WILSON TOOL



WT-STYLE
TOOLING SOLUTIONS

Standards, Specials & Accessories

THE WILSON TOOL DIFFERENCE



COMPANY OVERVIEW

From humble beginnings in a small manufacturing facility in St. Paul, Minnesota, Wilson Tool International has added innovation, tooling divisions, manufacturing facilities and sales channels around the world to better serve thousands of global customers. Throughout our expansion, our mission has never wavered — we continue to offer products and services that help you, our customers, to be more successful.

Innovation is key at Wilson Tool International. It's true what they say: no two jobs are the same. In manufacturing, change is the only constant. So working with a press brake tooling supplier that's flexible, nimble and knowledgeable is important.

Wilson Tool International continues to invest in your success. We now have more than 50 sales engineers in North America available to answer questions and suggest innovative solutions to save you time and money.

And be assured, with every order, you'll always get our quality guarantee: *Your success is our priority. If you're ever unsatisfied with a Wilson Tool International product, we'll do everything we can to make it right and keep you up and running.*

From all of us at Wilson Tool International, thank you for the trust you have placed in us to provide you with the products and services that support your business. We look forward to our partnership in the future.

Sincerely,
Brian Robinson
CEO of Wilson Tool Enterprises

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 tooling to the Wilson Wheel® to innovative EXP® technology, our punching division has been the industry-leading innovation driver. When combined with the most experienced customer support professionals in the industry, Wilson Tool continues to raise the bar on performance and innovation. 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.



BENDING

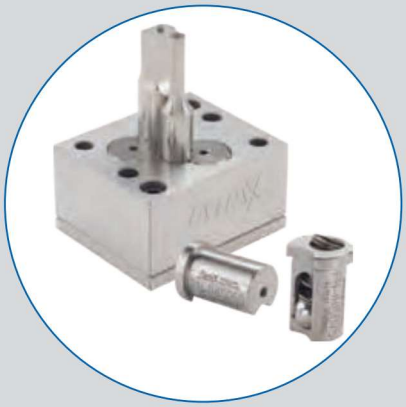
Wilson Tool's Bending division delivers the most complete line of tooling and clamping solutions available anywhere. Period.

Whether you use American, European, WT-style or LVD-style precision tooling or conventional style tooling, Wilson Tool has a solution for you. Our clamping options cover these styles as well. With hydraulic push button options, quick release mechanical options, or standard manual clamps, Wilson Tool has a clamping solution for any style of machine or budget. And our custom tooling manufacturing capabilities have quickly become the envy of the industry with innovative solutions for very complex bending challenges. 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 (aka Impax Tooling Solutions®) offers high quality punch and die components 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.



TABLETING

Wilson Tool's Tableting division delivers standard and custom tooling for superior production capability by utilizing the latest innovations in tableting science.

Wilson Tool's punches and dies for the pharmaceutical, nutraceutical, confectionery and related industries provide the best tooling per application. We collaborate with you to create the punch and die most suited to meet the specific needs of your tableting application.



ACCESSORIES

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





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WILSON TOOL



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Prices and product availability are subject to change without notice.

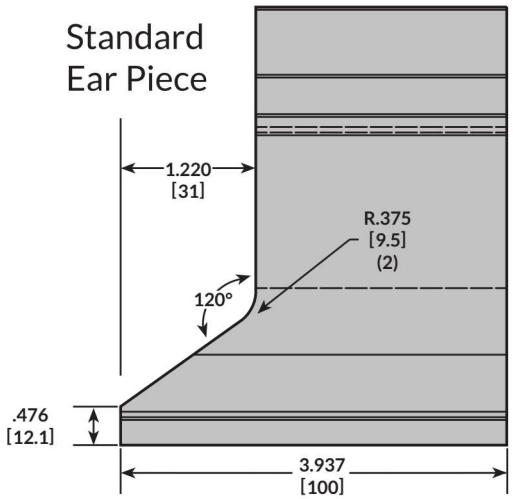
WT PRECISION PRESS BRAKE TOOLING

PRECISION MANUFACTURED FOR CONSISTENT RESULTS.

WT Precision press brake tooling is precision manufactured to a tolerance of ± .0004" (.01mm) on all critical dimensions. Lengths of 19.69" [500mm] solid and sectionalized sets with various pieces can be mixed and matched for consistent bending quality throughout multiple jobs.

- Tools can be loaded by a single operator.
- Easy to store. Cabinets available.
- Sectionalized tools come in twelve pieces.
- Sectionalized punches include two ear pieces (horns).
- Heat treat options include Nitrex® and laser hardening
- Nitrex® [HRC-70] is standard on dies.

Standard Ear Piece

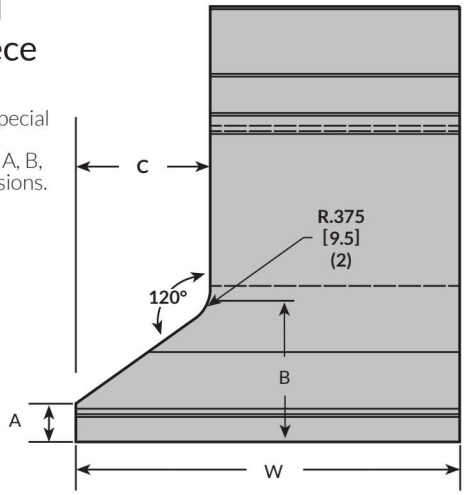


STANDARD LENGTHS:

200 = 7.87" [200mm]
500 = 19.7" [500mm]
Sectionalized (X) = 41.3" [1050mm]
Sectionalized (X1) = 19.7" [500mm]
Sectionalized (X2) = 21.65" [550mm]

Special Ear Piece

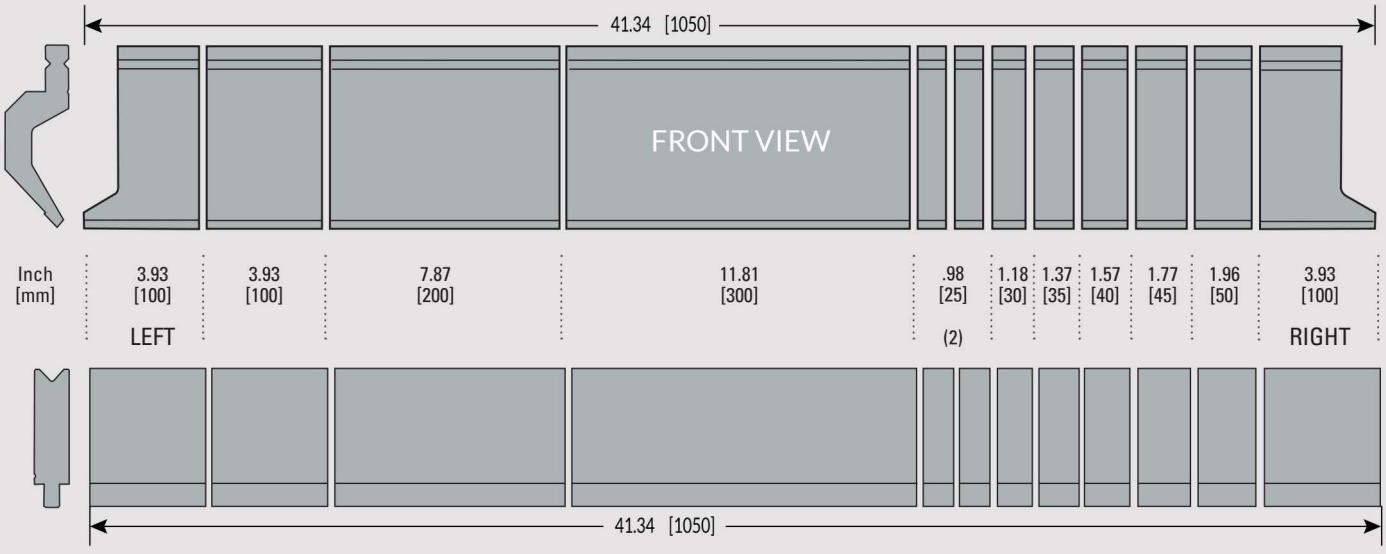
To order a special ear section indicate the A, B, C, W dimensions.



SECTIONALIZED LENGTHS:

X1 Set	.98" [25mm]	Qty. 2
	1.18" [30mm]	
	1.37" [35mm]	
	1.57" [40mm]	
	1.77" [45mm]	
	3.93" [100mm]	Left
	3.93" [100mm]	
	3.93" [100mm]	Right
X2 Set	1.96" [50mm]	
	7.87" [200mm]	
	11.81" [300mm]	

SECTIONALIZED PUNCH AND DIE LENGTHS

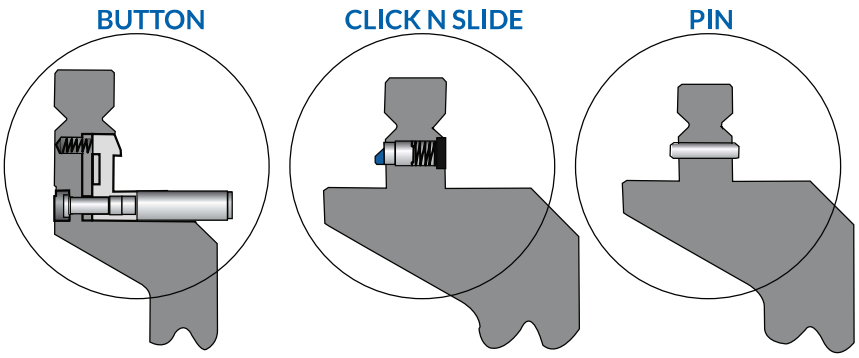


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WT PRECISION PRESS BRAKE TOOLING

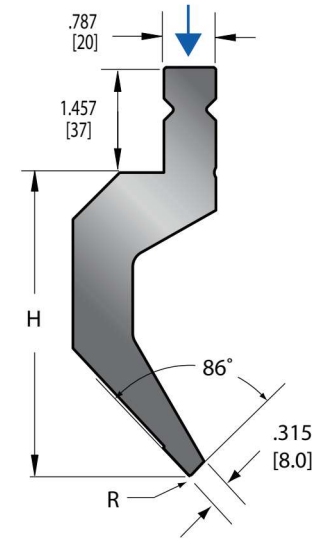
PUSH BUTTON TECHNOLOGY

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



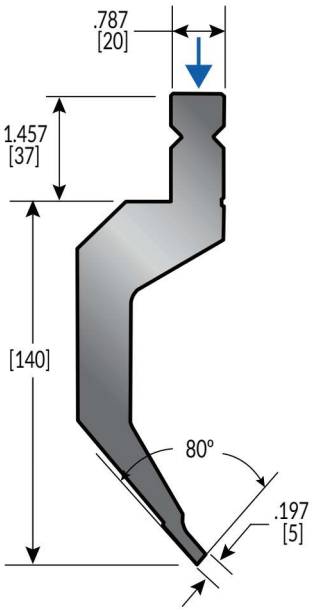
	PROFILE	500	X1	X2
120 / 140mm	600 Series	CS	B4	B4
	601 Series	B2	B2	B2
	602 Series	B1	B1	B1
	603 Series	CS	B3	B3
	604 Series	B1	B1	B1
	605 Series	P	B5	CS/B5
220 / 240mm	610 Series	P	B5	CS/B5
	611 Series	P	B3	CS/B3
	612 Series	P	B3	CS/B3
	613 Series	P	B3	CS/B3
	614 Series	P	B3	CS/B3
163mm	92080060	P	B4	CS/B4
	92086010	CS	B2	B2
	92180010	CS	B2	B2
	92228010	B1	B1	B1
	92460030	CS	B1	B1

BUTTON Extension		[Vertically load and unload]	
CODE	CAT. NO.	DESCRIPTION	
B1	980938	WT G3 safety button flush extension	
B2	980939	WT G3 safety button extension 15mm	
B3	980940	WT G3 safety button extension 25mm	
B4	980941	WT G3 safety button extension 39mm	
B5	980942	WT G3 Safety button extension 50mm	
	** Plus one of each of the following components:*		
	980157	Spring Ø.180 x .022 x .560 long	
	50079	Push button logo plug, small	
	980130	WT safety tang	
	980943	WT safety tang shoulder bolt	
CLICK N SLIDE		[Vertically load, slide out]	
CS	60001	WT punch safety button spring pin	
	60002	WT punch safety button backer plate	
	8197	Retaining ring for B & C STN. HP spring nut	
	972200	T punch .300 x .375 long spring	
PIN		[Slide in, slide out]	
P	43741	Dowel pin Ø5mm x .25mm long	



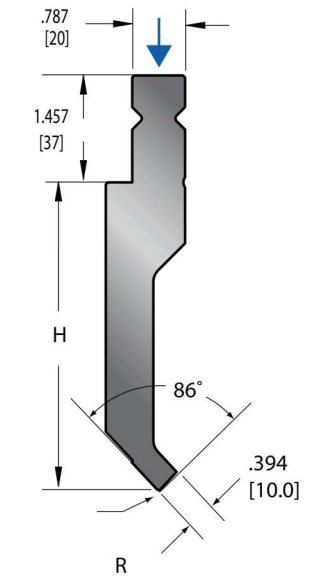
SERIES 600		86° SWAN-NECK PUNCH					120MM TALL		
CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:	B4	CS	B4	B4	B4
60086010		.039 [1.0]	4.724 [120.0]	850					
60086005	M	.020 [0.5]	4.717 [119.8]	850					
60086016	M	.063 [1.6]	4.693 [119.2]	850					
60086020	M	.079 [2.0]	4.693 [119.2]	850					
60086023	M	.091 [2.3]	4.685 [119.0]	850					
60086025	M	.098 [2.5]	4.685 [119.0]	850					
60086030	M	.118 [3.0]	4.673 [118.7]	850					
60086032	M	.126 [3.2]	4.669 [118.6]	850					
60086040	M	.157 [4.0]	4.657 [118.3]	850					
Reference # OW200k									

• Max Ton = 26 ft [87m]
Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



SERIES 605		80° SWAN-NECK PUNCH WITH THIN TIP					140MM TALL		
CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:	P	CS/B5	B5	CS/B5	
60580005		.020 [0.5]	5.512 [140]	400	12/40				
Reference # OW280k									

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



SERIES 601		86° GOOSE-NECK PUNCH					120 MM TALL		
CAT. NO		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:		B2	B2	B2	B2
60186010		.039 [1.0]	4.724 [120.0]	900	28 [92]				
60186005	M	.020 [0.5]	4.717 [119.8]	900	28 [92]				
60186016	M	.063 [1.6]	4.701 [119.4]	900	28 [92]				
60186020	M	.079 [2.0]	4.693 [119.2]	900	28 [92]				
60186023	M	.091 [2.3]	4.685 [119.0]	900	28 [92]				
60186025	M	.098 [2.5]	4.685 [119.0]	900	28 [92]				
60186030	M	.118 [3.0]	4.677 [118.8]	900	28 [92]				
60186032	M	.126 [3.2]	4.669 [118.6]	900	28 [92]				
60186040	M	.157 [4.0]	4.654 [118.2]	900	28 [92]				
Reference # OW201k									

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.

M Made To Order

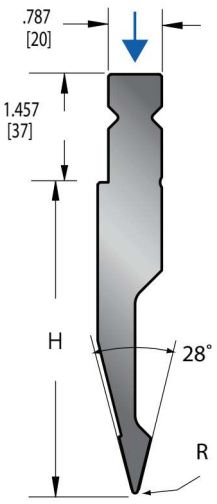
↓ Indicates how tonnage is applied to punches

US Headquarters tel: 800.445.4518 bending@wilsontool.com | Canada tel: 800.268.4180 bendingcanada@wilsontool.com | Mexico tel: 001.800.741.2510 doblez@wilsontool.com

SERIES 602		28° ACUTE WITH RELIEF PUNCH				120MM TALL			
CAT. NO		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
					Button Options:	B1	B1	B1	B1
60228010		.039 [1.0]	4.724 [120.0]	1000	31 [102]				
60228005	M	.020 [0.5]	4.717 [119.8]	1000	31 [102]				
60228016	M	.063 [1.6]	4.614 [117.2]	1000	31 [102]				
60228020	M	.079 [2.0]	4.567 [116.0]	1000	31 [102]				
60228023	M	.091 [2.3]	4.531 [115.1]	1000	31 [102]				
60228025	M	.098 [2.5]	4.504 [114.4]	1000	31 [102]				
60228030	M	.118 [3.0]	4.441 [112.8]	1000	31 [102]				
60228032	M	.126 [3.2]	4.437 [112.7]	1000	31 [102]				
60228040	M	.157 [4.0]	4.323 [109.8]	1000	31 [102]				

Reference # OW202k

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.

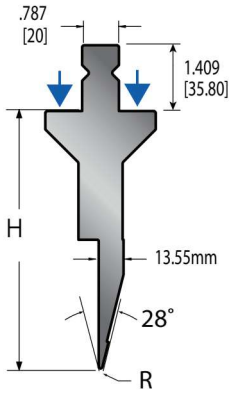


SERIES 603		28° HEMMING PUNCH			140MM TALL				
CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
				Button Options:	B3	CS	B3	B3	B3
60328010		.039 [1.0]	5.512 [140]	650					
60328005	M	.020 [0.5]	5.504 [139.8]	650					

Reference # OW210k

- Max Ton = 20 ft [66m]

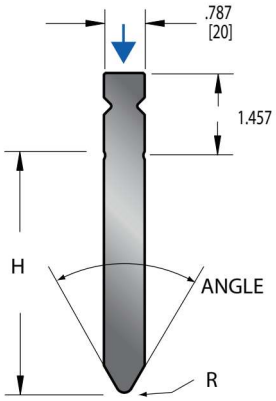
Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



SERIES 604		60° POINTED					120MM TALL			
CAT. NO		R Tip Radius inch [mm]	A Angle	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
						Button Options:	B1	B1	B1	B1
60460040		.157 [4.0]	60	4.724 [120.0]	1600	49 [163]				
60460020	M	.079 [2.0]	60	4.717 [119.8]	1600	49 [163]				
60460025	M	.098 [2.5]	60	4.717 [119.8]	1600	49 [163]				
60460030	M	.118 [3.0]	60	4.717 [119.8]	1600	49 [163]				
60460047	M	.185 [4.7]	60	4.689 [119.1]	1600	49 [163]				
60460050	M	.197 [5.0]	60	4.677 [118.8]	1600	49 [163]				
60460060	M	.236 [6.0]	60	4.630 [117.6]	1600	49 [163]				

Reference # OW203k

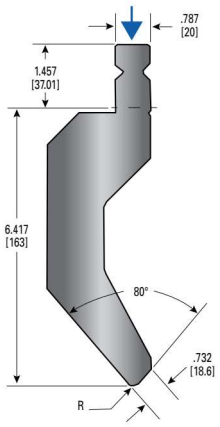
Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



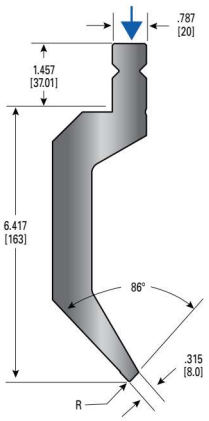
M Made To Order

↓ Indicates how tonnage is applied to punches

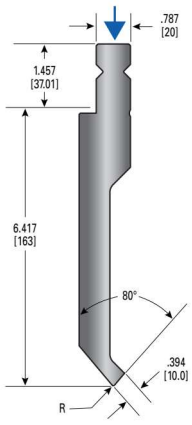
163MM TALL PUNCH



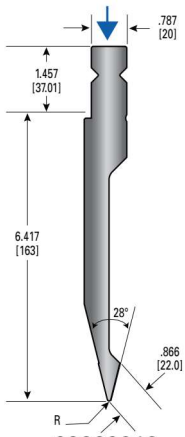
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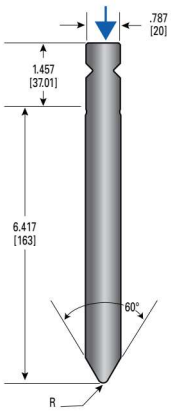
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92180010



92228010

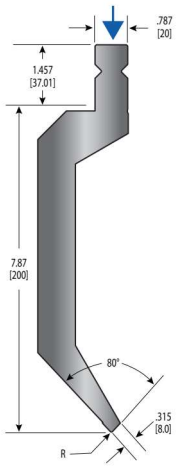


92460030

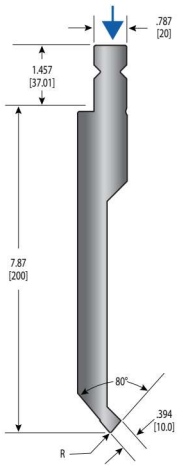
163MM TALL PUNCHES

CAT. NO.		REF. NO.	R Tip Radius inch [mm]	A Angle	H Height inch [mm]	kN/m	Max Ton feet [meter]	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
							Button Options in blue below:					
92080060		BIU-025	.236 [6]	80	6.417 [163.0]	1270	39 [130]	B4	P	CS/B4	B4	CS/B4
92086010		BIU-023	.039 [1]	86		640	20 [65]	B2	CS	B2	B2	B2
92180010	M	BIU-022	.039 [1]	80		780	24 [80]	B2	CS	B2	B2	B2
92228010		BIU-021	.039 [1]	28		690	21 [70]	—	B1	B1	B1	B1
92460030		BIU-024	.118 [3]	60		1570	48 [160]	B1	CS	B1	B1	B1

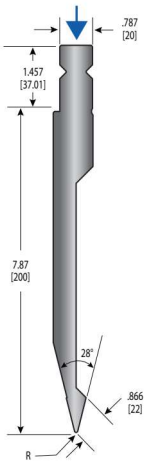
200MM TALL PUNCH



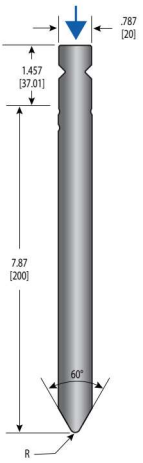
93086010



93180010



93228010



93460030

200MM TALL PUNCHES

CAT. NO.		REF. NO.	R Tip Radius inch [mm]	A Angle	H Height inch [mm]	kN/m	Max Ton feet [meter]	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
								Button Options in blue below:				
93086010	M	BIU-033	.039 [1]	86	7.874 [200]	490	15 [50]	B4	CS	B4	B4	B4
93180010	M	BIU-032	.039 [1]	80	7.874 [200]	780	24 [80]	B2	CS	B2	B2	B2
93228010	M	BIU-031	.039 [1]	28	7.874 [200]	590	18 [60]	B1	P	B1	B1	B1
93460030	M	BIU-034	.118 [3]	60	7.874 [200]	1570	48 [160]	B1	CS	B1	B1	B1

M Made To Order

↓ Indicates how tonnage is applied to punches

US Headquarters tel: 800.445.4518 bending@wilsontool.com | Canada tel: 800.268.4180 bendingcanada@wilsontool.com | Mexico tel: 001.800.741.2510 doblez@wilsontool.com

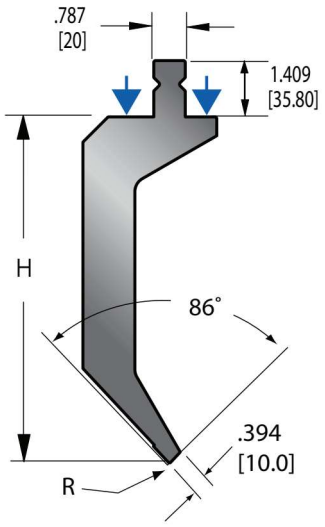
SERIES 610 — 86° SWAN-NECK PUNCH — 220MM TALL

CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
			Button Options:		B5	P	CS/B5	B5	CS/B5
61086010		.039 [1.0]	8.661 [220.0]	850					
61086005	M	.020 [0.5]	8.654 [219.8]						
61086016	M	.063 [1.6]	8.630 [219.2]						
61086020	M	.079 [2.0]	8.630 [219.2]						
61086023	M	.091 [2.3]	8.622 [219.0]						
61086025	M	.098 [2.5]	8.610 [218.7]						
61086030	M	.118 [3.0]	8.602 [218.5]						
61086032	M	.126 [3.2]	8.602 [218.5]						
61086040	M	.157 [4.0]	8.594 [218.3]						

Reference # OW200s

- Max Ton = 26 ft [87m]

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



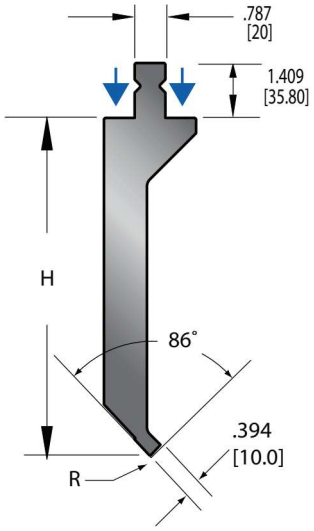
SERIES 611 — 86° GOOSE-NECK PUNCH — 220MM TALL

CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3" [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
			Button Options:		B3	P	CS/B3	B3	CS/B3
61186010		.039 [1.0]	8.661 [220.0]	900					
61186005	M	.020 [0.5]	8.654 [219.8]						
61186016	M	.063 [1.6]	8.638 [219.4]						
61186020	M	.079 [2.0]	8.630 [219.2]						
61186023	M	.091 [2.3]	8.622 [219.0]						
61186025	M	.098 [2.5]	8.610 [218.7]						
61186030	M	.118 [3.0]	8.614 [218.8]						
61186032	M	.126 [3.2]	8.606 [218.6]						
61186040	M	.157 [4.0]	8.594 [218.3]						

Reference # OW201s

- Max Ton = 28 ft [92m]

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.



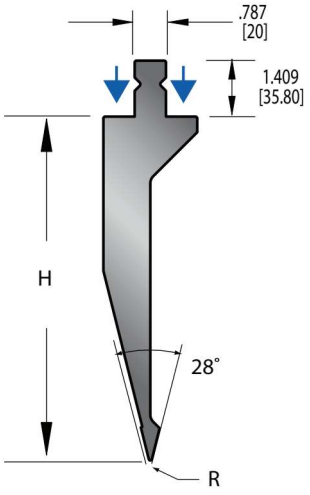
SERIES 612 — 28° ACUTE WITH RELIEF PUNCH — 220MM TALL

CAT. NO.		R Tip Radius inch [mm]	H Height inch [mm]	kN/m	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
			Button Options:		B3	P	CS/B3	B3	CS/B3
61228010		.039 [1.0]	8.661 [220.0]	1000					
61228005	M	.020 [0.5]	8.654 [219.8]						
61228016	M	.063 [1.6]	8.575 [217.8]						
61228020	M	.079 [2.0]	8.504 [216.0]						
61228023	M	.091 [2.3]	8.488 [215.6]						
61228025	M	.098 [2.5]	8.425 [214.0]						
61228030	M	.118 [3.0]	8.378 [212.8]						
61228032	M	.126 [3.2]	8.374 [212.7]						
61228040	M	.157 [4.0]	8.260 [209.8]						

Reference # OW202s

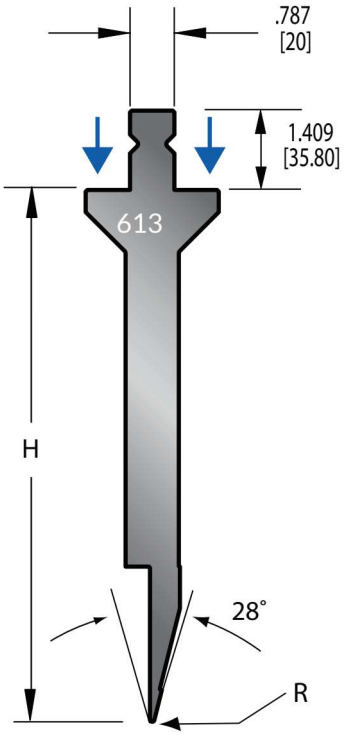
- Max Ton = 31 ft [102m]

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.

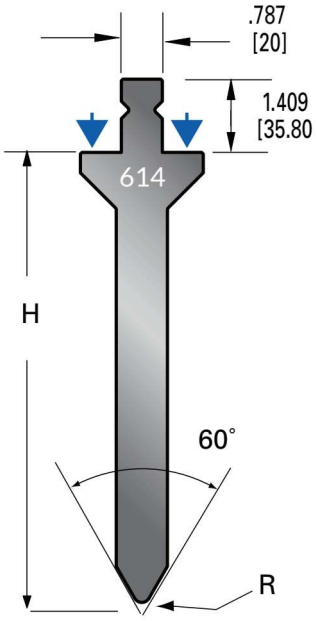


M Made To Order

↓ Indicates how tonnage is applied to punches



28° HEMMING PUNCH



60° POINTED PUNCH

SERIES 613		28° HEMMING PUNCH					240MM TALL		
CAT. NO.	R Tip Radius inch [mm]	H Height inch [mm]	kN/m	Max Ton feet [meter]	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:	B3	P	CS/B3	B3	CS/B3
61328010	.039 [1.0]	9.449 [240.0]	650	20 [66]					
61328005 M	.020 [0.5]	9.441 [239.8]							
Reference # OW210s									
Tooling for special application available upon request. 2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.									

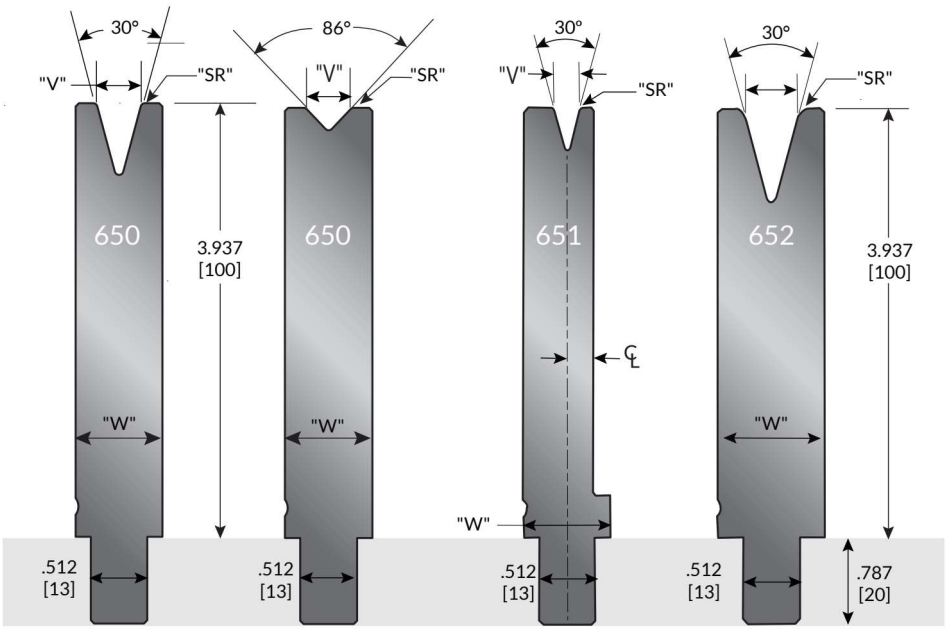
SERIES 614		60° POINTED PUNCH					220MM TALL		
CAT. NO.	R Tip Radius inch [mm]	H Height inch [mm]	kN/m	Max Ton feet [meter]	200 7.87 [200]	500 19.7 [500]	Sectionalized X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:	B3	P	CS/B3	B3	CS/B3
61460040	.157 [4.0]	8.661 [220.0]	1600	49 [163]					
61460020 M	.079 [2.0]	8.654 [219.8]							
61460025 M	.098 [2.5]	8.654 [219.8]							
61460030 M	.118 [3.0]	8.654 [219.8]							
61460047 M	.185 [4.7]	8.622 [219.0]							
61460050 M	.197 [5.0]	8.606 [218.6]							
61460060 M	.236 [6.0]	8.567 [217.6]							
Reference # OW203s									
Tooling for special application available upon request. 2050mm, 2550mm, 3050mm and 4050mm sets available - call for pricing.									

M Made To Order

↓ Indicates how tonnage is applied to punches

US Headquarters tel: 800.445.4518 bending@wilsontool.com
Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com

100 MM TALL FULL BODY DIES



650 = Standard Die
651 = Relieved Die
652 = Large Shoulder Radius Die

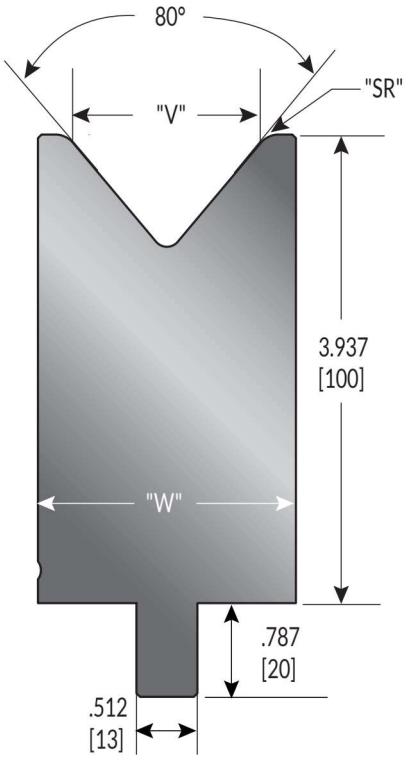
SERIES 650 , 651. 652		30° DIES - 3.937" [100MM] TALL									
CAT. NO.	REF. NO.	V Opening inch [mm]	W Width inch [mm]	CL Width inch [mm]	SR Shoulder Radius	kN/m	Max Ton ft [m]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
65030006	EV001	.236 [6]	.787 [20]	N/A	.024 [0.6]	600	18 [61]				
65030006H											
65030008	EV002	.315 [8]			.039 [1.0]	550	17 [56]				
65030008H											
65030010	EV003	.394 [10]				450	14 [46]				
65030010H											
65030012	EV004	.472 [12]	.984 [25]			550	17 [56]				
65030012H											
65030016	EV005	.630 [16]	1.181 [30]		.063 [1.6]	650	20 [66]				
65030016H											
65030020	EV006	.787 [20]	1.378 [35]		.078 [2.0]						
65030020H											
65030024	EV007	.945 [24]	1.575 [40]		.098 [2.5]	750	23 [76]				
65030024H											
65130006 M	EV001/S	.236 [6]	.787 [20]	.236 [6]	.024 [0.6]	170	6 [17.3]				
65130008 M	EV002/S	.315 [8]	.787 [20]	.275 [7]	.039 [1.0]	200	7 [20.3]				
65130010 M	EV003/S	.394 [10]	.787 [20]	.315 [8]		200	7 [20.3]				
65130012 M	EV004/S	.472 [12]	.984 [25]	.354 [9]		200	9 [25.5]				
65230006 M	EV001 R3	.236 [6]	.787 [20]	N/A	.118 [3]	600	18 [61]				
65230008 M	EV002 R3	.315 [8]	.787 [20]			550	17 [56]				
65230010 M	EV003 R3	.394 [10]	.787 [20]			450	14 [46]				
65230012 M	EV004 R3	.472 [12]	.984 [25]			550	17 [56]				
65230016 M	EV005 R3	.630 [16]	1.181 [30]			650	20 [66]				

H designation indicates 'with hole' option for hemming

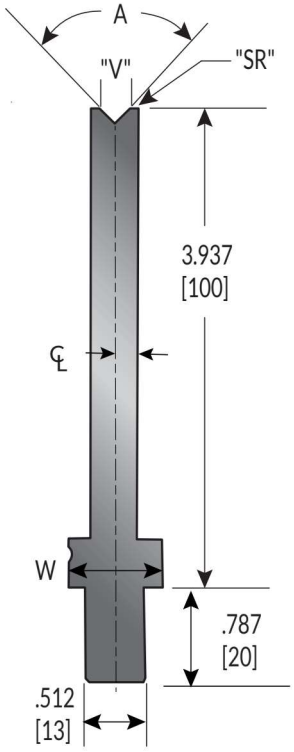
SERIES 650		84° & 86° DIES - 3.937" [100MM] TALL									
CAT. NO	REF. NO.	ANGLE	V Opening inch [mm]	W Width inch [mm]	SR Shoulder Radius	kN/m	Max Ton ft [m]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
65084006 M	EV W6/84	84°	.236 [6]	.787 [20]	.024 [0.6]	1200	37 [122]				
65084008 M	EV W8/84	84°	.315 [8]	.787 [20]	.032 [0.8]	1100	34 [112]				
65084010 M	EV W10/84	84°	.394 [10]	.787 [20]	.039 [1.0]	900	28 [92]				
65084012 M	EV W12/84	84°	.472 [12]	.984 [25]	.039 [1.0]	1200	37 [122]				
65084016 M	EV W16/84	84°	.630 [16]	1.181 [30]	.063 [1.6]	1300	40 [133]				
65084020 M	EV W20/84	84°	.787 [20]	1.181 [30]	.708 [2.0]	1400	43 [143]				
65086006	EV 020/86	86°	.236 [6]	.787 [20]	.024 [0.6]	1200	37 [122]				
65086008	EV 021/86	86°	.315 [8]	.787 [20]	.032 [0.8]	1100	34 [112]				
65086010	EV 022/86	86°	.394 [10]	.787 [20]	.039 [1.0]	900	28 [92]				
65086012	EV 023/86	86°	.472 [12]	.984 [25]	.039 [1.0]	1200	37 [122]				
65086016	EV 024/86	86°	.630 [16]	1.181 [30]	.063 [1.6]	1300	40 [133]				
65086020	EV 025/86	86°	.787 [20]	1.181 [30]	.078 [2.0]	1400	43 [143]				
65086024	EV 026/86	86°	.945 [24]	1.378 [35]	.098 [2.5]	1500	46 [153]				
65086030	EV 027/86	86°	1.181 [30]	1.772 [45]	.118 [3.0]	1500	46 [153]				
65086040	EV 028/86	86°	1.575 [40]	2.165 [55]	.118 [3.0]	1500	46 [153]				
65086050	EV 029/86	86°	1.969 [50]	2.950 [75]	.118 [3.0]	1500	46 [153]				

M Made To Order

100 MM TALL FULL BODY, RELIEVED DIES



80° Die



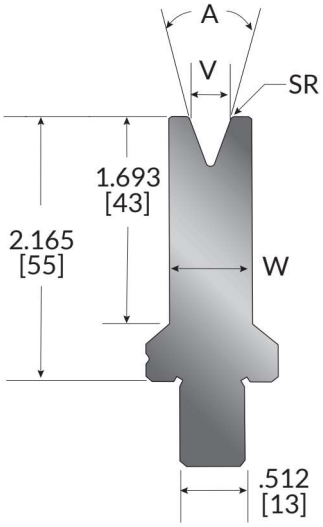
84°/ 86° Dies

SERIES 650	80° DIES - 3.937" [100MM] TALL / 4.724" [120MM] TALL											
CAT. NO	REF. NO.	V Opening inch [mm]	W Width inch [mm]	SR Shoulder Radius	kN/m	Max Ton feet [meter]	200 7.87 [200]	300 11.81 [300]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
65080024	EV W24/80	.945 [24]	1.378 [35]	.098 [2.5]	700	21 [71]	N/A	N/A				
65080030	EV W30/80	1.181 [30]	1.772 [45]	.197 [5.0]	900	28 [92]	N/A	N/A				
65080040	EV W40/80	1.575 [40]	2.165 [55]	.197 [5.0]	1200	37 [122]	N/A	N/A				
65080050	EV W50/80	1.969 [50]	2.559 [65]	.197 [5.0]	1500	46 [153]	N/A	N/A				
65080060	EV W60/80	2.362 [60]	2.953 [75]	.197 [5.0]	1500	46 [153]			N/A			
65080080	EV W80/80	3.150 [80]	3.937 [100]	.197 [5.0]	1500	46 [153]			N/A			
65080100	EV W100/80	3.937 [100]	4.724 [120]	.315 [8.0]	1500	46 [153]			N/A			

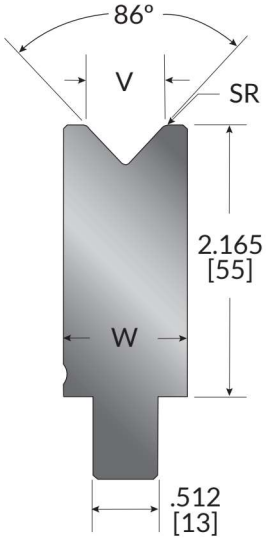
SERIES 651	84° & 86° DIES - 3.937" [100MM] TALL										
CAT. NO	REF. NO.	ANGLE	V Opening inch [mm]	W Width inch [mm]	CL Width inch [mm]	SR Shoulder Radius	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
65184006	EV/S W6/84	84°	.236 [6]	.787 [20]	.197 [5]	.024 [0.6]	250	8 [26]			
65184008	EV/S W8/84	84°	.315 [8]	.787 [20]	.236 [6]	.031 [0.8]	350	11 [36]			
65184010	EV/S W10/84	84°	.394 [10]	.787 [20]	.276 [7]	.039 [1.0]	400	12 [41]			
65184012	EV/S W12/84	84°	.472 [12]	.984 [25]	.315 [8]	.039 [1.0]	500	15 [51]			
65186006	EV 020/S 86	86°	.236 [6]	.787 [20]	.197 [5]	.024 [0.6]	250	8 [26]			
65186008	EV 021/S 86	86°	.315 [8]	.787 [20]	.236 [6]	.031 [0.8]	350	11 [36]			
65186010	EV 022/S 86	86°	.394 [10]	.787 [20]	.276 [7]	.039 [1.0]	400	12 [41]			
65186012	EV 023/S 86	86°	.472 [12]	.984 [25]	.315 [8]	.039 [1.0]	500	15 [51]			

Tooling for special application available upon request.
2050mm, 2550mm, 3050mm & 4050mm sets available, please call for pricing.

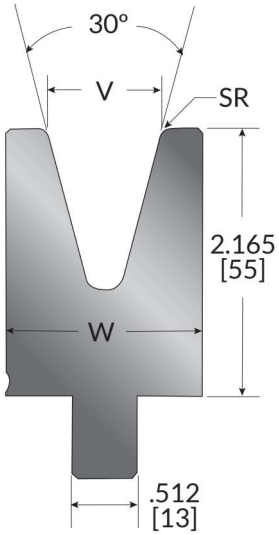
US Headquarters tel: 800.445.4518 bending@wilsontool.com
Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com



30° 6-12mm
86° 6-12 mm



86° 16 - 50 mm

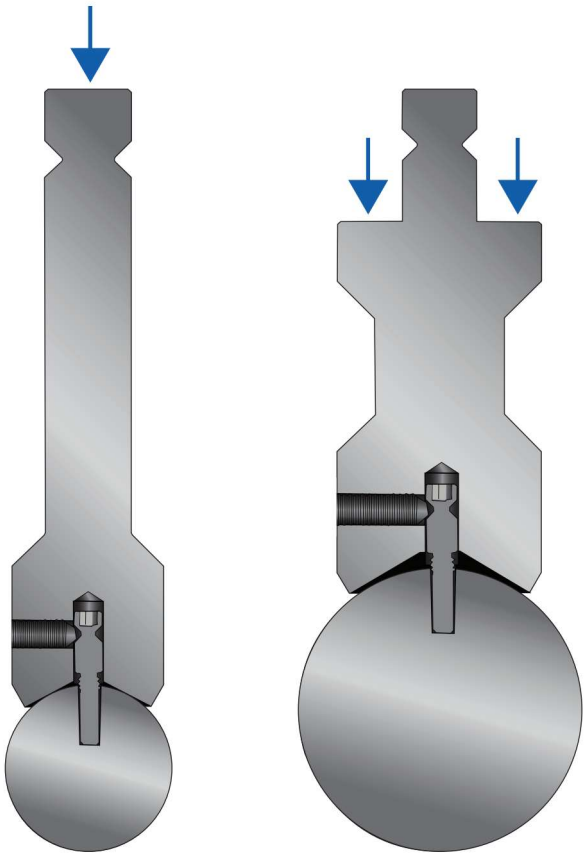


30° 16 - 20 mm

SERIES 950		30°, 80°, AND 86° DIES - 2.165" [55MM] TALL										
CAT. NO		REF. NO.	A Angle	V Opening inch [mm]	W Width inch [mm]	SR Shoulder Radius	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized X 41.3 [1050]	Sectionalized X1 19.7 [500]	Sectionalized X2 21.65 [550]
95030006	M	OZU-061	30	.236 [6]	.630 [16]	.039 [1.0]	780	24 [80]				
95030008	M	0ZU-051	30	.315 [8]	.630 [16]	.039 [1.0]	780	24 [80]				
95030010	M	OZU-062	30	.394 [10]	.787 [20]	.039 [1.0]	780	24 [80]				
95030012	M	OZU-052	30	.472 [12]	.787 [20]	.039 [1.0]	780	24 [80]				
95030016	M	OZU-053	30	.630 [16]	1.181 [30]	.059 [1.5]	780	24 [80]				
95030020	M	OZU-063	30	.787 [20]	1.378 [35]	.078 [2.0]	780	24 [80]				
95030024	M	OZU-054	30	.945 [24]	1.575 [40]	.098 [2.5]	780	24 [80]				
95080024	M	OZU-013	80	.945 [24]	1.378 [35]	.118 [3.0]	1230	38 [125]				
95080030	M	OZU-014	80	1.181 [30]	1.575 [40]	.157 [4.0]	1230	38 [125]				
95080040	M	OZU-015	80	1.575 [40]	1.969 [50]	.157 [4.0]	1230	38 [125]				
95080050	M	OZU-035	80	1.969 [50]	2.952 [75]	.157 [4.0]	1230	38 [125]				
95086006	M	OZU-021	86	.236 [6]	.630 [16]	.039 [1.0]	1180	36 [120]				
95086008	M	OZU-010	86	.315 [8]	.630 [16]	.039 [1.0]	1180	36 [120]				
95086010	M	OZU-022	86	.394 [10]	.787 [20]	.039 [1.0]	1180	36 [120]				
95086012	M	OZU-011	86	.472 [12]	.787 [20]	.039 [1.0]	1180	36 [120]				
95086016	M	OZU-012	86	.630 [16]	.984 [25]	.059 [1.5]	1180	36 [120]				
95086020	M	OZU-023	86	.787 [20]	1.181 [30]	.078 [2.0]	1180	36 [120]				

M Made To Order

LARGE RADIUS HOLDER & TIP ASSEMBLY



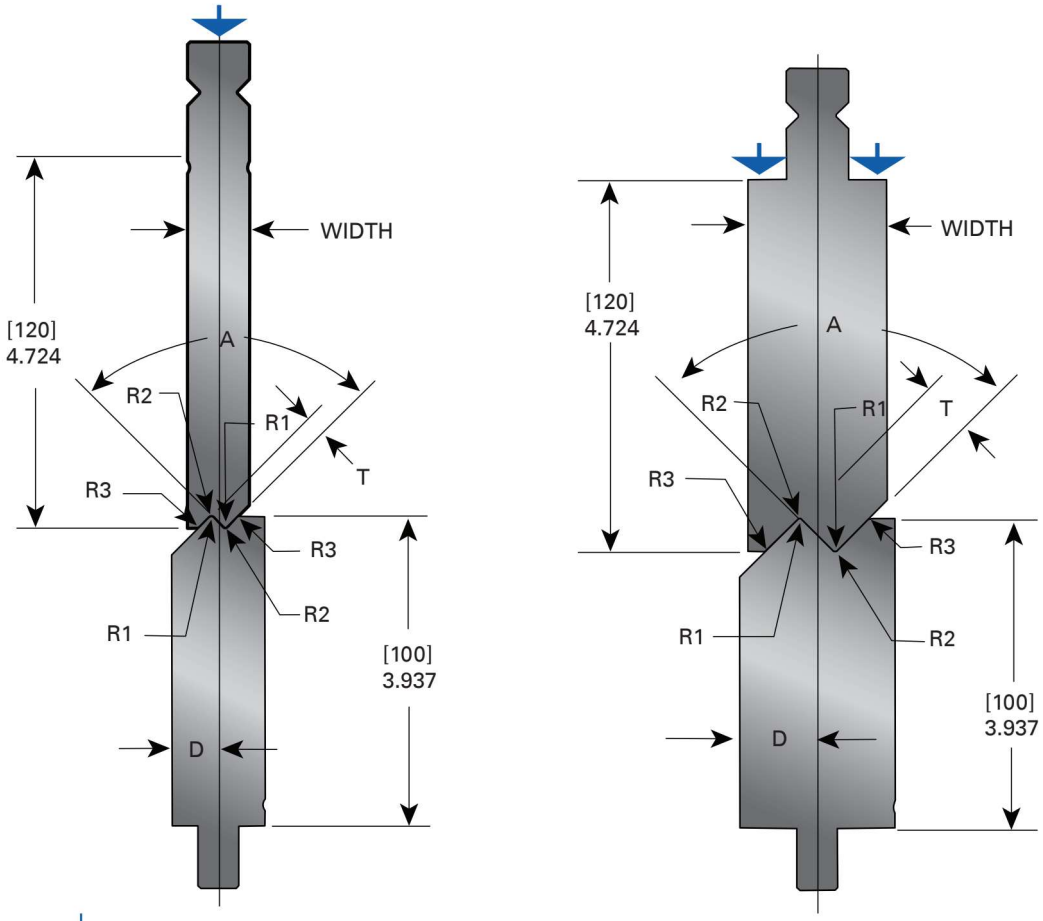
See this tool in action on the Wilson Tool YouTube Channel

LARGE RADIUS INSERT AND HOLDER							LENGTH: 19.69" [500mm]	
Radius Material #	Radius Size inch [mm]	Radius Price	Radius Approx. Weight [lbs]	Holder Material #	Holder Width inch [mm]	Holder Price	Holder Approx. Weight lbs. [kg]	Holder & Radius Assembled Height inch [mm]	MAX Ton / Ft
6R095-500	.375 [9.5]		3	60T35-500	1.3778 [35]		28 [12.8]	4.684 [119]	700 kN/m 71 T/m 21 T/Ft
6R127-500	.500 [12.7]		5					4.953 [125.8]	
6R158-500	.625 [15.8]		7					5.223 [132.7]	
6R190-500	.750 [19.0]		10					5.492 [139.5]	
6R222-500	.875 [22.2]		14					5.762 [146.4]	
6R254-500	1.000 [25.4]		18					6.031 [153.2]	
				60T55-500	2.165 [55]		44 [20.1]	5.606 [142.4]	
6R381-500	1.500 [38.1]		40					6.747 [171.37]	
6R508-500	2.000 [50.8] MTO		72					7.761 [197.1]	
LARGE RADIUS INSERT AND HOLDER							**LENGTH: 9.84" [250mm]**		
6R381-250	1.500 [38.1]		20	60T55-250	2.165 [55]		22 [10.5]	6.747 [171.37]	700 kN/m 71 T/m 21 T/Ft
6R508-250	2.000 [50.8]		36					7.761 [197.1]	

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.

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

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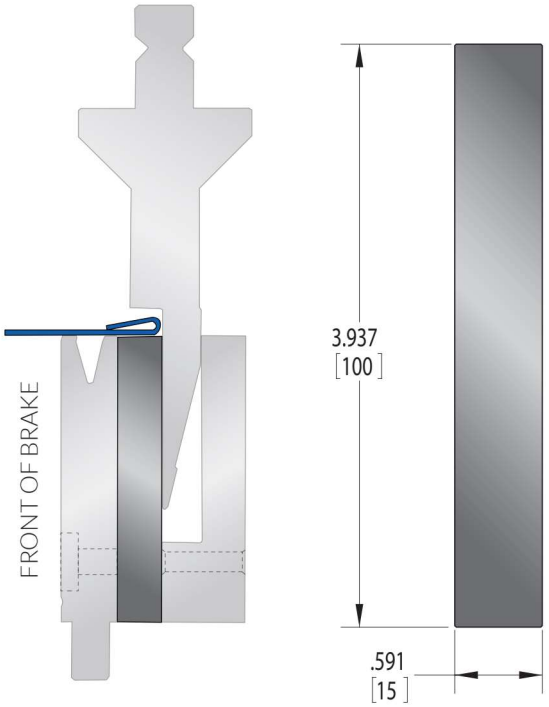
↓ Indicates how tonnage is applied to punches

OFFSET TOOL PUNCH AND DIE SETS

CAT. NO.		A Angle	T Offset Dim. inch [mm]	Effective V inch [mm]	500	X	X1	X2	Load Style	W Width inch [mm]	R1 Punch Radius inch [mm]	R2 V Radius inch [mm]	R3 SH. Radius inch [mm]	D Centerline Dim. inch [mm]	MAX. Load
63190125		90°	.125 [3.2]	.177 [4.5]					TOP	.787 [20]	.024 [.6]	.024 [.6]	.079 [2]	.394 [10]	1300 kN/m 133 T/m 40 T/Ft
63190157	M		.157 [4.0]	.222 [5.6]											
63190188	M	90°	.188 [4.8]	.266 [6.8]											
63190236	M		.236 [6.0]	.334 [8.5]											
63190250		90°	.250 [6.4]	.354 [9.0]						1.181 [30]	.039 [1]	.039 [1]		.591 [15]	
63190312	M	90°	.312 [7.9]	.441 [11.2]											
63190315	M		.315 [8.0]	.445 [11.3]											
63190375	M		.375 [9.5]	.530 [13.5]											
63190394	M		.394 [10.0]	.557 [14.2]											
63190438	M		.438 [11.1]	.619 [15.7]					SHOULDER	1.575 [40]	.039 [1]	.039 [1]		.787 [20]	
63190500	M		.500 [12.7]	.707 [17.9]											
63190625	M		.625 [15.9]	.884 [22.4]						1.969 [50]	.039 [1]	.039 [1]		.984 [25]	
63190750	M		.750 [19.1]	1.061 [26.9]											

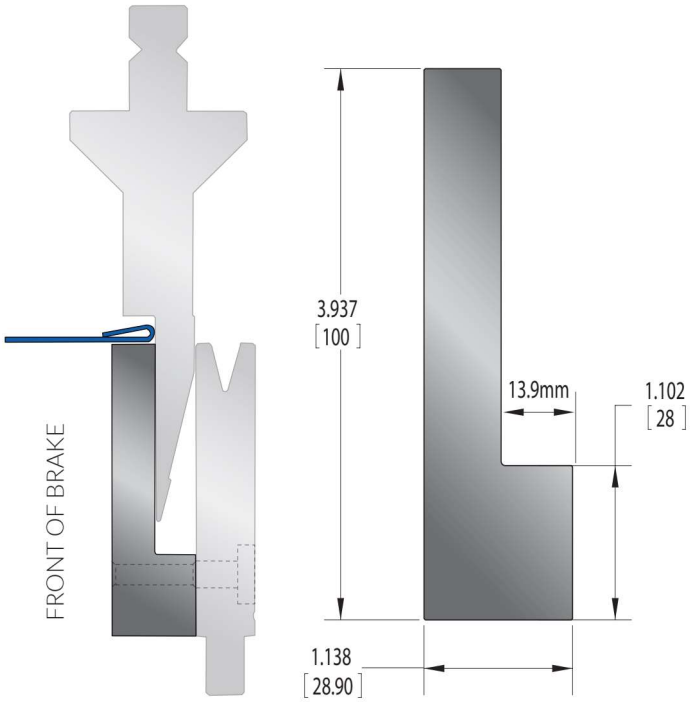
MTO size available upon request.

M Made To Order



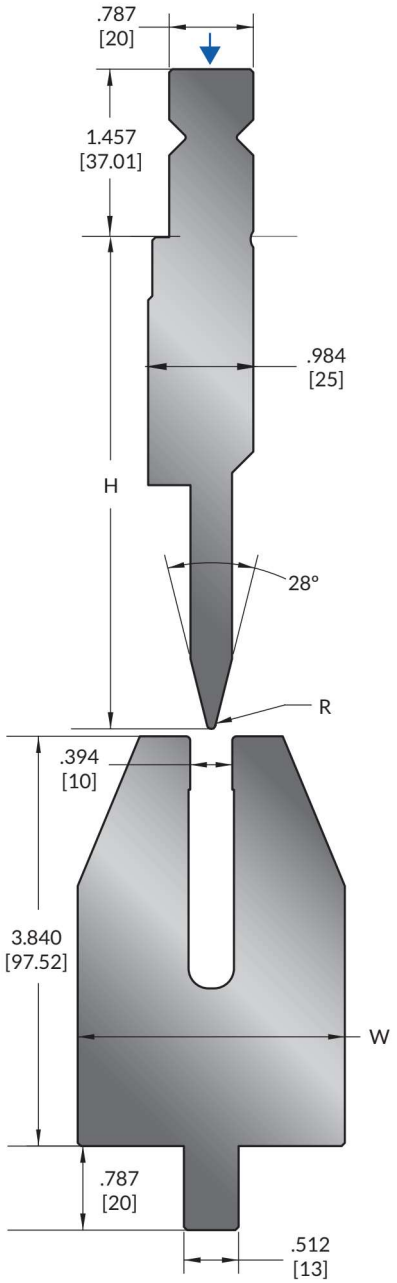
FLATTENING 'I' SPACER BLOCK ATTACHMENT				
CAT. NO.	500 19.7" [500mm]	Sectionalized		
		X 41.3" [1050mm]	X1 19.7" [500mm]	X2 21.65" [550mm]
65300001				

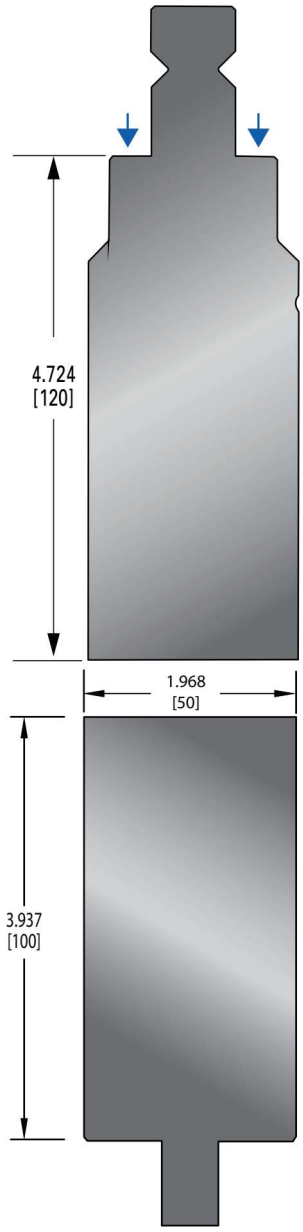
MOUNTING HARDWARE KIT			
CAT. NO.	V Opening [mm]	500 19.7 [500] (7 incl.)	X 41.3 [1050] (13 incl)
H/6-10	6-10		
H/12	12		
H/16	16		
Each kit includes (2) socket head cap screws and (1) nut.			
980883	M8 x 1.25 Hex Nut Class 10		
970508	M8 x 30mm LG socket head cap screw		
8001944	M8 x 45mm LG socket head cap screw		



FLATTENING 'L' SPACER BLOCK ATTACHMENT				
CAT. NO.	500 19.7" [500mm]	Sectionalized		
		X 41.3" [1050mm]	X1 19.7" [500mm]	X2 21.65" [550mm]
65300002				

MOUNTING HARDWARE KIT			
CAT. NO.	V Opening [mm]	500 19.7 [500] (7 incl.)	X 41.3 [1050] (13 incl)
H/6-10	6-10		
H/12	12		
H/16	16		
Each kit includes (2) socket head cap screws and (1) nut.			
980883	M8 x 1.25 Hex Nut Class 10		
970508	M8 x 30mm LG socket head cap screw		
8001944	M8 x 45mm LG socket head cap screw		





28° TWO STAGE HEMMING PUNCH									
CAT. NO.	R Tip Radius inch [mm]	A Angle	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	Sectionalized		
							X 41.3 [1050]	X1 19.7 [500]	X2 21.65 [550]
				Button Options:		CS	B1	B1	B1
69528010	.039 [1.0]	28	5.512 [140]	1000	31 [102]				
60528010	.039 [1.0]	28	4.724 [120]						

TWO STAGE HEMMING DIE					
CAT. NO.	V Opening inch [mm]	W Width inch [mm]	kN/m	Max Ton feet [meter]	500 19.7" [500mm]
65530010	.394 [10]	2.362 [60]	1000	31 [102]	

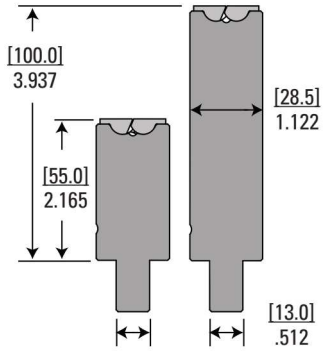
FLATTENING PUNCH			
CAT. NO.	500 19.7" [500mm]	X1 19.7 [500]	X2 21.65 [550]
Button Option	P	B1	B1
69500000			

FLATTENING DIE			
CAT. NO.	500 19.7" [500mm]	X1 19.7 [500]	X2 21.65 [550]
65300003			

- Tonnage is based on direct load and does not apply for thrusting applications.
- Maximum material is 16ga. Cold rolled steel

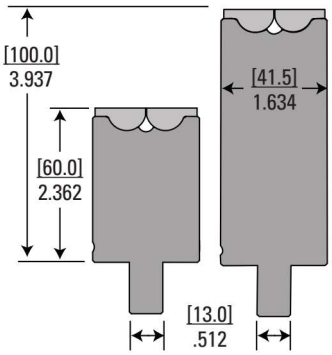
V-SERIES BLACK

MODEL 1



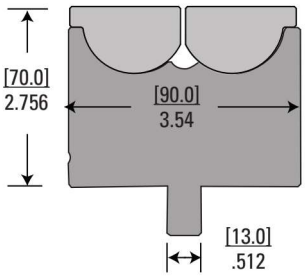
61055 61100

MODEL 2



62060 62100

MODEL 3



63070

MODEL 1 WT PRECISION V-SERIES BLACK

Height	9.84" [250mm]			19.68" [500mm] SOLID				21.65" [550mm] SECTIONAL				SPRINGS		
	Assembly CAT. NO.	WT. [lbs.]	PRICE	Assembly CAT. NO.	WT. [lbs.]	PRICE	250 Insert CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	500 mm QTY	550 mm QTY
55	61055-250	6		61055-500	11		(4) 980872A	61055-550	13		980873A and 980874A	980683	40	44
100	61100-250	10		61100-500	20			61100-550	22			981031		

MODEL 2 WT PRECISION V-SERIES BLACK

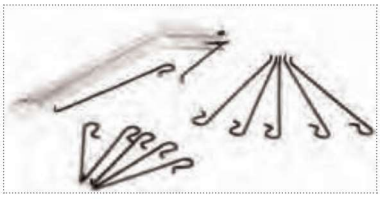
Height	9.84" [250mm]			19.68" [500mm] SOLID				21.65" [550mm] SECTIONAL				SPRINGS		
	Assembly CAT. NO.	WT. [lbs.]	PRICE	Assembly CAT. NO.	WT. [lbs.]	PRICE	250 Insert CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	250 mm QTY	455 mm QTY
60	62060-250	9		62060-500	15		(4) 980948	62060-550	17		980949 and 980950	980682	40	44
100	62100-250	14		62100-500	25			62100-550	29			981032		

MODEL 3 WT PRECISION V-SERIES BLACK

Height	3.94" [100mm]				9.84" [250mm]				17.91" [455mm]				SPRINGS			
	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	Assembly CAT. NO.	WT. [lbs.]	PRICE	Inserts CAT. NO.	CAT. NO.	WT. [lbs.]	500 mm QTY	550 mm QTY
70	63070.2-100	11		987163	63070.2-250	27		980959	63070.2-455	47		980960 and 980977	980881	.25	8	18

INSTALLATION TOOLS

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



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

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



See this tool in action on the Wilson Tool YouTube Channel

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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					

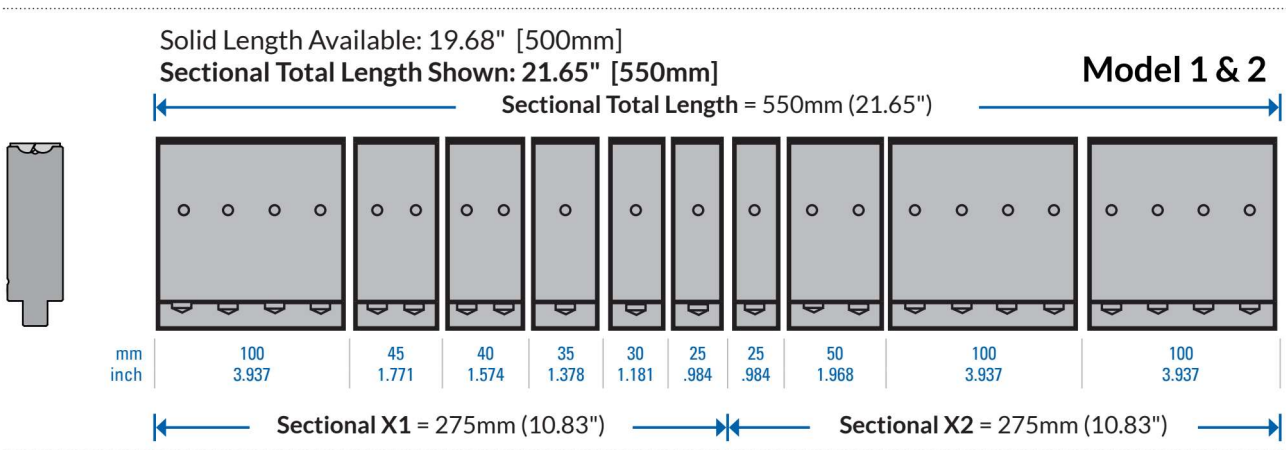
V OPENING AND SHOULDER RADIUS DIMENSIONS				
MODEL	SHOULDER RAD inch/[mm]	DESIRED ANGLE	THEORETICAL V - METRIC	THEORETICAL V - IMPERIAL
1	.040 [1.0]	90°	7.2	0.283
		34°	6.5	0.256
2	.051 [1.3]	90°	13.9	0.547
		42°	13.3	0.524
3	.236 [6.0]	90°	33.0	1.299
		65°	31.4	1.236



V-SERIES BLACK STANDARD LENGTHS

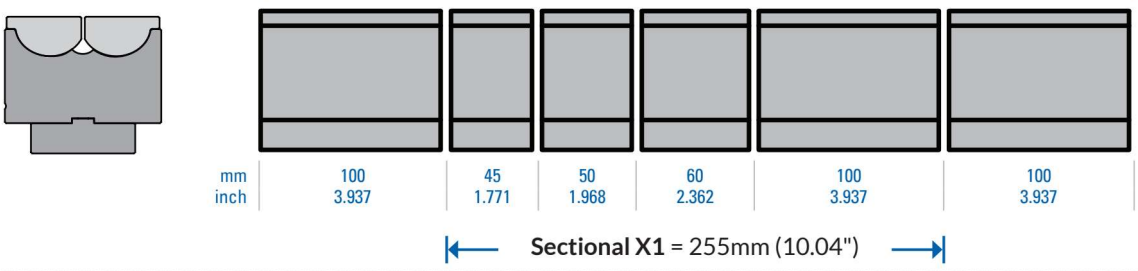
Solid Length Available: 19.68" [500mm]
Sectional Total Length Shown: 21.65" [550mm]

Model 1 & 2

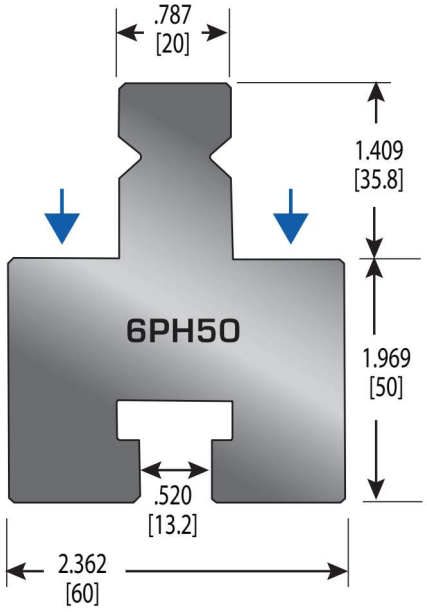


Solid Length Available: 9.84" [250mm]
Sectional Total Length Shown: 17.91" [455mm]

Model 3

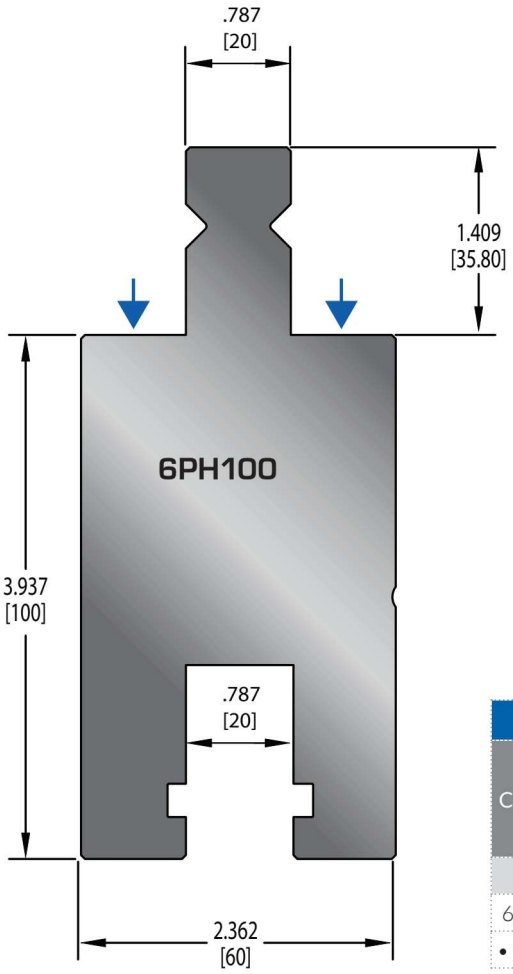


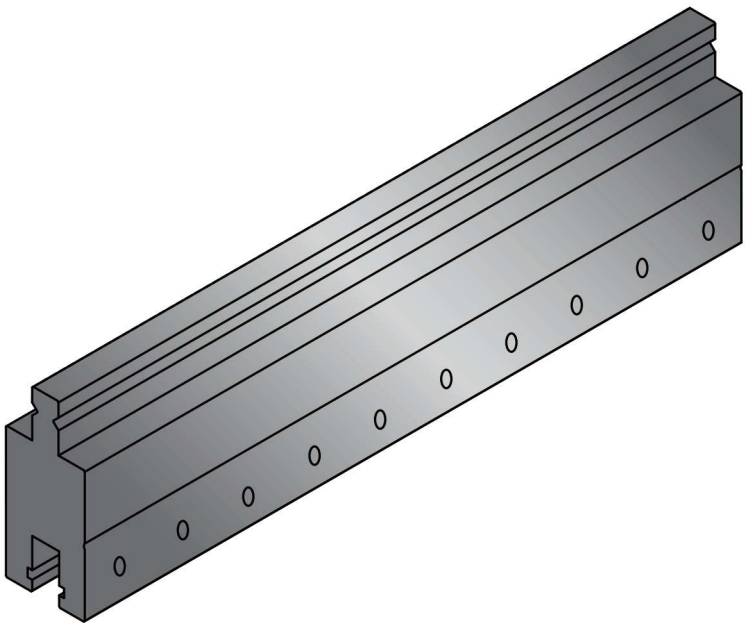
PUNCH HOLDER



WT TO AMERICAN PUNCH HOLDER							
CAT. NO.	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	SECTIONALIZED X 41.3 [1050]	SECTIONALIZED X1 19.7 [500]	SECTIONALIZED X2 21.65 [550]
			Button Options:	P	P/B3	B3	P/B3
6PH50	1.969 [50]	1900	60 [197]				

- Tonnage is based on direct load and does not apply for thrusting applications.
- Set screws every 2".

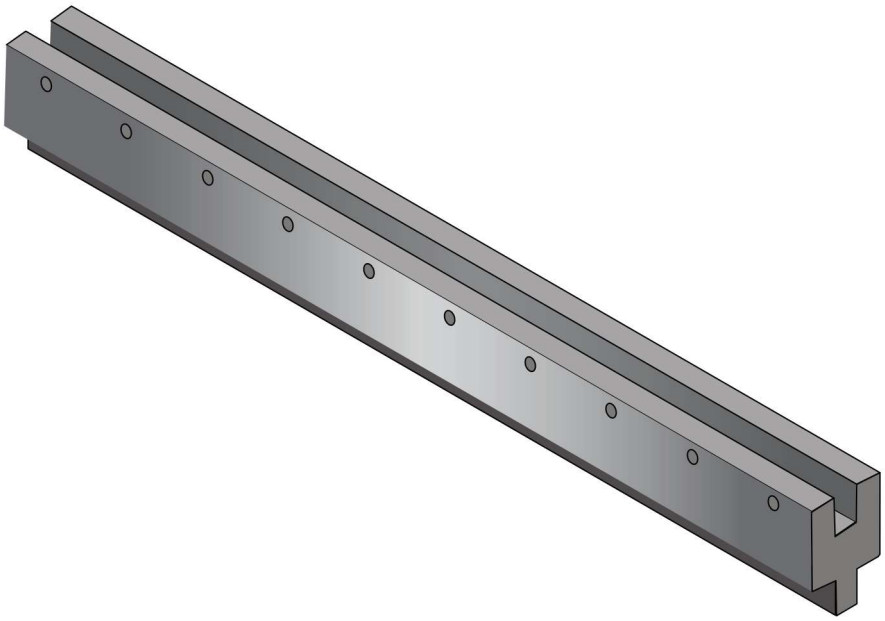


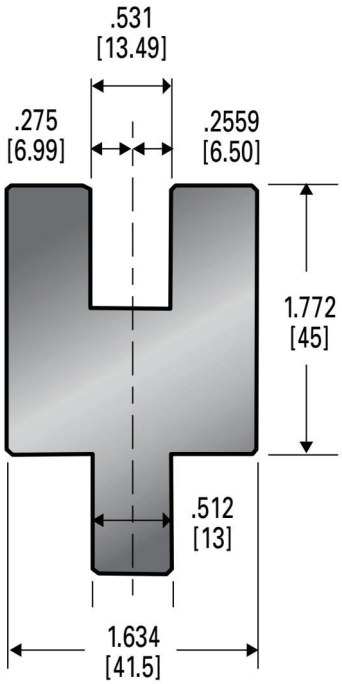


WT TO WT PUNCH HOLDER							
CAT. NO.	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7 [500]	SECTIONALIZED X 41.3 [1050]	SECTIONALIZED X1 19.7 [500]	SECTIONALIZED X2 21.65 [550]
			Button Options:	P	P/B3	B3	P/B3
6PH100	3.937 [100]	2300	70 [232]				

- Set screws every 2".

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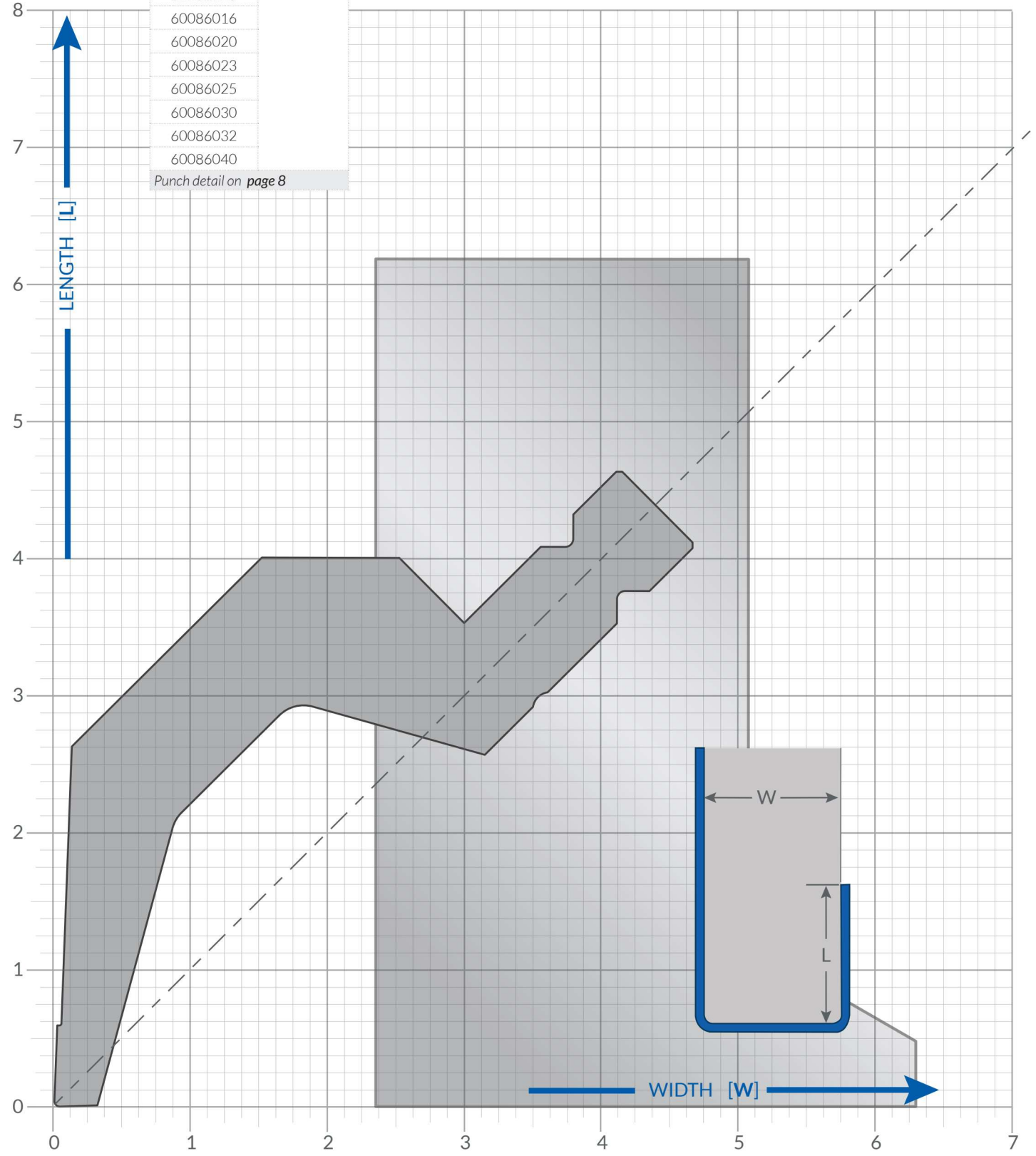


DIE HOLDER							
CAT. NO.	H Height inch [mm]	kN/m	Max Ton feet [meter]	500 19.7" [500mm]	X	X1	X2
6DH45	1.772 [45]	1700	52 [175]				
• Set screws every 2".							

600 86° SWAN NECK PUNCH

86° ANGLE CAT. NO.	NOTES
60086010	
60086005	
60086016	
60086020	
60086023	
60086025	
60086030	
60086032	
60086040	

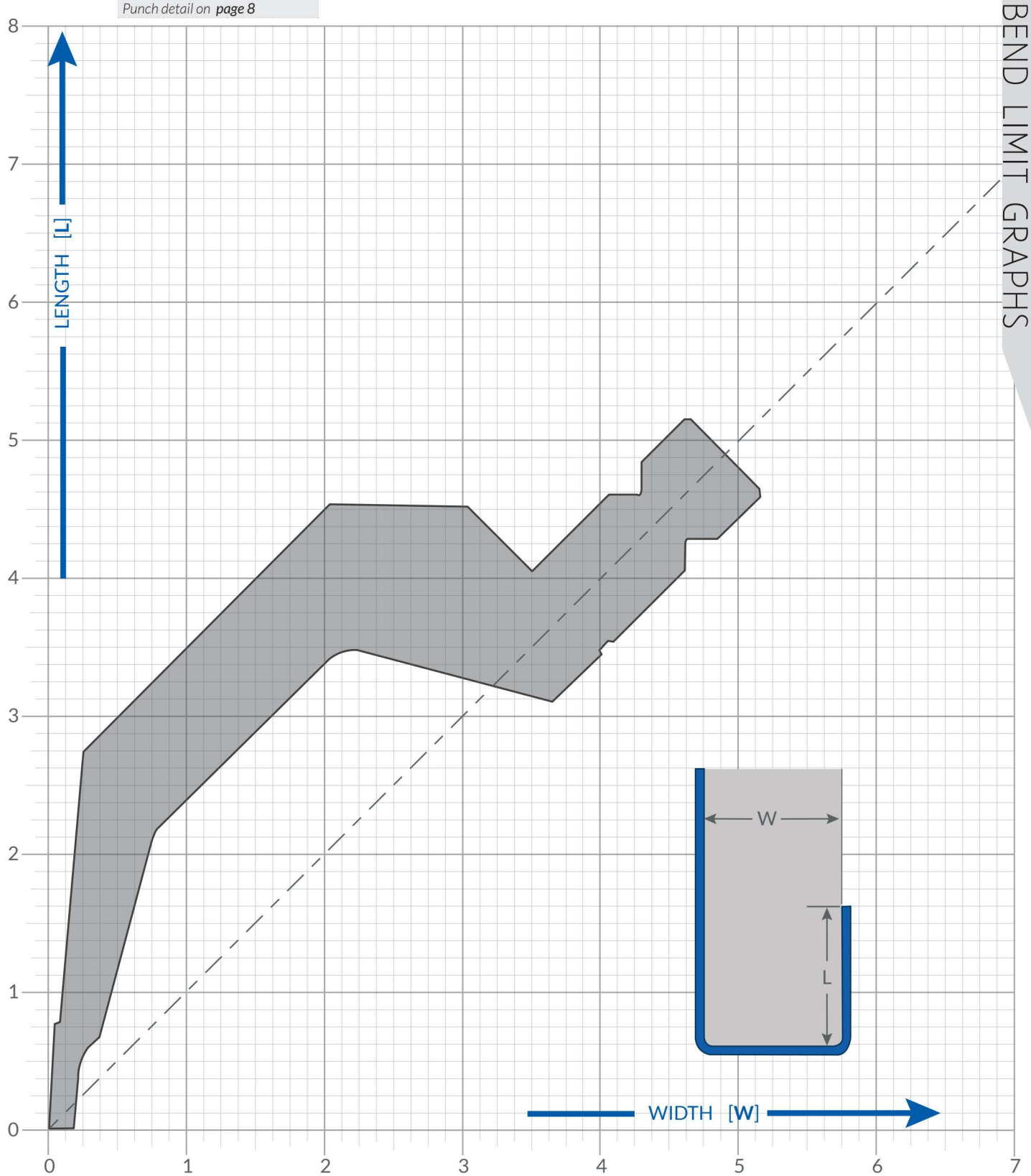
*Punch detail on **page 8***



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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

80° ANGLE CAT. NO.	NOTES
60580005	

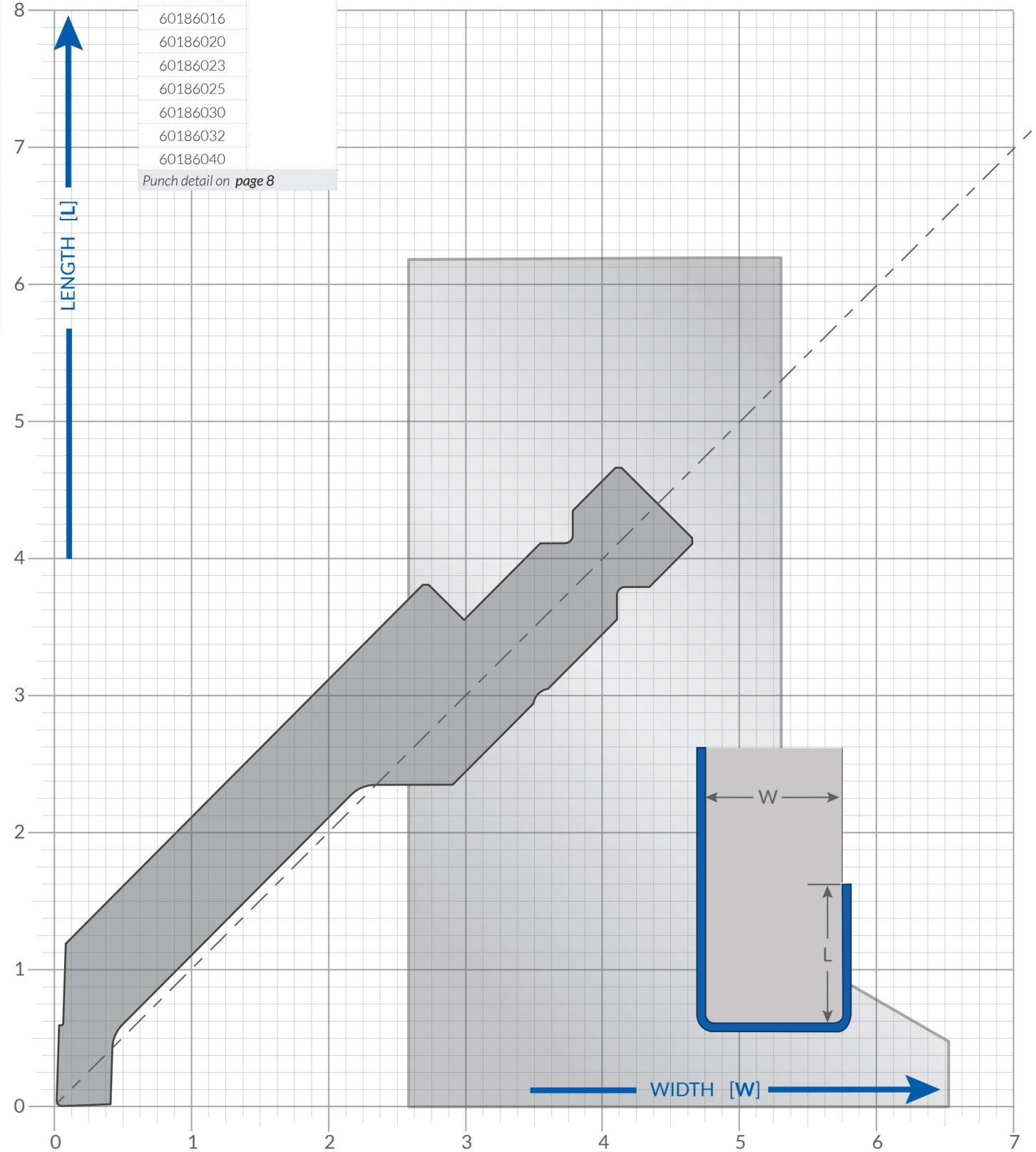
Punch detail on ***page 8***



601 86° GOOSE NECK PUNCH

86° ANGLE CAT. NO.	NOTES
60186010	
60186005	
60186016	
60186020	
60186023	
60186025	
60186030	
60186032	
60186040	

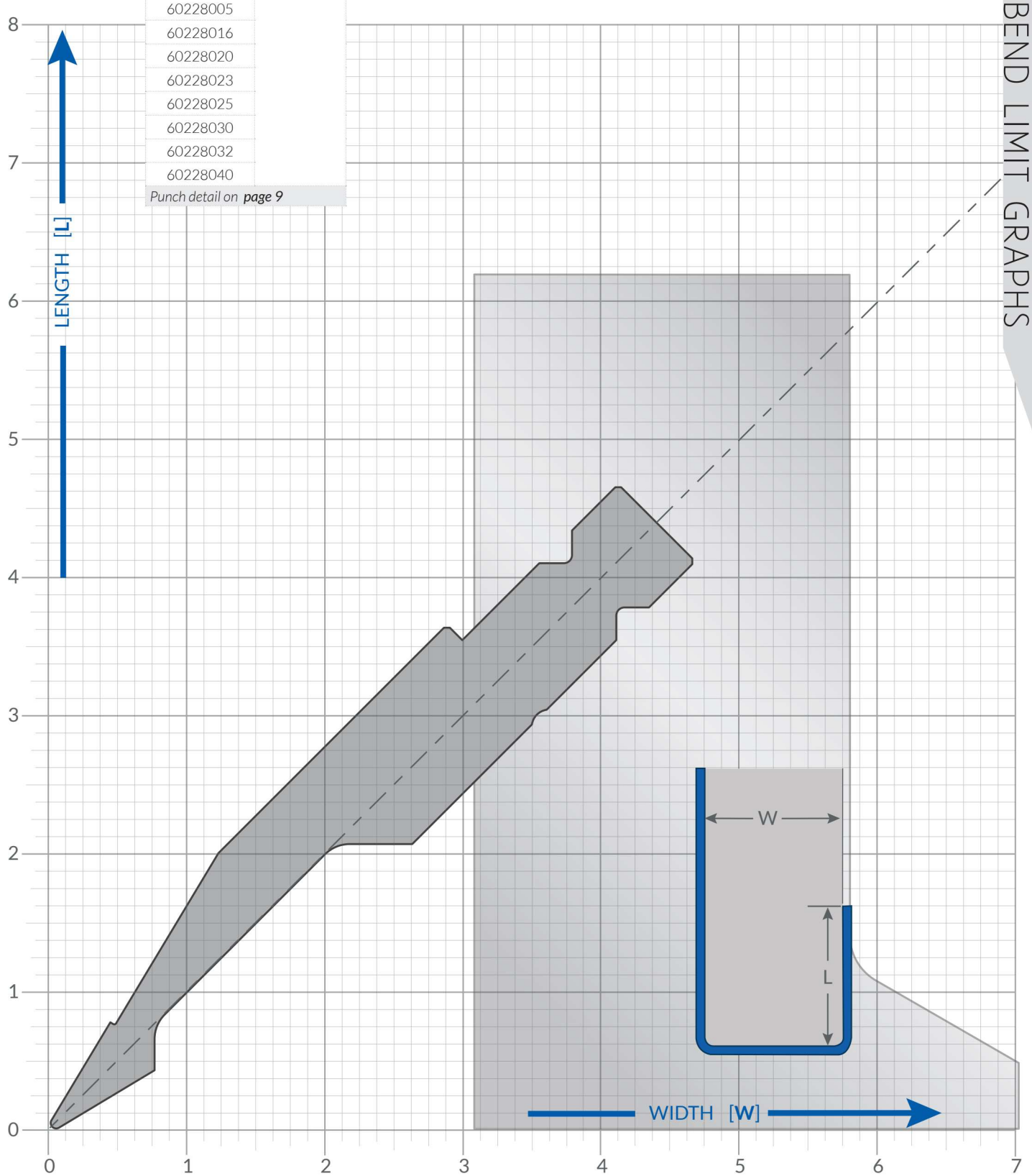
*Punch detail on **page 8***



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28° ANGLE CAT. NO.	NOTES
60228010	
60228005	
60228016	
60228020	
60228023	
60228025	
60228030	
60228032	
60228040	

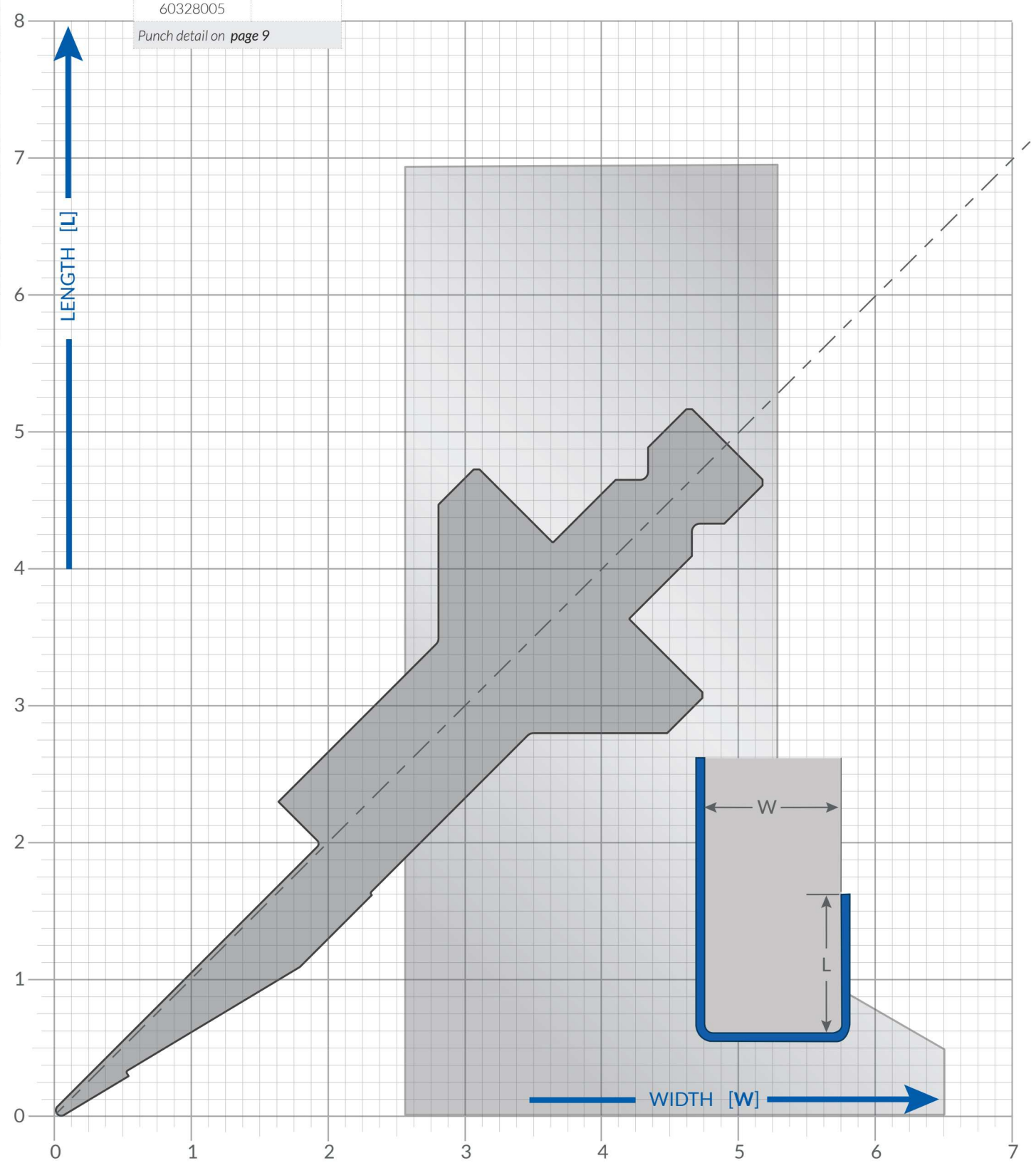
*Punch detail on **page 9***



BEND LIMIT GRAPHS

28° ANGLE CAT. NO.	NOTES
60328010	
60328005	

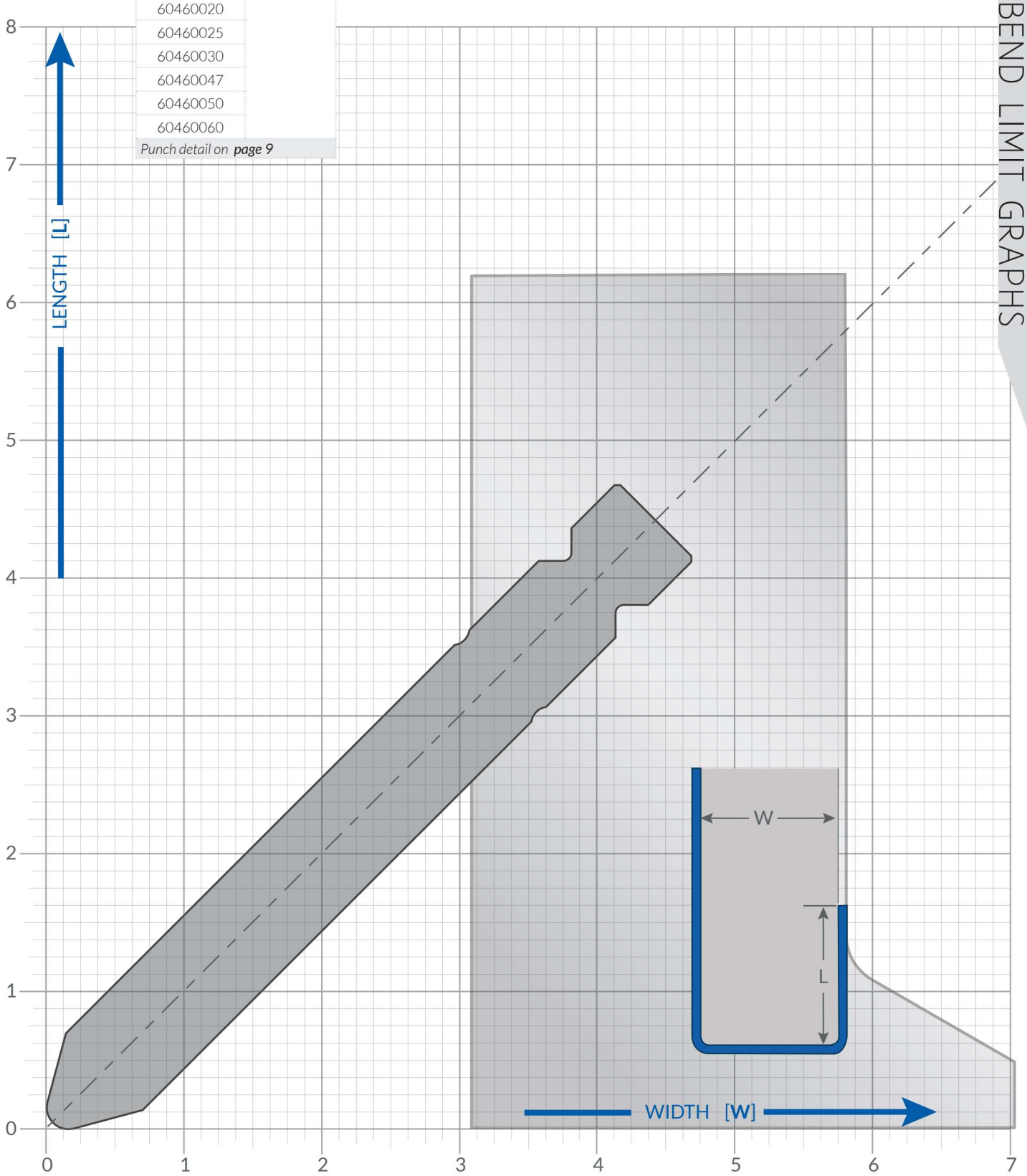
*Punch detail on **page 9***



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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

60° ANGLE CAT. NO.	NOTES
60460040	
60460020	
60460025	
60460030	
60460047	
60460050	
60460060	

*Punch detail on **page 9***

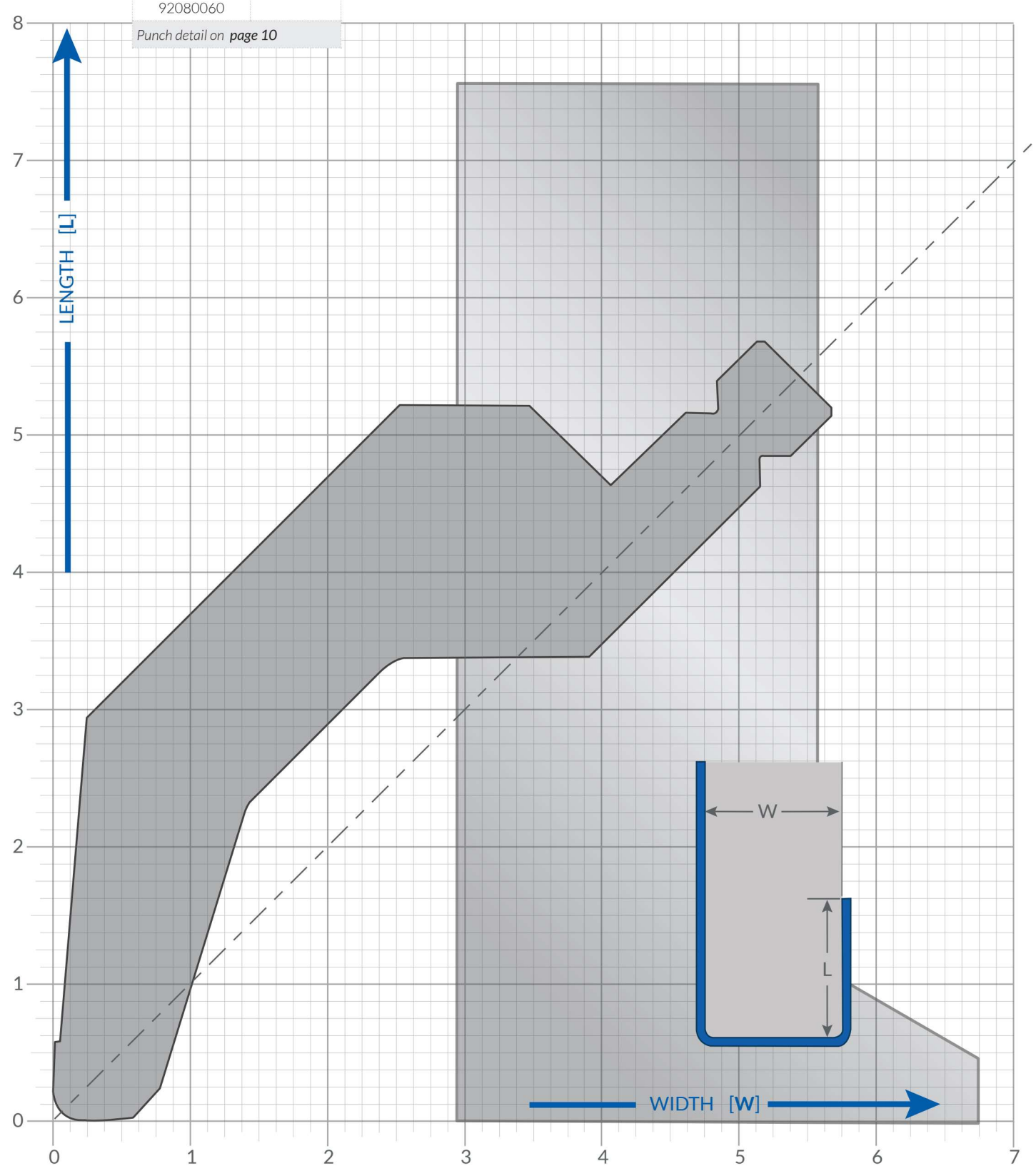


920 LARGE TIP 86° 163MM TALL PUNCH

BEND LIMIT GRAPHS

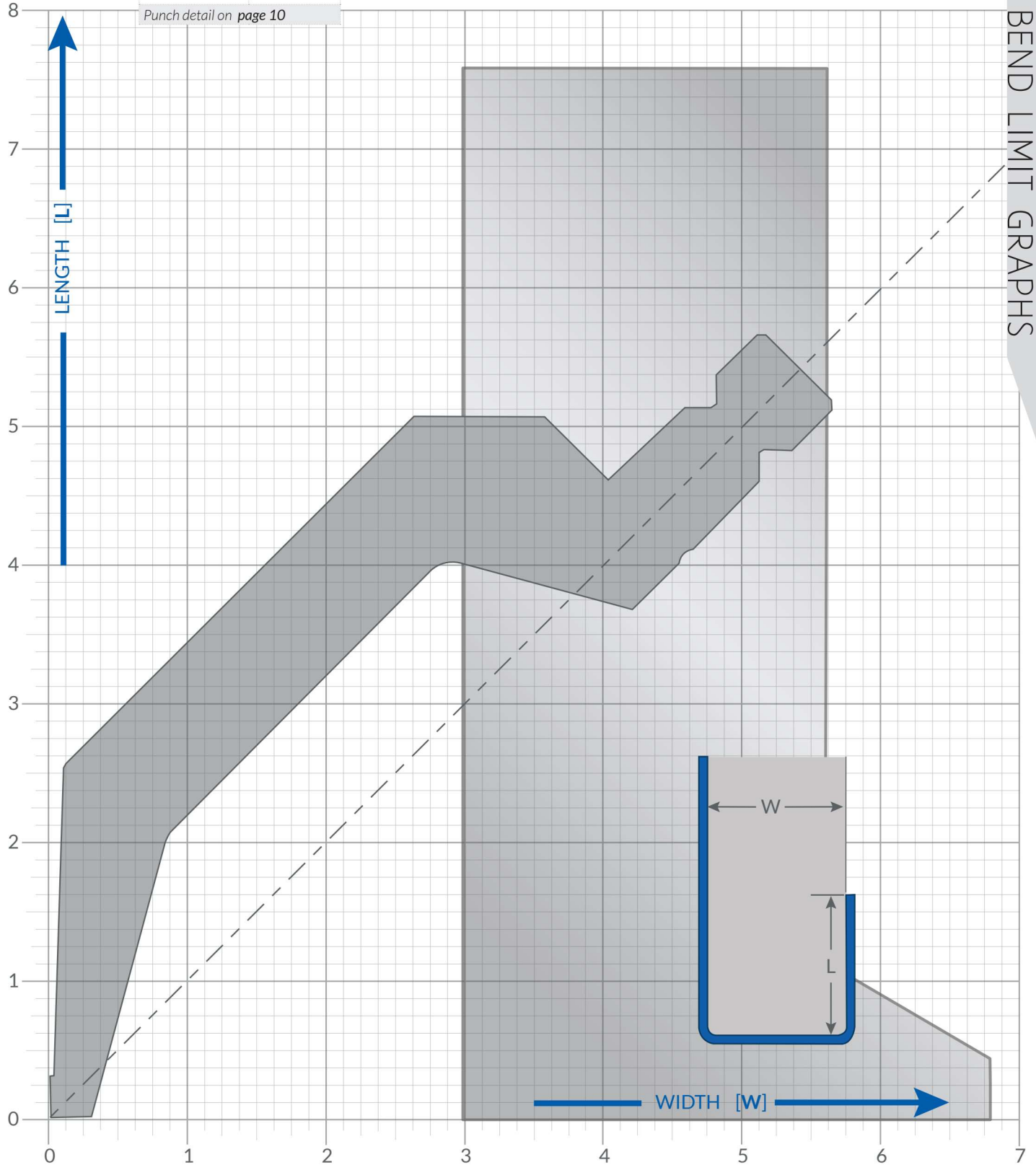
80° ANGLE CAT. NO.	NOTES
92080060	

Punch detail on ***page 10***



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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

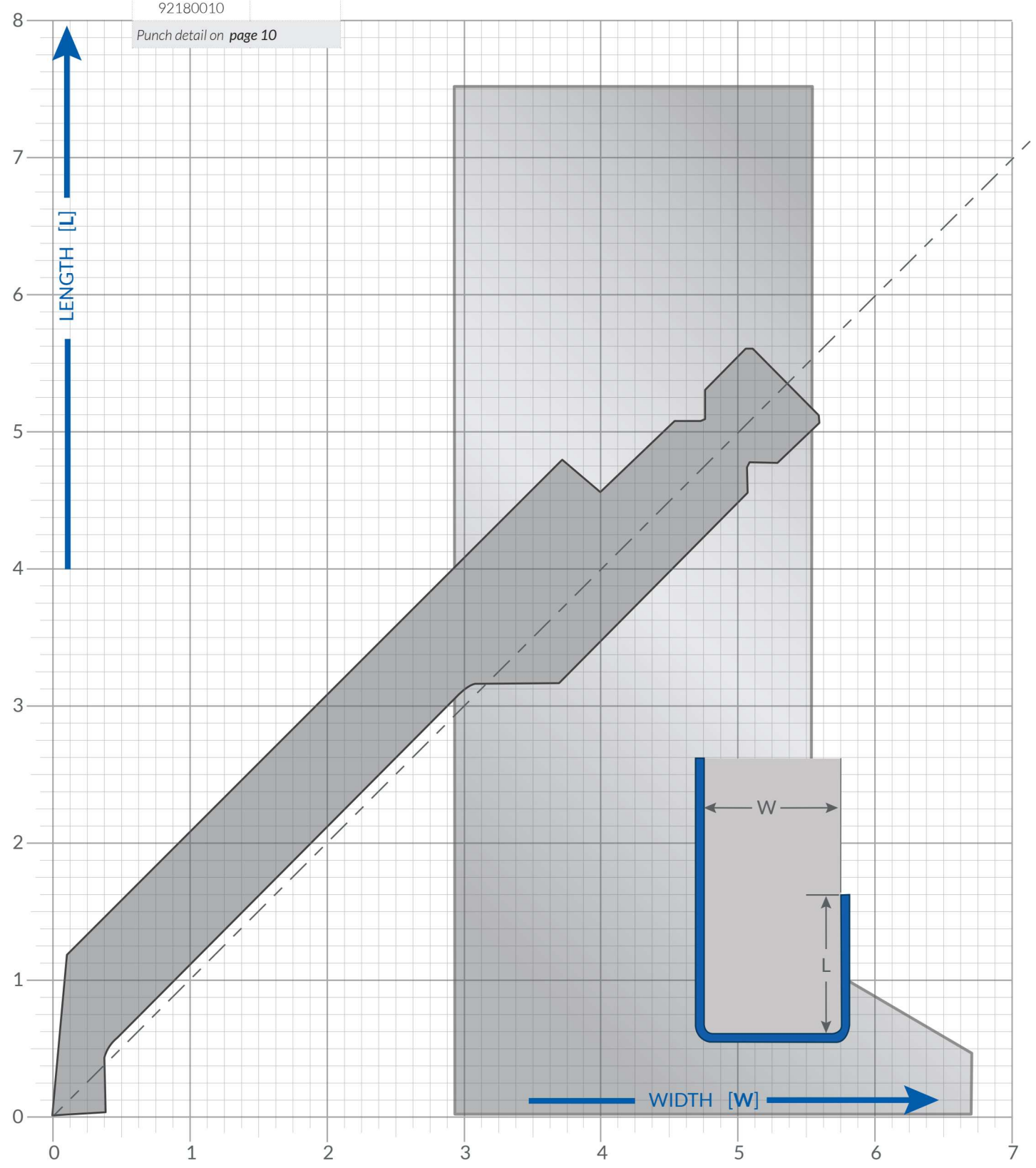
86° ANGLE CAT. NO.	NOTES
92086010	
Punch detail on ***page 10***	



921 80° 163MM TALL PUNCH

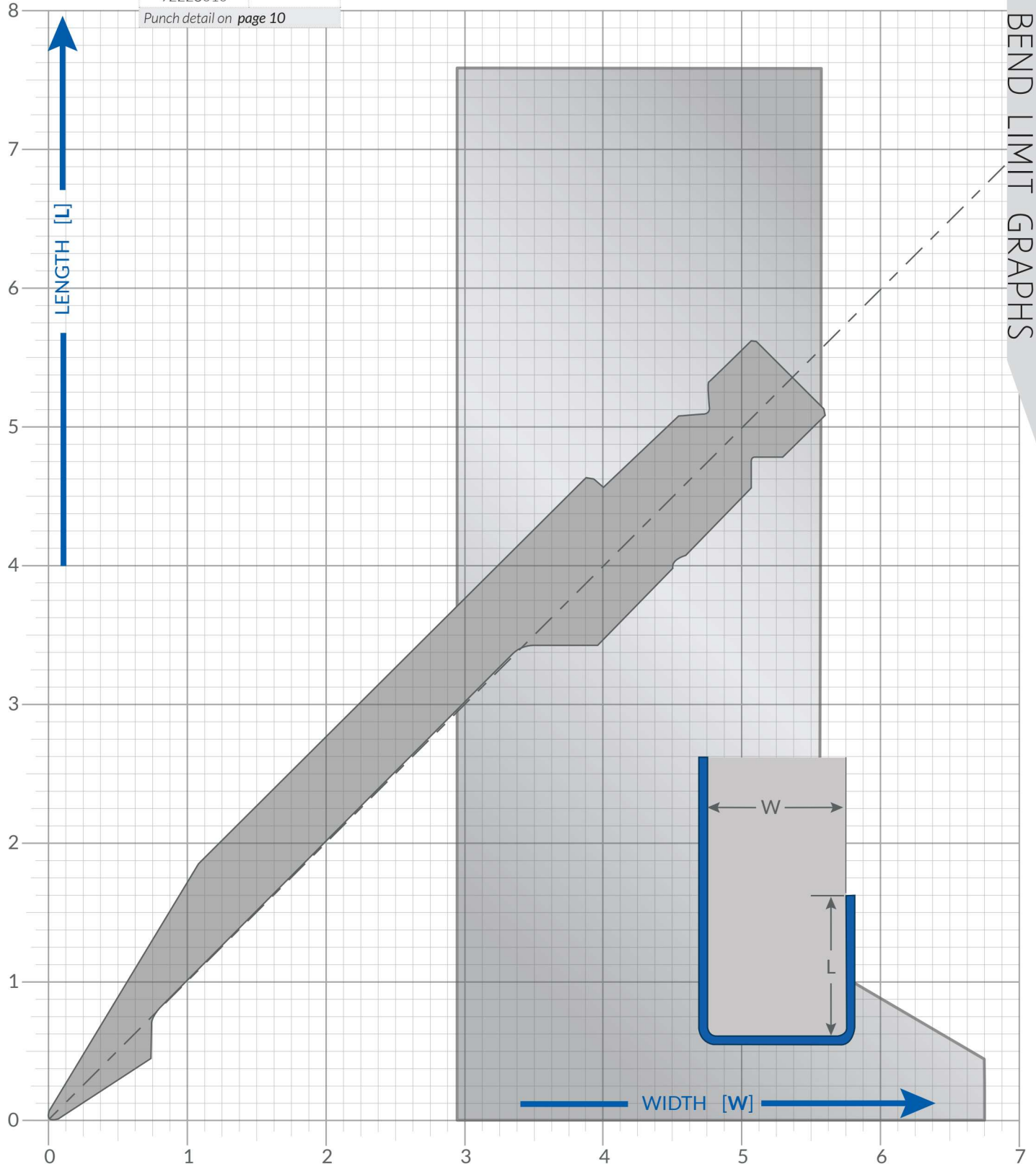
80° ANGLE CAT. NO.	NOTES
92180010	

Punch detail on ***page 10***



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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

28° ANGLE CAT. NO.	NOTES
92228010	
Punch detail on ***page 10***	

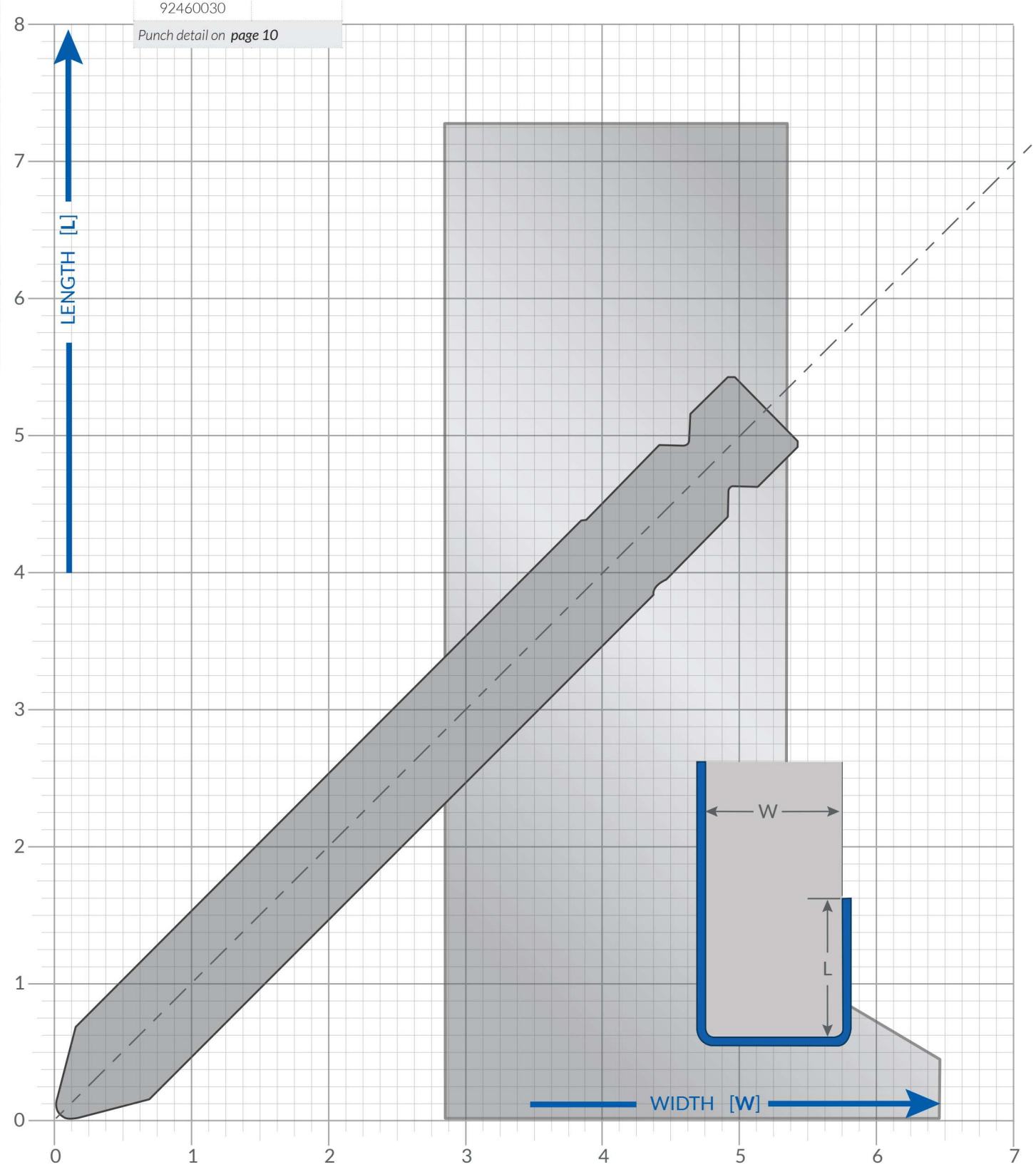


924 60° 163MM TALL PUNCH

BEND LIMIT GRAPHS

60° ANGLE CAT. NO.	NOTES
92460030	

Punch detail on ***page 10***

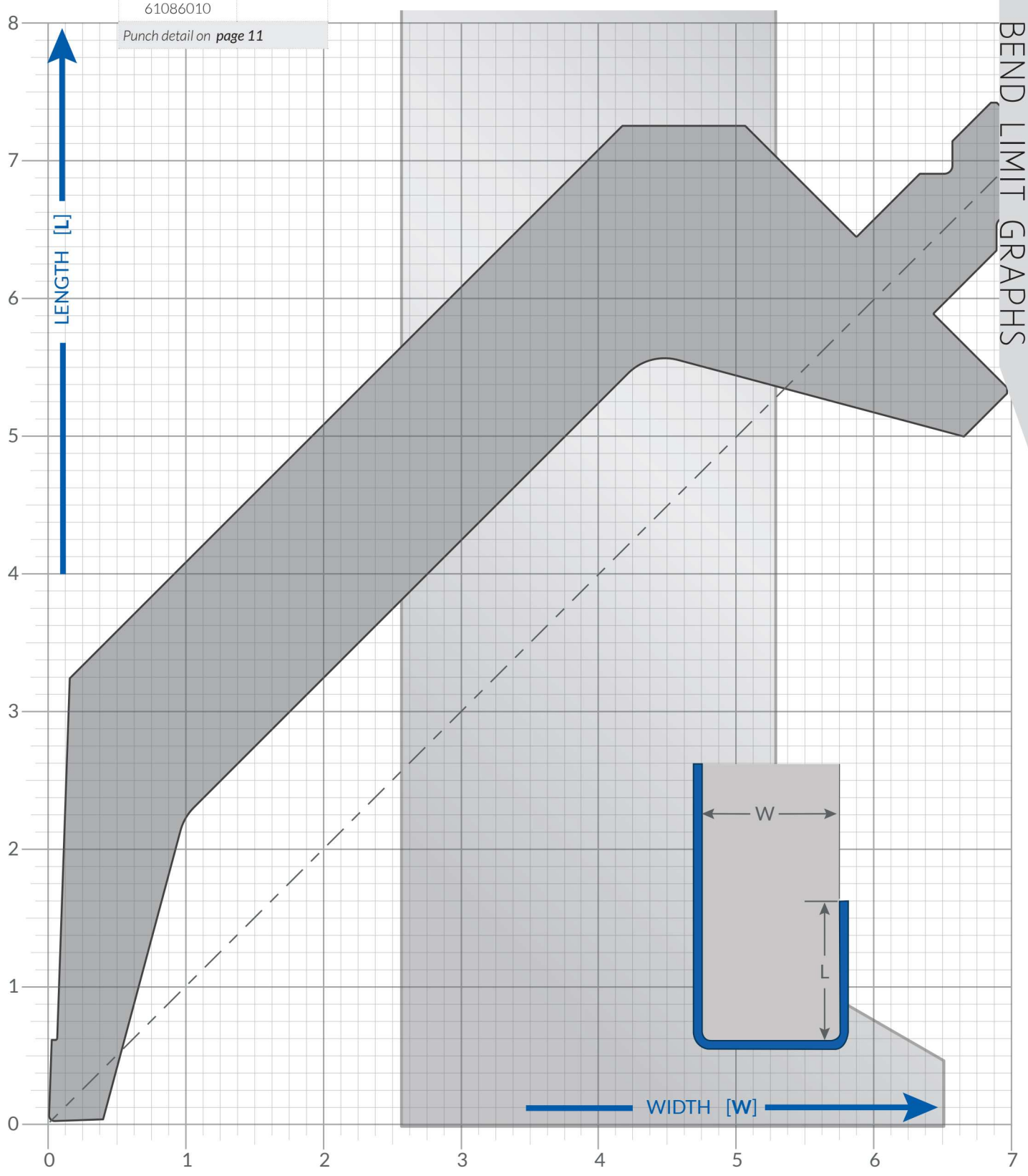


US Headquarters tel: 800.445.4518 bending@wilsontool.com
Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com

86° ANGLE CAT. NO.	NOTES
61086010	

Punch detail on ***page 11***

BEND LIMIT GRAPHS

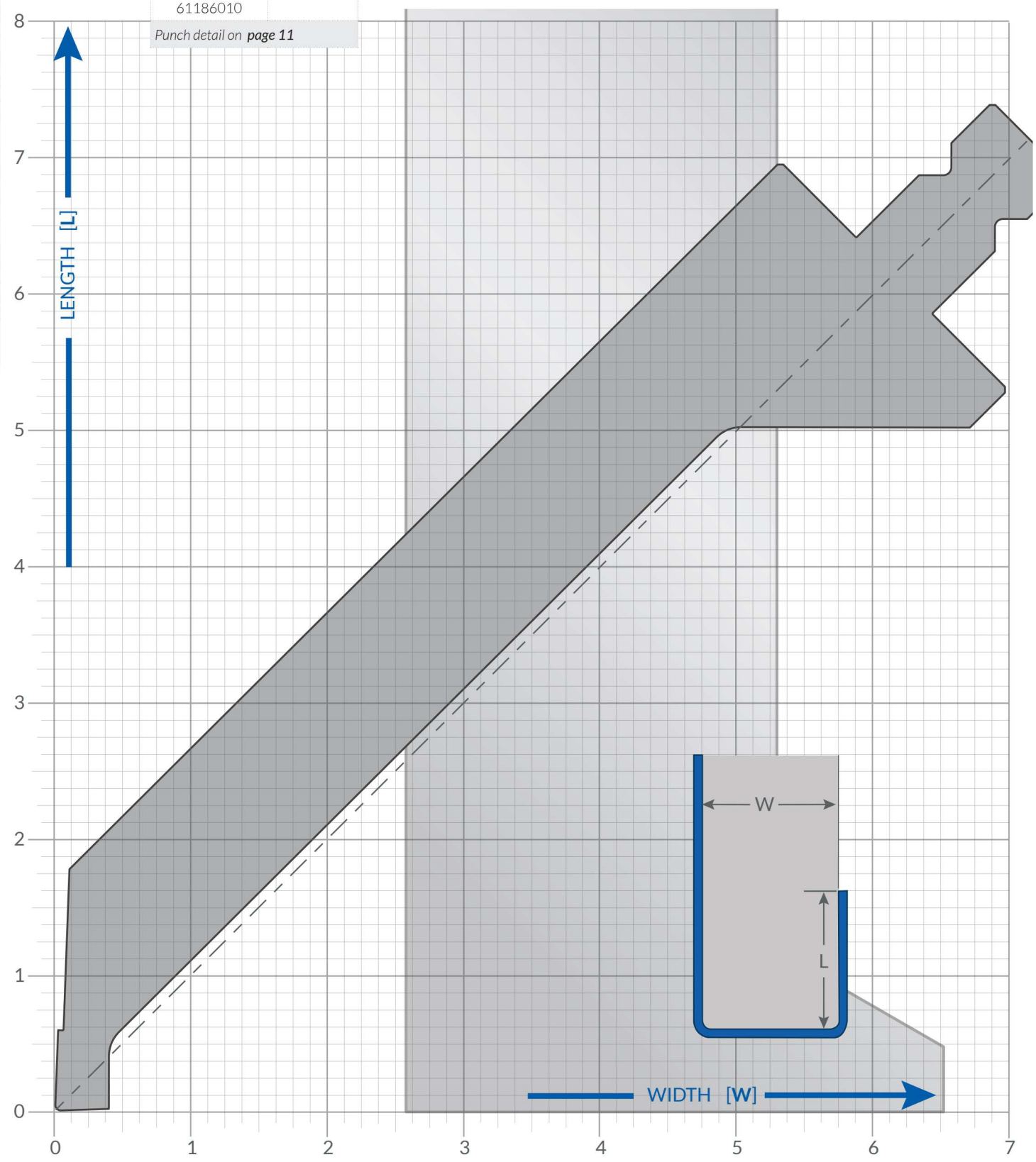


611 86° GOOSE NECK PUNCH

BEND LIMIT GRAPHS

86° ANGLE CAT. NO.	NOTES
61186010	

Punch detail on ***page 11***

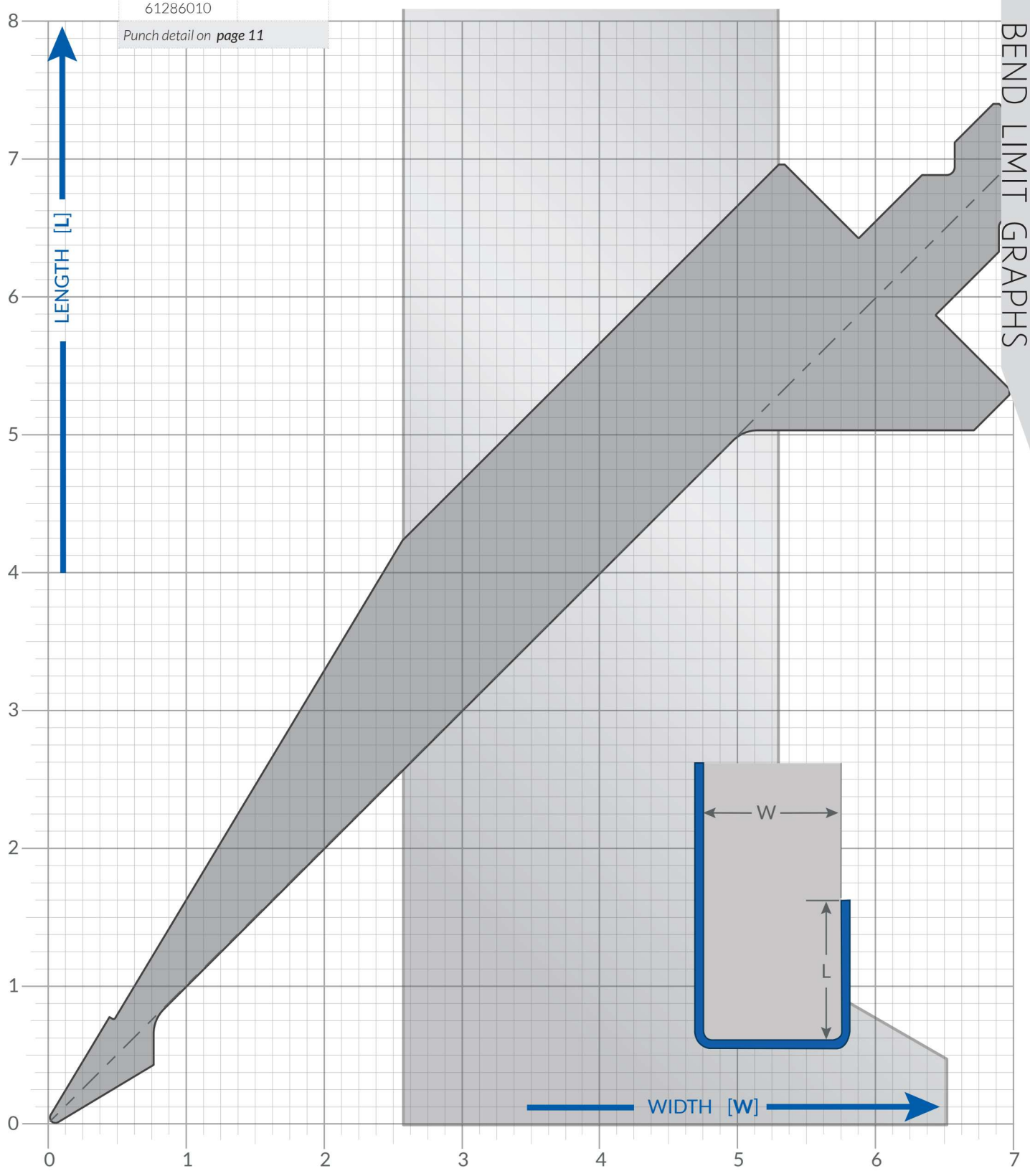


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Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com

28° ANGLE CAT. NO.	NOTES
61286010	

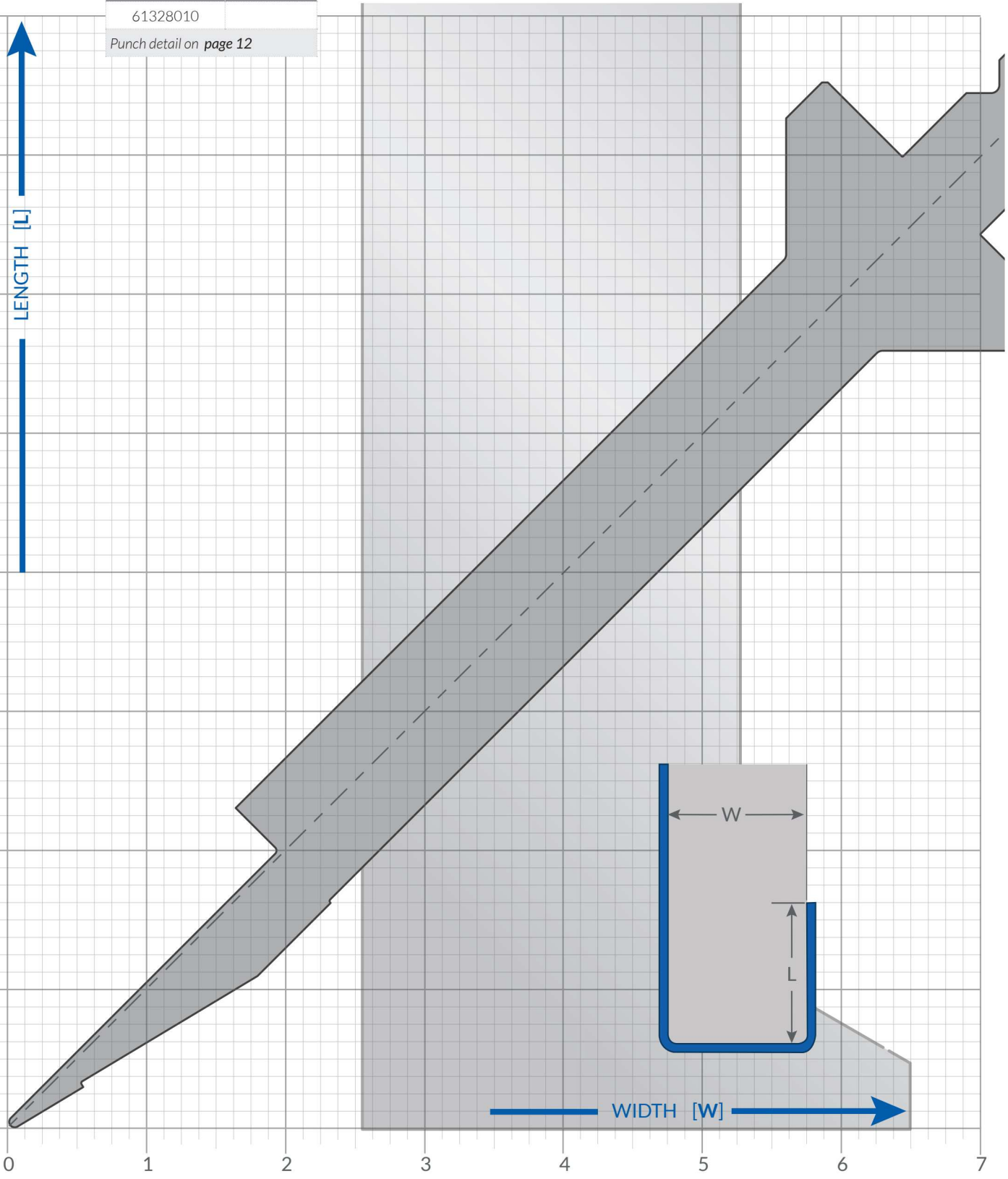
Punch detail on ***page 11***

BEND LIMIT GRAPHS



BEND LIMIT GRAPHS

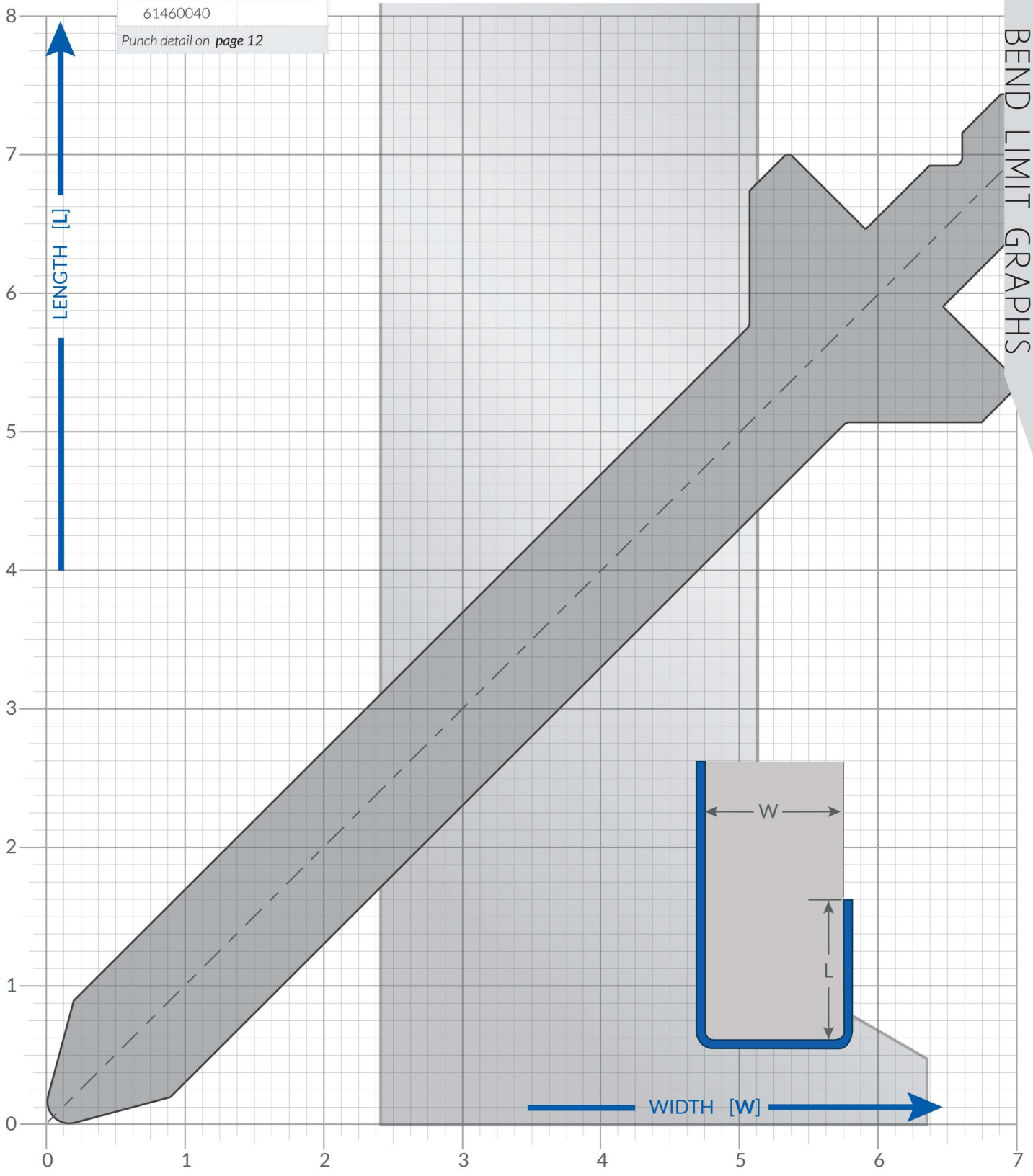
28° ANGLE CAT. NO.	NOTES
61328010	
Punch detail on ***page 12***	



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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

60° ANGLE CAT. NO.	NOTES
61460040	

Punch detail on ***page 12***



BEND LIMIT GRAPHS

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

ADJUSTABLE V DIE

see page 45

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

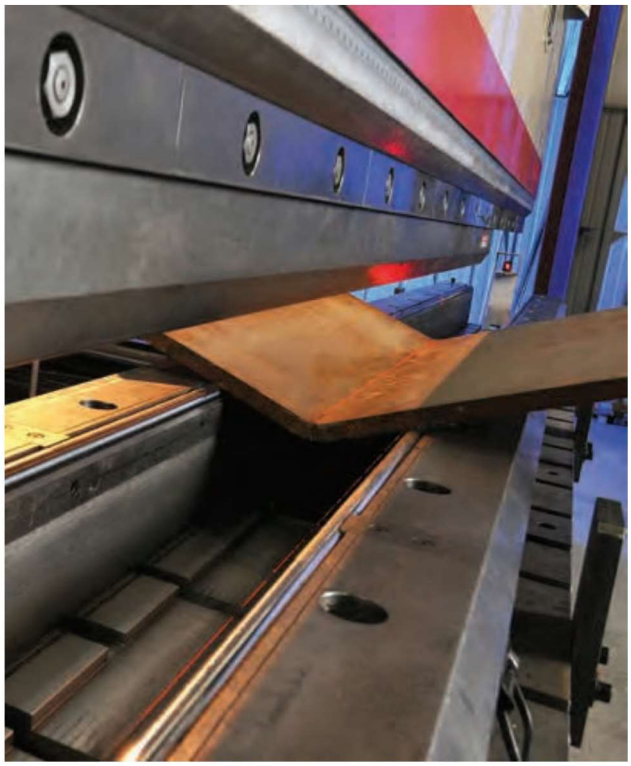
see page 45

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.

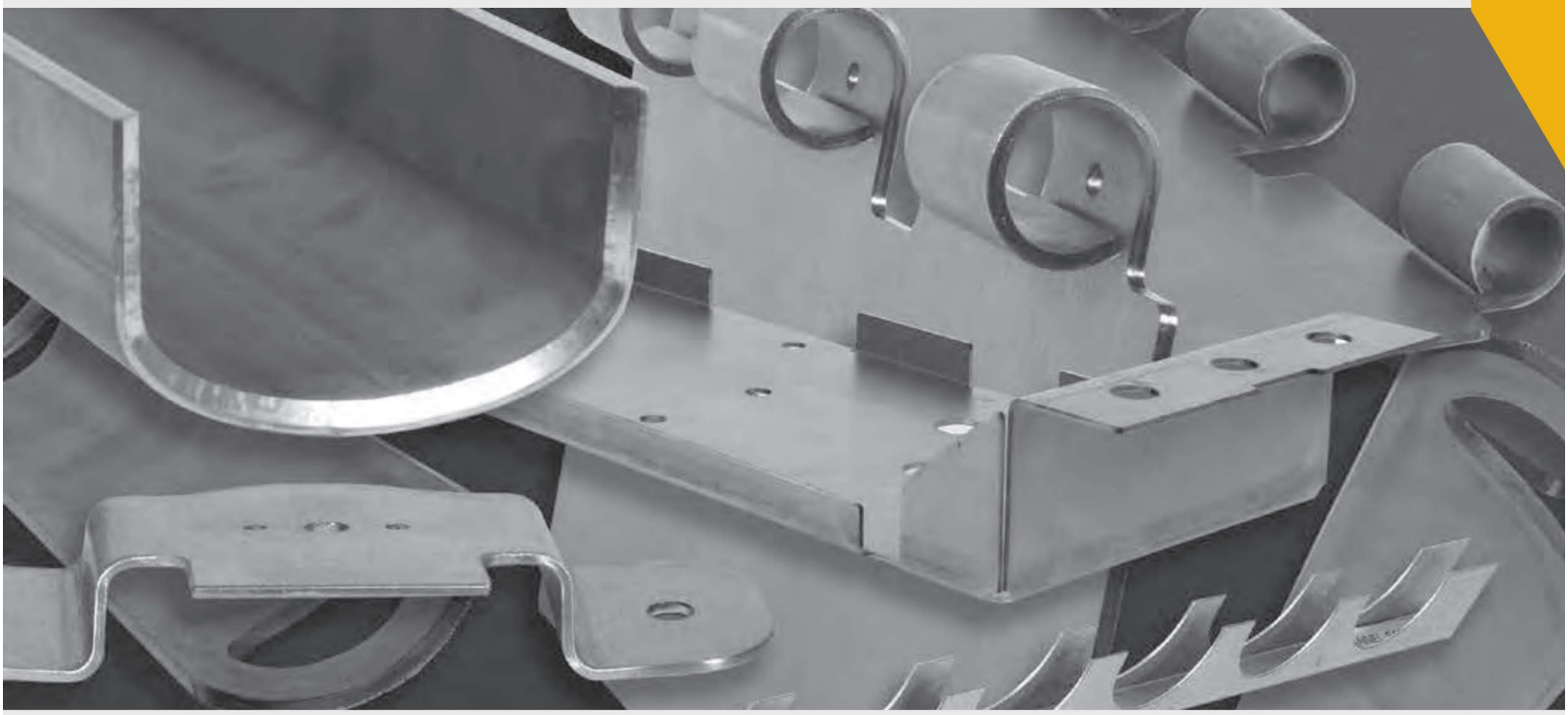
If additional surface hardness is needed for working with abrasive or hard material, we offer induction-hardening treatments on punch tips and die openings.



THICK MATERIAL BENDING CONSIDERATIONS:

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

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CHALLENGE US!

OUR "NEVER SAY NO" ATTITUDE

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

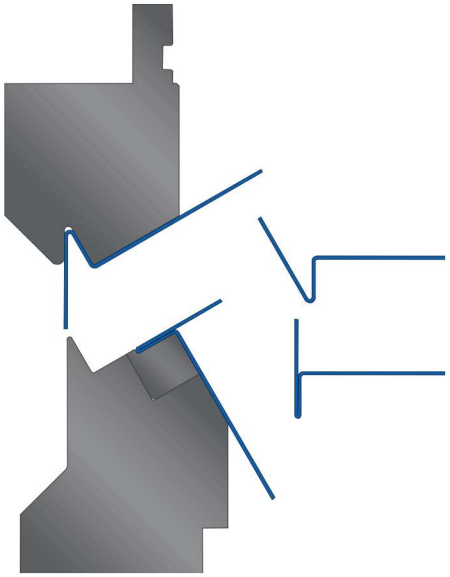
QUALITY MATERIALS. QUALITY CONTROL.

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

QUICK QUOTES. SHORT LEAD TIMES.

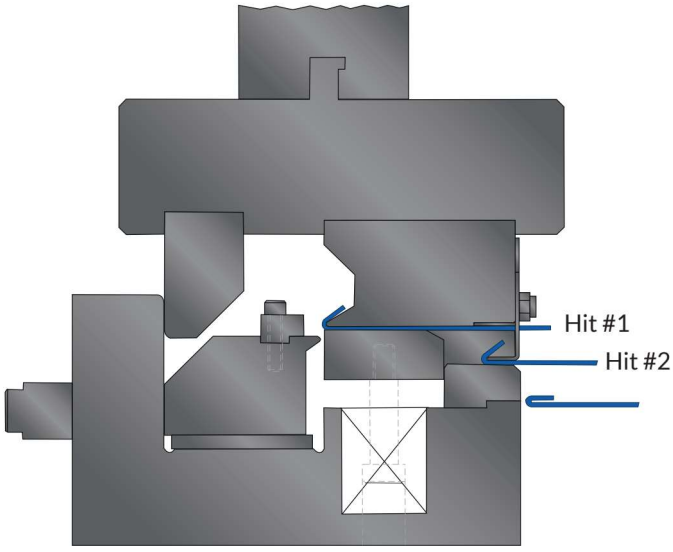
With the fastest lead times in the industry, our tool might ship before the competition provides a quote.

800-445-4518

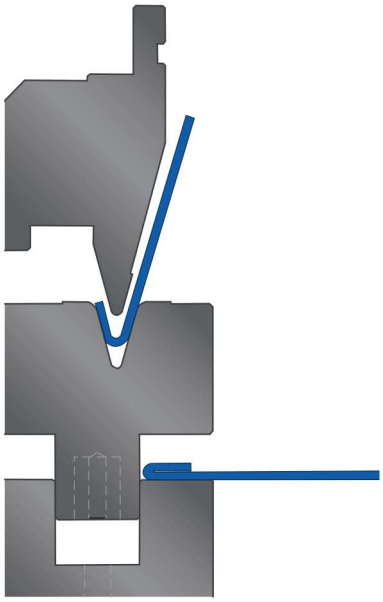


AH1 ANGLE HEM

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

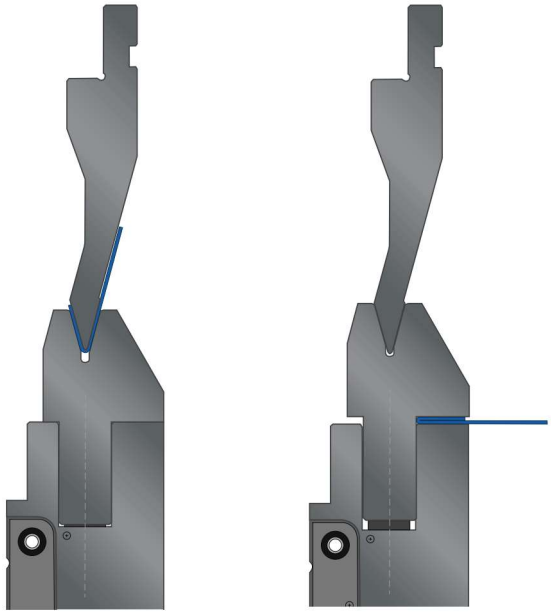


FSH1 FLAT SHEET HEM



HDH1 HEAVY DUTY HEM

Heavy Duty Hemming for thick gauge applications.

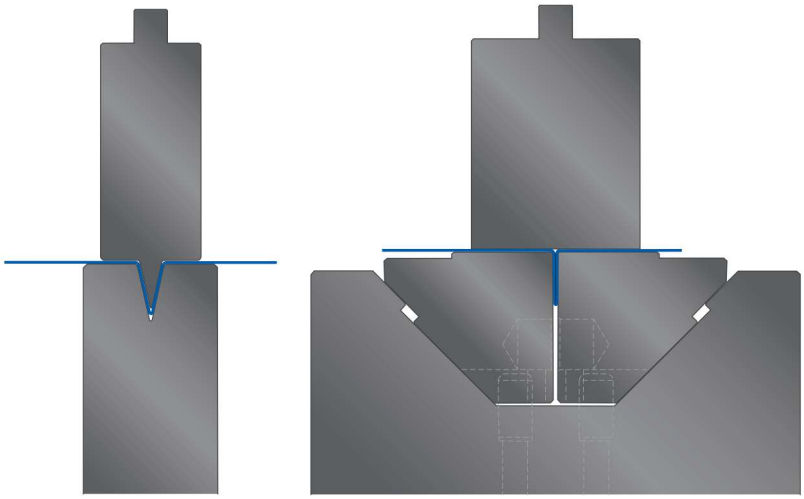


See this tool in action on the Wilson Tool YouTube Channel

PH1 PNEUMATIC HEM

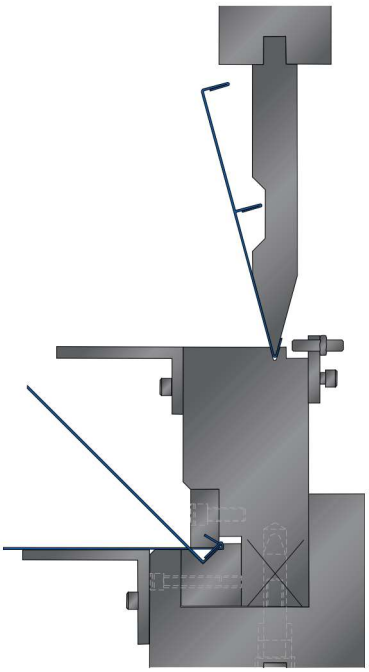
This tool set introduces pneumatic cylinders to rapidly open and close the pre-form insert. This set removes the inconsistency associated with pre-forming or acute bending on a spring actuated insert.

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Mexico tel: 001.800.741.2510 doblez@wilsontool.com



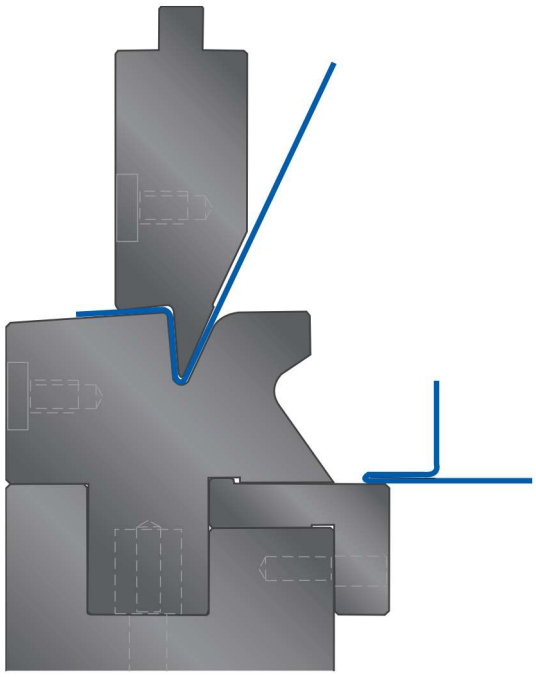
SH1 SEAM HEM

Two tool sets.
Two machine strokes.



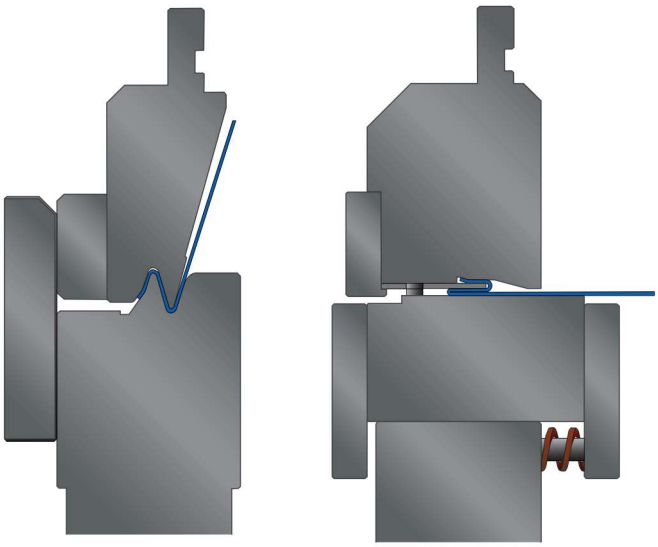
SSH2 STANDING SEAM HEM

See this tool in action on the Wilson Tool YouTube Channel



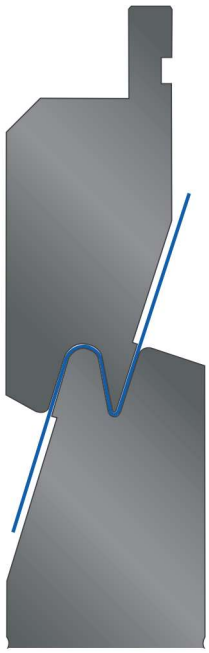
SSH1 STANDING SEAM HEM

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

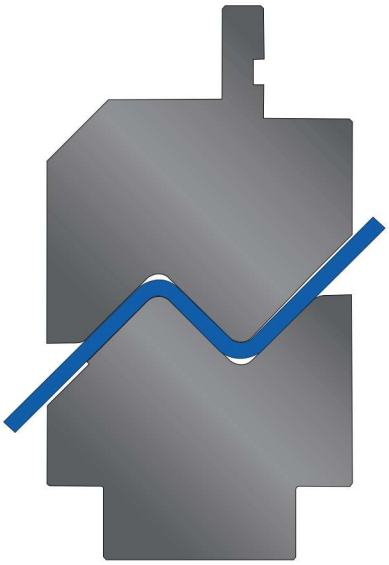


ZH1 Z HEM

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.

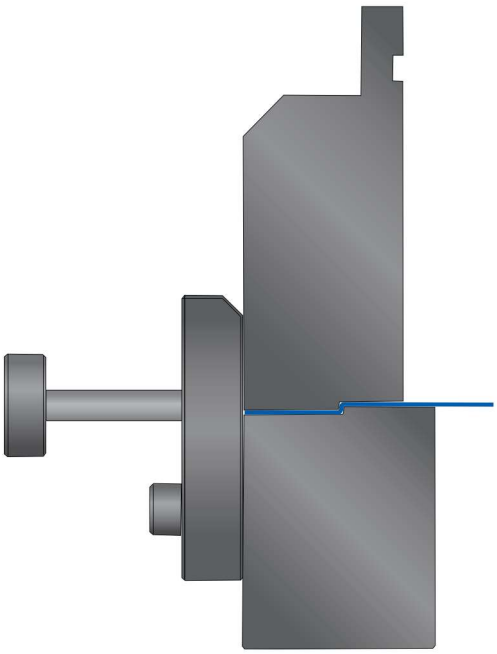


AO1 ANGLED OFFSET



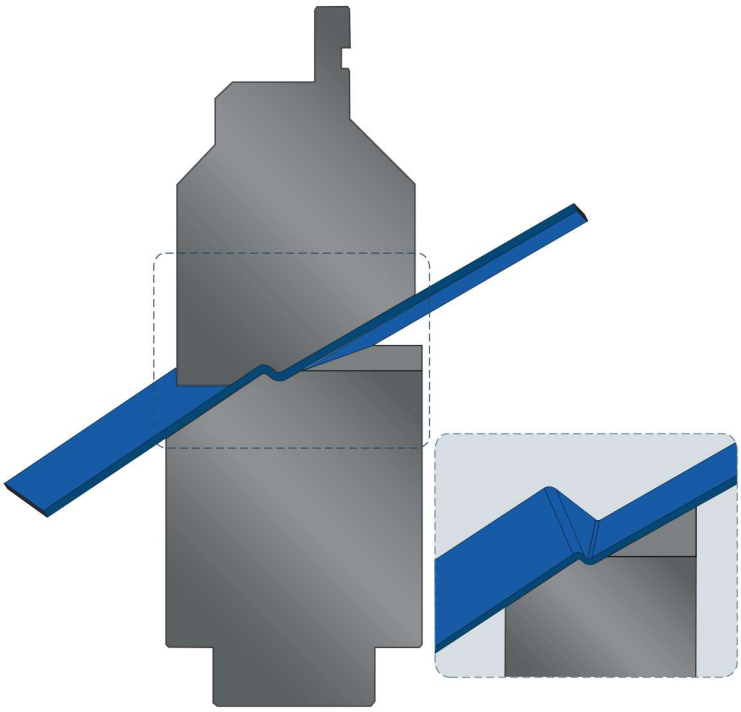
LO1 LARGE OFFSET

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.

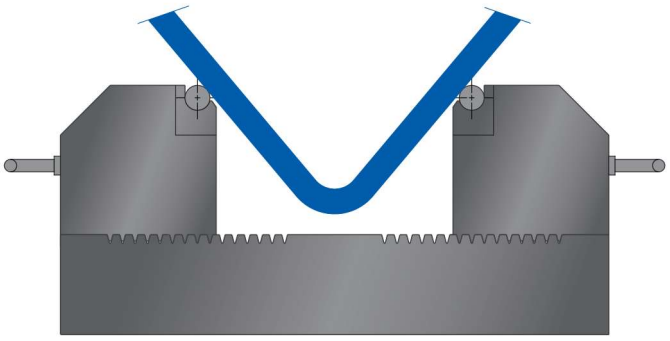


NPO1 NON PARALLEL OFFSET

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.



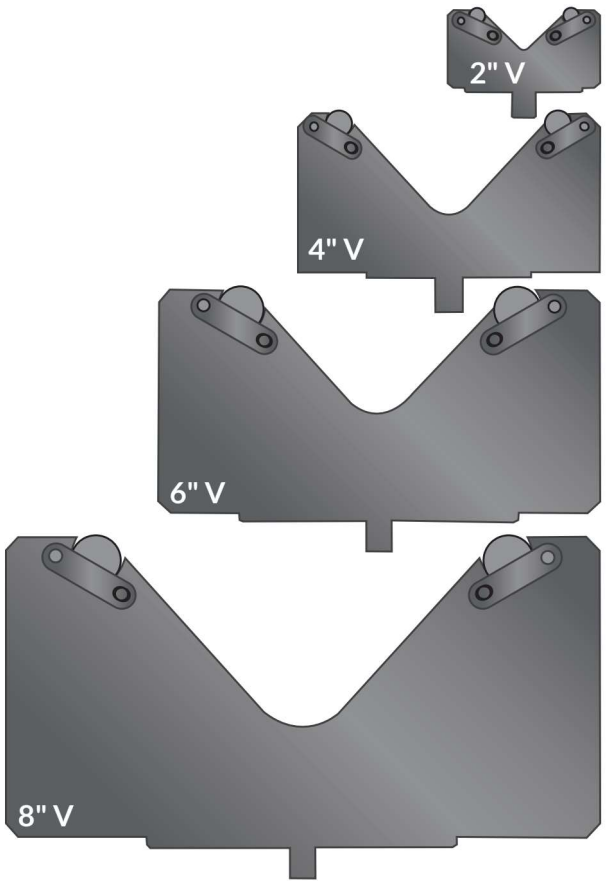
See this tool in action on the Wilson Tool YouTube Channel

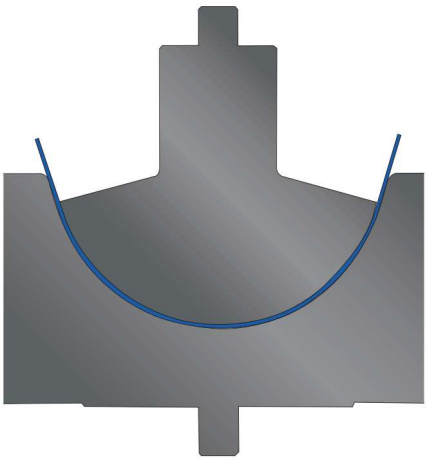
REPLACEABLE SHOULDER DIE

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.

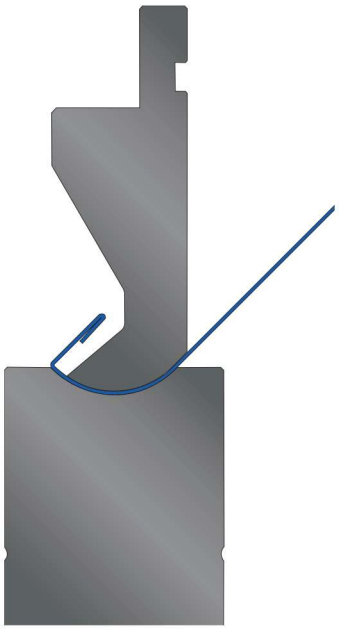




LR1 LARGE RADIUS

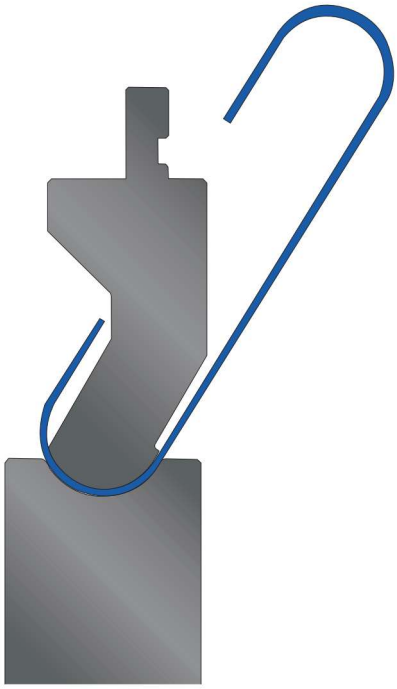
Bottoming radius set with spring-back allowance built in. It is manufactured to form a radius in a specific type and thickness of material for tight tolerance requirements.

See this tool in action on the Wilson Tool YouTube Channel



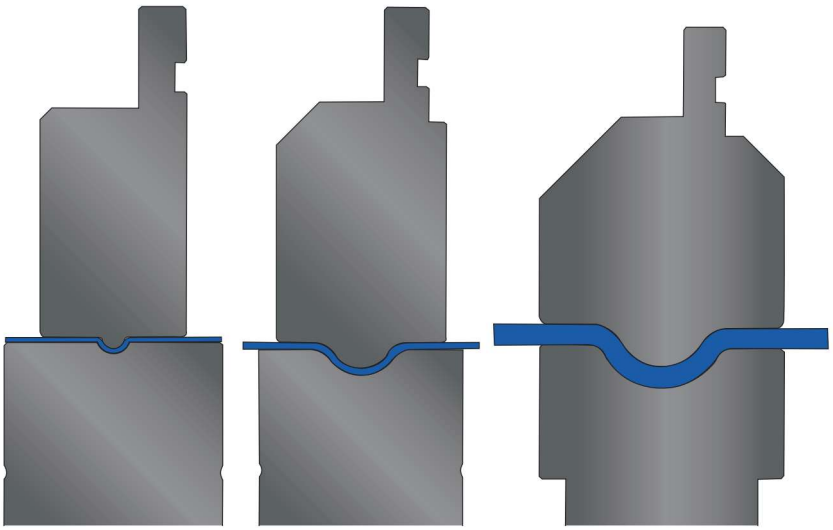
LR2 MULTI-HIT RADIUS

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



LR3 MULTI-HIT RADIUS

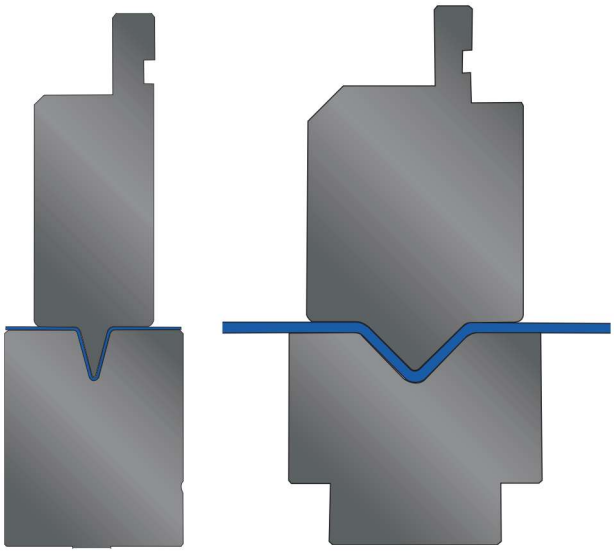
Used when the return flange starts at the radius end. The solution may require multiple strokes.



SR1 STRENGTHENING RIB

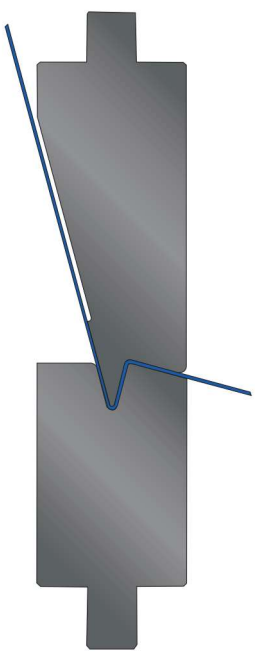
Produce a strengthening rib in one stroke. Spring back allowance is built in. Closed end and open end ribs are available.

See this tool in action on the Wilson Tool YouTube Channel

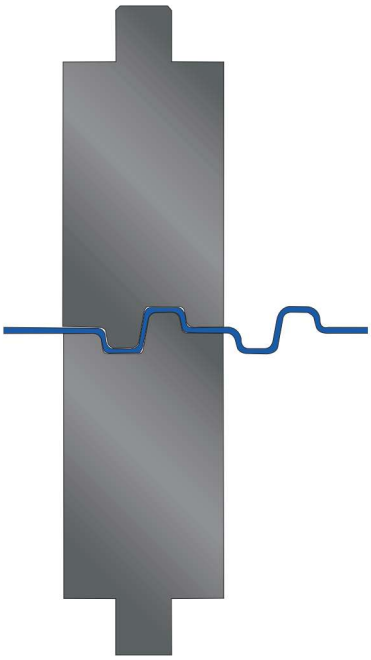


VR1 V RIB

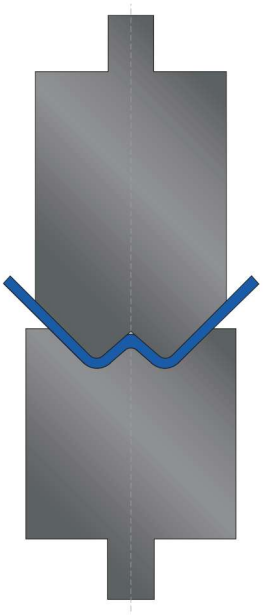
Produce a V rib in one stroke. Spring back allowance is built in.



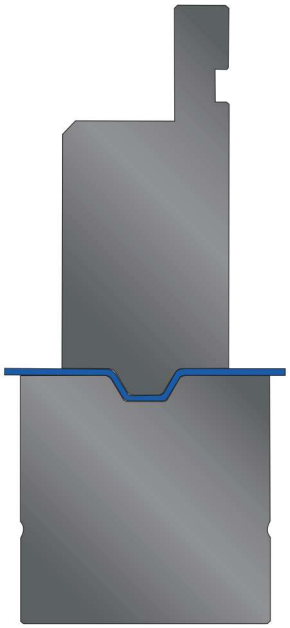
FM1 FORMING



FM2 FORMING

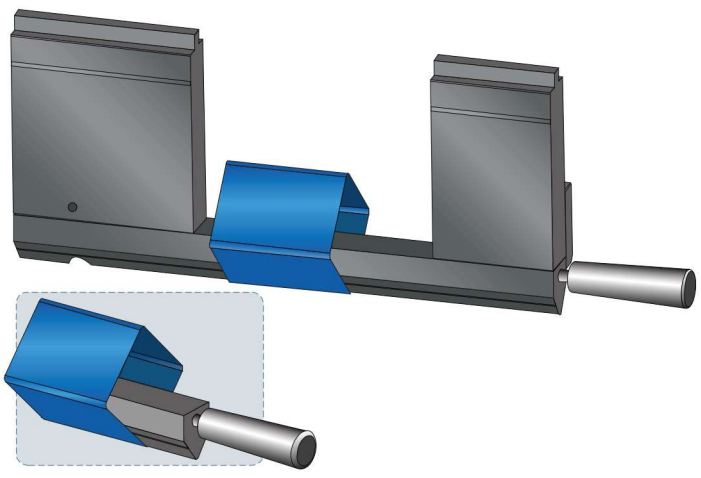


FM3 FORMING



OH1 OPEN HAT

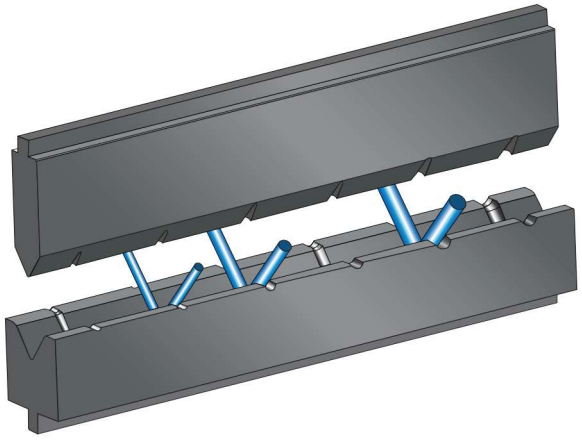
A large variety of custom forming sets are available.
Custom built to suit any specific requirement.
Call for specific application requirements.



W1 WINDOW

Used when minimum return flange clearance is required.

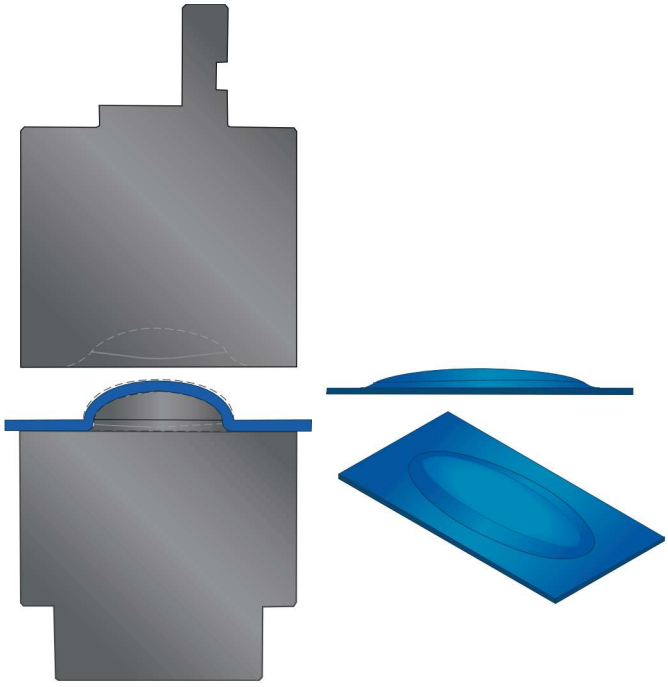
See this tool in action on the Wilson Tool YouTube Channel



RB1 ROD BENDING

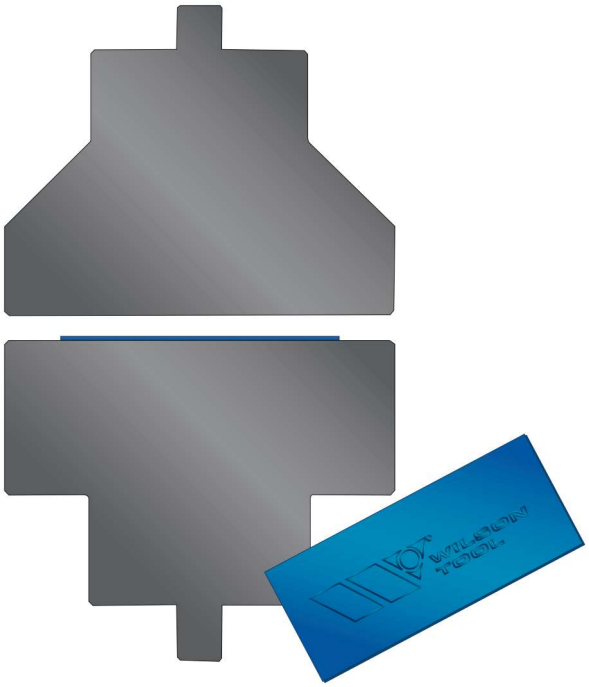
Provides nesting for the rod during the forming process.

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Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com

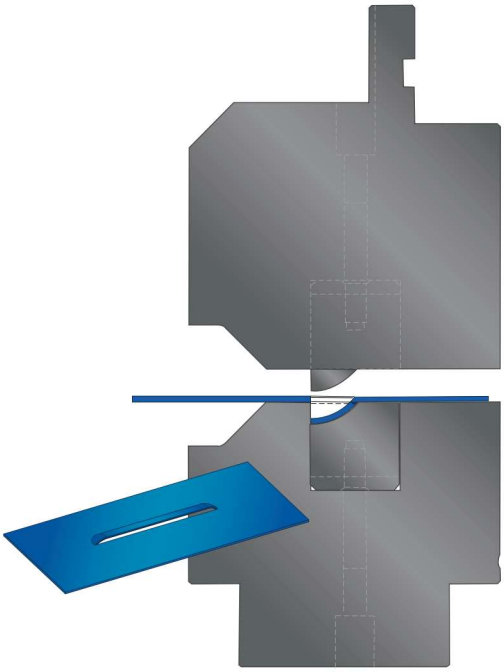


EM1 EMBOSS

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

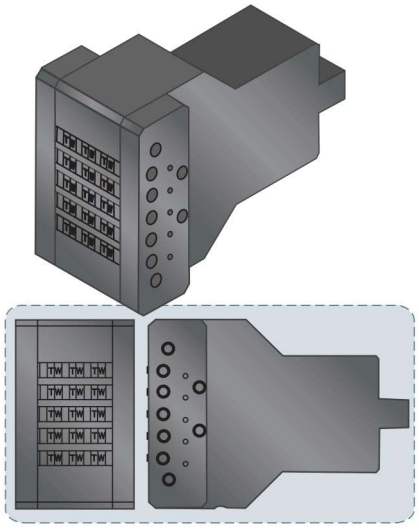


LG1 LOGO



LL1 LOUVER

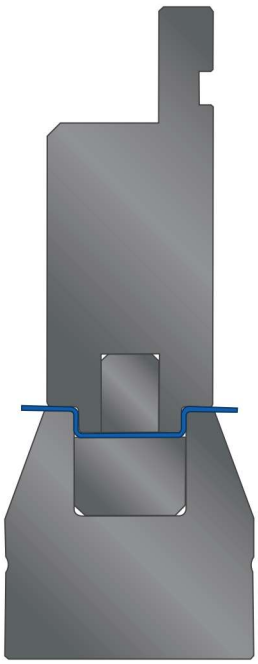
Multiple louver configurations are available. For louver forming, sheet must be pre-slit.



LS1 LETTERSTAMP

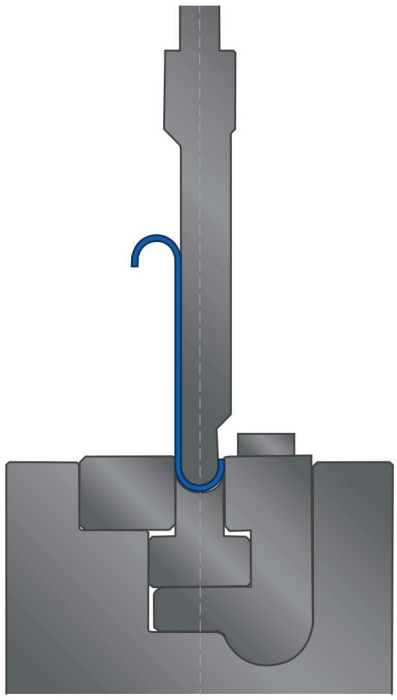
Provides chisel point embossing with inter-changeable characters. Single row or multi-row available.

CAT. NO.	DESCRIPTION	SIZE	PRICE
6LSP25	Punch Character Holder		
65300003-500	Flattening Block Die		
6898	Character	3/32"	
6896	Character	1/8"	



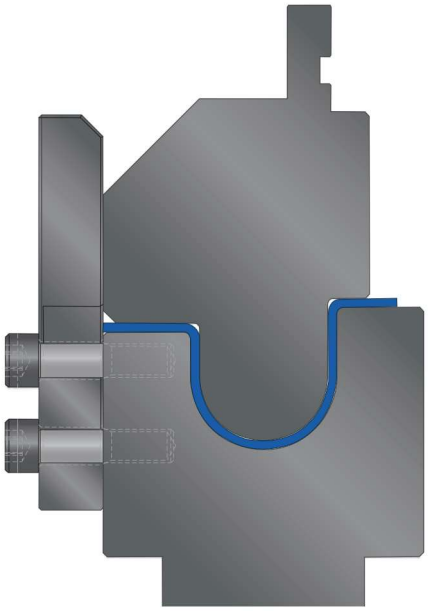
HT1 HAT CHANNEL

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



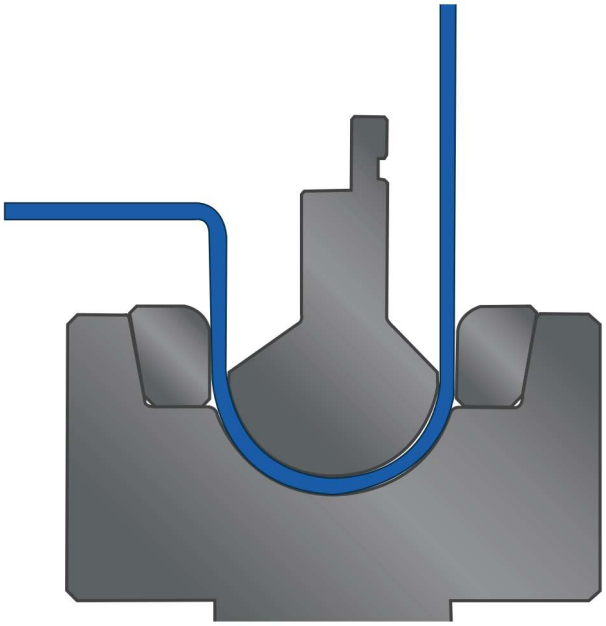
UC1 U CHANNEL

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



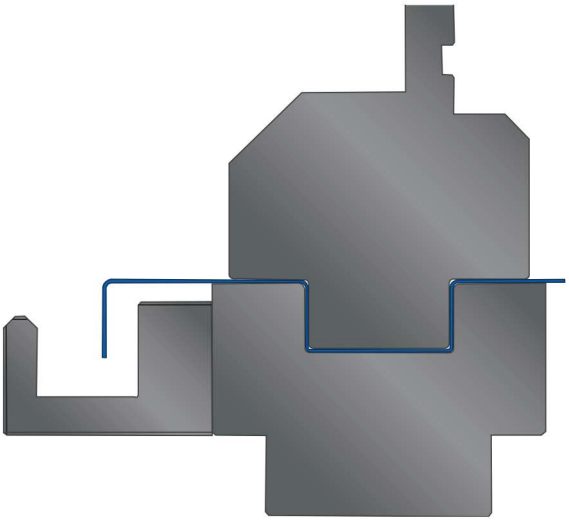
UC2 U CHANNEL

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

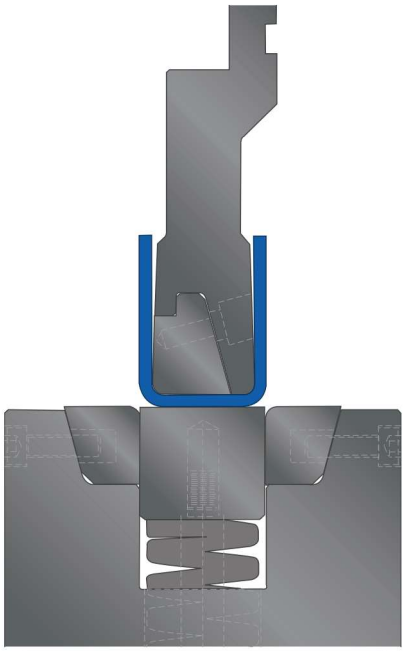


UC3 U CHANNEL

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

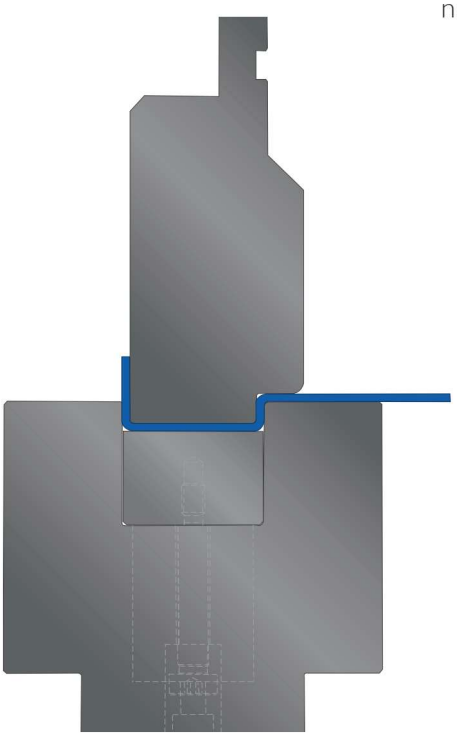


C1 CHANNEL

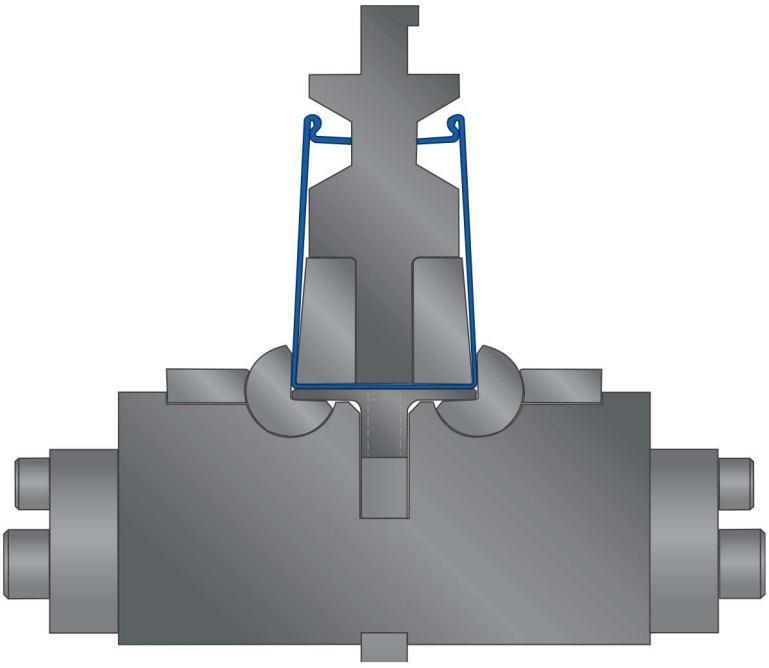


C2 CHANNEL

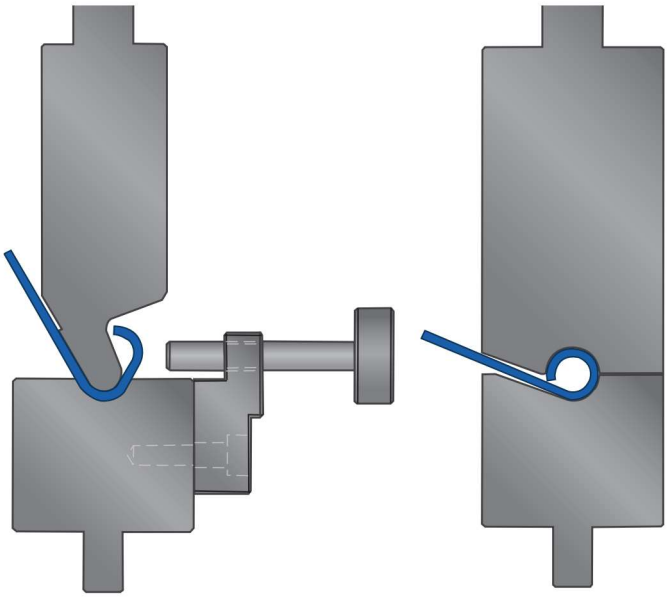
These applications are for deep channels when the channel bottom needs to remain flat.



C3 CHANNEL

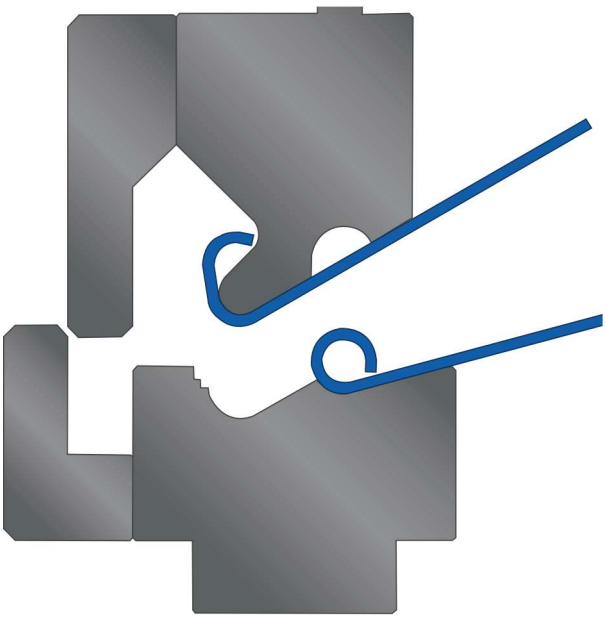


C4 ROTARY BEND CHANNEL



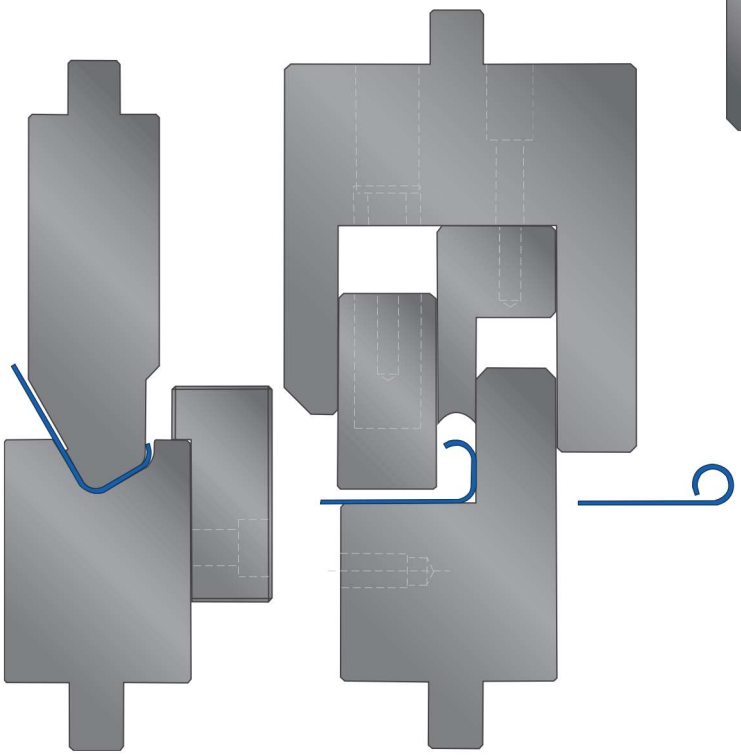
CL1 CURL TOOL SET

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.

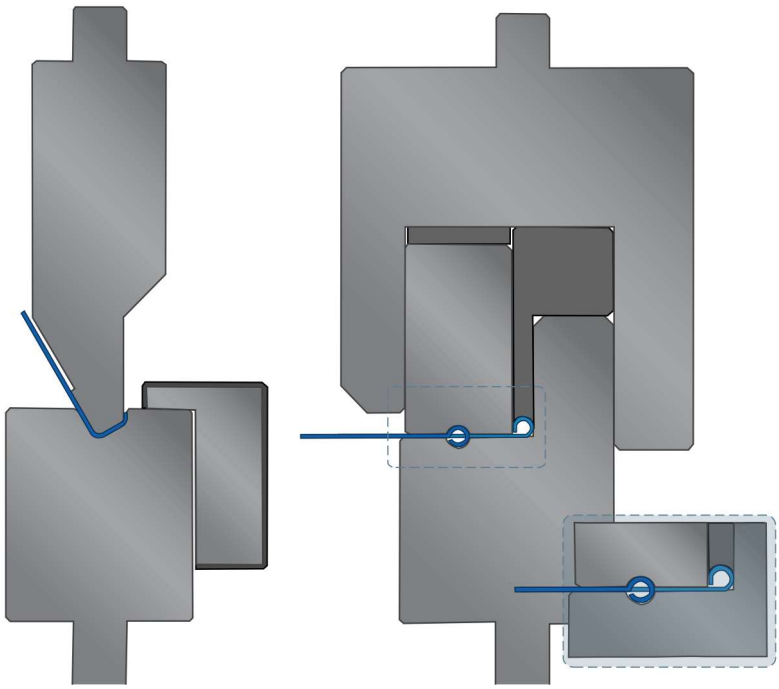


CL3 CURL

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

See this tool in action on the Wilson Tool YouTube Channel

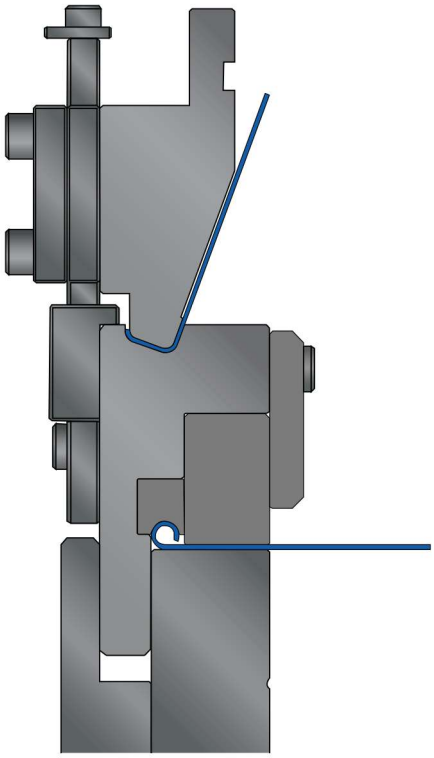
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Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com



CL4 CENTER CURL APPLICATION

2 tool sets, 3 machine strokes.

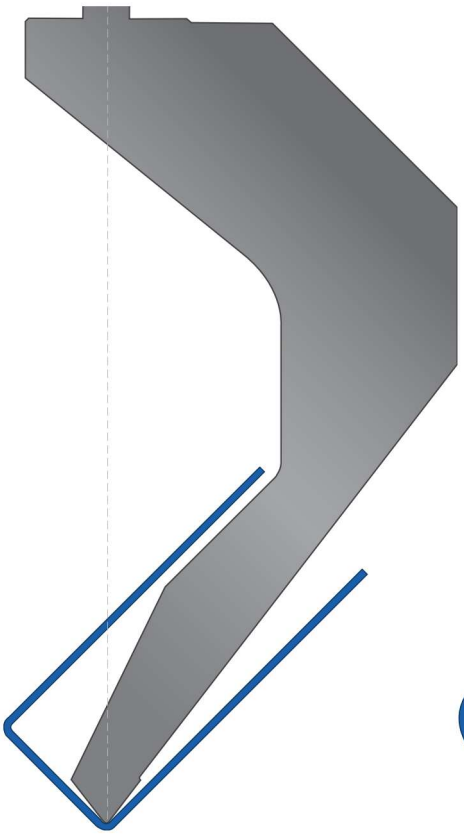
See this tool in action on the Wilson Tool YouTube Channel



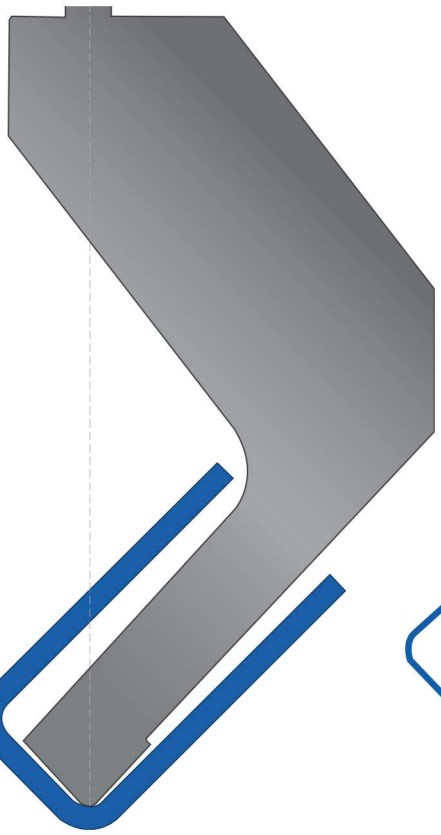
CL5 DOUBLE DECKER TOOL SET

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

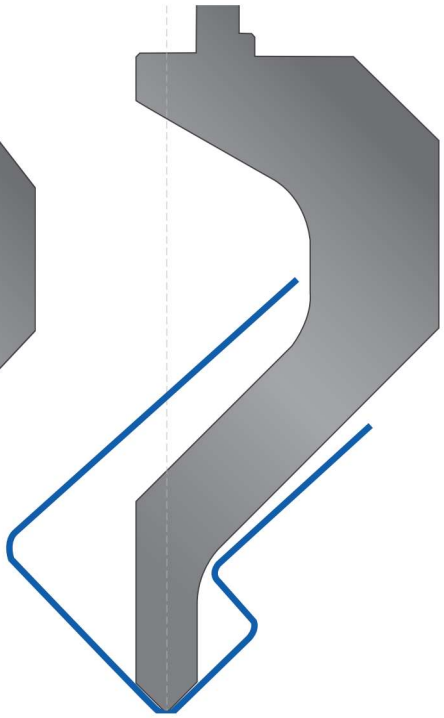
SPECIAL SHAPE PUNCHES



PR1



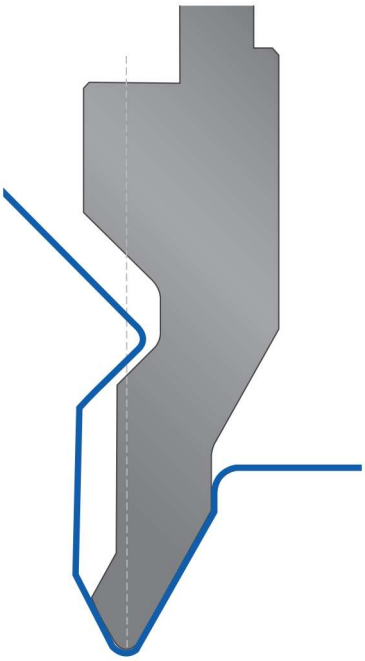
PR2



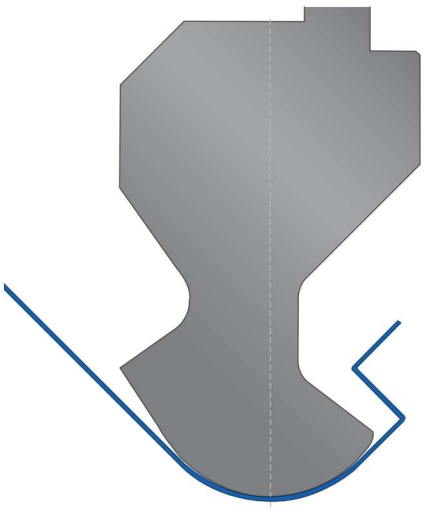
PR3



PR4

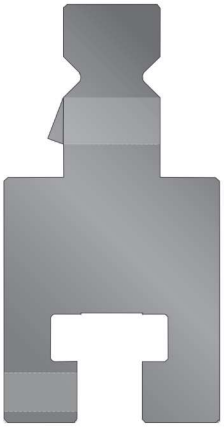


PR5



PR6

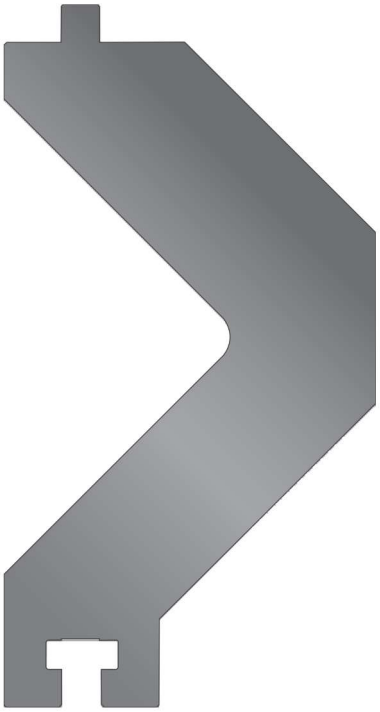
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Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com



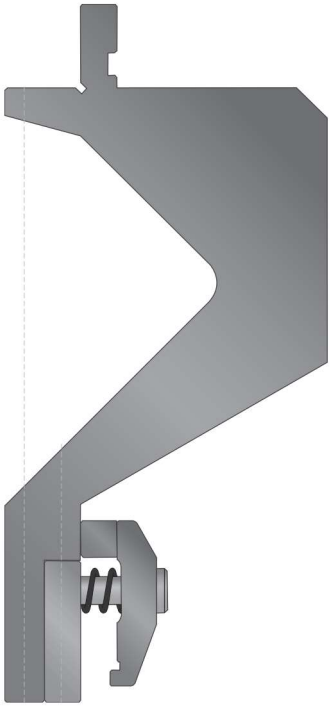
WT - AMERICAN



AMERICAN SELF-SEAT HOLDER

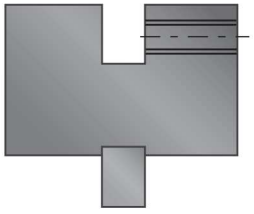


AMERICAN DEEP GOOSENECK HOLDER



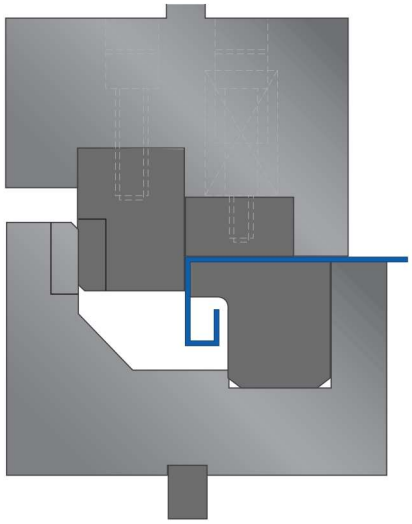
EURO Z1 OR Z2 CLAMPING

Cat. No. 43002



DIE HOLDER

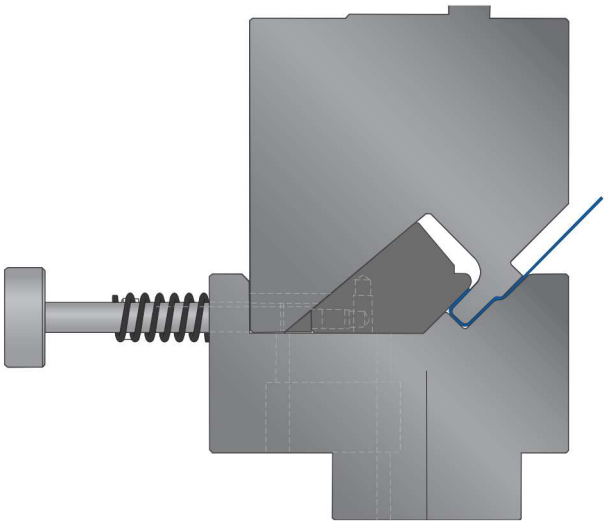
WIPING AND ROTARY BENDING



WD1 WIPE DOWN

Holds the sheet flat while wiping the flange down.

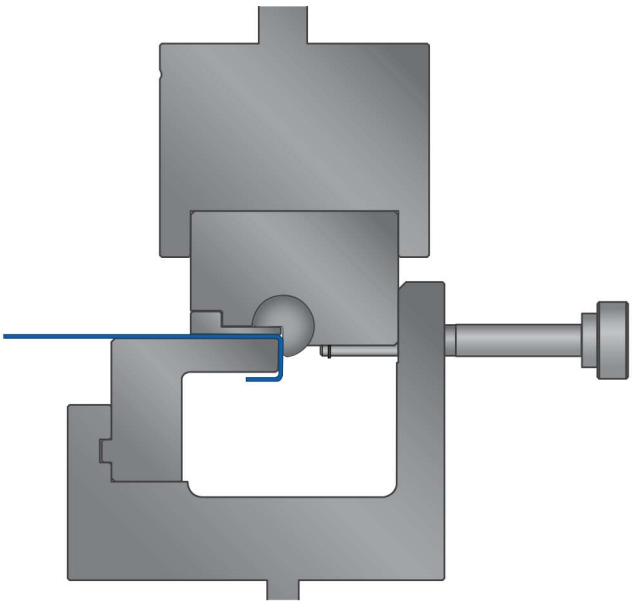
Ideal for large panels and high production.



WO1 WIPING FORM

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

Ideal for large panels and high production.

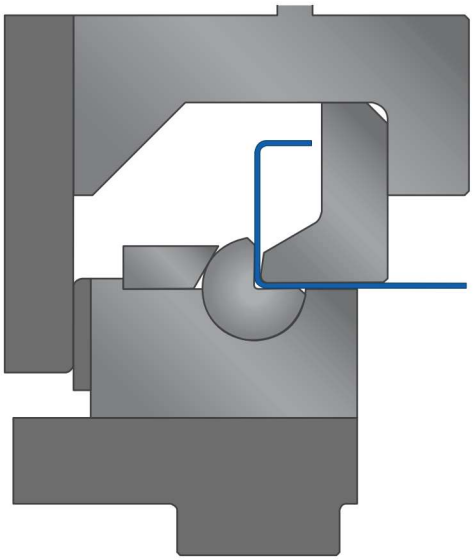


RTD ROTARY FLANGE FORMING FORM DOWN

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

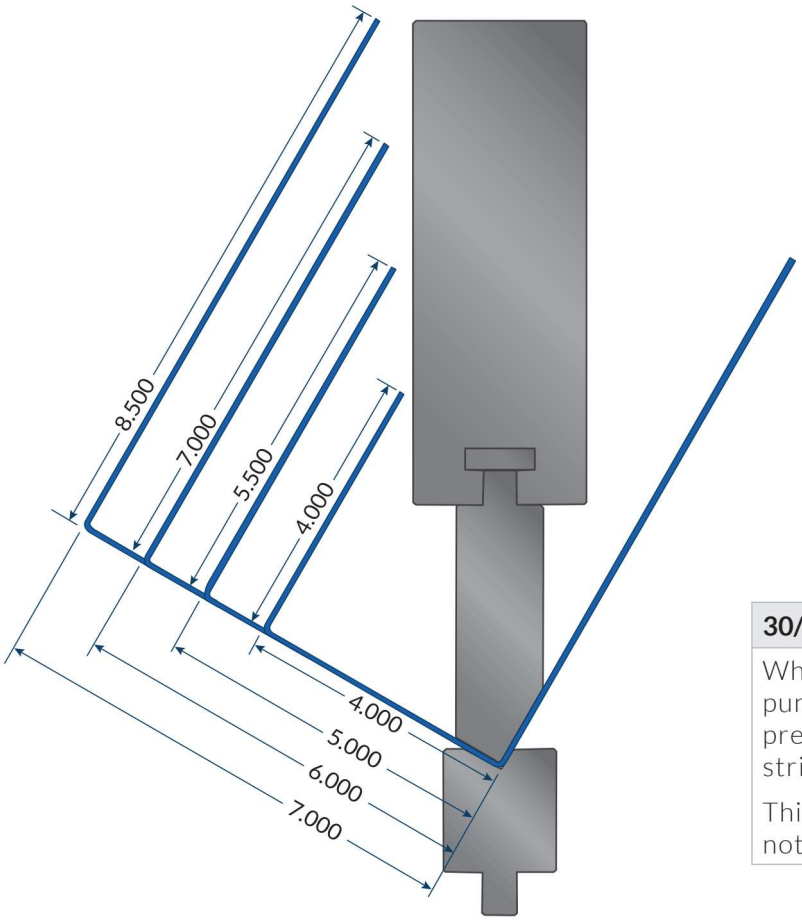


RTU ROTARY FLANGE FORMING FORM UP

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.

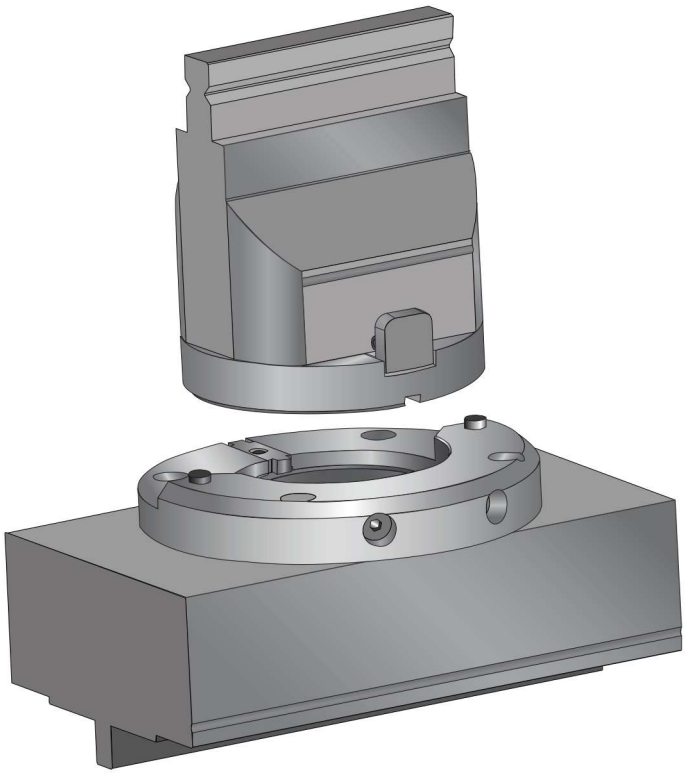
Application driven - consult with sales desk to review expected results prior to ordering.

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

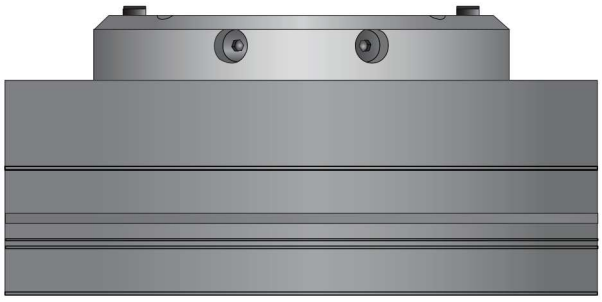


See this tool in action on the Wilson Tool YouTube Channel

TURRET ADAPTER







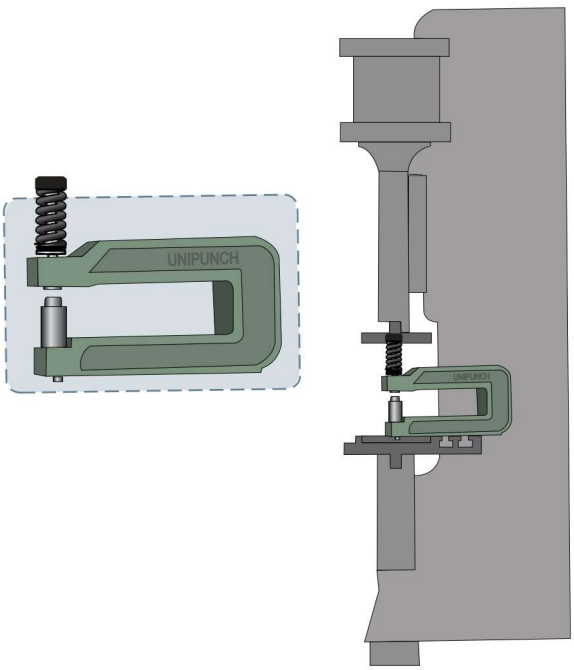
FRONT VIEW

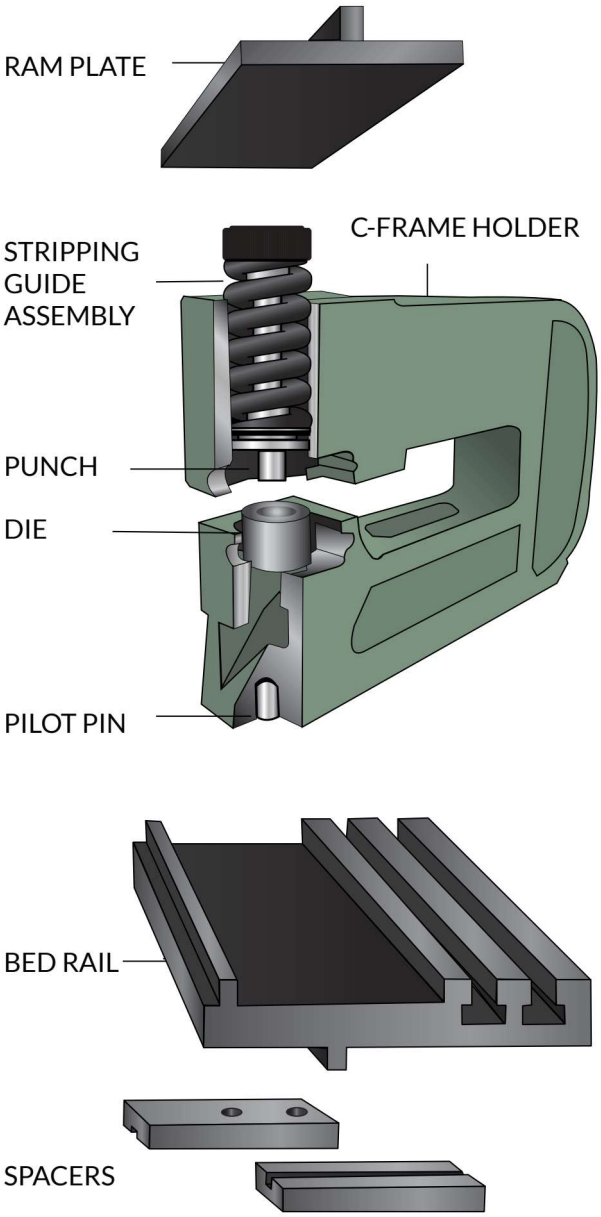
TA1 TURRET ADAPTER

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

Multiple configurations and options are available.

US Headquarters tel: 800.445.4518 bending@wilsontool.com
Canada tel: 800.268.4180 bendingcanada@wilsontool.com
Mexico tel: 001.800.741.2510 doblez@wilsontool.com





C-FRAME TOOLING

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

SPECIALS CHECKLIST

COMPANY: _____

CONTACT: _____

PHONE: _____ SALES ENGINEER: _____

QUOTE #: _____ SALES DESK CONTACT: _____

MACHINE SPECIFICATIONS:

Brake Make / Model: _____

Open Height: _____

Tonnage: _____

TOOLING AND APPLICATION:

Tooling Type: ☐ American ☐ European ☐ WT ☐ Other

Length of Bend: _____

Material Type: _____ Thickness: _____

Is customer currently performing this bend? ☐ YES ☐ NO

If YES, specify if this is a :

☐ Wilson Tool repeat

☐ Replicate Customer Tool

☐ Redesign

Explain: _____

_____

_____

_____

TOLERANCE BLOCK:

Part Radii Tolerance: _____

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

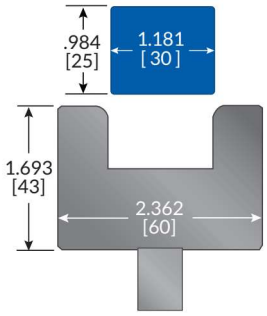
Part Bend Angle Tolerance: _____

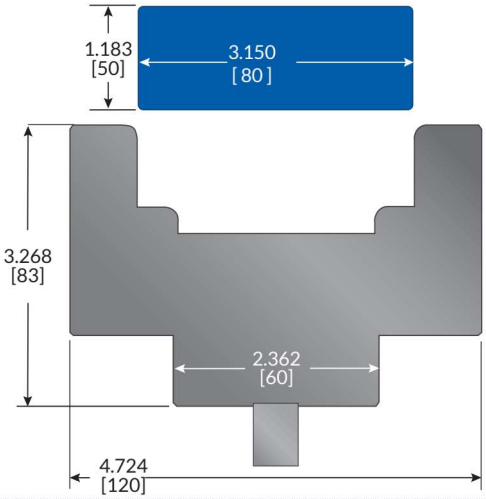
Tolerances tighter than ± 2% may affect price / lead time.

Estimated Annual Usage: _____

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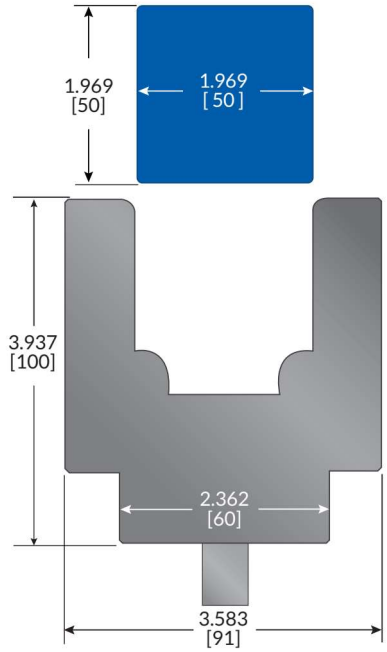
NOTE:
All urethane die holders are machined from 6061-T6 aluminum.
Check height against machine stroke prior to ordering.

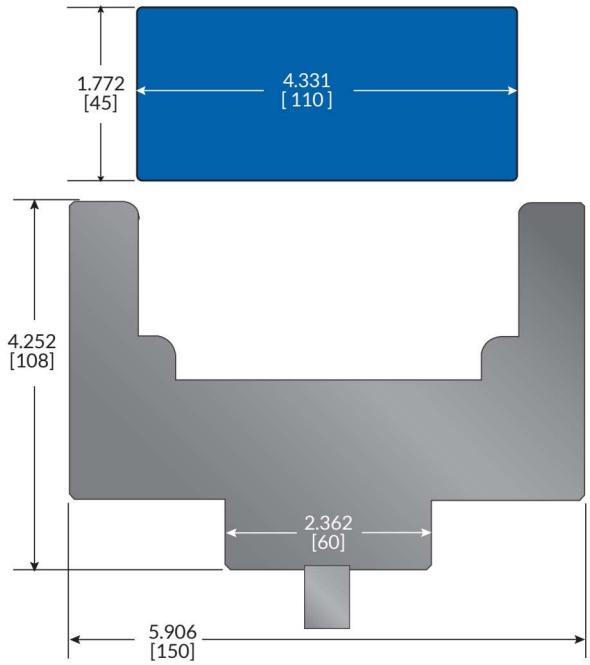




CAT. NO.			SHORE HARDNESS	Approx. Gross Weight [lbs]		PRICE	
				L 32.87" [835mm]	S 16.34" [415mm]	L 32.87" [835mm]	S 16.34" [415mm]
42501c	M	Holder	N/A	10	6		
42511		Pad	80A/Red	2	1		
42521		Pad	90A/Blue	2	1		

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





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

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

M Made To Order

METRIC HEX KEY WRENCH SET

Press Brake Compatible
Punch Press Compatible



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.

Cat. No. 6105

SOFT FACE HAMMER

Press Brake Compatible
Punch Press Compatible



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

Cat. No. 6106

MAGNET SQUARE

Press Brake Compatible
Punch Press Compatible



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

Cat. No. 974150

MAGNETIC SQUARING ARM

Press Brake Compatible
Punch Press Compatible



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

Not intended for use with American Precision style arrow dies.

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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

DIGITAL ANGLE CUBE

Press Brake Compatible

Punch Press Compatible



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

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

Cat. No. 974119

DIGITAL PROTRACTOR SET

Press Brake Compatible

Punch Press Compatible



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

- Accuracy: ± .01 degrees.
- Set angles in .05 degree increments
- Front locking lever to hold the arm position.

A hold function and reverse reading capability.

Cat. No. 980065

DIGITAL THICKNESS GAUGE

Press Brake Compatible

Punch Press Compatible



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

Cat. No. 974117

URETHANE 100 FT. ROLLS

Press Brake Compatible

Punch Press Compatible

Urethane dies are also available for mark-free bending. Contact our sales desk for pricing and availability.
See page 61 for Urethane Pads and Holders.



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

DUROMETER:

42530 and 42531	85A
42532	95A

PROTECTIVE FABRIC DRAPE

Press Brake Compatible

Punch Press Compatible

Forms a protective barrier between the sheet metal and the die shoulders during the bending process.



DESCRIPTION	CAT. NO.
12.5m [41'] length x 120mm [4.7"] width	55335
3/8" x 1/2" Cylinder Magnet	987041

TOOL STORAGE CABINET

6 Drawer Cabinet
Cat. No. 90020

10 Drawer Cabinet
Cat. No. 90021



Extended wheel base prevents the cabinet from tipping.



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

10 DRAWER PUNCH STORAGE:
- Lay down storage allowing visibility of laser marking for easy tool identification.

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

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

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

CUSTOM COLOR OPTIONS

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

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

XTREME STORAGE CABINET

3 Drawer Cabinet
Cat. No. 55130

5 Drawer Cabinet
Cat. No. 55131



CABINET FEATURES:
- Vertical cabinet drawers are easily accessible from either side
- Each drawer contains three 7-inch wide shelves that hold up to 265 lbs. (120kg) each
- Each drawer contains a shallow top tray with adjustable dividers for storage of measurment devices, hand tools, etc.
- Flexible, adjustable trays and inserts can accommodate various tooling sizes and styles
- Punches are held securely in tip-up position
- Small footprint allows for easy placement of tools colse to machines

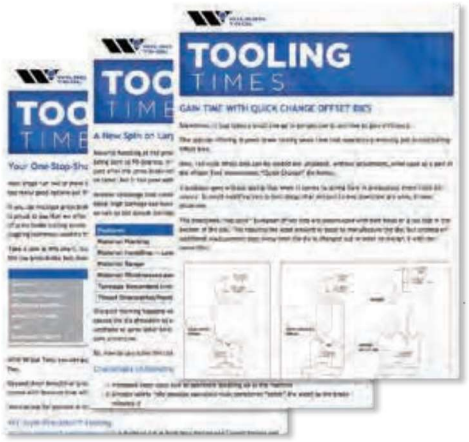
CAT. No.	Number of Drawers	Cabinet Ht. (outside dim.)	Width – Left to Right (outside dim.)	Depth – Front to Back (inside dim.)	Number of Tool Trays	Total Length* of Tooling	
						1 Tool/Tray (inside dim.)	2 Tools/Tray (inside dim.)
55130 (XSC312)	3	48.8" (1.24m)	26.0" (0.66m)	51.2" (1.3m)	9	Up to 31 ft. (9.44m)	Up to 62 ft. (18.9m)
55131 (XSC512)	5	48.8" (1.24m)	40.9" (1.04m)	51.2" (1.3m)	15	Up to 51.5 ft. (15.7m)	Up to 103 ft. (31.4m)

*Total length does not include available storage in the top most tray in each drawer.

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Mexico tel: 001.800.741.2510 doblez@wilsontool.com

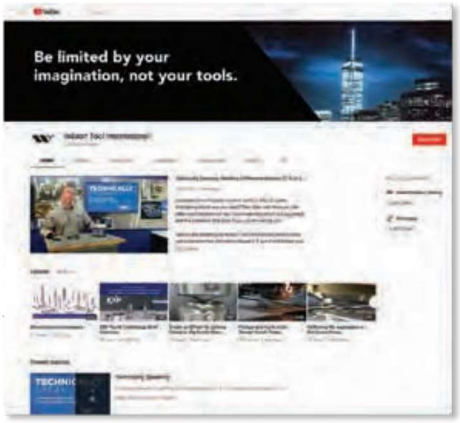
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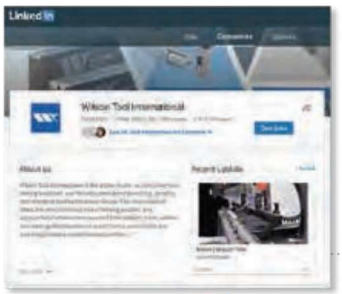


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Wilson Tool's **YouTube** channel showcases the latest tooling solutions in action and offers problem-solving application tips and tricks in our *Technically Speaking* video series. Explore application secrets, new products and productivity boosting tips in English and Spanish at youtube.com/wilsontooltube.



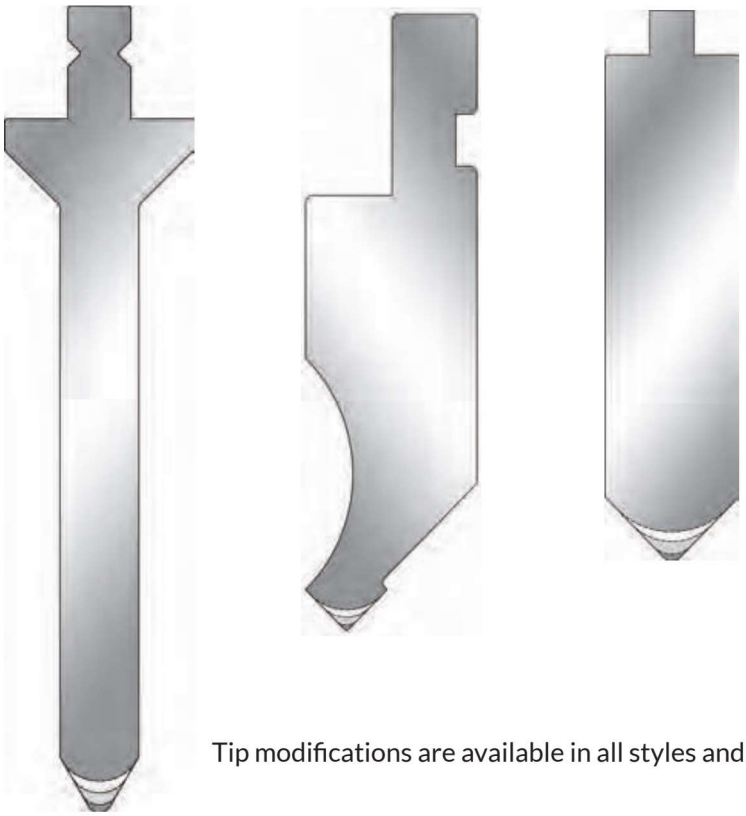
YouTube



LinkedIn

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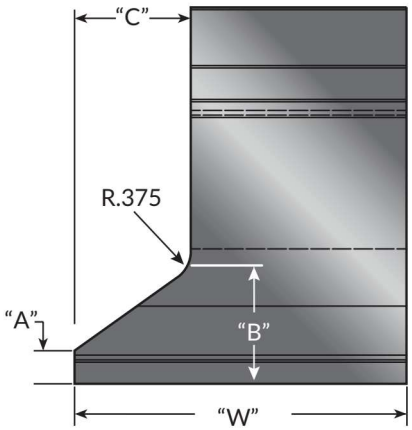
TIP MODIFICATIONS



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.

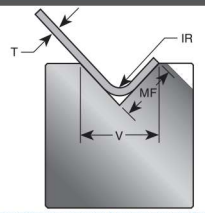


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AIR BENDING FORCE CHART
IMPERIAL TONNAGE ● IMPERIAL V OPENINGS

STANDARD FORMULAS FOR SELECTING A V-OPENING

MATERIAL THICKNESS: .105" OR LESS = T x 6
.120" - .313" = T x 8
.375" - .500" = T x 10
.625" & THICKER = T x 12



		V (")	0.250	0.313	0.375	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.500	2.000	2.500	3.000	3.500	4.000	5.000
		MF	0.180	0.225	0.270	0.360	0.450	0.540	0.630	0.720	0.810	0.900	1.080	1.440	1.800	2.159	2.519	2.879	3.599
GAUGE	DEC. inch [mm]	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.

Tonnage increases with smaller v-openings.

Applications in red are not recommended.

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

NOTE: The above formulas and chart are for reference only.
The chart above is based on mild steel (tensile strength of 60,000 PSI) formed to an included angle of 88°.
See chart to the right for other materials.
Forming to other angles will change the Minimum Flange (MF), Inside Radius (IR) and tonnage.

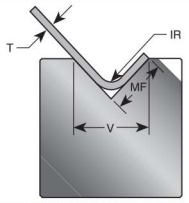
Soft Brass	Tons x 50%
Soft Aluminum	Tons x 50%
Heat Treated Aluminum Alloys	Tons x 100%
Stainless Steel	Tons x 150%
High Strength Steel	Tons x 275%

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AIR BENDING FORCE CHART
IMPERIAL TONNAGE ● METRIC V OPENINGS

STANDARD FORMULAS FOR SELECTING A V-OPENING

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



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

TONS PER FOOT

Larger v-openings generate less tonnage.

Tonnage increases with smaller v-openings.

Applications in red are not recommended.

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

NOTE: The above formulas and chart are for reference only.
The chart above is based on mild steel (tensile strength of 60,000 PSI) formed to an included angle of 88°.
See chart to the right for other materials.
Forming to other angles will change the Minimum Flange (MF), Inside Radius (IR) and tonnage.

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

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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.

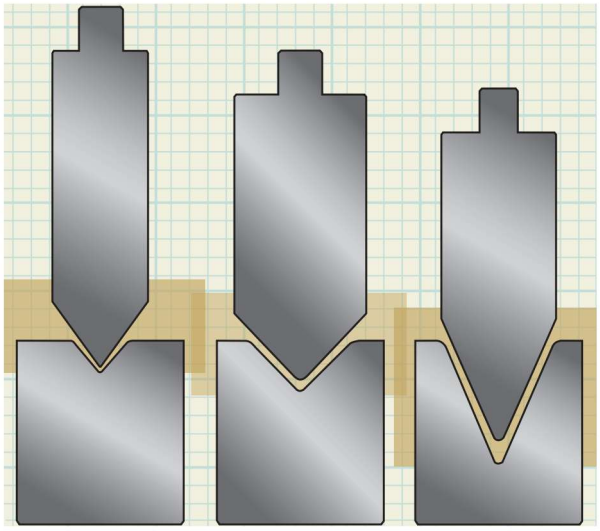
Stainless Steel	[18-8 Annealed] Type 304 ...	1.55
Aluminum	3303-H14 [1/2Hard]	.35
	5052-H34 [1/2Hard]	.65
	6061-T64	.75
Brass	70/30 [1/2Hard]	1.10

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

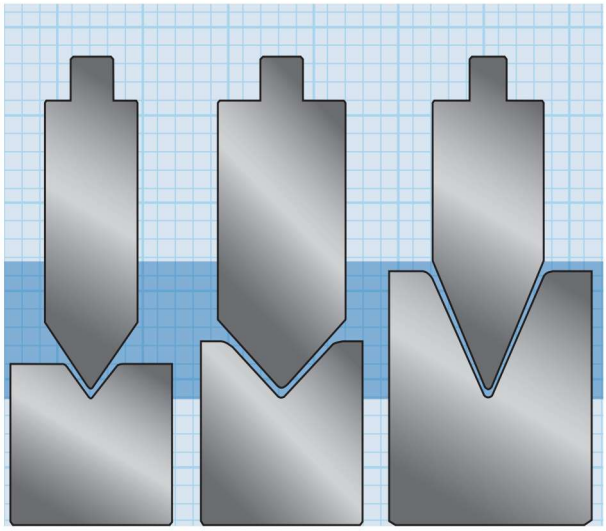
Tooling without a common shut height cannot be run in one setup because the punches and dies will collide.



TRADITIONAL NON-STAGED BENDING
3 Different Shut Heights

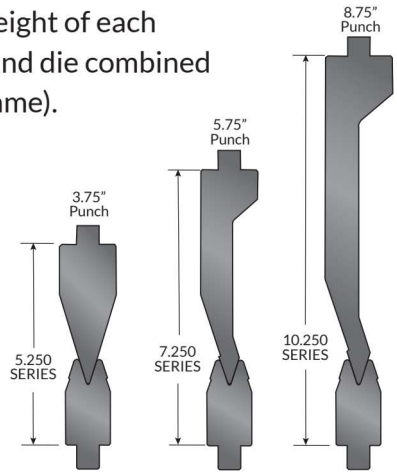
Staged Tooling

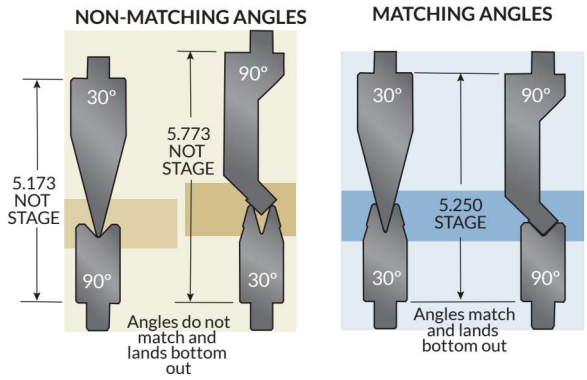
Staged tooling is designed to shut at the same height, so all bending can be done in one progressive setup.



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.**

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From standard tooling solutions for **American Precision, European Precision, WT-style, LVD-style and American Planed press brake tooling** to customized tooling for the most unique bending applications. Wilson Tool International provides the broadest selection of tooling options to press brake fabricators around the world.



EUROPEAN PRECISION

Clamping Innovations

Fast Tool Changes

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



AMERICAN PRECISION

Express Rail® Hydraulic Clamping

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



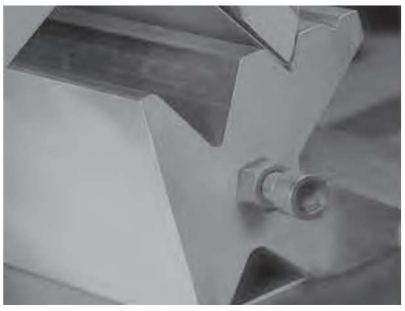
LVD-STYLE

PowerExpress® Hydraulic Clamping

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

Express Clamping System®

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

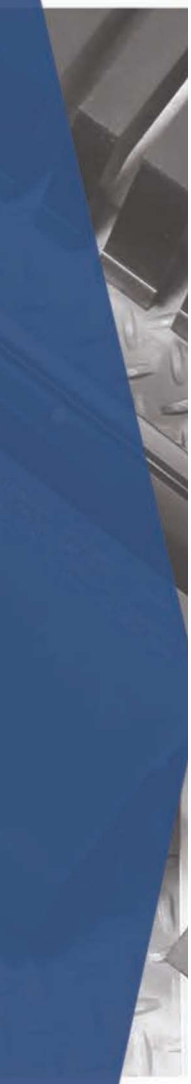


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