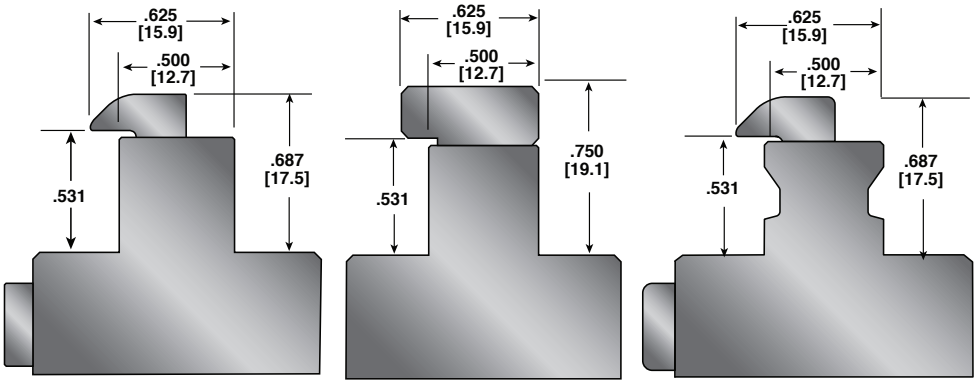
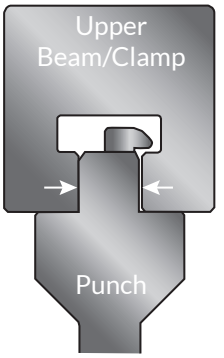
AMERICAN PRECISION PRESS BRAKE TOOLING



Straight Tang
Push Button Safety Tang

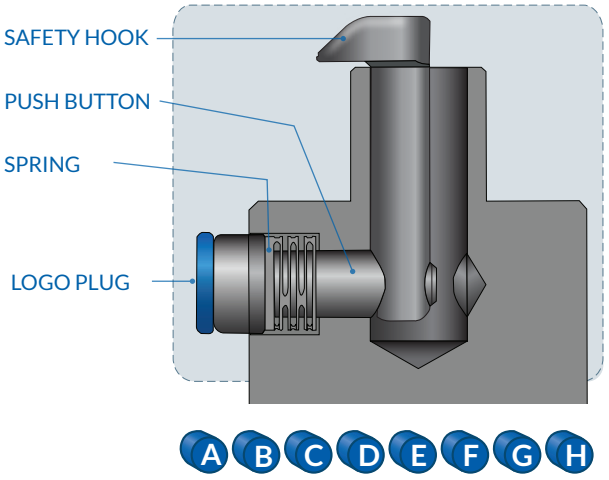
Straight Tang
Bolt-on Solid Safety Tang
(Standard on all long punches)

Groove (G) Tang
Push Button Safety Tang



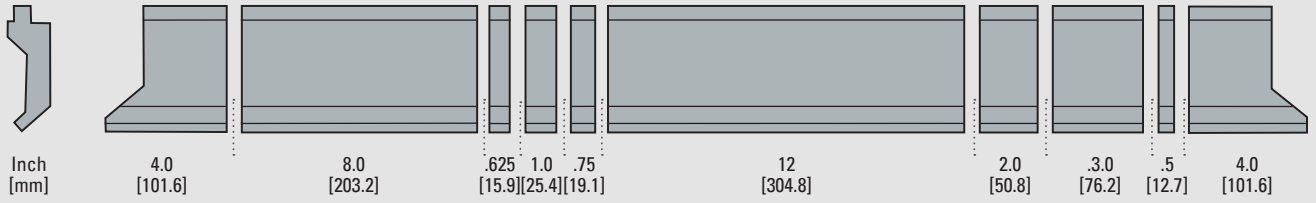
ATTENTION:

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

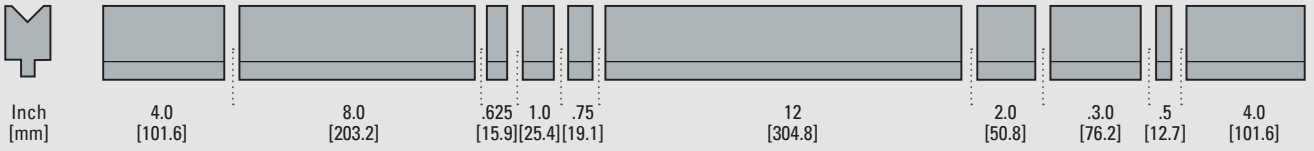


PUSH BUTTON COMPONENTS			
CAT. NO.	DESCRIPTION		
50071	A	Push button for .625 C/L	*order spring 8140*
50072	B	Push button for .687 C/L	*order spring 8140*
50073	C	Push button for .750 C/L	*order spring 8141*
50074	D	Push button for .875 C/L	*order spring 8141*
50075	E	Push button for 1.000 C/L	*order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

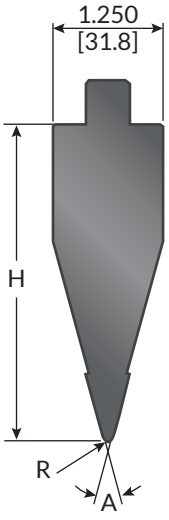
STANDARD PUNCH SECTION LENGTHS



STANDARD DIE SECTION LENGTHS

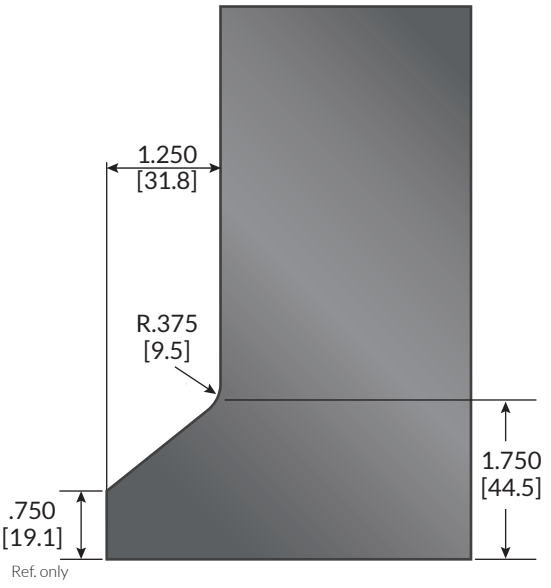


SHORT (S) 18" [457.2mm] **LONG (L)** 36" [914.4mm] **SECTIONALIZED (X)** 35.875" [911.2mm]



3.75" ACUTE BLOCK

5.75" ACUTE GOOSENECK



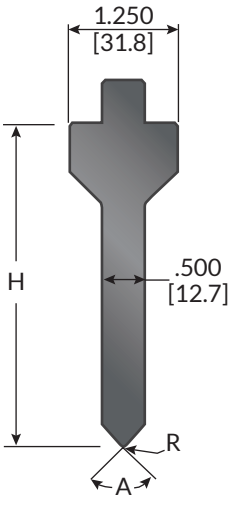
5.75" TALL ONLY
Ear pieces (horns)

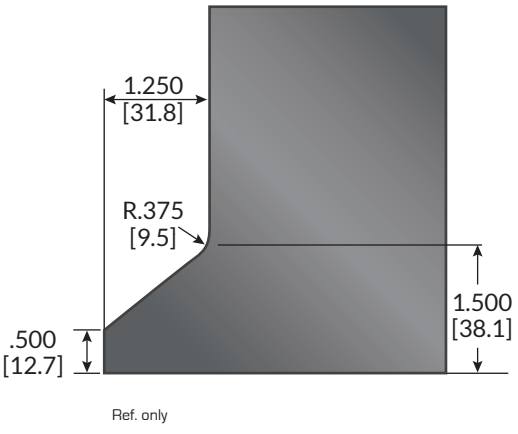
3.75" ACUTE BLOCK PUNCH										
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft		Button	PRICE			
Straight	Groove				L&S	X		L 36"	S 18"	X 35.87"	
50045	50045G	30°	.031 [0.8]	3.661 [93.0]	30	30	A				Bend Limit Graph page 32
50046	50046G		.062 [1.6]	3.571 [90.7]	40		A				
50047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

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

5.75" ACUTE GOOSENECK PUNCH										
CAT. NO.		A Angle	R Tip Radius inch [mm]	H Height inch [	Max Ton/ft		Button	PRICE			
Straight	Groove				L&S	X		L 36"	S 18"	X 35.87"	
50209	50209G	30°	.031 [0.8]	5.661 [143.8]	30	30	A				Bend Limit Graph page 33
50221	50221G		.062 [1.6]	5.571 [141.5]	40		A				
50227	50227G		.125 [3.2]	5.392 [137.0]			A				
Approximate Gross Weight [lbs.], unboxed								42	21	38	

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





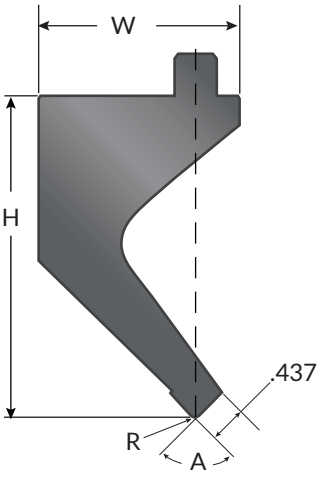
Ref. only

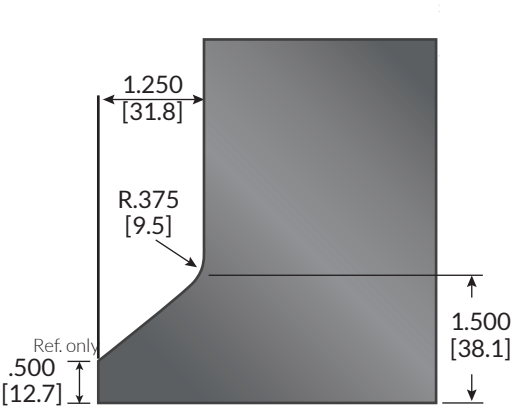
3.75" ARROW PUNCH

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

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

M Made To Order



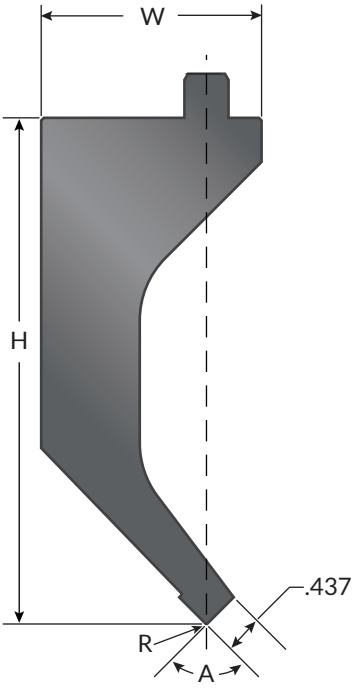


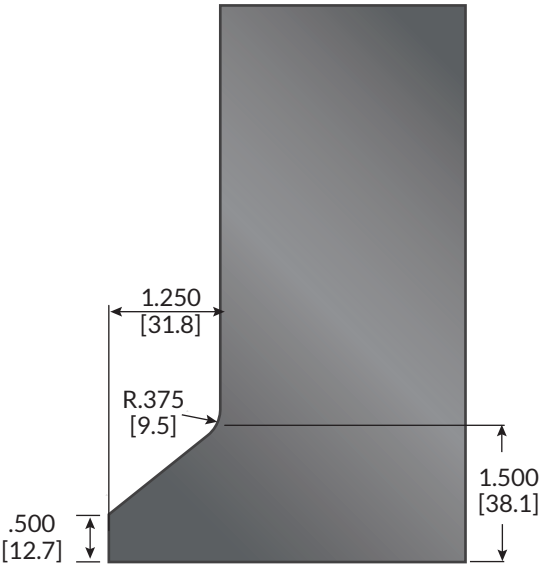
G H

3.75" LARGE GOOSENECK PUNCH

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

M Made To Order





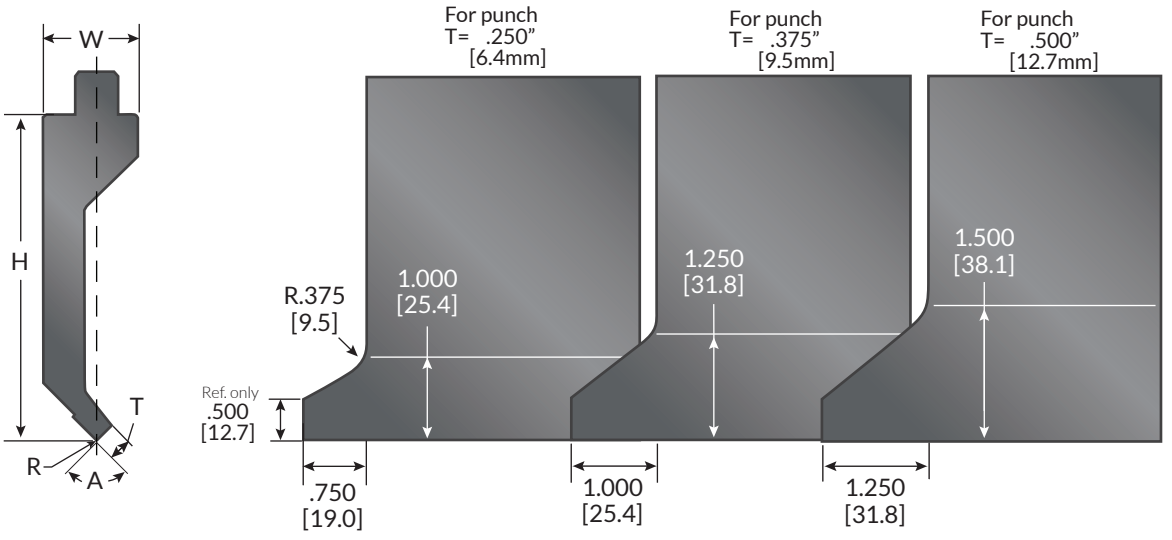
G H

5.75" LARGE GOOSENECK PUNCH

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

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

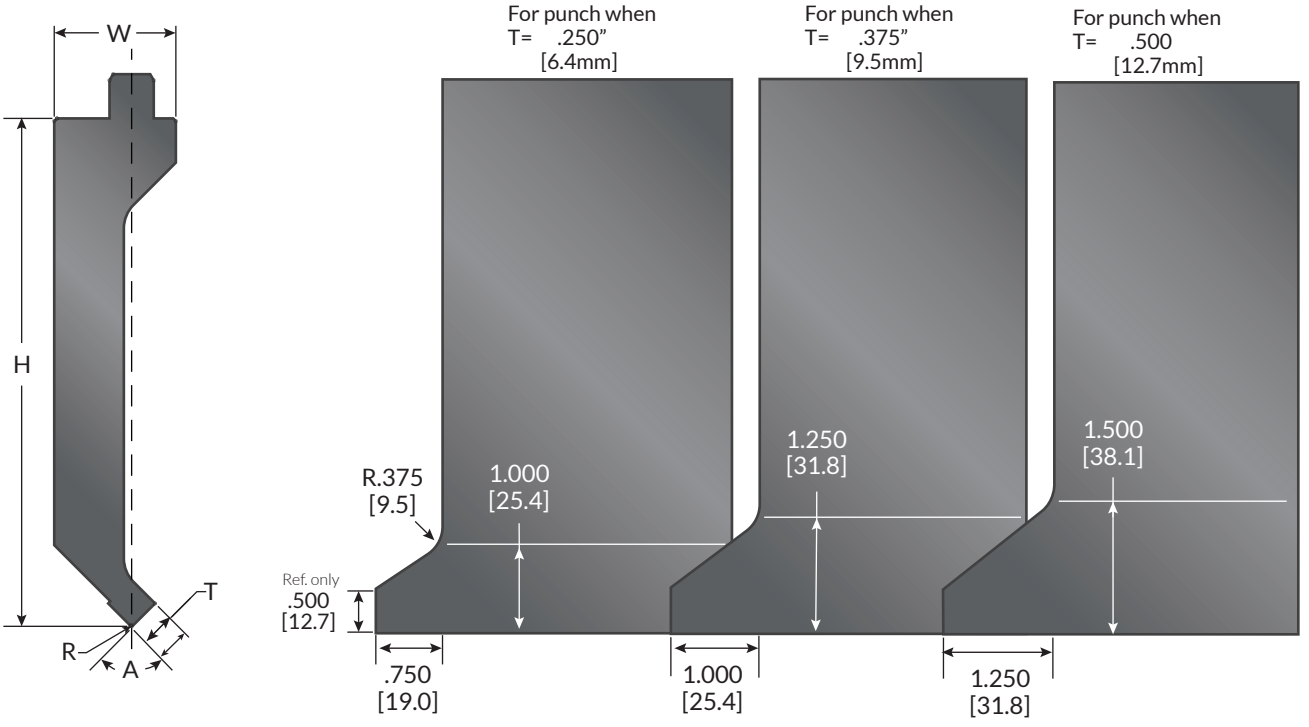
M Made To Order



3.75" SASH GOOSENECK PUNCH

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

M Made To Order



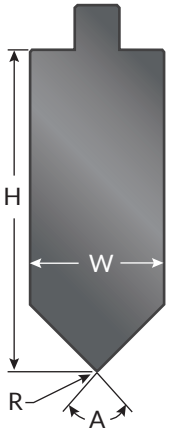
D

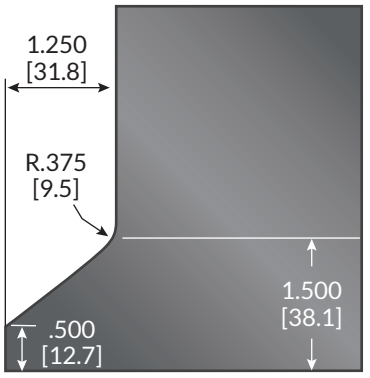
5.75" SASH GOOSENECK PUNCH

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

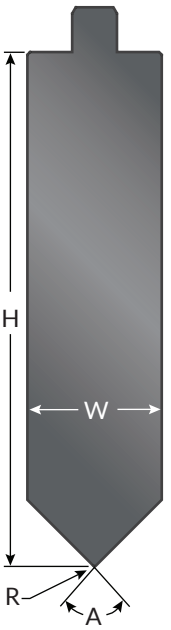
All tonnages are based on direct load and do not apply for thrusting applications.

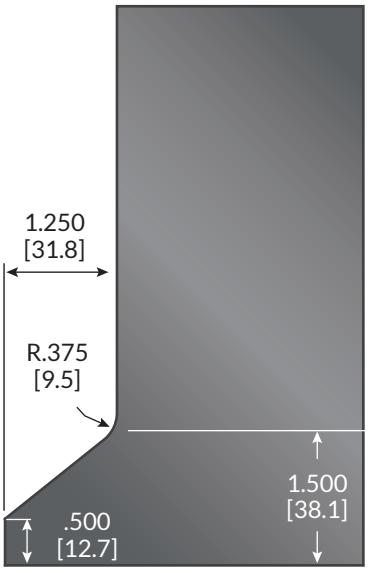
M Made To Order





3.75" BLOCK





5.75" BLOCK

A C E

3.75" BLOCK PUNCH

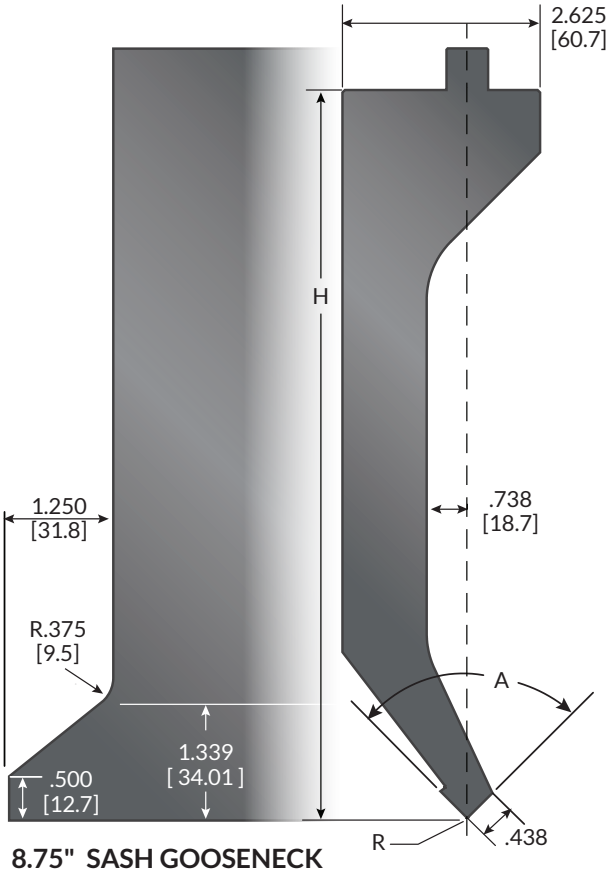
CAT. NO. Straight		CAT. NO. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	W Width inch [mm]	Max Ton/ft L&S	Max Ton/ft X	Button	PRICE L 36"	PRICE S 18"	PRICE X 35.87"	
50270		50270G	M	75°	.125 [3.2]	3.670 [93.2]	1.250 [31.8]	50	40	A				Bend Limit Graph page 43
50271		50271G	M		.250 [6.3]	3.590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

M Made To Order

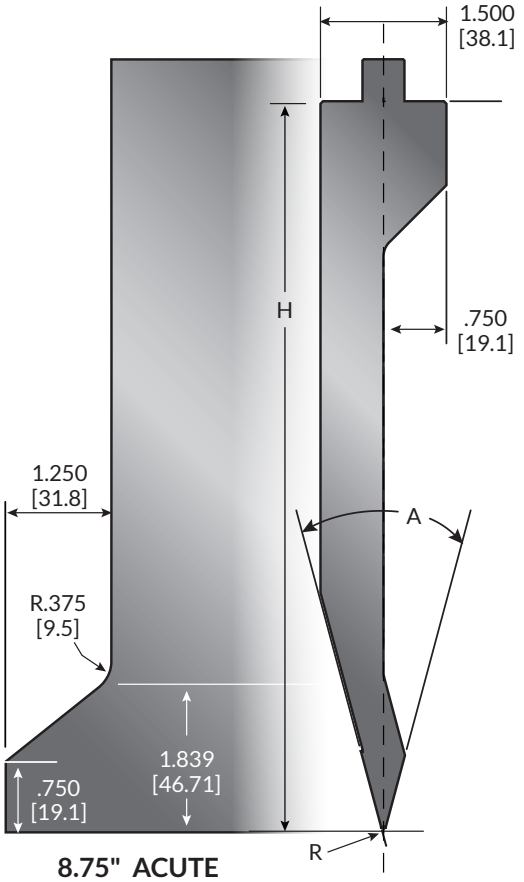
C

5.75" BLOCK PUNCH

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



8.75" SASH GOOSENECK



8.75" ACUTE

All 8.75" Punches:

Short = solid safety tang

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

8.75" SASH GOOSENECK PUNCH

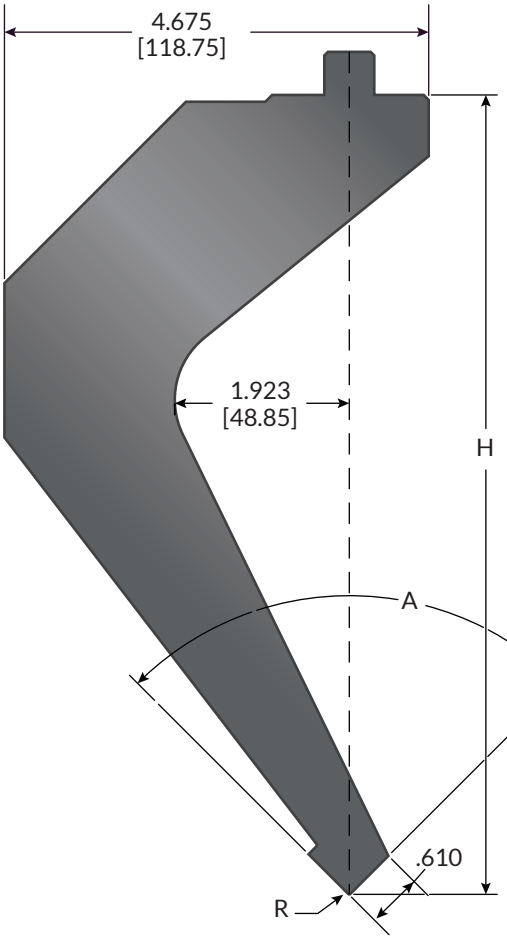
CAT. NO. Straight		CAT. NO. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft S & X	Button	PRICE S 18	PRICE X 35.87	
50373		50373G	M	75°	.031 [0.8]	8.730 [221.7]	25	H			Bend Limit Graph page 45
50374		50374G	M		.062 [1.6]	8.710 [221.2]	35	H			
50375	M	50375G	M		.125 [0.8]	8.670 [220.2]		H			
50376	M	50376G	M	88°	.031 [0.8]	8.736 [220.2]	35	H			
50377	M	50377G	M		.062 [1.6]	8.723 [221.6]		H			
50378	M	50378G	M	90°	.031 [0.8]	8.737 [221.9]		H			
50379	M	50379G	M		.062 [1.6]	8.724 [221.6]		H			
Approximate Gross Weight [lbs.], unboxed									56	102	

8.75" ACUTE PUNCH

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

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

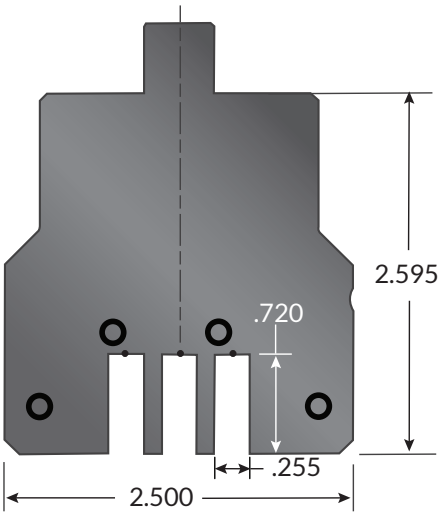
M Made To Order

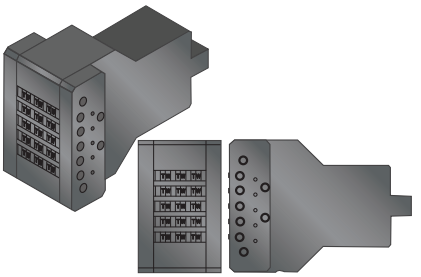


8.75" LARGE GOOSENECK PUNCH

CAT. NO. Straight		CAT. NO. Groove		A Angle	R Tip Radius inch [mm]	H Height inch [mm]	Max Ton/ft	PRICE S 18"	
50382	M	50382G	M	75°	.031 [0.8]	8.730 [221.7]	35		Bend Limit Graph page 44
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	

M Made To Order



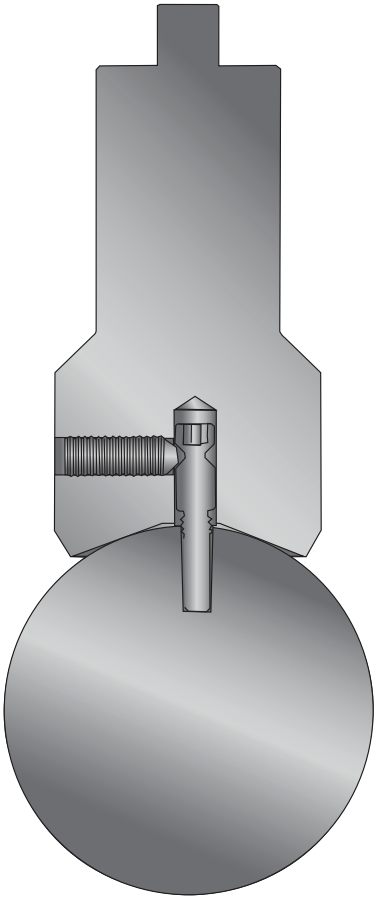


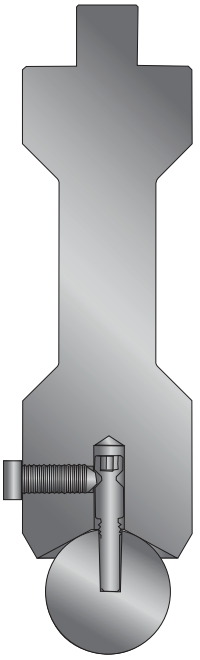
E

3.75" LETTER STAMP

CAT. NO.		DESCRIPTION	SIZE	PRICE
5LSP25/ 5LSP25G		Punch Character Holder	3.75" Staged	
50049SD		Flattening Block Die		
6898	M	Character	1/16"	
6898	M	Character	3/32"	
6896		Character	1/8"	

M Made To Order





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

See this tool in action on the Wilson Tool YouTube Channel

LARGE RADIUS AND HOLDER LENGTH: 19.69" [500mm]										
Radius Material #	Radius Size inch [mm]	Radius Price	Radius Approx. Weight [lbs]	Stem Bolt Material #	Holder Material #	Holder Width inch [mm]	Holder Price	Holder Approx. Weight [lbs]	Holder & Radius Assembled Height inch [mm]	MAX Ton / Ft
6R095-500	.375 [9.5]		3	980101	54T35-500 54T35-500G	1.3778 [35]		25	4.511 [114.5]	21
6R127-500	.500 [12.7]		5						4.781 [121.4]	
6R158-500	.625 [15.8]		7						5.050 [128.3]	
6R190-500	.750 [19.0]		10	980102					5.319 [135.1]	
6R222-500	.875 [22.2]		14						5.589 [141.9]	
6R254-500	1.000 [25.4]		18						5.858 [148.9]	
					54T55-500 54T55-500G	2.165 [55]		38	5.669 [144.0]	
6R381-500	1.500 [38.1]		40						6.747 [171.4]	
6R508-500	2.000 [50.8] (MTO)		72						7.824 [198.7]	

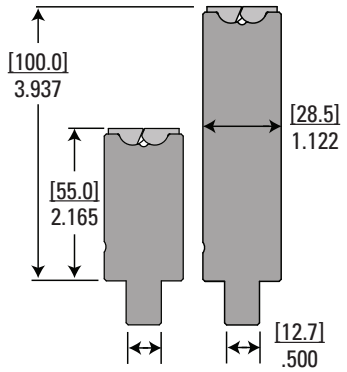
LARGE RADIUS AND HOLDER LENGTH: 9.84" [250mm]										
Radius Material #	Radius Size inch [mm]	Radius Price	Radius Approx. Weight [lbs]	Stem Bolt Material #	Holder Material #	Holder Width inch [mm]	Holder Price	Holder Approx. Weight [lbs]	Holder & Radius Assembled Height inch [mm]	MAX Ton / Ft
6R381-250	1.500 [38.1]		20	980102	54T55-250	2.165 [55]		19	6.747 [171.4]	21
6R508-250	2.000 [50.8]		36		54T55-250G				7.824 [198.7]	

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

V-SERIES BLACK

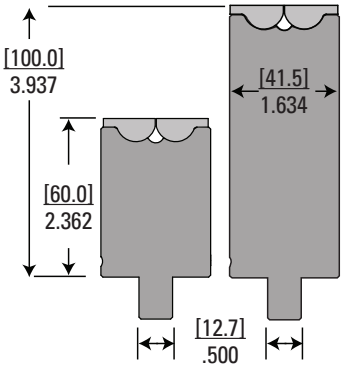
MODEL 1

51055 51100



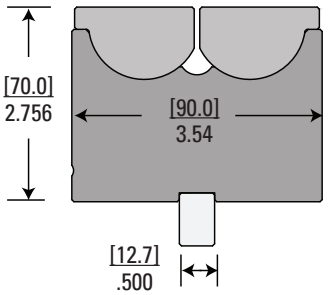
MODEL 2

52060 52100



MODEL 3

53070



MODEL 1	①	②	①	②	①	②	①	②	①	②
Length	9.84" [250mm]		19.68" [500mm] SOLID		21.65" [550mm] SECTIONAL		10.83" [275mm] X1		10.83" [275mm] X2	
Height	55	100	55	100	55	100	55	100	55	100
Assembly CAT. NO.	51055-250	51100-250	51055-500	51100-500	51055-550	51100-550	51055x1	51100x1	51055x2	51100x2
Weight	6 lbs.	10 lbs.	11 lbs.	20 lbs.	13 lbs.	22 lbs.	6 lbs.	11 lbs.	6 lbs.	11 lbs.
PRICE										
Insert CAT. NO.	–		(4) 980872A		980873A and 980874A		987158		987159	

MODEL 2	③	④	③	④	③	④	③	④	③	④
Length	9.84" [250mm]		19.68" [500mm] SOLID		21.65" [550mm] SECTIONAL		10.83" [275mm] X1		10.83" [275mm] X2	
Height	60	100	60	100	60	100	60	100	60	100
Assembly CAT. NO.	52060-250	52100-250	52060-500	52100-500	52060-550	52100-550	52060x1	52100x2	52060x2	52100x2
Weight	9 lbs.	14 lbs.	15 lbs.	25 lbs.	17 lbs.	29 lbs.	8 lbs.	14 lbs.	8 lbs.	14 lbs.
PRICE										
Insert CAT. NO.	–		(4) 980948		980949 and 980950		987160		987161	

MODEL 3	⑤	⑤	⑤
Length	3.94" [100mm]	9.84" [250mm]	17.91" [455mm]
Height	70	70	70
Assembly CAT. NO.	53070.2-100	53070.2-250	53070.2-455
Weight	11 lbs.	27 lbs.	47 lbs.
PRICE			
Insert CAT. NO.	987163	980959	980960 and 980977

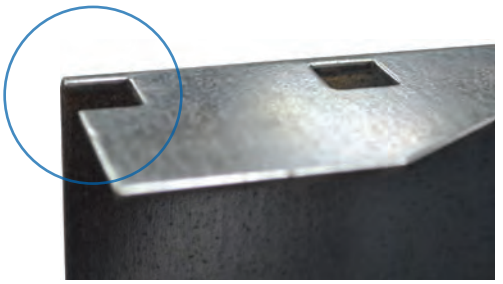
SPRINGS					
CAT. NO.	980682 ①	981031 ②	980683 ③	981032 ④	980881 ⑤
500 mm QTY	40	40	40	40	8
550 mm QTY	44	44	44	44	18

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

ZIP-MAR URETHANE SHOULDER STRIPS [54' Roll, .020" Thick]		
DESCRIPTION	CAT. NO.	PRICE
Model 1 1/2" wide	980953	
Model 2 3/4" wide	980954	
Model 3 1-5/8" wide	980955	

V-SERIES BLACK SPECIFICATIONS										
Model	Material Thickness inch [mm]	Min. Outside Flange inch [mm]	Ton/ FT	Min. Angle	Punch Tip Required to Achieve Angle	Max OR Radius @ Min. Angle inch [mm]	Max OR Radius @ 90° inch [mm]	Tonnage Cap/FT	T/M	kN/M
1	.018 [.45]	.118 [3.0]	1.8	34°	0.054	.125 [3.17]	.175 [4.45]	34	112	1100
	.020 [.50]		1.8		0.052					
	.024 [.60]		2.0		0.047					
	.030 [.80]		2.5		0.042					
	.036 [.90]		3.3		0.036					
	.040 [1.0]	.153 [3.9]	4.0		0.031					
	.048 [1.2]		5.8							
	.063 [1.5]	.165 [4.2]	9							
2	.074 [1.9]	.335 [8.5]	7	42°	0.122	.216 [5.5]	.354 [9.0]	50	168	1650
	.105 [2.9]	.347 [8.8]	13		0.112					
	.118 [3.0]	.366 [9.3]	15		0.099					
	.126 [3.2]		20		0.091					
	.135 [3.4]		22	55°	0.082	.276 [7.9]				
3	.157 [4.0]	.886 [22.5]	9	65°	0.078	.453 [11.5]	.500 [12.7]	60	204	2000
	.187 [4.75]		26		0.094					
	.250 [6.35]		28		0.125					

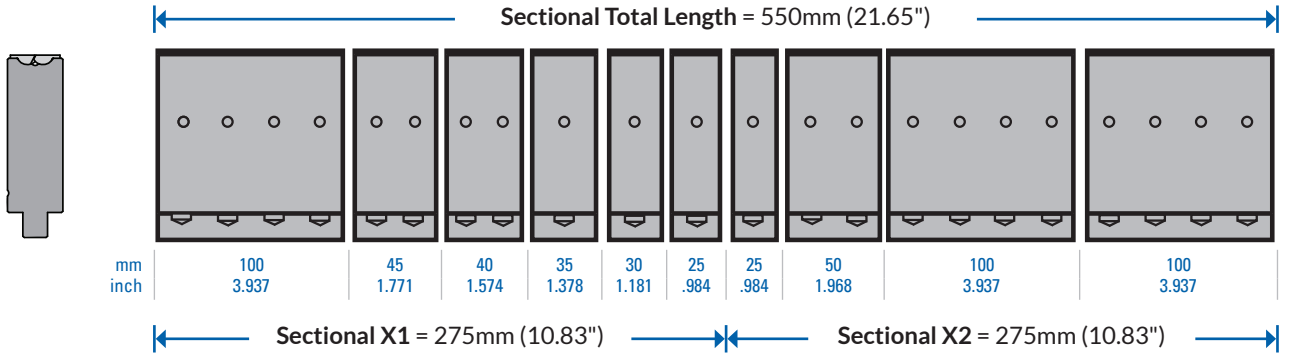
V OPENING AND SHOULDER RADIUS DIMENSIONS				
MODEL	SHOULDER RAD inch/[mm]	DESIRED ANGLE	THEORETICAL V - METRIC	THEORETICAL V - IMPERIAL
1	.040 [1.0]	90°	7.2	0.283
		34°	6.5	0.256
2	.051 [1.3]	90°	13.9	0.547
		42°	13.3	0.524
3	.236 [6.0]	90°	33.0	1.299
		65°	31.4	1.236



V-SERIES BLACK STANDARD LENGTHS

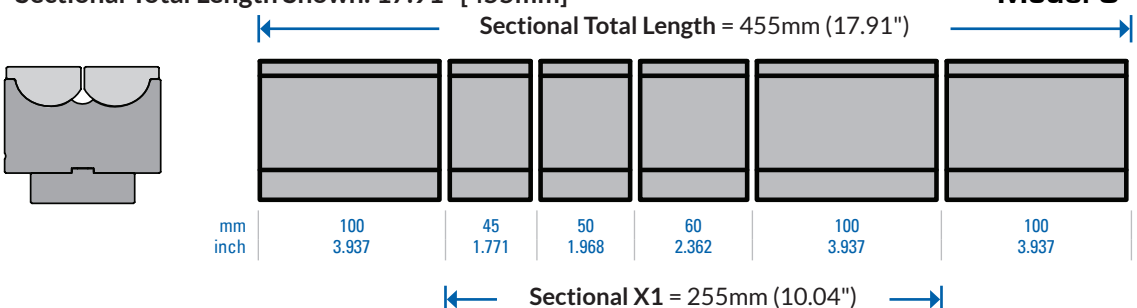
Solid Length Available: 19.68" [500mm]
Sectional Total Length Shown: 21.65" [550mm]

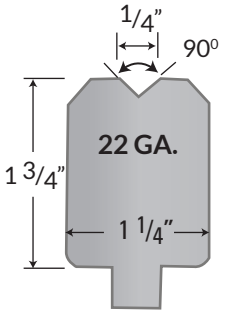
Model 1 & 2



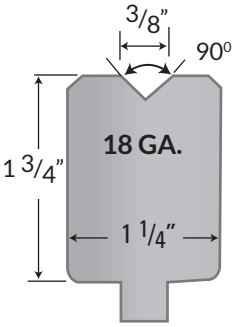
Solid Length Available: 9.84" [250mm]
Sectional Total Length Shown: 17.91" [455mm]

Model 3

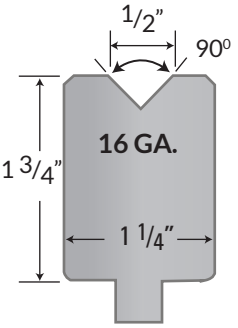




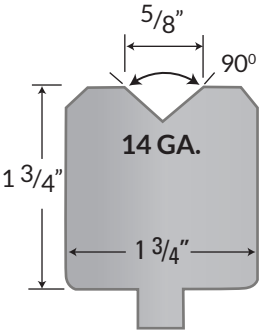
50031u



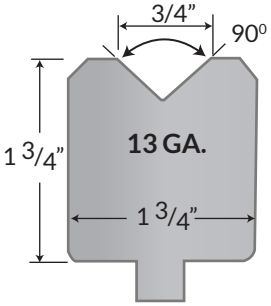
50032u



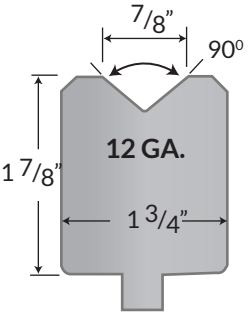
50033u



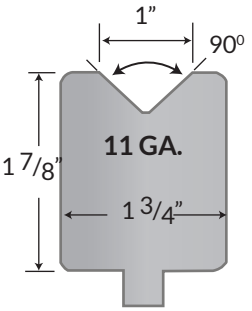
50034u



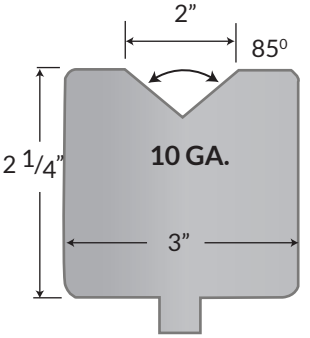
50035u



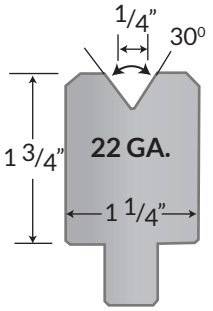
50036u



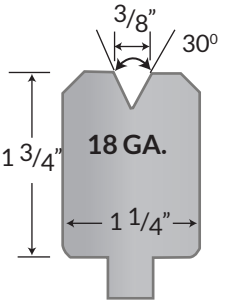
50037u



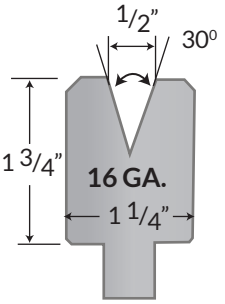
50018u



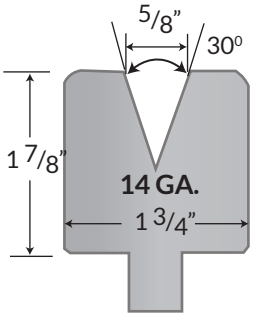
50020u



50021u



50022u



50023u

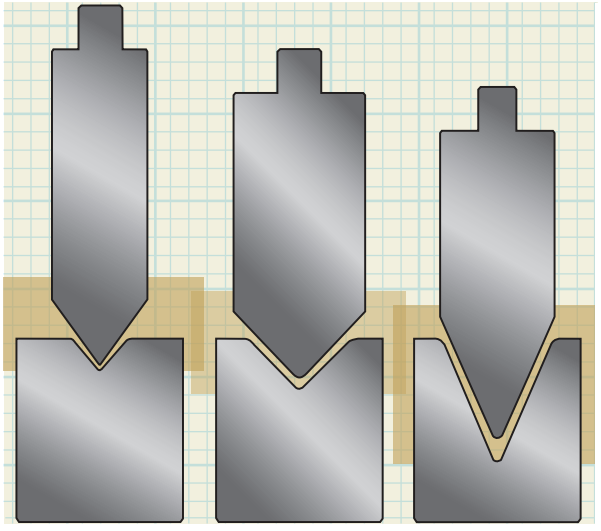
URETHANE DIES								
CAT. NO.	ANGLE	V Opening	H Height	W Width	Approx. Gross Weight [lbs]		PRICE	
					Length 48"	Length 96"	Length 48"	Length 96"
50031u	90°	1/4"	1-3/4"	1-1/4"	5	12		
50032u		3/8"	1-3/4"	1-1/4"	5	12		
50033u		1/2"	1-3/4"	1-1/4"	6	12		
50034u		5/8"	1-3/4"	1-3/4"	7	16		
50035u		3/4"	1-3/4"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

WHAT IS "STAGED" TOOLING?

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

Unstaged Tooling

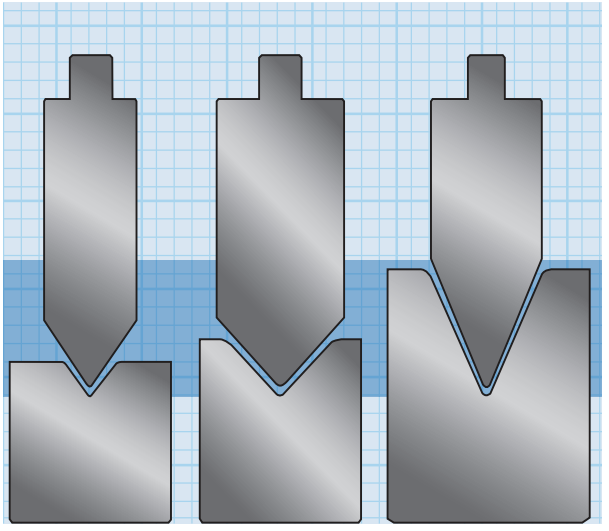
Tooling without a common shut height cannot be run in one setup because the punches and dies will collide.



TRADITIONAL NON-STAGED BENDING
3 Different Shut Heights

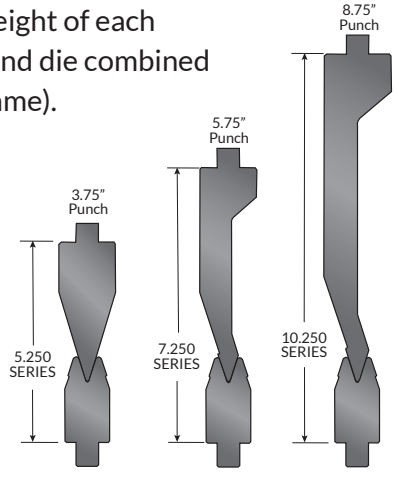
Staged Tooling

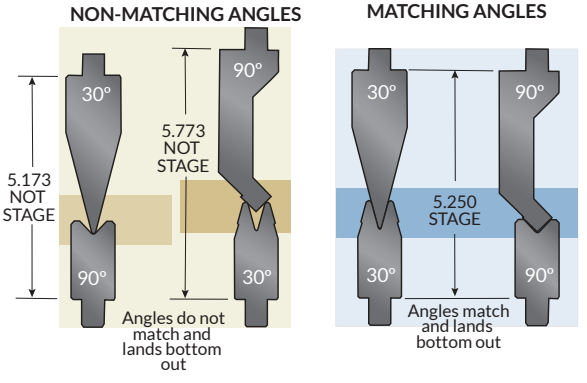
Staged tooling is designed to shut at the same height, so all bending can be done in one progressive setup.



STAGED BENDING
1 Common Shut Height

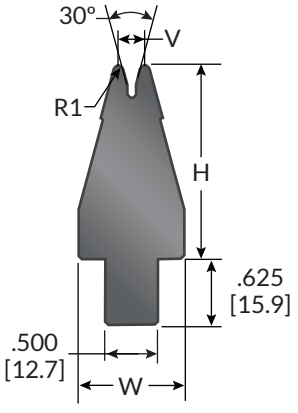
Common shut height (total height of each punch and die combined is the same).



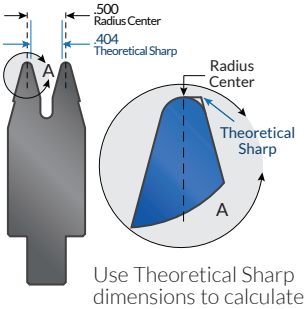


See this tool in action on the Wilson Tool YouTube Channel

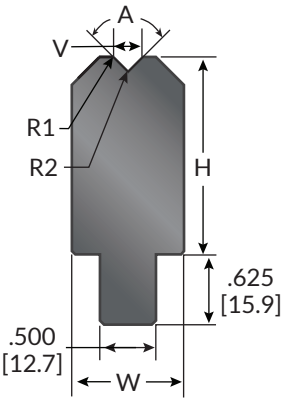
Stage bending simplifies complex jobs by eliminating unproductive repetitive tasks - **significantly reducing setup time, part handling and work-in-progress.**



STAGE



Use Theoretical Sharp dimensions to calculate tonnage and minimum flange.



BLOCK

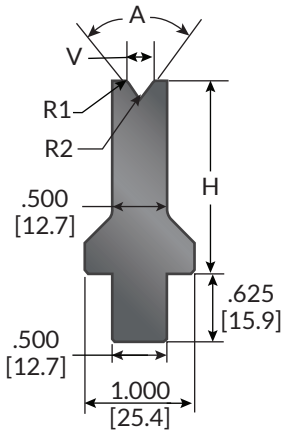
STAGED ACUTE DIES

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

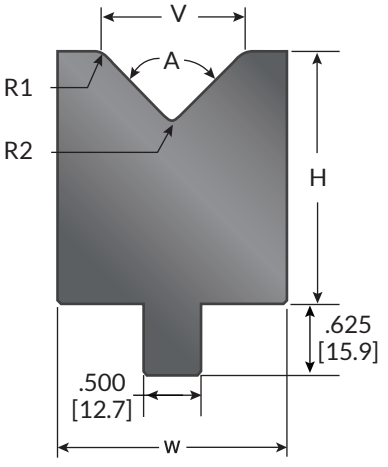
STAGED BLOCK DIES

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

All tonnages are based on direct load and do not apply for thrusting applications.
1.75" tall dies available upon request.



ARROW



LARGE V

STAGED ARROW DIES

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

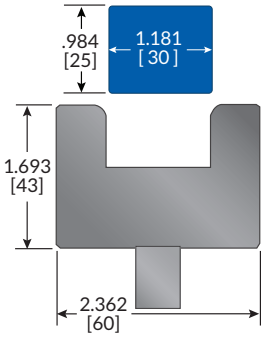
STAGED LARGE V DIES

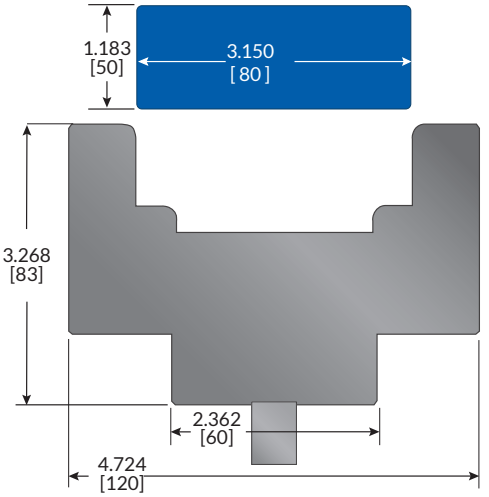
CAT. NO.	A Angle	V V OPENING inch [mm]	H Height inch [mm]	W Width inch [mm]	R1 SH. Radius inch [mm]	R2 V Radius inch [mm]	Max Ton/ft L,S & X	Approx. Gross Weight [lbs] L 36"	S 18"	X 35.87"	PRICE L 36"	S 18"	X 35.87"
50240	75˚	1.000 [25.4]	2.152 [54.7]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	33	17	33			
50296		1.125 [28.6]	2.233 [56.7]	1.500"[38.1]	.156 [4.0]	.063 [1.6]	35						
50297		1.250 [31.8]	2.315 [58.8]	2.000 [50.8]	.188 [4.8]	.094 [2.4]	40	45	23	45			
50298		1.500 [38.1]	2.477 [62.9]	2.500 [63.5]	.188 [4.8]	.094 [2.4]	40	59	30	59			
50299		2.000 [50.8]	2.803 [71.2]	3.000 [76.2]	.219 [5.6]	.125 [3.2]	50	76	38	75			
50300		2.500 [63.5]	3.129 [79.5]	3.500 [88.9]	.250 [6.4]	.188 [4.8]	50	94	47	94			
50371		3.000 [76.2]	3.455 [87.8]	4.000 [101.6]	.281 [7.1]	.313 [8.0]	50	N/A	57	114			
50371R		3.000 [76.2]	3.455 [87.8]	4.000 [101.6]	.281 [7.1]	.313 [8.0]	50	N/A	56	112			
50372		4.000 [101.6]	4.107 [104.3]	5.000 [127.0]	.375 [9.5]	.313 [8.0]	50	N/A	72	158			
50372R		4.000 [101.6]	4.107 [104.3]	5.000 [127.0]	.375 [9.5]	.313 [8.0]	50	N/A	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]	.188 [4.8]	.094 [2.4]	40	56	28	56			
50018		2.000 [50.8]	2.591 [65.8]	3.000 [76.2]	.219 [5.6]	.125 [3.2]	50	71	36	71			
50019		2.500 [63.5]	2.864 [72.7]	3.500 [88.9]	.250 [6.4]	.188 [4.8]	50	88	44	88			
50203	88˚	1.000 [25.4]	2.018 [51.3]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	32	16	32			
50204		1.125 [28.6]	2.083 [52.9]	1.500 [38.1]	.156 [4.0]	.063 [1.6]	35	32	16	32			
50037	90˚	1.000 [25.4]	2.000 [50.8]	1.500 [38.1]	.156 [4.0]	.031 [0.8]	30	31	16	31			
50015		1.125 [28.6]	2.063 [52.4]	1.500 [38.1]	.156 [4.0]	.063 [1.6]	35	32	16	32			

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

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

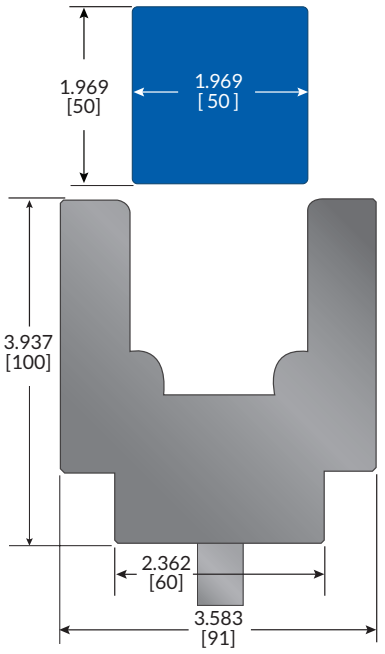
NOTE:
All urethane die holders are machined from 6061-T6 aluminum.
Check height against machine stroke prior to ordering.

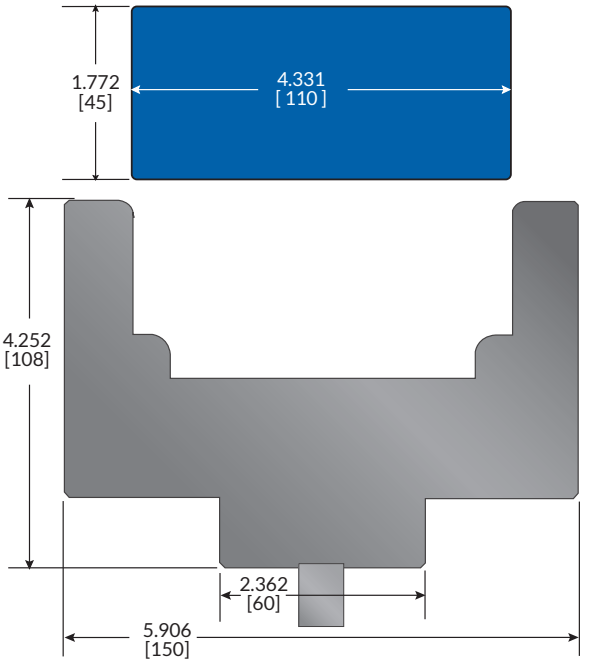




CAT. NO.			SHORE HARD-NESS	Approx. Gross Weight [lbs]		PRICE	
				L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42501c	M	Holder	N/A	10	6		
42511		Pad	80A/Red	2	1		
42521		Pad	90A/Blue	2	1		

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





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

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

M Made To Order

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

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

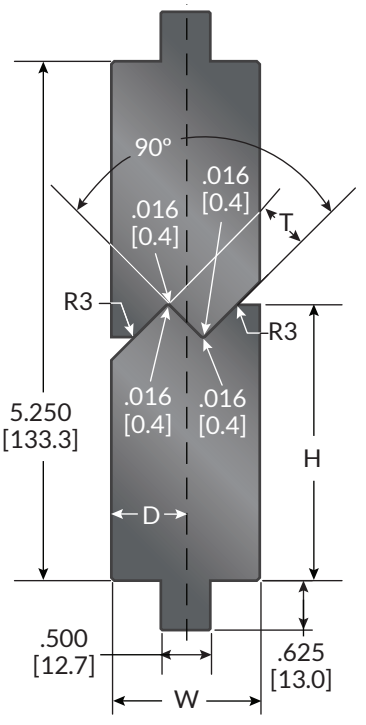
Sold as a set - individual tools available.

Dimensions are shut height requirements less material thickness.

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

Special offset sizes available at additional cost.

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

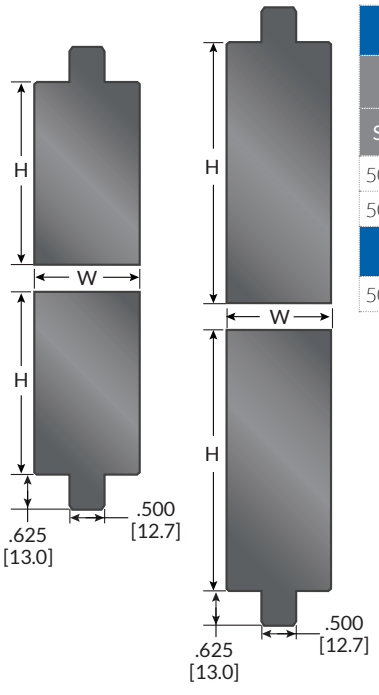


A C

3.75" OFFSET PUNCH AND DIE SET

CAT. NO.			**T Offset Dim. inch [mm]	H Height inch [mm]	W Width inch [mm]	R3 SH. Radius inch [mm]	D Centerline Dim. inch [mm]	Max Ton/ft		Approx. Gross Weight [lbs]			Button	PRICE		
Straight	Groove							L&S	X	L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
50087	50087G	M	.125 [3.2]	2.663 [67.6]	1.250 [31.8]	.062 [1.6]	.625 [15.9]						A			
50088	50088G	M	.188 [4.8]	2.685 [68.2]	1.250 [31.8]	.062 [1.6]	.625 [15.9]						A			
50089	50089G	M	.250 [6.4]	2.707 [68.8]	1.250 [31.8]	.094 [2.4]	.625 [15.9]			71	35	71	A			
50090	50090G	M	.375 [9.5]	2.745 [69.7]	1.250 [31.8]	.125 [3.2]	.625 [15.9]						A			
50091	50091G	M	.500 [12.7]	2.789 [70.8]	1.500 [38.1]	.125 [3.2]	.750 [19.1]	30	25	86	43	86	C			
50092	50092G	M	.625 [15.9]	2.833 [72.0]	1.750 [44.5]	.125 [3.2]	.875 [22.2]			100	50	100	C			
50093	50093G	M	.750 [19.1]	2.877 [73.1]	2.000 [50.8]	.125 [3.2]	.875 [22.2]			114	58	114	C			
50094	50094G	M	.875 [22.2]	2.922 [74.2]	2.000 [50.8]	.125 [3.2]	.75 [19.1]			114	58	114	C			
50095	50095G	M	1.000 [25.4]	2.966 [75.3]	2.000 [50.8]	.125 [3.2]	.75 [19.1]			114	58	114	C			
T X 1.414" = Effective V																

M Made To Order

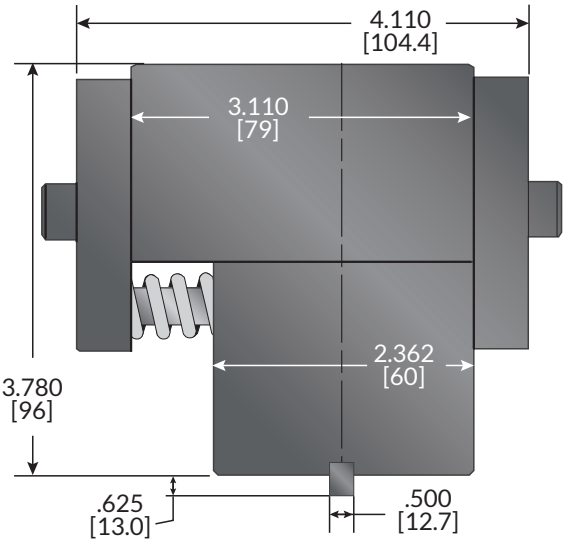


3.75" FLATTENING PUNCH AND DIE SET

CAT. NO.			H Height inch [mm]	W Width inch [mm]	Max Ton/ft		Approx. Gross Weight [lbs]			Button	PRICE		
Straight	Groove				L&S	X	L 36"	S 18"	X 35.87"		L 36"	S 18"	X 35.87"
50048	50048G	M	2.625 [66.7]	1.500 [38.1]	40	35	76	43	87	C			
50049	50049G	M	2.625 [66.7]	2.500 [63.4]			139	70	138	F			

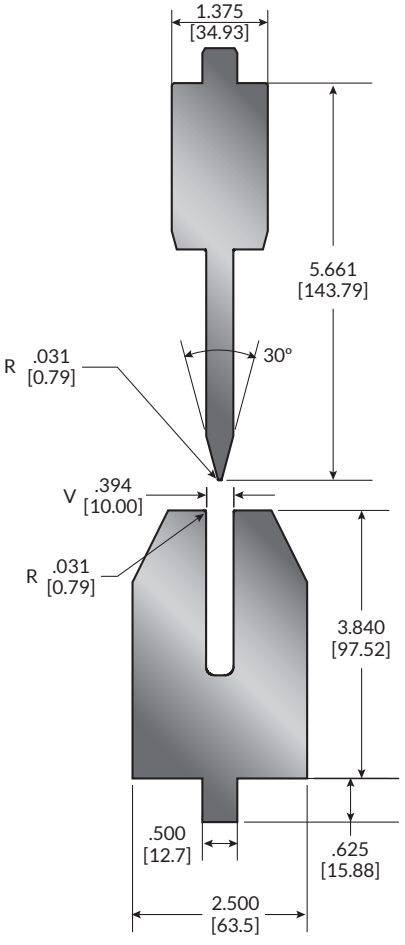
5.75" FLATTENING PUNCH AND DIE SET

50265	50265G	M	3.625 [92.1]	1.500 [38.1]	40	35	116	58	120	C			



THRUST ABSORBING FLATTENING DIE

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



5.75" TWO STAGE HEMMING PUNCH AND DIE SET

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

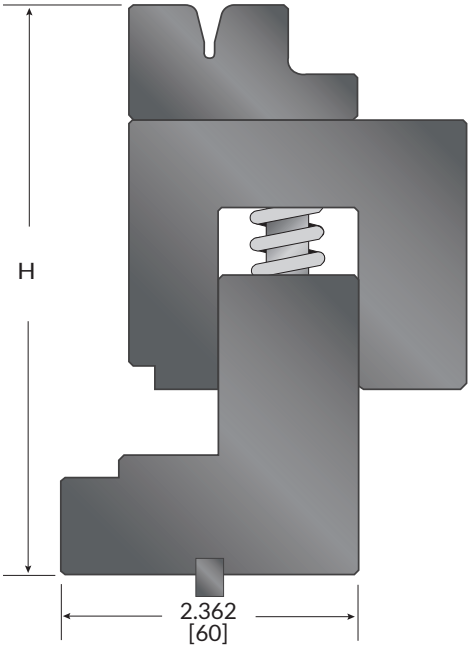
All tonnages are based on direct load and do not apply for thrusting applications.

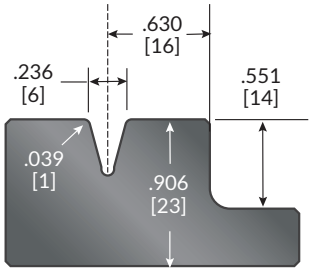
Note: Maximum material is 16 ga. cold rolled steel.

M Made To Order

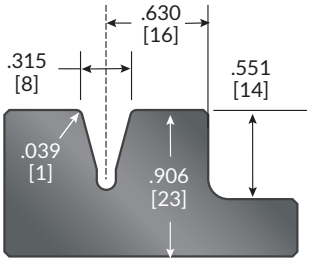
TWO STAGE HEMMING DIE

CAT. NO.	V1 INCHES [mm]	H HEIGHT INCHES [mm]	MAX. TON FT/METER (LT & ST)	Approx. Gross Weight [lbs]		MAX MAT-ERIAL	PRICE	
				LT 32.87" [835mm]	ST 16.34" [415mm]		LT 32.87" [835mm]	ST 16.34" [415mm]
42601c	.236 [6.0]	4.587 [116.5]	20 / 67	86	43	20 GA. CRS		
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		

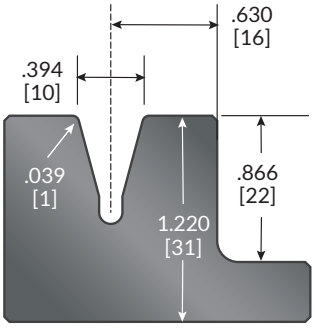




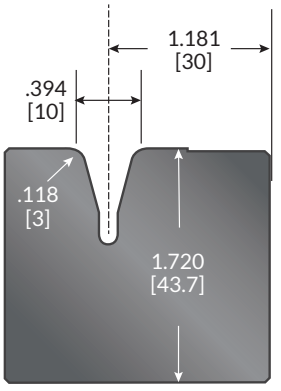
CAT. NO. 43522



CAT. NO. 43523



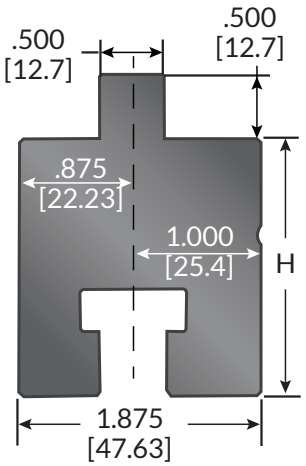
CAT. NO. 43524

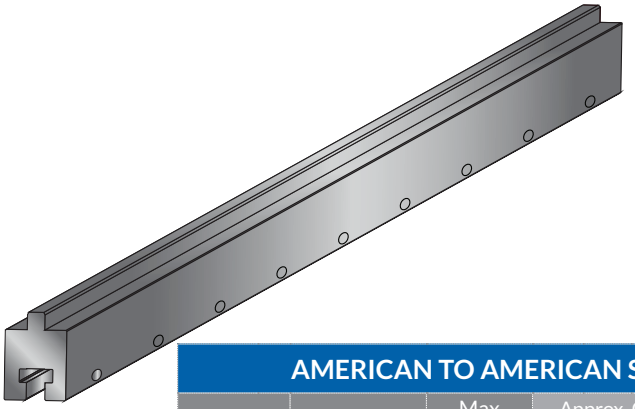


CAT. NO. 43528

HEMMING REPLACEMENT V-BLOCKS

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



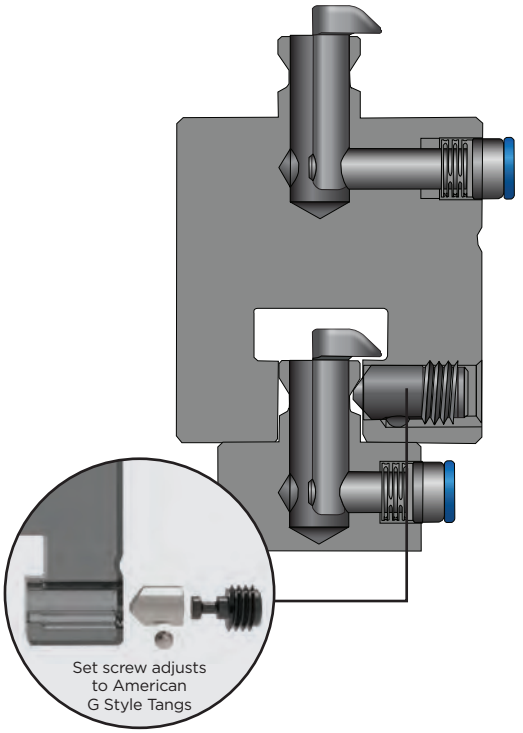


D E

AMERICAN TO AMERICAN STRAIGHT TANG

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

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



E

GROOVE CLAMPING TO GROOVE PUNCH TANG

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

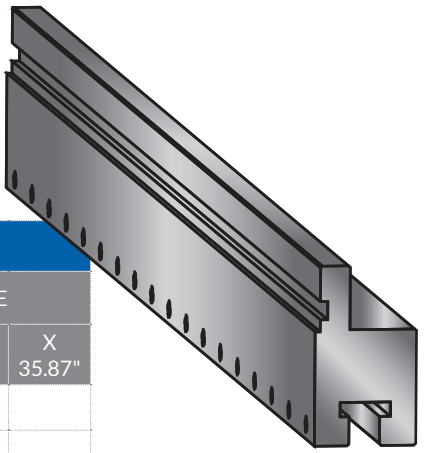
53067	Hex Head Screw
53068	Self Seating Pin
972743	.04mm Steel Ball

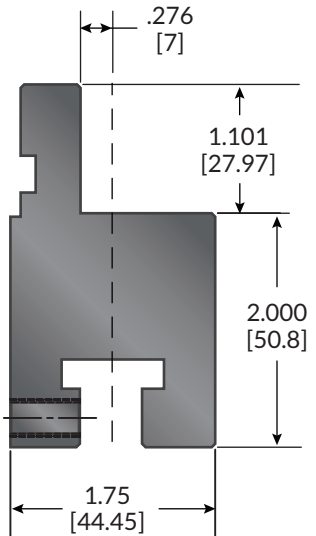
Note: All holders include clamping set screws every 2" [50.8mm]

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

M Made To Order

*Self-seating punch holder for American G Style Punches





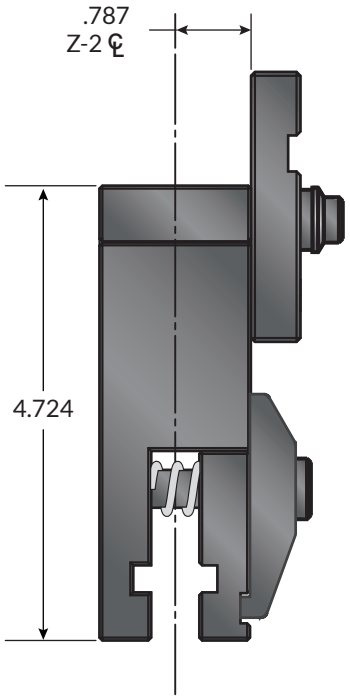
EUROPEAN Z1 TO AMERICAN

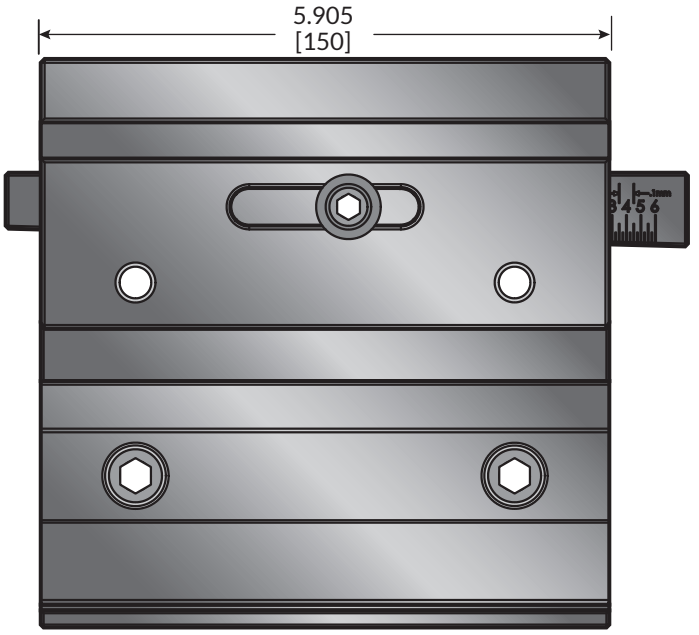
CAT. NO.		Approx. Gross Weight [lbs] L 36"	S 18"	X 35.87"	Max Ton/ft L, S, X	PRICE L 36"	S 18"	X 35.87"
43851		33	16	32	30			
43861*		33	16	32	30			

*Self-seating punch holder for American G Style Punches

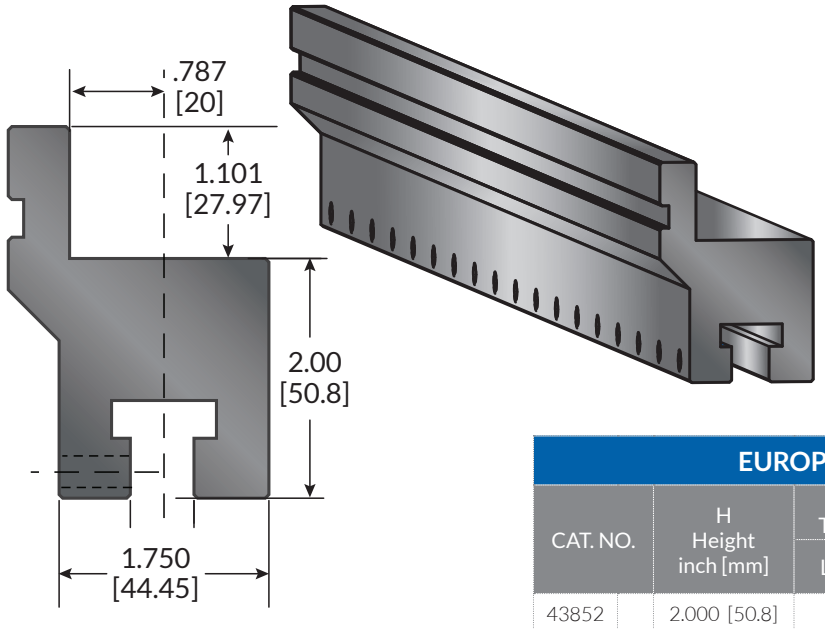
Note: All holders include clamping set screws every 2" [50.8mm]

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





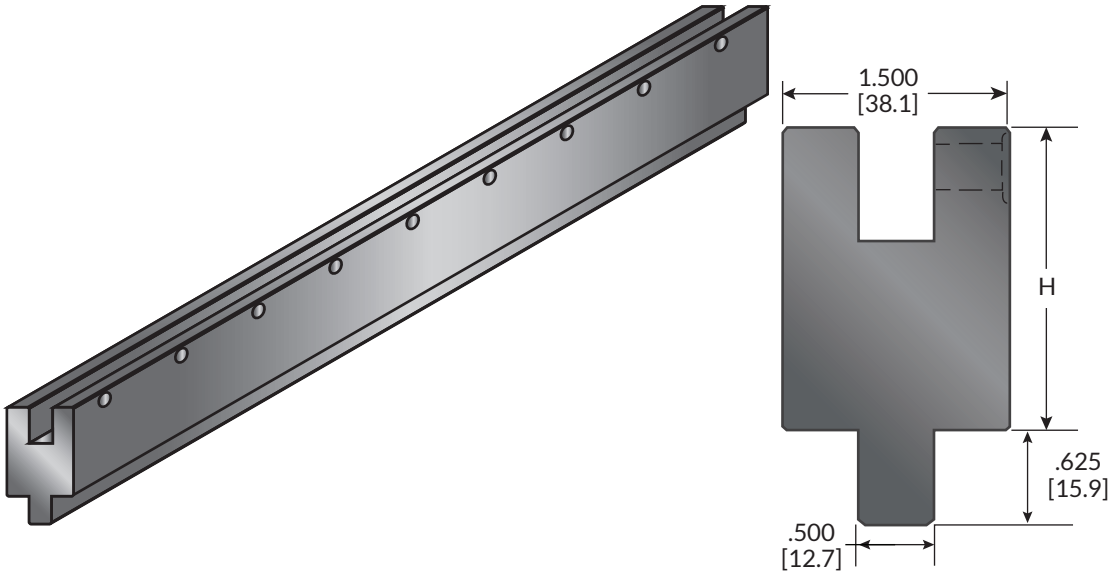
Z2 SERIES WITH DUAL AMERICAN AND EUROPEAN CLAMPING				
CAT. NO.		Approx. Gross Weight [lbs]	Max Ton/ft	PRICE
43853		15	30	



EUROPEAN Z2 TO AMERICAN										
CAT. NO.		H Height inch [mm]	Max Ton/ft	Approx. Gross Weight [lbs]			PRICE			
			L, S, X	L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
43852		2.000 [50.8]	30	35	18	35			
43862*		2.000 [50.8]	30	35	18	35			

*Self-seating punch holder for American G Style Punches

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



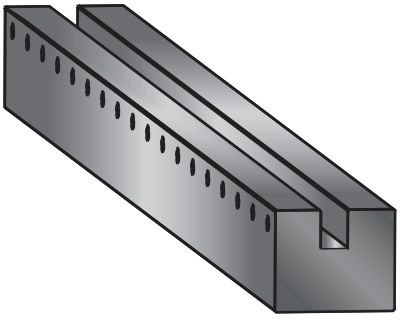
AMERICAN TO AMERICAN

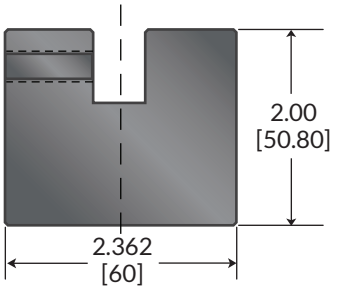
CAT. NO.		H Height inch [mm]	Max Ton/ft	Approx. Gross Weight [lbs]			PRICE		
			L, S, X	L 36"	S 18"	X 35.87"	L 36"	S 18"	X 35.87"
50084		2.000 [50.8]	40	30	15	30			
50085		3.000 [76.2]		45	23	45			
50086		4.000 [101.6]		60	30	60			
Custom	M	Specify		-	-	-			

M Made To Order

EUROPEAN TO AMERICAN

CAT. NO.		Approx. Gross Weight [lbs]		Max Ton/ft	PRICE	
		L 36"	S 18"	L & S	L 36"	S 18"
43590		44	22	40		





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

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

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

ADJUSTABLE V DIE

see page 51

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

Adjustable V openings range from 1 to 18 inches and can be adjusted in 1 inch increments. Adjustable V dies are induction hardened and are capable of withstanding tonnage of up to 200 tons per foot, allowing you to easily bend thick material. Hard chrome rollers help reduce required tonnage by as much as 20%.

REPLACEABLE SHOULDER DIE

see page 51

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

AMERICAN PLANED PRESS BRAKE TOOLING

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

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

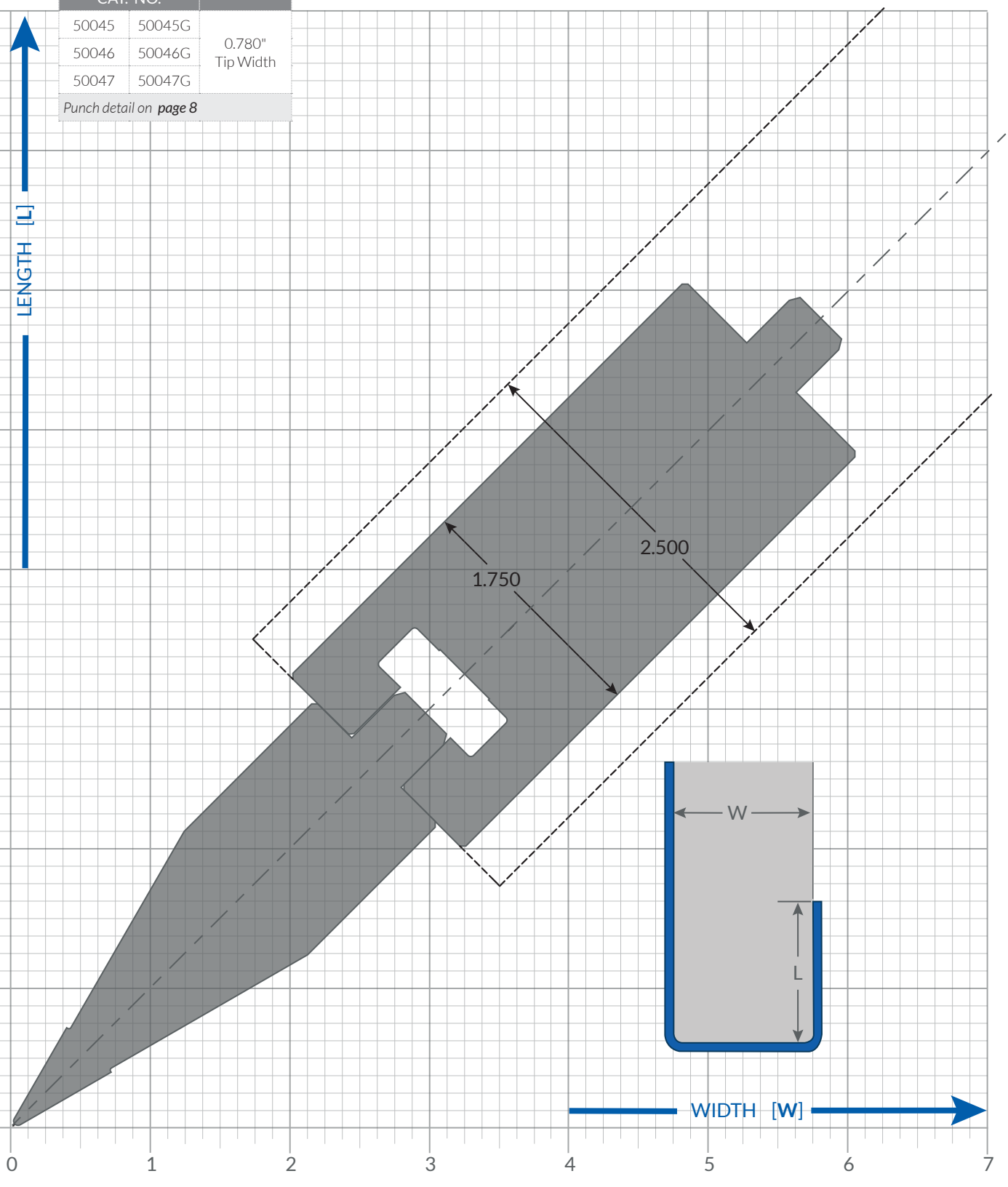
THICK MATERIAL BENDING CONSIDERATIONS:

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

BEND LIMIT GRAPHS

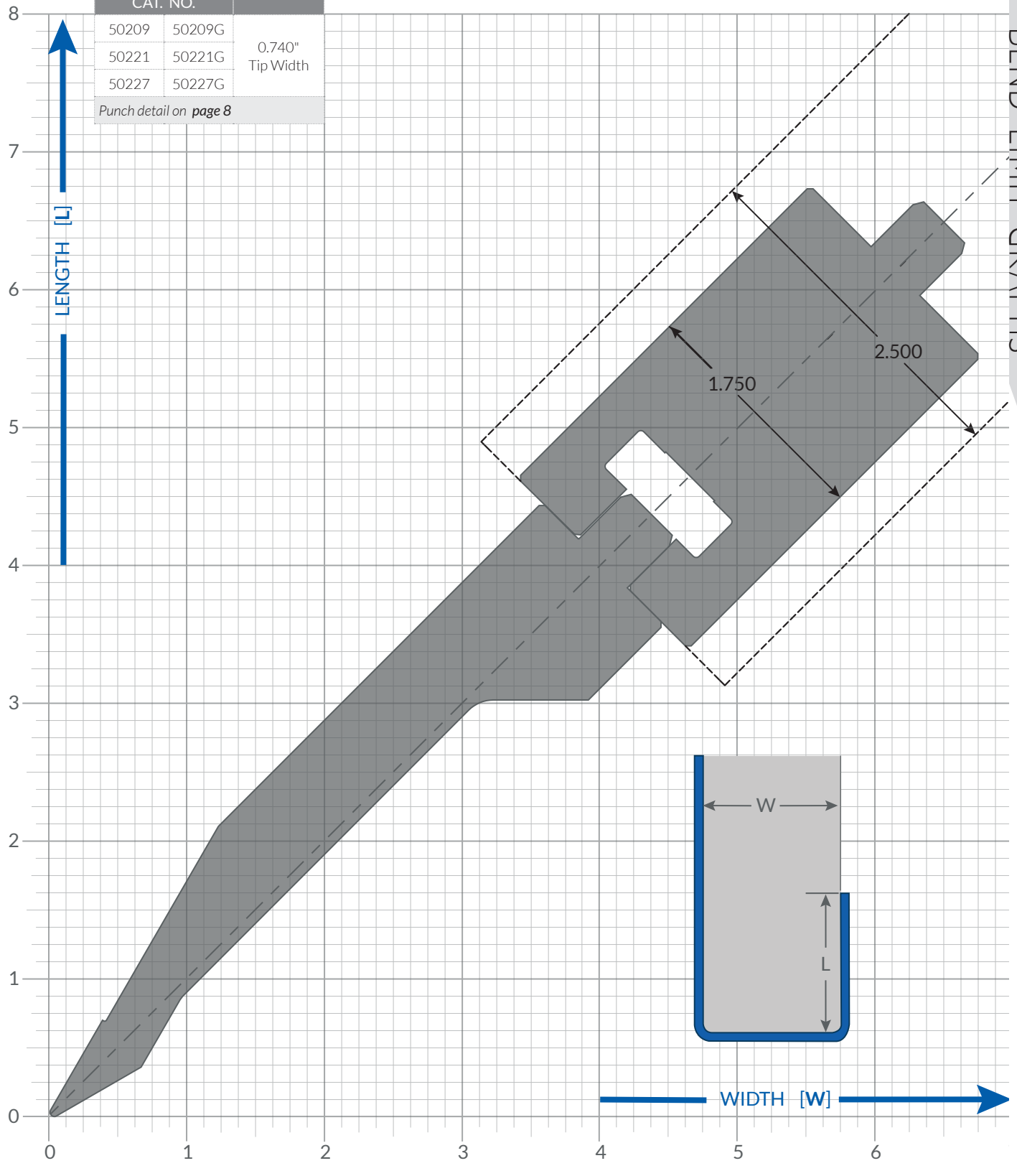
30° ANGLE CAT. NO.		NOTES
50045	50045G	0.780" Tip Width
50046	50046G	
50047	50047G	

Punch detail on ***page 8***



30° ANGLE CAT. NO.		NOTES
50209	50209G	0.740" Tip Width
50221	50221G	
50227	50227G	

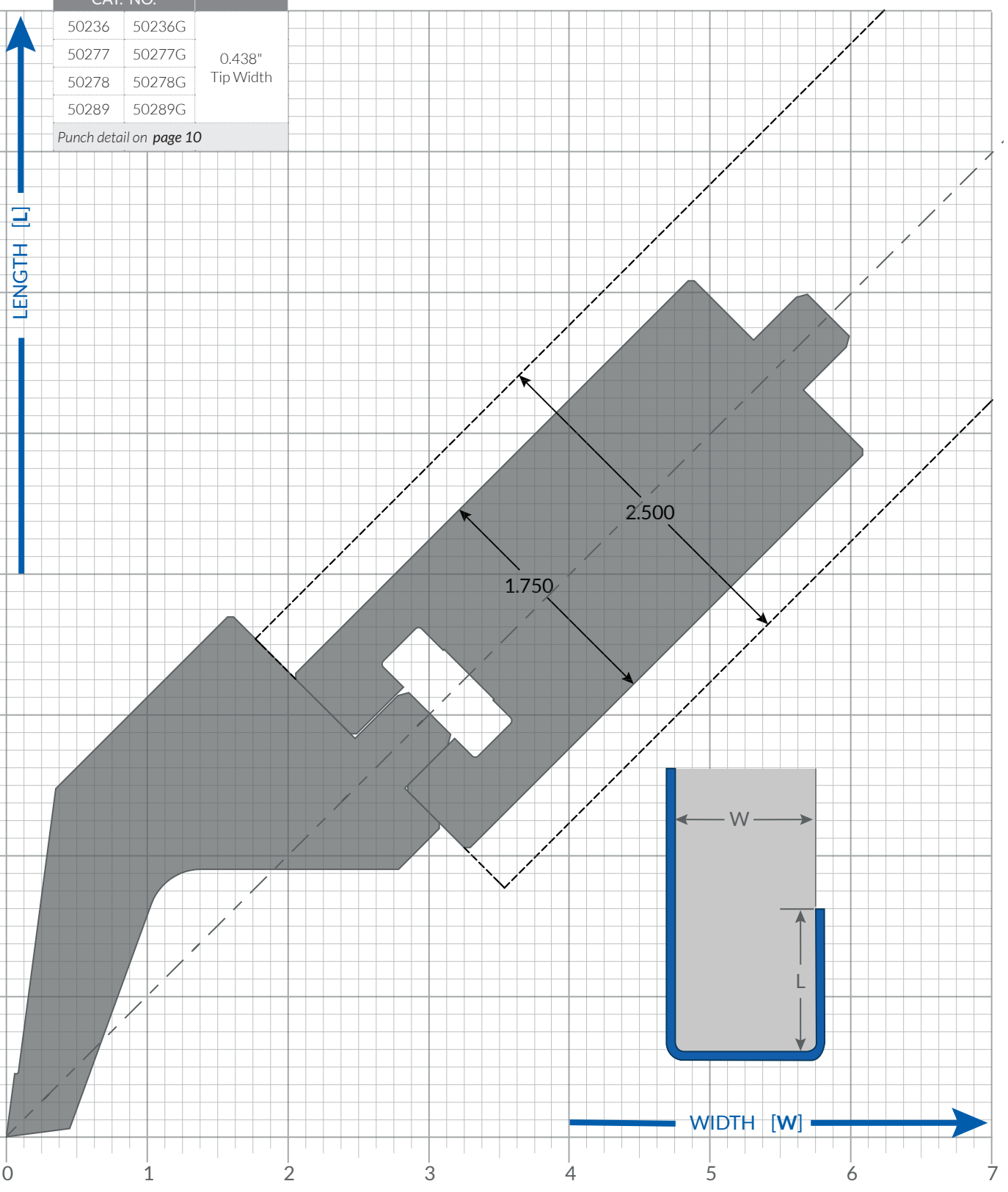
Punch detail on ***page 8***



BEND LIMIT GRAPHS

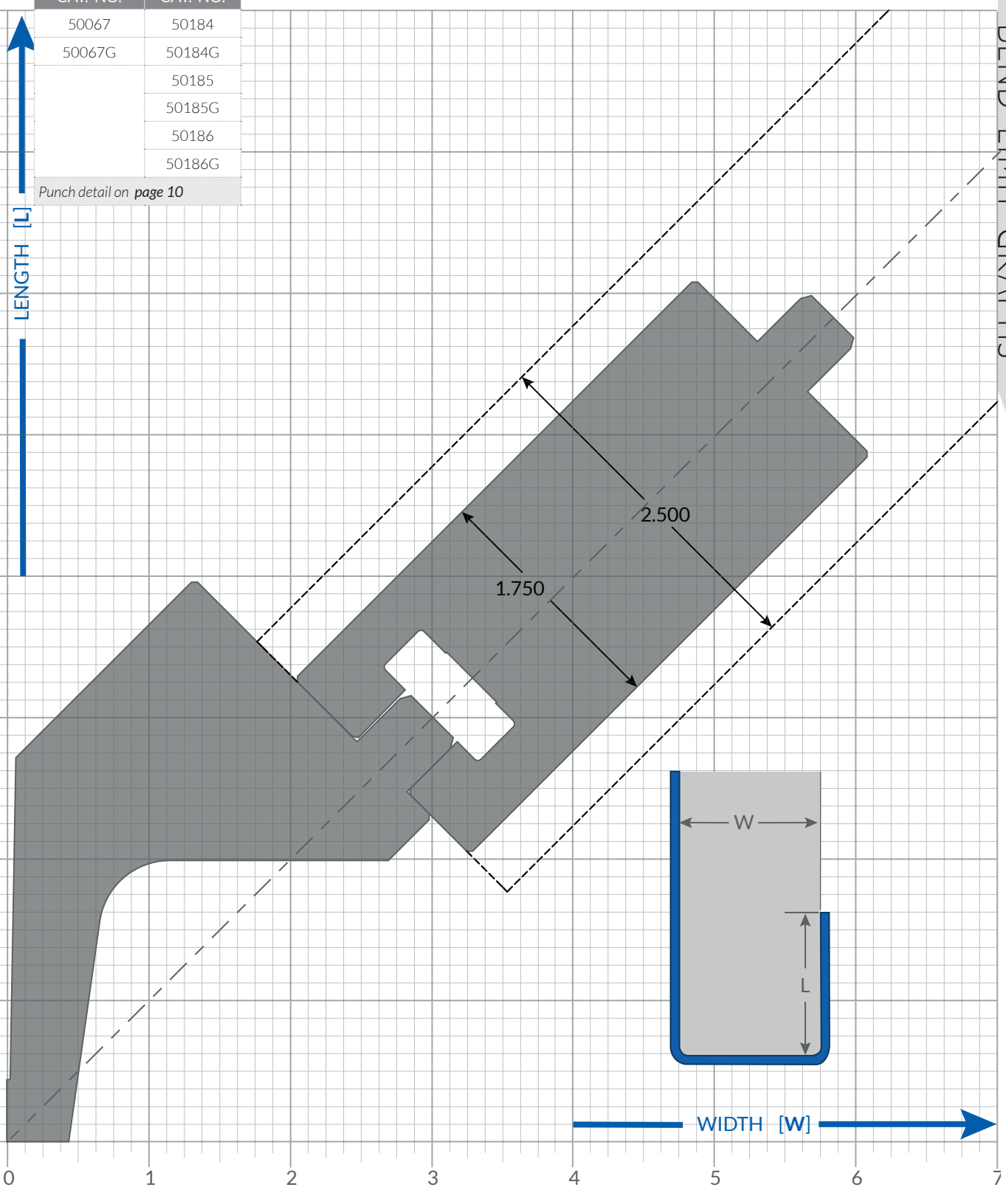
75° ANGLE CAT. NO.		NOTES
50236	50236G	0.438" Tip Width
50277	50277G	
50278	50278G	
50289	50289G	

*Punch detail on **page 10***



90° ANGLE	88° ANGLE
CAT. NO.	CAT. NO.
50067	50184
50067G	50184G
	50185
	50185G
	50186
	50186G

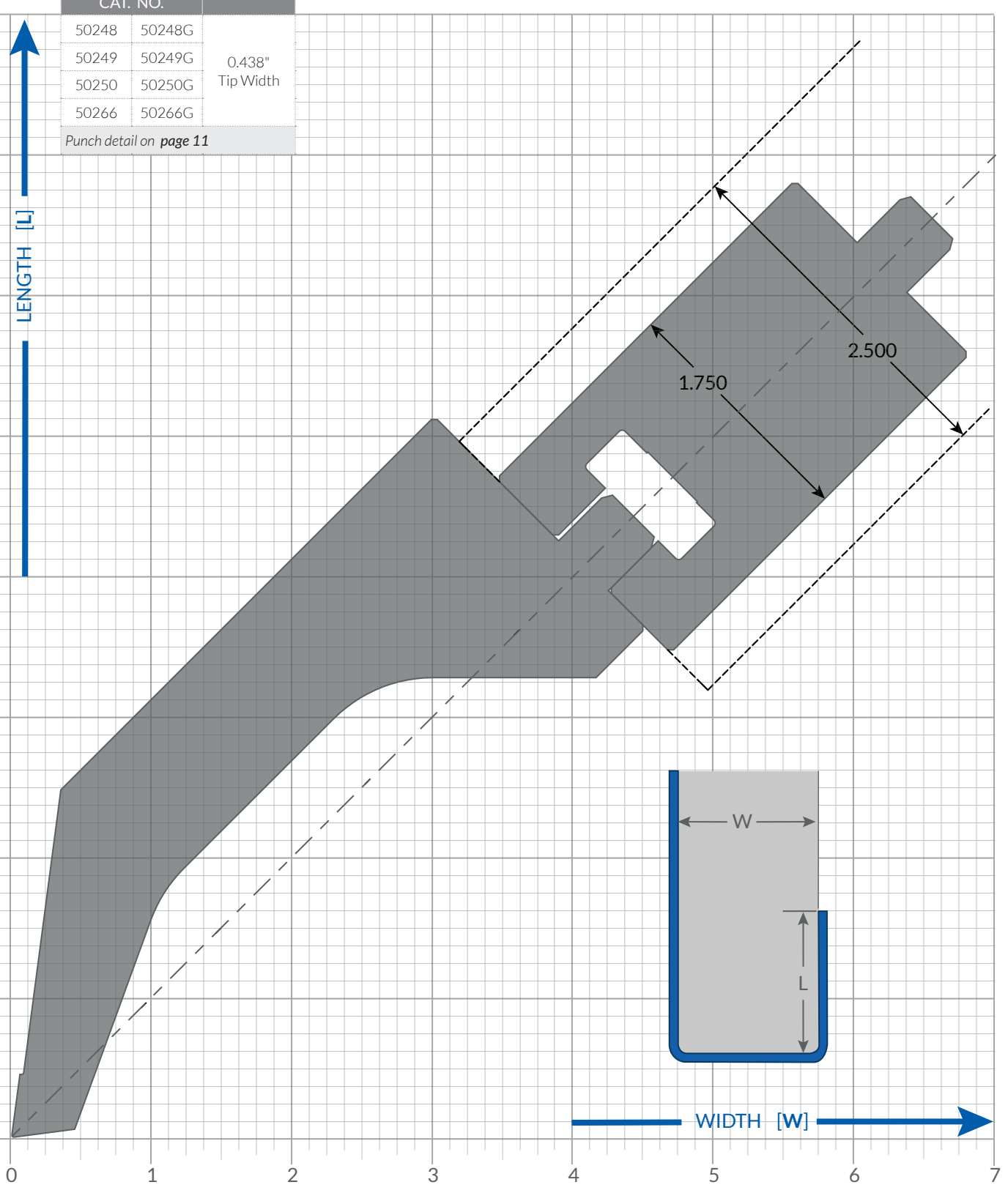
Punch detail on ***page 10***



BEND LIMIT GRAPHS

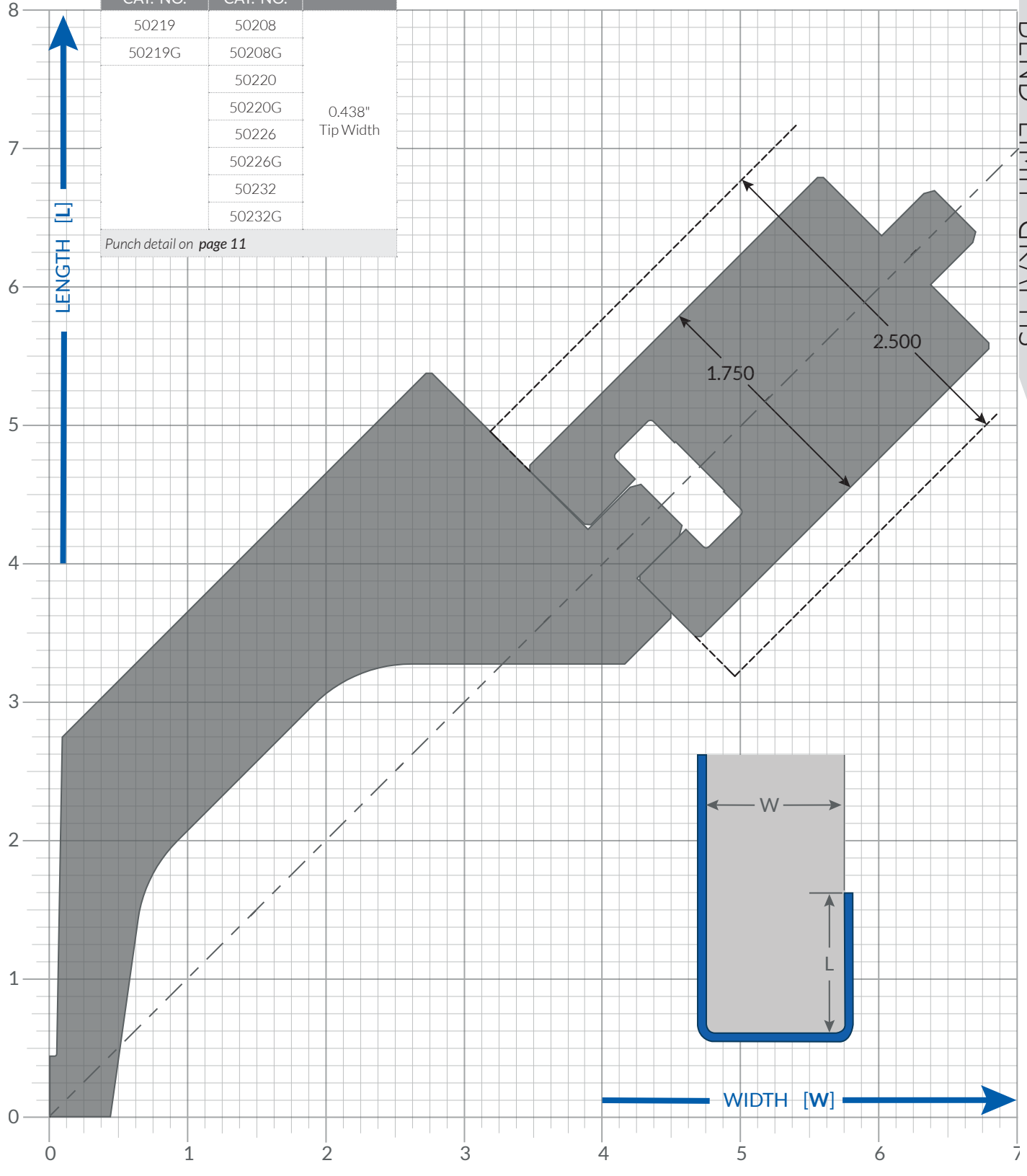
75° ANGLE CAT. NO.		NOTES
50248	50248G	0.438" Tip Width
50249	50249G	
50250	50250G	
50266	50266G	

Punch detail on ***page 11***



90° ANGLE CAT. NO.	88° ANGLE CAT. NO.	NOTES
50219	50208	0.438" Tip Width
50219G	50208G	
	50220	
	50220G	
	50226	
	50226G	
	50232	
	50232G	

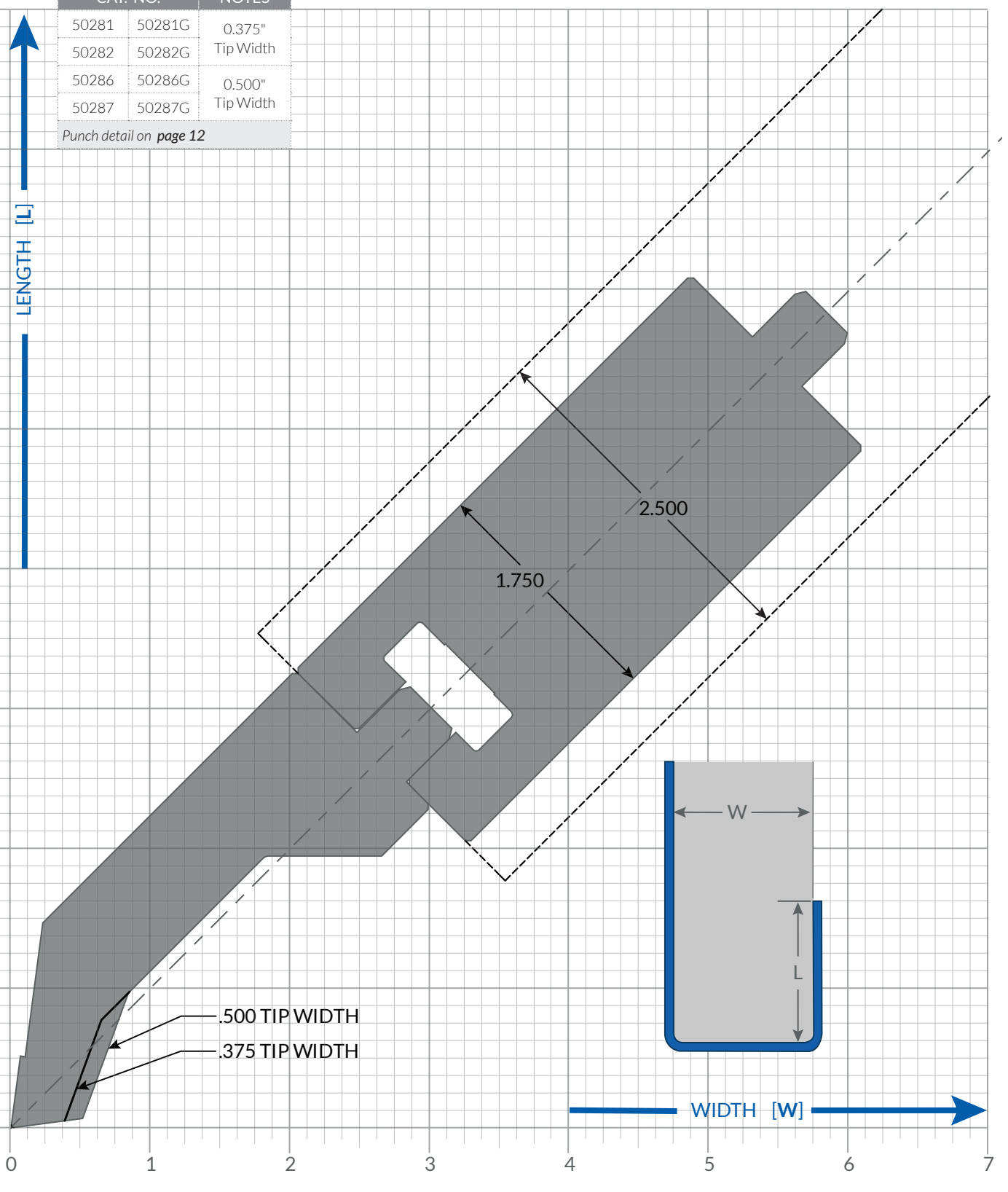
Punch detail on ***page 11***



BEND LIMIT GRAPHS

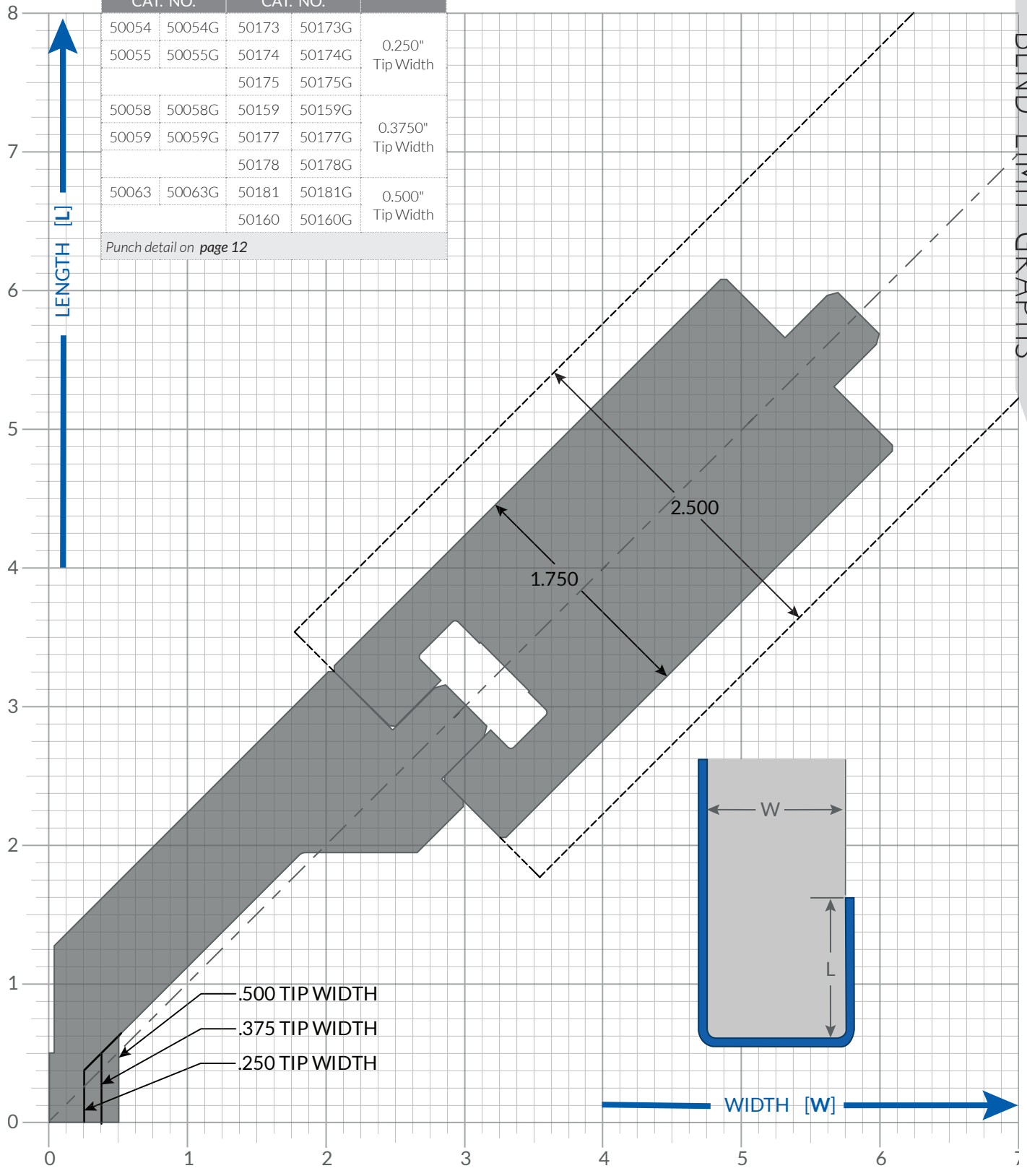
75° ANGLE		
CAT. NO.		NOTES
50281	50281G	0.375" Tip Width
50282	50282G	
50286	50286G	0.500" Tip Width
50287	50287G	

Punch detail on ***page 12***



90° ANGLE CAT. NO.		88° ANGLE CAT. NO.		NOTES
50054	50054G	50173	50173G	0.250" Tip Width
50055	50055G	50174	50174G	
		50175	50175G	
50058	50058G	50159	50159G	0.3750" Tip Width
50059	50059G	50177	50177G	
		50178	50178G	
50063	50063G	50181	50181G	0.500" Tip Width
		50160	50160G	

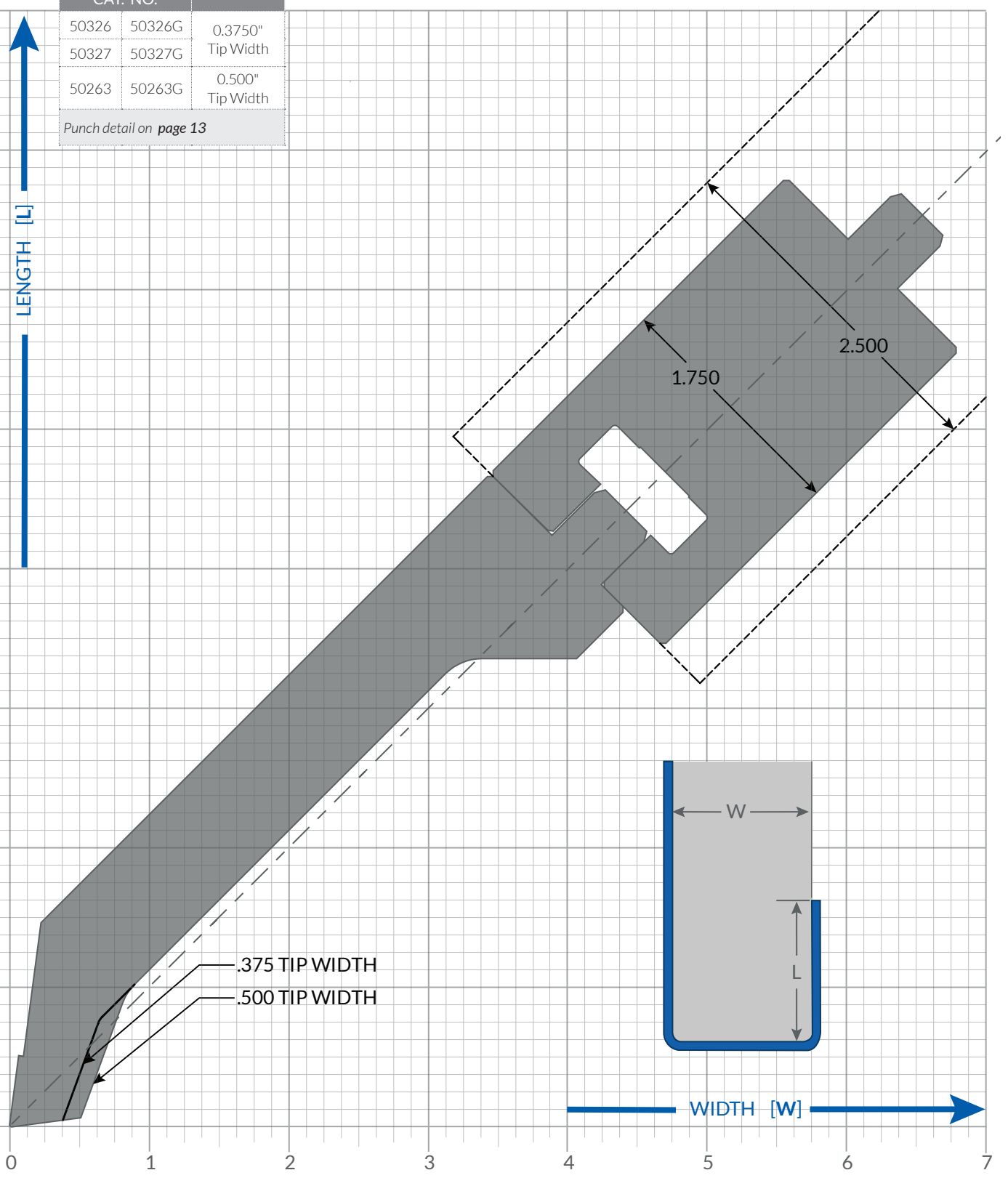
*Punch detail on **page 12***



BEND LIMIT GRAPHS

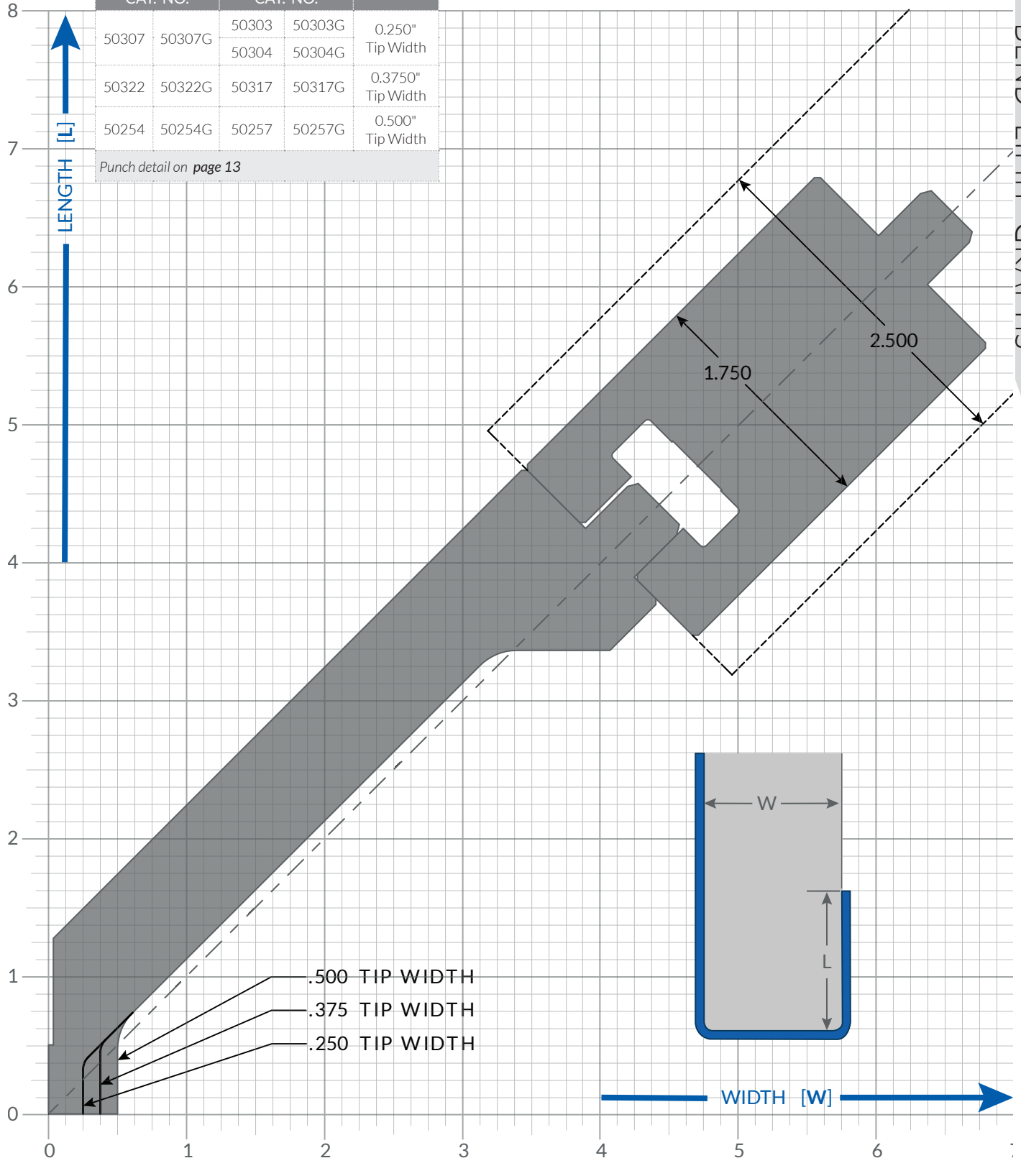
75° ANGLE CAT. NO.		NOTES
50326	50326G	0.3750" Tip Width
50327	50327G	
50263	50263G	0.500" Tip Width

Punch detail on ***page 13***



90° ANGLE CAT. NO.		88° ANGLE CAT. NO.		NOTES
50307	50307G	50303	50303G	0.250" Tip Width
		50304	50304G	
50322	50322G	50317	50317G	0.3750" Tip Width
50254	50254G	50257	50257G	0.500" Tip Width

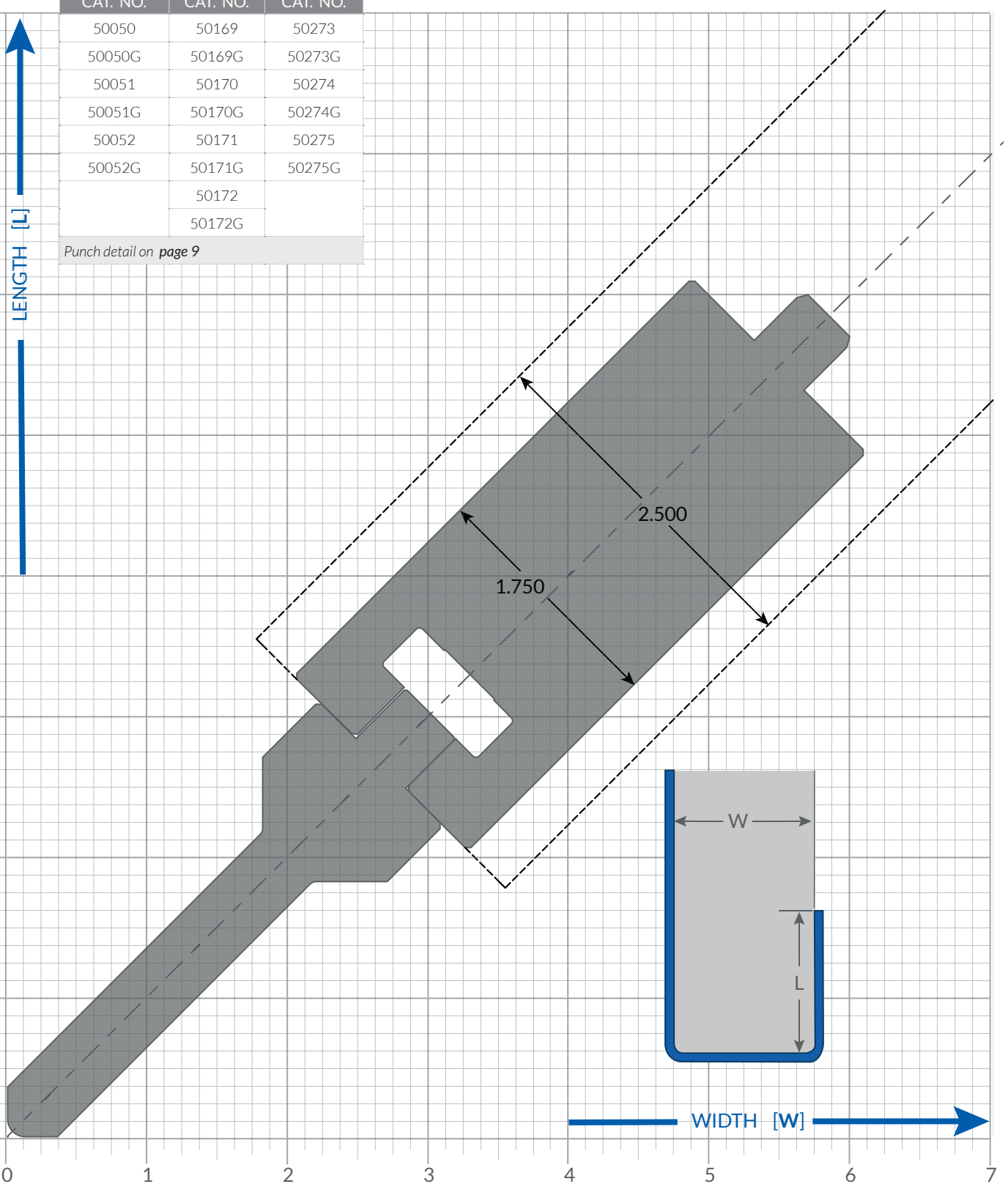
Punch detail on ***page 13***



BEND LIMIT GRAPHS

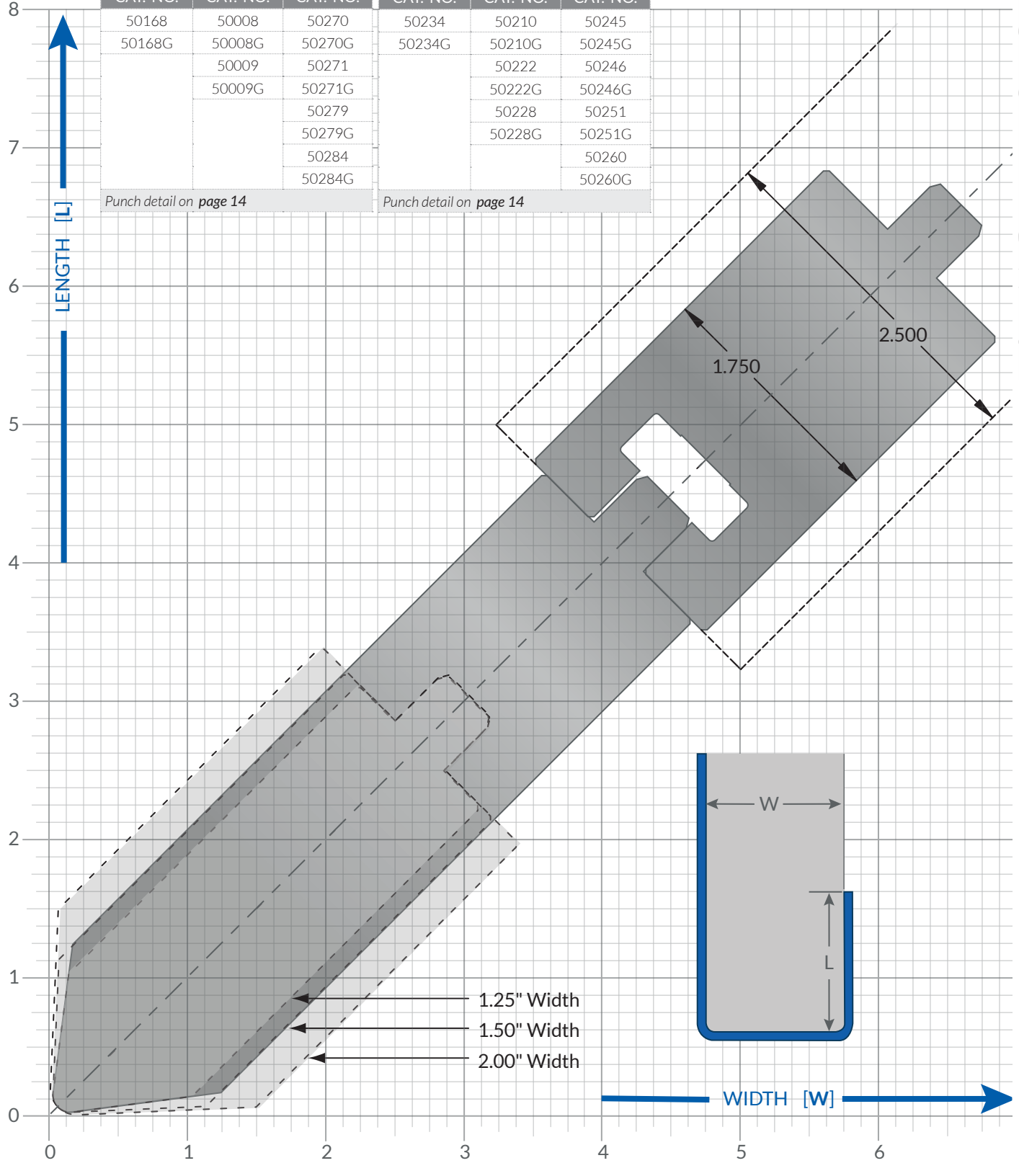
90° ANGLE	88° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50050	50169	50273
50050G	50169G	50273G
50051	50170	50274
50051G	50170G	50274G
50052	50171	50275
50052G	50171G	50275G
	50172	
	50172G	

*Punch detail on **page 9***



3.75" BLOCK PUNCH		
88° ANGLE	85° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50168	50008	50270
50168G	50008G	50270G
	50009	50271
	50009G	50271G
		50279
		50279G
		50284
		50284G
Punch detail on ***page 14***		

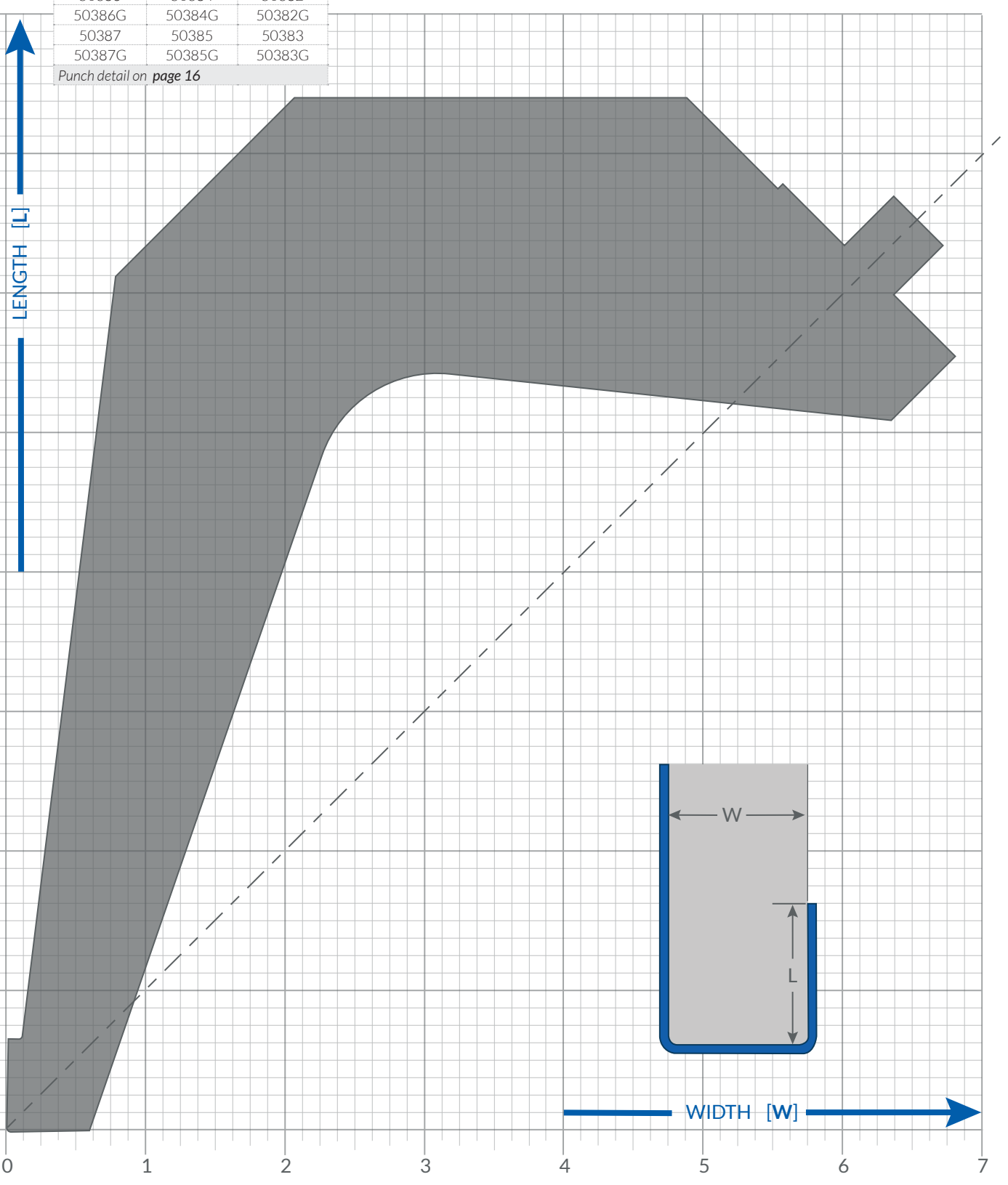
5.75" BLOCK PUNCH		
88° ANGLE	85° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50234	50210	50245
50234G	50210G	50245G
	50222	50246
	50222G	50246G
	50228	50251
	50228G	50251G
		50260
		50260G
Punch detail on ***page 14***		



BEND LIMIT GRAPHS

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

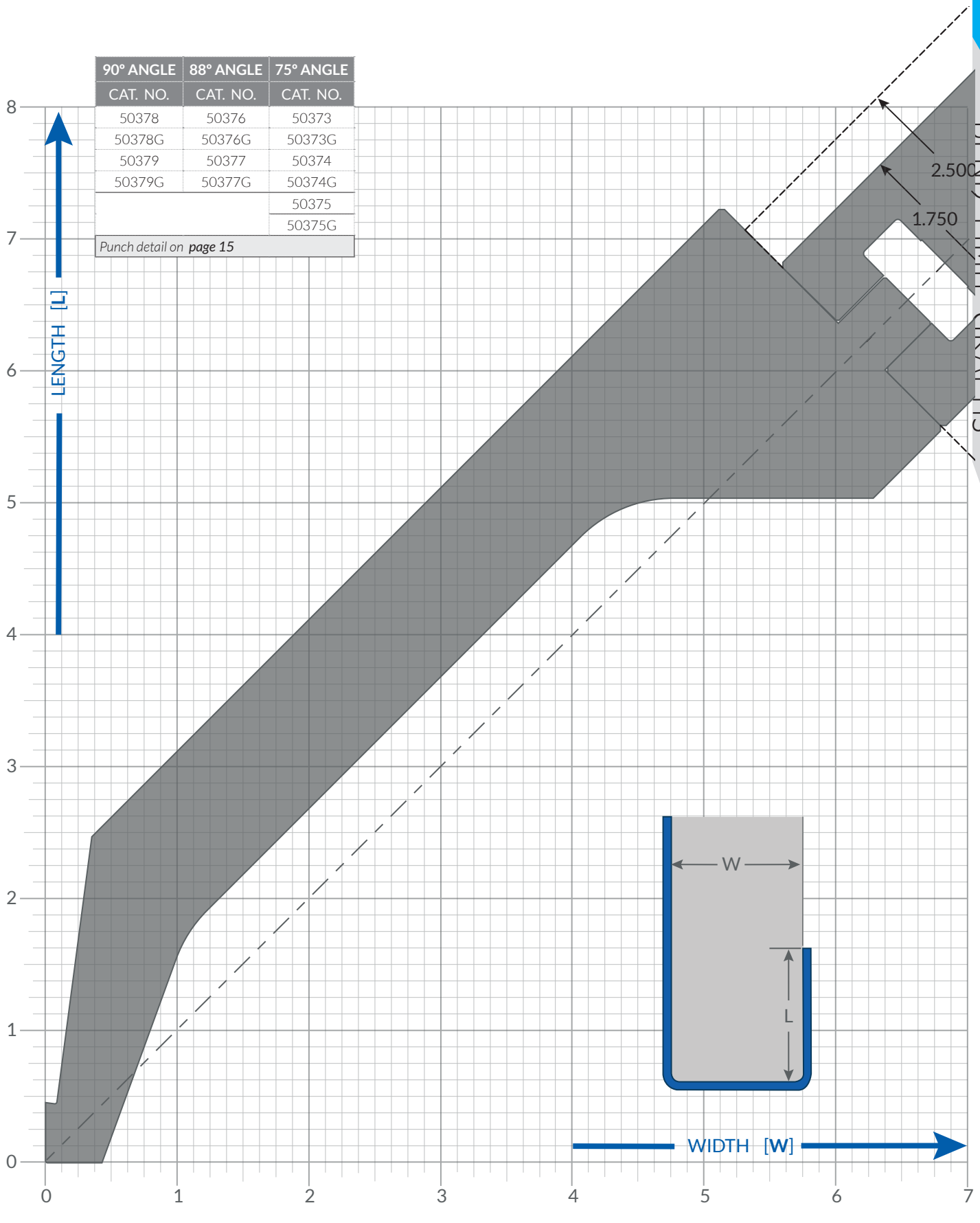
Punch detail on ***page 16***



BEND LIMIT GRAPHS

90° ANGLE	88° ANGLE	75° ANGLE
CAT. NO.	CAT. NO.	CAT. NO.
50378	50376	50373
50378G	50376G	50373G
50379	50377	50374
50379G	50377G	50374G
		50375
		50375G

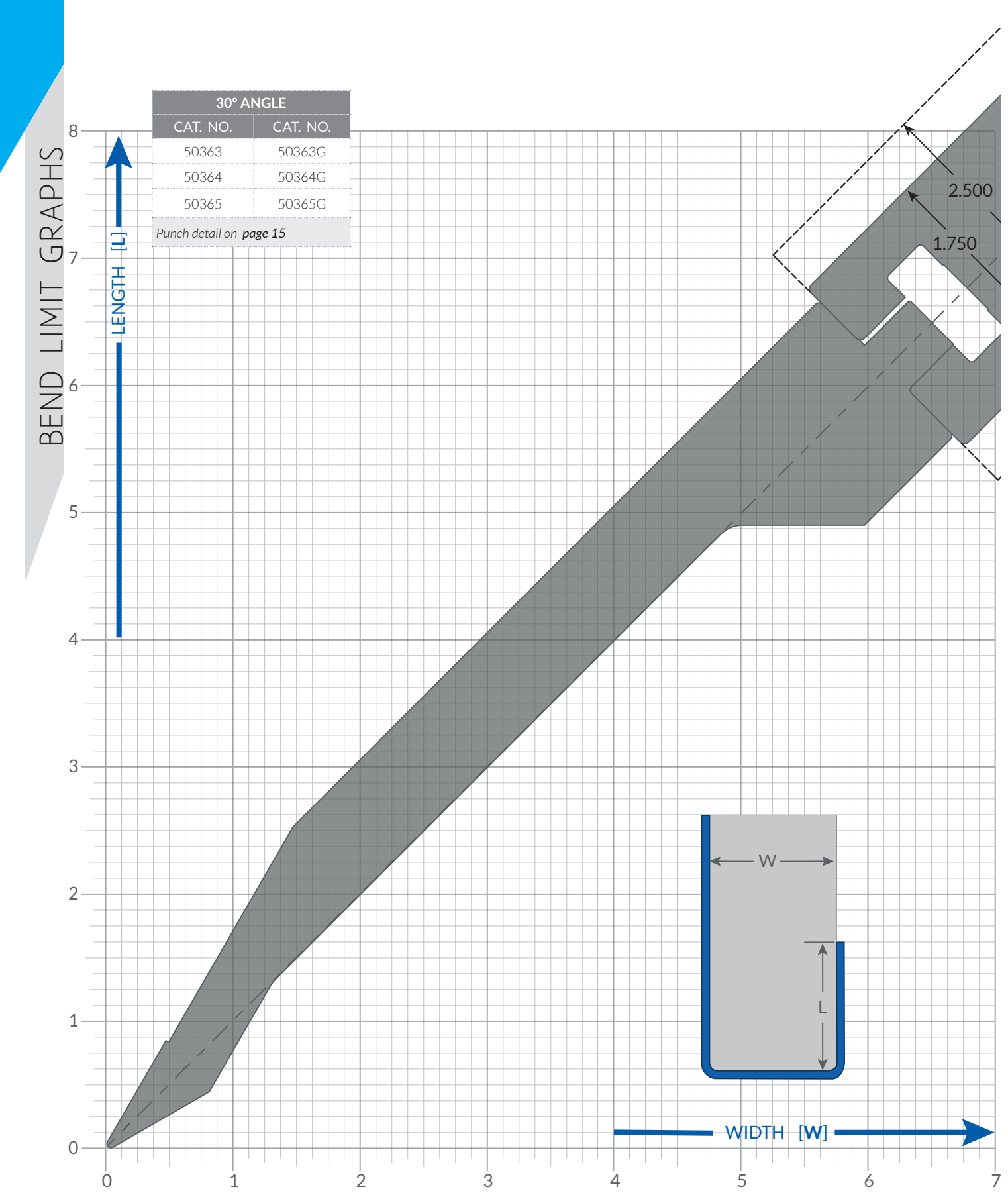
*Punch detail on **page 15***

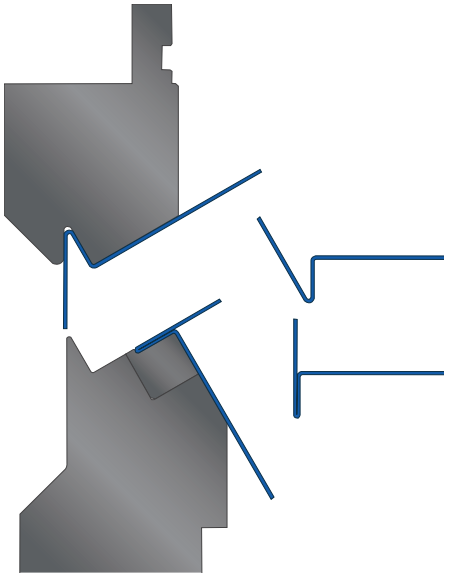


BEND LIMIT GRAPHS

30° ANGLE	
CAT. NO.	CAT. NO.
50363	50363G
50364	50364G
50365	50365G

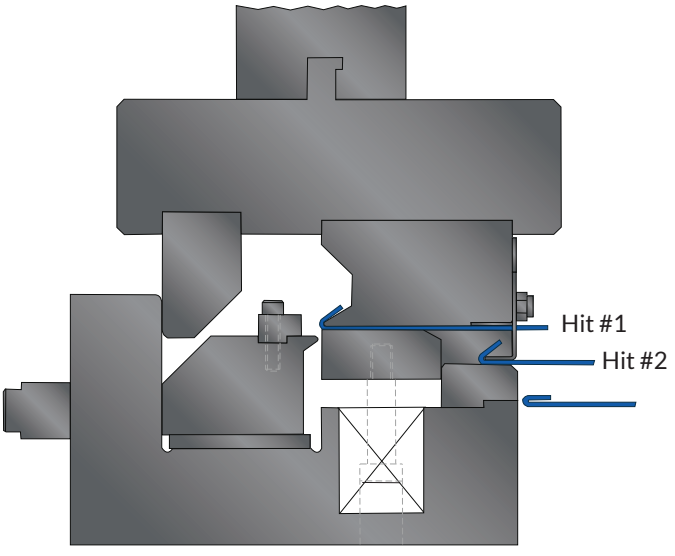
Punch detail on ***page 15***



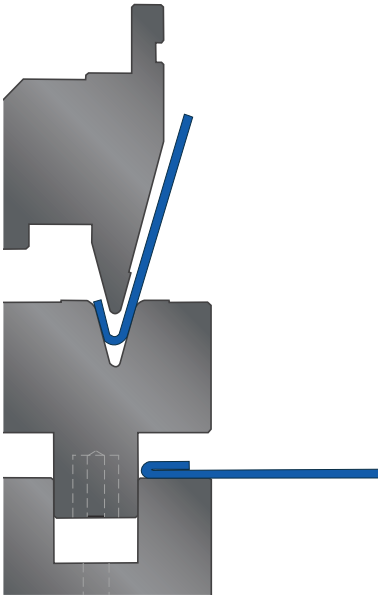


AH1 ANGLE HEM

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

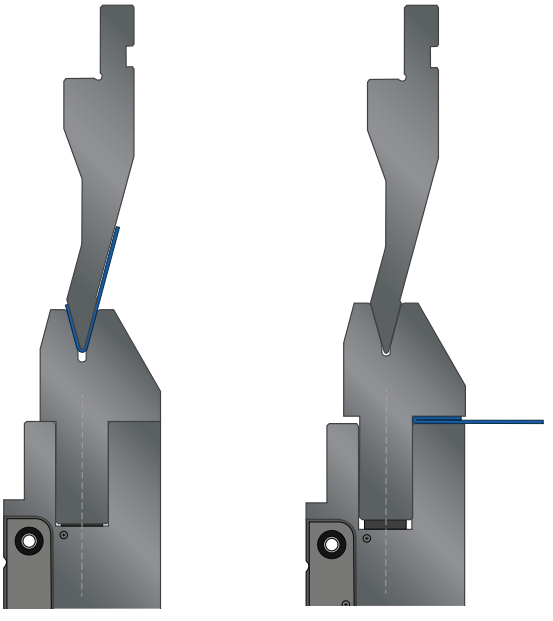


FSH1 FLAT SHEET HEM



HDH1 HEAVY DUTY HEM

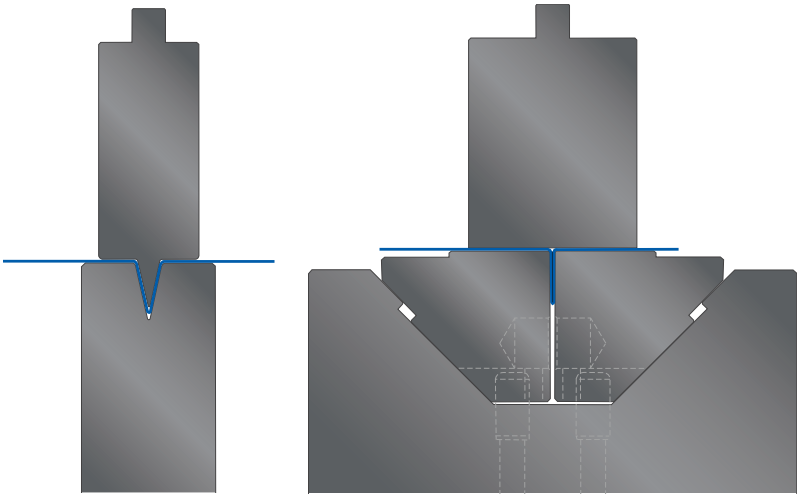
Heavy Duty Hemming for thick gauge applications.



See this tool in action on the Wilson Tool YouTube Channel

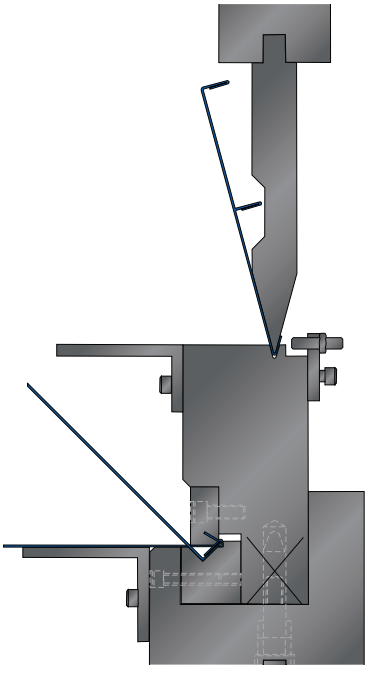
PH1 PNEUMATIC HEM

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



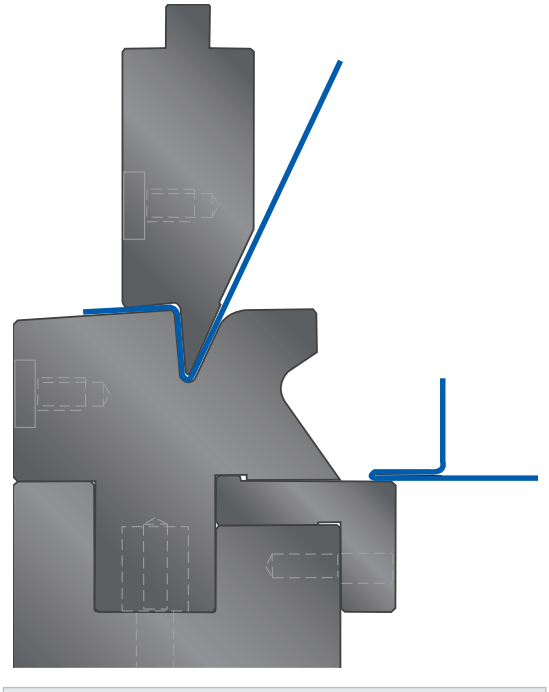
SH1 SEAM HEM

Two tool sets.
Two machine strokes.



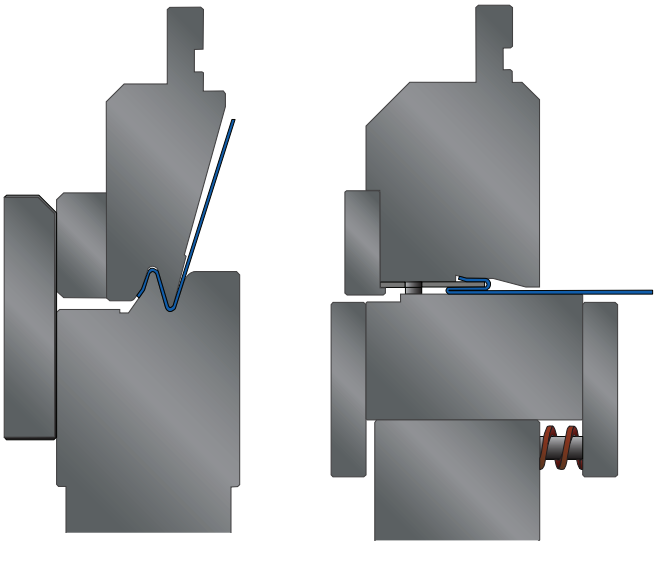
SSH2 STANDING SEAM HEM

See this tool in action on the Wilson Tool YouTube Channel



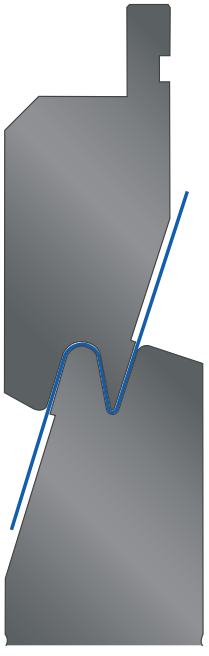
SSH1 STANDING SEAM HEM

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

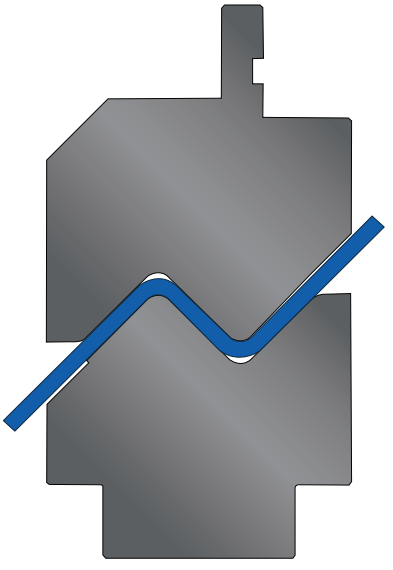


ZH1 Z HEM

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

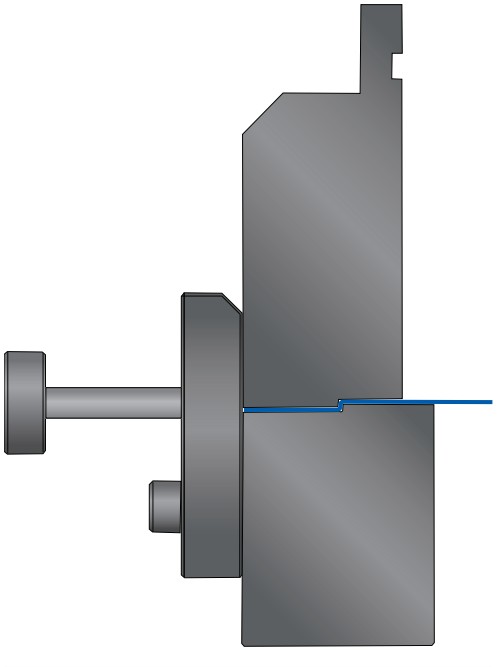


AO1 ANGLED OFFSET



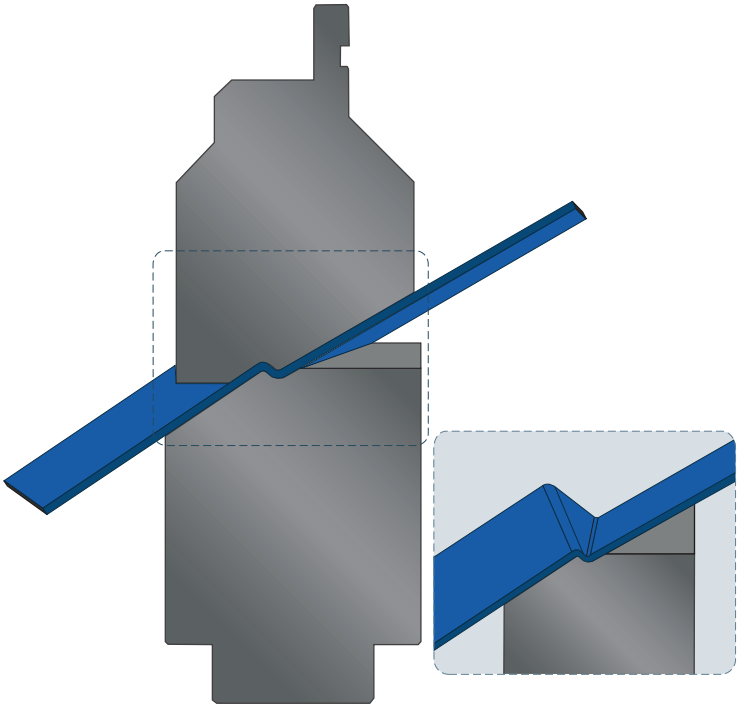
LO1 LARGE OFFSET

Used for heavy gauge, large offset bending.



HO1 HORIZONTAL OFFSET

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

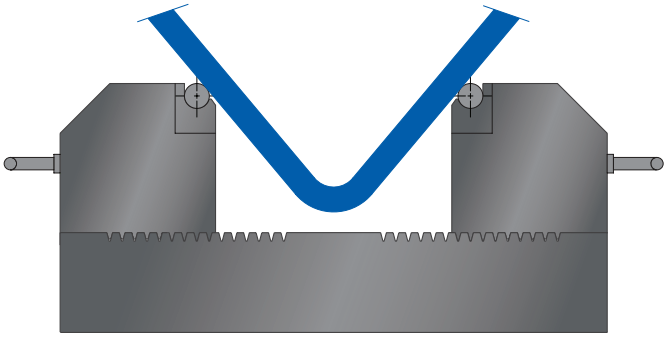


NPO1 NON PARALLEL OFFSET

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

ADJUSTABLE DIE

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



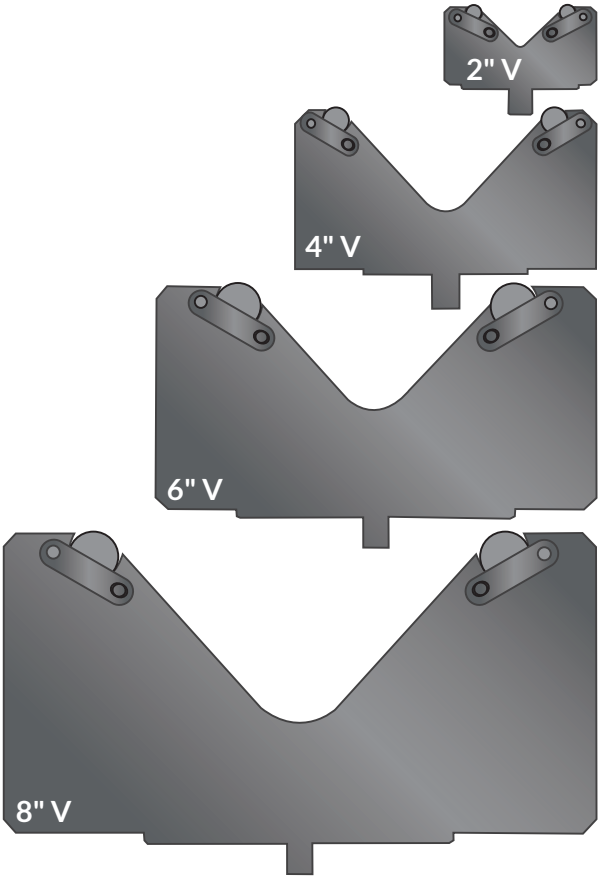
See this tool in action on the Wilson Tool YouTube Channel

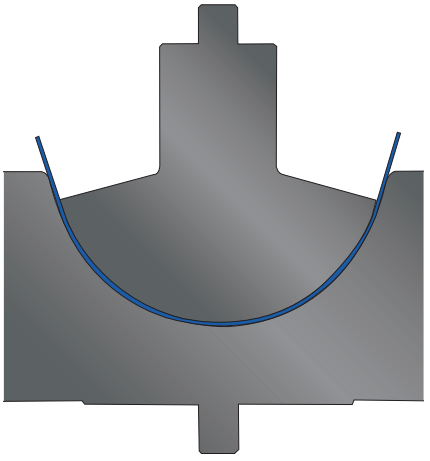
REPLACEABLE SHOULDER DIE

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

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

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

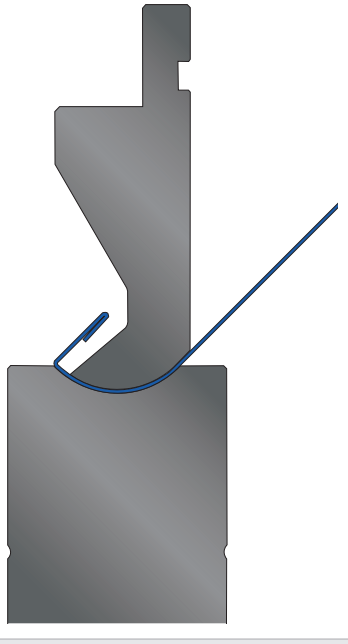




LR1 LARGE RADIUS

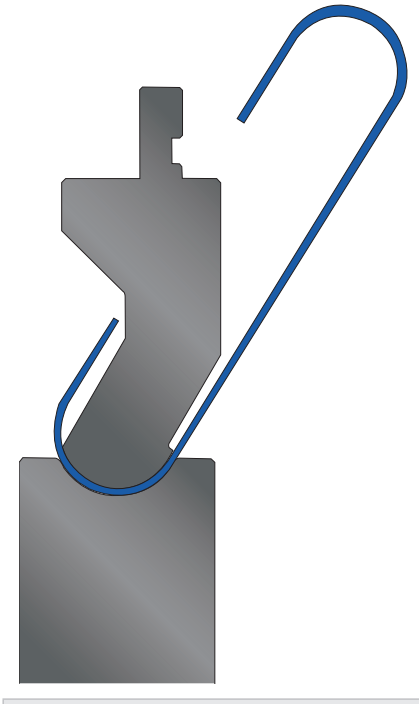
Bottoming radius set with spring-back allowance built in. It is manufactured to form a radius in a specific type and thickness of material for tight tolerance requirements.

See this tool in action on the Wilson Tool YouTube Channel



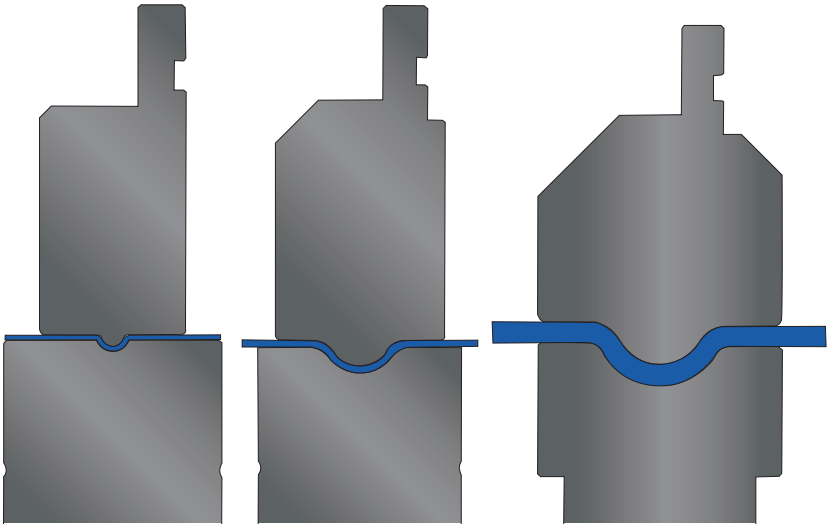
LR2 MULTI-HIT RADIUS

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



LR3 MULTI-HIT RADIUS

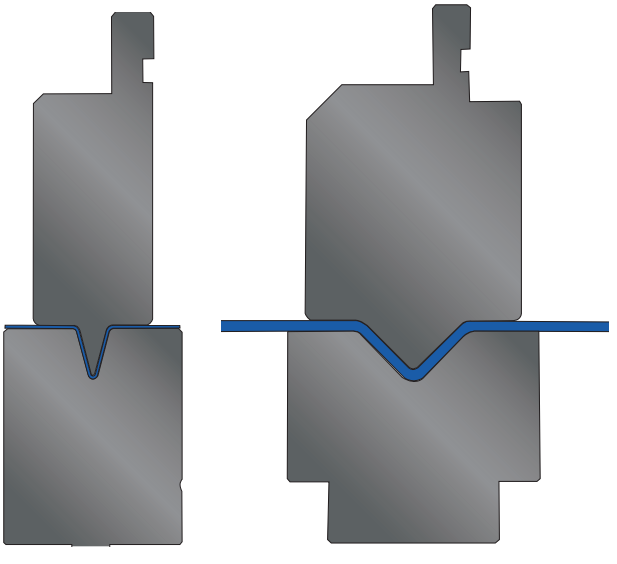
Used when the return flange starts at the radius end. The solution may require multiple strokes.



SR1 STRENGTHENING RIB

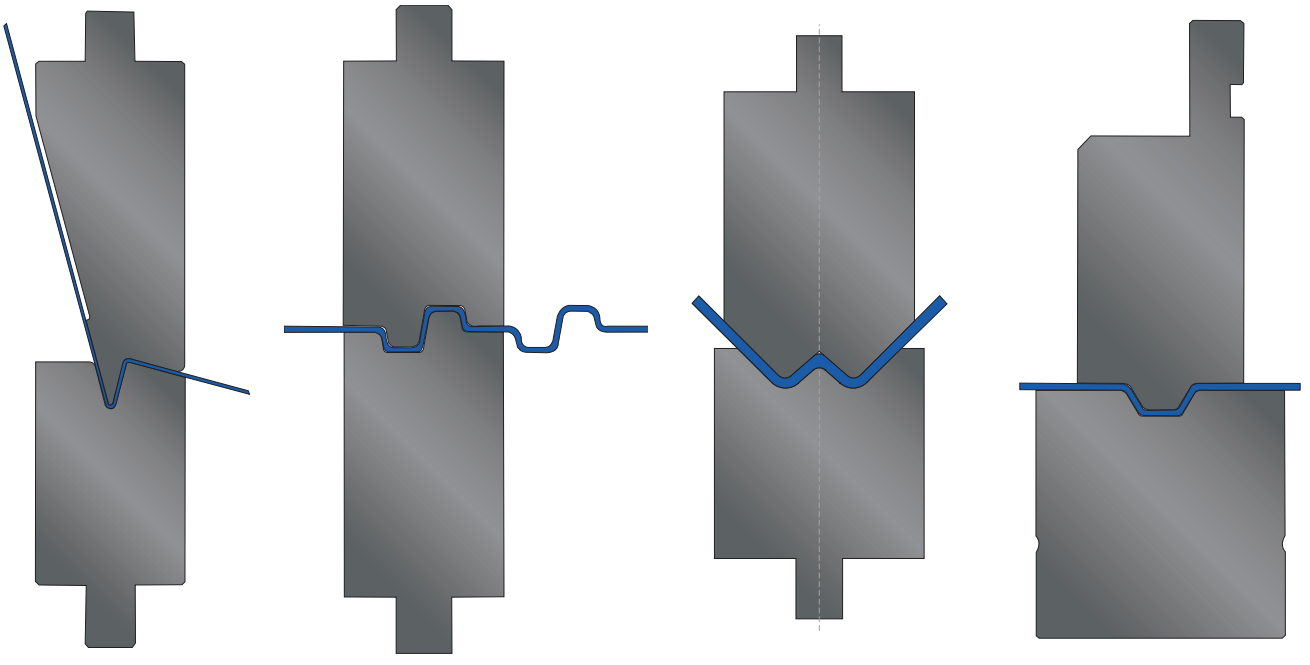
Produce a strengthening rib in one stroke. Spring back allowance is built in. Closed end and open end ribs are available.

See this tool in action on the Wilson Tool YouTube Channel



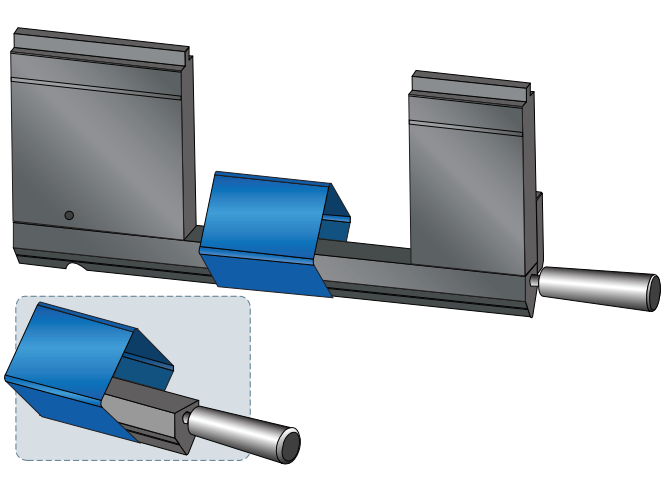
VR1 V RIB

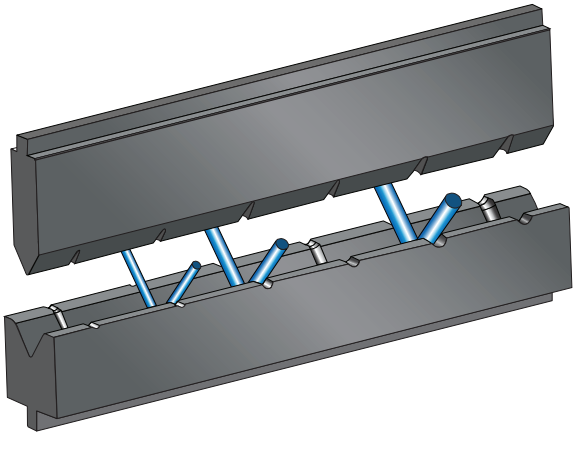
Produce a V rib in one stroke. Spring back allowance is built in.



FM1 FORMING | **FM2 FORMING** | **FM3 FORMING** | **OH1 OPEN HAT**

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





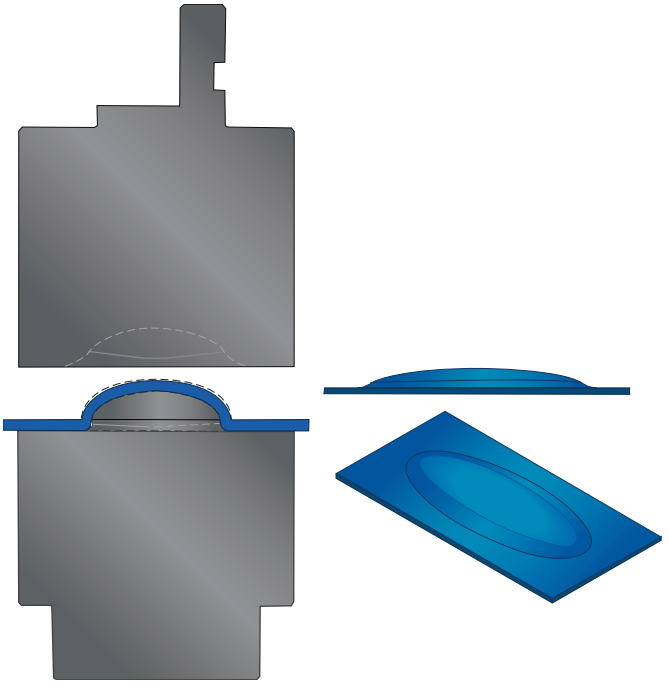
W1 WINDOW

Used when minimum return flange clearance is required.

See this tool in action on the Wilson Tool YouTube Channel

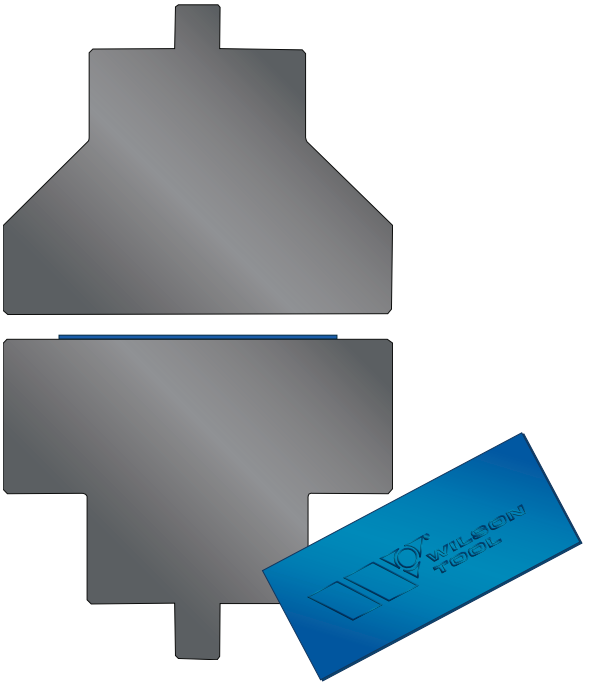
RB1 ROD BENDING

Provides nesting for the rod during the forming process.

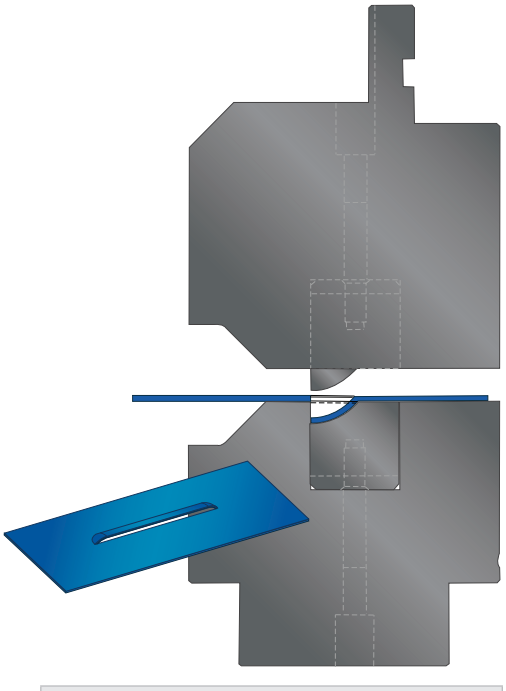


EM1 EMBOSS

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

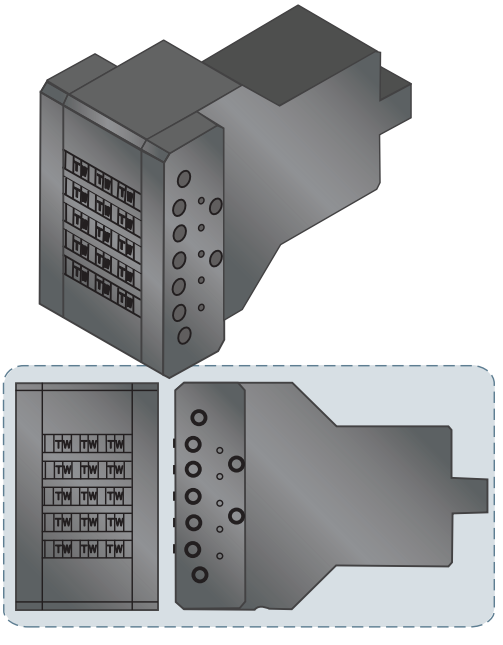


LG1 LOGO



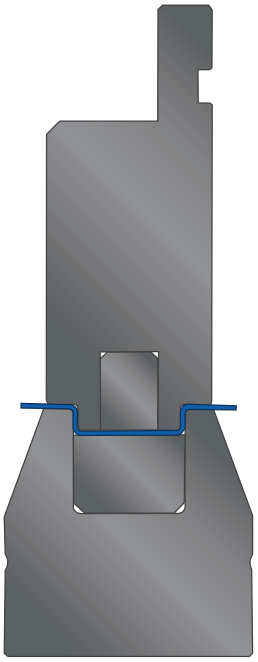
LL1 LOUVER

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



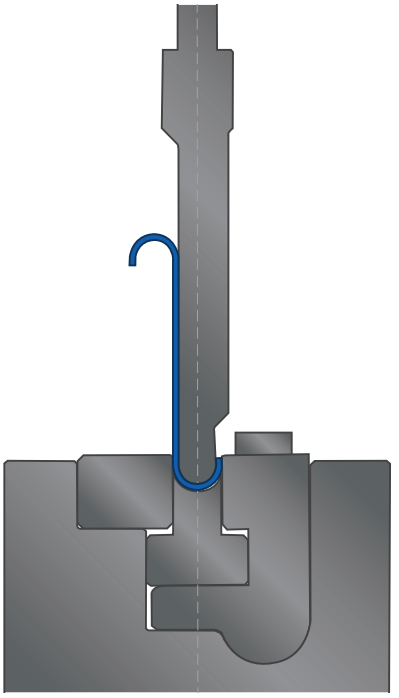
LS1 LETTERSTAMP

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



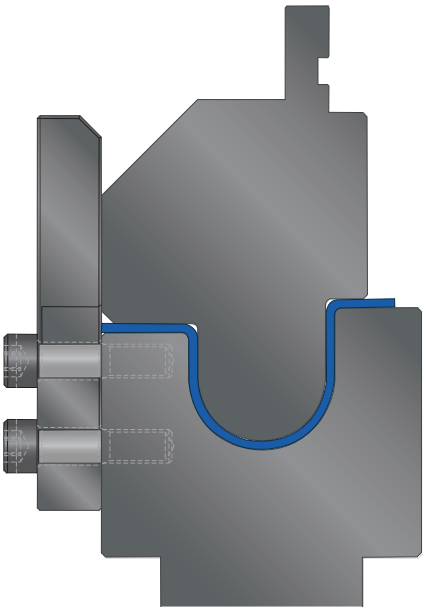
HT1 HAT CHANNEL

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



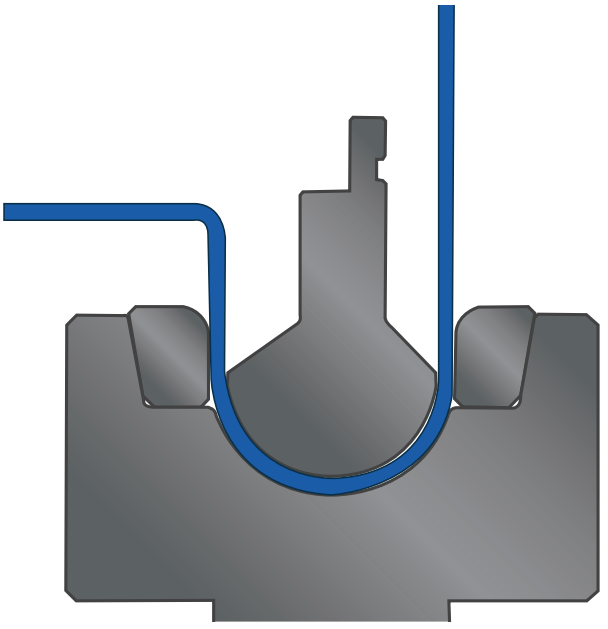
UC1 U CHANNEL

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



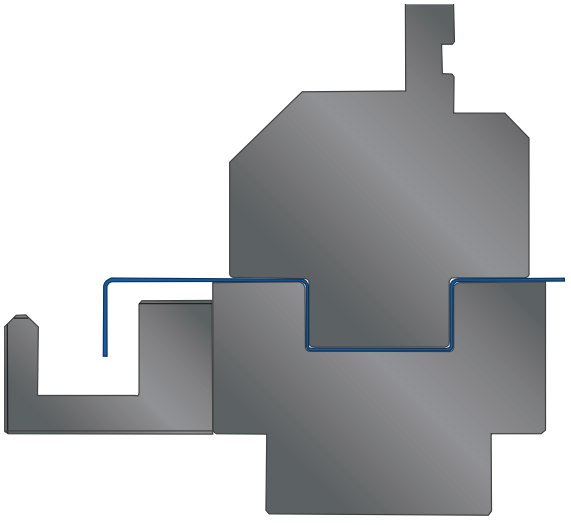
UC2 U CHANNEL

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

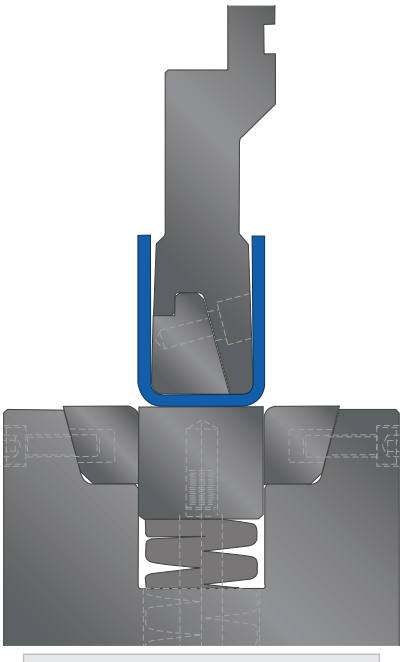


UC3 U CHANNEL

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

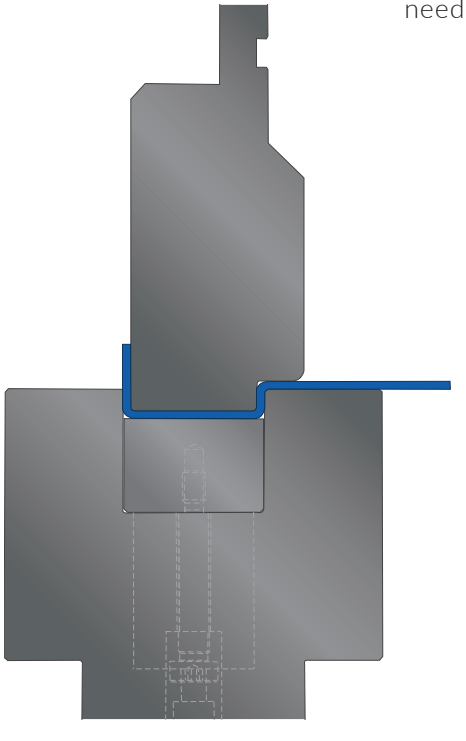


C1 CHANNEL

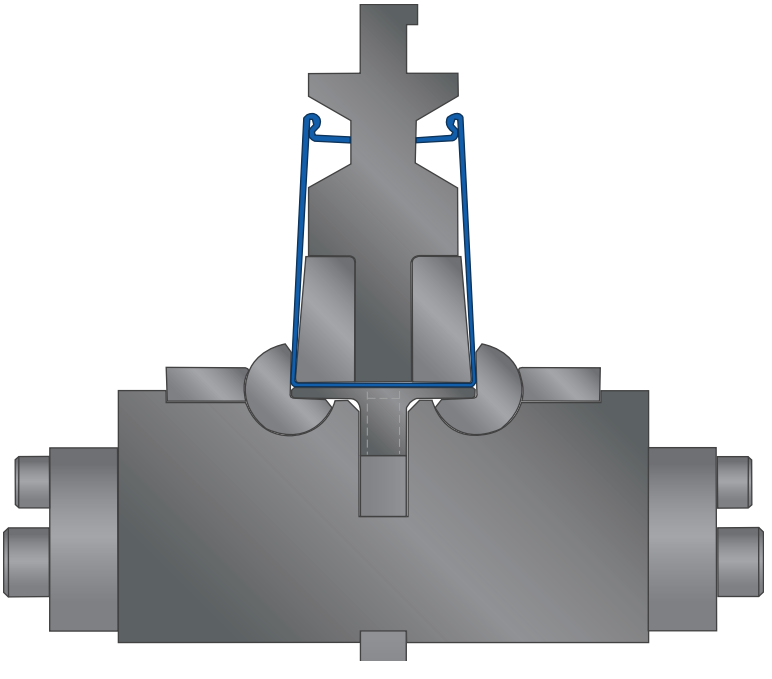


C2 CHANNEL

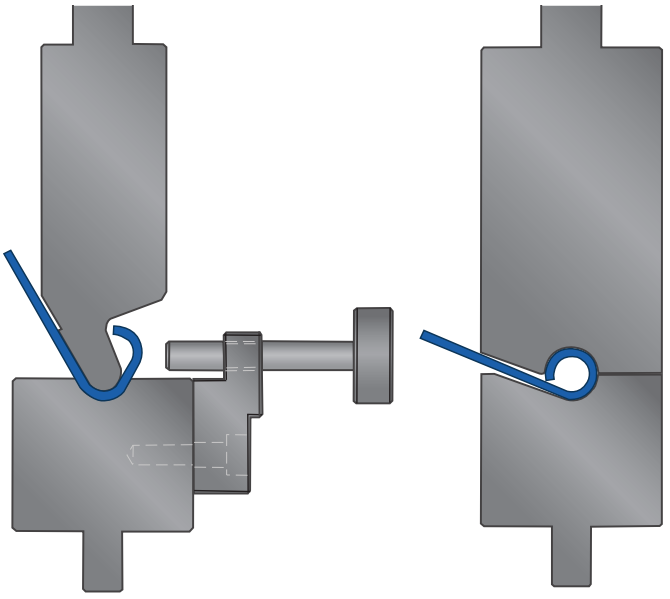
These applications are for deep channels when the channel bottom needs to remain flat.



C3 CHANNEL

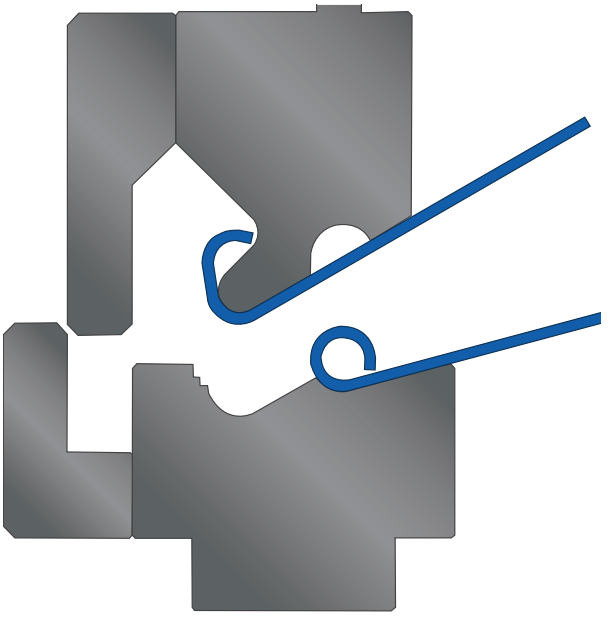


C4 ROTARY BEND CHANNEL



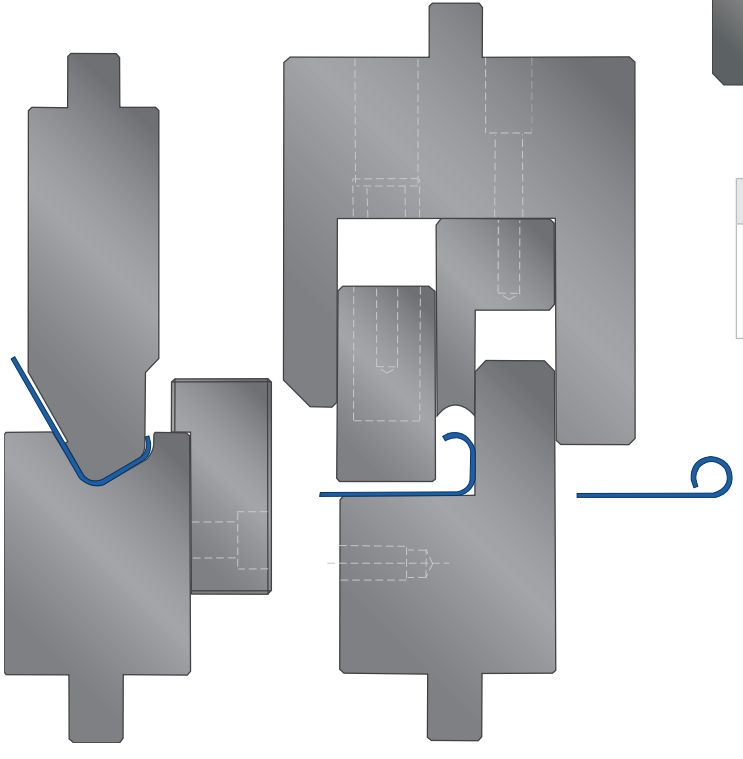
CL1 CURL TOOL SET

2 tool sets, 3 machine strokes.



CL2 CURL TOOL SET

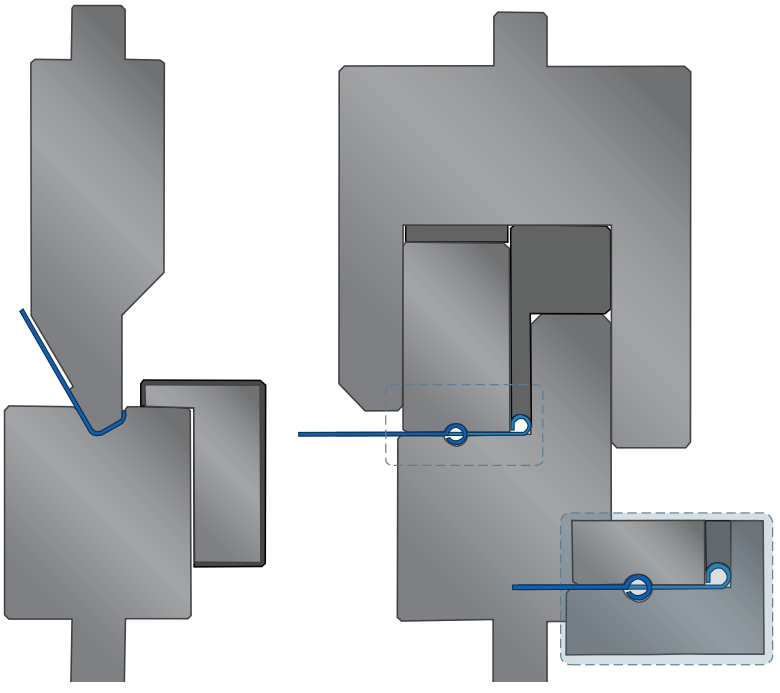
Typically used for thick materials and large diameter curls. 1 tool set, 3 machine strokes.



CL3 CURL

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

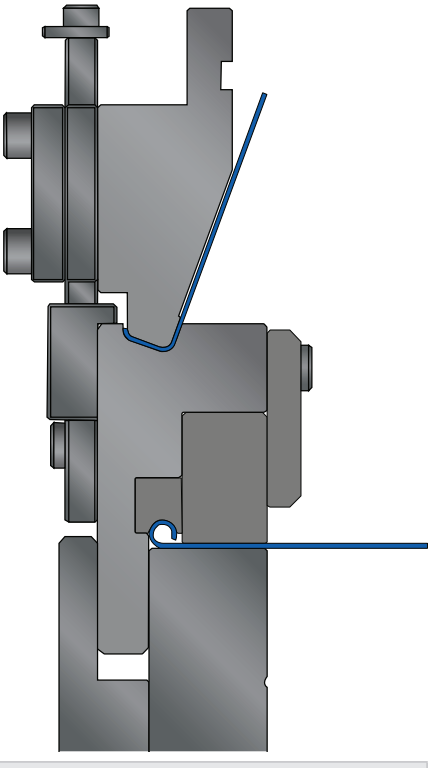
See this tool in action on the Wilson Tool YouTube Channel



CL4 CENTER CURL APPLICATION

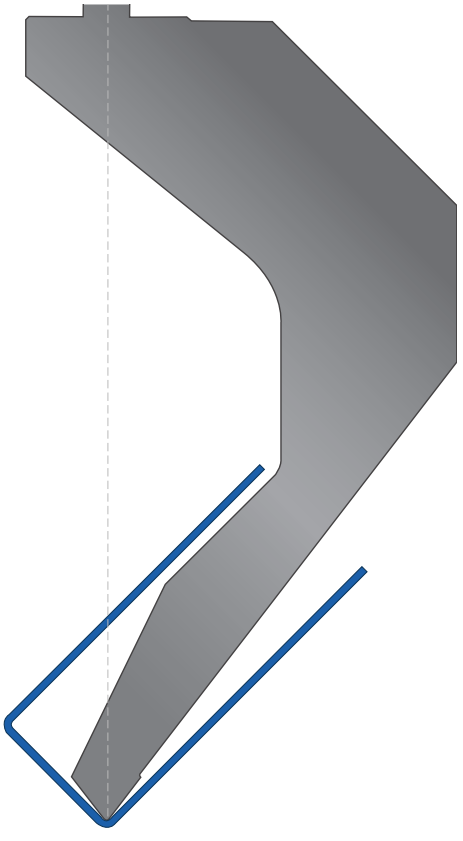
2 tool sets, 3 machine strokes.

See this tool in action on the Wilson Tool YouTube Channel

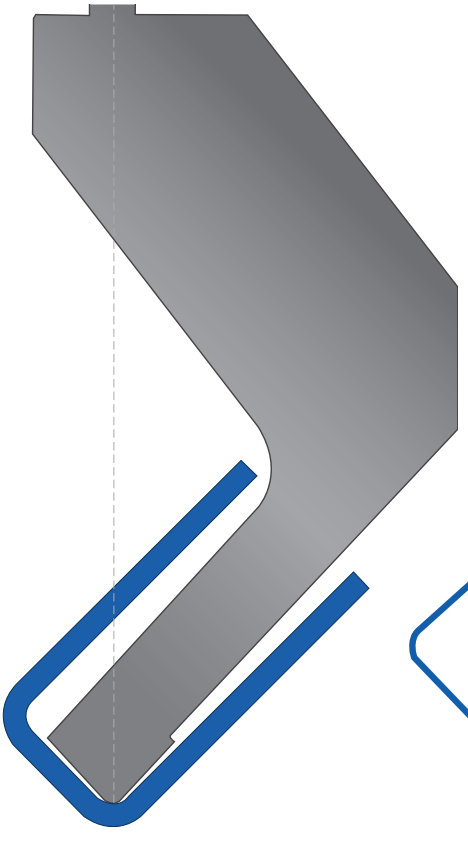


CL5 DOUBLE DECKER TOOL SET

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

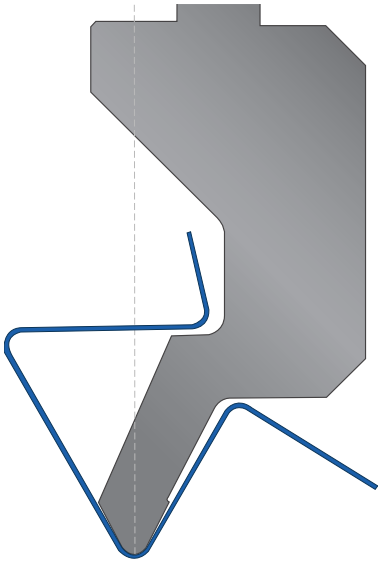


PR1

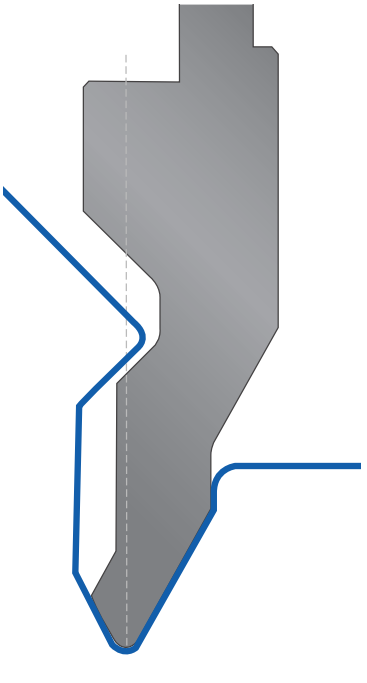


PR2

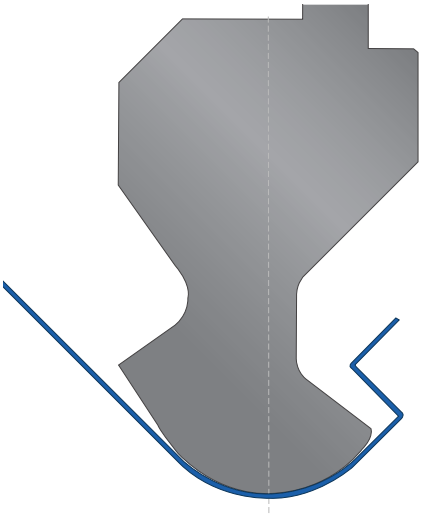
PR3



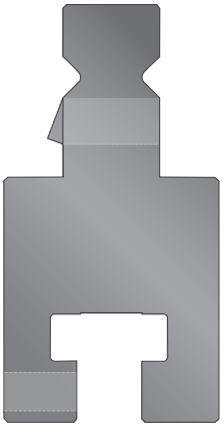
PR4



PR5



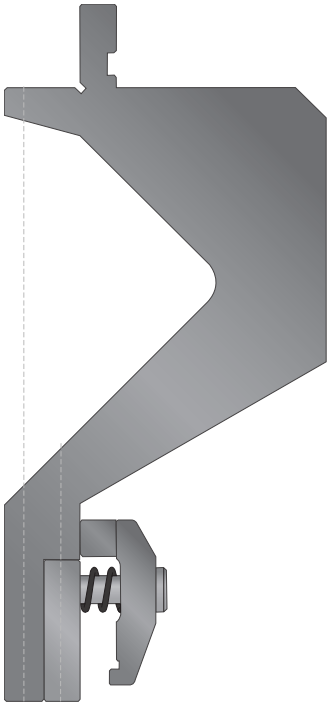
PR6



WT - AMERICAN

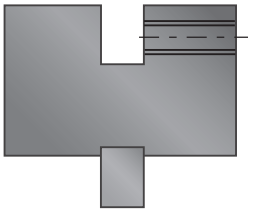
AMERICAN SELF-SEAT HOLDER

AMERICAN DEEP GOOSENECK HOLDER

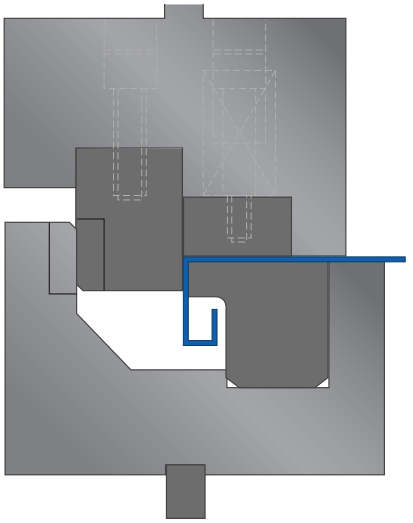


EURO Z1 OR Z2 CLAMPING

Cat. No. 43002



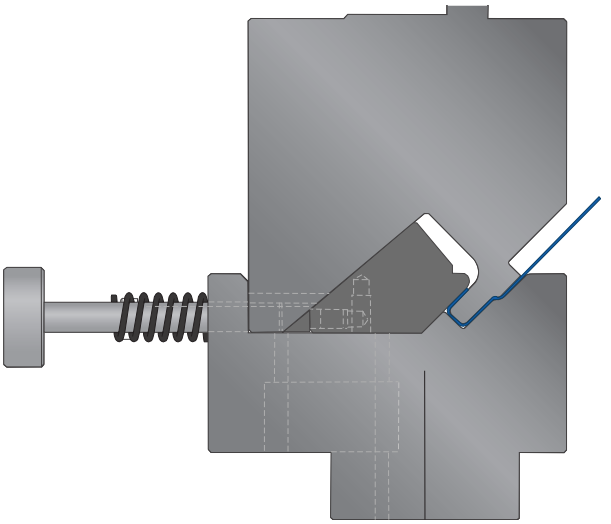
DIE HOLDER



WD1 WIPE DOWN

Holds the sheet flat while wiping the flange down.

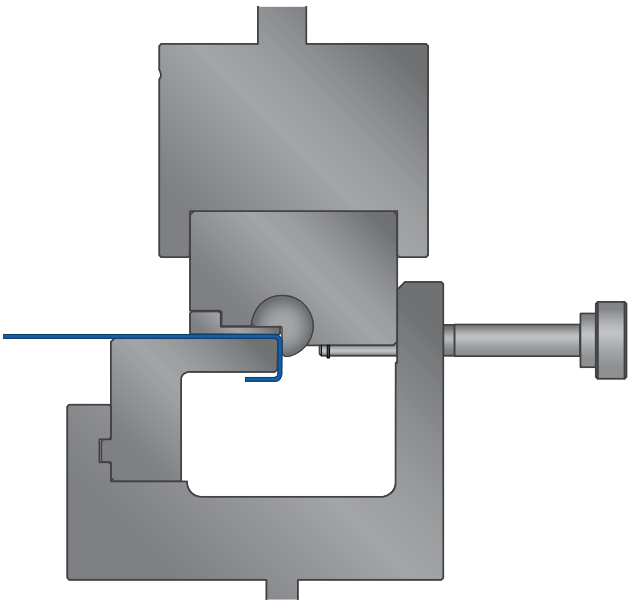
Ideal for large panels and high production.



WO1 WIPING FORM

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

Ideal for large panels and high production.

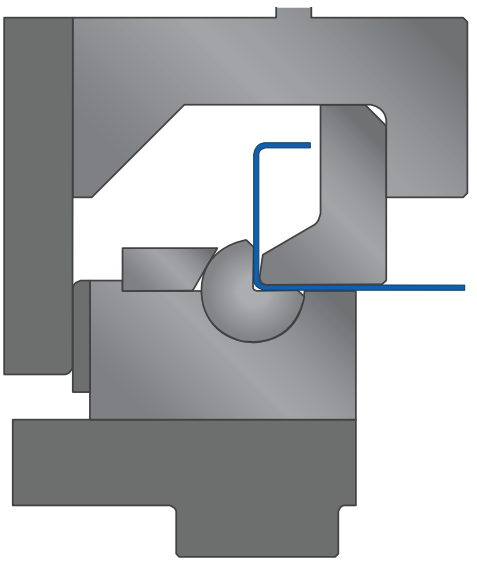


RTD ROTARY FLANGE FORMING FORM DOWN

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

Ideal for large panels and high production.

See this tool in action on the Wilson Tool YouTube Channel

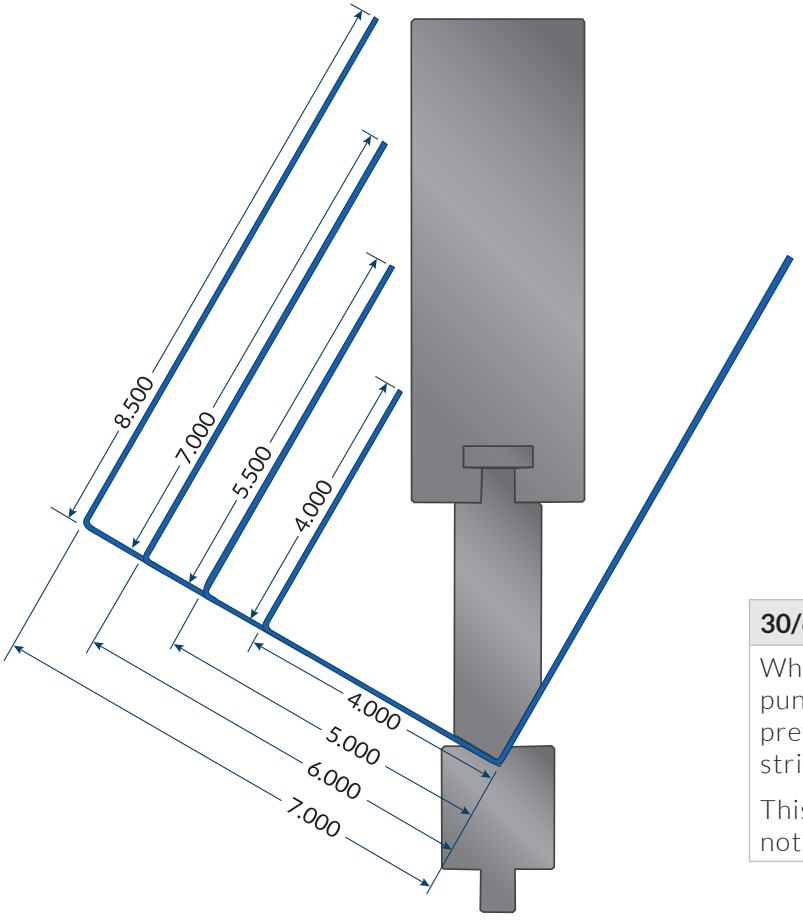


RTU ROTARY FLANGE FORMING FORM UP

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

Ideal for large panels and high production.

See this tool in action on the Wilson Tool YouTube Channel



30/60 DEEP BOX BENDING

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

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

SWING EAR SECTIONS

Box bending with return flanges.

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

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

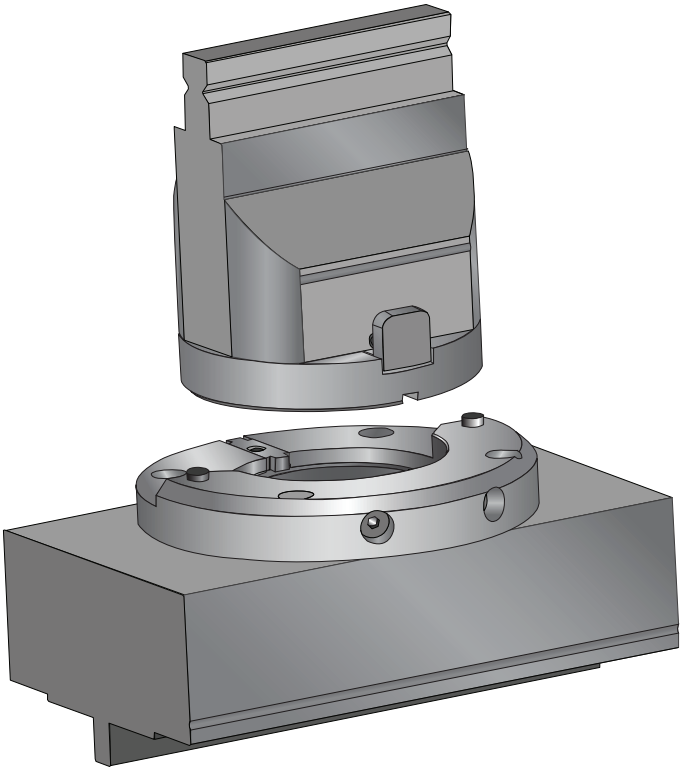
Punch profile will match the standard profile only in height, angle and radius. Width will be wider where hinged.

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

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

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

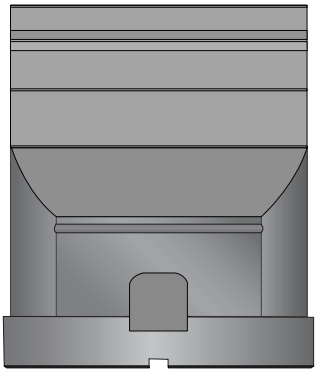
See this tool in action on the Wilson Tool YouTube Channel

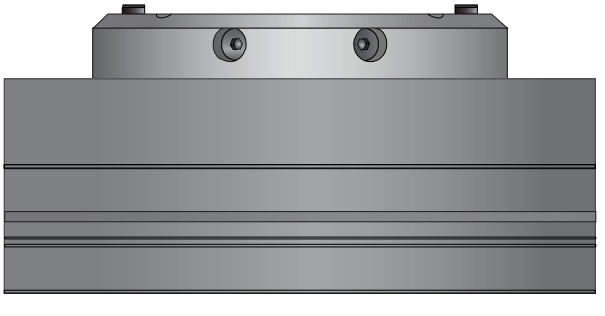


TA1 TURRET ADAPTER

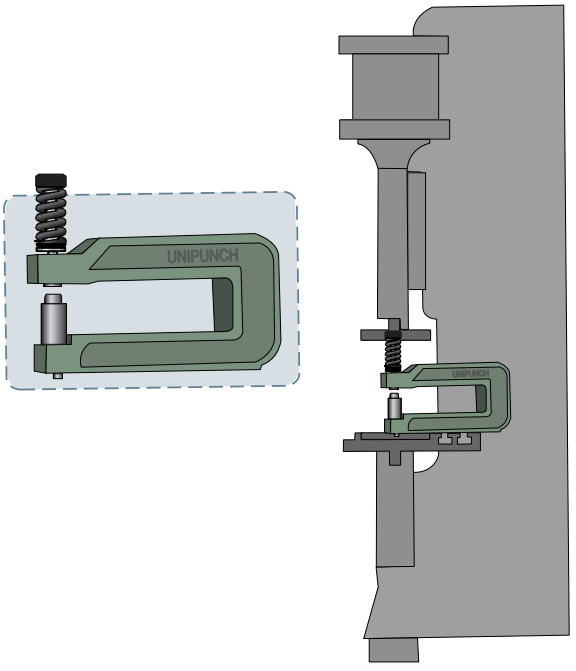
This tooling set adapts punch press tooling to use in a press brake.

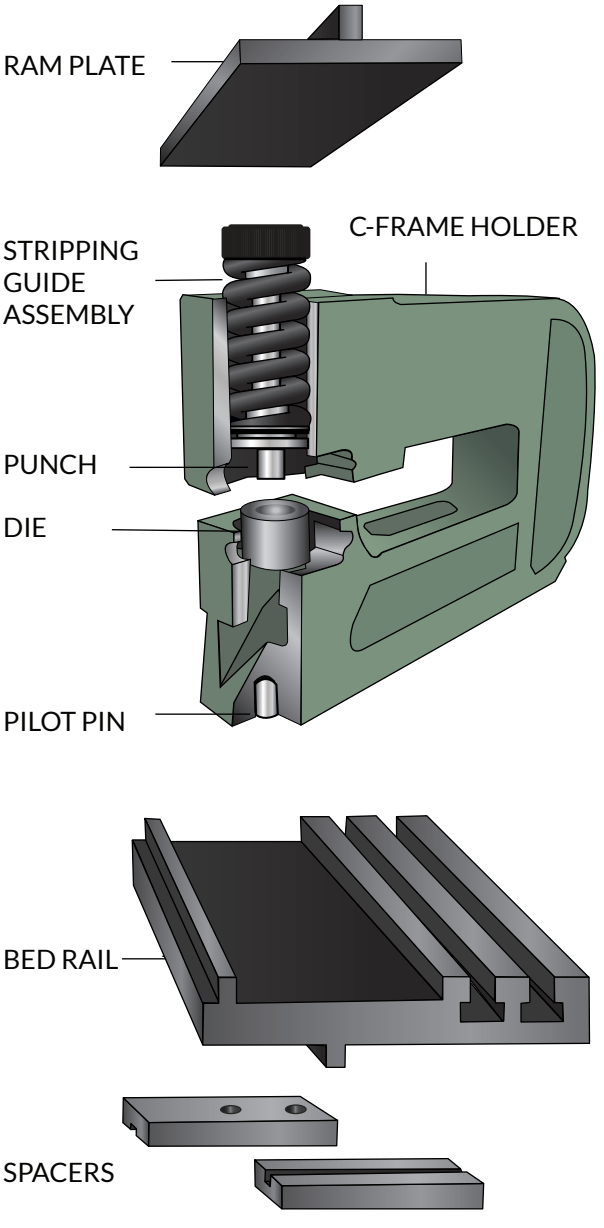
Multiple configurations and options are available.





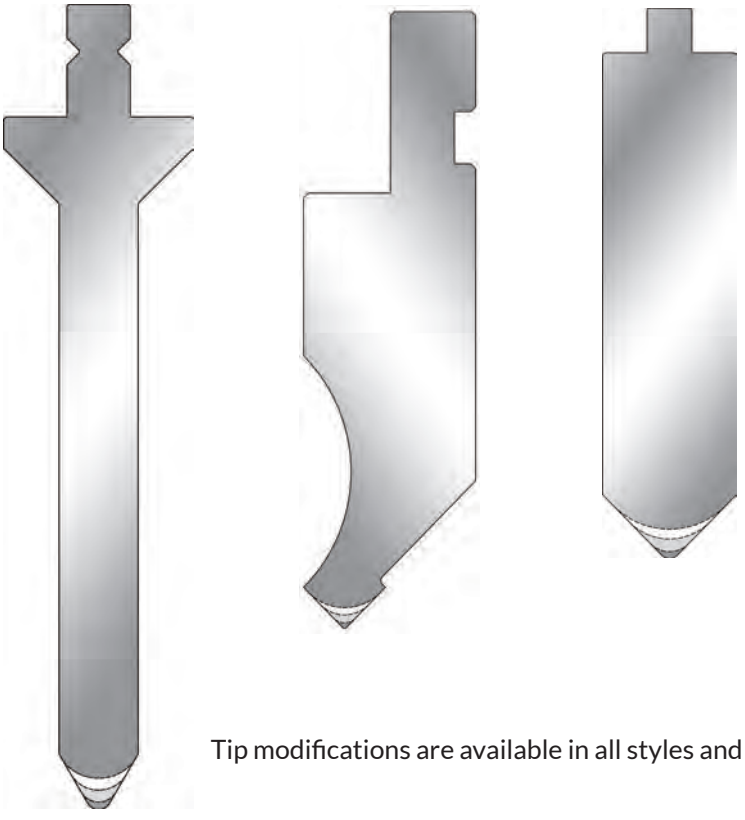
FRONT VIEW





C-FRAME TOOLING

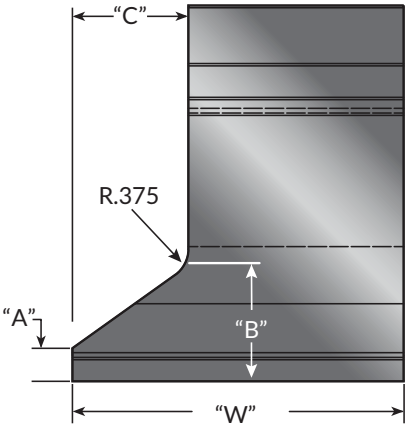
Enables operation of single station thin turret tooling in a press brake.



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.



MULTI-BEND ALLOWANCES

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

MAKING MULTIPLE BENDS FORMULA ON A PRESS BRAKE:
For shape as shown, in mild steel with radii equal to the metal thickness unless otherwise noted.

Multiply metal thickness by factor = Tons Per Foot.

Stainless Steel	[18-8 Annealed] Type 304 ...	1.55
Aluminum	3303-H14 [1/2Hard]	.35
	5052-H34 [1/2Hard]	.65
	6061-T64	.75
Brass	70/30 [1/2Hard]	1.10