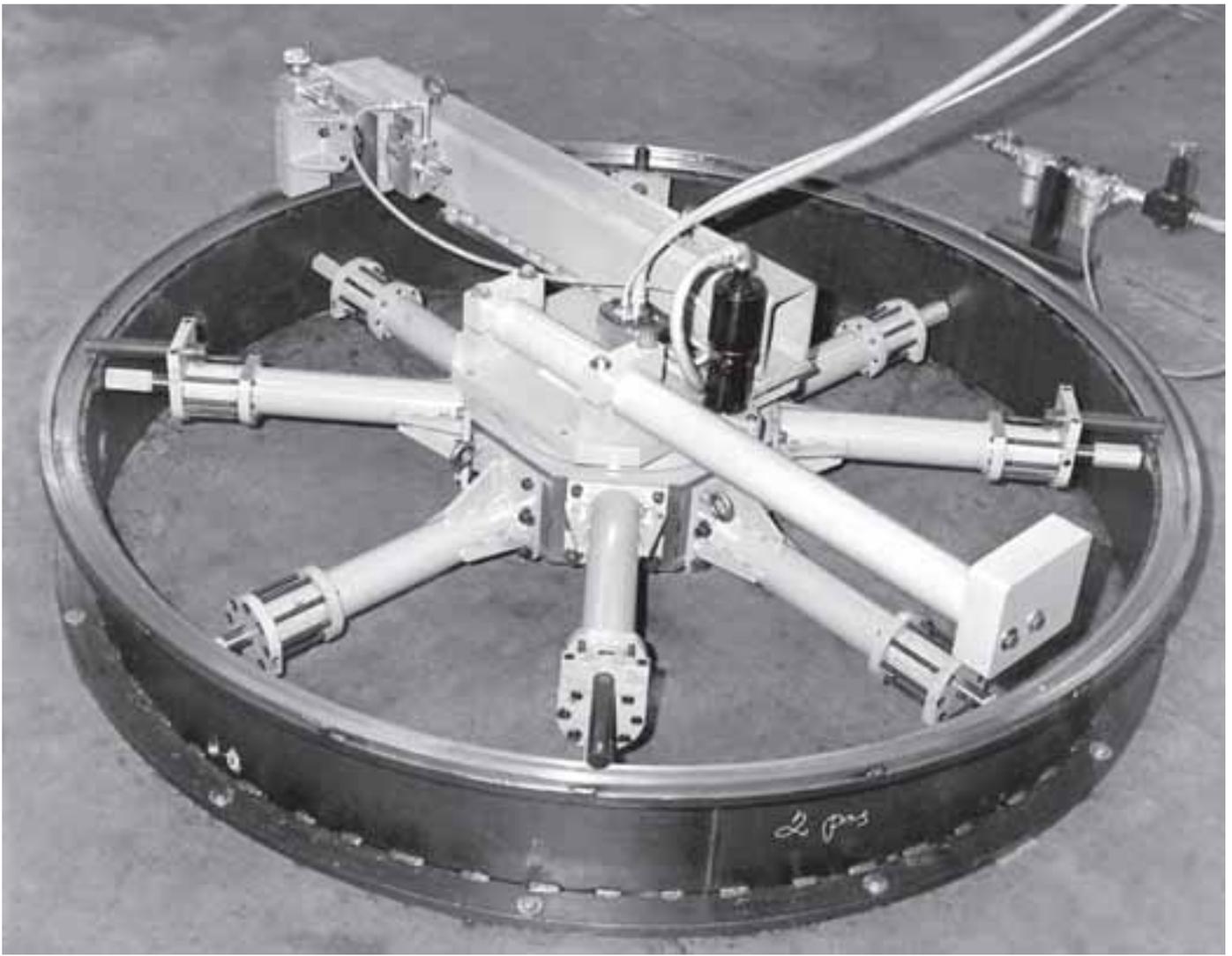


Model FF8000 Flange Facer



- Machine Features
- Components & Accessories
- Specifications
- Technical Data



CLIMAX[®]
Portable Machine Tools, Inc.

FF8000 Features

Get big flange faces back in working condition - FAST!

Versatile

- Available in ID or OD mount styles.
- Options include: grinding heads, flat surface mounting, mounting and facing up to 10 ft. diameter.
- Power supply hoses attach to the top or bottom of the machine with a rotary union for operation in horizontal, vertical, or inverted positions.

Solid

- Two rotational drive air motors.
- Produces accurate machining even at the maximum turning arm extension.
- Large diameter, heavy-duty Timken bearings support the turntable section. The turning arms are large cross-section tubes that provide rigid, light-weight mounting for the tool head.

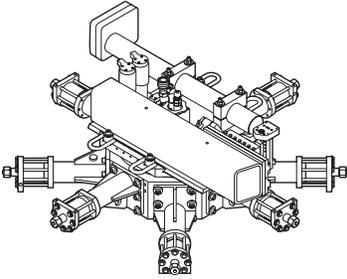
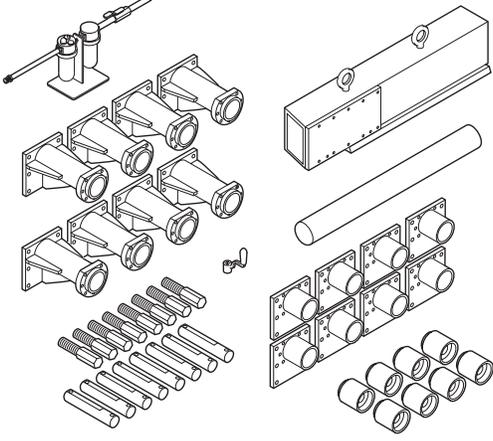
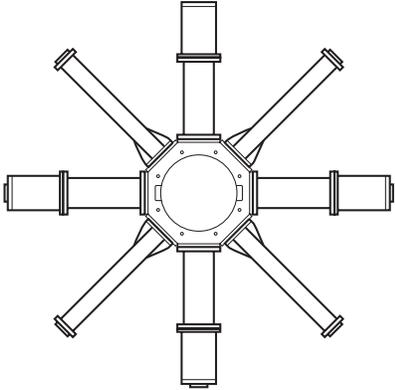
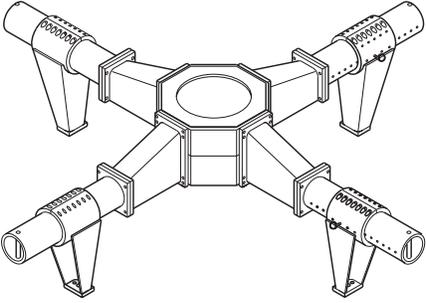
ID-mount feature shown here in a vertical application.



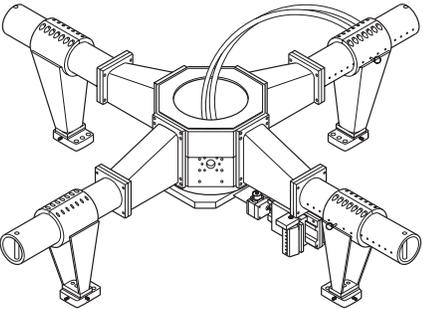
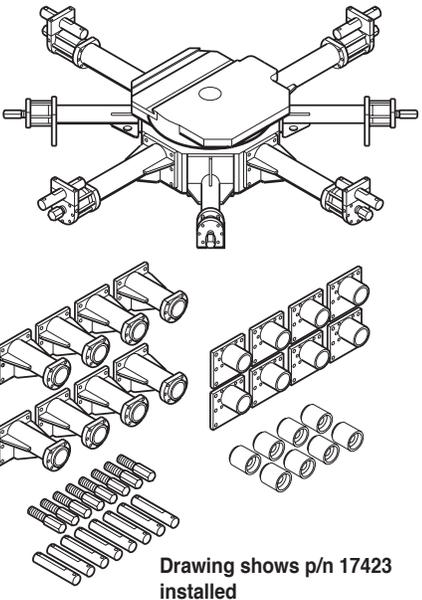
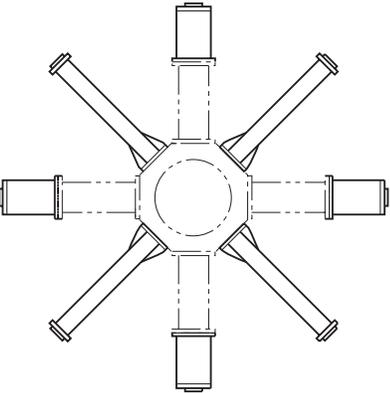
Originally designed to machine eight-foot diameter stainless steel heat exchanger flanges in a nuclear fuel reprocessing plant, the FF8000 Flange Facer has an OD-mount feature, shown here.

- Smooth rotation is insured by the adjustable counterbalance arm and a set of weights provided with the machine. Properly adjusted, the FF8000 rotates at a uniform rate, even when mounted in vertical flanges.
- Acceptable finishes with HSS or carbide tool bits, even on stainless steel. Finishes as fine as RMS 16 can be produced with the optional grinding head.
- The turning arms mount on the machine turntable in dovetail ways for easy positioning.
- The tool head/radial feed mechanism mounts on dovetail ways at the end of the turning arm, to re-face to the edge of flanges that have very little clearance around them, or cut right up to a shoulder.
- The eight-inch travel radial feed is pneumatically actuated.
- The four-inch travel vertical feed is manually controlled during automatic radial cutting operations, or may be pneumatically controlled when cutting grooves or cutting down vertical surfaces.
- The tool holder also rotates up to 45° in either direction for cutting chamfers or J-weld preps.

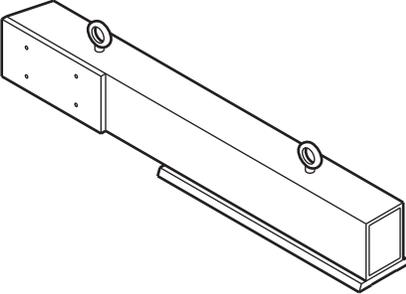
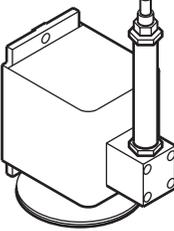
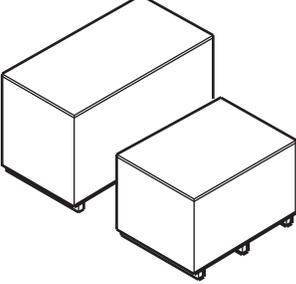
FF8000 Components

	ORDER NO.	DESCRIPTION
 	<p>18447</p> <p>FF8000 pneumatic ID-mount flange facer Complete flange facing machine. Mounts inside 30" to 96" (762 to 2438 mm) diameter bores. Faces 30" to 96" (762 to 2438 mm) diameter flanges. Machine comes complete with main body, two air motors (2.9 hp/2.18 kW total), pneumatic conditioning unit, chuck arms for 30" to 96" (762 to 2438 mm) diameter bores, short and long tool arm supports, swivel tool holder, radial and vertical slide assemblies, short and long counterweight arms with weights, tool kit, instruction manual, and wooden storage crate.</p> <p>20490</p> <p>FF8000 230V hydraulic/pneumatic ID-mount flange facer Complete flange facing machine. Mounts inside 30" to 96" (762 to 2438 mm) diameter bores. Faces 30" to 96" (762 to 2438 mm) diameter flanges. Machine comes complete with main body, hydraulic motor, 230V, 60Hz hydraulic power unit, pneumatic feed box, chuck arms for 30" to 96" (762 to 2438 mm) diameter bores, short and long tool arm supports, swivel tool holder, radial and vertical slide assemblies, short and long counterweight arms with weights, tool kit, instruction manual, and wooden storage crate.</p> <p>20489</p> <p>FF8000 460V hydraulic/pneumatic ID-mount flange facer Same as 20490 except has a 460V, 50 Hz hydraulic power unit.</p>	
	<p>19753</p> <p>Extended range ID-mount chuck assembly - 96" to 120" (2438 to 3048 mm) diameters Includes hub, upper, lower, and formed leg assemblies.</p> <p>Use with p/n 18447, 20490, or 20489 (FF8000 ID-mount flange facers) to extend its mounting range to bore diameters from 96" to 120" (2438 to 3048 mm).</p> <p><i>Customer must purchase turning extension kit (p/n 33807) separately to face diameters up to 120" (3048 mm).</i></p>	
 <p><i>Drawings may not represent actual product.</i></p>	<p>17801</p> <p>OD-mount chuck assembly (OD-mount conversion kit) Includes OD hub, formed legs, leg tubes, leg clamps and instructions. Convert p/n 18447, 20490, or 20489 ID-mount machines to OD mounting for outside diameters of 42.5" to 109.5" (1079.5 to 2781.3 mm). Machine faces 30" to 96" (762 to 2438 mm) diameter flanges.</p> <p>28451</p> <p>OD chuck extension kit (OD-mount extension kit) - 96" to 133" (2438 to 3378 mm) diameters (not shown). Kit includes leg extensions and mounting hardware only. Use with part numbers 17801 or 19581 to extend OD mounting range to 96" to 133" (2438 to 3378 mm) diameter.</p> <p><i>Customer must purchase turning extension kit (p/n 33807) separately to face diameters up to 120" (3048 mm).</i></p>	

FF8000 Components

	ORDER NO.	DESCRIPTION
	<p>19581</p>	<p>FF8000 pneumatic OD-mount flange facer Complete flange facing machine. Mounts on work pieces with outside diameters from 42.5" to 109.5" (1079.5 to 2781.3 mm). Faces 30" to 96" (762 to 2438 mm) diameter flanges. Machine comes complete with main body, two air motors (2.9 hp/2.18 kW total), pneumatic conditioning unit, chuck arms for 42.5" to 109.5" (1079.5 to 2781.3 mm) ODs, short and long tool arm supports, swivel tool holder, radial and vertical slide assemblies, short and long counterweight arms with weights, tool kit, instruction manual, and wooden storage crate.</p>
 <p>Drawing shows p/n 17423 installed</p>	<p>17423</p>	<p>Chuck leg assembly (ID-mount conversion kit) Includes short, medium, and long leg assemblies, leg end spacers, short and long setup fingers, short and long jacking bolts, and instructions.</p> <p>Convert p/n 19581 (FF8000 OD-mount flange facer assembly) to an ID-mount machine for bore diameters from 30" to 96" (762 to 2438 mm).</p> <p>This assembly is included with ID-mount machines (p/n 18447, 20489, or 20490).</p>
 <p><i>Drawings may not represent actual product.</i></p>	<p>24421</p>	<p>ID chuck extension kit (ID-mount conversion extension kit) - 96" to 120" (2438 to 3048 mm) diameters (not shown) Includes upper and lower leg assemblies only.</p> <p>Use with part number 17423 (ID-mount conversion kit) to extend its mounting range to 96" to 120" (2438 to 3048 mm).</p> <p><i>Note: Customer must purchase turning extension kit (p/n 33807) separately to face diameters up to 120" (3048 mm).</i></p>

FF8000 Components

	ORDER NO.	DESCRIPTION
	19761	<p>Turning extension kit - 96" to 120" (2438 to 3048 mm) diameters Extension kit allows the flange facer to machine larger diameter.</p> <p><i>To mount inside 120" (3048 mm) diameter bores, customer must purchase a mounting chuck extension kit separately.</i></p>
	19060	<p>Grinding and polishing head assembly Grinding attachment mounts to the vertical slide to smooth the flange face to a fine finish after machining. Assembly includes mounting bracket, air grinder, hose for connection to the main machine air supply, disk pad, and disks.</p>
 <p data-bbox="164 1182 537 1245"><i>Drawings may not represent actual product.</i></p>	20213	<p>Large steel storage container set For the ID-mount flange facer only. Large steel storage containers to ship or store the extended-reach ID-mount flange facer. Set includes one container for the main machine and one container for accessories. Both containers have steel construction. lids with full-length piano hinges, latches, and handles.</p>

FF8000 Worksheet

Basic ID-mount machines

Mounts in 30"- 96" inside diameter, faces 30"-96" dia.

Pneumatic power 18447 _____
 Hydraulic/pneumatic power 230V 20490 _____
 Hydraulic/pneumatic power 460V 20498 _____

Extensions and conversions

Extend ID mounting to 120" dia. add 19753 ____
 Extend machining to 120" dia. add 33807 ____
 Convert ID-mount to OD-mount, 42.5"- 109.5" diameter add 17801 ____
 Extend OD-mount conversion to 96"- 133" diameter add 28451 ____

Accessories

Grinding head 19060 _____
 Large steel storage boxes 20213 _____

Basic OD-mount machine

Mounts on 42.5"-109.5" outside diameter, faces 30"-96" dia.

Pneumatic power 19581 _____

Extensions and conversions

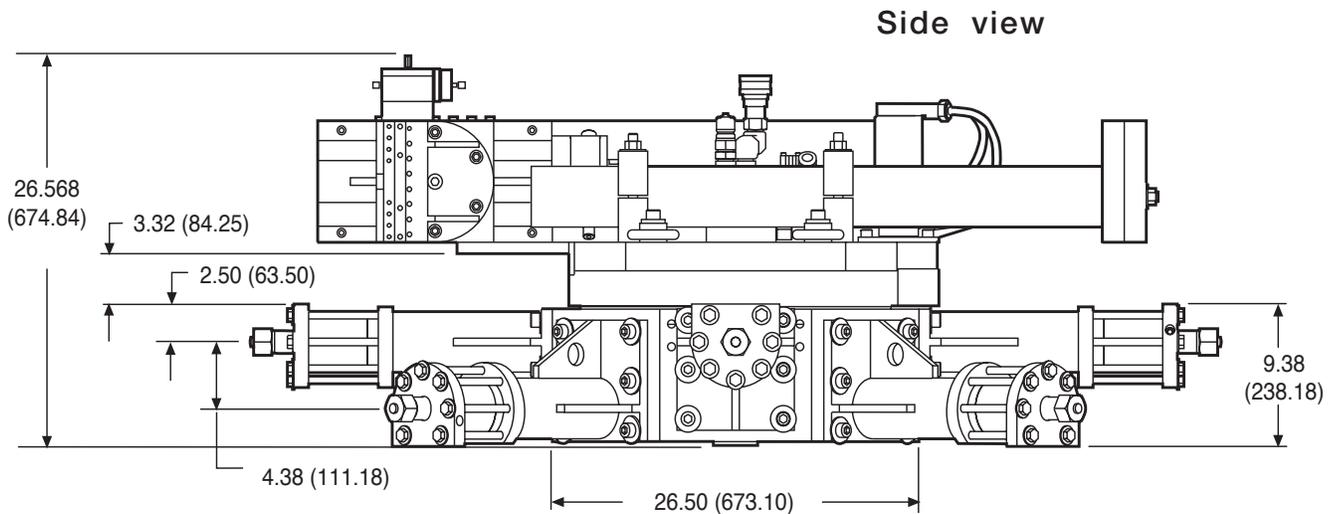
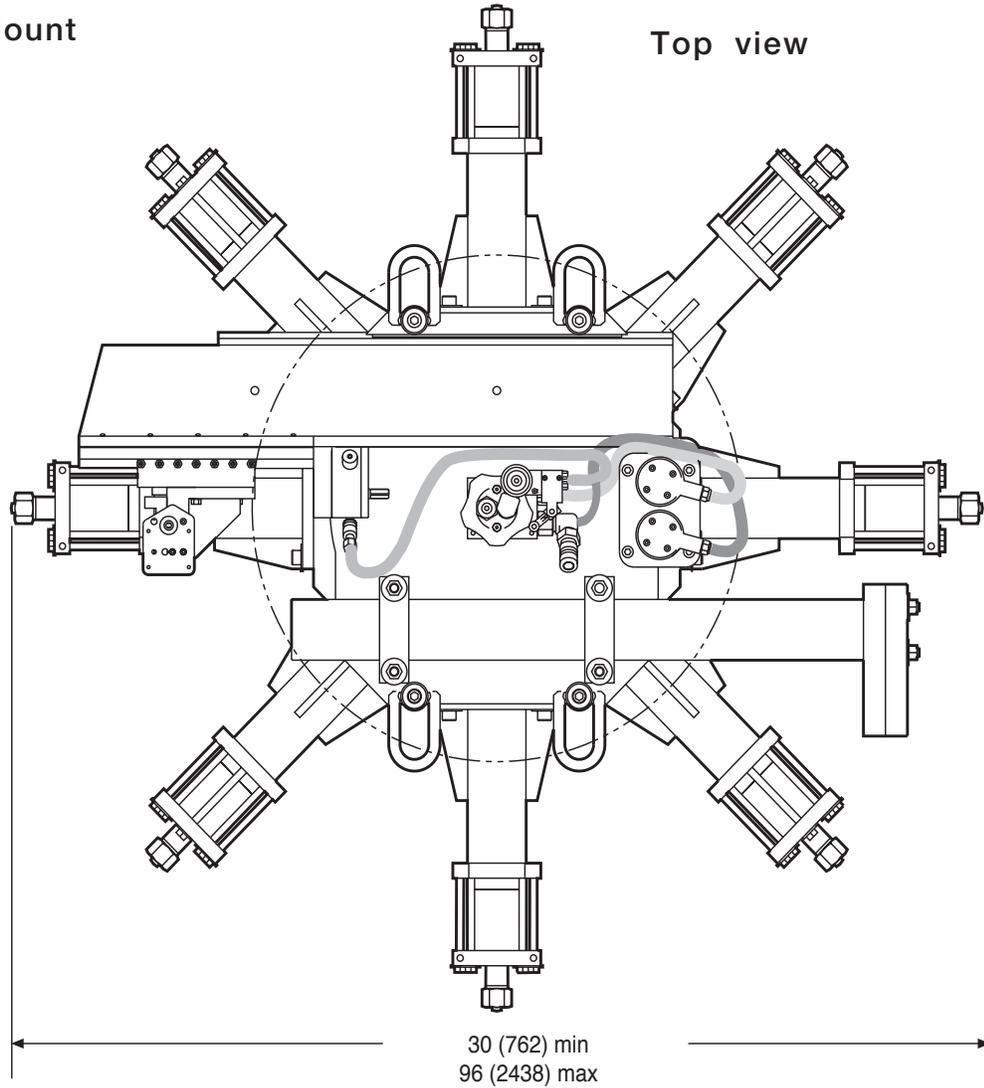
Extend OD mounting to 133" add 28451 ____
 Extend machining to 120" dia. add 33807 ____
 Convert OD-mount to ID-mount, 30"- 96" dia. add 17423 ____
 Extend ID-mount conversion to 96"- 120" dia. add 24421 ____
 Extend machining to 120" dia. add 33807 ____

Accessories

Grinding head 19060 _____

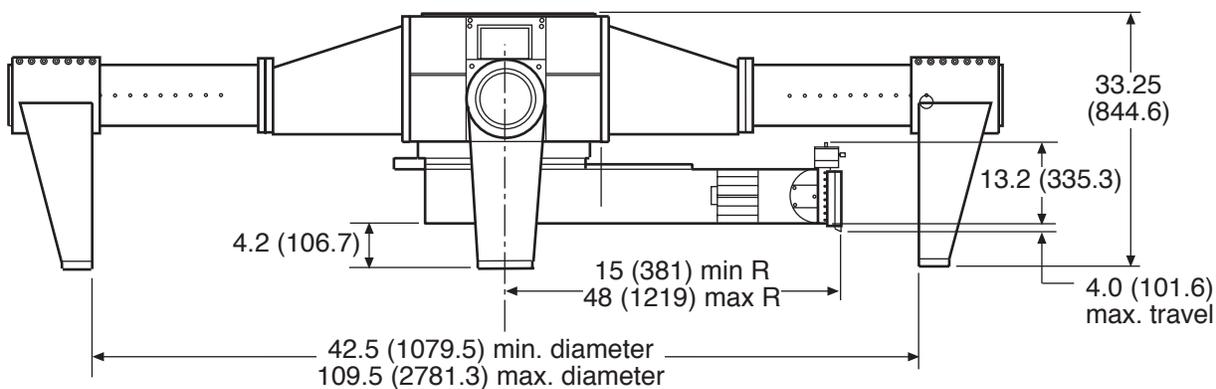
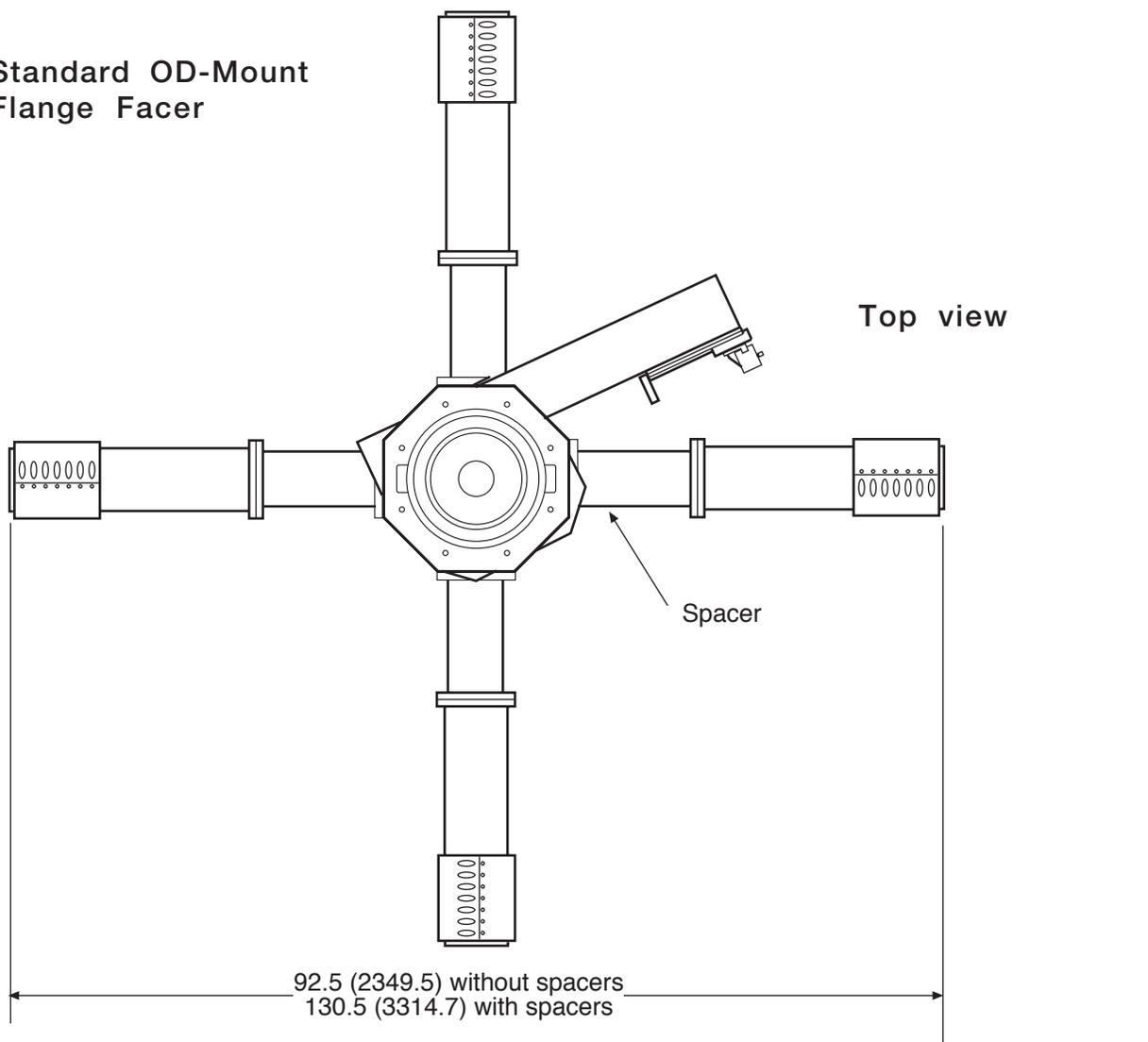
FF8000 General Dimensions

Standard ID-Mount
Flange Facer



FF8000 General Dimensions

Standard OD-Mount
Flange Facer



Side view

FF8000 Technical Information

Specifications (Inches/mm)

Specifications subject to change without notice.

For precision dimensions consult your factory representative.

GENERAL MACHINE SPECIFICATIONS:

Tool slide: Radial travel: 8 (203.2)
Vertical travel: 4 (101.6)
Swivel: -45° to 0° to 45°
(0° is perpendicular to the flange surface)

Tool feed system:

Automatic feed: Air powered, reversible,
.003 to .020 (.08 to .50) per rev.
Manual setup feed: .100 (2.50) per full turn of the
(for setup only) hand wheel
Tool cutter: 3/4" (20 mm) standard square
lathe tool bits

Rotational drive assembly:

Final drive reduction: 8:1 helical gear
Machining speed: 13 rpm at 2.9 hp (2.18 kW)
Main bearings: 12 (304.8) diameter bearings
with adjustable pre-load and
full environmental seals

Power source:

Pneumatic (standard): 2 motors, 2.9 hp (2.18 kW) total
Requires 96 ft³/min (2.72 m³/min)
at 90 psi (620 kPa) minimum
Hydraulic (optional): 10 hp (7.46 kW) hydraulic power
unit. Motor information available
upon request

Machine shipping dimensions:

Main machine: 60" x 34" x 32"
(154 x 88 x 83 cm)
ID chuck arm ass'y: 65" x 43" x 35"
(Shipped in 2 crates)
(166 x 110 x 90 cm)
69" x 37" x 32"
(176 x 96 x 82 cm)
OD chuck arm ass'y: 65" x 43" x 35"
(Shipped in 2 crates)
(166 x 110 x 90 cm)
69" x 37" x 32"
(176 x 96 x 82 cm)

FF8000 shipping weights:

Main machine: 2,500 lb (1,135 kg)
ID chuck arm assembly: 1,695 lb (769.5 kg)
OD chuck arm assembly: 2,413 lb (1095.5 kg)

Hydraulic power unit- 10 hp (24596)

Shipping dimensions: 47.6 x 26.77 x 35.5
(121 x 68 x 90 cm)

Shipping weight: 575 lb (262 kg)

ID-MOUNT MACHINE SPECIFICATIONS:

Standard ID mounting diameter: 30 - 96 (762 - 2438)

Optional ID mounting chuck extension kit mounting diameter: 96 - 120 (2438 - 3048)

Standard facing diameter: 30 - 96 (762 - 2438)

Optional turning extension kit facing diameter:
96 - 120 (2438 - 3048)

OD-MOUNT MACHINE SPECIFICATIONS:

Standard OD mounting diameter:
42.5 - 109.5 (1079.5 - 2781.3)

Optional OD mounting extension kit mounting diameter: 96 - 133 (2438 - 3378)

Standard facing diameter: 30 - 96 (762 - 2438)

Optional turning extension kit facing diameter:
96 - 105 (2438 - 2667)



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