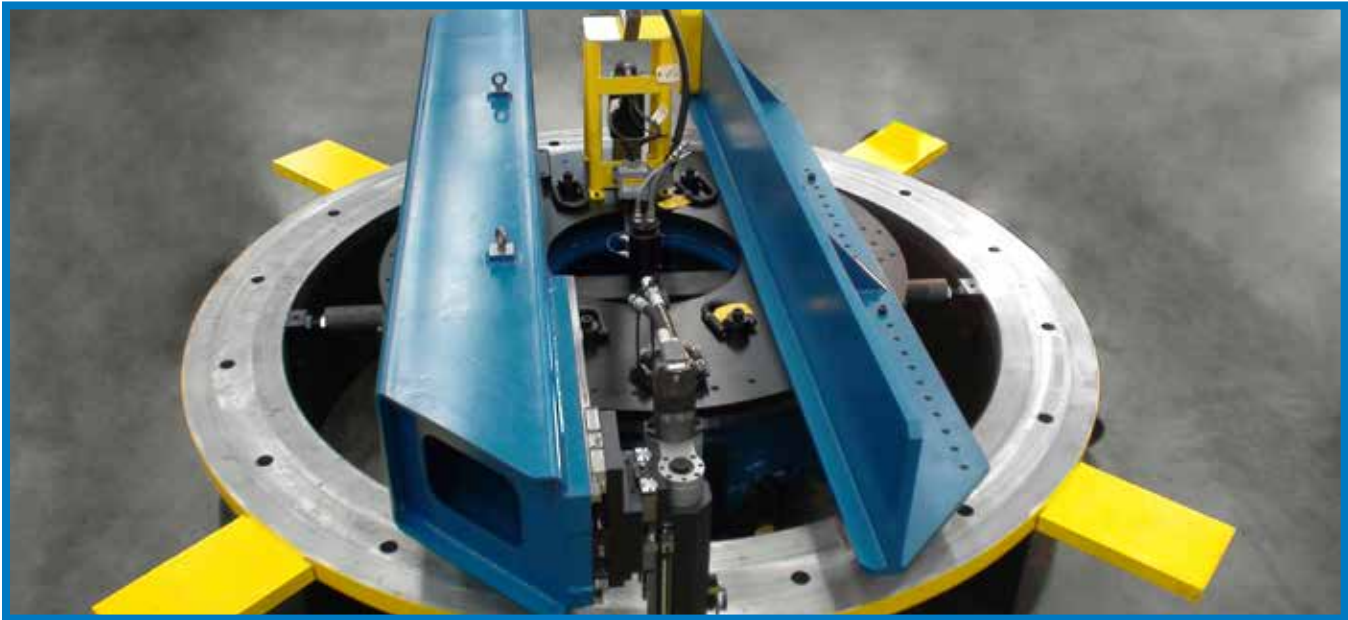


Portable, On-Site Machining Solutions for Large Flange Machining



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.
- 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.
- 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.

Rapid Setup & Operation

- Tubular rigid chucking system with leveling feet allow machine to be leveled after mounting in the flange for simple & speedy setup.

Applications include:

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



SPECIFICATIONS

	US	Metric
Machine Performance Ranges		
ID/Face Mount Mounting range		
Milling diameter range (to center of spindle)	78.9 - 177.2 inches	2004.1 - 4500.9 mm
max with 10 inch (254.0 mm) diameter mill	73.5 - 189.0 inches	1866.9 - 4800.6 mm
199 inches		5054.6 mm
Single-point machining diameter range	69.5 - 189.0 inches	1765.3 - 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)		
Milling diameter range to center of spindle	98.4 - 209.9 inches	2499.36 - 5331.46 mm
Single-point machining diameter range	69.5 - 184 inches	1765.3 - 4673.6 mm
Depth required inside bore for chuck	69.5 - 199.0 inches	1765.3 - 5054.6 mm
	0 inches	0 mm
Rotational Drive System		
Drive Type		
Milling	Electric Servo Rotation - Hydraulic Spindle	
Single-point	Hydraulic Rotation	
Single-point machining	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)	
Mains Electric power, input requirements:		
25 HP (19 kW) for milling / 10 HPU (7.5 kW) for single-point	230V, 380V, 415V, 460V, or 575V	
Speed Range:		
Milling 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
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
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

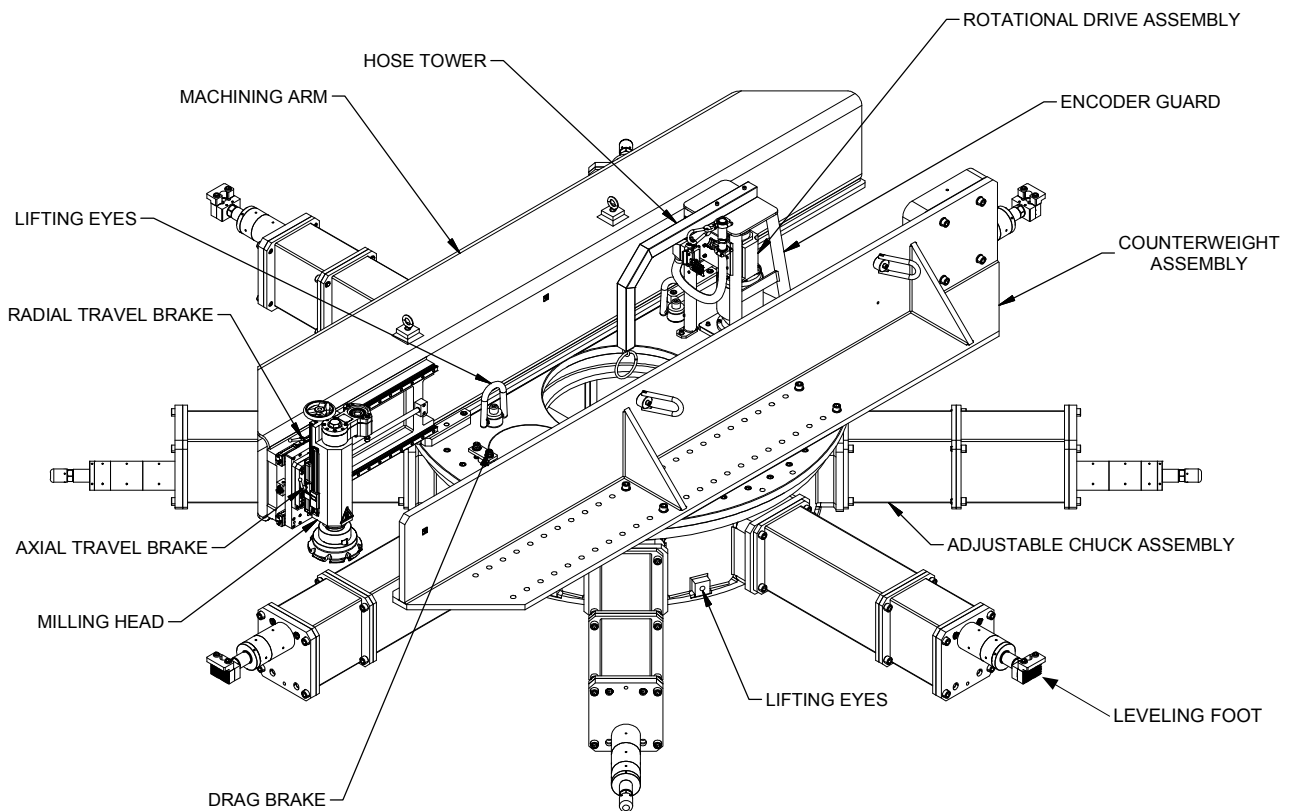
29067*: Bit Tool HSS ¾ x 5.0 LH Finish Single SC

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.



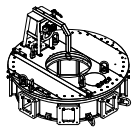
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TOOL CONFIGURATIONS

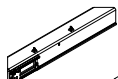
Configure your CM6200 in 13 easy steps:

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 a Rotary Table Hydraulic Motor
7. Select a Hydraulic Power Unit
8. Select a Milling Head
9. Select Tooling
10. Select Milling Head Hydraulic Motor
11. Select a Milling Head Swivel Plate (Optional)
12. Select a Chuck / Mounting Assembly
13. Select a Shipping Container

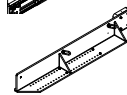
To generate the correct part number for the machine you require, simply select the part number needed in each step, and contact your CLIMAX representative.



- 1 Base Unit**
(includes rotary table, tool kit, operator's manual)
Base Unit 62027

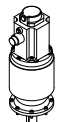


- 2 Milling Arm**
Milling Arm Assembly 72676



- 3 Counterweight**
Counterweight Assembly 62031

- 4 Machining Configuration**
Milling Assembly EU (includes tramming plate) 63124
Milling and Single-Point Assembly 63125
Milling and Single-Point Assembly EU 83098



- 5 Rotary Table Drive Assembly**
Servo Drive Assembly EU 62032
Servo Drive Assy with Single-Point (uses hydraulic motor for single-point drive) 63679
Servo Drive Assy with Single-Point EU (uses hydraulic motor for single-point drive) 83156



- 6 Rotary Table Hydraulic Motors**
Hydraulic Motor, 8.0 cu in (131.1 cu cm), 2-23 RPM 53457
Hydraulic Motor, 14.9 cu in (244.2 cu cm), 0.8-12 RPM 47394
Hydraulic Motor, 24.0 cu in (393.3 cu cm), 0.65 - 8 RPM 47396
Hydraulic Motor, 29.8 cu in (488.3 cu cm), 0.2 - 6 RPM 47221

- 7 Hydraulic Power Unit**
Servo Touchscreen Control with Angular Control (includes 50 ft (15.2 m) pendant cable and hose assemblies)
HPU 230V, 25 HP, 60 Series QD 84554
HPU 380-415V, 25 HP, 60 Series QD 84555
HPU 460V, 25 HP, 60 Series QD 84556
HPU 575V, 25 HP, 60 Series QD 84557
HPU 380-415V, 25 HP, ISO16028 QD CE 84558

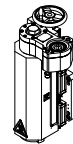
- 8 Milling Head**
Milling Head Assy Inch #50 Taper NMTB 62282
Milling Head Assy Inch #50 Taper CATV 62734
Milling Head Assy Metric #50 Taper NMTB 62644
Milling Head Assy Metric #50 Taper CATV 62735

- 9 Tooling (for inch CATV milling head assy only)**
Tooling, Inch Tool Holder
CAT50, 4 in (101.6 mm) Face Mill w/ Inserts 103034
CAT50, 5 in (127.0 mm) Face Mill w/ Inserts 103035
CAT50, 6 in (145.4 mm) Face Mill w/ Inserts 103036
CAT50, 8 in (203.2 mm) Face Mill w/ Inserts 103038
CAT50, 10 in (254.0 mm) Face Mill w/ Inserts 103040
Carbide Inserts 47229

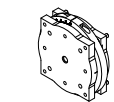
10 Milling Head Hydraulic Motors

Motor Displacement		Max Spindle Speed		Hydraulic Motor PN	
in ³	cm ³	@ 50 Hz Mains Power	@ 60 Hz Mains Power	60 Series QD	ISO 16028 QD
6.2	101.6	668	805	63164	69497
8.0	131.1	468	564	53459	69498
9.6	157.3	386	465	53458	69499
11.9	195.0	311	375	46950	69500
14.9	244.2	249	300	46375	69501
18.7	306.4	198	239	46549	69502
24.0	393.3	156	188	46550	69503
29.8	488.3	124	149	48968	69504

Minimum speed is 10% of the maximum speed



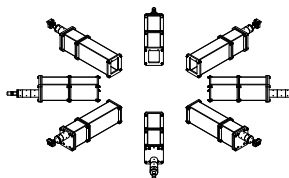
- 11 Milling Head Swivel Plate (Optional)**
Milling Head Swivel Plate Assembly 63250



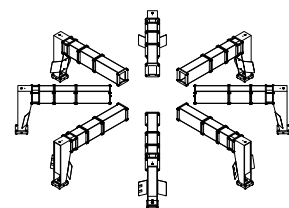
ID/OD mount assemblies shown below

- 12 Chuck / Mounting Assembly**
ID Mount Assembly 62038
OD Mount Assembly 62039
ID/OD Mount Assembly 62040
Face Mount Assembly 63106

- 13 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 chuck) 91206
Steel Container (main machine and ID/OD chuck) 91207



ID Mount Assembly



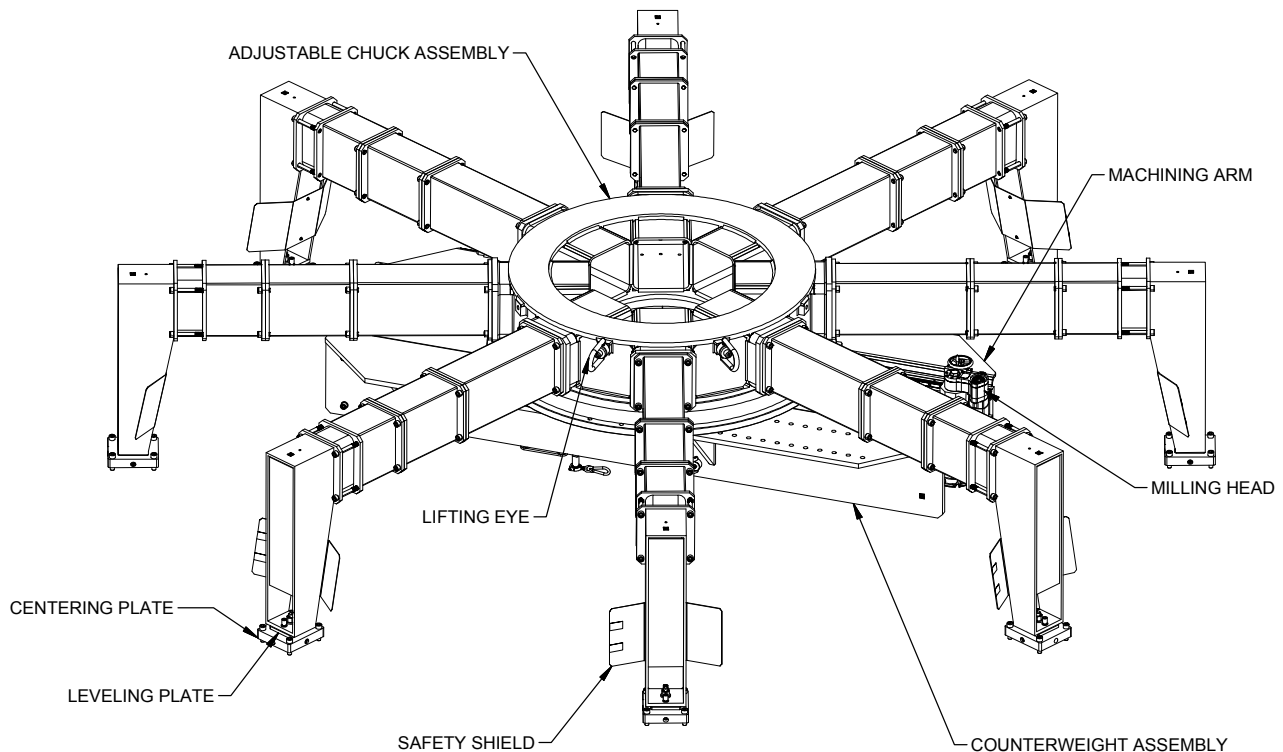
OD Mount Assembly

NOTE: Drawings are for reference only, are not to scale, and may not represent actual product.

Optional Hydraulic Power Unit

Single Pumps For Single Point Only (includes 50 ft (15.2 m) pendant cable and hydraulic hose assemblies)

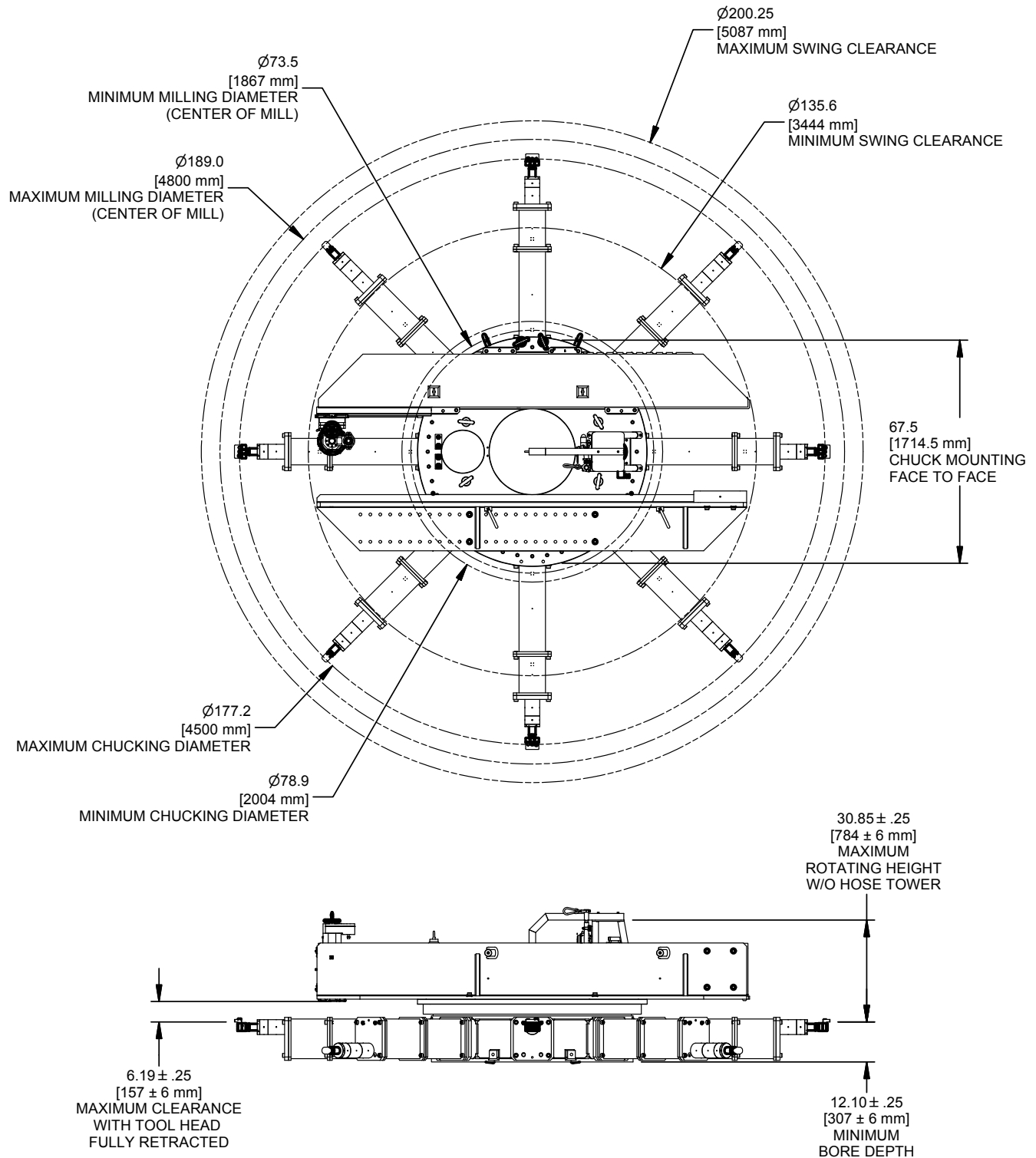
60 SERIES QD		ISO 16028 QD CE	
Motor Option	Part Number	Motor Option	Part Number
HP1000 230V, 10 HP	93724	HP1000 230V, 10 HP	94023
HP1000 380-415V, 10 HP	93725	HP1000 380-415V, 10 HP	94027
HP1000 460V, 10 HP	93770	HP1000 460V, 10 HP	94032
HP1000 575V, 10 HP	93774	HP1000 575V, 10 HP	93745



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

OPERATIONAL DIMENSIONS

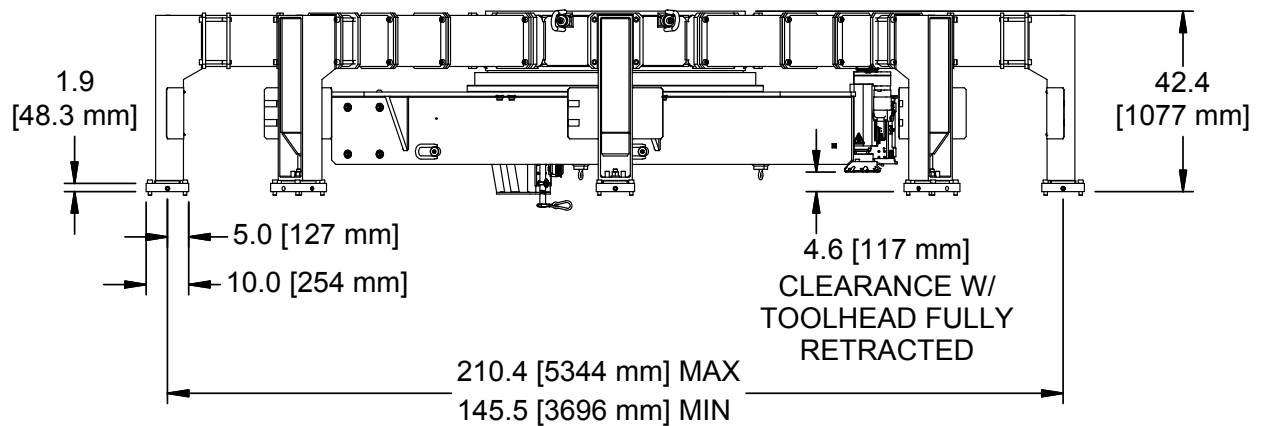
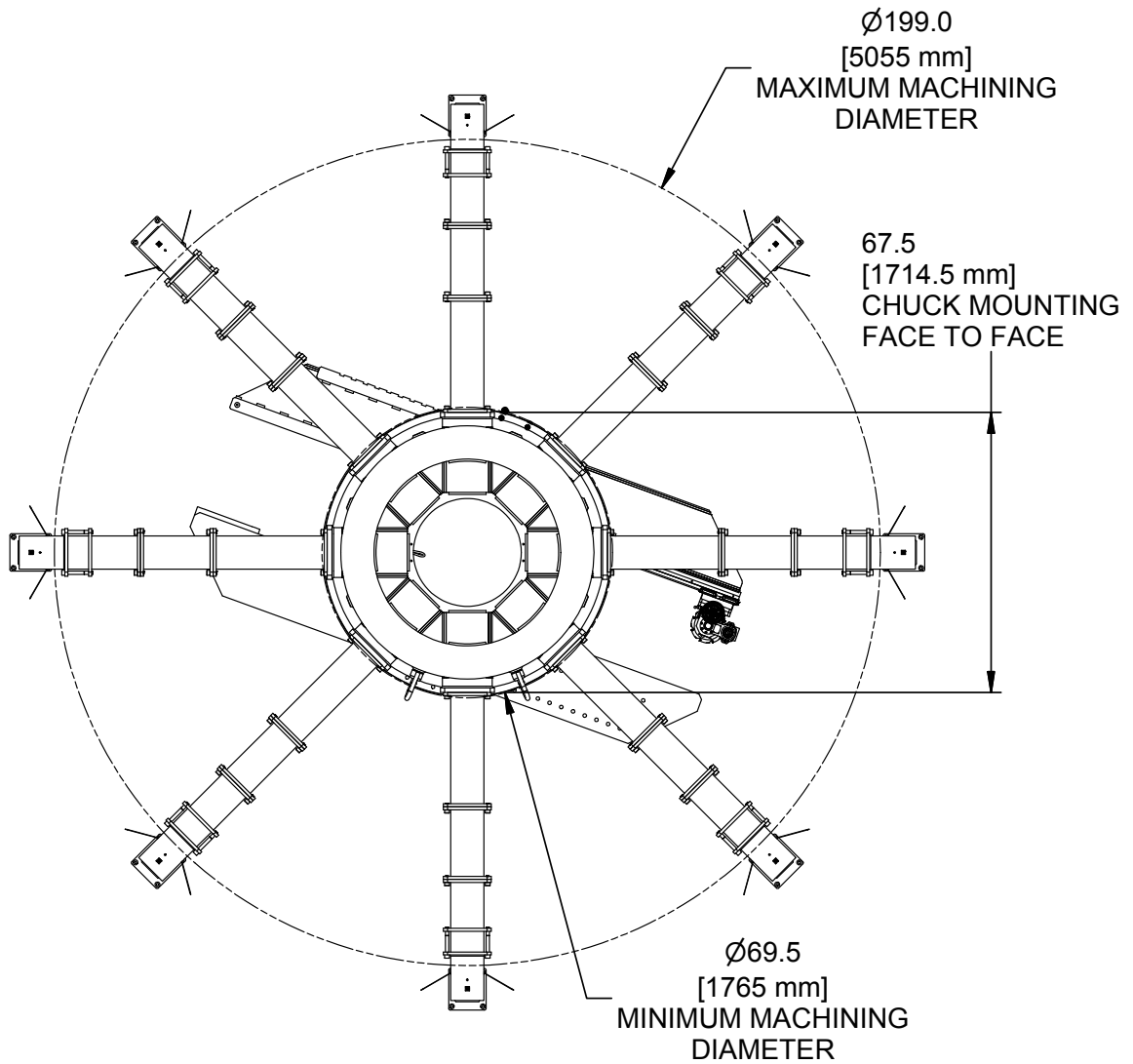
Dimensions in Inch (mm)



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

OPERATIONAL DIMENSIONS

Dimensions in Inch (mm)

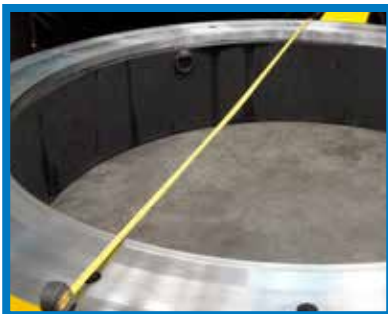


SETUP AND OPERATION

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.



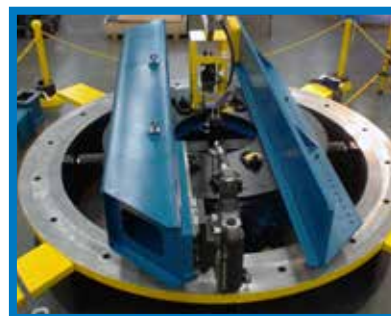
3 Set machine into flange using setup fingers



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



7 You are ready to begin machining!



OEM PROFESSIONAL OPERATIONAL TRAINING



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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.



Typical Courses Include:

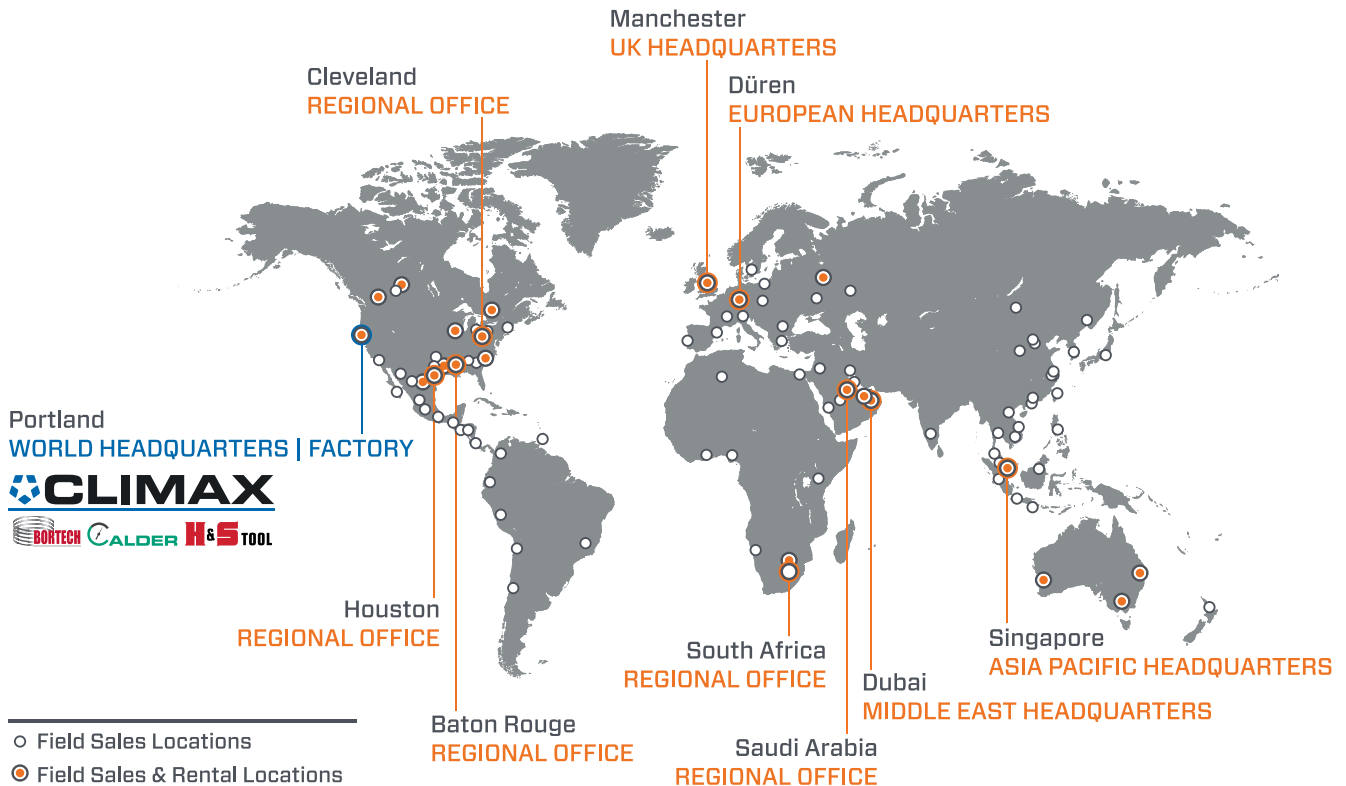
- ✓ Operator safety
- ✓ Tool component review and setup
- ✓ Standard operational techniques
- ✓ Overview of cutting tools and recommend usage
- ✓ Maintenance procedures
- ✓ A certificate of achievement - issued to each student immediately following course completion

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