

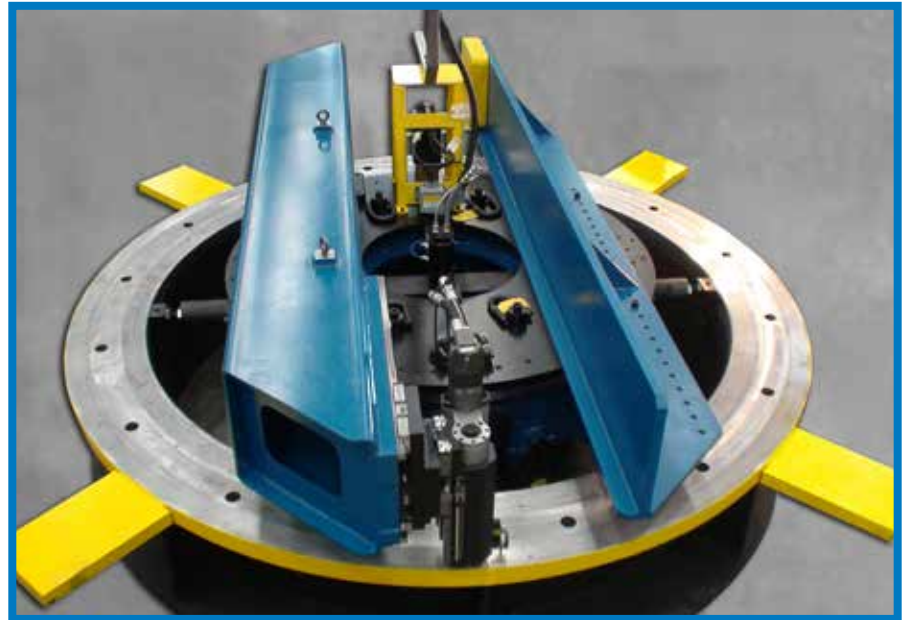
Portable, On-Site Machining Solutions for Large Flange Machining

Quality Machine Design Provides Rigid, Power-Packed Performance

- Extraordinarily rigid design ensures consistent, high-quality machining
- Large diameter pre-loaded precision bearing and linear guideways for the most rigid machining platform.
- Radial and axial travel uses precision ball screws.
- Milling head with #50 taper spindle easily handles face mill up to 10 inches (254.0 mm) in diameter.
- Adjustable counterweight provides precise balance in vertical applications.
- Center machine clearance designed to fit over 24 inch (609.6 mm) diameter kingpin.

Flexible and Versatile

- Can be configured for milling or single-point machining.
- Single point option allows user to cut chamfers and seal ring grooves, and machine phonographic finishes.
- Air grinder also available for fine finishes for sealing surfaces.
- Hydraulic drive or servo drive with touchscreen pendant and angular control options available.
- Spindle has 8 inches (203.2 mm) of travel and is also capable of drilling.
- Multiple mounting options including ID/OD or face-mounted configurations.



- Swivel plate option allows milling head to rotate 360°.
- Infinitely adjustable arm position for limited swing clearance applications.

Rapid Setup & Operation

- Tubular rigid chucking system with leveling feet allow machine to be leveled after mounting in the flange for simple & speedy setup.
- Modular design allows many of the machine components to be removed to facilitate easier setup and storage.
- Servo control with touchscreen pendant allows a wide range of speed

adjustments from rapid advance for setup to slow machining speeds for precise control during machining.

- Servo angular control system with touchscreen pendant provides precision control of cutter placement and positioning.

Applications include:

- Heavy construction and mining
- Crane pedestals
- Wind tower fabrication

SPECIFICATIONS

	US	Metric
Machine Performance Ranges		
ID/Face Mount Mounting range	78.9 - 177.2 inches	2004.1 - 4500.9 mm
Milling diameter range (to center of spindle) max with 10 inch (254.0 mm) diameter mill	73.5 - 189.0 inches 199 inches	1866.9 - 4800.6 mm 5054.6 mm
Single-point machining diameter range	69.5 - 189.0 inches	1765.3 - 4800.6 mm
Grinding diameter range	73.5 - 189.0 inches	1866.9 - 4800.6 mm
Swing diameter at minimum	135.6 inches	3444.2 mm
Swing diameter at maximum	197 inches	5003.8 mm
Kingpin clearance diameter	25 inches	635.0 mm
Radial tool slide travel	24 inches	609.6 mm
Axial tool head travel, milling	8 inches	203.2 mm
Axial tool head travel, single-point machining	4 inches	101.6 mm
Depth required inside bore for ID chuck (± 0.25 inches (± 6.4 mm) is travel of leveling foot)	12.31 ± 0.25 inches	312.7 ± 6.4 mm
OD: Mounting range (center of mounting plate)	98.4 - 209.9 inches	2499.36 - 5331.46 mm
Milling diameter range	69.5 - 184 inches	1765.3 - 4673.6 mm
Single-point machining diameter range	69.5 - 189.0 inches	1765.3 - 4800.6 mm
Grinding diameter range (center of grinder)	73.5 - 189.0 inches	1866.9 - 4800.6 mm
Depth required inside bore for chuck	0 inches	0 mm
Rotational Drive System		
Drive Type Milling and single-point machining	Electric Servo with Pinion and internal ring gear Air actuated feedbox engaged by machine rotation and infinitely adjustable remotely Requires air supply of 90 psi @ 1 ft ³ /min (620 kPa @ 0.028 m ³ /min)	
Single-point machining		
Electric power , input requirements:		
Electric servo power	230V, 380V, 415V, 460V, or 575V	
Speed Range:		
Milling & grinding w/ reducer	Servo: 0.001 - 1.5 RPM	
Feed Rate, single-point machining (air feed)	0.002 - 0.035 in/rev	0.051 - 0.889 mm/rev
Measures		
Machine height:		
Milling or single-point configuration, ID (w/o hose tower, ± for leveling)	43.5 ± 0.25 inches	1104.9 ± 6.35 mm
Milling or single-point configuration, OD	42.5 inches	1079.5 mm
Grinding configuration	43.5 inches	1104.9 mm
Machine weight , total (approximate):		
Milling or single-point configuration, ID	10,000 lbs	4535.9 kg
Milling or single-point configuration, OD	12,000 lbs	5443.1 kg
Grinding configuration	10,030 lbs	4549.5 kg
Servo touchscreen 25 Hp HPU	1,200 lbs	544.3 kg

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.

SPECIFICATIONS

Tooling Recommendations

Milling

47383	4 inch (101.6 mm) #50 Taper w/ Inserts	Max RPM :382	Max depth of cut: 0.060 inches (1.524 mm)
47384	5 inch (127.0 mm) #50 Taper w/ Inserts	Max RPM :306	Max depth of cut: 0.060 inches (1.524 mm)
47385	6 inch (152.4 mm) #50 Taper w/ Inserts	Max RPM :255	Max depth of cut: 0.050 inches (1.270 mm)
47386	8 inch (203.2 mm) #50 Taper w/ Inserts	Max RPM :191	Max depth of cut: 0.040 inches (1.016 mm)
56175	10 inch (254.0 mm) #50 Taper w/ Inserts	Max RPM: 153	Max depth of cut: 0.035 inches (0.889 mm)
47229	Carbide Inserts		

*Maximum Material removal rate 12 in³/min (196.6 cm³/min). When using an aggressive feed rate, it is recommended that the spindle RPM be increased to reduce the chip load. Depth of cut may vary depending on rigidity of setup.

Single-point machining

29066*: Bit Tool HSS ¾ x 5.0 RH Finish Single SC

29067*: Bit Tool HSS ¾ x 5.0 LH Finish Single SC

60033*: Holder Insert ¾ SQ Shank Left Hand w/ 10 Inserts Seco Trigon

60034*: Holder Insert ¾ SQ Shank Right Hand w/ 10 Inserts Seco Trigon

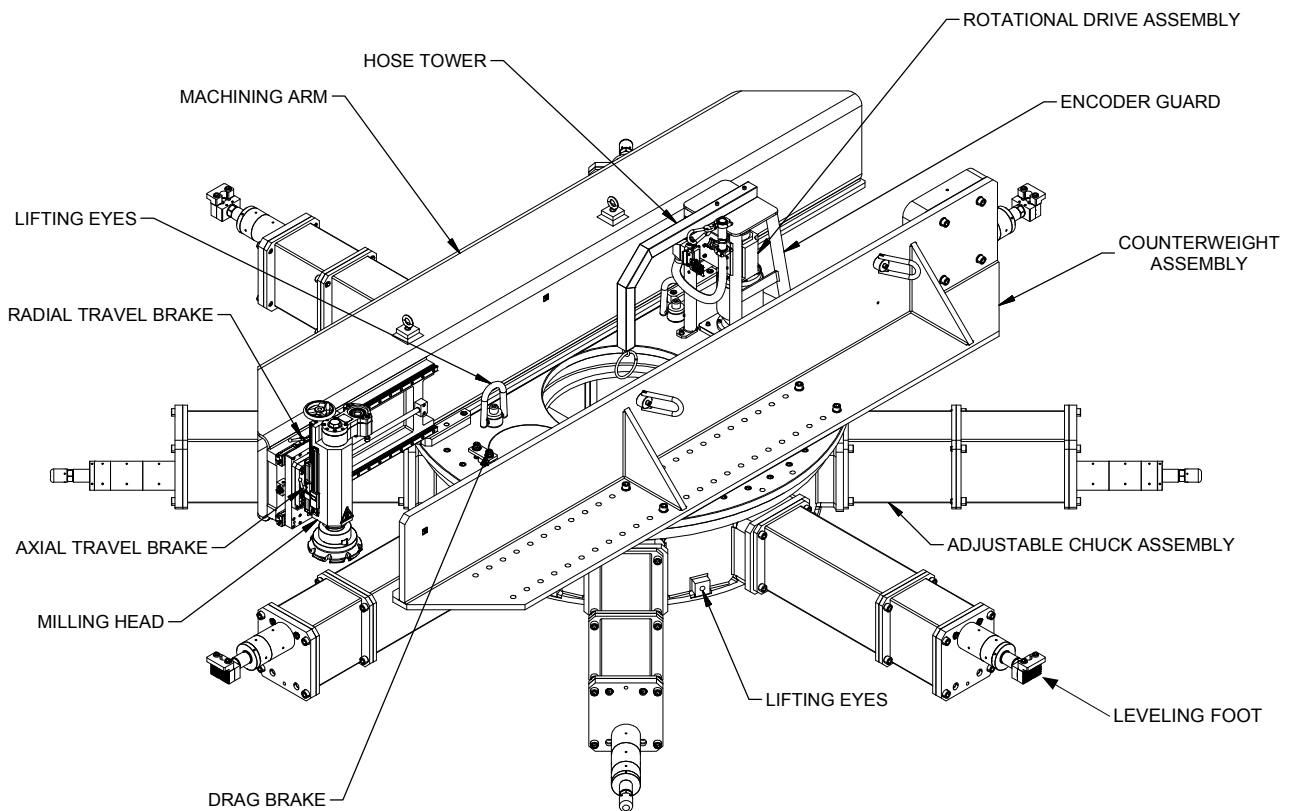
61820: 10 Inserts Carbide WNMP 431-MF1 Seco Trigon

*Single point option comes standard with quantity one each of indicated part numbers.

Grinding

62633: Wheel Grinding 1-½ Inch Diameter (38.1 mm) CBN 130 Grit 8 mm Bore

62634: Wheel Grinding 2-¼ Inch Diameter (57.2 mm) CBN 130 Grit 8 mm Bore



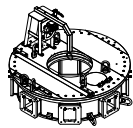
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TOOL CONFIGURATIONS

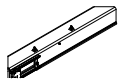
Configure your CM6200 in 14 easy steps:

- 1 Select a Base Unit
- 2 Select a Milling Arm
- 3 Select a Counterweight
- 4 Select a Machining Configuration
- 5 Select a Rotary Table Drive Assembly
- 6 Select an Air Grinder (Optional)
- 7 Select a Hydraulic Power Unit
- 8 Select Pendant Cable and Hose Assemblies
- 9 Select a Milling Head
- 10 Select Tooling
- 11 Select Milling Head Hydraulic Motor
- 12 Select a Milling Head Swivel Plate (Optional)
- 13 Select a Chuck / Mounting Assembly
- 14 Select a Shipping Container

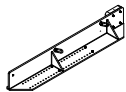
To generate the correct part number for the machine you require, simply select the part number needed in each step, and contact your Climax representative.



- 1 Base Unit**
(Includes Rotary Table ,Tool Kit, Operator's Manual)
Base Unit **62027**

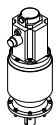


- 2 Milling Arm**
Milling Arm Assembly **72676**



- 3 Counterweight**
Counterweight Assembly **62031**

- 4 Machining Configuration**
Milling Assembly (Includes Tramming Plate) **63124**
Milling and Single-Point Assembly **63125**
Single-Point Assembly (Including Tool Head, Feed and Tooling) **62037**



- 5 Rotary Table Drive Assembly**
Servo Drive Assembly **62032**
Servo Drive Assy with Single-Point (uses hydraulic motor for single-point drive) **63679**
Hydraulic Drive Assy, Single-Point Only **63219**



- 6 Air Grinder Attachment (Optional)**
Milling and Single-Point
Grinder Attachment (Optional)
Grinding Attachment Assy w/ Tool Head **63239**
Grinding Attachment Assy for Pneumatic **62537**
Grinding Attachment Assy w/ Gear Reducer **63240**
Grinder Tooling - CBN 125 grit (Optional)
Grinding Wheel 1.5 inches (38.1 mm) **62633**
Grinding Wheel 2.25 inches (57.2 mm) **62634**

7 Hydraulic Power Unit

Servo Touchscreen Control with Air E-Stop Circuitry for use with optional air grinder (Includes Pendant Cable and Hose Assemblies)

HPU 230V 25 Hp Touchscreen servo with Angular Control and Air	63135
HPU 380V 25 Hp Touchscreen Servo with Angular Control and Air	63136
HPU 415V 25 Hp Touchscreen Servo with Angular Control and Air	63137
HPU 460V 25 Hp Touchscreen Servo with Angular Control and Air	63138
HPU 575V 25 Hp Touchscreen Servo with Angular Control and Air	63139

Servo Touchscreen Control (Includes Pendant Cable and Hose Assemblies)

HPU 230V 25 Hp Touchscreen Servo with Angular Control	63186
HPU 380V 25 Hp Touchscreen Servo with Angular Control	63187
HPU 415V 25 Hp Touchscreen Servo with Angular Control	63189
HPU 460V 25 Hp Touchscreen Servo with Angular Control	63190
HPU 575V 25 Hp Touchscreen Servo with Angular Control	63191

Single Pump with Air E-Stop Circuitry For Use With Optional Air Grinder or Single Point

HPU 230V, 10 HP Single Pump with Air	62759
HPU 380V, 10 HP Single Pump with Air	62760
HPU 415V, 10 HP Single Pump with Air	62761
HPU 460V, 10 HP Single Pump with Air	62762
HPU 575V, 10 HP Single Pump with Air	62763

Single Pumps For Single Point Only

HPU 230V, 10 HP Single Pump	63264
HPU 380V, 10 HP Single Pump	63265
HPU 415V, 10 HP Single Pump	63266
HPU 460V, 10 HP Single Pump	63267
HPU 575V, 10 HP Single Pump	63268

8 Pendant Cable & Hose Assemblies

Pendant Cable And Hose Assemblies (Single)	
0.5 in (12.7 mm) Hose & Pendant Cable Assy 50 ft (15.2 m)	62801
0.5 in (12.7 mm) Hose & Pendant Cable Assy 100 ft (30.5 m)	62802

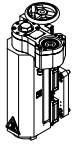
9 Milling Head

Milling Head Assy Inch #50 Taper NMTB	62282
Milling Head Assy Inch #50 Taper CATV	62734
Milling Head Assy Metric #50 Taper NMTB	62644
Milling Head Assy Metric #50 Taper CATV	62735

10 Tooling (for inch milling head assy only)

Tooling, Inch Tool Holder	
#50, 4 in (101.6 mm) Face Mill w/ Inserts	47383
#50, 5 in (127.0 mm) Face Mill w/ Inserts	47384
#50, 6 in (145.4 mm) Face Mill w/ Inserts	47385
#50, 8 in (203.2 mm) Face Mill w/ Inserts	47386
#50, 10 in (254.0 mm) Face Mill w/ Inserts	56175
Carbide Inserts	47229

TOOL CONFIGURATIONS



11 Milling Head Hydraulic Motors

Hydraulic Motor Assy 6.2 in ³ (101.6 cm ³)	63164
Hydraulic Motor Assy 8.0 in ³ (131.1 cm ³)	53459
Hydraulic Motor Assy 9.6 in ³ (157.3 cm ³)	53458
Hydraulic Motor Assy 11.9 in ³ (195.0 cm ³)	46950
Hydraulic Motor Assy 14.9 in ³ (244.2 cm ³)	46375
Hydraulic Motor Assy 18.7 in ³ (306.4 cm ³)	46549
Hydraulic Motor Assy 24.0 in ³ (393.3 cm ³)	46550
Hydraulic Motor Assy 29.8 in ³ (488.3 cm ³)	48968



12 Milling Head Swivel Plate (Optional)

Milling Head Swivel Plate Assembly	63250
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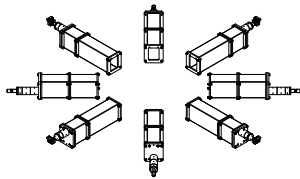
ID/OD Mount Assemblies shown below

13 Chuck / Mounting Assembly

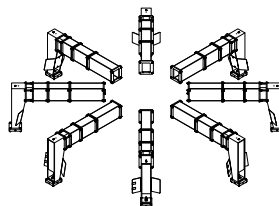
ID Mount Assembly	62038
OD Mount Assembly	62039
ID/OD Mount Assembly	62040
Face Mount Assembly	63106

14 Shipping Containers

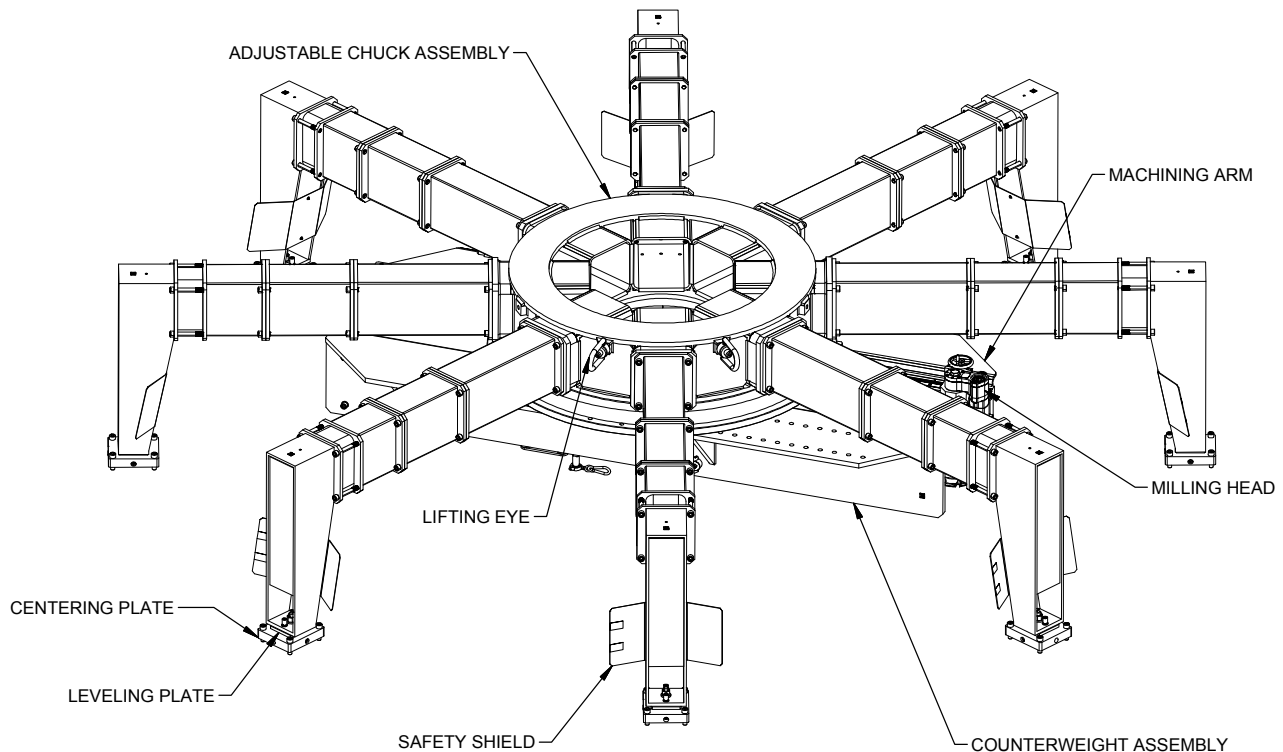
Wood Crate Set (Main Machine and ID Chuck)	63243
Wood Crate Set (Main Machine and ID/OD Chuck)	63244
Wood Crate (Main Machine)	63281
Steel Container (Main Machine and ID/OD Chuck)	56427



ID Mount Assembly



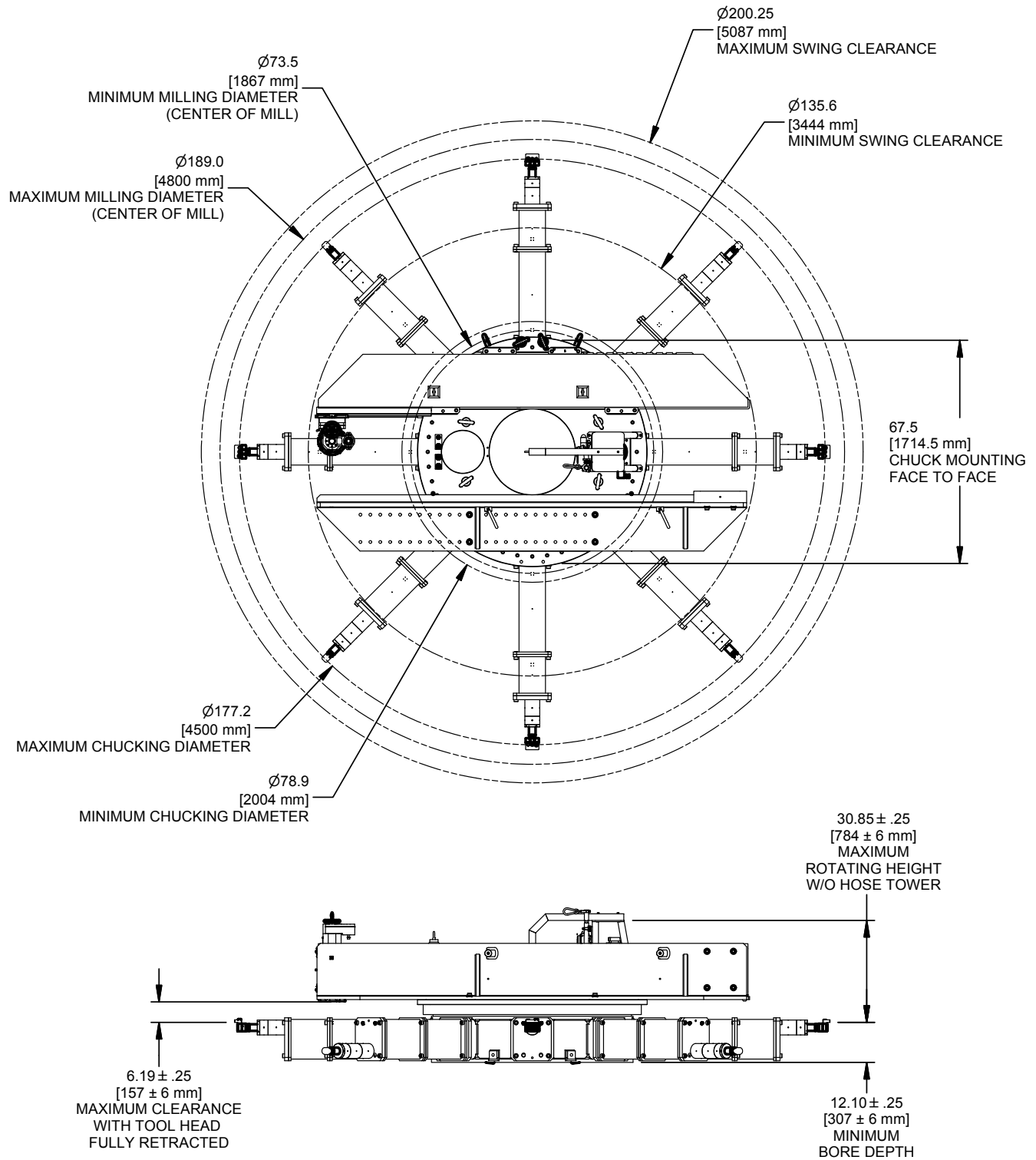
OD Mount Assembly



OD Mount Milling Configuration (ID Mount Configuration Shown on Page 3)

OPERATIONAL DIMENSIONS

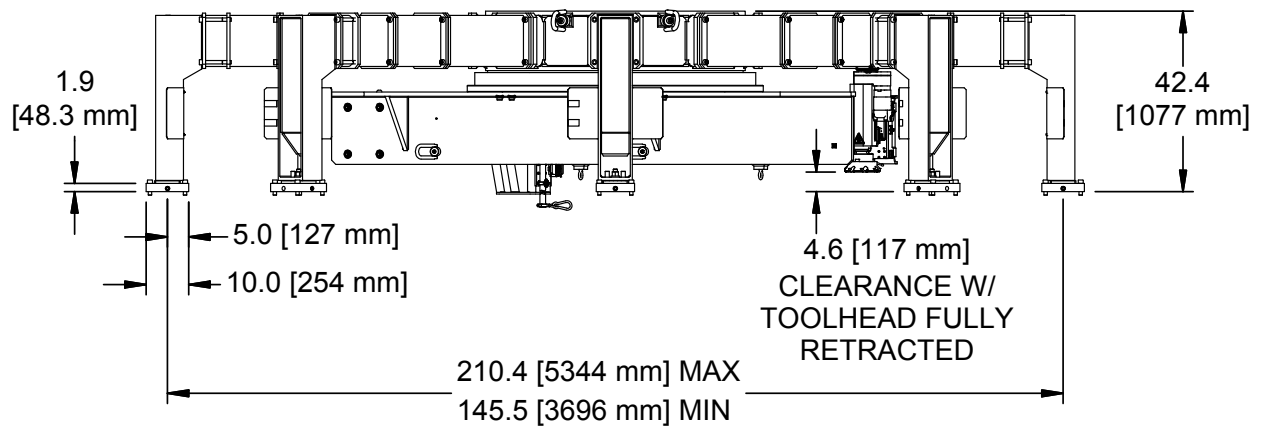
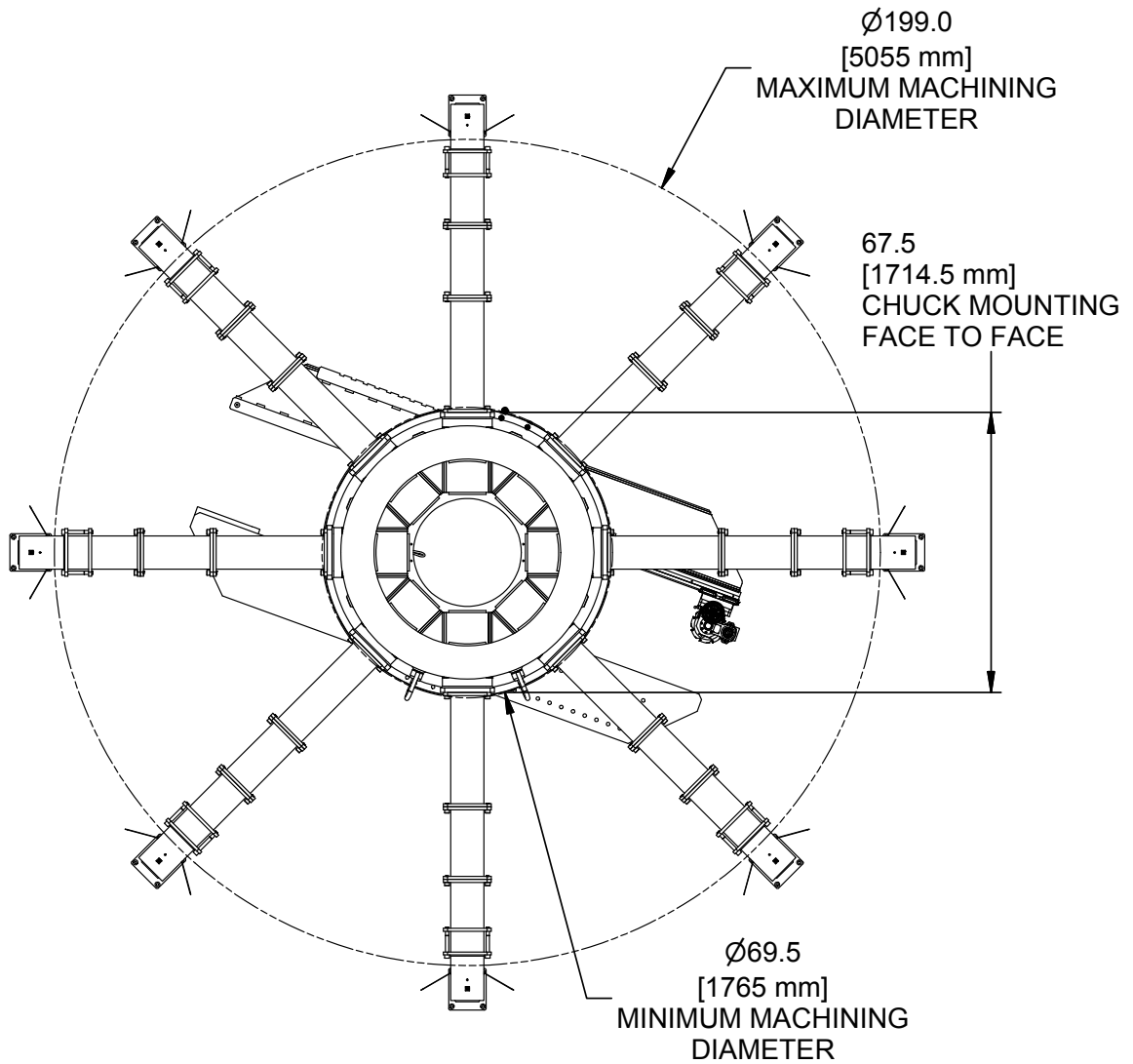
Dimensions in Inch (mm)



NOTE: $\pm .25$ TOLERANCE IS BASED ON TRAVEL OF LEVELING FOOT

OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)



SETUP AND OPERATION

A Fast Seven-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, center and level it, and start cutting in less than an hour.

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



5 Level and tighten Legs



2 Select the appropriate leg length and foot.



6 Install tooling and connect to power.



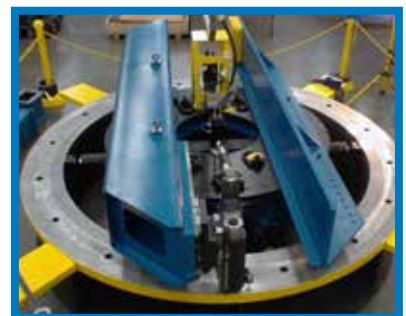
3 Set machine into flange using setup fingers



4 Extend feet into flange. Indicate, level and tighten leveling feet and stationary feet.



7 You are ready to begin machining!



Training at the Global Learning Center

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.

At the Climax Global Learning Center situated in our corporate headquarters near Portland, Oregon, we provide training for machine tool operators on portable machine tool 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 the Global Learning Center, 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



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