VERSATILITY. DURABILITY. SAFETY.

The latest innovation in Climax's line of flange facers, this series of OD Mount Flange Facers set a new standard in safety, versatility, durability and performance, quickly machining all 7 flange types on the market today.

Industry-Changing Safety
- Feed control on the outside of the machine - no more reaching in!
- E-stop for quick stops & controlled re-starts
- Low pressure drop-out prevent unintended re-starts after loss of supplied air pressure
- CE Certified

Flexible and Versatile
- 1 machine for 7 flange types, no attachments needed
  - Flat face
  - Raised face
  - Ring type joints (RTJ)
  - Tongue & groove
  - Lens ring
  - Grayloc (hub profile)
  - Compact flanges
- Select from 3 models sized to machine flanges up to 12.5, 24.5 or 36.5 inches (317.5, 622.3 or 927.1 mm) in diameter
- Automatic & variable feed come standard on both radial and axial feeds for up to 30% time savings!
  ... no reaching in means higher RPM machining
  ... adjust feed rate while machining - no need to stop, change direction, or replace parts
  ... start & stop feed while machining to machine to a shoulder
  ... easy machining of various types of materials
  ... a better surface finish
- Tool head and tool bit rotate independently, to any angle
- Tool head presets at 0°, 23°, and -23°

High Quality, Robust Design
- No broken shear pin in an event of a crash - just reset, and keep working
- Robust chucking mechanism and unique bearing design provide superior rigidity and machining performance
- Smooth-running rotational drive produces a high quality finish
### Machine Performance Ranges

<table>
<thead>
<tr>
<th>FF1200 OD Mount Flange Facer</th>
<th>FF2400 OD Mount Flange Facer</th>
<th>FF3600 OD Mount Flange Facer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mounting range</strong></td>
<td>2 - 14.1 inches (50.8 - 358.1 mm)</td>
<td>8 - 26 inches (203.2 - 660.4 mm)</td>
</tr>
<tr>
<td><strong>Facing diameter range</strong></td>
<td>0 - 12.5 inches (0 - 317.5 mm)</td>
<td>0 - 24.5 inches (0 - 622.3 mm)</td>
</tr>
<tr>
<td><strong>Radial tool slide travel</strong></td>
<td>4.5 inches (114.3 mm)</td>
<td>16.5 inches (419.1 mm)</td>
</tr>
<tr>
<td><strong>Radial tool slide angle</strong></td>
<td>max 1.5°</td>
<td>max 1.5°</td>
</tr>
<tr>
<td><strong>Axial tool head travel</strong></td>
<td>2 inches (50.8 mm)</td>
<td>2 inches (50.8 mm)</td>
</tr>
<tr>
<td><strong>Feed rate</strong></td>
<td>0 - 0.035 inches/rev. (0 - 0.889 mm/rev)</td>
<td>0 - 0.035 inches/rev. (0 - 0.889 mm/rev)</td>
</tr>
</tbody>
</table>

### Rotational Drive System

<table>
<thead>
<tr>
<th>FF1200 OD Mount Flange Facer</th>
<th>FF2400 OD Mount Flange Facer</th>
<th>FF3600 OD Mount Flange Facer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drive type</strong></td>
<td>Synchronous belt</td>
<td>Synchronous belt</td>
</tr>
<tr>
<td><strong>Gear reduction</strong></td>
<td>5.25 : 1</td>
<td>9.46:1</td>
</tr>
<tr>
<td><strong>Turning arm speed range</strong></td>
<td>10 - 60 RPM</td>
<td>5 - 30 RPM</td>
</tr>
<tr>
<td><strong>Pneumatic power input requirements</strong></td>
<td>1.1 Hp (8.6 kW)</td>
<td>90 psi @ 57 ft³/min (620 kPa @ 1.53 m³/min)</td>
</tr>
<tr>
<td><strong>Measures</strong></td>
<td>For machine dimensions, please refer to dimensional drawings.</td>
<td></td>
</tr>
<tr>
<td><strong>Machine weight</strong></td>
<td>135 lbs (61.2 kg)</td>
<td>350 lbs (158.8 kg)</td>
</tr>
<tr>
<td><strong>Shipping weight</strong></td>
<td>Wood 260 lbs (117.9 kg) / Metal 300 lbs (136.1 kg)</td>
<td>Wood 510 lbs (231.3 kg) / Metal 550 lbs (249.5 kg)</td>
</tr>
<tr>
<td><strong>Crate dimensions</strong></td>
<td>Wood 30 x 34.5 x 16.5 inch (762 x 876 x 419 mm) / Metal 36 x 32 x 27 inches (914 x 813 x 686 mm)</td>
<td>Wood 47 x 37.5 x 16.5 inch (1194 x 953 x 419 mm) / Metal 41.5 x 38 x 25 inches (1054 x 965 x 635 mm)</td>
</tr>
</tbody>
</table>

### In-House Testing Performance Results

<table>
<thead>
<tr>
<th>Test 1 Material removal</th>
<th>Test 2 Finish</th>
<th>Test 1 Material removal</th>
<th>Test 2 Finish</th>
<th>Test 1 Material removal</th>
<th>Test 2 Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF1200</td>
<td>FF2400</td>
<td>FF3600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Depth of cut</strong></td>
<td>0.05 inches (1.3 mm)</td>
<td>0.005 inches (0.127 mm)</td>
<td>0.035 inches (0.889 mm)</td>
<td>0.005 inches (0.127 mm)</td>
<td>0.005 inches (0.127 mm)</td>
</tr>
<tr>
<td><strong>RPM</strong></td>
<td>44</td>
<td>27</td>
<td>25</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td><strong>Feed</strong></td>
<td>0.15 in/rev (3.8 mm/rev)</td>
<td>0.004 in/rev (0.102 mm/rev)</td>
<td>0.015 in/rev (0.381 mm/rev)</td>
<td>0.005 in/rev (0.127 mm)</td>
<td>0.005 in/rev (0.127 mm)</td>
</tr>
<tr>
<td><strong>Dia. of cut</strong></td>
<td>10 - 11 inches (254 - 279.4 mm)</td>
<td>10 - 11 inches (254 - 279.4 mm)</td>
<td>19 - 21 inches (482.6 - 533.4 mm)</td>
<td>19 - 21 inches (482.6 - 533.4 mm)</td>
<td>20 - 34 inches (508 - 863.6 mm)</td>
</tr>
<tr>
<td><strong>Tool type</strong></td>
<td>Insertable carbide</td>
<td>Insertable carbide</td>
<td>Insertable carbide</td>
<td>Insertable carbide</td>
<td>Insertable carbide</td>
</tr>
<tr>
<td><strong>Finish</strong></td>
<td>N/A</td>
<td>63 Ra</td>
<td>N/A</td>
<td>110 Ra</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Metal removal rate</strong></td>
<td>1.2 in³/min (19.7 cm³/min)</td>
<td>0.42 in³/min (6.9 cm³/min)</td>
<td>0.8 in³/min (13.1 cm³/min)</td>
<td>0.05 in³/min (0.82 cm³/min)</td>
<td>0.13 in³/min (2.1 cm³/min)</td>
</tr>
<tr>
<td><strong>Flatness</strong></td>
<td>N/A</td>
<td>0.002 inch (0.051 mm)</td>
<td>N/A</td>
<td>0.005 inch (0.127 mm)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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.
To order your Mount Flange Facer, simply select the motor option for your machine. Everything you need comes standard, no other attachments needed!

### Option 1  With Standard Pneumatic Motor

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Motor with Wood Crate</th>
<th>Motor with Metal Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF1200</td>
<td>0 - 12.5 inch (0 - 317.5 mm) dia. flanges</td>
<td>P/N 83012</td>
<td>P/N 80012</td>
</tr>
<tr>
<td>FF2400</td>
<td>0 - 24.5 inch (0 - 622.3 mm) dia. flanges</td>
<td>P/N 83024</td>
<td>P/N 80024</td>
</tr>
<tr>
<td>FF3600</td>
<td>0 - 36.5 inch (0 - 927.1 mm) dia. flanges</td>
<td>P/N 83036</td>
<td>P/N 80036</td>
</tr>
</tbody>
</table>

### Option 2  With Right-Angle Pneumatic Motor

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Motor with Wood Crate</th>
<th>Motor with Metal Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF1200</td>
<td>0 - 12.5 inch (0 - 317.5 mm) dia. flanges</td>
<td>P/N 84012</td>
<td>P/N 81012</td>
</tr>
<tr>
<td>FF2400</td>
<td>0 - 24.5 inch (0 - 622.3 mm) dia. flanges</td>
<td>P/N 84024</td>
<td>P/N 81024</td>
</tr>
<tr>
<td>FF3600</td>
<td>0 - 36.5 inch (0 - 927.1 mm) dia. flanges</td>
<td>P/N 84036</td>
<td>P/N 81036</td>
</tr>
</tbody>
</table>

### Accessories for use with the OD Mount Flange Facers

- Carbide insert holder set, ½ square shank, 80 deg. diamond ¾ inch P/N 56275
- Vertical dial indicator, inch P/N 29138
- Vertical dial indicator, metric P/N 23628
- Indicator holder, articulated arm with mag base & fine adjust P/N 58369
- Setup finger (1) - can be used to clamp to back side of flange up to 1.75 inches (44.5 mm), or as replacement setup fingers purchased by the piece P/N 80210
- Standard Pneumatic Motor for FF1200 P/N 80570
- Standard Pneumatic Motor for FF2400 or FF3600 P/N 80632
- Right-Angle Pneumatic Motor P/N 80618
FF1200 DIMENSIONS - STRAIGHT MOTOR

Dimensions in Inch (mm)

- Ø17.2 [437 mm]
- Ø18.0 [457 mm] MIN. WHEN CHUCKED TO MIN. FLANGE
- Ø29.8 [757 mm] MAX. WHEN CHUCKED TO MAX. FLANGE
- 7.1 [180 mm]
- 4.1 [104 mm] - 8.2 [208 mm] - 11.2 [285 mm] - 8.6 [218 mm]
- 16.9 [429 mm]
- 11.2 [285 mm] - 8.6 [218 mm]
- 5.8 [147 mm]
- 8.0 [203 mm]
**FF1200 DIMENSIONS - RIGHT ANGLE MOTOR**

Dimensions in Inch (mm)

- **ϕ17.2 [437 mm]**
- **ϕ18.0 [457 mm] WHEN CHUCKED TO MIN. FLANGE**
- **ϕ29.8 [757 mm] WHEN CHUCKED TO MAX. FLANGE**
- 4.1 [104 mm]
- 8.2 [208 mm]
- 11.2 [285 mm]
- 8.6 [218 mm]
- 7.1 [180 mm]
- 9.9 [252 mm]
- 5.8 [147 mm]
- 8.0 [203 mm]
FF2400 DIMENSIONS - STRAIGHT MOTOR

Dimensions in Inch (mm)

- Ø31.0 [786 mm]
- Ø34.5 [876 mm] MIN. WHEN CHUCKED TO MIN. FLANGE
- Ø52.2 [1326 mm] MAX. WHEN CHUCKED TO MAX. FLANGE
- 12.8 [324 mm]
- 7.4 [187 mm]
- 14.7 [374 mm]
- 18.3 [465 mm]
- 15.5 [393 mm]
- 18.6 [473 mm]
- 6.4 [163 mm]
- 8.7 [222 mm]
**FF2400 DIMENSIONS - RIGHT ANGLE MOTOR**

Dimensions in Inch (mm)

- \(\Phi 31.0 \text{ [786 mm]}\)
- \(\Phi 34.5 \text{ [876 mm]}\) MIN. WHEN CHUCKED TO MIN. FLANGE
- \(\Phi 52.2 \text{ [1326 mm]}\) MAX. WHEN CHUCKED TO MAX. FLANGE
- 10.6 \([270 \text{ mm}]\)
- 8.7 \([222 \text{ mm}]\)
- 12.8 \([324 \text{ mm}]\)
- 7.4 \([187 \text{ mm}]\)
- 14.7 \([374 \text{ mm}]\)
- 15.5 \([393 \text{ mm}]\)
- 18.3 \([465 \text{ mm}]\)

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**CLIMAX Portable Machining & Welding Systems**  
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Fax: +1.503.538.7600  
E-mail: Info@cpmt.com
**FF3600 DIMENSIONS - STRAIGHT MOTOR**

Dimensions in Inch (mm)

- Ø44.5 [1130 mm] MIN. WHEN CHUCKED TO MIN. FLANGE
- Ø46.5 [1181 mm] MIN. WHEN CHUCKED TO MIN. FLANGE
- Ø64.2 [1631 mm] MAX. WHEN CHUCKED TO MAX. FLANGE
- 17.9 [456 mm]
- 10.4 [263 mm]
- 20.7 [526 mm]
- 25.1 [637 mm]
- 22.3 [565 mm]
- 19.0 [482 mm]
- 8.7 [222 mm]
- 6.8 [172 mm]
Dimensions in Inch (mm):

- Ø44.5 [1130 mm]
- Ø46.5 [1181 mm] MIN. WHEN CHUCKED TO MIN. FLANGE
- Ø64.2 [1631 mm] MAX. WHEN CHUCKED TO MAX. FLANGE
- 17.9 [456 mm]
- 11.0 [279 mm]
- 10.4 [263 mm]
- 22.3 [565 mm]
- 25.1 [637 mm]
- 20.7 [526 mm]
- 8.7 [222 mm]
- 6.8 [172 mm]
SETUP AND OPERATION

A Fast 6-Step Process

Setup is quick and easy. An experienced operator can usually mount the machine to a flange, center and level it, and start cutting in about 30 minutes.

1. Determine the chucking range.
   Use the chart on the side of each chucking foot to determine the correct chucking range for the workpiece.

2. Attach chucking feet to the machine.
   Use the holes in the chucking feet that correspond to the selected chucking range.

3. Mount the machine to the workpiece.
   Tighten the chucking feet in small increments to secure the machine in place.

4. Center and level the machine.

5. Install the slide assembly.

6. Install the cutting tool.
   Install the tool, then set the cutting angle.

* Images shown are of the FF1200 OD Mount Flange Facer
CLIMAX has been teaching the fundamentals and finer points of portable machine tool operation for more than 50 years. Whether it's a regularly scheduled course at one of our seven Global Training Centers or a custom curriculum conducted with your team, at your facility, your technicians will benefit from courses developed by the most experienced and respected professionals in the business.

Regularly scheduled courses in basic and advanced tool operation are available. A vast majority of every program is devoted to hands-on activities, skills development, and OEM Certification covering the following subject matters: operator safety, tool component review, setup and mounting, standard and advanced operational techniques, overview of cutting tools and recommended usage, and maintenance procedures.

---

Training is available at the following seven Global Training Centers:

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- Houston, Texas
- Gonzales, Louisiana
- Wadsworth, Ohio
- Manchester, United Kingdom
- Düren, Germany
- Dubai, United Arab Emirates

Call us today to schedule training for your team!
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Custom turn-key system design services from the most experienced engineers and portable machining and welding experts!