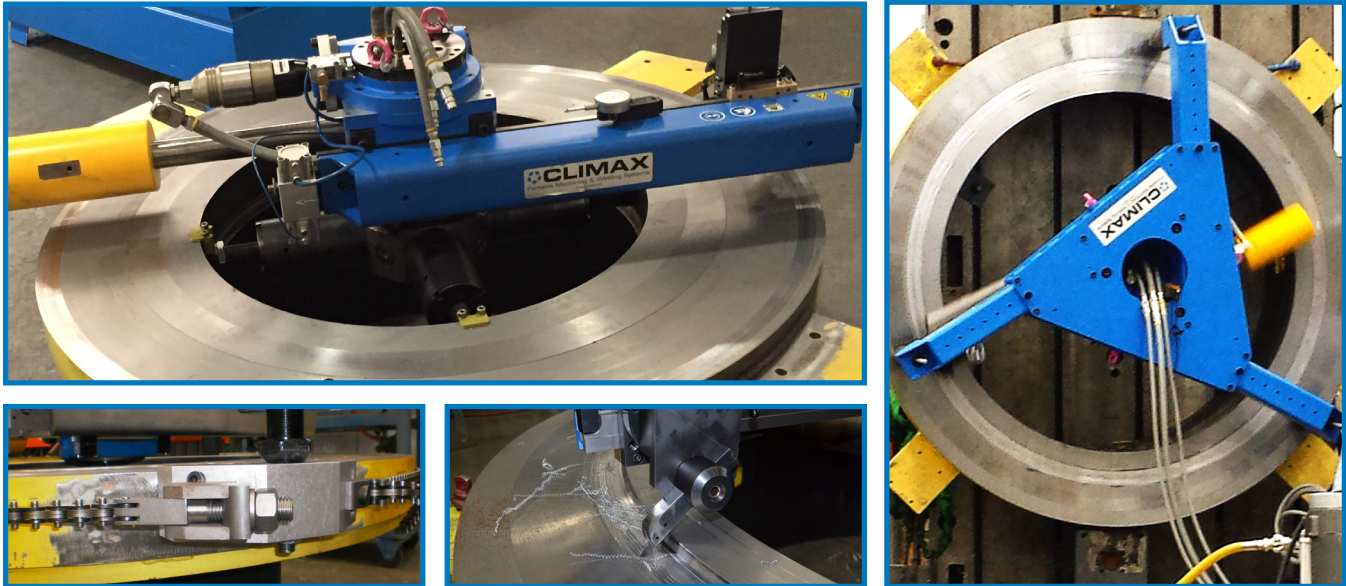


Performance. Versatility. Safety.

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

	Inch	Metric
Machine Performance Ranges		
ID: Mounting range	11.8 - 57.5 in.	299.7 - 1460.5 mm
Facing diameter range	11.8 - 60 in.	299.7 - 1524.0 mm
Swing diameter @ minimum w/ feedbox on arm	39.4 in.	1000.8 mm
Radial tool slide travel (full length of turning arm)	21.2 in. max	538.5 mm max
Axial tool head travel	4 in.	101.6 mm
Depth required inside bore for ID chuck		
Single plane	3.5 ± 0.25 in.	88.9 ± 6.4 mm
Surface mount	0 in.	0 mm
Travel of leveling foot	± 0.25 in.	± 6.4 mm
Radial adjustment stroke of chuck foot	2.5 in.	63.5 mm
OD: Mounting range (with optional clamp kit)	38.1 - 63.8 in.	967.7 - 1620.5 mm
Facing diameter range	8.5 - 60 in.	215.9 - 1524.0 mm
<i>Refer to ID for specifications not listed</i>		
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)	3.5 - 37 RPM (101.6 cm ³ motor at 23.5 L/min)
Power input requirements:		
Pneumatic (2.0 Hp, 1.5kW)	90 psi @ 65ft ³ /min	620kPa @ 1.84m ³ /min
Hydraulic	1200 psi @ 10 gpm	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	620kPa @ 0.028m ³ /min
Feed rate	0.02 - 0.035 in./rev	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 in.	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 in.	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 in.	660.4 x 1612.9 x 654.1 mm
Metal, approx.	60 x 24 x 28 in.	1524 x 609.6 x 711.2 mm
OD crate dimensions (WxDxH), Wood, approx.	47.25 x 42.25 x 19.75 in.	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)

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.

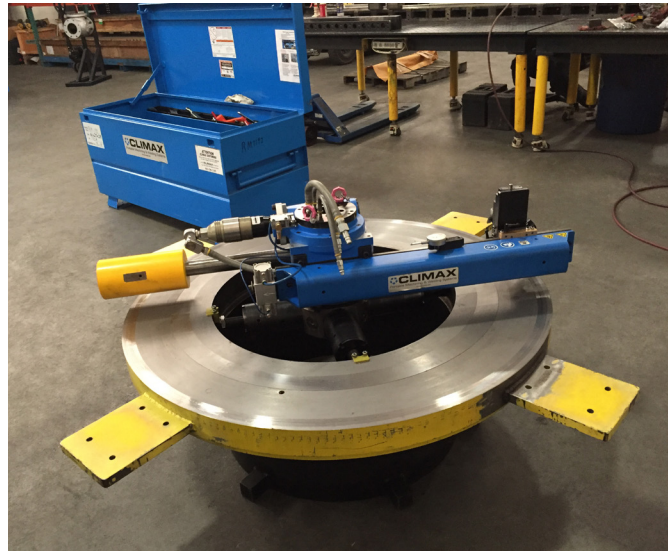
Flatness at 50 in. (1270 mm) diameter. 0.0018 in. (0.046 mm). Tested on a dedicated fixture made of A-36 steel in a controlled environment with single point machine, after warm-up.

TOOL CONFIGURATIONS

To configure your Flange Facer simply select the option you need than contact your CLIMAX representative.

The **FF6300 Flange Facer** comes standard with main body, tool kit, motor, feed box, turning arm, mounting system, and shipping container.

Item No.	Mounting System	Motor	Container	CE Certified
86301	ID Mount	Pneumatic	Wood	✓
86300		Pneumatic	Metal	✓
84171		Hydraulic	Wood	
84130		Hydraulic	Metal	
92799		Hydraulic	Wood	✓
86333		Hydraulic	Metal	✓
84172	OD Mount	Pneumatic	Wood	✓
84173		Pneumatic	Metal	✓
84174		Hydraulic	Wood	
84175		Hydraulic	Metal	
89833		Hydraulic	Wood	✓
89831		Hydraulic	Metal	✓



ACCESSORIES

Backface Attachment	80362
Alignment Kit, Metric	83242
Alignment Kit, Inch	83241
Chain Clamp Assembly	80622
Additional Mounting Options	
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
Additional Tooling	
HSS Tool Bit 3/4 X 5.0 in. (19.05 X 127 mm) LH Finish	29066
HSS Tool Bit 3/4 X 5.0 in. (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 P	61820
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

Hydraulic Power Units

4 Function, 208 - 230 Volts				
Cordset/hose length		Quick Connect Style, ½ in.		P/N
Feet	Meters	60 Series QD	ISO 16028 CE	
50	15	✓		51517
50	15		✓	94010
4 Function, 380 - 415 Volts				
Cordset/hose length		Quick Connect Style, ½ in.		P/N
Feet	Meters	60 Series QD	ISO 16028 CE	
50	15	✓		55856
50	15		✓	94012
4 Function, 460 Volts (440 - 480 volts)				
Cordset/hose length		Quick Connect Style, ½ in.		P/N
Feet	Meters	60 Series QD	ISO 16028 CE	
50	15	✓		55645
50	15		✓	94016
4 Function, 575 Volts				
Cordset/hose length		Quick Connect Style, ½ in.		P/N
Feet	Meters	60 Series QD	ISO 16028 CE	
50	15	✓		51138
50	15		✓	94019

Proper maintenance and repair of your equipment is crucial to its performance, safety, uptime, and longevity.

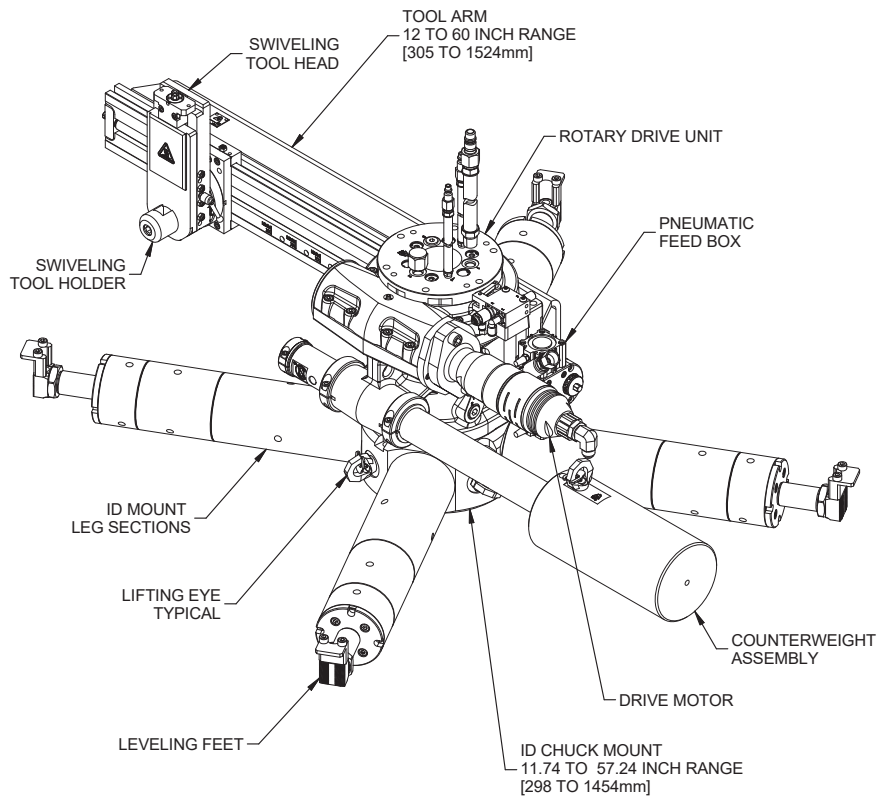
Preventative Maintenance Kit: 97278

An assortment of recommended spare parts needed over the next 2 years.

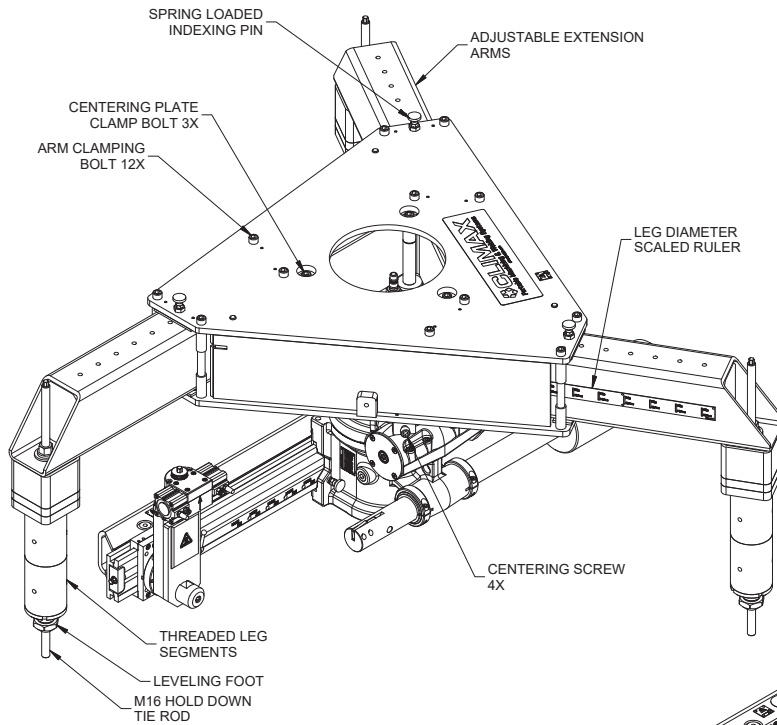


OPERATIONAL DIMENSIONS

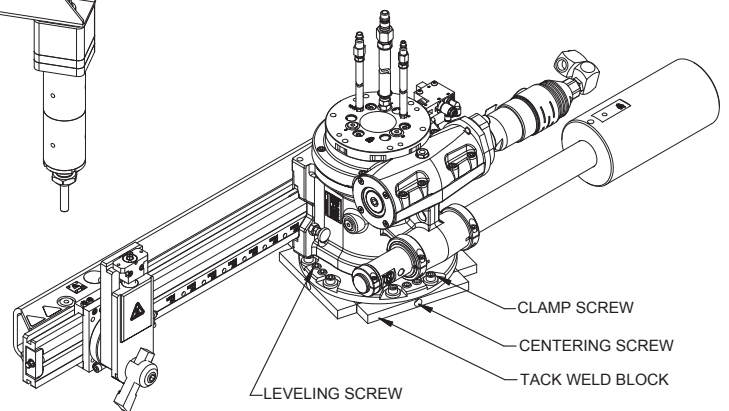
ID-Mount Configuration



OD-Mount Configuration



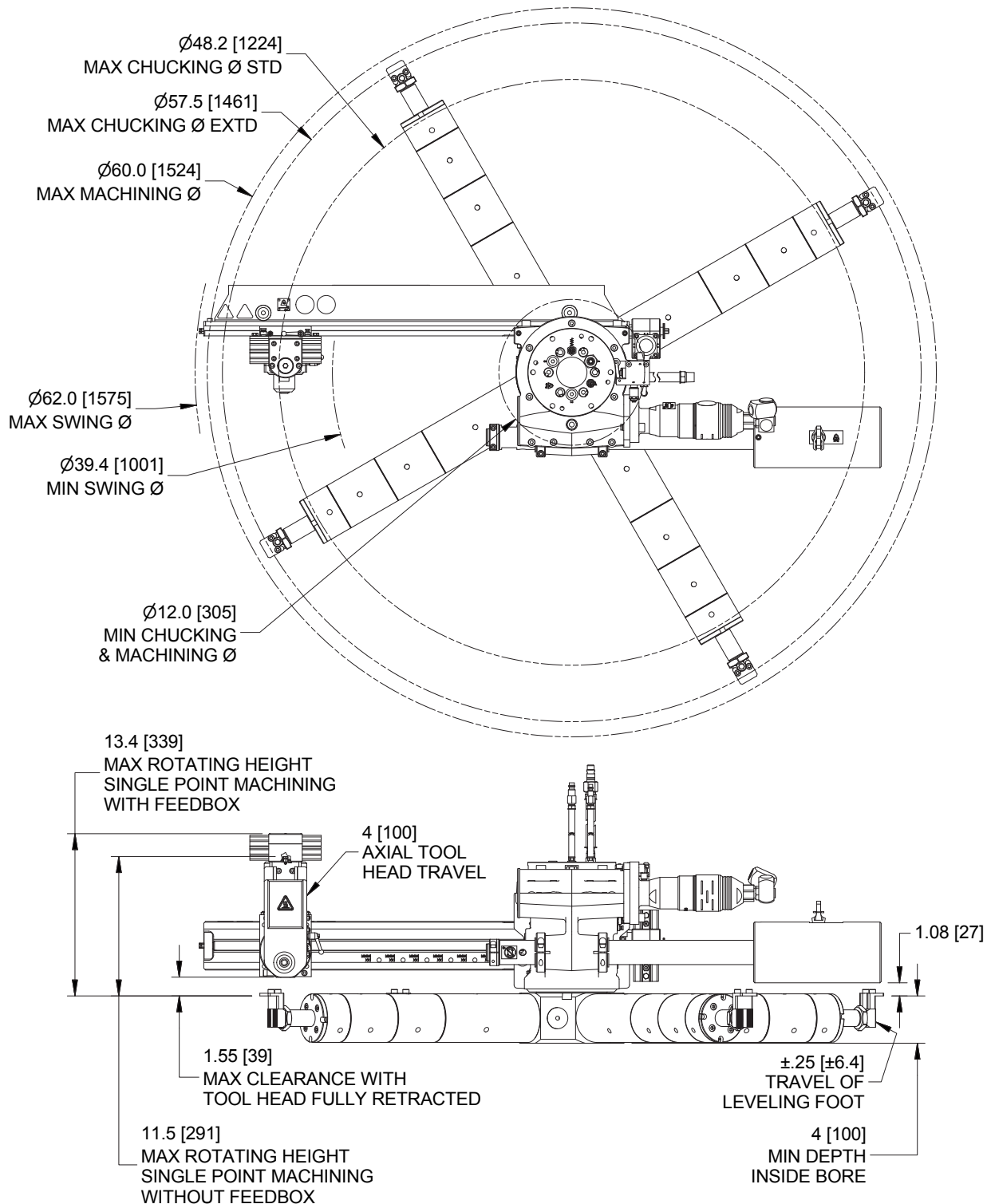
Surface-Mount Configuration



OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

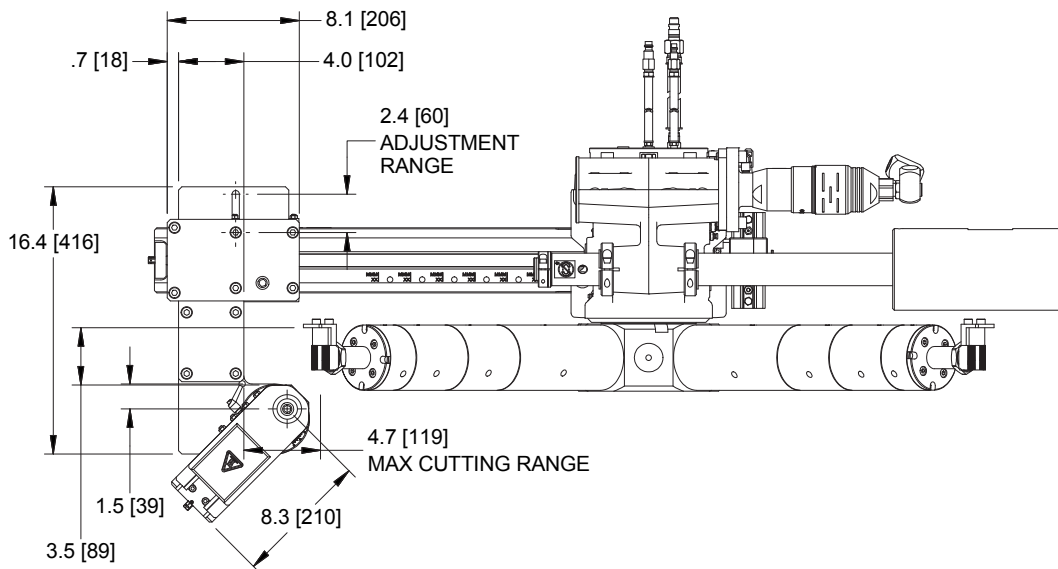
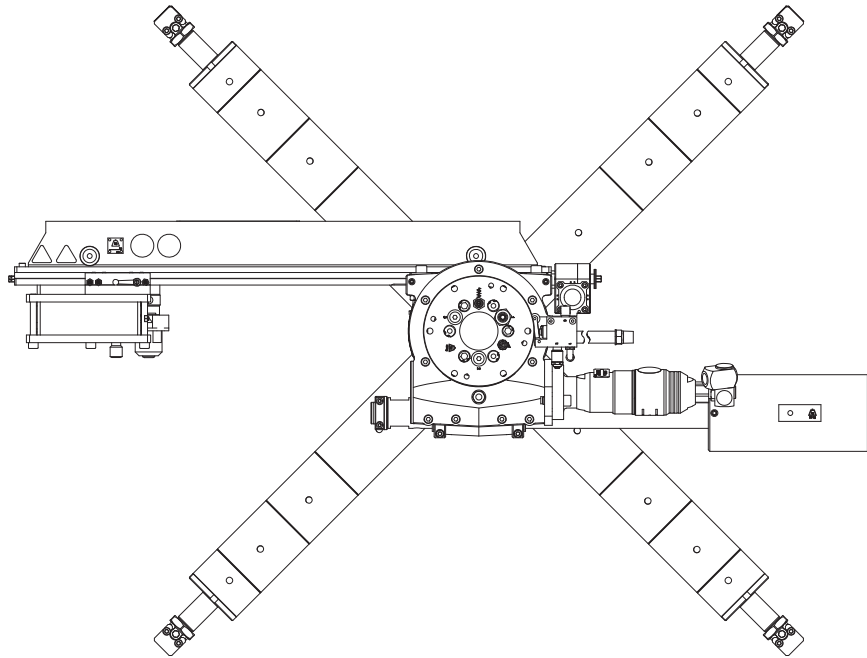
ID-Mount Configuration



OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

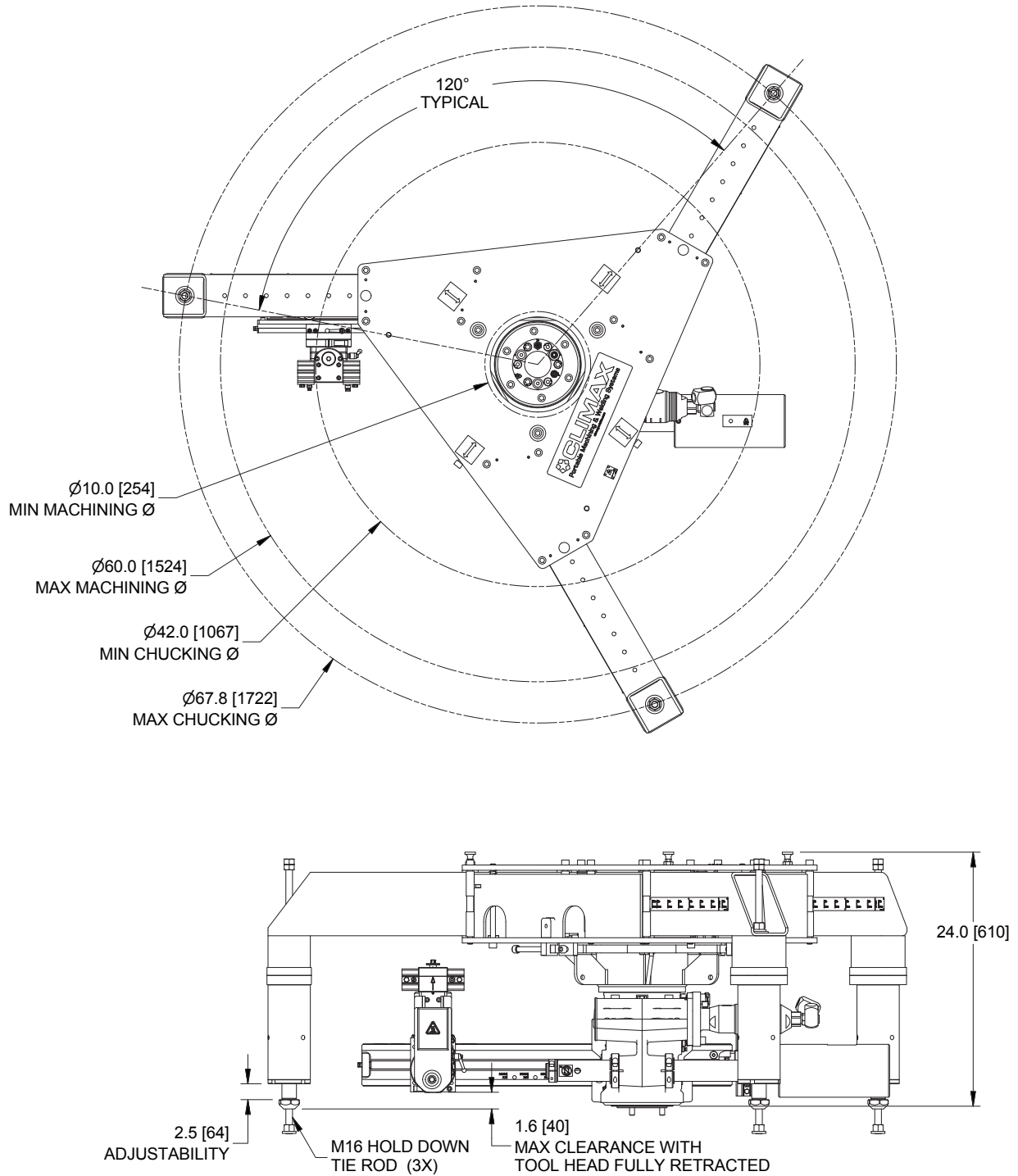
ID-Mount Configuration with Backface Attachment



OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

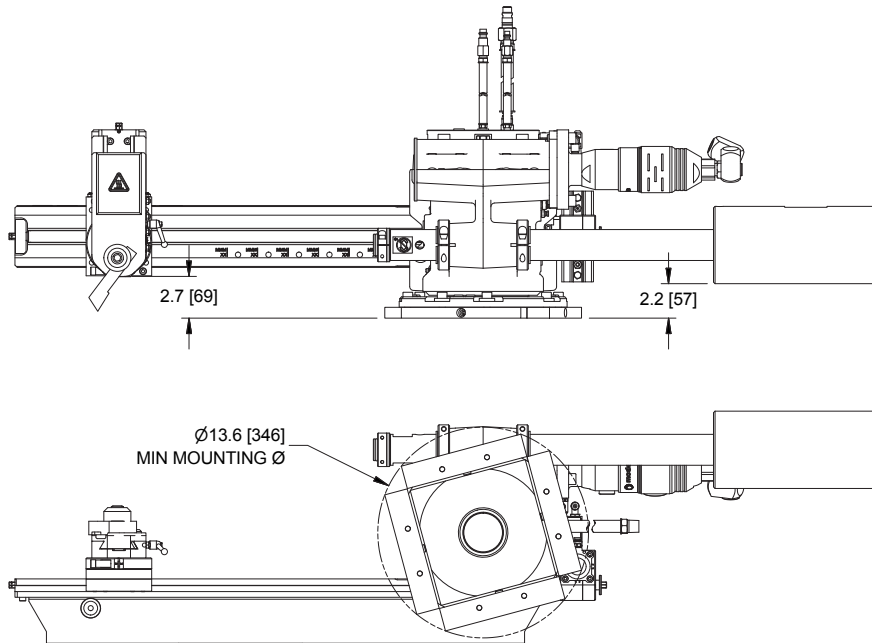
OD-Mount Configuration



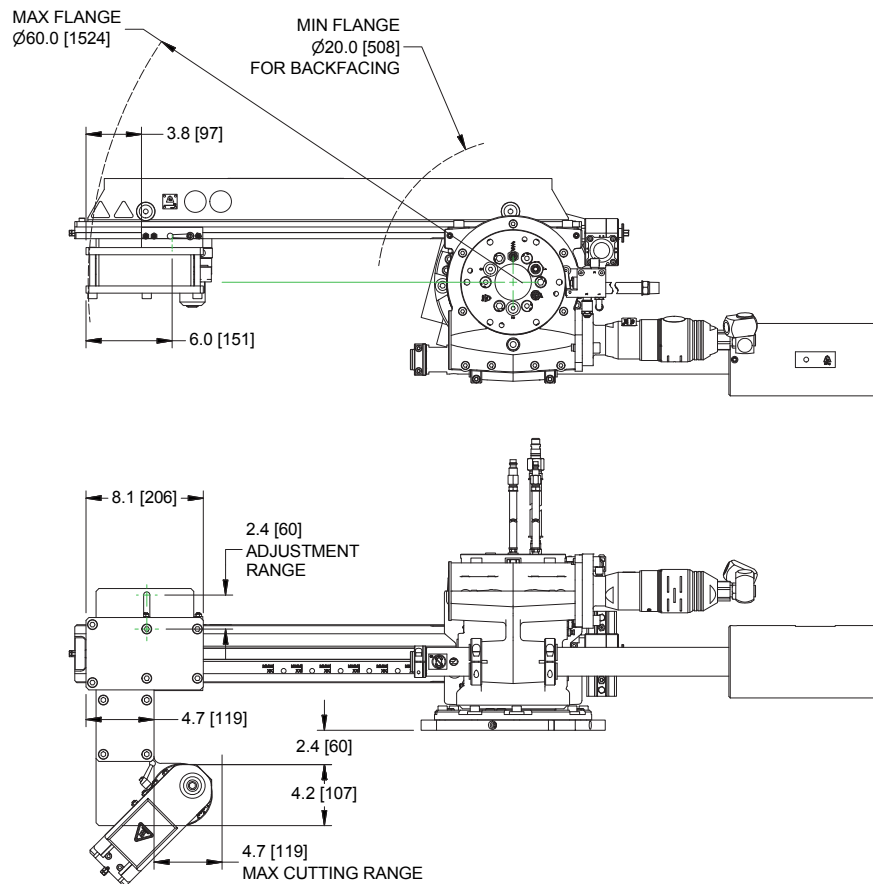
OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

Surface Mount Configuration



Surface Mount Configuration with Backface Attachment

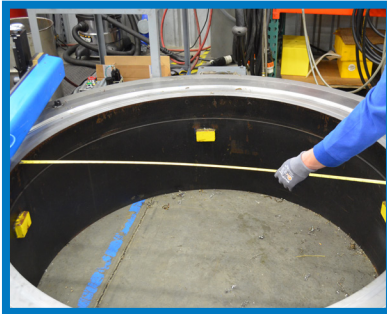


SETUP AND OPERATION

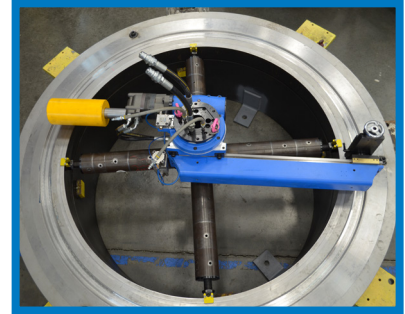
A Fast Eight-Step Process

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.

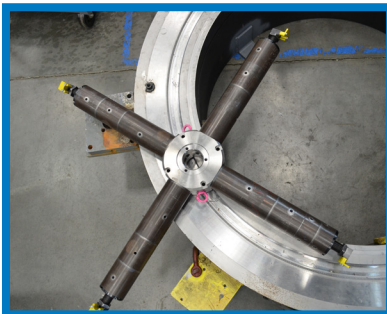
- 1** Measure the bore diameter. This will be used to determine the leg length.



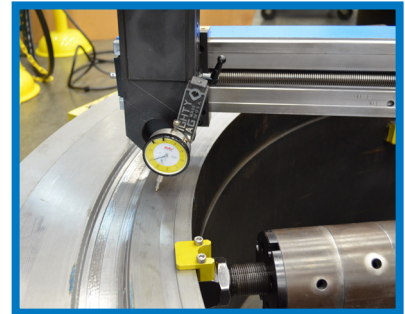
- 5** Lightly tighten leveling feet in the flange.



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



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



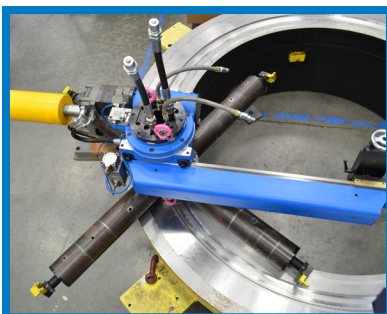
- 3** Adjust the turning arm and counterweight arm to the correct diameter.



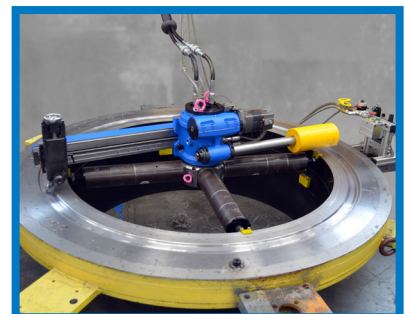
- 7** Install tool bit. Connect to power.



- 4** Set machine onto flange using setup fingers.



- 8** You are ready to begin machining!



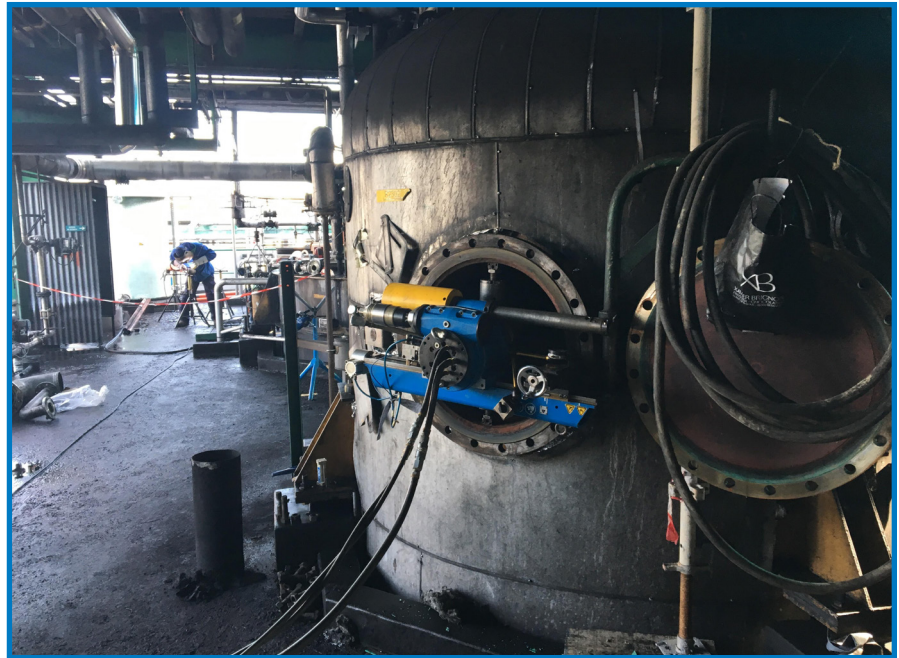
APPLICATIONS

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.



OEM PROFESSIONAL OPERATIONAL TRAINING



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CLIMAX pioneered the concept of portable machine tools in 1964. Since that time, CLIMAX has grown to become the world's largest provider of innovative on-site machining solutions.

Professional, Experienced Instructors

All training programs are taught by experienced OEM CLIMAX trainers. Your instructor will provide valuable information on operator safety, tool set-up, mounting, and operation that will help you complete your on-site machining tasks quickly and to the highest quality standards. Part number 00042

Typical Courses Include:

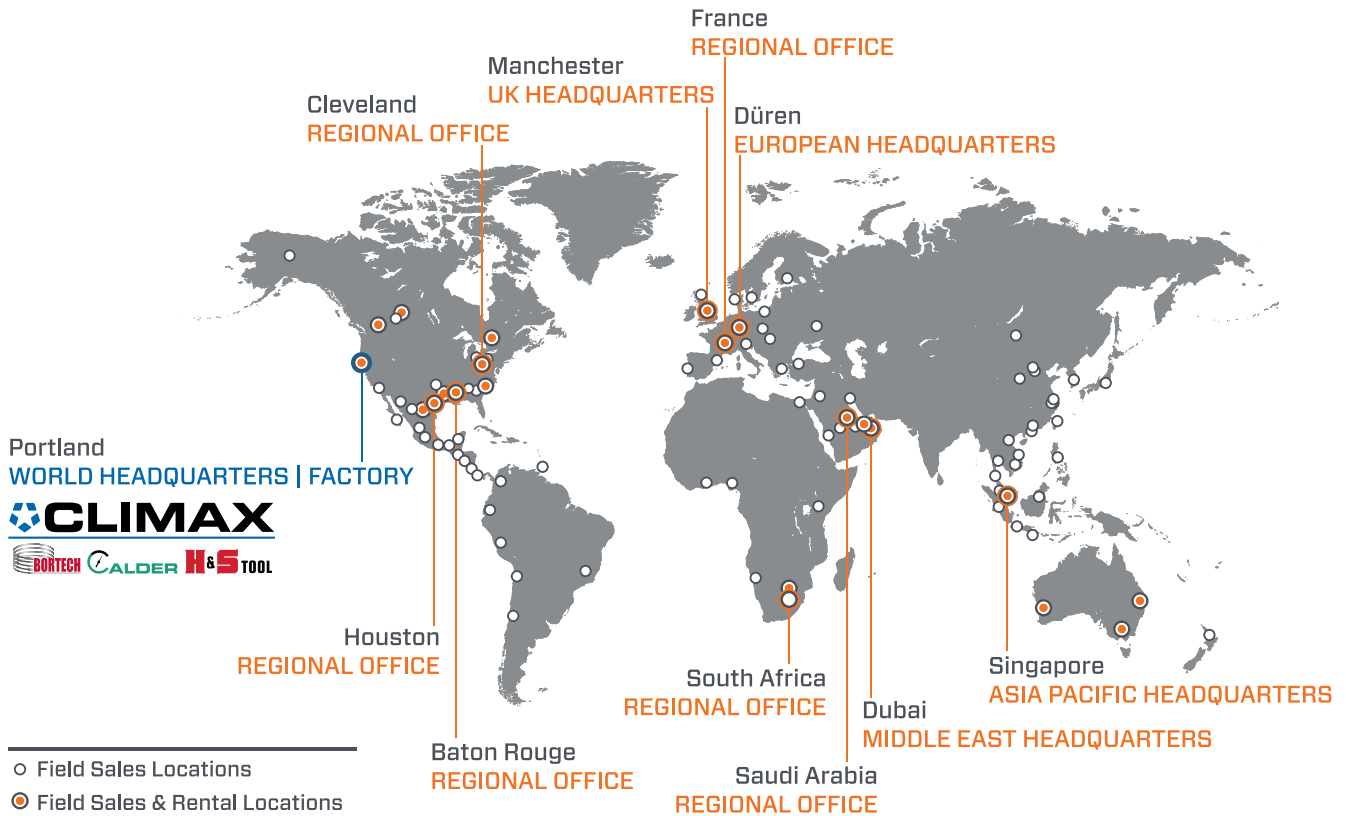
- ✓ Operator safety
- ✓ Tool component review and setup
- ✓ Standard operational techniques
- ✓ Overview of cutting tools and recommend usage
- ✓ Maintenance procedures
- ✓ A certificate of achievement - issued to each student immediately following course completion

Sign up today for training at one of our **eight** Global CLIMAX training centers.

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World Headquarters

Address: 2712 E. 2nd St, Newberg, Oregon 97132
Tel: +1 503 538 2185
Fax: +1 503 538 7600
Email: info@cpmt.com

Asia Pacific

Address: 10, Raeburn Park, #02-08, Singapore 088702
Tel: +65 6801 0662
Fax: +65 6801 0699
Email: ClimaxAsia@cpmt.com

European

Address: Am Langen Graben 8, 52353 Düren, Germany
Tel: (+49) (0) 2421 9177 0
Fax: (+49) (0) 2421 9177 29
Email: ClimaxEurope@cpmt.com

Middle East

Address: C9, Phase 5, Light Industrial Units, DSO, Dubai, UAE
Tel: +971 4 321 0328
Email: ClimaxUAE@cpmt.com

United Kingdom

Address: Unit 3 Martel Court, S.Park Business Park, Stockport SK1 2AF
Tel: +44 (0) 161 406 1720
Email: ClimaxUK@cpmt.com

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