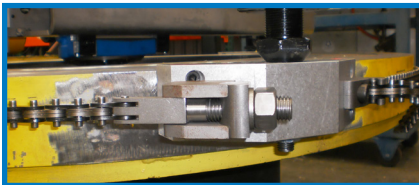
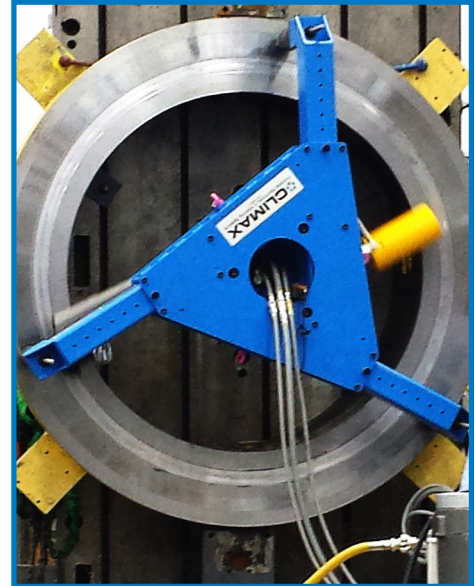


Performance. Versatility. Safety.

The rigid and versatile FF6300 delivers high-torque performance to quickly re-face flanges and repair sealing and bearing surfaces efficiently and cost-effectively.



IMPROVED EFFICIENCY AND OPERATIONAL FLEXIBILITY

Extended machining range, from 12 - 60 inches (304 - 1524 mm) provides more flexibility - one machine for many applications.

Variable feed rate control allows operators to easily adjust the feed rate of the cutting tool.

ID, OD, or surface-mount configurations are available for a variety of machining applications, with a quick and easy change over.

Chain-clamp assembly securely clamps OD-mount configurations to eliminate the need to weld for mounting.

Tool head and tool bit rotate 360°, which allows for machining and positioning at an angle. This provides flexibility to create a variety of cuts including chamfers, O-Ring

grooves, lens rings and other angular surfaces.

Back-facing attachment option provides even more flexibility in machining operations for heat exchanger tube sheets and other applications.

Modular components and overall lighter weight make setup, transport and storage quick and easy.

Hydraulic or pneumatic drive options allow flexibility for a variety of working conditions.

RUGGED DESIGN FOR POWERFUL, PRECISE MACHINING PERFORMANCE

Heavy-duty bearings provide rigid performance and reliable results, even over bolt-hole patterns.

Chucking system with leveling feet allows for quick and easy setup.

Modular chuck can be mounted separate from the machine body, makes accurate setup quick & easy.

The worm gear drive system runs smoothly and provides low backlash even with interrupted cuts. High-torque power allows higher metal removal rates.

REDUCING OPERATOR RISK

Remote on/off control of the feed system keeps operators hands away from moving parts.

Multiple lifting points for lifting in all orientations simplify balancing and rigging challenges for easy machine positioning.

SPECIFICATIONS

	US	Metric
Machine Performance Ranges		
ID: Mounting range	11.8 - 57.5 inches	299.7 - 1460.5 mm
Facing diameter range	11.8 - 60 inches	299.7 - 1524.0 mm
Swing diameter @ minimum w/ feedbox on arm	39.4 inches	1000.8 mm
Radial tool slide travel (full length of turning arm)	21.2 inches max	538.5 mm max
Axial tool head travel	4 inches	101.6 mm
Depth required inside bore for ID chuck		
Single plane	3.5 ± 0.25 inches	88.9 ± 6.4 mm
Surface mount	0 inches	0 mm
Travel of leveling foot	± 0.25 inches	± 6.4 mm
Radial adjustment stroke of chuck foot	2.5 inches	63.5 mm
OD: Mounting range (with optional clamp kit)	38.1 - 63.8 inches	967.7 - 1620.5 mm
Facing diameter range	8.5 - 60 inches	215.9 - 1524.0 mm
Refer to ID for specifications not listed		

Rotational Drive System

Drive type		Pneumatic or hydraulic drive with cone drive
Worm gear reduction		10:1
Turning arm speed range:	Pneumatic	7 - 37 RPM
	Hydraulic	3.5 - 37 RPM
		(6.2 cu.in motor @ 10gpm) 101.6 cm ³ motor at 23.5 L/min
Power input requirements	Pneumatic (2.0 Hp, 1.5kW)	90 psi @ 65ft ³ /min
	Hydraulic	1200 psi @ 10 gpm
		620kPa @ 1.84m ³ /min
		8273 kPa @ 37.9 L/min

Air Feed System

Drive type		Air actuated feed box engaged by machine rotation, remote on/off control of the feed by turning the air supply on/off
Feed power requirements		90 psi @ 1ft ³ /min
Feed rate		0.02 - 0.035 inches/rev
		620kPa @ 0.028m ³ /min
		0.08 - 0.89 mm/rev

Measures

For machine dimensions, please refer to dimensional drawings

ID machine height with fittings (± for leveling)	16 ± 0.25 inches	406.4 ± 6.4 mm
ID machine weight, max approximate	473 lbs	214.5 kg
OD Machine height with fittings (± for leveling)	27.5 ± 1.25 inches	698.5 ± 31.75 mm
OD machine weight, approximate	925 lbs	419.6 kg
ID crate dimensions (WxDxH)		
Wood, approx.	26 x 63.5 x 25.75 inches	660.4 x 1612.9 x 654.1 mm
Metal, approx.	60 x 24 x 28 inches	1524 x 609.6 x 711.2 mm
OD crate dimensions (WxDxH)		
Wood, approx.	47.25 x 42.25 x 19.75 inches	1200.2 x 1073.2 x 501.7 mm

Testing Data

Internal Testing Performance Results	Test 1 (Material Removal)	Test 2 (Surface Finish)
Depth of Cut	.05 in (1.25mm)	.05 in (1.25mm)
RPM	28rpm Hydraulic	28rpm Hydraulic
Feed	.035 in/rev (0.9mm)	.007 in/rev (0.18mm)
Diameter of Cut	38 in 965mm)	36 in 914mm)
Type of Tool	Carbide	Carbide
Finish	Phonograph	112
MRR	5.85 in ³ /min (95.8cc)	1.11 in ³ /min (18.2cc)

Flatness at 50 inch (1270 mm) diameter. 0.0018 inches (0.046 mm).

Tested on a dedicated fixture made of A-36 steel in a controlled environment with single point machine, after warm-up.

All dimensions should be considered reference. Contact your Climax Representative for precision dimensions. Specifications are subject to change without notice. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

TOOL CONFIGURATIONS

Configure your FF6300 in 3 easy steps.

To configure your FF6300 Flange Facer:

- 1 Select base package
- 2 Select mounting system
- 3 Select mounting options

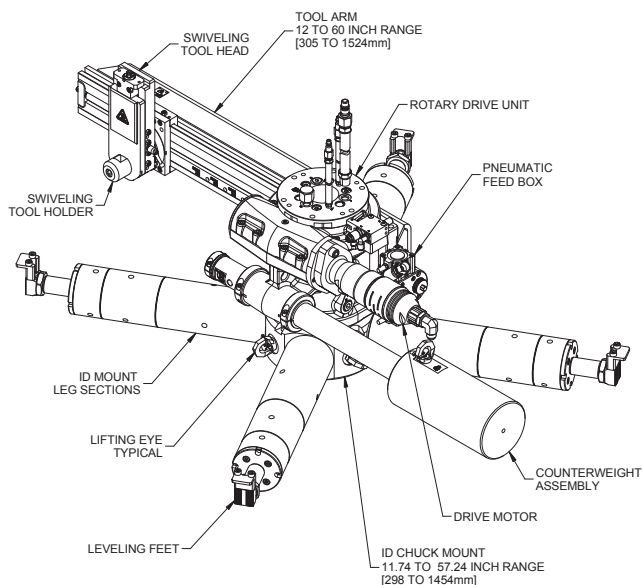
To configure the Flange Facer you require, simply select the option you need in each step, than contact your CLIMAX representative.

- 1 **Base Package** (includes: main body, tool kit, motor, feed box, turning arm and shipping container)
 - Pneumatic, CE, with Wood Crate 82358
 - Pneumatic, CE, with Metal Shipping Container 82361
 - Hydraulic, CE, with Wood Crate 82567
 - Hydraulic, CE, with Metal Shipping Container 82568
 - Hydraulic, with Wood Crate 82364
 - Hydraulic, with Metal Shipping Container 82365
- 2 **Mounting Systems**
 - ID Chuck Assy, 4 Legs 12 - 57 (304.8 - 1447.8 mm) 81971
 - OD Chuck Assy 38 - 60 (965.2 - 1524 mm) 80477
 - Surface Mount Assy 82309
- 3 **OD Mounting Option**
 - Chain Clamp Assembly 80622

Accessories

- Backface Attachment 80362
- Alignment Kit, Metric 83242
- Alignment Kit, Inch 83241

ID-Mount Configuration



Additional Tooling

HSS Tool Bit 3/4 X 5.0 inch (19.05 X 127 mm) LH Finish	29066
HSS Tool Bit 3/4 X 5.0 (19.05 X 127 mm) RH Finish	29067
Carbide Insert Holder RH 3/4 SQ Shank	61818
Carbide Insert Holder LH 3/4 SQ Shank	61819
Carbide Inserts 10 PK	61820

Hydraulic Power Units

HPU 230V, 10HP (7.5kW) PSR	63264
HPU 380V, 10HP (7.5kW) PSR	63265
HPU 415V, 10HP (7.5kW) PSR	63266
HPU 460V, 10HP (7.5kW) PSR	63267
HPU 575V, 10HP (7.5kW) PSR	63268

Pendant Cable and Hose Assemblies

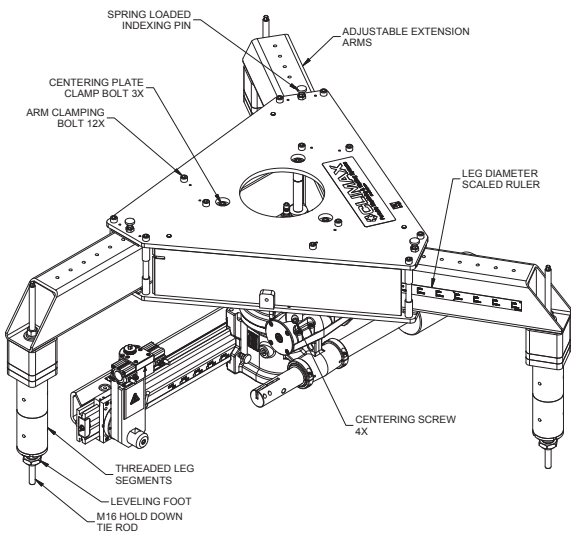
0.5 in (12.7 mm), 20 ft (6.1 m)	62799
0.5 in (12.7 mm), 50 ft (15.2 m)	62801
0.5 in (12.7 mm), 100 ft (30.5 m)	62802

Motor Conversion Kits

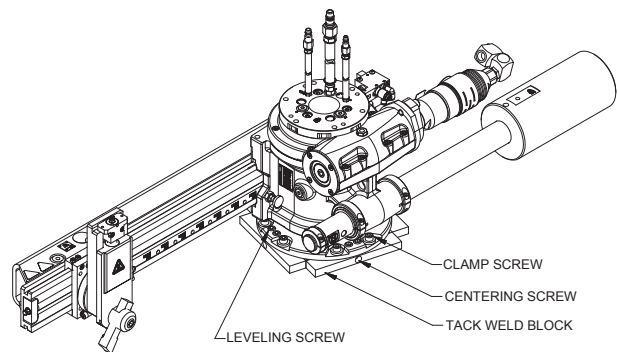
Hydraulic (includes motor, hoses)*	80970
Hydraulic, CE (includes motor, dripless fittings and hoses)*	82555
Pneumatic (includes motor and hoses)	80969

*order hydraulic power units separately

OD-Mount Configuration



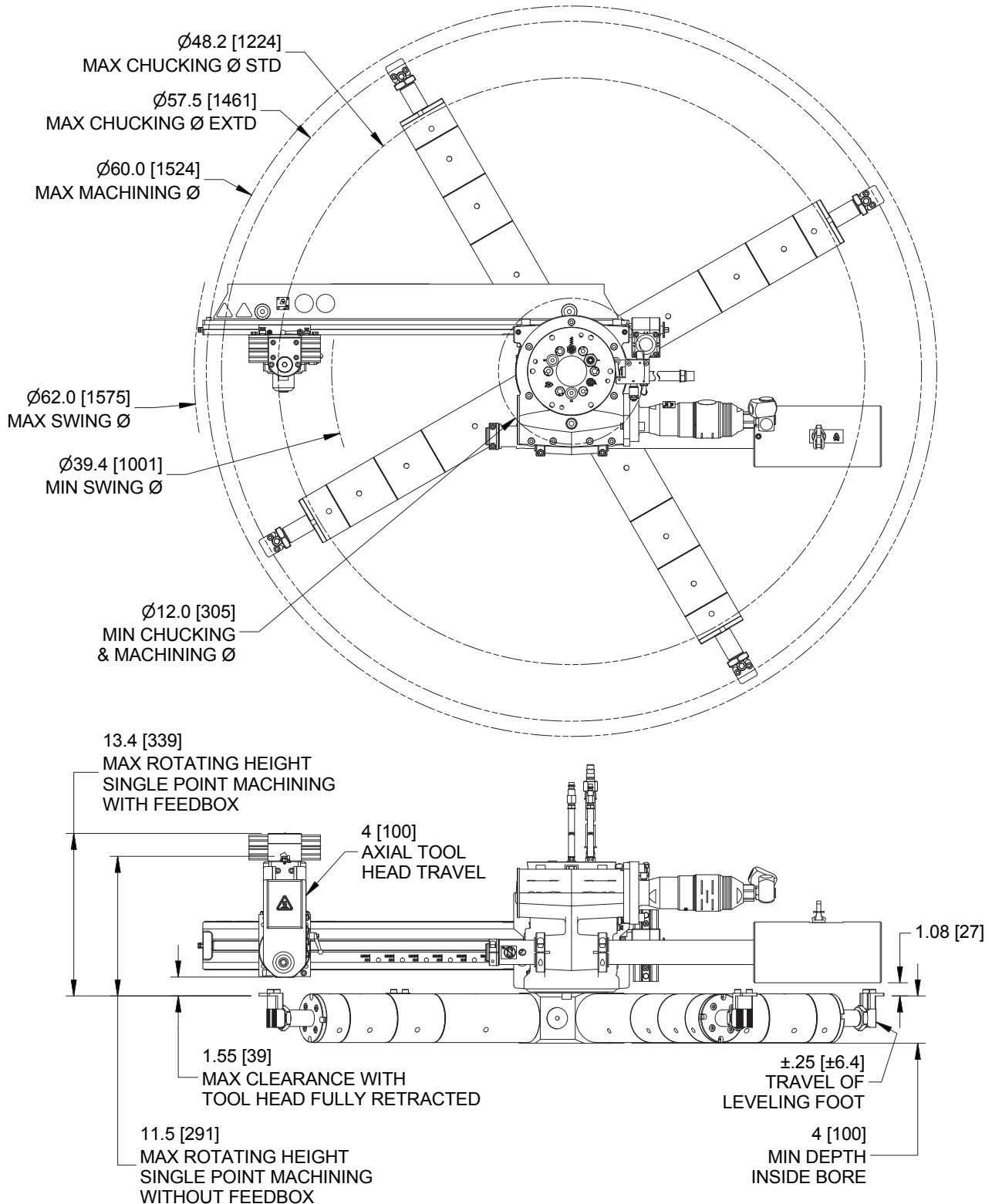
Surface-Mount Configuration



OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

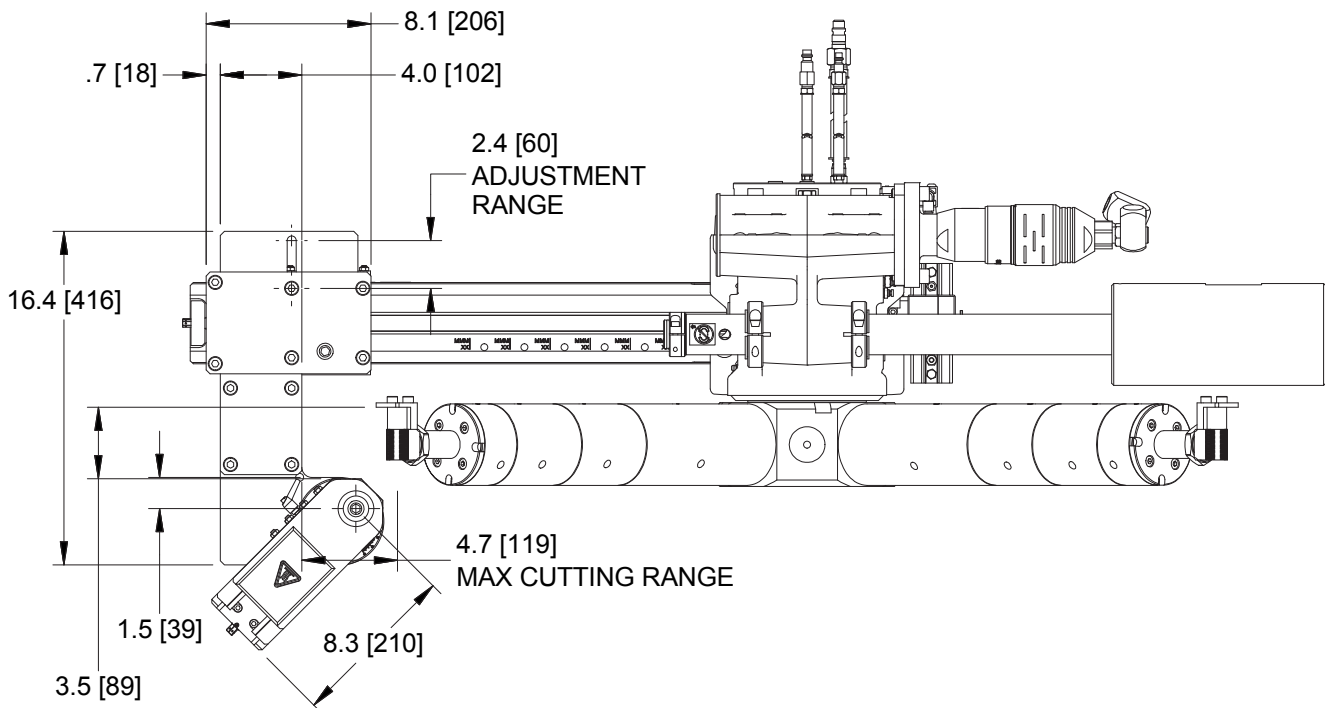
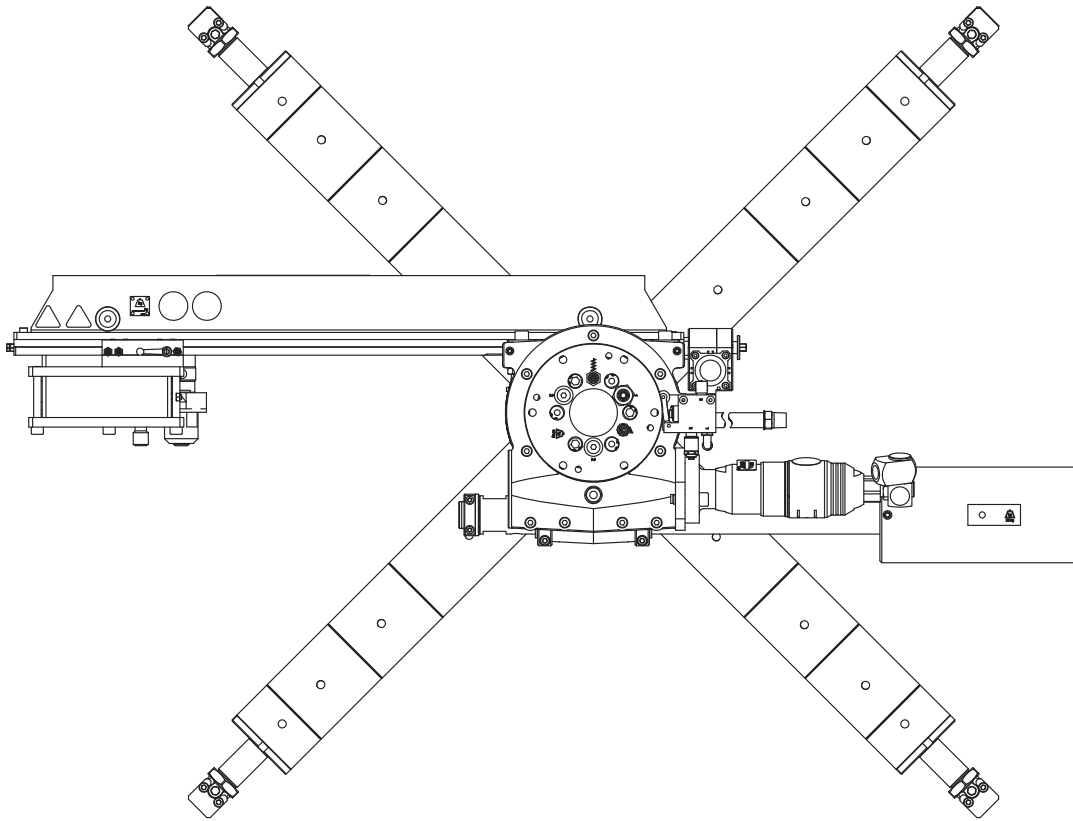
ID-Mount Configuration



OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

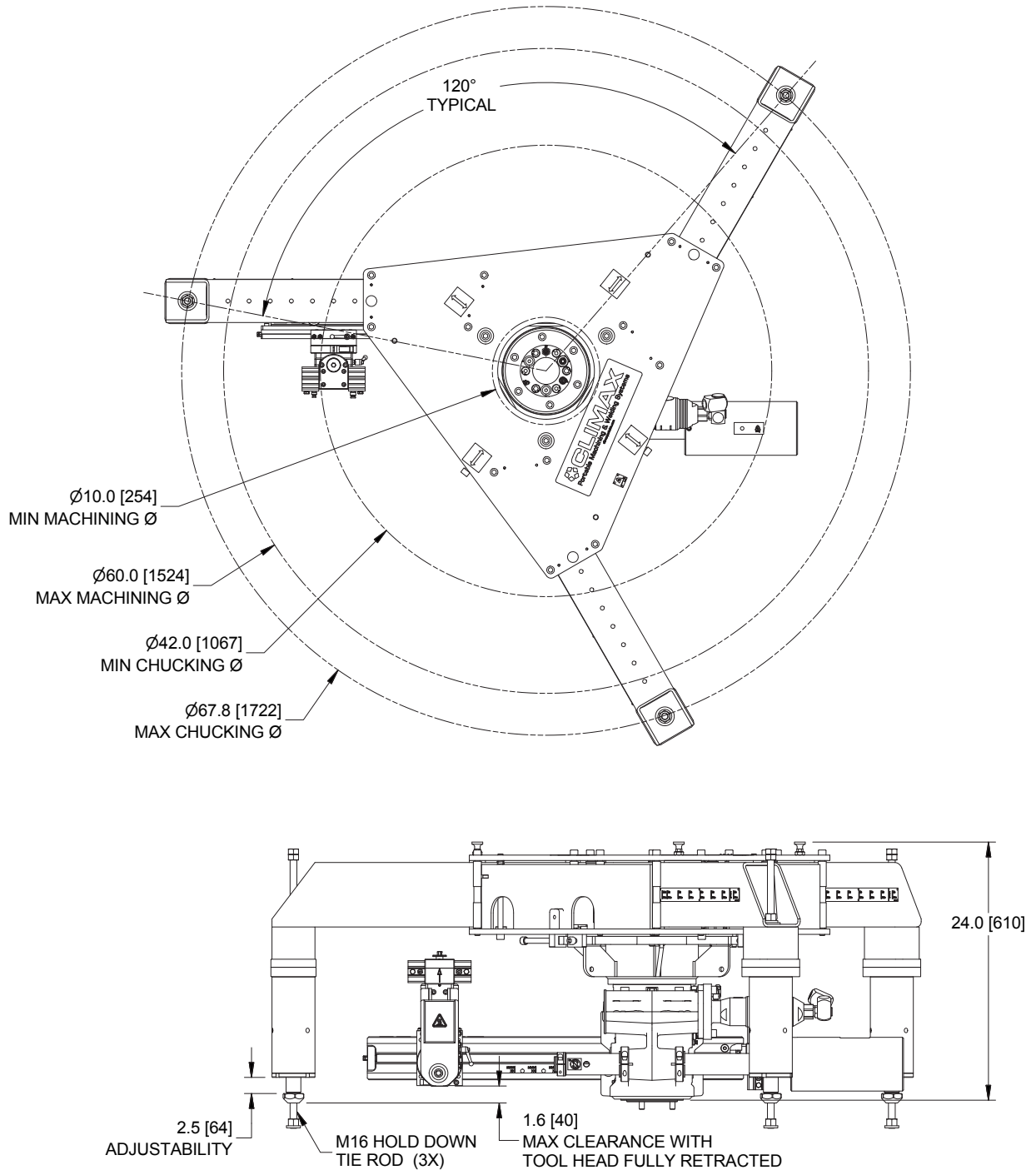
ID-Mount Configuration with Backface Attachment



OPERATIONAL DIMENSIONS

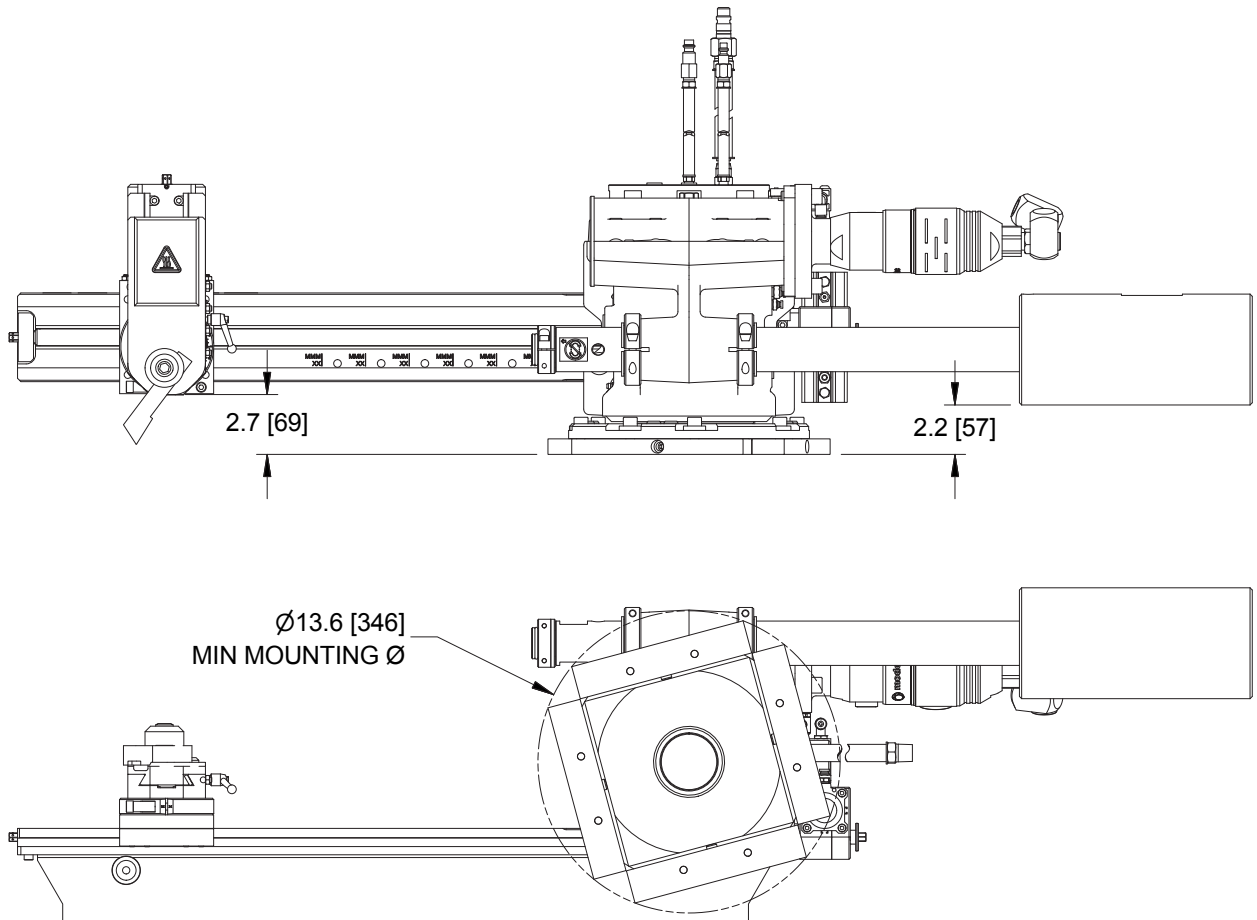
Dimensions in Inch (mm)

OD-Mount Configuration



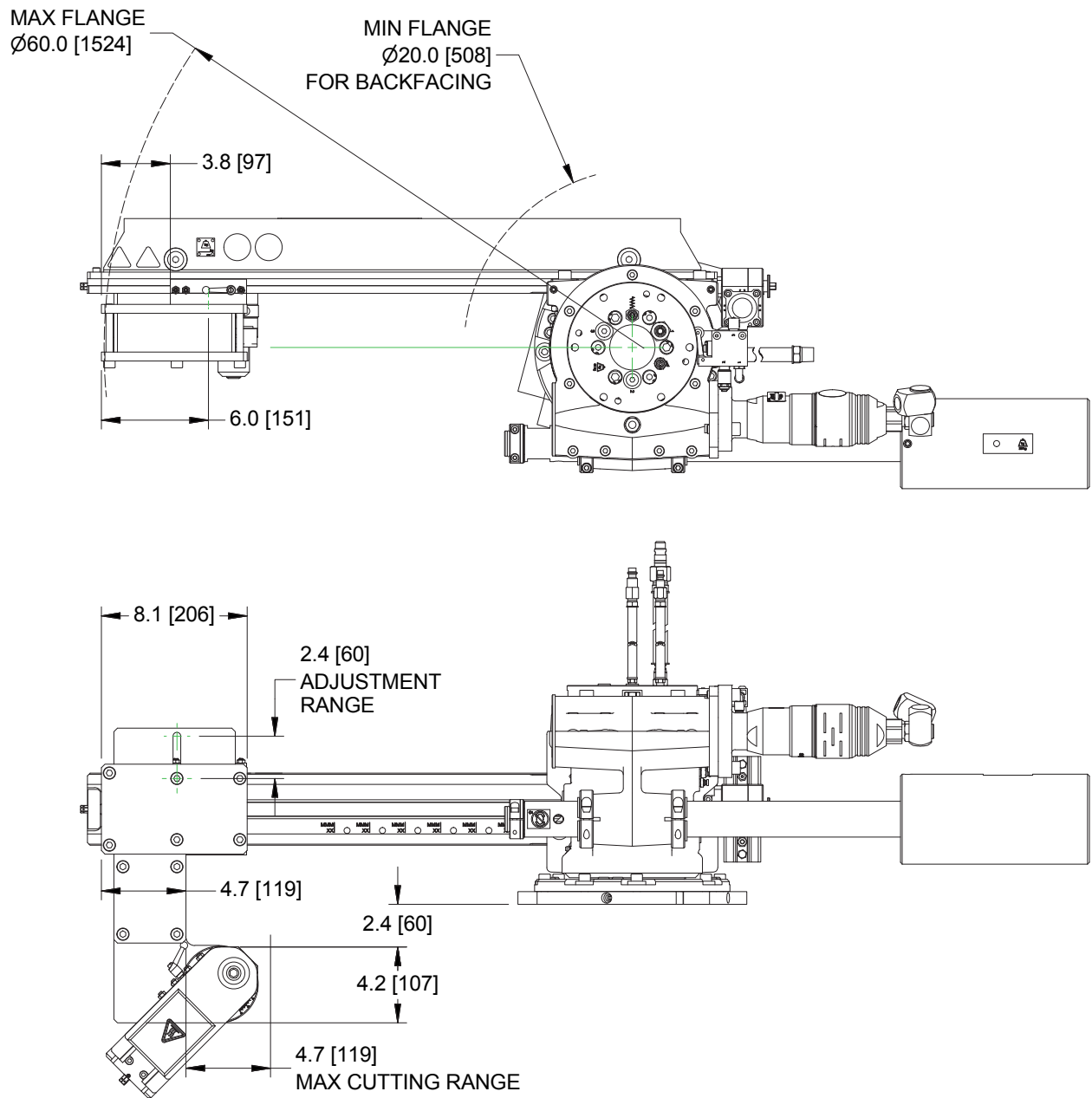
Dimensions in Inch (mm)

Surface Mount Configuration



OPERATIONAL DIMENSIONS

Surface Mount Configuration with Backface Attachment

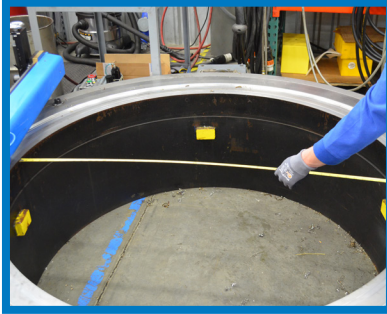


SETUP AND OPERATION

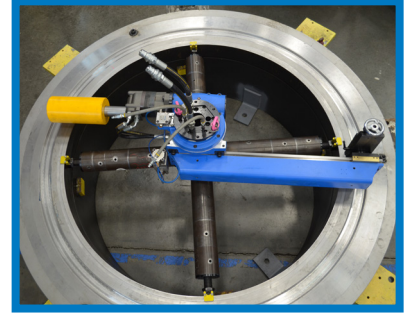
A Fast Eight-Step Process

This model is so fast and easy to set up that an experienced operator can usually mount the machine into the flange bore, align it, and start cutting in less than an hour.

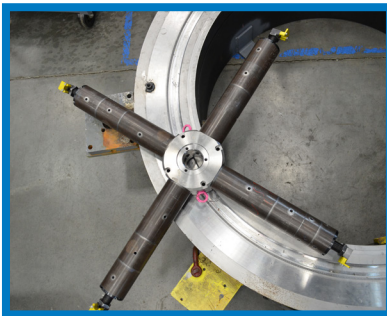
1 Measure the bore diameter. This will be used to determine the leg length.



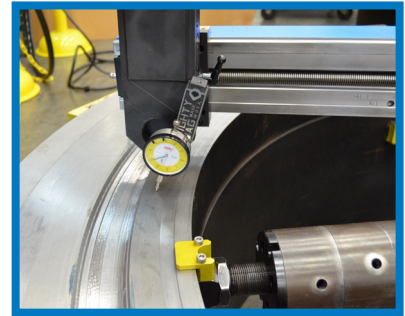
5 Lightly tighten leveling feet in the flange.



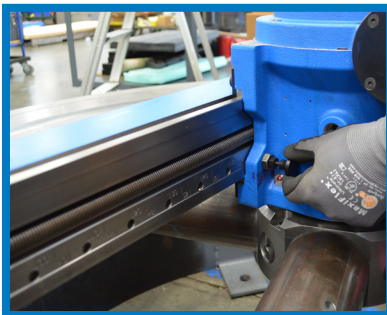
2 Select the appropriate leg length and foot. Install setup fingers.



6 Extend feet into flange. Indicate, level and tighten leveling feet.



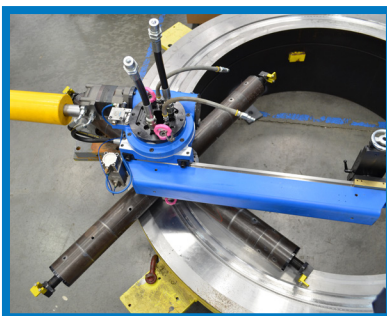
3 Adjust the turning arm and counterweight arm to the correct diameter.



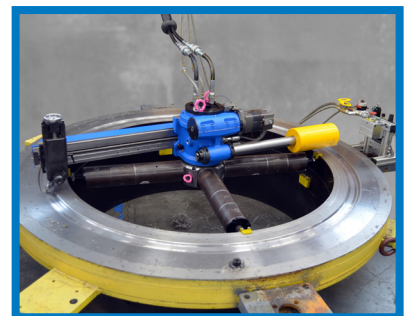
7 Install tool bit. Connect to power.



4 Set machine onto flange using setup fingers.



8 You are ready to begin machining!



The FF6300 is widely used by these industries:

Oil, Gas and Chemical
Power Generation
Heavy Equipment
Ship building & repair

Typical applications:

- Piping system flanges
- Valve flanges and bonnet flanges
- Heat exchanger flanges
- Vessel flanges
- Flange faces on piping systems
- Pump housing flanges
- Weld preps
- Tube sheet bundles.
- Bearing mounting bases
- Final drive hubs
- Bull gear faces
- Manufacturing of mining equipment
- Slew rings
- Bearing mounting bases
- Crane pedestal flange.



CLIMAX Training Facilities

CLIMAX has been teaching the fundamentals and fine points of portable machine tool operation for practically as long as we've been inventing and building the tools.

We offer training facilities in the United States - the Global Learning Center, situated in our corporate headquarters near Portland, Oregon and our Deer Park, Texas Training Facility. Both facilities offer training for machine tool operators on safety and machine setup and operation. Trainees also receive technical tips and tools to improve operational efficiencies, with the vast majority of every program devoted to hands-on activities and skill development.



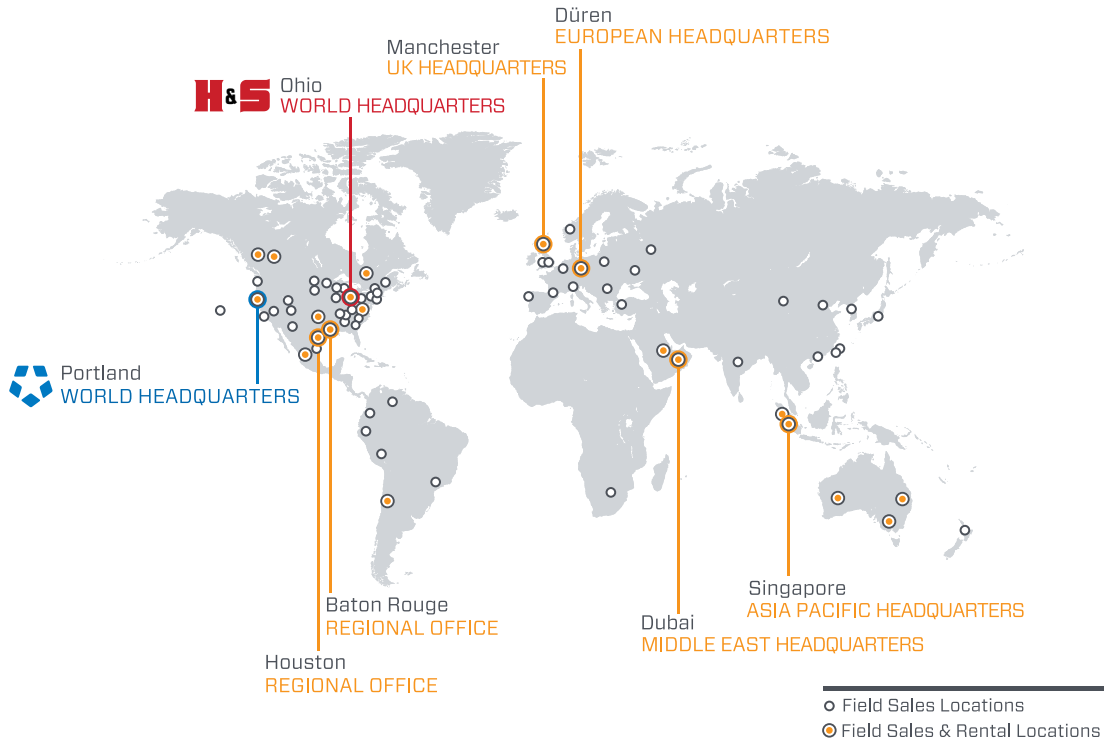
The CLIMAX instructional team includes specialists in shipbuilding, power generation, civil engineering, bridge re-building, petrochemical and other industries.

Whether it's a regularly scheduled course at one of our training facilities, or custom curriculum conducted at your facility, your machinists will benefit from courses developed by some of the most respected authorities in the business.

Call us today to register for a regularly scheduled class, or talk to us about how we can customize a training program for your specialized application.



CLIMAX GLOBAL LOCATIONS



Call CLIMAX for:

Rentals

With 21 worldwide rental depot locations, you are never far away from a CLIMAX tool.

On-site Training

Need some refresher courses in setting up and operating your CLIMAX machine tool?

Custom Projects

CLIMAX has been solving complicated machining, welding and valve testing problems for our customers since 1964.

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