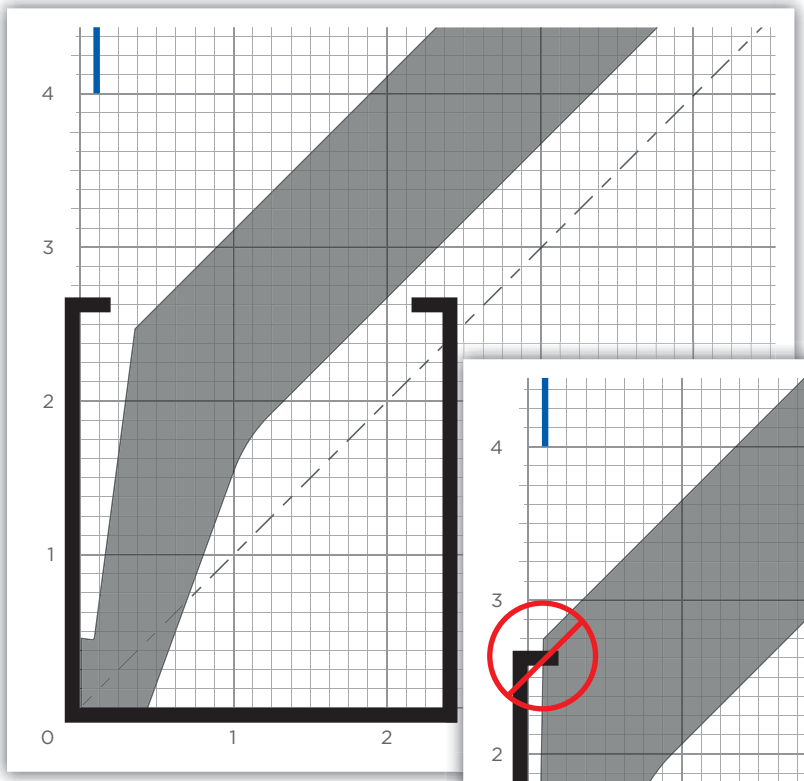
HOW TO USE A BEND LIMIT GRAPH

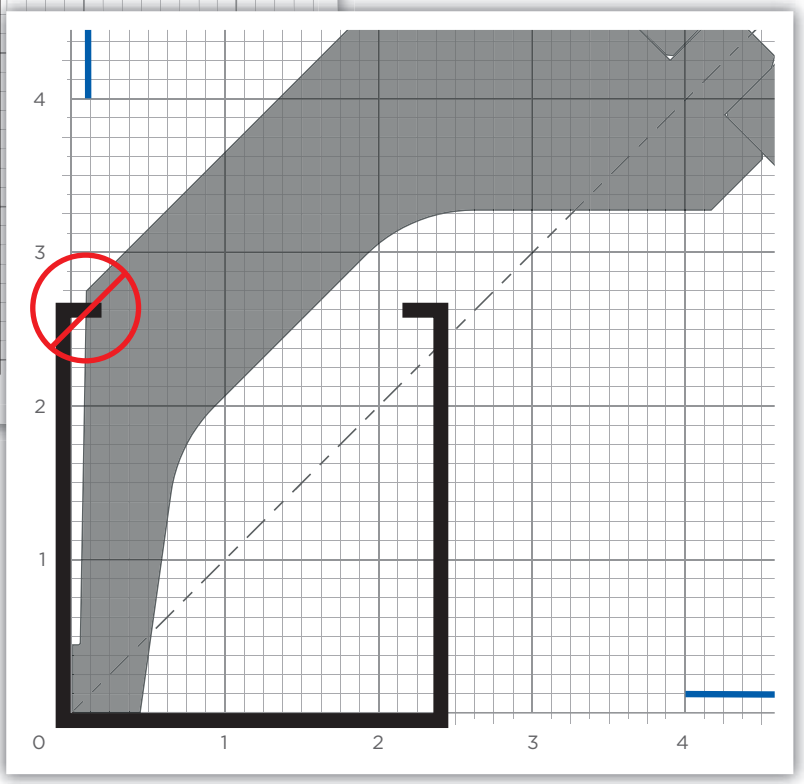
Although a bend limit graph won't help with bend sequencing, it will help determine what punch profile is best for you. Visit our YouTube channel for a step-by-step video on using these graphs.

- The graphs are 1:1
- Your part can be laid on top of the catalog page
- Use inside dimensions — always account for material thickness



This application works.





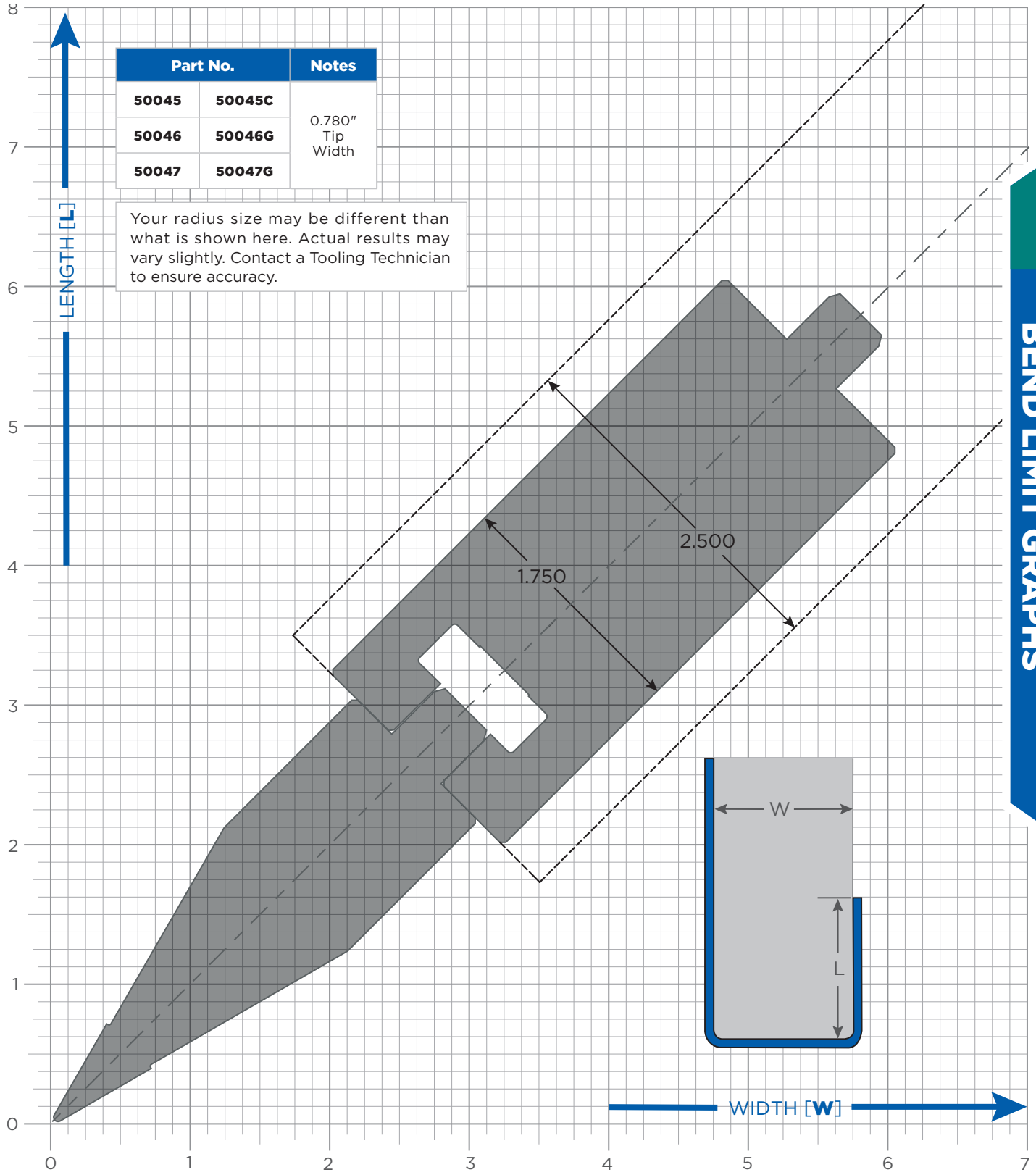
This application doesn't work.

Scan QR Code to Watch the Video

3.75" ACUTE BLOCK PUNCH
30°

Part No.		Notes
50045	50045C	0.780" Tip Width
50046	50046G	
50047	50047G	

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

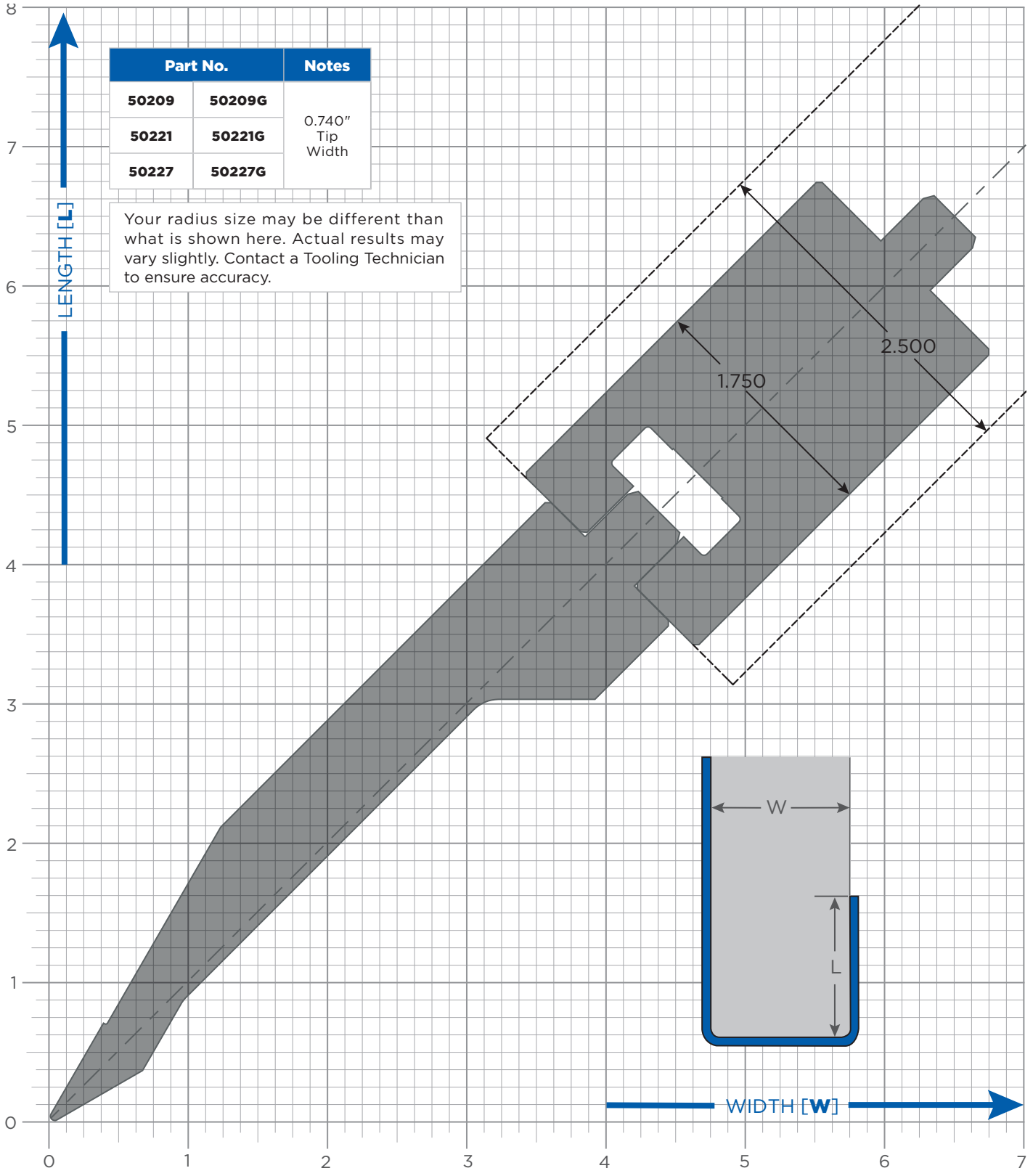


BEND LIMIT GRAPHS

5.75" ACUTE GOOSENECK PUNCH
30°

Part No.		Notes
50209	50209G	0.740" Tip Width
50221	50221G	
50227	50227G	

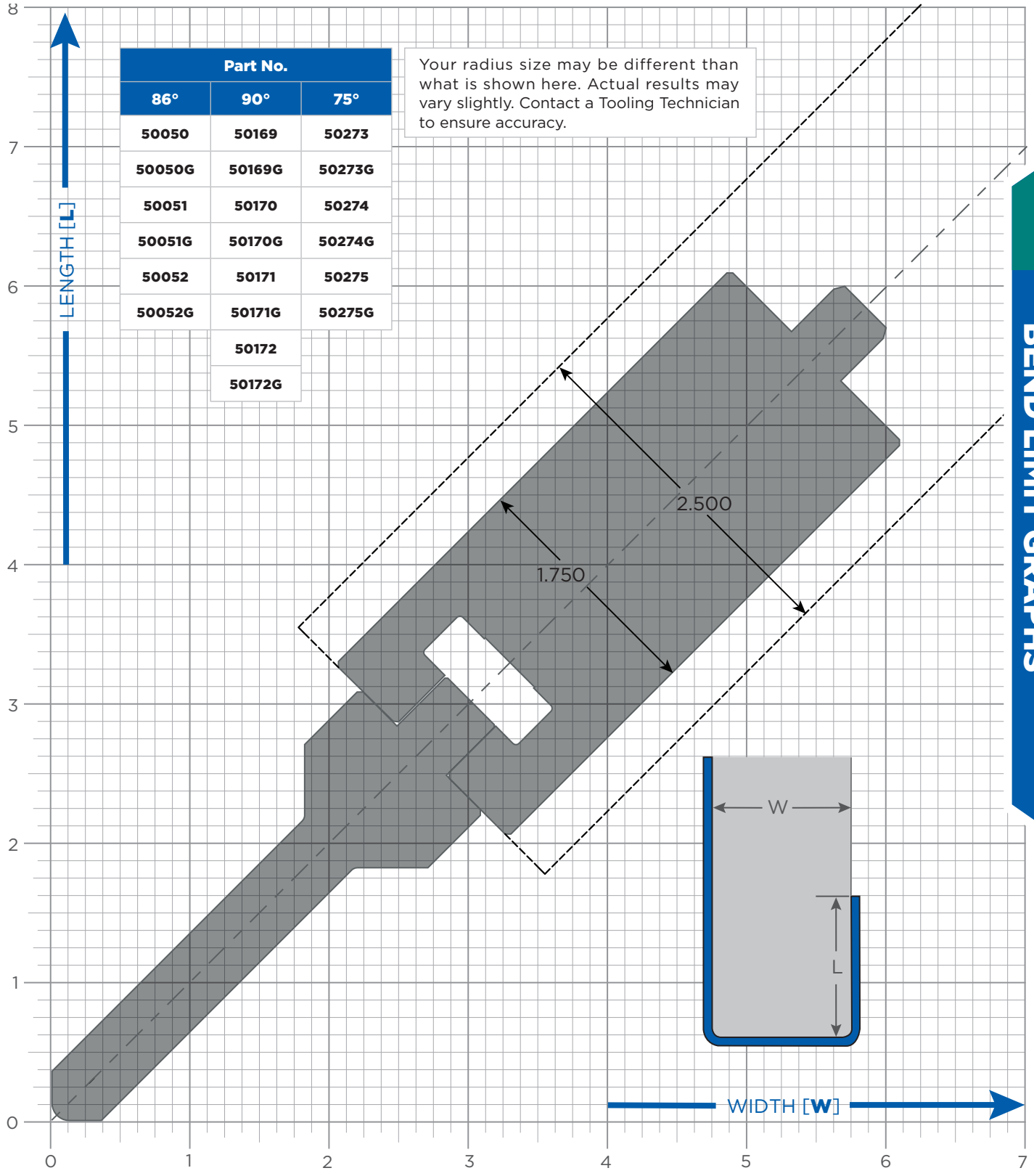
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



3.75" ARROW PUNCH
90°, 88°, 75°

Part No.		
86°	90°	75°
50050	50169	50273
50050G	50169G	50273G
50051	50170	50274
50051G	50170G	50274G
50052	50171	50275
50052G	50171G	50275G
	50172	
	50172G	

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

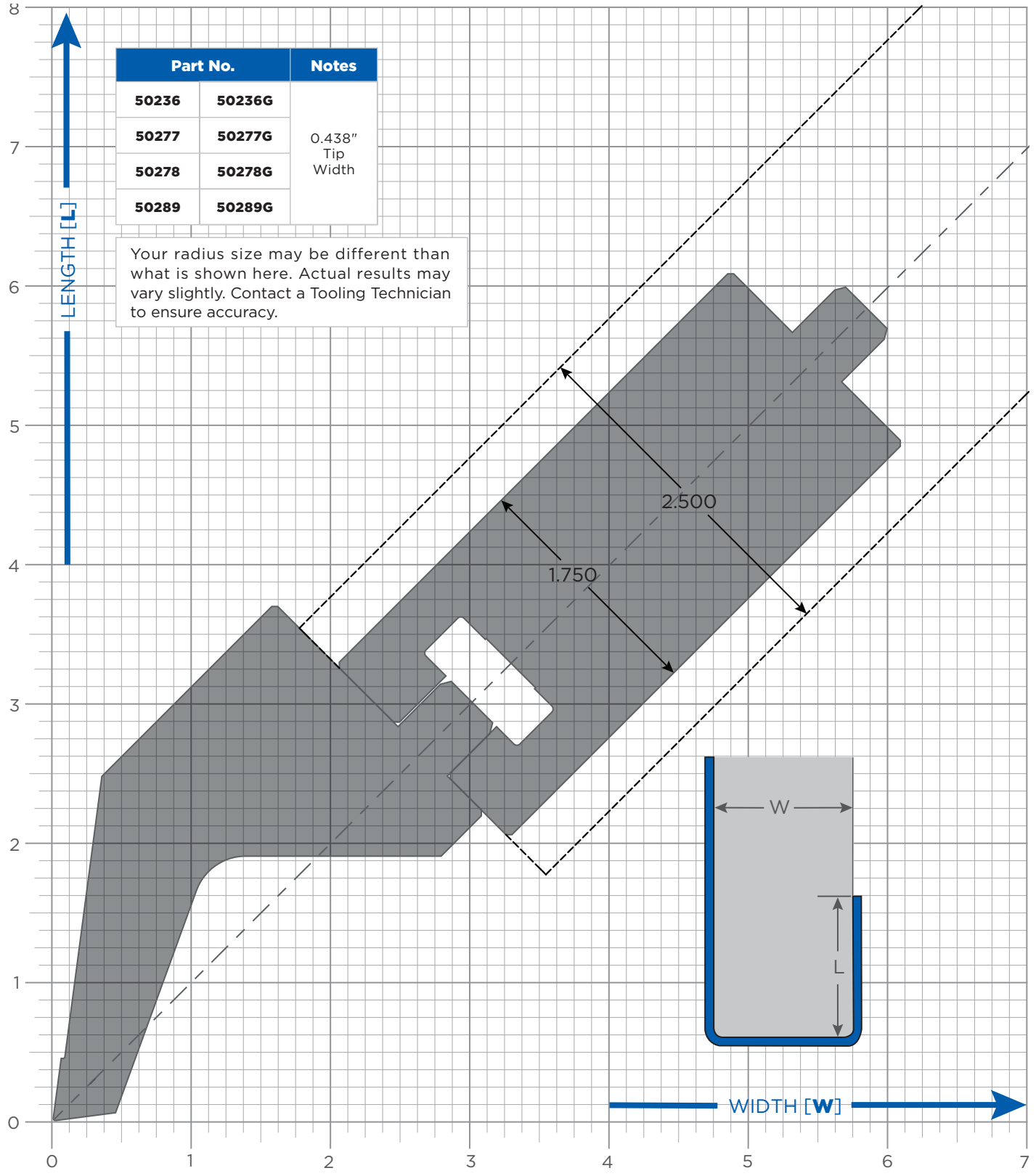


BEND LIMIT GRAPHS

3.75" LARGE GOOSENECK PUNCH
75°

Part No.		Notes
50236	50236G	0.438" Tip Width
50277	50277G	
50278	50278G	
50289	50289G	

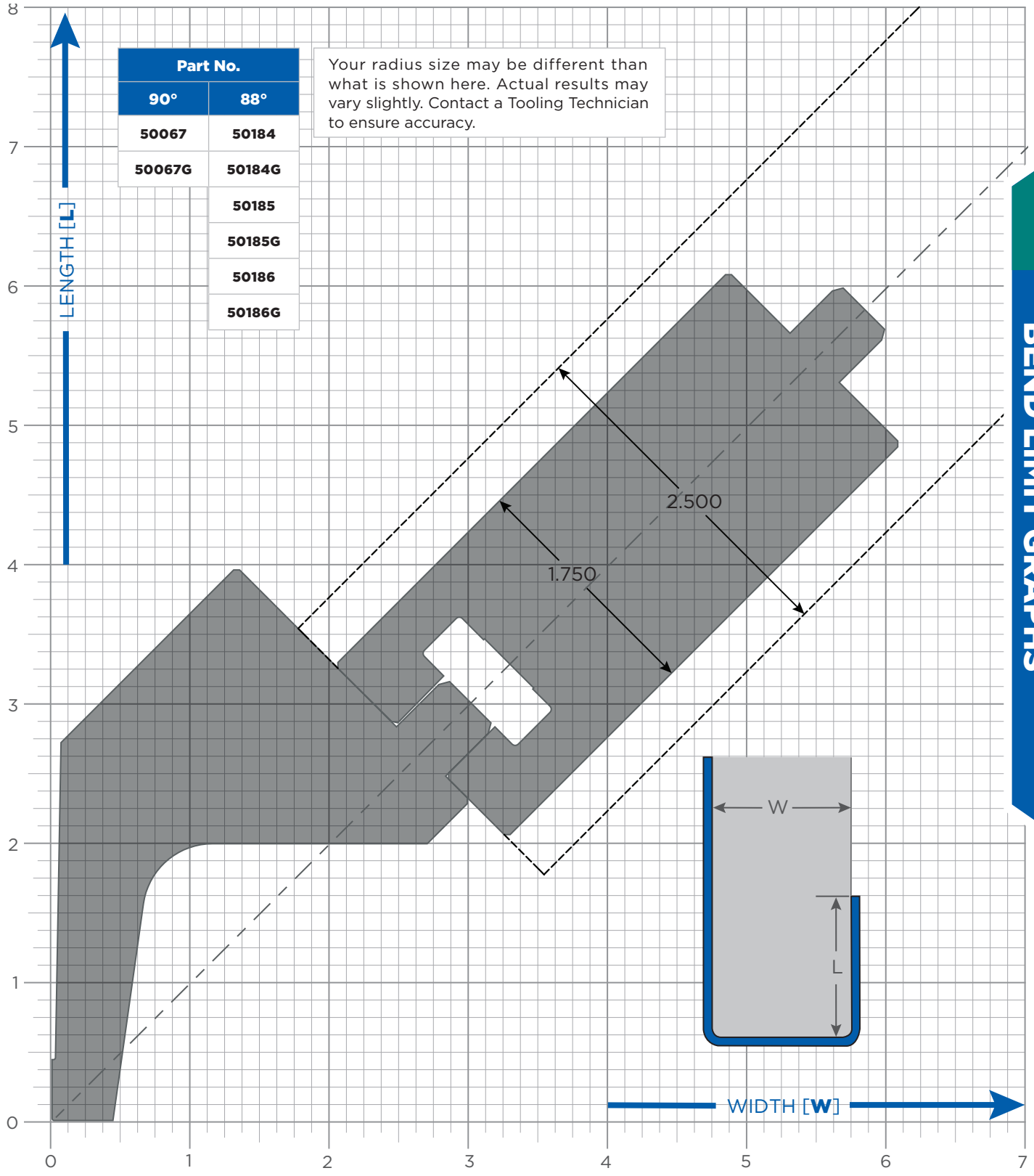
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



3.75" LARGE GOOSENECK PUNCH
90°, 88°

Part No.	
90°	88°
50067	50184
50067G	50184G
	50185
	50185G
	50186
	50186G

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

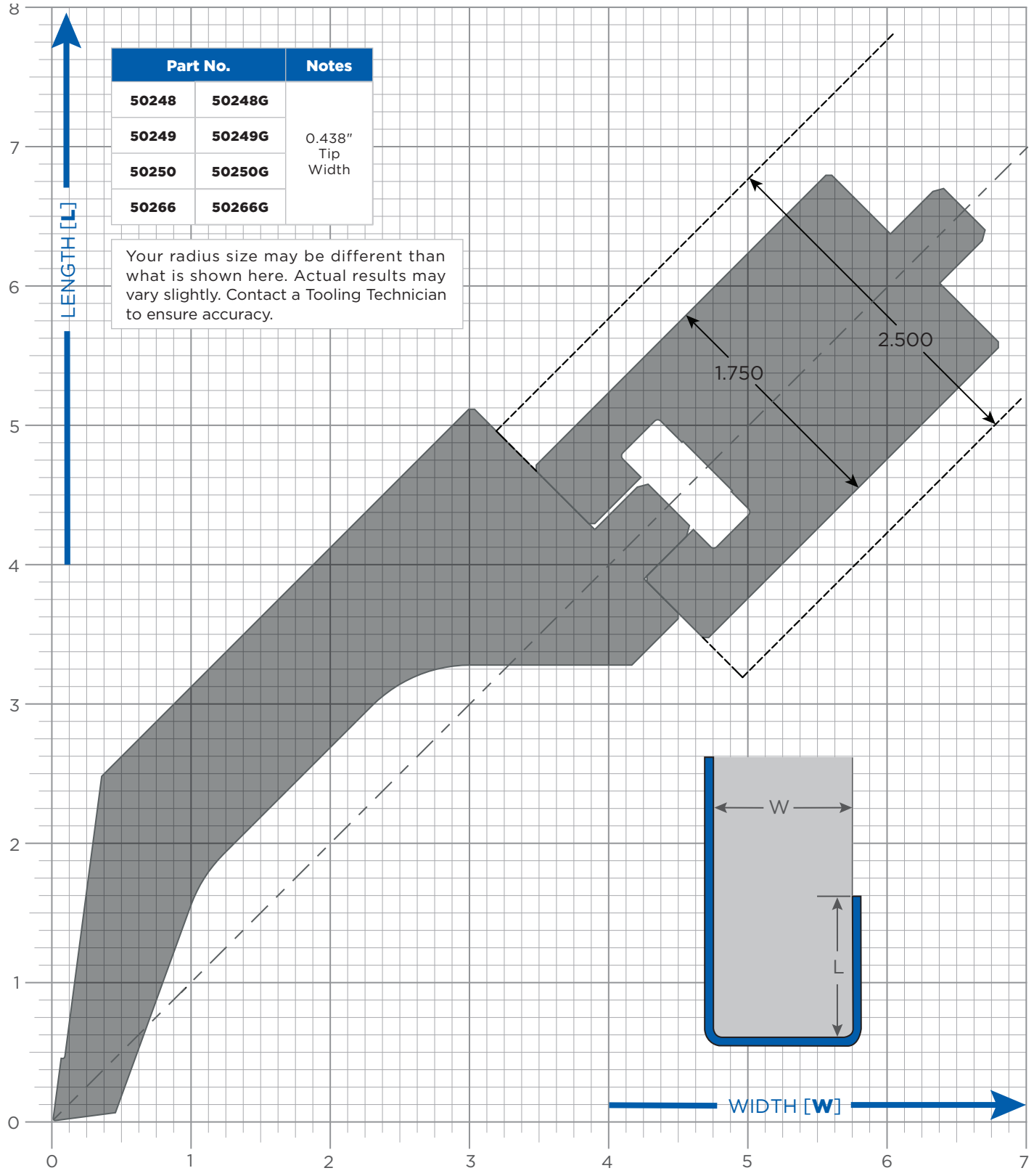


BEND LIMIT GRAPHS

5.75" LARGE GOOSENECK PUNCH
75°

Part No.		Notes
50248	50248G	0.438" Tip Width
50249	50249G	
50250	50250G	
50266	50266G	

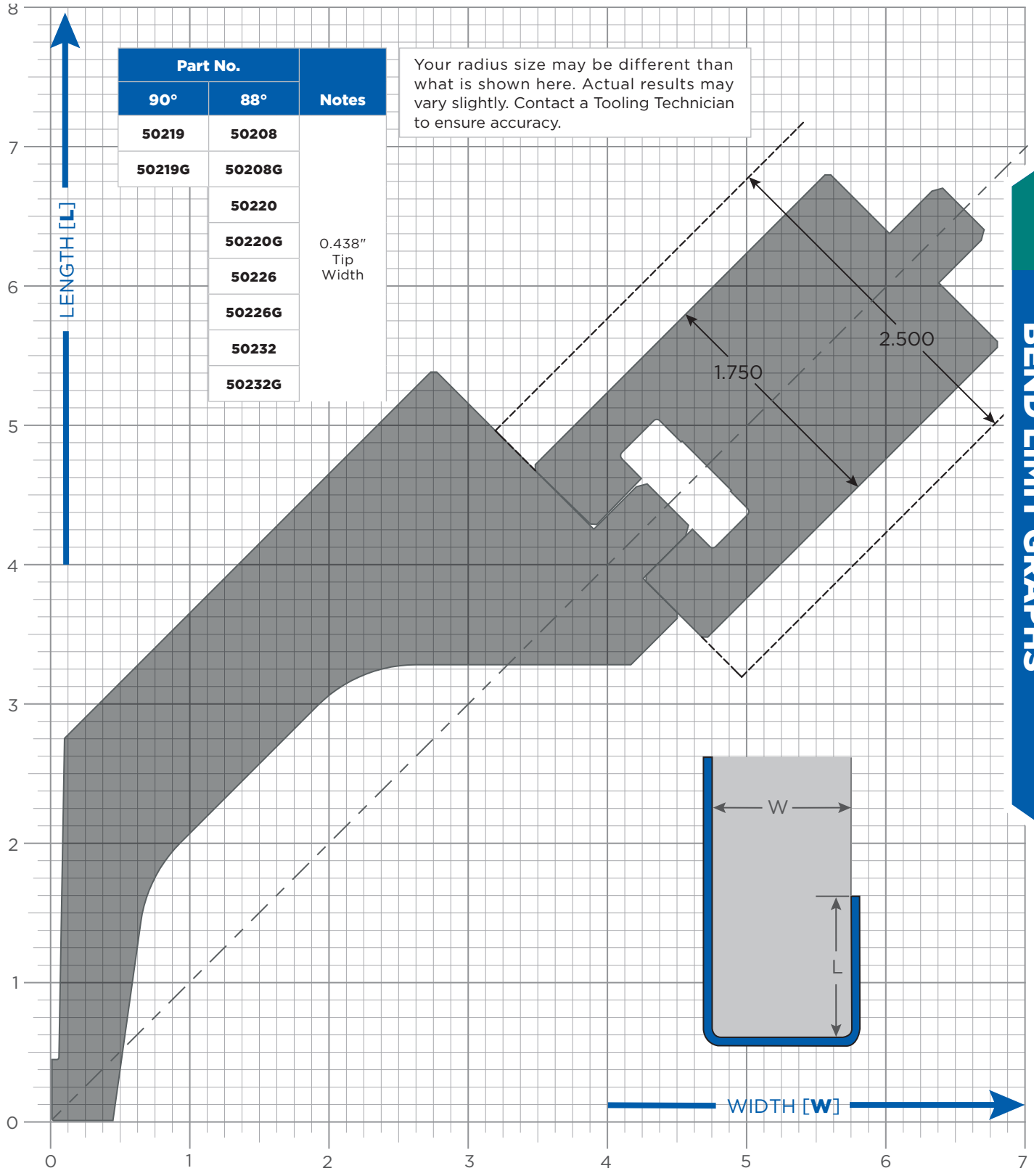
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



5.75" LARGE GOOSENECK PUNCH
90°, 88°

Part No.		Notes
90°	88°	
50219	50208	
50219G	50208G	
	50220	
	50220G	0.438" Tip Width
	50226	
	50226G	
	50232	
	50232G	

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

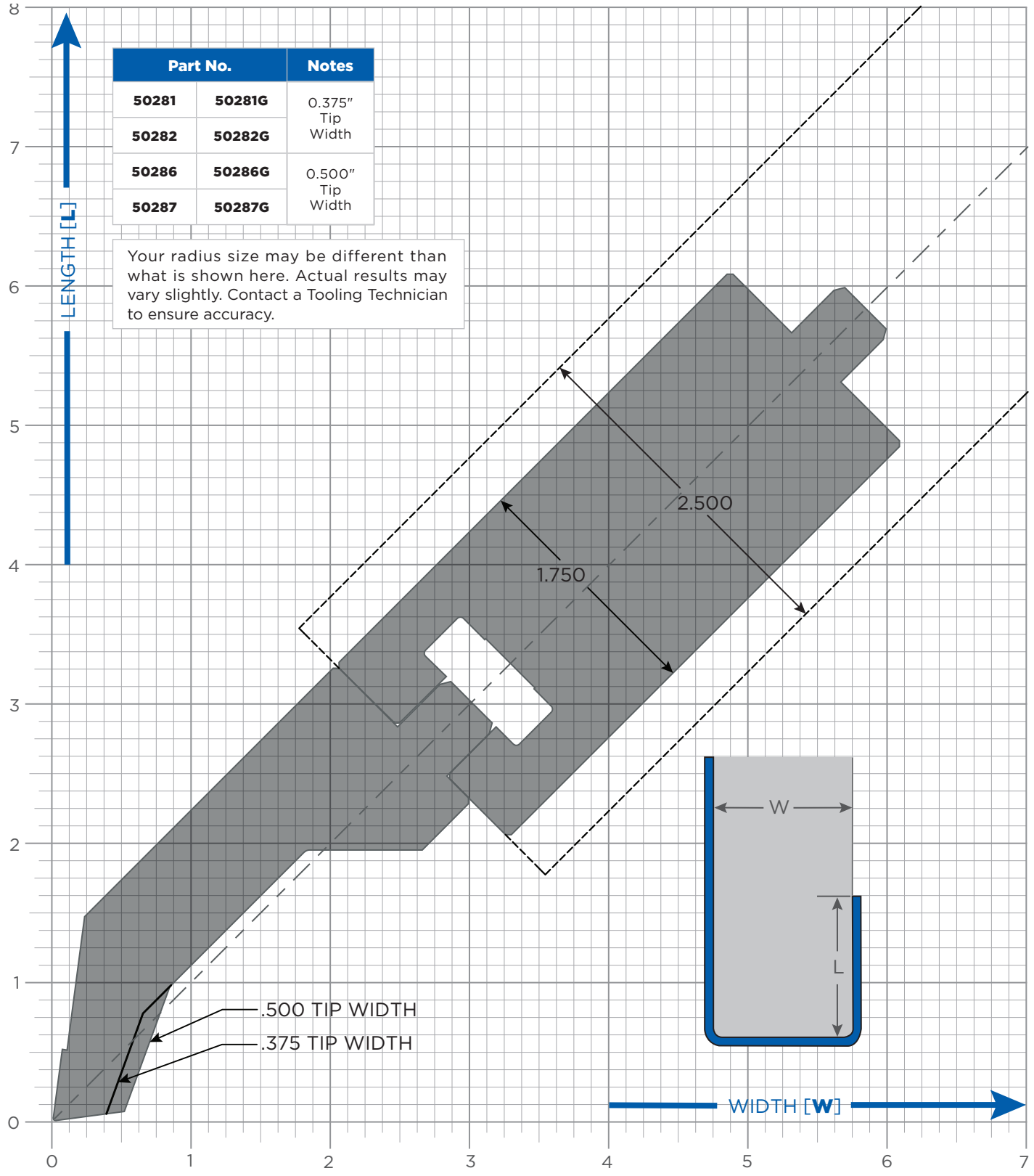


BEND LIMIT GRAPHS

3.75" SASH GOOSENECK PUNCH
75°

Part No.		Notes
50281	50281G	0.375" Tip Width
50282	50282G	
50286	50286G	0.500" Tip Width
50287	50287G	

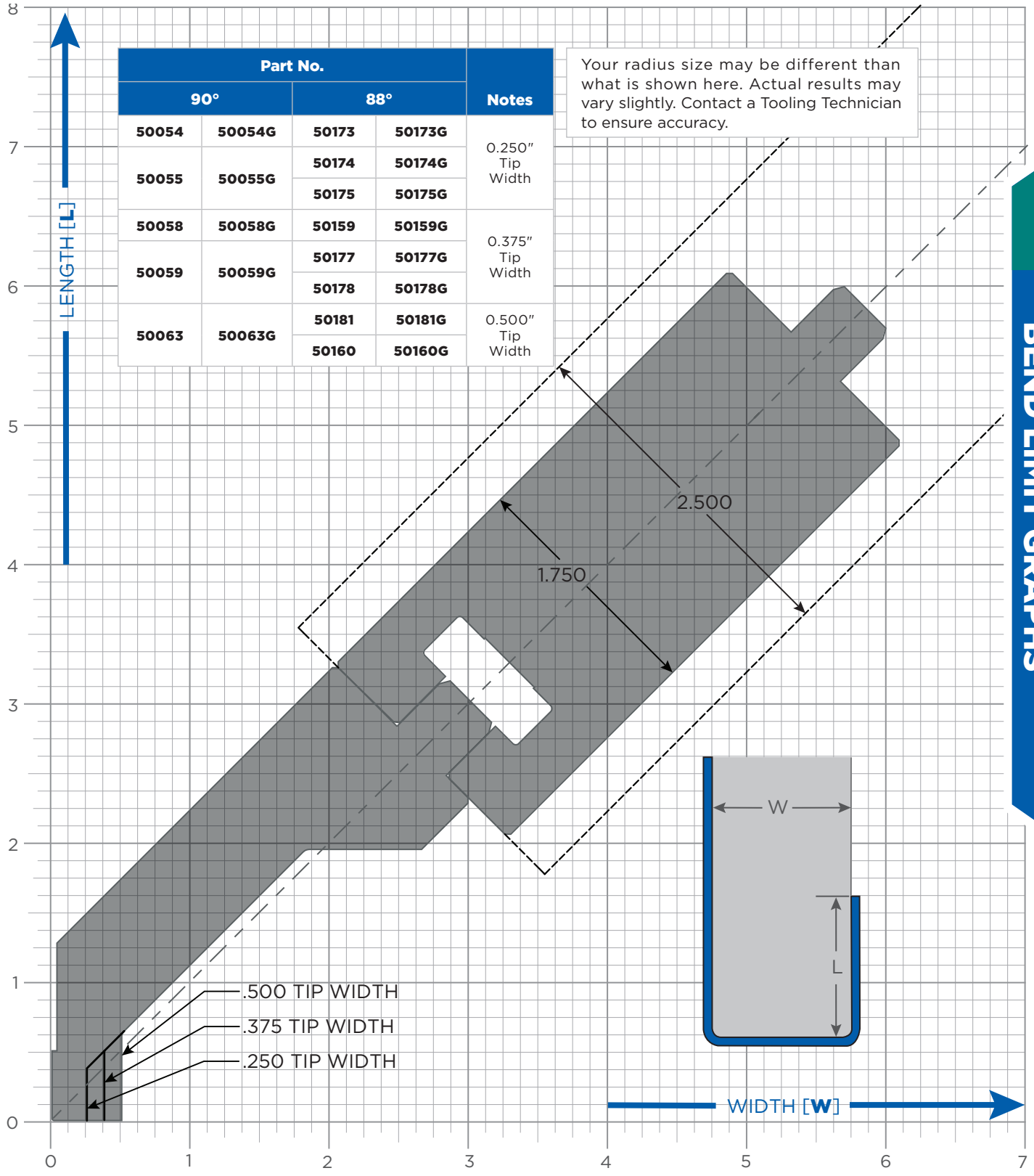
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



3.75" SASH GOOSENECK PUNCH
90°, 88°

Part No.				Notes
90°		88°		
50054	50054G	50173	50173G	0.250" Tip Width
50055	50055G	50174	50174G	
		50175	50175G	
50058	50058G	50159	50159G	0.375" Tip Width
50059	50059G	50177	50177G	
		50178	50178G	
50063	50063G	50181	50181G	0.500" Tip Width
		50160	50160G	

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

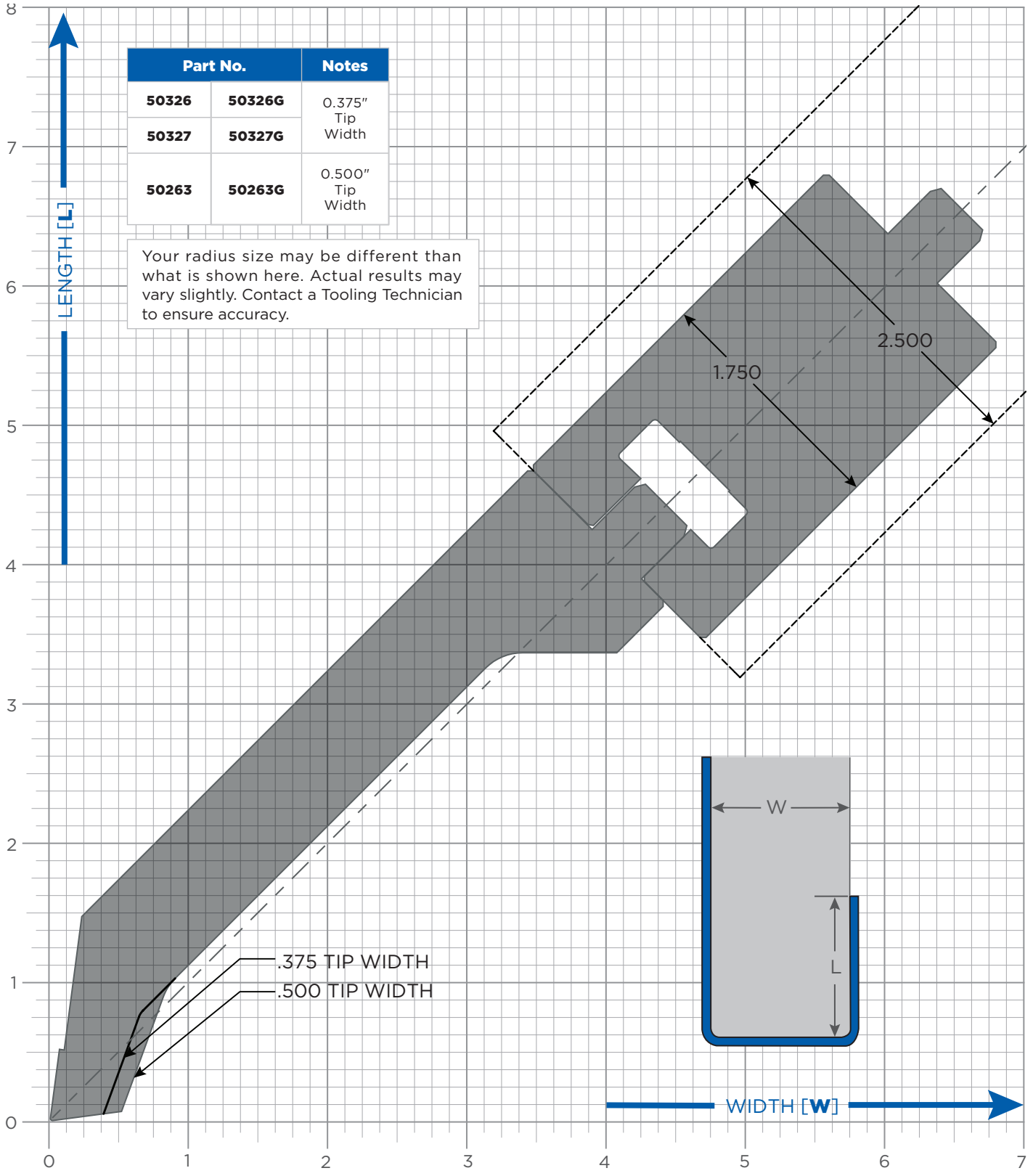


BEND LIMIT GRAPHS

5.75" SASH GOOSENECK PUNCH
75°

Part No.		Notes
50326	50326G	0.375" Tip Width
50327	50327G	
50263	50263G	0.500" Tip Width

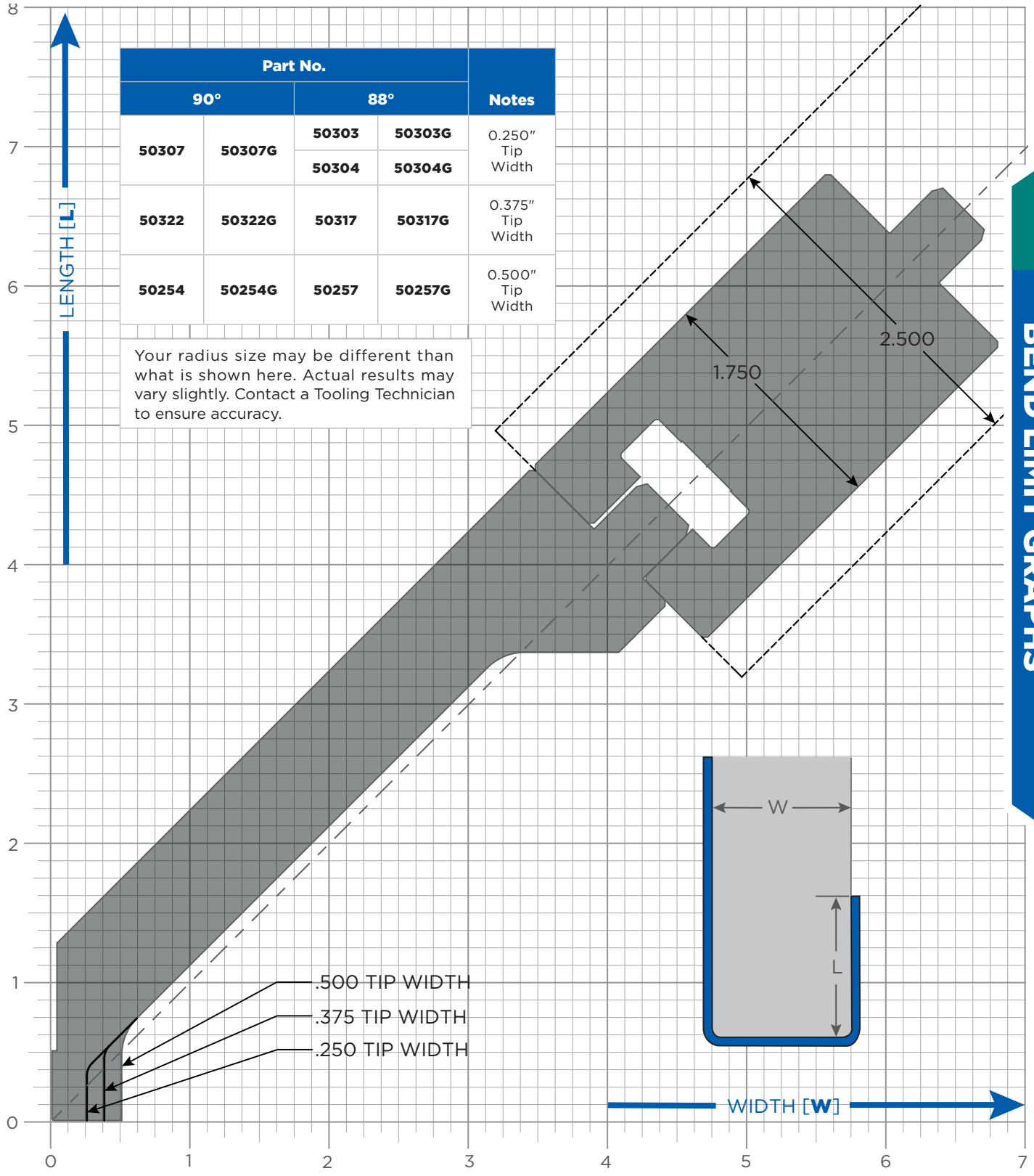
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



5.75" SASH GOOSENECK PUNCH
90°, 88°

Part No.				Notes
90°		88°		
50307	50307G	50303	50303G	0.250" Tip Width
		50304	50304G	
50322	50322G	50317	50317G	0.375" Tip Width
50254	50254G	50257	50257G	0.500" Tip Width

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

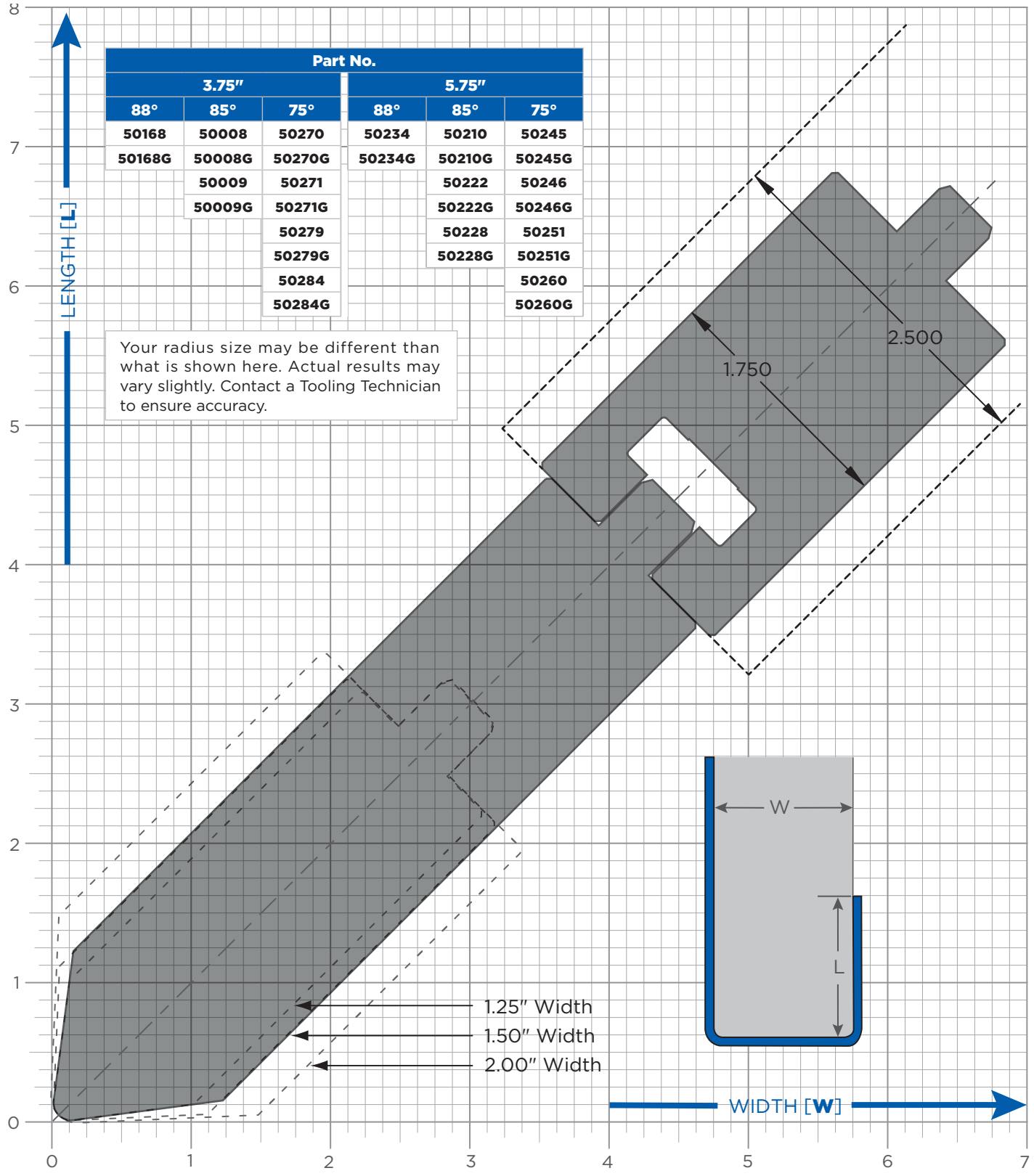


BEND LIMIT GRAPHS

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

Part No.					
3.75"			5.75"		
88°	85°	75°	88°	85°	75°
50168	50008	50270	50234	50210	50245
50168G	50008G	50270G	50234G	50210G	50245G
	50009	50271		50222	50246
	50009G	50271G		50222G	50246G
		50279		50228	50251
		50279G		50228G	50251G
		50284			50260
		50284G			50260G

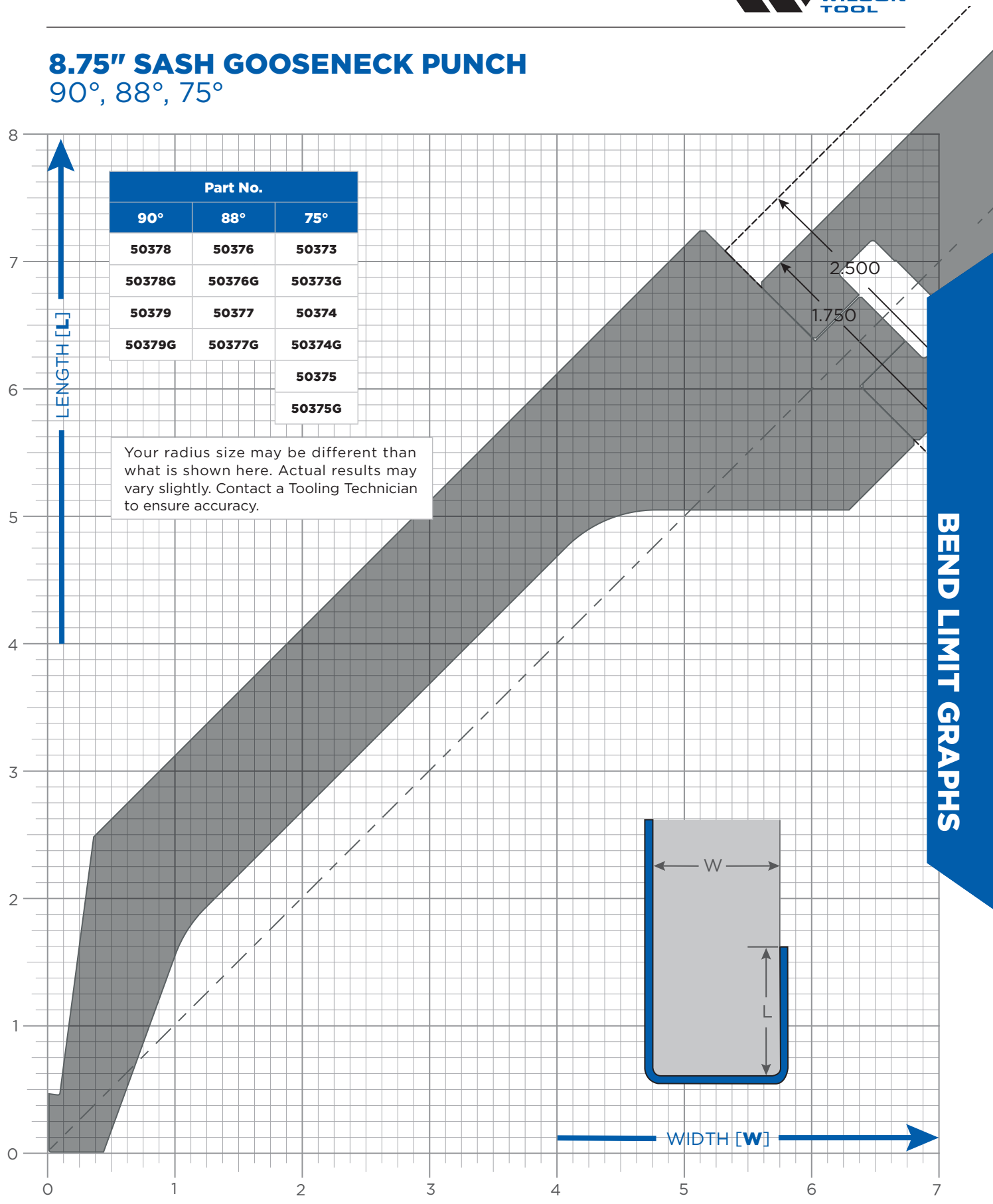
Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



8.75" SASH GOOSENECK PUNCH
90°, 88°, 75°

Part No.		
90°	88°	75°
50378	50376	50373
50378G	50376G	50373G
50379	50377	50374
50379G	50377G	50374G
		50375
		50375G

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

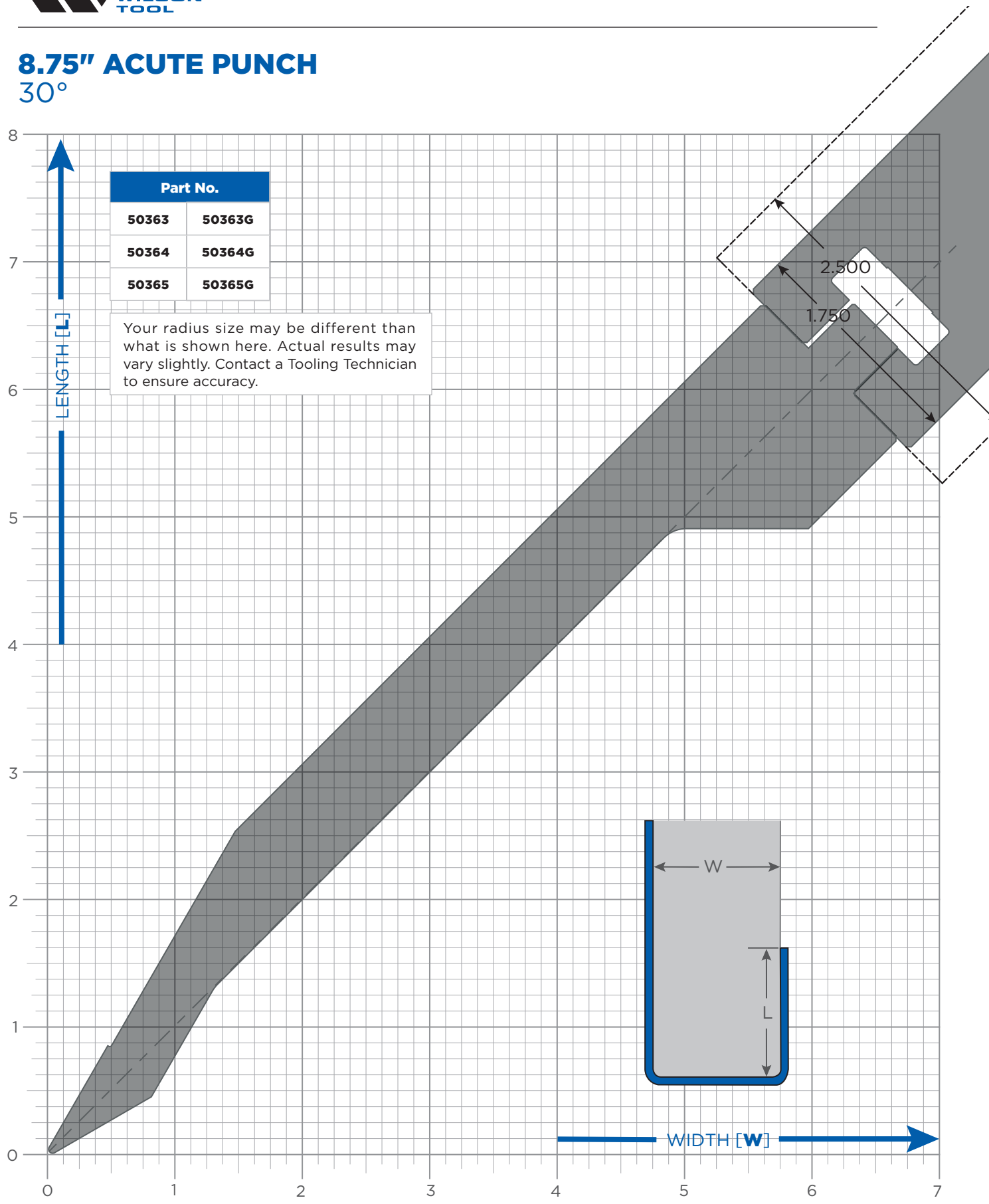


BEND LIMIT GRAPHS

8.75" ACUTE PUNCH
30°

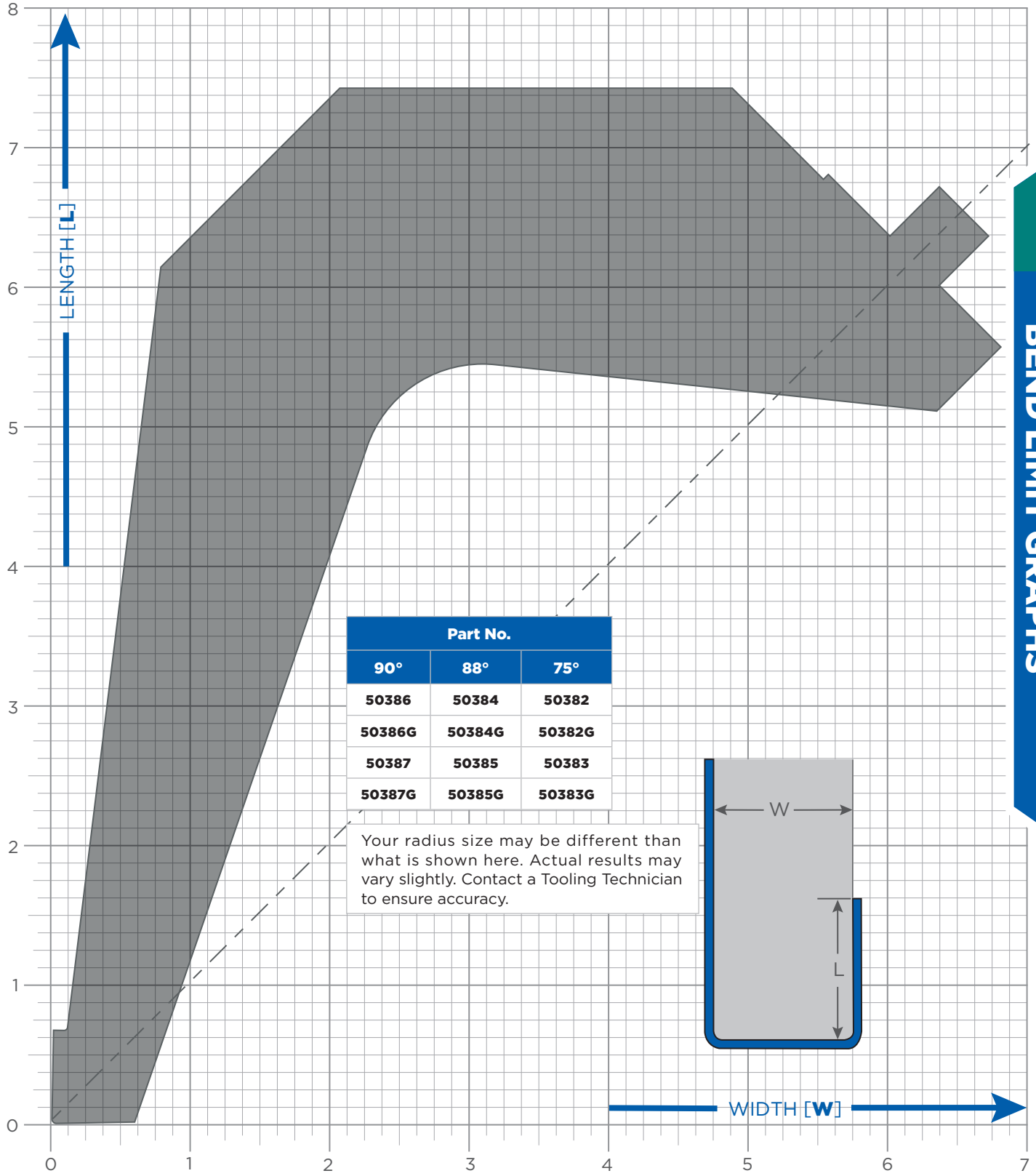
Part No.	
50363	50363G
50364	50364G
50365	50365G

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.



8.75" LARGE GOOSENECK PUNCH

90°, 88°, 75°

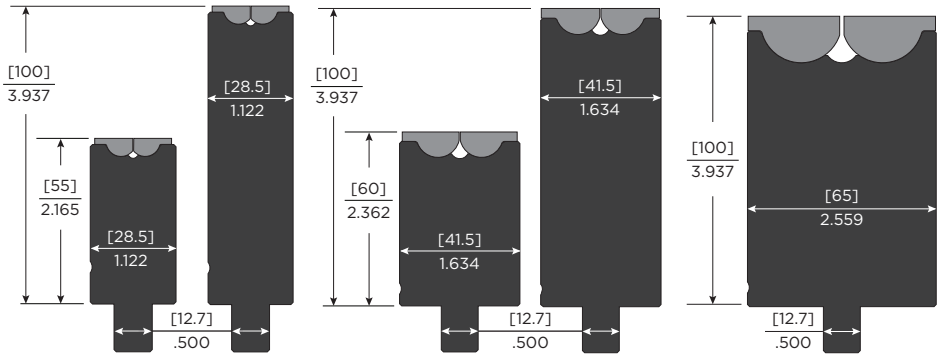


Part No.		
90°	88°	75°
50386	50384	50382
50386G	50384G	50382G
50387	50385	50383
50387G	50385G	50383G

Your radius size may be different than what is shown here. Actual results may vary slightly. Contact a Tooling Technician to ensure accuracy.

BEND LIMIT GRAPHS

V-SERIES BLACK (VSB) DIES — MODELS 1,2 & 2.5



51055 51100
MODEL 1

52060 52100
MODEL 2

525100
MODEL 2.5

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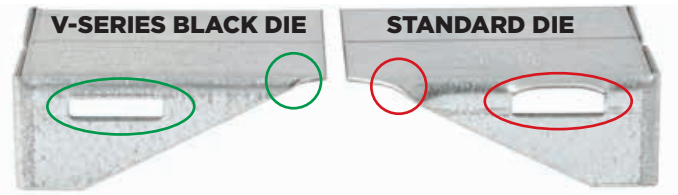
MODEL 1	SOLID				SECTIONAL		X1		X2	
Length	9.84" [250mm]		19.68" [500mm]		21.65" [550mm]		10.83" [275mm]		10.83" [275mm]	
Height	55mm	100mm	55mm	100mm	55mm	100mm	55mm	100mm	55mm	100mm
Assembly Part No.	51055-250	51100-250	51055-500	51100-500	51055-550	51100-550	51055x1	51100x1	51055x2	51100x2
Spring	(20 qty.) 980682	(20 qty.) 981031	(40 qty.) 980682	(40 qty.) 981031	(44 qty.) 980682	(44 qty.) 981031	(22 qty.) 980682	(22 qty.) 981031	(22 qty.) 980682	(22 qty.) 981031
Weight	6 lbs.	10 lbs.	11 lbs.	20 lbs.	13 lbs.	22 lbs.	6 lbs.	11 lbs.	6 lbs.	11 lbs.
Price										
Insert Part No.	(2) 980872A		(4) 980872A		(2) 980873A & (2) 980874A		(2) 987158A		(2) 987159A	

MODEL 2	SOLID				SECTIONAL		X1		X2	
Length	9.84" [250mm]		19.68" [500mm]		21.65" [550mm]		10.83" [275mm]		10.83" [275mm]	
Height	60mm	100mm	60mm	100mm	60mm	100mm	60mm	100mm	60mm	100mm
Assembly Part No.	52060-250	52100-250	52060-500	52100-500	52060-550	52100-550	52060x1	52100x1	52060x2	52100x2
Spring	(20 qty.) 980683	(20 qty.) 981032	(40 qty.) 980683	(40 qty.) 981032	(44 qty.) 980683	(44 qty.) 981032	(22 qty.) 980683	(22 qty.) 981032	(22 qty.) 980683	(22 qty.) 981032
Weight	9 lbs.	14 lbs.	15 lbs.	25 lbs.	17 lbs.	29 lbs.	8 lbs.	14 lbs.	8 lbs.	14 lbs.
Price										
Insert Part No.	(2) 980948		(4) 980948		(2) 980949 & (2) 980950		(2) 987160		(2) 987161	

MODEL 2.5	SOLID		X1	X2
Length	9.84" [250mm]	19.68" [500mm]	10.83" [275mm]	10.83" [275mm]
Height	100mm	100mm	100mm	100mm
Assembly Part No.	525100-250	525100-500	525100x1	525100x2
Spring	(20 qty.) 981032	(40 qty.) 981032	(22 qty.) 981032	(22 qty.) 981032
Weight	24 lbs.	49 lbs.	27 lbs.	27 lbs.
Price				
Insert Part No.	(2) 990646	(4) 990646	(2) 990644	(2) 990645

Model	Material Thickness inch [mm]	Min. Outside Flange inch [mm]	Ton/ Ft.	Min. Angle	Punch Radius Required @ Min. Angle	Min. Outside Radius @ Min. Angle inch [mm]	Max. Outside Radius @ 90° inch [mm]	US Short Ton/Ft.	Metric Tons/M	kN/M
	V-SERIES BLACK (VSB) SPECIFICATIONS									
1	.018 [.45]	.118 [3.0]	1.8	34°	.054	.125 [3.17]	.175 [4.45]	38	112	1100
	.020 [.50]		1.8		.052					
	.024 [.60]		2		.047					
	.032 [.80]		2.5		.036					
	.035 [.90]		3.3		.031					
	.040 [1.0]	.153 [3.9]	4							
	.048 [1.2]		5.8							
	.059 [1.5]	.165 [4.2]	9							
2	.075 [1.9]	.335 [8.5]	7	42°	.122	.216 [5.5]	.354 [9.0]	57	168	1650
	.105 [2.7]	.347 [8.8]	13		.112					
	.118 [3.0]	.366 [9.3]	19		.099					
	.126 [3.2]		22		.091					
	.134 [3.4]		25	55°	.082	.276 [7.9]				
2.5	.079 [2.0]	.732 [18.6]	4	46°	.368	.447 [11.35]	.500 [12.7]	84	250	2450
	.157 [4.0]		16		.221	.378 [9.6]				
	.197 [5.0]		28	55°	.146	.343 [8.71]				

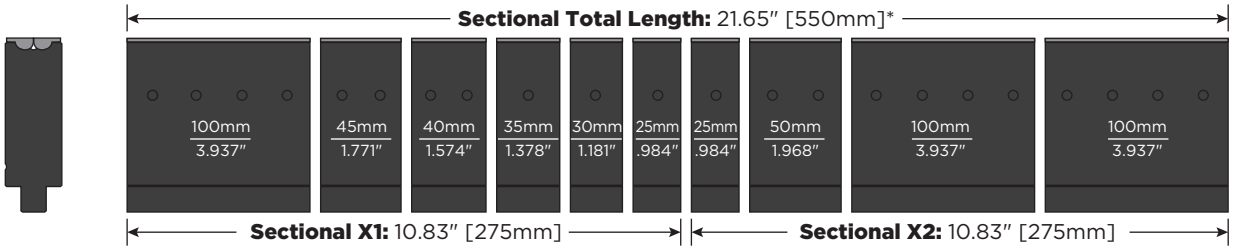
Model	Shoulder Radius inch [mm]	Desired Angle	Theoretical V inch [mm]	Center Line of Inserts inch [mm]
	V-OPENING AND SHOULDER RADIUS DIMENSIONS			
1	.043 [1.1]	90°	.283 [7.2]	.315 [8]
		34°	.256 [6.5]	
2	.050 [1.3]	90°	.547 [13.9]	.591 [15]
		42°	.524 [13.3]	
2.5	.079 [2.0]	90°	1.037 [26.3]	1.102 [28]
		55°	1.007 [25.6]	



DESCRIPTION	Part No.
INSTALLATION TOOLS	
Spring Installation Tool Kit	981002
Spring Extension Wire (short)	981003
Spring Extension Wire (long)	981004

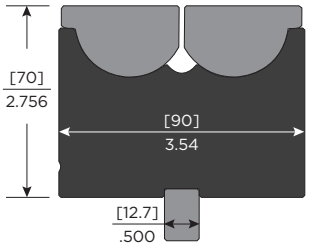
V-Series Black (VSB) Standard Lengths — Models 1, 2 & 2.5

Solid Length Available: 19.68" [500mm] and 9.84" [250mm]

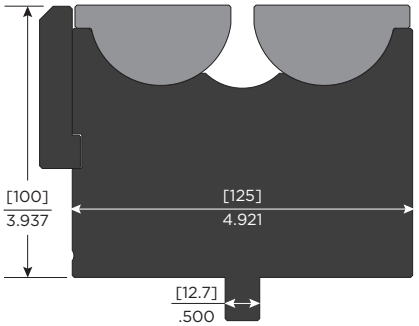


*550mm sectional length not available in Model 2.5

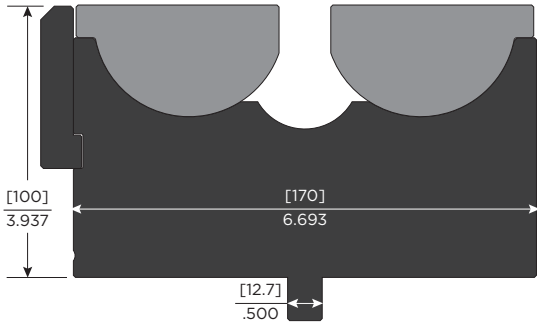
V-SERIES BLACK (VSB) DIES — MODELS 3, 3.5 & 4



53070.2
MODEL 3



535100
MODEL 3.5



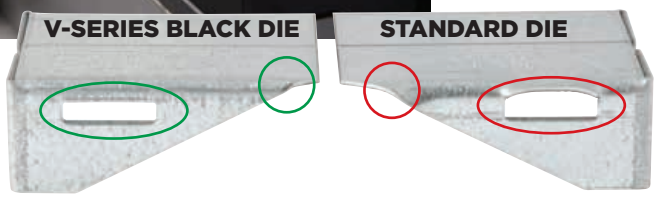
540100
MODEL 4

MODEL 3	SOLID		SECTIONALIZED	
Length	3.94" [100mm]	9.84" [250mm]	17.91" [455mm]	10.04" [255mm]
Height	70mm	70mm	70mm	70mm
Assembly Part No.	53070.2-100	53070.2-250	53070.2-455	53070.2x1
Spring	(4 qty.) 980881	(8 qty.) 980881	(18 qty.) 980881	(10 qty.) 987315
Weight	11 lbs.	27 lbs.	47 lbs.	19 lbs.
Price				
Insert Part No.	(2) 987163	(2) 980959	(2) 987162 & (4) 987163	(2) 987162

MODEL 3.5	SOLID		X1
Length	3.94" [100mm]	9.84" [250mm]	10.04" [255mm]
Height	100mm	100mm	100mm
Assembly Part No.	535100-100	535100-250	535100x1
Spring	(4 qty.) 990656	(10 qty.) 990656	(10 qty.) 990656
Weight	20 lbs.	51 lbs.	52 lbs.
Price			
Insert Part No.	(2) 990650	(2) 990651	(2) 990648

MODEL 4	SOLID		X1
Length	3.94" [100mm]	9.84" [250mm]	10.04" [255mm]
Height	100mm	100mm	100mm
Assembly Part No.	540100-100	540100-250	540100x1
Spring	(4 qty.) 990657	(10 qty.) 990657	(10 qty.) 990657
Weight	25 lbs.	62 lbs.	64 lbs.
Price			
Insert Part No.	(2) 990653	(2) 990654	(2) 990652

Model	Material Thickness inch [mm]	Min. Outside Flange inch [mm]	Ton/ Ft.	Min. Angle	Punch Radius Required @ Min. Angle	Min. Outside Radius @ Min. Angle inch [mm]	Max. Outside Radius @ 90° inch [mm]	US Short Ton/Ft.	Metric Tons/M	kN/M
V-SERIES BLACK (VSB) SPECIFICATIONS										
3	.157 [4.0]	.886 [22.5]	12	65°	.078	.453 [11.5]	.625 [15.9]	84	250	2450
	.187 [4.75]		26		.094					
	.250 [6.35]		30		.125					
3.5	.236 [6.0]	1.476 [37.5]	15	75°	.031	.267 [6.78]	.945 [24]	84	250	2450
	.315 [8.0]		29			.346 [8.79]				
	.394 [10.0]		49			.425 [10.8]				
4	.236 [6.0]	2.126 [54]	9	78°	.031	.267 [6.78]	1.433 [36.4]	101	300	2942
	.315 [8.0]		17	76°		.346 [8.79]				
	.472 [12.0]		44	73°		.503 [12.78]				



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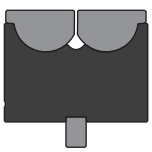
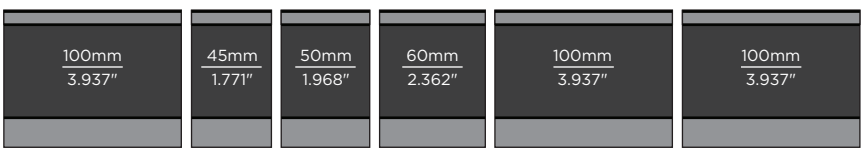
Model	Shoulder Radius inch [mm]	Desired Angle	Theoretical V inch [mm]	Center Line of Inserts inch [mm]
V-OPENING AND SHOULDER RADIUS DIMENSIONS				
3	.236 [6.0]	90°	1.299 [33.0]	1.496 [38]
		65°	1.236 [31.4]	
3.5	.138 [3.5]	90°	2.248 [57.1]	2.362 [60]
		75°	2.226 [56.6]	
4	.236 [6.0]	90°	3.151 [80.0]	3.346 [85]
		73°	3.108 [79.0]	

DESCRIPTION	Part No.
INSTALLATION TOOLS	
Spring Installation Tool Kit	981002
Spring Extension Wire (short)	981003
Spring Extension Wire (long)	981004

V-Series Black (VSB) Standard Lengths — Models 3, 3.5 & 4

Solid Length Available: 9.84" [250mm] and 3.937" [100mm]

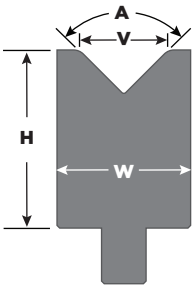




Sectional X1: 10.04" [255mm]

URETHANE DIES

Durometer Rating is 75



Part No.	A Angle	V-Opening	H Height	W Width	GA.	Approx. Gross Weight 48″	Approx. Gross Weight 96″	Length 48″	Length 96″
URETHANE DIES									
50031u	90°	1/4″	1-3/4″	1-1/4″	22	5 lbs.	12 lbs.		
50032u		3/8″			18				
50033u		1/2″			16	6 lbs.			
50034u		5/8″		1-3/4″	14	7 lbs.	16 lbs.		
50035u		3/4″			13				
50036u		7/8″	1-7/8″		12				
50037u		1″			11		17 lbs.		
50018u	85°	2″	2-1/4″	3″	10	5 lbs.	—		—
50020u	30°	1/4″	1-3/4″	1-1/4″	22	5 lbs.	12 lbs.		
50021u		3/8″			18				
50022u		1/2″			16	7 lbs.	16 lbs.		
50023u		5/8″	1-7/8″	1-3/4″	14				

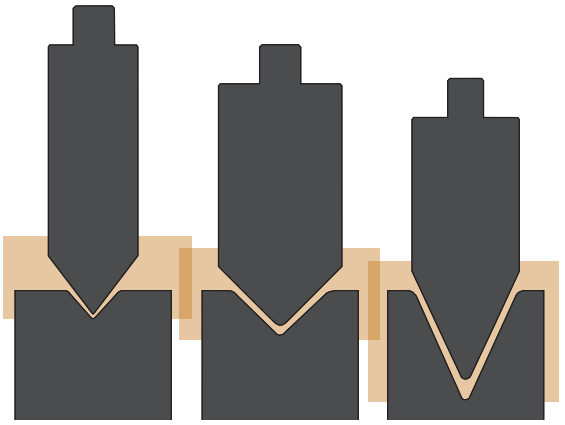
WHAT IS "STAGED" TOOLING?

By creating multiple tooling setups with a common shut height, operators can carryout multiple bends on a single setup. All bends on a part are performed in succession, eliminating the need for constant tool changeovers and part handling, saving you time and effort.

The Wilson Tool Advantage

- **Standardized Common Shut Height:** Tooling is designed to work together for easy and efficient staged bending.
- **Versatile Tooling Options:** Goosenecks, offsets and flattening tools can be staged side-by-side.
- **Out-of-the-Box Solution:** No need for custom modifications or additional setup time.

THREE DIFFERENT SHUT HEIGHTS
causes punches and dies to collide
requiring multiple setups.



ONE COMMON SHUT HEIGHT
allows all bends to be performed
in one progressive setup.

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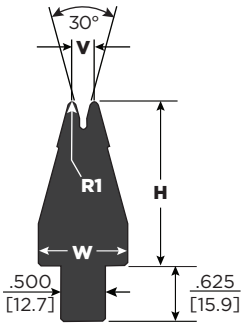
Benefits of Staged Bending

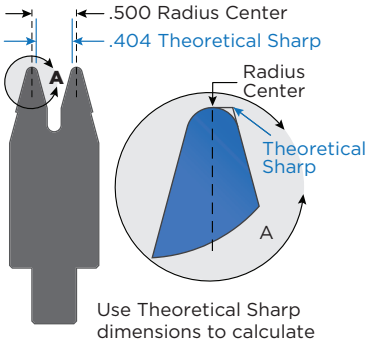
- **Reduced Setup Time:** Minimize downtime and maximize production
- **Increased Efficiency:** Streamline your workflow and improve productivity
- **Improved Quality:** Reduce part handling and potential damage
- **Lower Costs:** Reduce labor costs

Ready to Revolutionize Your Press Brake Operations?

Contact us today to learn how staged bending can help you achieve your goals.

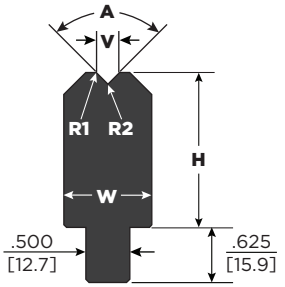
STAGED ACUTE DIES





Use Theoretical Sharp dimensions to calculate tonnage and minimum flange.

STAGED BLOCK DIES



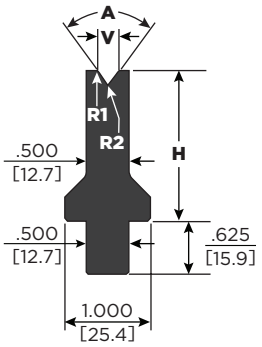
Part No.	V V-Opening Rad. Center inch [mm]	V-Opening Theo. Sharp inch	H Height inch [mm]	W Width inch [mm]	R1 Sh. Rad. inch [mm]	Max Ton/ft L,S,X	L	S	X	Price L 36"	Price S 18"	Price X 35.87"
							Appx. Gross Weight [lbs.]					
STAGED ACUTE DIES												
50020	.250 [6.4]	.178	1.832 [46.5]	1.000 [25.4]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

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

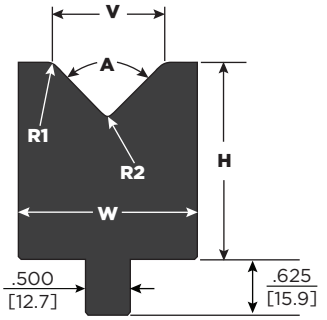
1.75" tall dies available upon request.

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

STAGED ARROW DIES



STAGED LARGE V DIES



Part No.	A Angle	V V-Opening inch [mm]	H Height inch [mm]	R1 Sh. Rad. inch [mm]	R2 V Rad. inch [mm]	L, S & X Max. Ton/ft.	L	S	X	L	S	X
							Approx. Gross Weight [lbs.]			36"	18"	35.87"
STAGED ARROW DIES												
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]			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]			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]			22						
50006		.375 [9.5]	1.688 [42.9]	.047 [1.2]		21						

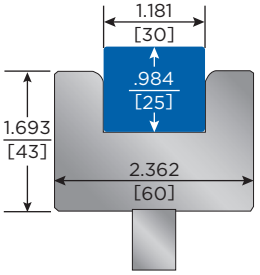
Part No.	A Angle	V V-Opening inch [mm]	H Height inch [mm]	W Width inch [mm]	R1 Sh. Rad. inch [mm]	R2 V Rad. inch [mm]	L, S & X Max. Ton/ft.	L	S	X	L	S	X
								Appx. Gross Weight [lbs.]			36"	18"	35.87"
STAGED LARGE V DIES													
50240	75°	1.000 [25.4]	2.152 [54.7]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	33	17	33			
50296		1.125 [28.6]	2.233 [56.7]			.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]				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]		94	47	94			
50371		3.000 [76.2]	3.455 [87.8]	4.000 [101.6]	.281 [7.1]	.313 [8.0]		—	57	114	—		
50371R			3.455 [87.8]					—	56	112	—		
50372		4.000 [101.6]	4.107 [104.3]	5.000 [127.0]	.375 [9.5]			—	72	158	—		
50372R			4.107 [104.3]					—	70	155	—		
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]				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]		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]			.063 [1.6]	35	32	16	32			
50037	90°	1.000 [25.4]	2.000 [50.8]			.031 [0.8]	30	31	16	31			
50015		1.125 [28.6]	2.063 [52.4]			.063 [1.6]	35	32	16	32			

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

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

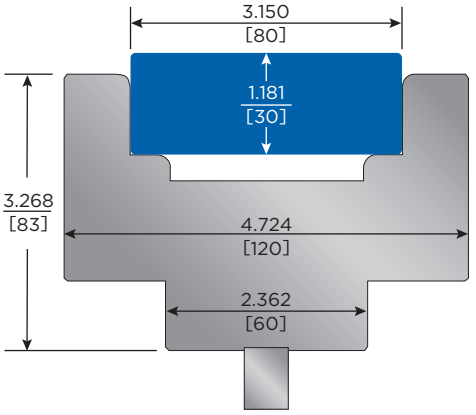
URETHANE DIE HOLDERS & PADS

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



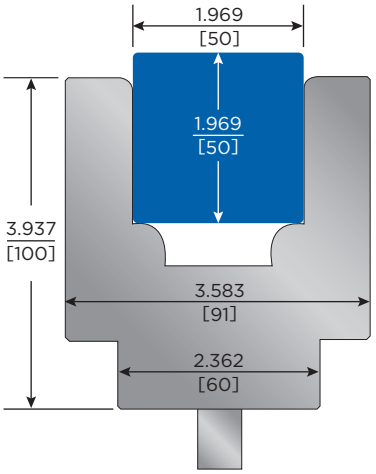
M Made To Order

Part No.		Description/ Shore Hardness	L Appx. Gross Weight [lbs.]	S Appx. Gross Weight [lbs.]	L 32.87" 835mm	S 16.34" 415mm
42501c	M	Holder	10	6		
42511		Pad 80A Red	2	1		
42521		Pad 90A Blue	2	1		



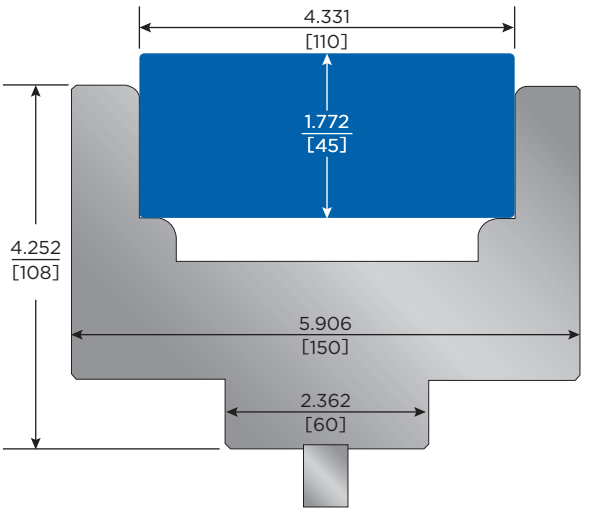
M Made To Order

Part No.		Description/ Shore Hardness	L Appx. Gross Weight [lbs.]	S Appx. Gross Weight [lbs.]	L 32.87" 835mm	S 16.34" 415mm
42503c	M	Holder	35	19		
42513		Pad 80A Red	6	3		
42523		Pad 90A Blue	6	3		



M Made To Order

Part No.		Description/ Shore Hardness	L Appx. Gross Weight [lbs.]	S Appx. Gross Weight [lbs.]	L 32.87" 835mm	S 16.34" 415mm
42502c	M	Holder	33	17		
42512		Pad 80A Red	6	3		
42522		Pad 90A Blue	6	3		

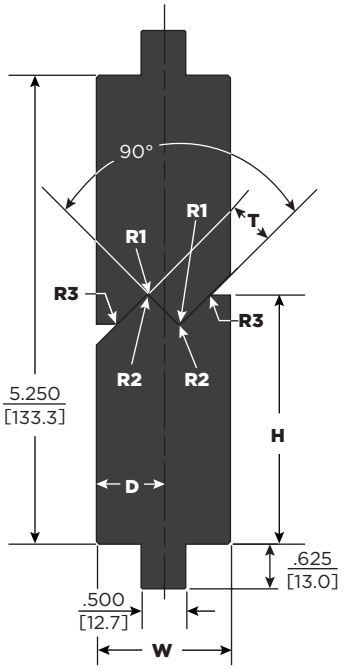


M Made To Order

Part No.		Description/ Shore Hardness	L Appx. Gross Weight [lbs.]	S Appx. Gross Weight [lbs.]	L 32.87" 835mm	S 16.34" 415mm
42504c	M	Holder	52	27		
42514		Pad 80A Red	11	6		
42524		Pad 90A Blue	11	6		

OFFSET PUNCH AND DIE

- 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



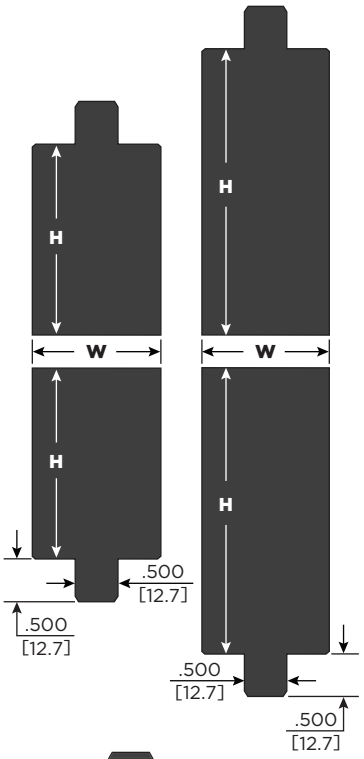
M Made To Order

Part No.			**T = Offset Dim. inch [mm]	H = Height inch [mm]	W = Width inch [mm]	Effective V	Max. Material	R1/R2 = Punch & Die Rad. inch [mm]	R3 = Sh. Rad. inch [mm]	D = Centerline Dim. inch [mm]	Max. Ton/ft.	Approx. Gross Weight [lbs.]			Button	L	S	X
Straight	Groove											L	S	X		36"	18"	35.87"
3.75" OFFSET PUNCH AND DIE SET																		
50087	50087G	M	.125 [3.2]	2.663 [67.6]	1.250 [31.8]	.177	20g	.016 [0.4]	.062 [1.6]	.625 [15.9]	30	71	35	71	A			
50088	50088G	M	.188 [4.8]	2.685 [68.2]	1.250 [31.8]	.266	18g											
50089	50089G	M	.250 [6.4]	2.707 [68.8]	1.250 [31.8]	.354	16g		.094 [2.4]									
50090	50090G	M	.375 [9.5]	2.745 [69.7]	1.250 [31.8]	.530	13g	.031 [0.8]	.125 [3.2]	.750 [19.1]		86	43	86	C			
50091	50091G	M	.500 [12.7]	2.789 [70.8]	1.500 [38.1]	.707	12g			.875 [22.2]		100	50	100				
50092	50092G	M	.625 [15.9]	2.833 [72.0]	1.750 [44.5	.884	11g											
50093	50093G	M	.750 [19.1]	2.877 [73.1]	2.000 [50.8]	1.061	11g			.75 [19.1]		114	58	114				
50094	50094G	M	.875 [22.2]	2.922 [74.2]	2.000 [50.8]	1.237	9g											
50095	50095G	M	1.000 [25.4]	2.966 [75.3]	2.000 [50.8]	1.414	7g											

T x 1.414" = Effective V
**T= Offset dimension top of sheet to top of form

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

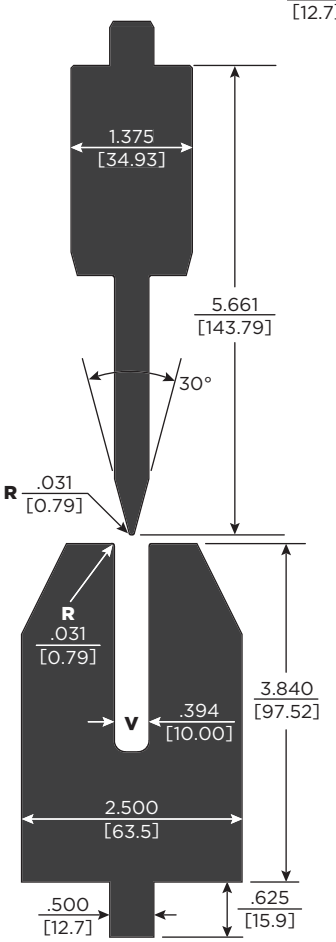
HEMMING AND FLATTENING

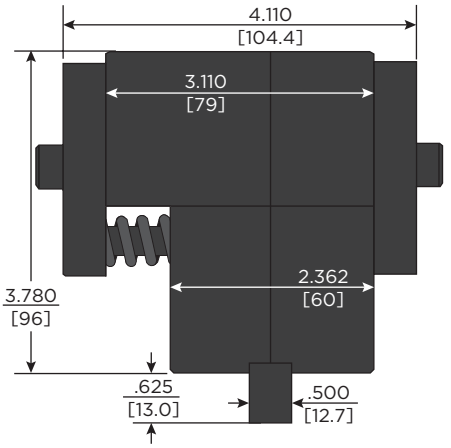


M Made To Order

Part No.			H Height inch [mm]	W Width inch [mm]	Max. Ton/ ft.		Approx. Gross Weight [lbs.]			Button	L 36″	S 18″	X 35.87″
Straight	Groove				L & S	X	L	S	X				
3.75″ FLATTENING PUNCH AND DIE SET													
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			
50098*	50098G*	M	3.661 [93.0]	1.500 [38.1]			76	43	87	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			
50099*	50099G*	M	5.661 [143.8]	1.500 [38.1]			116	58	120	C			

*New flattening punches/dies optimized to work with LaserSafe and other laser guarding systems





Part No.	Max. Ton ft. [m]	L	S
		32.87″ [835mm]	16.34″ [415mm]
THRUST ABSORBING FLATTENING DIE			
42311c	30 [100]	$2,202	$1,383

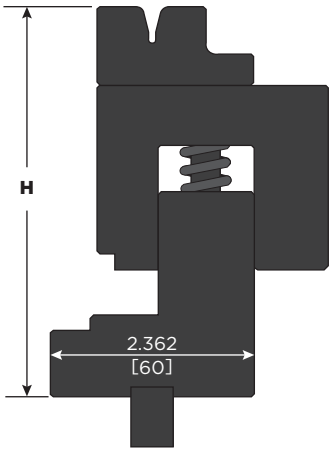
M Made To Order

Part No.			Desc.	Max. Ton/ft.	Weight (per inch)			Button	L	S	X
Straight	Groove			L, S & X	L	S	X		36″	18″	35.87″
5.75″ TWO STAGE HEMMING PUNCH & DIE SET											
51919	51919G	M	Punch	25	54	29	54	B			
53594	—	M	Die	21	83	42	83	—			

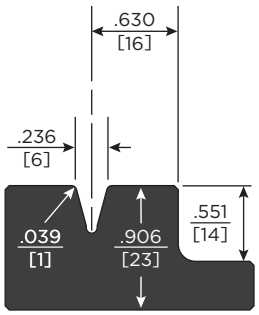
Note: Maximum material is 16 ga. cold rolled steel

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

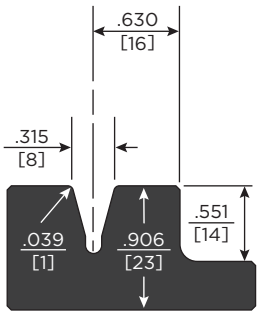
HEMMING AND REPLACEMENT V-BLOCKS



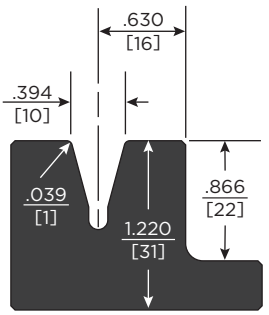
Part No.	V1 inch [mm]	H Height inch [mm]	Max. Ton ft. [m]	LT Approx. Gross Weight [lbs.]	ST Approx. Gross Weight [lbs.]	Max. Material	LT 32.87" [835mm]	ST 16.34" [415mm]
TWO STAGE HEMMING DIE								
42601c	.236 [6.0]	4.587 [116.5]	20 [67]	86	43	20 GA. CRS		
42602c	.315 [8.0]	4.587 [116.5]	20 [67]	86	43	16 GA. CRS		
42603c	.394 [10.0]	4.902 [124.5]	20 [67]	89	45	14 GA. CRS		
42608c	.394 [10.0]	5.402 [137.2]	20 [67]	103	52	14 GA. CRS		



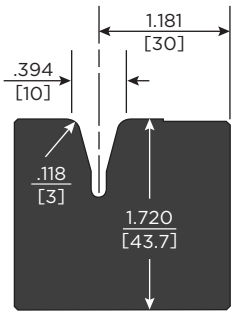
43522



43523



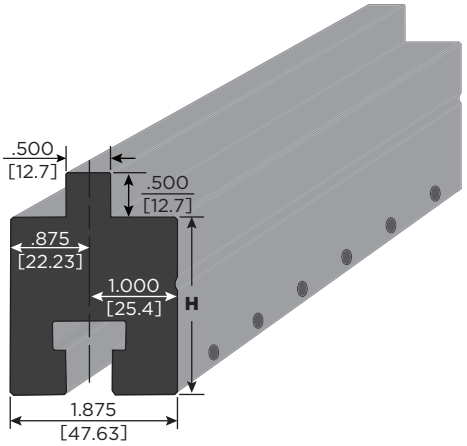
43524



43528

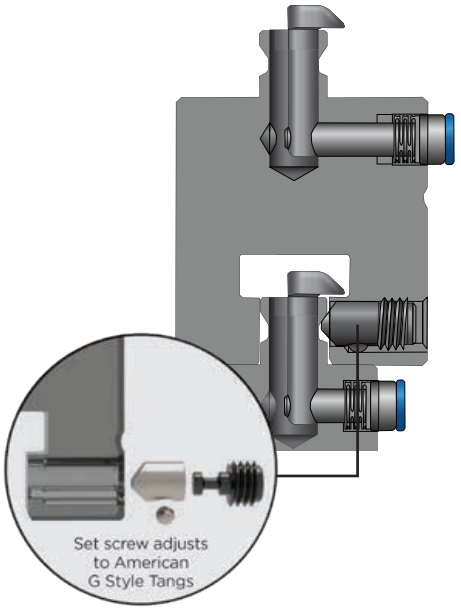
Part No.	Max. Ton ft. [m]	LT Approx. Gross Weight [lbs.]	ST Approx. Gross Weight [lbs.]	Max. Material	V1 inch [mm]	LT 32.87" [835mm]	ST 16.34" [415mm]
HEMMING REPLACEMENT V-BLOCKS							
43522	20 [67]	12	6	20 GA. CRS	.236 [6.0]		
43523	20 [67]	12	6	16 GA. CRS	.315 [6.0]		
43524	20 [67]	15	8	14 GA. CRS	.394 [10.0]		
43528	25 [83]	29	15	14 GA. CRS	.394 [10.0]		

PUNCH HOLDERS



Part No.	H Height inch [mm]	Max. Ton/ft.	Approx. Gross Weight [lbs.] L	S	X	Button	L 36″	S 18″	X 35.87″
AMERICAN TO AMERICAN STRAIGHT TANG									
50157	2.000 [50.8]	30	36	18	35	E			
50081	3.000 [76.2]		54	27	53				
50082	4.000 [101.6]		73	37	73				

All holders include clamping set screws every 2″ [50.8mm]



M Made To Order

Part No.		H Height inch [mm]	Max. Ton/ft.	Approx. Gross Weight [lbs.] L	S	X	Button	L 36″	S 18″	X 35.87″
GROOVE CLAMPING TO GROOVE PUNCH TANG										
50158G*	M	2.000 [50.8]	30	35	18	37	E			
50097G*	M	3.000 [76.2]		54	27	42				
50096G*	M	4.000 [101.6]		75	37	78				

53067	Hex Head Screw	All holders include clamping set screws every 2″ [50.8mm]
53068	Self Seating Pin	All tonnages are based on direct load and do not apply for thrusting applications.
972743	.04mm Steel B	

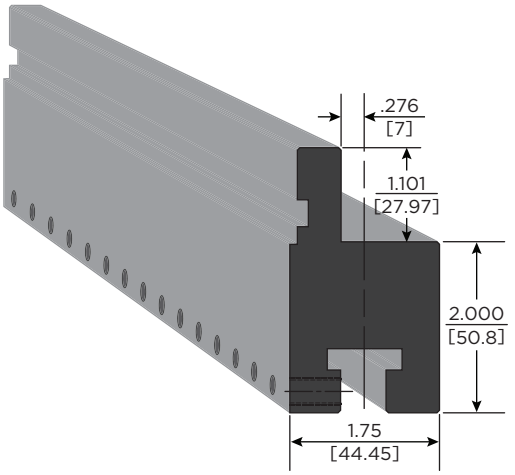
*Self-seating punch holder for American G Style Punches will clamp and seat.

Part No.	Max. Ton ft. [m]	Approx. Gross Weight [lbs.] L	S	X	L 32.87″	S 18″	X 35.87″
EUROPEAN Z1 TO AMERICAN							
43851	30	33	16	32			
43861*		33	16	32			

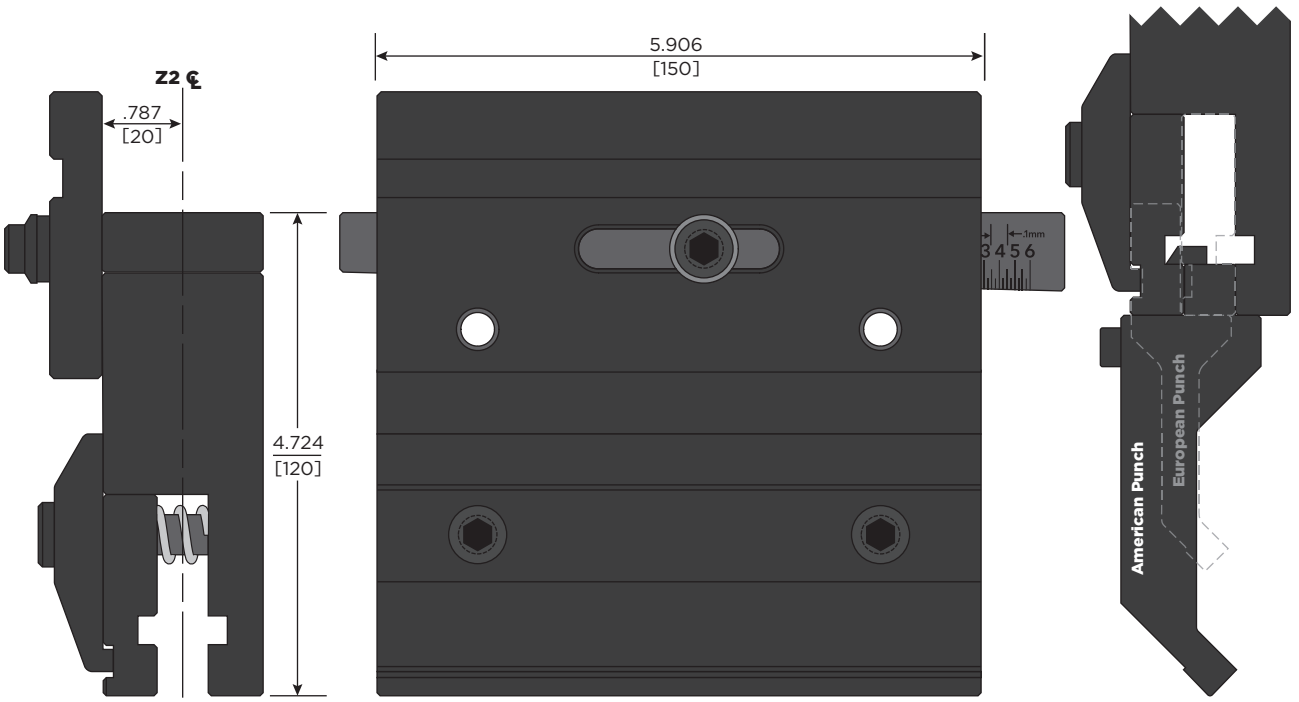
*Self-seating punch holder for American G Style Punches will clamp and seat.

All holders include clamping set screws every 2″ [50.8mm]

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



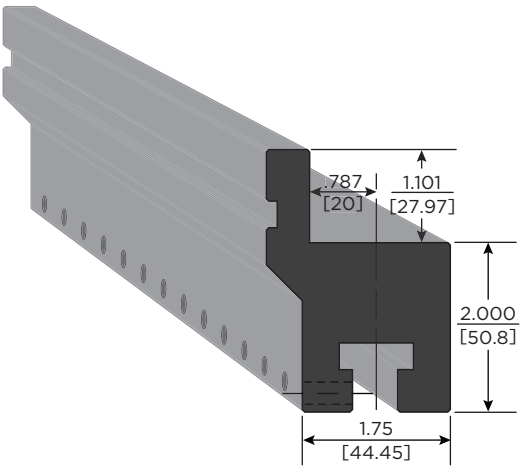
PUNCH HOLDERS



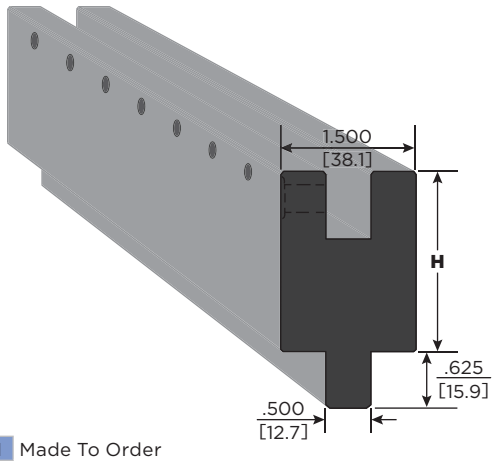
Part No.	Approx. Gross Weight [lbs.]	Max Ton/ft	Price
Z2 SERIES WITH DUAL AMERICAN AND EUROPEAN CLAMPING			
43853	15	30	

Part No.	Max. Ton/ft.	Approx. Gross Weight [lbs.]			L	S	X
		L	S	X	36″	18″	35.87″
EUROPEAN Z1 TO AMERICAN							
43852	30	35	18	35			
43862*		35	18	35			

*Self-seating punch holder for American G Style Punches will clamp and seat.
All holders include clamping set screws every 2″ [50.8mm]

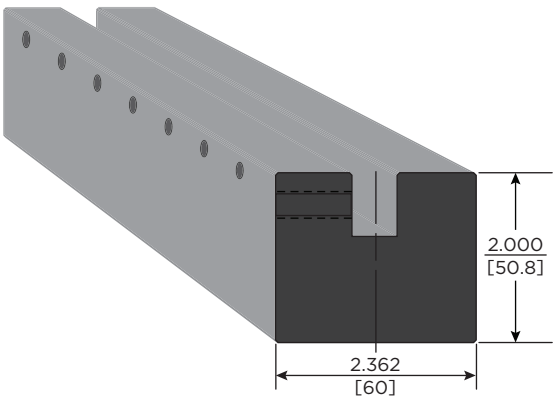


DIE HOLDERS



M Made To Order

Part No.		H Height inch [mm]	Max. Ton/ft.	Approx. Gross Weight [lbs.] L	S	X	L 36″	S 18″	X 35.87″
AMERICAN TO AMERICAN									
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	—	—	—	—			



Part No.	Approx. Gross Weight [lbs.] L	S	Max. Ton/ft.	L 36″	S 18″
EUROPEAN TO AMERICAN					
43590	44	22	40		

All holders include clamping set screws every 2" [50.8mm].
All tonnages are based on direct load and do not apply for thrusting applications.

SPECIAL TOOLING


EUROPEAN


WT-STYLE


AMERICAN

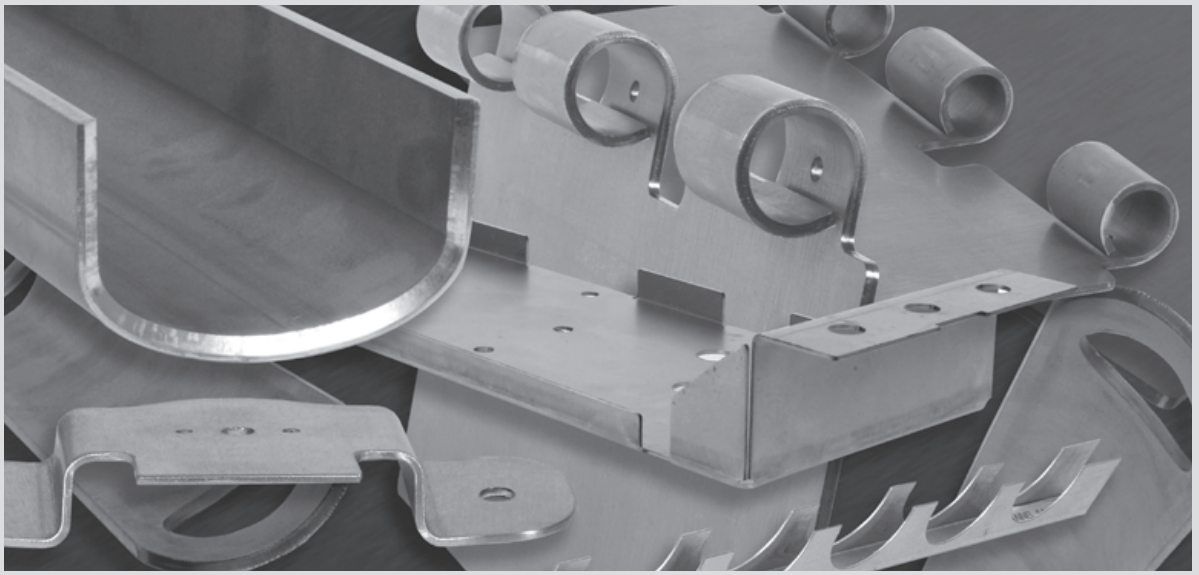

RFA-STYLE

CHALLENGE 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 even provides a quote.



BRAKE PARTNER®

Make Punch Press Forms in the Press Brake

For fabricators who have migrated away from punch presses to laser cutting machines, or for those whose punch presses are running at full capacity, Brake Partner® from Wilson Tool International is an especially helpful solution.

Brake Partner, manufactured to fit in virtually any press brake, features a pressure-pad system which provides blank-holding and stripping, and can be used with or without guide posts, depending on the application.

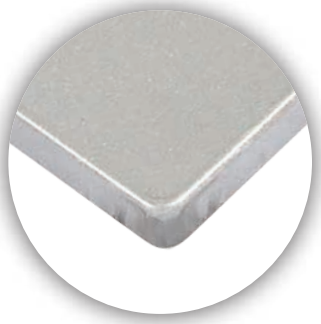
Scan QR Code to Watch the Video

Enjoy These Cost Saving Benefits

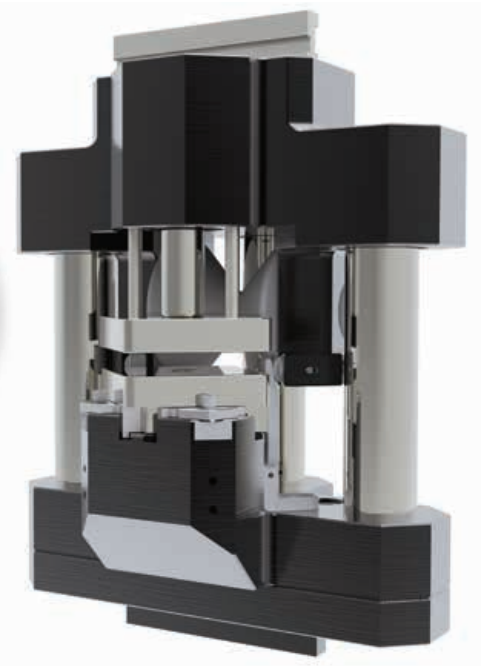
- Reduce press brake special tooling costs
- Punch press tooling has shorter lead times
- Put your existing press brakes to work on applications that were previously impossible on a punching machine
- Reduce outsourcing of punching applications
- Streamline equipment usage and create more flexibility in your shop

CORNER FORMER

To make a four-sided tray or door, the sides would traditionally be folded, the corners welded and the joint ground, to produce an acceptable finish. This process is time consuming, costly and requires a certain skill set.



The Corner Former from Wilson Tool International allows you to use your existing press brake to bend up the corners, form the corners and then crop the edges to leave a clean, finished look without the need for welding, grinding and finishing.



3 SIMPLE STEPS TO A FINISHED CORNER

Step 1: Bend with Flare

All four corners are bent like any other part except your standard die will have an engineered relief to achieve an intentionally flared bend at the ends.

Step 2: Corner Former

After the engineered flare, the part is moved to the corner forming step to roll the edge. You now have a complete corner with extra material that needs to be trimmed.

Step 3: Corner Cropper/Trim

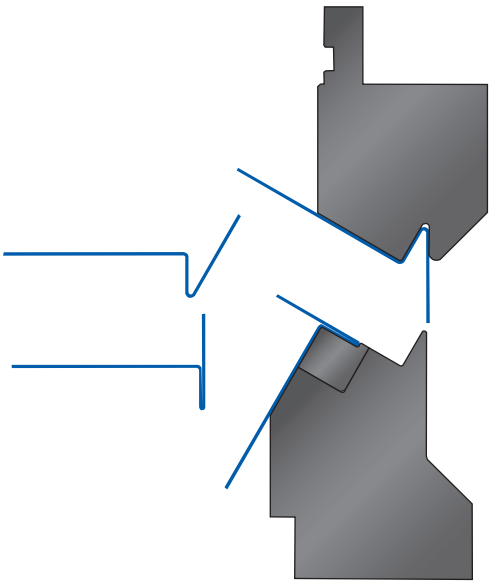
In a quick and simple one-hit action, the corner cropper cuts the extra material flush to the edges of the tray or door. You have now made your part in one handling with little or no additional post processing needed.

Scan QR Code to Watch the Video

Scan QR Code to See How Much You Can Save

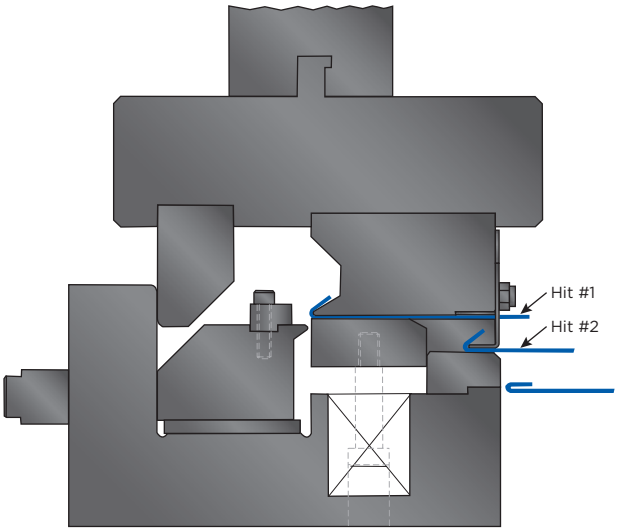
SPECIALS

CUSTOM HEMMING

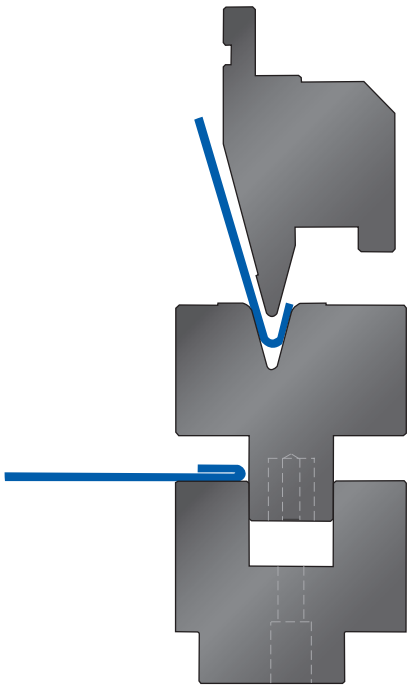


AH1 — ANGLE HEM

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

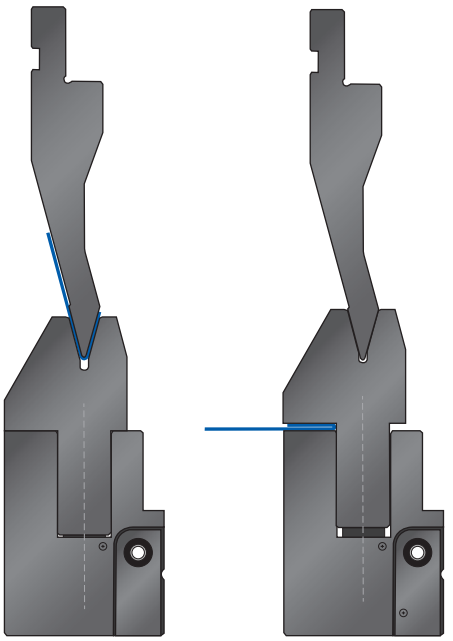


FSH1 — FLAT SHEET HEM



HDH1 — HEAVY DUTY HEM

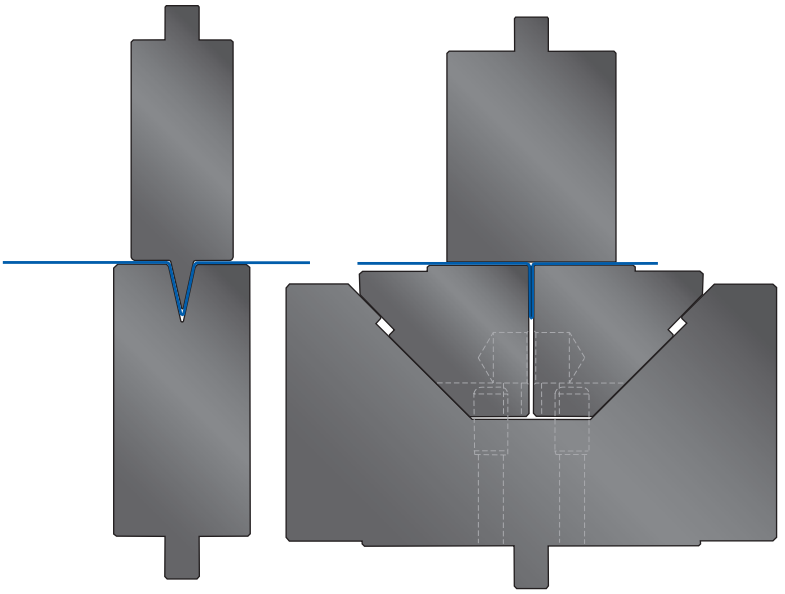
Heavy duty hemming for thick gauge applications.



PH1 — PNEUMATIC HEM

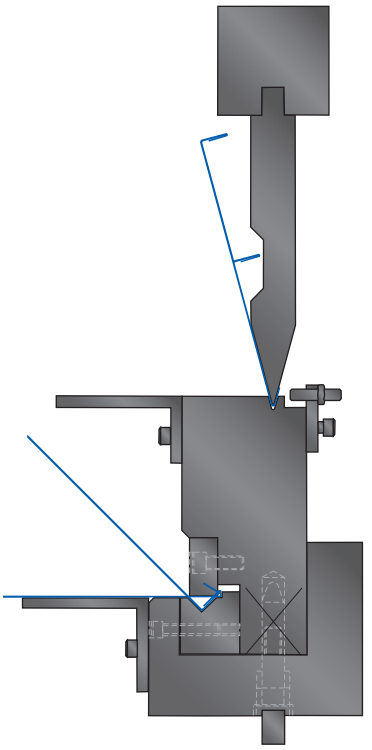
This tool set introduces pneumatic cylinders to rapidly open and close the pre-form insert. This set removes the inconsistency associated with pre-forming or acute bending on a spring actuated insert.

CUSTOM HEMMING

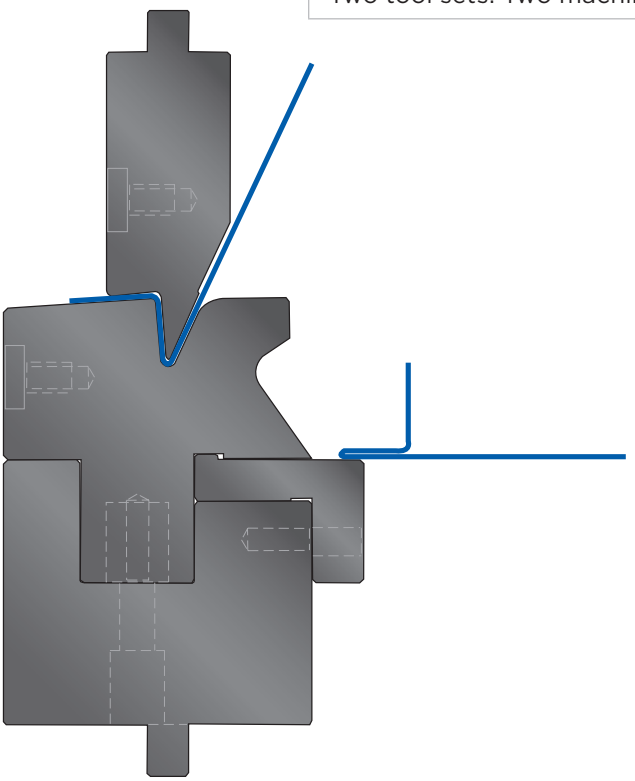


SH1 — SEAM HEM

Two tool sets. Two machine strokes



SSH2 — STANDING SEAM HEM



SSH1 — STANDING SEAM HEM

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

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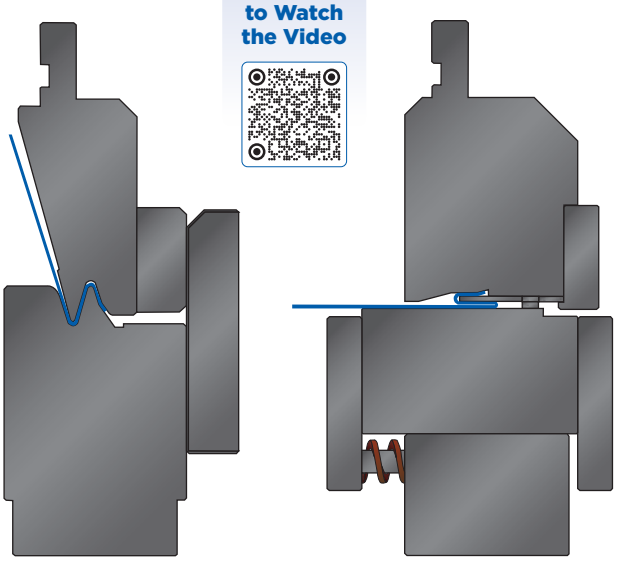
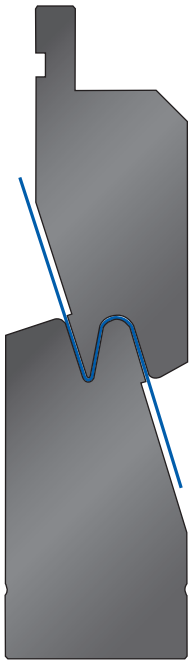


ZH1 — Z HEM

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.

OFFSET TOOLS



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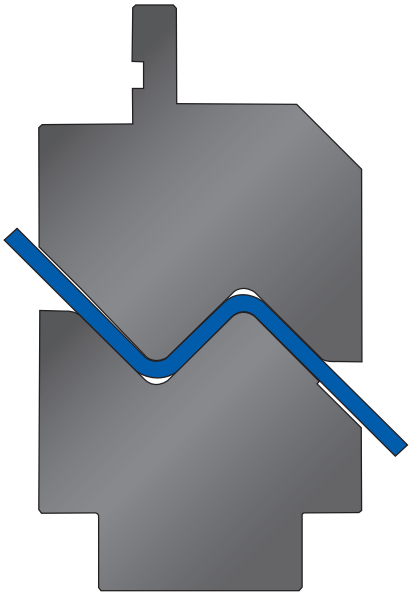
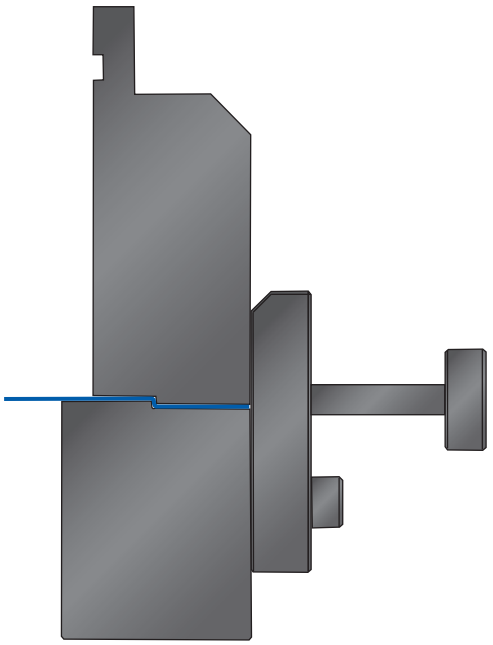


LO1 — LARGE OFFSET

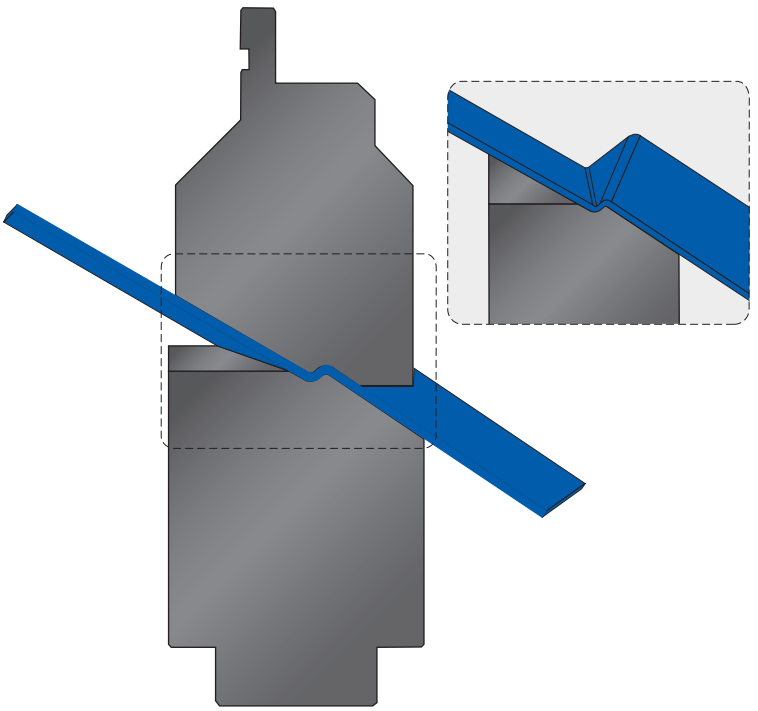
Used for heavy gauge, large offset bending.

AO1 — ANGLED OFFSET



HO1 — HORIZONTAL OFFSET

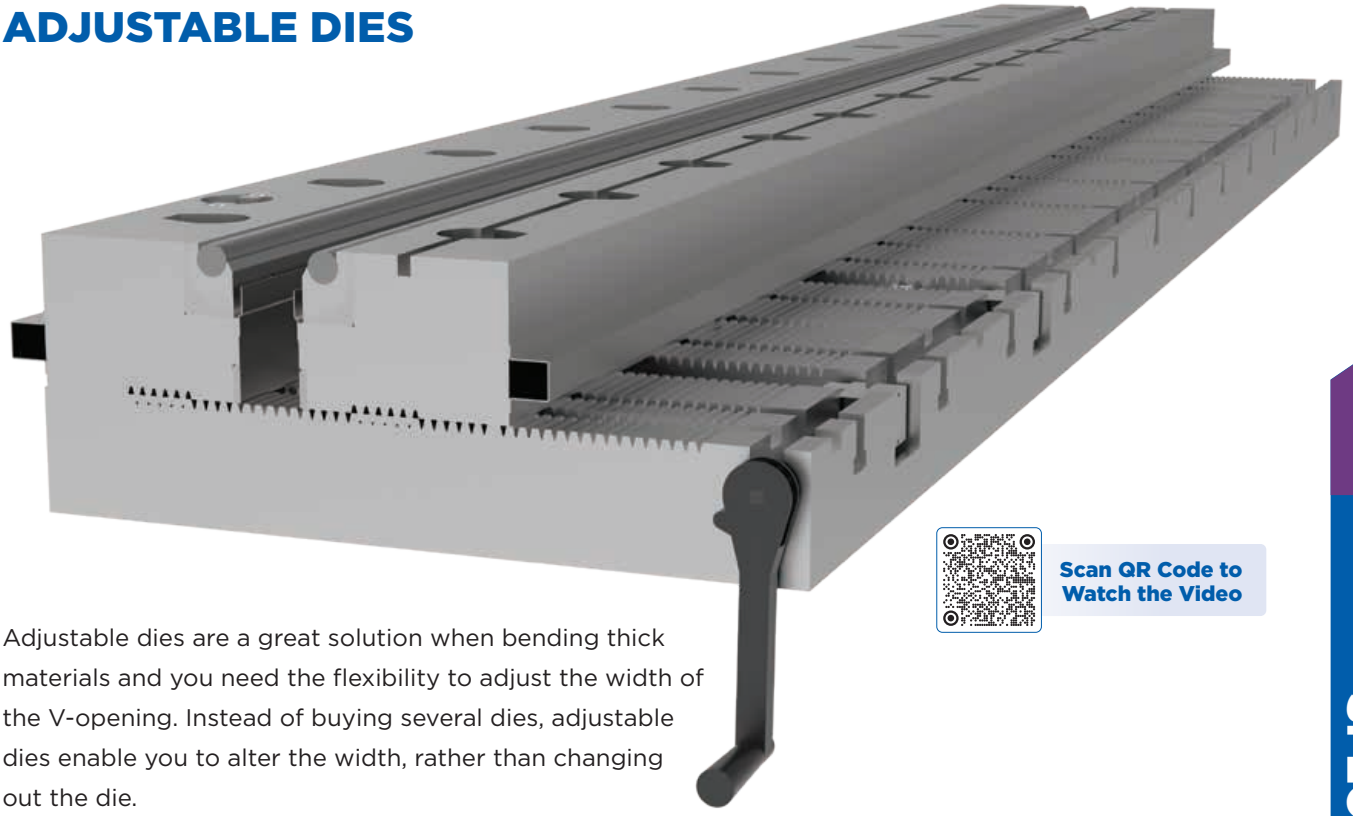
For offsets that are approximately one material thickness. Prevents material whip up. Thrust plates and adjustable back gauging are provided.



NPO1 — NON PARALLEL OFFSET

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

ADJUSTABLE DIES



Scan QR Code to Watch the Video

Adjustable 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, adjustable dies enable you to alter the width, rather than changing out the die.

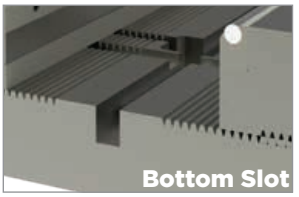
Adjustable Die Features

- Riding on spring-loaded ball bearings, openings are easily adjusted by one operator
- Available openings range from 1 to 24 inches and can be adjusted in 1-inch increments
- Capable of withstanding tonnage of up to 400 tons per foot, allowing easy thick material bending
- Induction hardened and hard chrome rollers help reduce required tonnage by as much as 20%
- Chrome rollers can be replaced at your facility

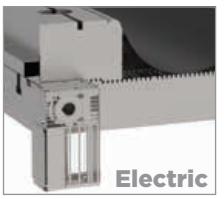
Adjustable Die Options

- Die assembly can be configured to remain on the press permanently and function as a standard die holder
- Cover bellows are available to keep the grooves that are used to adjust the dies free from dirt and dust
- Available clamping options for side blocks include manual and automated release and/or movement
- Available with Manual, Ball Screw, Hydraulic and CNC options

Die Holder Slots



Opening Adjustments

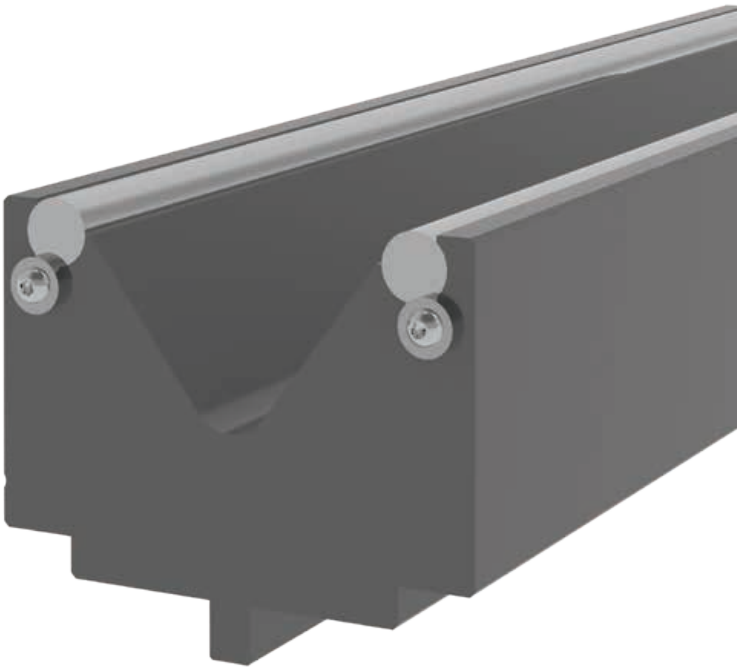


Shoulder Inserts

REPLACEABLE SHOULDER DIES

Dies that have a replaceable shoulder radius are ideal for extreme wear conditions like heavy plate and abrasive materials. Replacing the shoulder insert saves on replacement cost.

Since the radius is able to rotate during bending, friction and tonnage are reduced, resulting in reduced part marking and less tonnage on tooling and machinery.



Scan QR Code for More Thick Material Solutions

DOVETAIL HOLDER AND RADIUS

Lighten Your Load with Two-Piece Punches

Replaceable radius punches help limit tooling costs, reduce setup time and lighten tool changes. Tip inserts simply slide on and off the universal punch body, increasing the flexibility of each punch and minimizing heavy lifting for the operator.

Replaceable Radius Punch Highlights

- Setup is as simple as sliding the tip insert on and off the tool body
- No adjustment is required between punch radius changes
- Tip is lighter than a standard punch for easier tool changes
- Lighter tools reduces need for multiple operators
- Lighter tools creates a safer handling environment for operators
- Tool costs are minimized when purchasing one body with multiple tips
- Various angles and radii can be loaded into the same punch holder

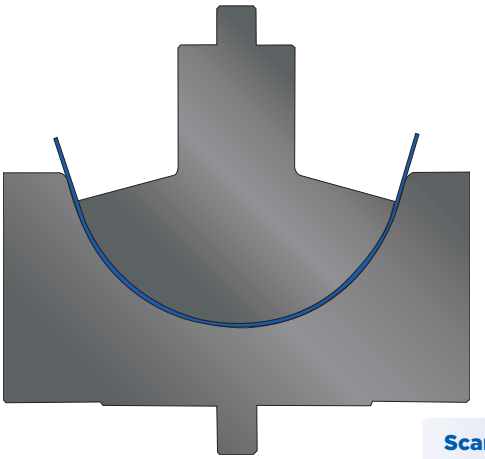
Dovetail **T Style**

Details

- Made to suit specific needs
- Designed to tackle light- or heavy-duty bending
- Ground and induction hardened for optimal life and performance
- Dovetail or T Style attachment feature

Scan QR Code to Watch the Video

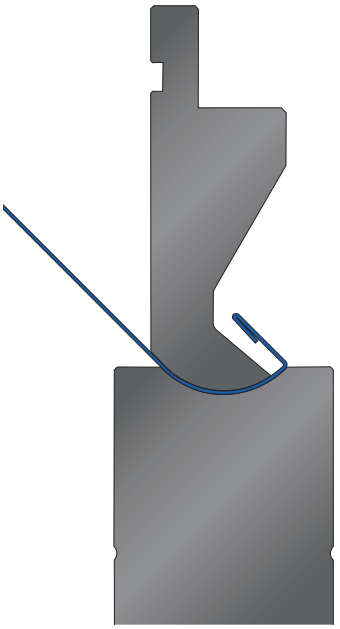
LARGE RADII



Scan QR Code to Watch the Video

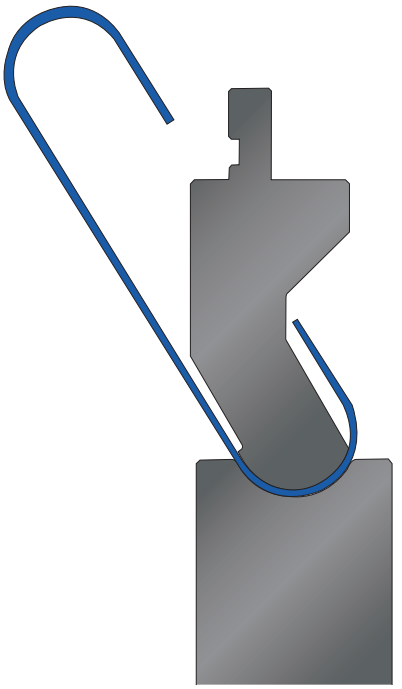
LR1 — LARGE RADIUS

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.



LR2 — MULTI-HIT RADIUS

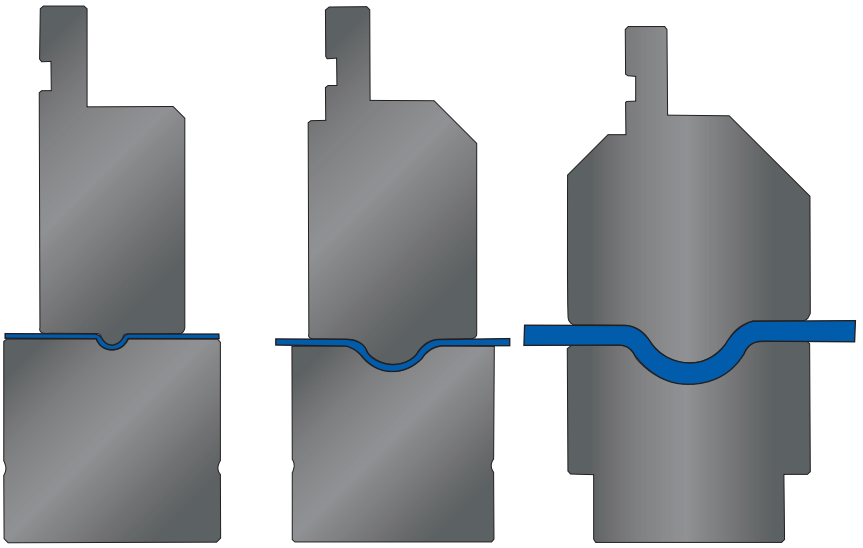
Used when a full radius is required before the flange. The solution may require multiple strokes.



LR3 — MULTI-HIT RADIUS

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

STRENGTHENING RIB



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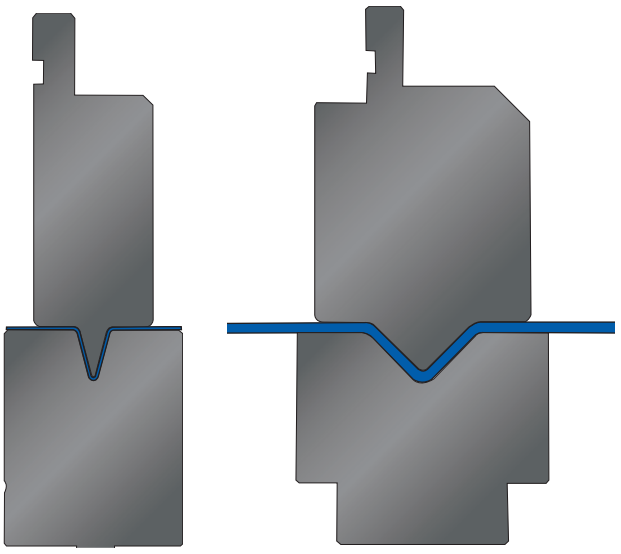
SR1 — STRENGTHENING RIB

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

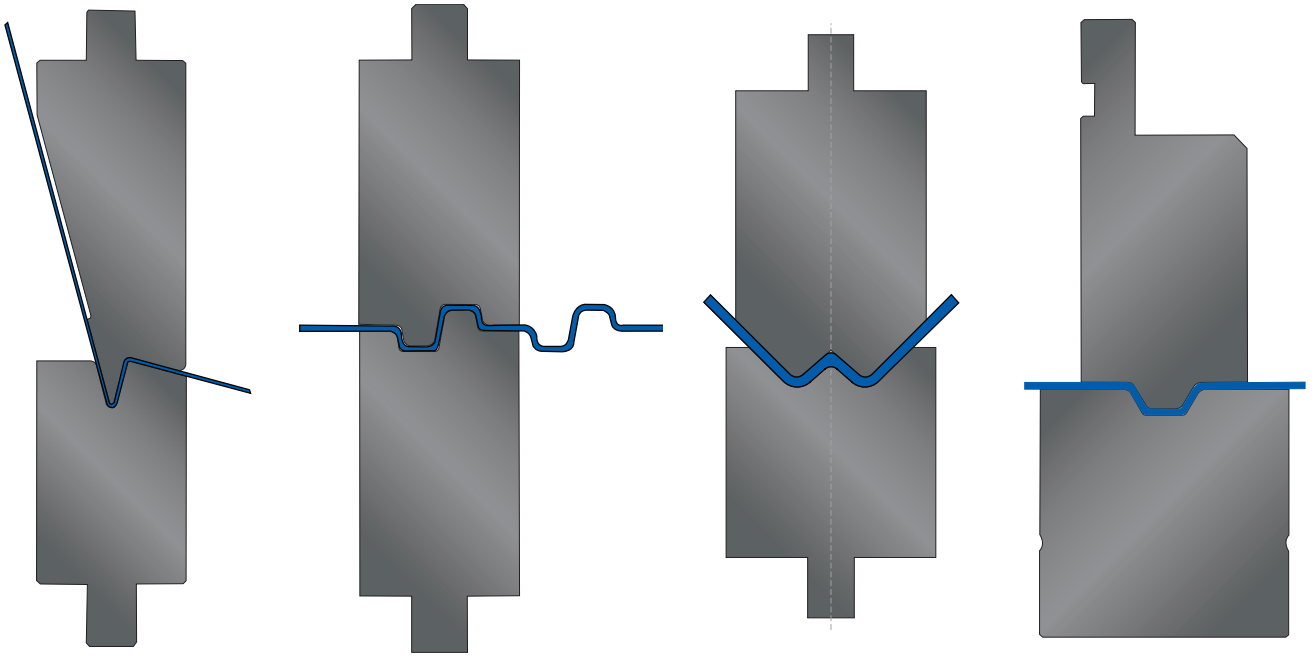
V-RIB



VR1 — V RIB

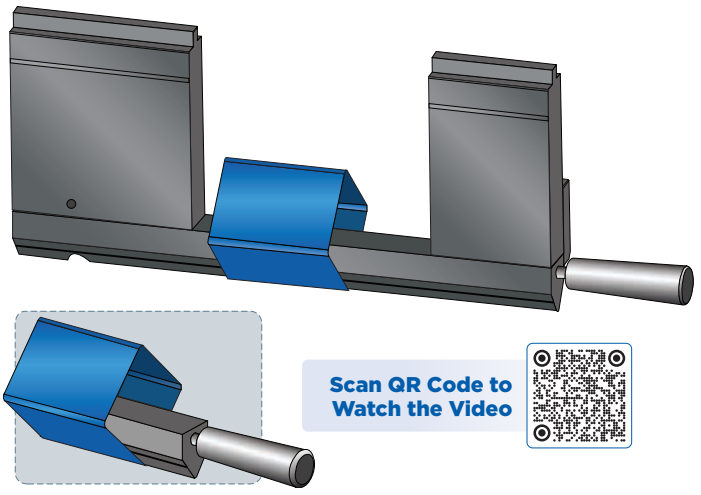
Produce a V rib in one stroke. Spring back allowance is built in.

FORMING



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.



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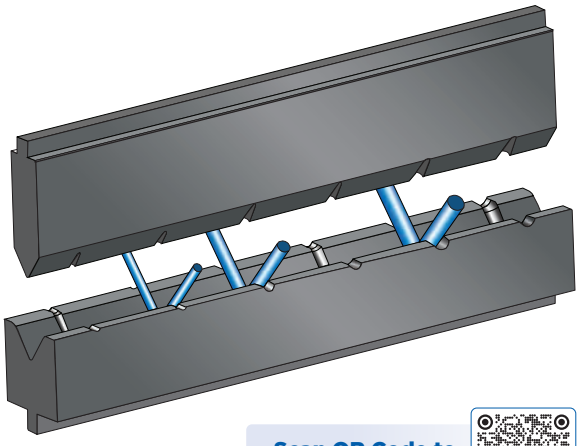
W1 — WINDOW

Used when minimum return flange clearance is required.



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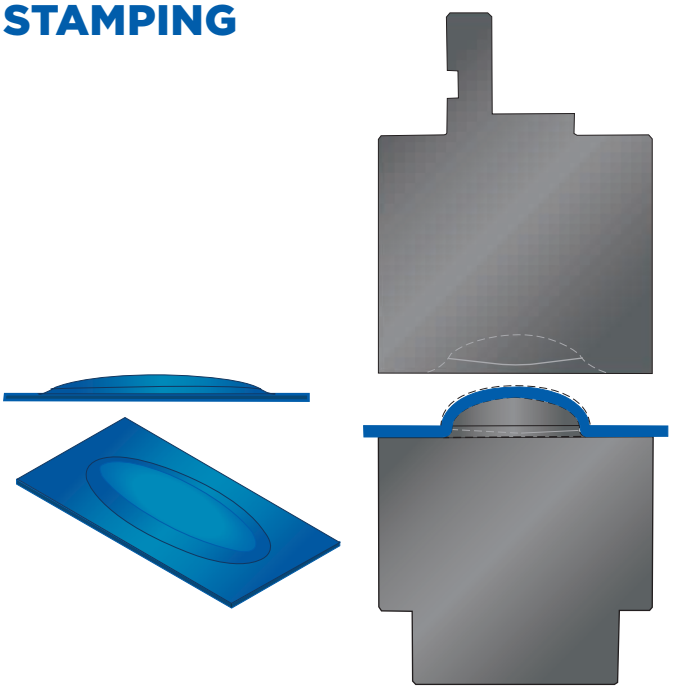
RB1 — ROD BENDING

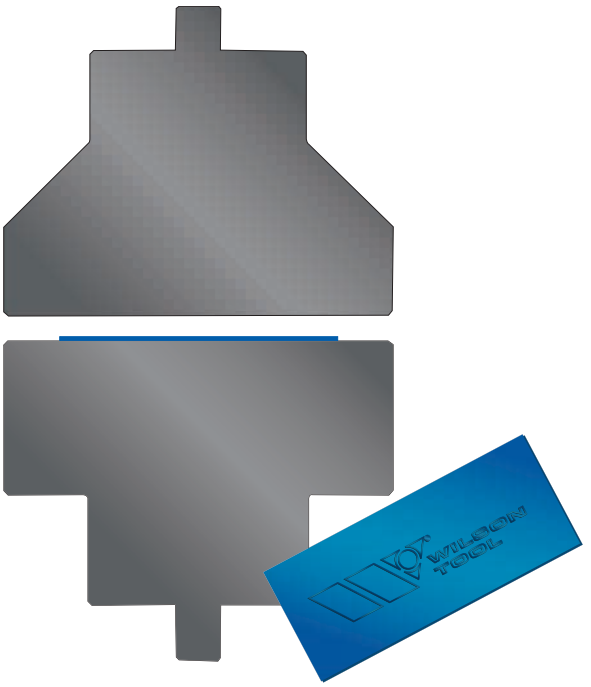
Provides nesting for the rod during the forming process.

STAMPING

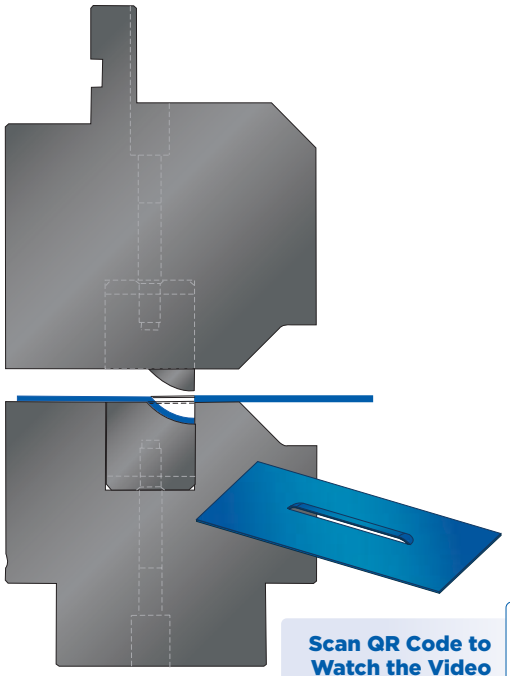


EM1 — EMBOSS

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



LG1 — LOGO



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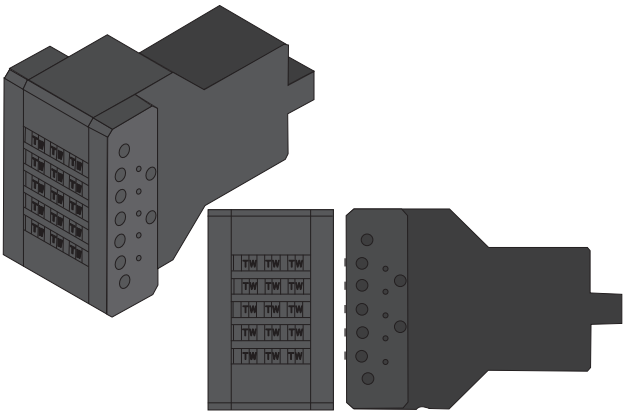
LL1 — LOUVER

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

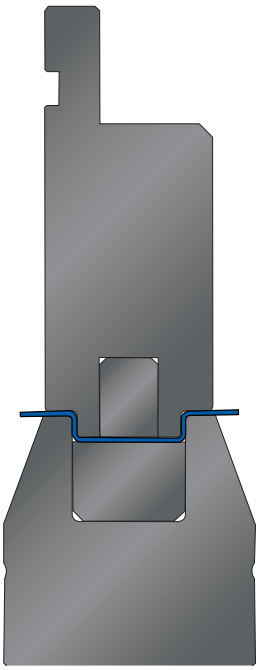


LS1 — LETTER STAMP

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

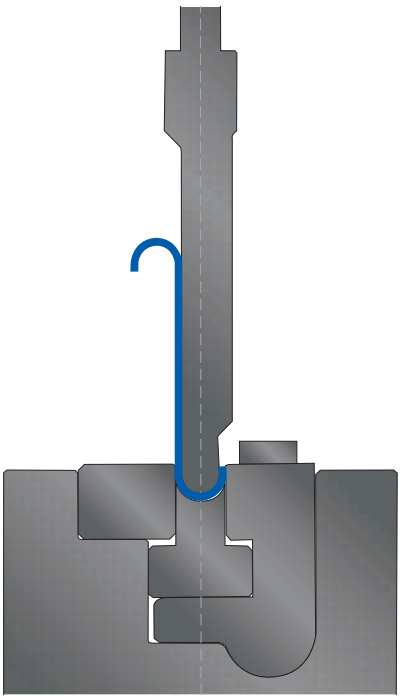
Part No.	Description	Size	Price
5LSP25 / 5LSP25G	Punch Character Holder	3.75″ Staged	
50049SD	Flattening Block Die	—	
6898	Character	3/32″	
6896	Character	1/8″	

MECHANICAL



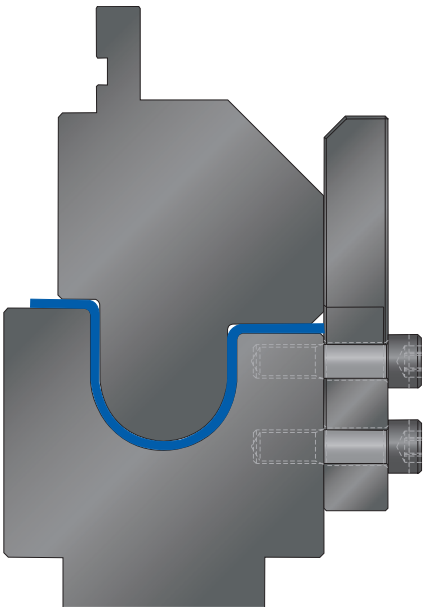
HT1 — HAT CHANNEL

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



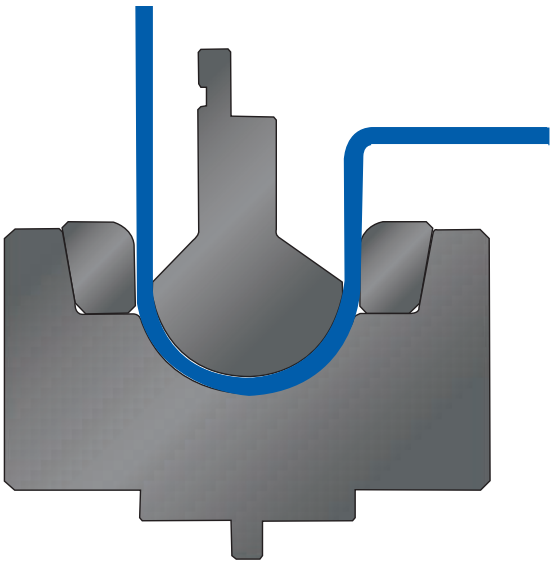
UC1 — U CHANNEL

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



UC2 — U CHANNEL

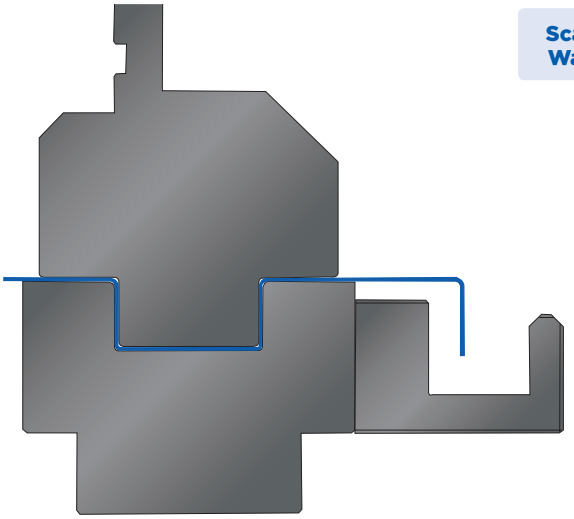
Recommended for applications where considerable spring back is encountered. Secondary flattening operations may be required.



UC3 — U CHANNEL

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

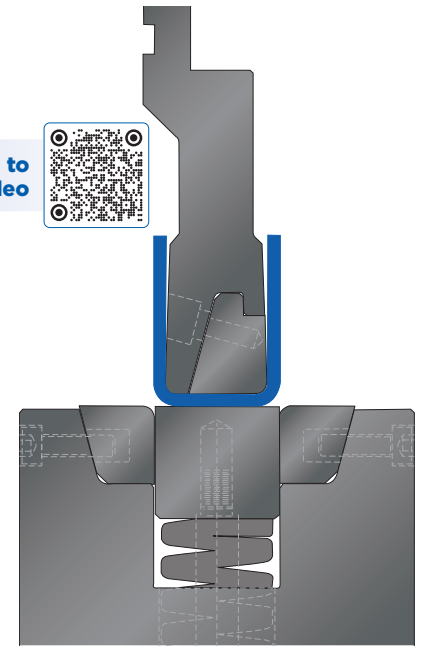
MECHANICAL



C1 — CHANNEL

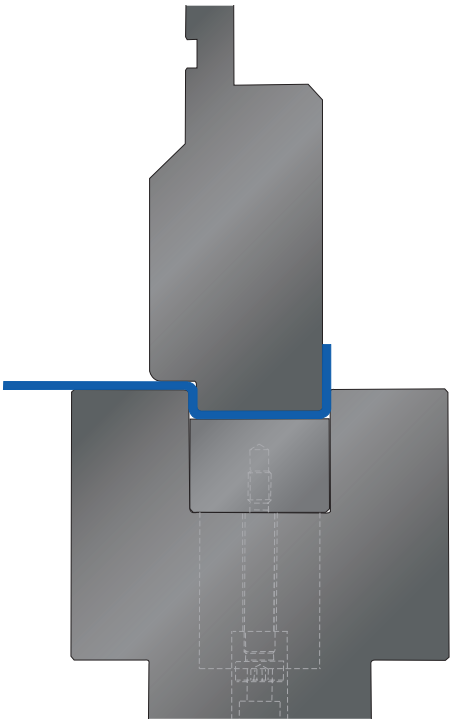
For deep channels when the channel bottom needs to remain flat.

Scan QR Code to Watch the Video



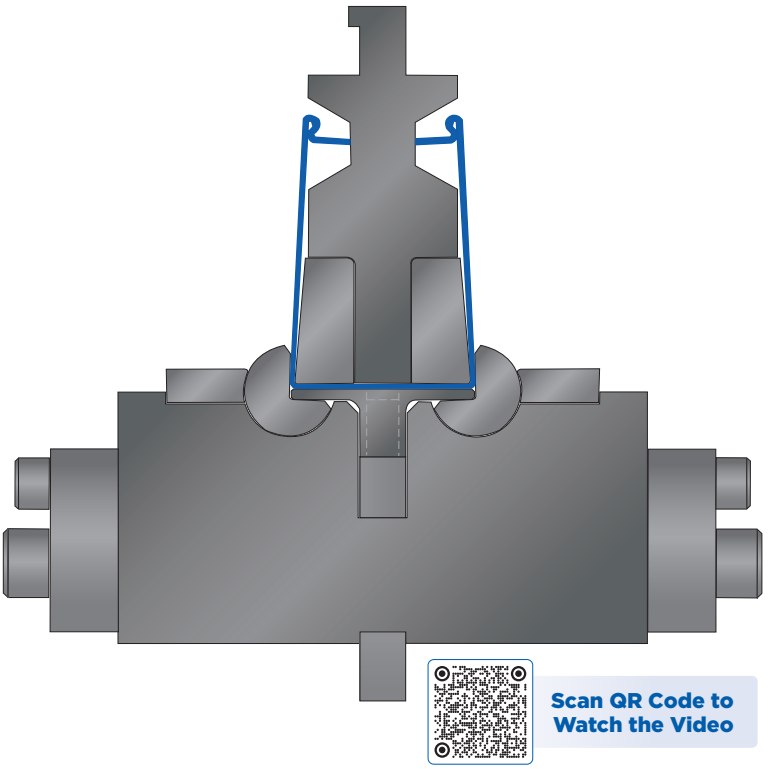
C2 — CHANNEL

For deep channels when the channel bottom needs to remain flat.



C3 — CHANNEL

For deep channels when the channel bottom needs to remain flat.



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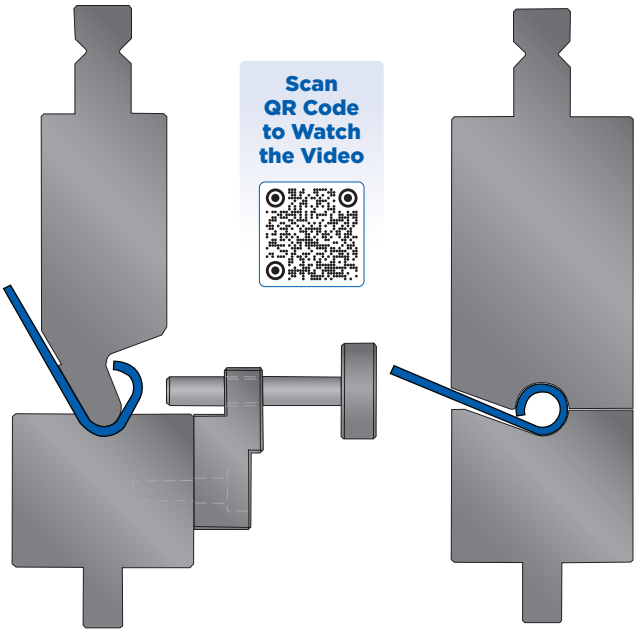
C4 — ROTARY BEND CHANNEL

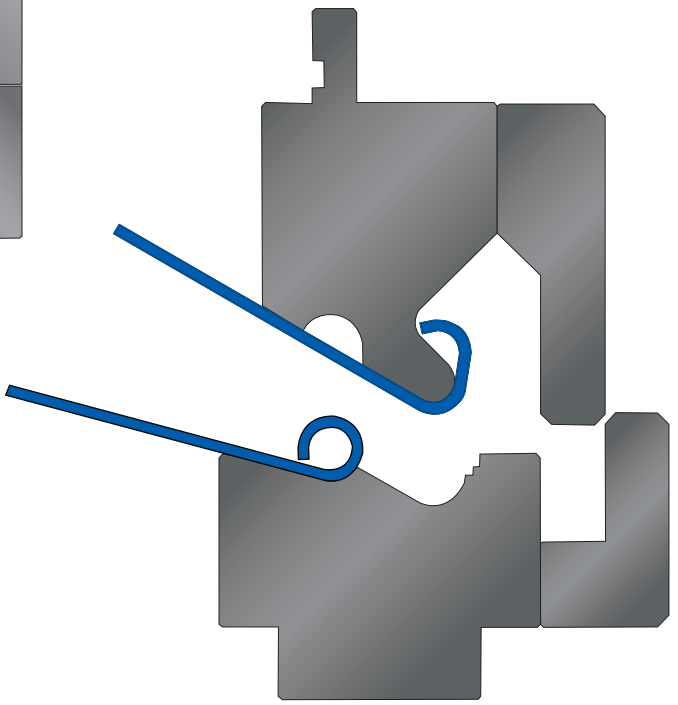
For deep channels when the channel bottom needs to remain flat.

MECHANICAL



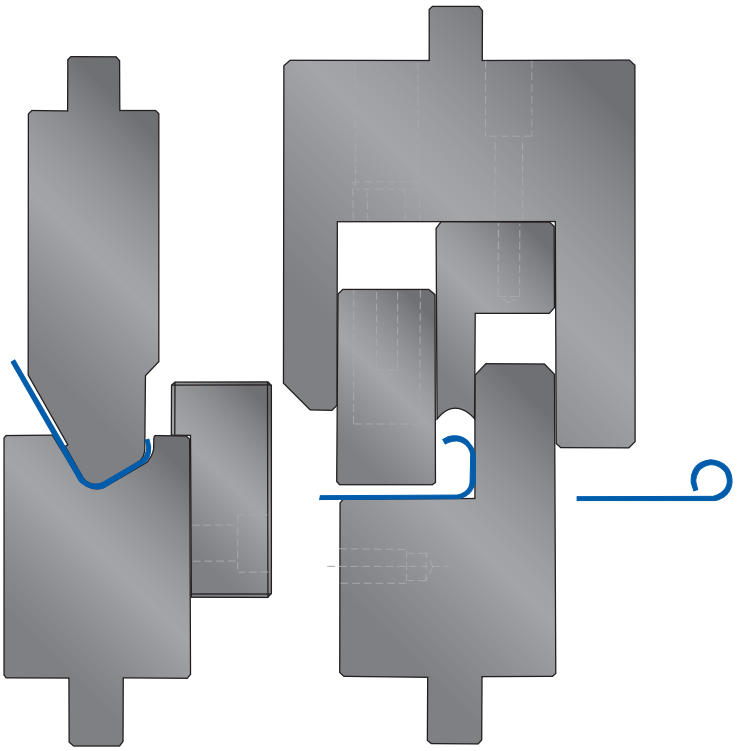
CL1 — CURL TOOL SET

Two tool sets, three machine strokes.



CL2 — CURL TOOL SET

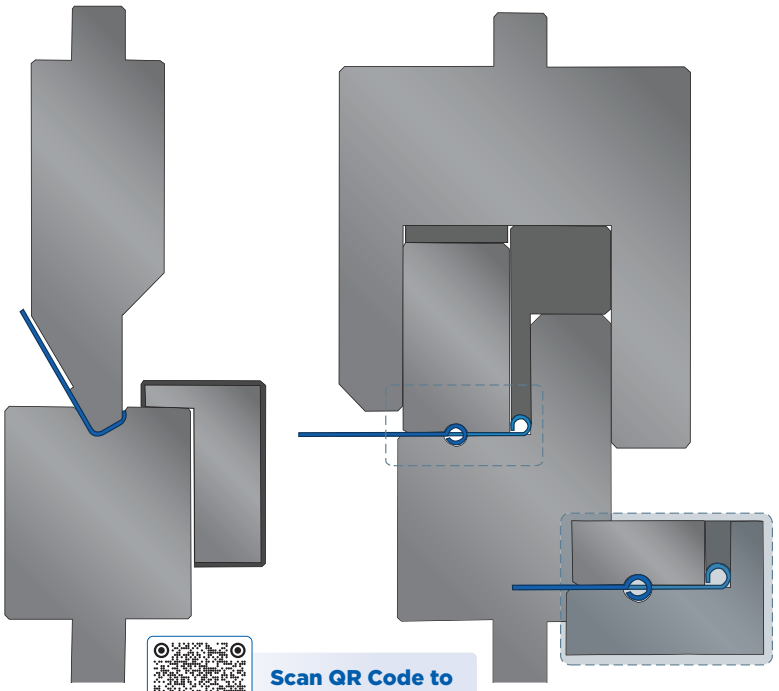
Typically used for thick materials and large diameter curls.
One tool set, three machine strokes.



CL3 — CURL

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

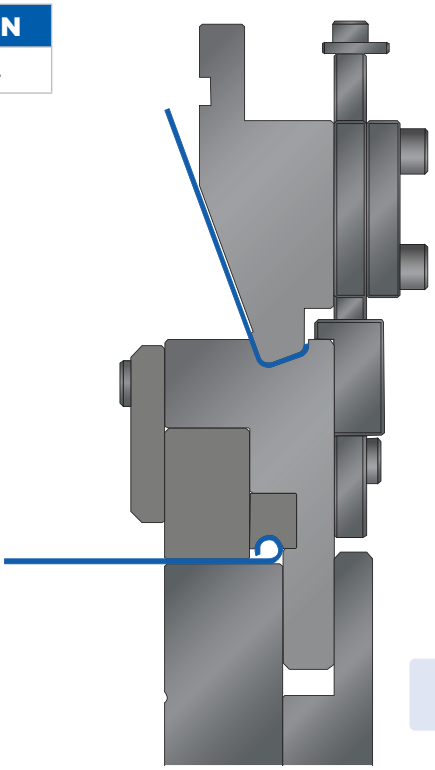
MECHANICAL



Scan QR Code to Watch the Video

CL4 — CENTER CURL APPLICATION

Two tool sets, three machine strokes.

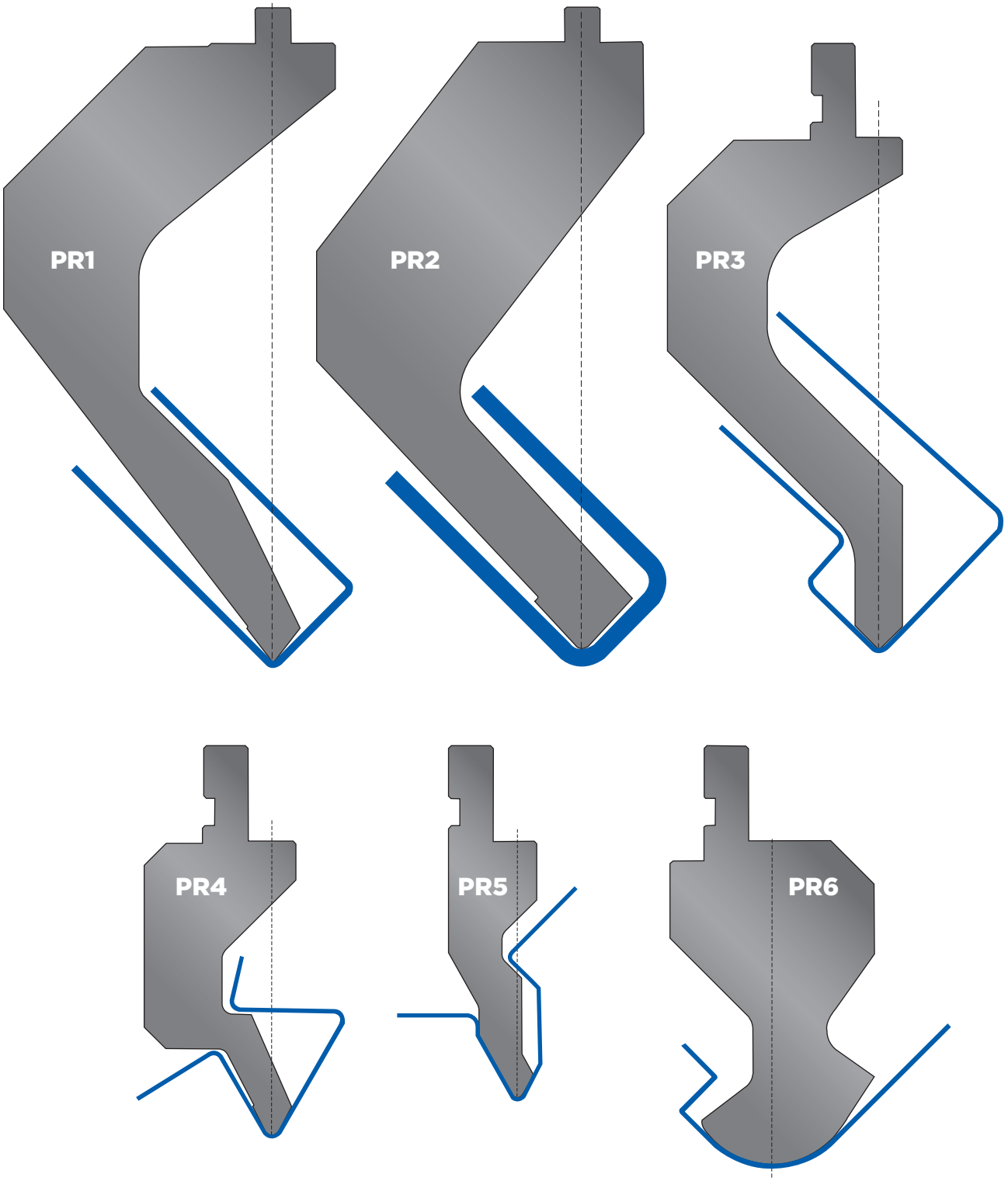


Scan QR Code to Watch the Video

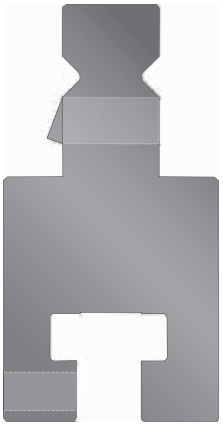
CL5 — DOUBLE DECKER TOOL SET

Used for hinges and corner beading.
One tool set, two machine strokes.

SPECIAL SHAPE PUNCHES

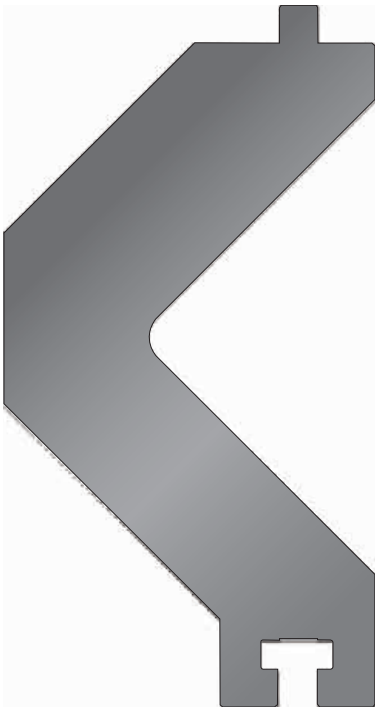


PUNCH HOLDERS

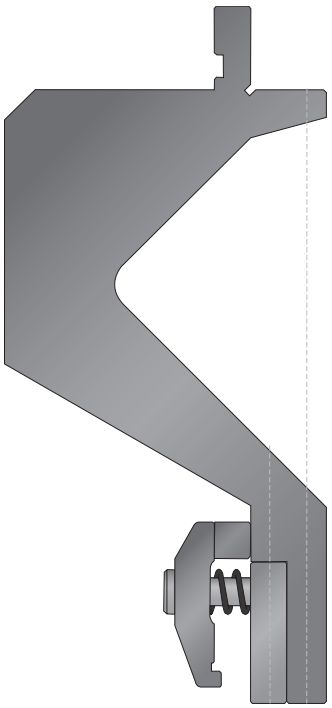


WT — AMERICAN
With Set Screws

AMERICAN SELF-SEAT HOLDER
WT to American with Clamp Plate



AMERICAN DEEP GOOSENECK HOLDER

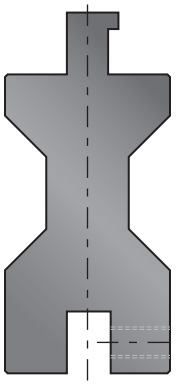


EURO Z1 OR Z2 CLAMPING
Part No. 43002

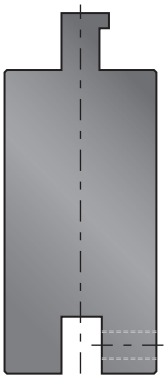
PUNCH HOLDERS

Stack punch holders to make a taller punch to bend tall side flanges or to replace worn OEM punch holders that need replacement. These holders can be made in small sections or one piece to fit the length of your brake.

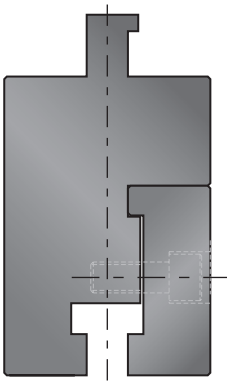
PUNCH HOLDERS



RA1 — DOG BONE



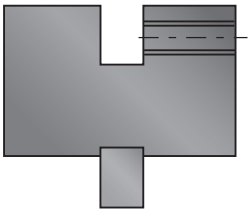
RA2 — SET SCREW



RA3 — CLAMP PLATE

Holders are commonly made to replace any original OEM punch and/or die holders or to accommodate part configuration. These designs can be one solid length or sections that are easier to handle.

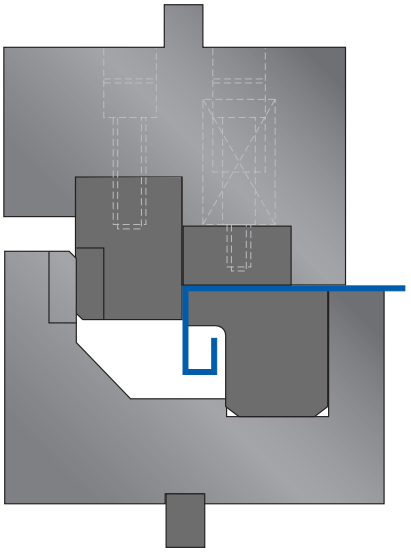
DIE HOLDERS



DIE HOLDERS

Die holders can raise the die to help with down flange interference or to replace worn OEM die holders that need replacement. These holders can be made in small sections or one piece to fit the length of your brake.

WIPING AND ROTARY BENDING



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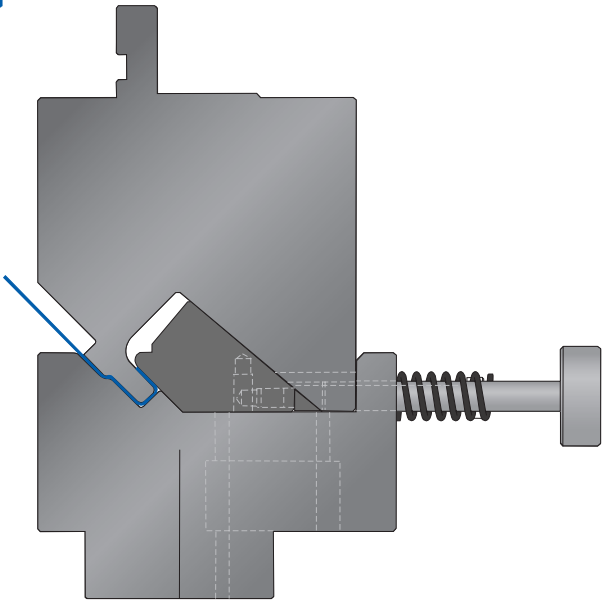
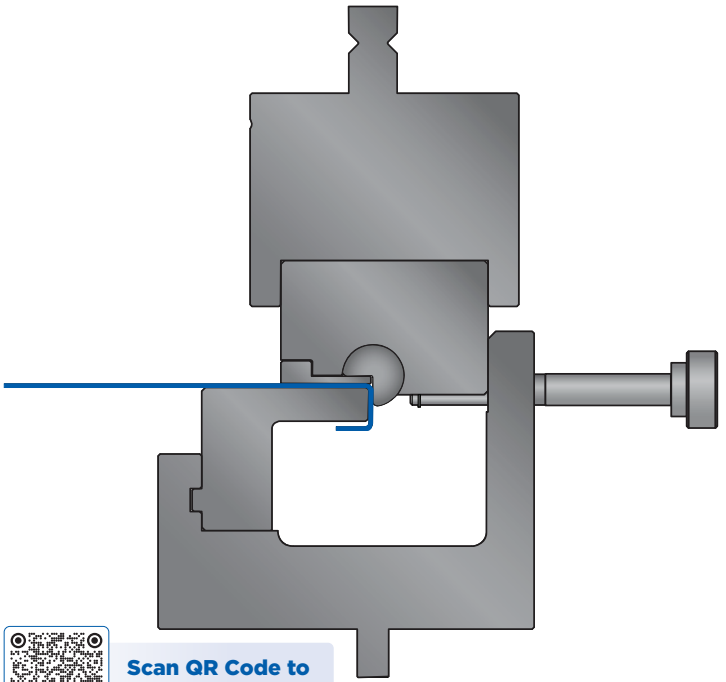


WD1 — WIPE DOWN

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 down. Ideal for large panels and high production.



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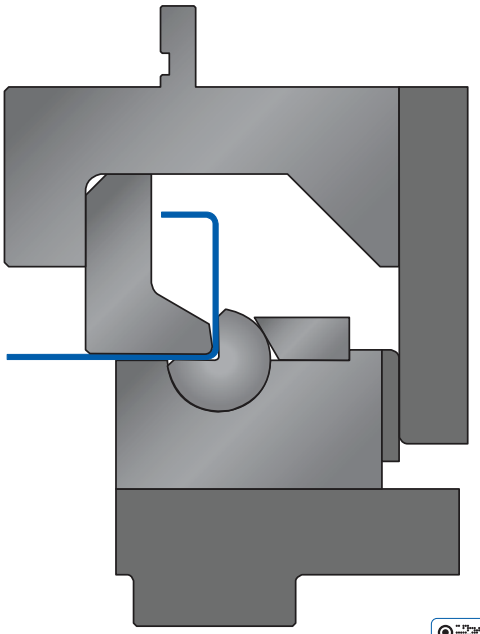
RTD — FORM DOWN



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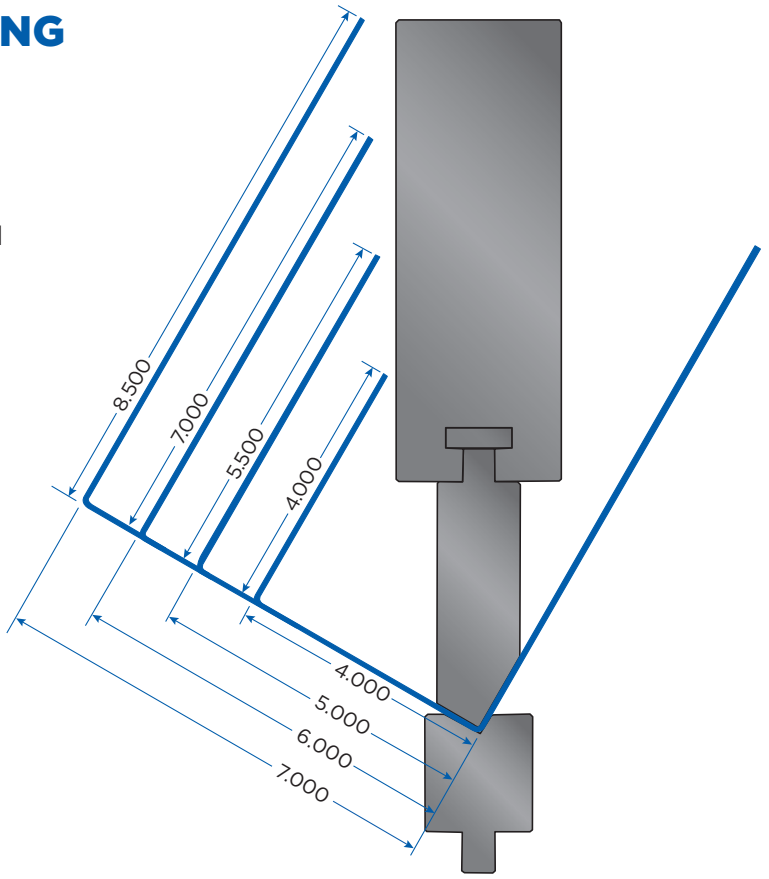
RTU — FORM UP

ROTARY FLANGE FORMING

Holds sheet flat while forming. Overbend allowance is built in to compensate for material springback. Ideal for large panels and high production.

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 .50 – .75", 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.

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Left and right ear sections shown in illustration.

UNITIZED TOOLING

Unitized tooling offers flexibility for various applications, including press brakes, Multicyl setups, and presses. For press brakes, simply attach the units to a bed rail or use a job-specific template. These templates function as a plug-and-play system: attach the template to the machine, secure it and begin punching parts. Once finished, remove the entire plate, including the mounted units. To reduce weight, the plates can be segmented.

Bed rails with adjustable spacers allow you to easily reposition units to accommodate various specifications. Sliding on the face of the bed rails, combined with universal stops on the sides and back, ensure accurate and consistent placement of extruded or flat sheets. This flexibility enables repeatable production processes.

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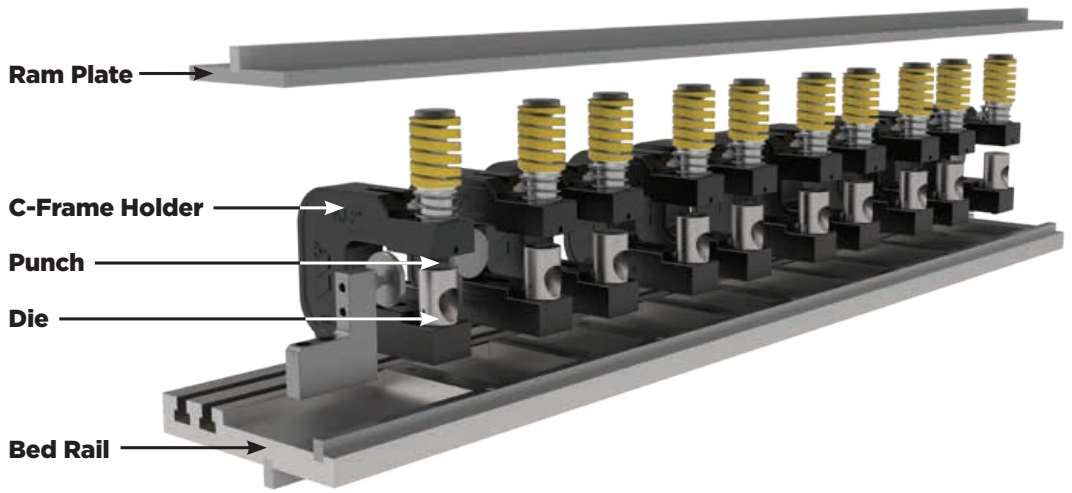
Tooling shown below mounted on a bed rail.



AIR BENDING FORCE CHART

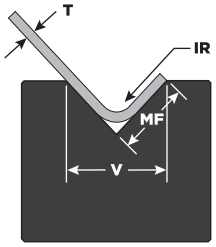
METRIC V-OPENINGS & IMPERIAL TONNAGE

NOTE: Formulas and chart are for reference only.

T = Material Thickness; **V =** V-Opening; **MF =** Minimum Flange Length; **IR =** Inside Radius

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



GAUGE	DEC. inch	[mm]		V (mm)	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125
				V (in.)	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
				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
				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
20	0.036	[.9]	TONS PER FOOT		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
7/16″	0.438	[11.1]																	35.0	28.0	24.0	**17.0**
1/2″	0.500	[12.7]																	52.0	39.0	30.0	**22.0**
5/8″	0.625	[16]																		70.0	52.5	37.5
3/4″	0.750	[19]																				66.0
1″	1.000	[25.4]																				

Larger v-openings generate less tonnage.

Smaller v-openings generate increased tonnage and are NOT recommended.

NOTE: 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.

Scan QR Code to Watch the Video

Tonnage Estimation Based on Material Type	
	Soft Aluminum, Brass, Copper = Tons x 0.35
	Half Hard Aluminum = Tons x 0.5
	Hard/Heat Treated AL, Mild Steel = Tons x 1.0
	Half Hard Brass, Copper = Tons x 1.1
	Stainless Steel = Tons x 1.5
	High Strength Steel = Tons x 2.75

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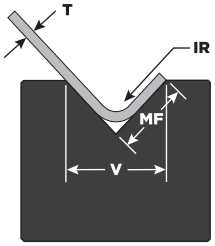
AIR BENDING FORCE CHART

IMPERIAL V-OPENINGS & IMPERIAL TONNAGE

NOTE: Formulas and chart are for reference only.

T = Material Thickness; **V =** V-Opening; **MF =** Minimum Flange Length; **IR =** Inside Radius



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]	V (in.)	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	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]	TONS PER FOOT	**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	7.6
3/8″	0.375	[9.5]													41.0	29.9	24.0	**19.4**	16.0	12.3
7/16″	0.438	[11.1]														45.2	35.0	28.0	**24.0**	17.0
1/2″	0.500	[12.7]															47.9	39.0	33.1	**24.0**
5/8″	0.625	[16]																69.5	58.0	42.2
3/4″	0.750	[19]																	92.0	69.0
7/8″	0.875	[22]																		104.0
1″	1.000	[25.4]																		

Larger v-openings generate less tonnage.

Smaller v-openings generate increased tonnage and are NOT recommended.

NOTE: 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.

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	Half Hard Brass, Copper = Tons x 1.1
	Stainless Steel = Tons x 1.5
	High Strength Steel = Tons x 2.75

TONNAGE ESTIMATES

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 FT.

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/Convex sides	Material Thick Radii Min. Angle Variation Maintain Flatness

Tonnage Estimation Based on Material Type	
	Soft Aluminum, Brass, Copper = Tons x 0.35
	Half Hard Aluminum = Tons x 0.5
	Hard/Heat Treated AL, Mild Steel = Tons x 1.0
	Half Hard Brass, Copper = Tons x 1.1
	Stainless Steel = Tons x 1.5
	High Strength Steel = Tons x 2.75

PRESS BRAKE SPECIALS CHECKLIST

Company:	
Contact:	
Phone:	Sales Engineer:
Quote #:	Sales Desk Contact:

MACHINE SPECIFICATIONS			
BRAKE MAKE/MODEL		TONNAGE	
OVERALL LENGTH		APPROX. AGE	
STROKE	*Open Height*	*Closed Height*	

TOOLING AND APPLICATION			
TOOLING TYPE	☐ American ☐ European ☐ WT ☐ Bystronic ☐ Other		
LENGTH OF BEND			
MATERIAL TYPE		THICKNESS	

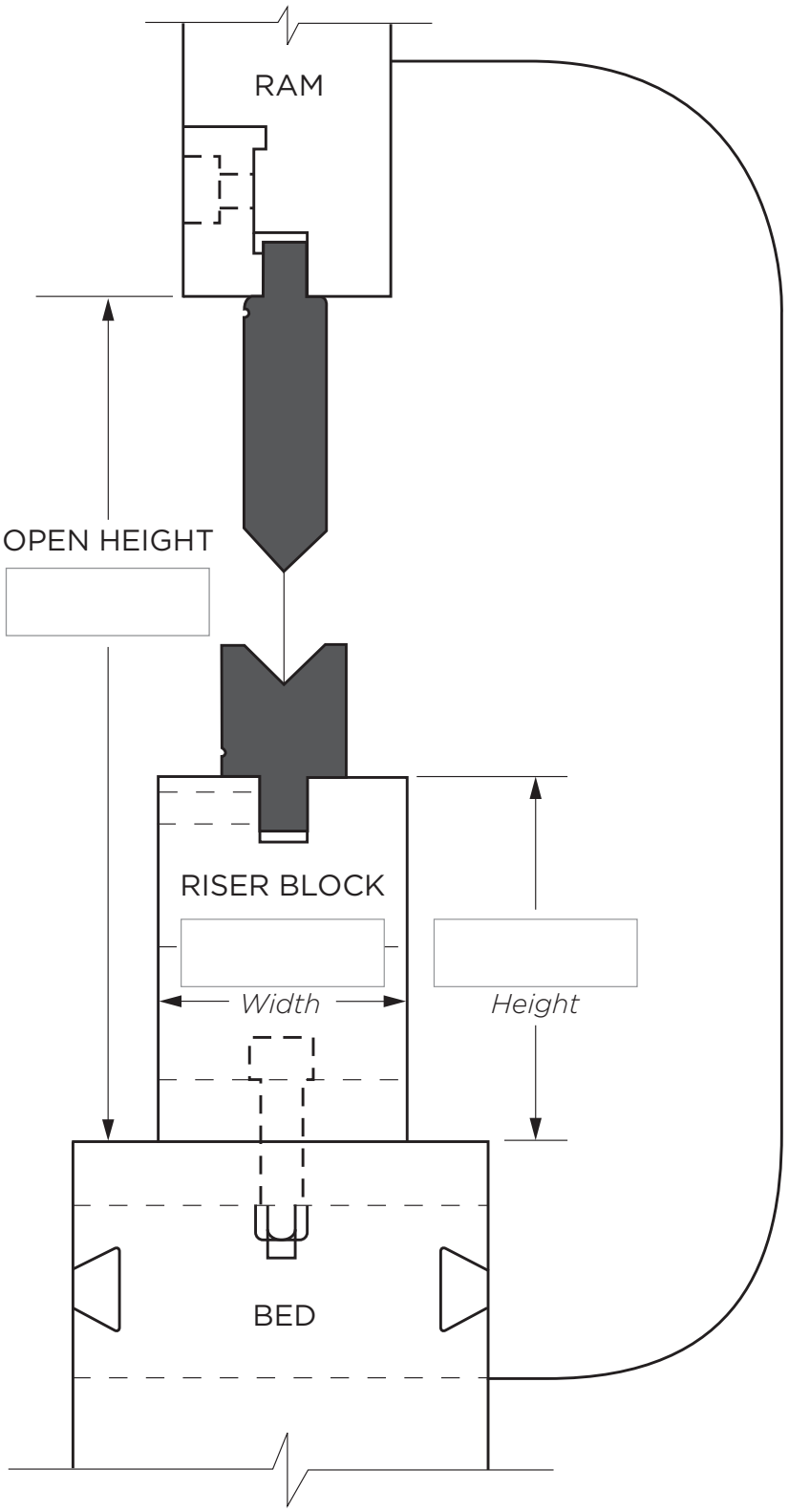
Is customer currently performing this bend? ☐ Yes ☐ No

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 ±3% may affect price/lead time.*
ESTIMATED ANNUAL USAGE	

TYPICAL PRESS SETUP

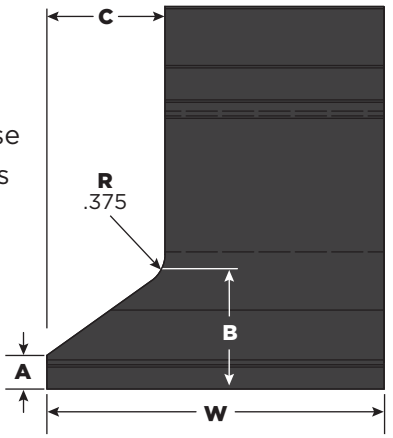


TIP MODIFICATIONS

Tip modifications are available in all styles and sizes.

Ear Piece

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



TOOL STORAGE

XTREME STORAGE CABINET

- Vertical configuration for drawer access from either side
- High-capacity drawers have a keyed lock and open smoothly with rolling casters
- Vertically adjustable trays maximize space for the height of tooling
- Adjustable tray inserts accommodate up to two rows of various tooling profiles. Removable center channel for larger tooling.
- Drawer trays hold punches in tip-up position
- Shallow top tray in each drawer for storing small items/hand tools
- Relatively small footprint allows for placement close to the machine

CUSTOM COLOR OPTIONS

051	052	055	057	560	041	061	071	745	072
Everest Blue	Classic Blue	Avalanche Blue	Midnight Blue	Glossy Sapphire Blue	Beige	Frost White	Light Gray	Modern Gray	Charcoal Gray
1025	**208**	**085**	**081**	**806**	**815**	**091**	**902**	**741**	**616**
Glossy EverGreen	Glossy Yellow	Sienna Orange	Flame Red	Glossy Carmine Red	Glossy Cranberry Red	Black	Glossy Black	Glossy Carbon Black	White

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

Xtreme Storage Cabinet Detail	Catalog Numbers 5103A	5104A	5105A	5106A
Number of Drawers	3	4	5	6
Cabinet Height (outside dim.)	62" [1575mm]	62" [1575mm]	62" [1575mm]	62" [1575mm]
Width (left to right – outside dim.)	23" [585mm]	30" [762mm]	37" [940mm]	44" [118mm]
Depth / Tool Space (front to back – inside dim.)	44" [1118mm]	44" [1118mm]	44" [1118mm]	44" [1118mm]
Number of Tool Trays	12	16	20	24
Total Length* of Tooling (1 tool/tray – inside dim.)	40' [12.1m]	53' [16.1m]	66.5' [20.2m]	80' [24.3m]
Total Length* of Tooling (2 tools/tray – inside dim.)	80' [24.3m]	106' [32.3m]	133' [40.5m]	160' [48.7m]

*Total length does not include available storage in the top trays.

TOOL STORAGE

PRESS BRAKE TOOL STORAGE

- Solid steel construction
- Rated capacity of 3,600 lbs.
- Total weight capacity: 440 lbs. per drawer
- One-drawer-at-a-time integrated locking
- Retainer top with rubber mat
- Stationary cabinets have a removable kick-plate for fork lift transportation
- Mobile base option with side handle has heavy-duty casters and extended wheel base to prevent tipping
- Cabinets ship via freight truck

Tip-up Cabinet for American-Style Punches

- 6 drawers with upright storage for punches held in steel U-channels

Part No.	W x D x H	Drawer Sizes
90020S	48" x 24" x 43"	2 – 1.75" [44.4mm] 1 – 2.75" [69.9mm] 3 – 6.75" [171.4mm]
90020	48" x 24" x 47.5"	

Lay-Down Cabinet for Press Brake Tooling

- 9 drawers for punches and dies lined with blue, industrial-strength, closed cell foam
- Lay down design displays laser markings and makes for easy identification of tools
- Heavy-duty construction with reinforced drawers for industry leading twist strength

Part No.	W x D x H	Drawer Sizes
90021HDS	48" x 27" x 49"	5 – 2.25" [57.1mm] 4 – 3.25" [82.5mm]
90021HDM	48" x 27" x 53.5"	

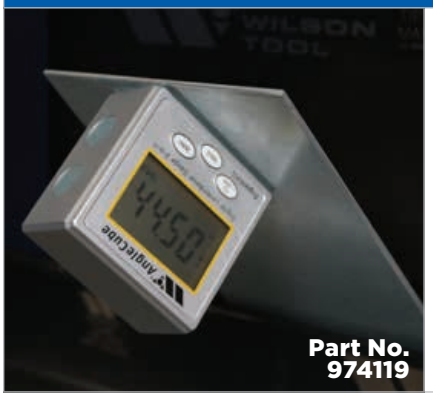
CUSTOM COLOR OPTIONS

051 Everest Blue	052 Classic Blue	055 Avalanche Blue	057 Midnight Blue	560 Glossy Sapphire Blue	041 Beige	061 Frost White	071 Light Gray	745 Modern Gray	072 Charcoal Gray
1025 Glossy EverGreen	208 Glossy Yellow	085 Sienna Orange	081 Flame Red	806 Glossy Carmine Red	815 Glossy Cranberry Red	091 Black	902 Glossy Black	741 Glossy Carbon Black	616 White

Colors may differ slightly from those shown.

MEASURING TOOLS

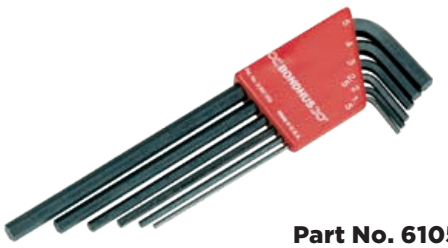
DIGITAL ANGLE CUBE



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.

HAND TOOLS

METRIC HEX KEY WRENCH SET



Part No. 6105

Metric 9 piece long arm set.
Contains: 1.5 x 77, 2 x 83,
2.5 x 90, 3 x 98, 4 x 106, 5 x 118,
6 x 137, 8 x 156, 10 x 170

SOFT FACE HAMMER

Part No. 6106

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

MAGNET SQUARE

Part No. 974150

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

GAUGING TOOLS

DIAL ADJUSTABLE SQUARING ARM

Infinite angle squaring arm with tool-free adjustment can be used as a left or right hand gauge. Significant magnetic holding power keeps the unit in place. Small enough to be out of the way, yet big enough to provide a sizable surface to rest the material being bent.

MAGNETIC SQUARING ARM

Increase bending accuracy with this simple hand tool. Suitable for any press brake die with a flat surface for easy attachment. Adjustable from 0° or 90° and is available in a left-handed or right-handed version.

Part No.	Description
42750L	Magnetic Squaring Arm LEFT
42750R	Magnetic Squaring Arm RIGHT

MAGNETIC SQUARING BLOCK

Versatile, durable, 90° squaring block for left or right support and gauging. Strong magnets hold the lightweight tool in place while allowing for easy repositioning.

MAGNETIC GAUGE

Use for back gauging, gauging outside the frame of the brake, front gauging, or when the part doesn't quite work with part configuration.

Part No.	Description
988741	Blue Threaded Cap

MARK-FREE BENDING

URETHANE ROLLS — 6 in. x 100 ft.

Part No.	Thickness	Durometer	Description
42530	.015" [.4mm]	85A (Milky White)	• More elastic than blue • Well suited for deeper draw applications • Will not last as long as blue for 90° bends
42531	.030" [.8mm]		
42532	.022" [.56mm]	95A (Blue)	• A more ridged solution • Lasts considerably longer than the white options in many applications • Harder and less elastic than blue • Not suited for deeper draw applications

Note: This is not a good time to cheat the V-opening and make it smaller. Keep in mind you are filling the V-opening with two thicknesses of urethane so it would be safer to oversize the V-opening a bit. The larger the shoulder radius, the larger the V-opening relative to the material type and thickness, the longer the life will be realized.

PROTECTIVE FABRIC DRAPE

Forms a protective barrier between the sheet metal and the die shoulders during the bending process. Lasts 5–8 times longer than a urethane drape.

Part No.	Description
55335	12.5m [41'] length x 120mm [4.7"] width
55337	12.5m [41'] length x 240mm [9.5"] width
988156	3/8" x 1/2" Cylinder Magnet w/Blue Grip Cover

DRAPE HOLDER

Magnetic body provides quick, secure attachment to any press brake die or die holder. Hex head bolts allow for front-to-back adjustment of material placement and easy material swaps. Low-profile design helps avoid bulky rolls getting in the operator's way.

WILSON TOOL INTERNATIONAL HEADQUARTERS

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Canada 800.268.5573 bending@wilsontoolcanada.com
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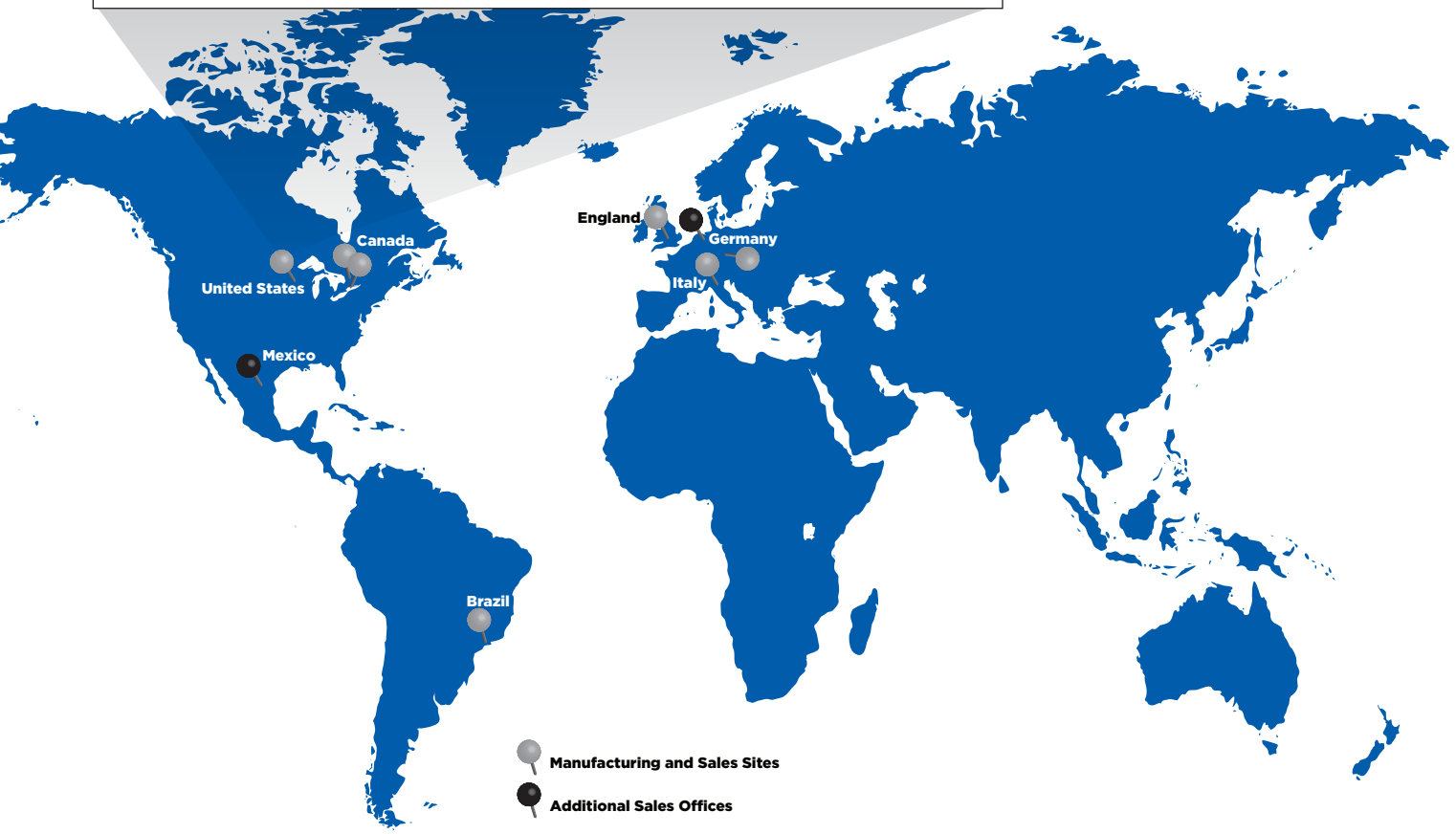

GUARANTEED TO OUTPERFORM

With Wilson Tool International, you're not just receiving tools — you're gaining a partner dedicated to your productivity, and products backed with a guarantee to outperform your current tooling.

WILSON TOOL

B350C (10.2025)