



### .750" to 16.250" (19.1 to 412.8 mm) O.D.

# Simple, Safe, Accurate Flange Facing

H&S Tool offers four models of reliable pipe machine tools with premium flange facing conversion accessories. Each is powered by reliable pneumatic or electric motors to accurately meet your job site or shop requirements.

The tools are portable, making them ideal for use in the field. Setup and operation is easily handled by a single worker.

Kits include everything necessary to convert your Model B, MS, MT or MFT beveling tool with illustrated instructions.

Standard wedge plates can be used for internal locking or precision elbow mandrels are available. The mandrels are designed to mount in short-radius elbows. The minimum straight depth to mount the model MSF is .500" [12.7 mm], model MTF is 1.000" [25.4 mm] and model MFTF is 1.250" [31.8 mm]). Centering and squaring devices make accurate machining of gasket surfaces and/or bolt patterns simple and safe.



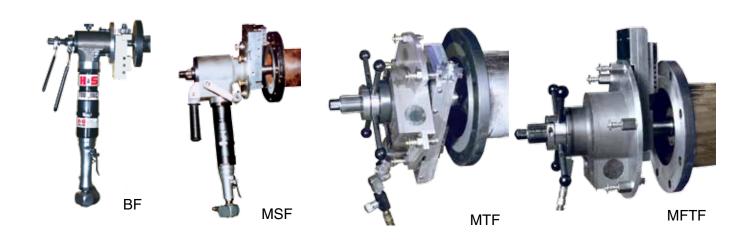
- Single Person Setup
  And Operation
- Adjust Between A
  Wide Range Of Face
  Surfaces
- Internal Locking Increases Safety and Accuracy



## Flange Facing Tools and Accessories

	Model BF	Model MSF	Model MTF	Model MFTF			
Working Range*	.750" I.D. to 4.120" O.D.	1.250" I.D. to 6.190" O.D.	3.250" I.D. to 10.630" O.D.	4.250" I.D. to 16.250" O.D.			
	(19.1 to 104.6 mm)	(31.8 to 157.2 mm) (82.6 to 270.0 mm)		(108.0 to 412.8 mm)			
Surface Finish Approx. Finish/Pin	63 to 250 RMS 1 = 63 RMS, 2= 125RMS 4 = 250 RMS	63 to 500 RMS 1 = 63 RMS, 3 = 125 RMS, 6 = 500 RMS					
Tool Feed Rate	.005" (0.13 mm) per pin. Pins must be engaged at opposing positions for even resurfacing.						
Max. Tool Travel*	1.500" (38.1 mm)	2.000" (50.8 mm)	3.000" (76.2 mm)	3.000" (76.2 mm)			
Axial Feed Rate Per Full Turn	.062" (1.6 mm)	.062" (1.6 mm)	.083" (2.1 mm)	.083" (2.1 mm)			
Adjustments 1/4 turn 1/2 turn 3/4 turn	.015" (0.38mm) .031" (0.79 mm) .046" (1.2 mm)	.015" (0.38 mm) .031" (0.79 mm) .046" (1.2 mm)	.021" (0.53 mm) .042" (1.1 mm) .063" (1.6 mm)	.021" (0.53 mm) .042" (1.1 mm) .063" (1.6 mm)			
Internal Locking/ Locating	Collet Internal Locking	Precision elbow mandrels with "Z" axis adjustment.					
Alignment	Centering/squaring machined aluminum plate, spoked adapter and dial indicator attachment for use with elbow mandrels.						
Minimum Mounting Depth	.750" (191. mm)	.500" (12.7 mm)	1.000" (25.4 mm)	1.250" (31.8 mm)			
Tooling	Single point replaceable carbide insert in steel tool holder, two machining points per insert.						
Weight Power Unit Mandrel	19.0 lbs. (8.6 kgs.) N/A	27.0 lbs. (12.2 kgs.) 4.0 lbs. (1.8 kgs.)	55.0 lbs. (24.9 kgs.) 10.0 lbs. (4.5 kgs.)	70.0 lbs. (31.8 kgs.) 13.0 lbs. (5.9 kgs.)			
Dimensions Mandrel Length Radial Clearance*	12.500" (317.5 mm) 4.000" (101.6 mm)*	14.000" (355.6 mm) 6.000" (152.4 mm)	15.000" (381.0 mm) 9.000" (228.6 mm)	18.000" (457.2 mm) 11.000" (279.4 mm)			
Motor, Pneumatic Air Volume Pressure Speed, Adjustable	.9 HP (0.66 kW) 38 CFM (1.1 M³/Min.) 90.0 psi (6.1 bar) 90 RPM, Max.	1.625 HP (1.2 kW) 38 CFM (1.1 M³/Min.) 90.0 psi (6.1 bar) 50 RPM, Max.	3.0 HP (2.2 kW) 65 CFM (1.9 M³/Min.) 90.0 psi (6.1 bar) 22 RPM, Max.	3.0 HP (2.2 kW) 65 CFM (1.9 M³/Min.) 90.0 psi (6.1 bar) 18 RPM, Max			

<sup>\*</sup>Model BF has a tight clearance option available. This option reduces the maximum working range to 2.500" (63.5 mm). Tool travel is limited to 1.000" (25.4 mm). Radial clearance is reduced to 2.750" (69.9 mm).



#### **Model MSF Elbow Mandrel**

Size Pin		I.D. Range		Size	Pin	I.D. Range	
	Length	Inches	MM		Length	Inches	MM
Α	0.594	1.750 - 2.000	44.5 - 50.8	G	1.344	3.250 - 3.500	82.6 - 88.9
В	0.719	2.000 - 2.250	50.8 - 57.2	Н	1.469	3.500 - 3.750	88.9 - 95.3
С	0.844	2.250 - 2.500	57.2 - 63.5	I	1.594	3.750 - 4.000	95.3 - 101.6
D	0.969	2.500 - 2.750	63.5 - 69.9	J	1.719	4.000 - 4.250	101.6 - 108.0
E	1.094	2.750 - 3.000	69.9 - 76.2	K	1.844	4.250 - 4.500	108.0 - 114.3
F	1.219	3.000 - 3.250	76.2 – 82.6				

### **Model MTF Elbow Mandrel**

Size	Pin	I.D. Range		Size	Pin	I.D. R	ange
	Length	Inches	MM		Length	Inches	MM
MT1	1.250	3.250 - 4.000	82.6 - 101.6	MT5	2.750	6.250 - 7.000	158.8 – 177.8
MT2	1.625	4.000 - 4.750	101.6 - 120.7	MT6	3.125	7.000 – 7.750	177.8 – 196.9
MT3	2.000	4.750 - 5.500	120.7 - 139.7	MT7	3.500	7.750 – 8.500	196.9 – 215.9
MT4	2.375	5.500 - 6.250	139.7 – 158.8		0.000	7.700 0.000	100.0 210.0

#### **Model MFTF Elbow Mandrel**

Size	Pin	I.D. Range			Loca	ator Pins For Exte	ended Head
	Length	Inches	MM	Size	Pin	I.D. Range	
FT1	1.750	4.250 - 5.000	108.0 - 127.0		Length	Inches	MM
FT2	2.125	5.000 - 5.750	127.0 - 146.1	FT7	2.375	8.750 - 9.500	222.3 - 241.3
FT3	2.500	5.750 - 6.500	146.1 - 165.1	FT8	2.750	9.500 - 10.250	241.3 - 260.4
FT4	2.875	6.500 - 7.250	165.1 – 184.2	FT9	3.125	10.250 - 11.000	260.4 - 279.4
FT5	3.250	7.250 - 8.000	184.2 - 203.2	FT10	3.500	11.000 - 11.750	279.4 – 298.5
FT6	3.625	8.000 - 8.750	203.2 - 222.3	FT11	3.875	11.750 - 12.500	298.5 - 317.5
				FT12	4.250	12.500 - 13.250	317.5 - 336.6
				FT13	4.625	13.250 - 14.000	336.6 - 355.6
				FT14	5.000	14.000 - 14.750	355.6 - 374.7
				FT15	5 375	14 750 - 15 500	374 7 – 393 7





#### O.D. Mount Flange Facing

Our versatile line of split-frame machines use a counterbore head to quickly and accurately resurface flanges from 4.000" to 86.000" O.D. (101.6 mm to 2184.4 mm).

By altering the number of tripper pins, surface finishes can be machined from 63 to 500 RMS. Contact your H&S representative or our headquarters at the information listed below.

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