

## A SOLUTION FOR SHORT FLANGES AND DIE MARKS

Wilson Tool's V-Series Black for press brake dies incorporate replaceable inserts to decrease friction and to enable better performance on certain tough-to-bend applications.

Manufactured by Wilson Tool International, V-Series Black is available for virtually all major styles of press brake tooling. With Wilson Tool as the manufacturer, you will see:

- Higher quality tool steel
- Tighter tolerances
- Increased bend accuracy
- Shorter lead times

### Hard-to-Bend Application Capability

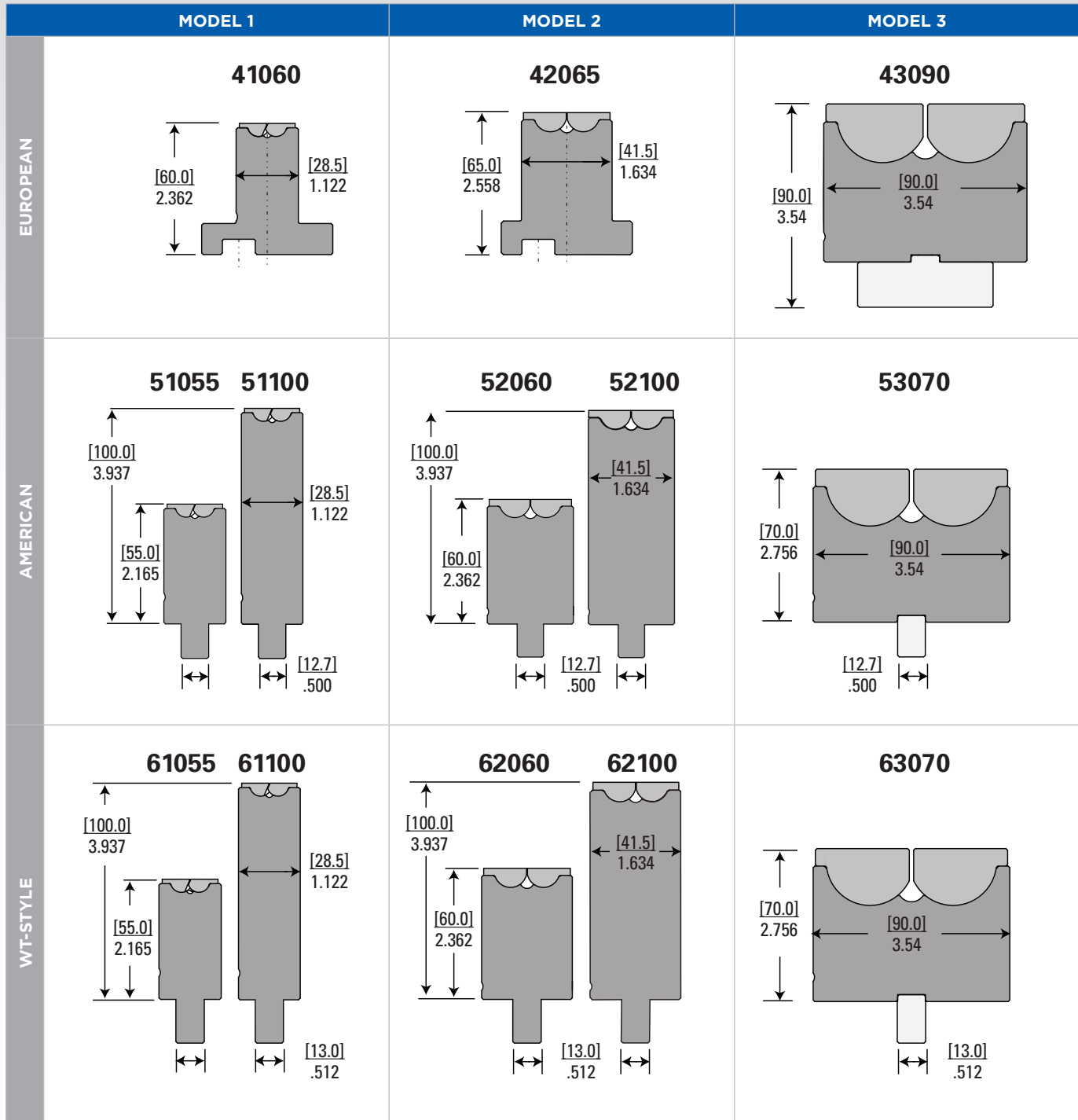
V-Series Black dies make it much easier to produce small flanges, small bend radii, and bends closer to holes. V-Series Black also enables you to bend a wide range of materials using the same die, reducing set-up time and reducing the amount of tooling required.

### Reduced Friction

V-Series Black dies include replaceable built-in inserts that rotate so material glides on a flat surface rather than the traditional grabbing action of a die's shoulder radius. Friction and concentrated load is greatly reduced which reduces material marking. This tool is ideal for working with diamond plate, stainless and aluminum. Add Zip-Mar strips to the top of the inserts and marking on cosmetic materials such as painted or polished materials is practically eliminated.



# V-SERIES BLACK DIES



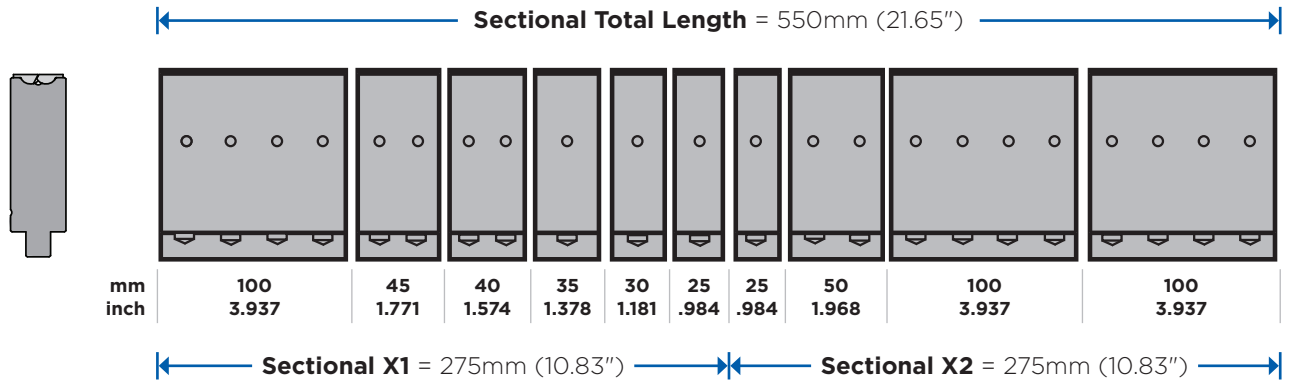
## V OPENING AND SHOULDER RADIUS DIMENSIONS

MODEL	SHOULDER RADIUS	DESIRED ANGLE	THEORETICAL V METRIC	THEORETICAL V IMPERIAL	DESIRED ANGLE	THEORETICAL V METRIC	THEORETICAL V IMPERIAL
1	1.0mm (.040")	90°	7.2	0.283	34°	6.5	0.256
2	1.3mm (.051")	90°	13.9	0.547	42°	13.3	0.524
3	6.0mm (.236")	90°	33.0	1.299	65°	31.4	1.236

# V-SERIES BLACK DIMENSIONS

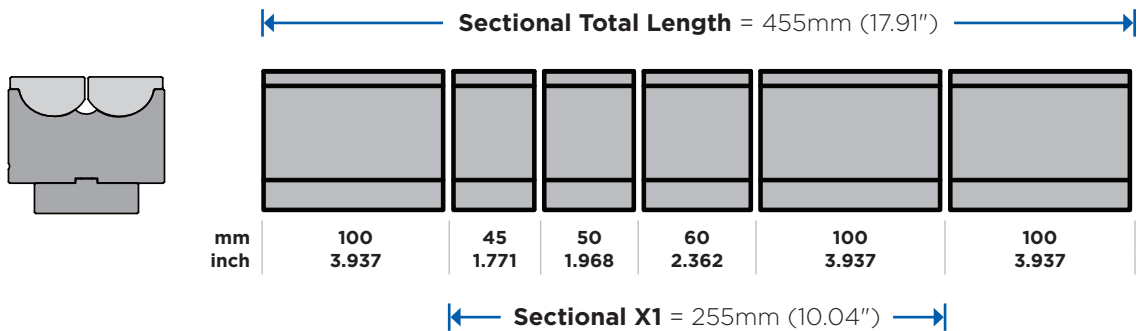
## MODELS 1 AND 2

Solid Length Available: 500mm (19.68"); 250mm (9.84")



## MODEL 3

Solid Lengths Available: 250mm (9.84"); 100mm (3.937")



MODEL 2 COMPOSITE INSERTS	
CAT. NO	DESCRIPTION
988008	125mm (250mm – quantity 4 required)
988009	X1 (quantity 2 required)
988010	X2 (quantity 2 required)

INSTALLATION TOOLS	
CAT. NO	DESCRIPTION
981002	V-Series Black Spring Installation Tool Kit
981003	V-Series Black Spring Extension Wire (short)
981004	V-Series Black Spring Extension Wire (long)

ZIP MAR URETHANE SHOULDER STRIPS				
CAT. NO	MODEL	WIDTH	LENGTH	THICKNESS
980953	1	1/2"	54 ft	.020"
980954	2	3/4"	54 ft	.020"
980955	3	1-5/8"	54 ft	.020"

# V-SERIES BLACK SPECIFICATIONS

	MATERIAL THICKNESS	MIN. OUTSIDE FLANGE	TON/ FT	MIN. ANGLE	PUNCH TIP REQUIRED TO ACHIEVE ANGLE	MAX OR RADIUS @ MIN. ANGLE	MAX OR RADIUS @ 90°	TONNAGE CAP/FT	T/M	KN/M
MODEL 1	.45 mm (.018")	3.0mm (.118")	1.8	34°	0.054	3.1mm (.125")	4.45mm (.175")	34	112	1100
	.50 mm (.020")		1.8		0.052					
	.60 mm (.024")		2.0		0.047					
	.80 mm (.030")		2.5		0.042					
	.90 mm (.036")		3.3		0.036					
	1.0mm (.040")	3.9mm (.153")	4.0		0.031					
	1.2mm (.048")		5.8							
	1.5mm (.059")	4.2mm (.165")	9							
MODEL 2	1.9mm (.074")	8.5mm (.335")	7	42°	0.122	5.5mm (.216")	9.0mm (.354")	50	168	1650
	2.9mm (.105")	8.8mm (.347")	13		0.112					
	3.0mm (.118")	9.3mm (.366")	15		0.099					
	3.2mm (.126")		20		0.091					
	3.4mm (.135")		22		0.082					
MODEL 3	4.0mm (.157")	22.5mm (.886")	9	65°	0.078	11.5mm (.453")	12.75mm (.500")	60*	204	2000
	4.75mm (.187")		26		0.094					
	6.35mm (.250")		28		0.125					

**Inserts for Model 1 and 2:** HRC 45

**Inserts for Model 3:** HRC 58-60

Consume 60% of the insert when bending to prevent insert damage.

For more information, visit [wilsontool.com](http://wilsontool.com), call our tooling technicians at 800-445-4518 or contact your sales engineer.

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