

# VM2050C,2100C,2150C GLOBE VALVE GRINDING & LAPPING MACHINE

**04** | 2014  
VM 2050-2150

## Powerful, high performance machine with easy setup and handling.

### Quick and Easy Setup

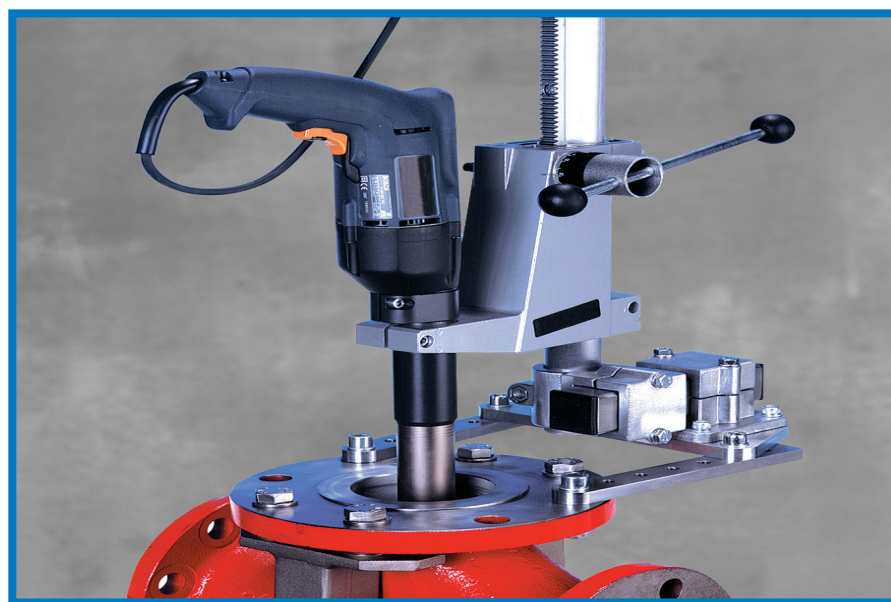
- Quickly change between electric and pneumatic by simply loosening a single clamping bolt.
- The adhesive on the media discs is specifically formulated to provide a firm hold while in use, but are easy to remove after use.

### Rigid

- Thicker Planet Wheels and webbed design provides increased rigidity, allowing consistent flatness regardless of grinding pressure.

### Versatile

- Using an odd number of Planet Arms ensures constant contact between all five arms and the seat, which allows you to grind perfectly flat seats.
- Planet Arm bearings are sealed, preloaded and preset to be within .000079 inches (.002mm) of each other on a flat plane.
- When changing the grinding head, the bearings don't need to be adjusted.
- All grinders come with a complete set of diameters and grit of abrasives; 800-1200 pieces included.

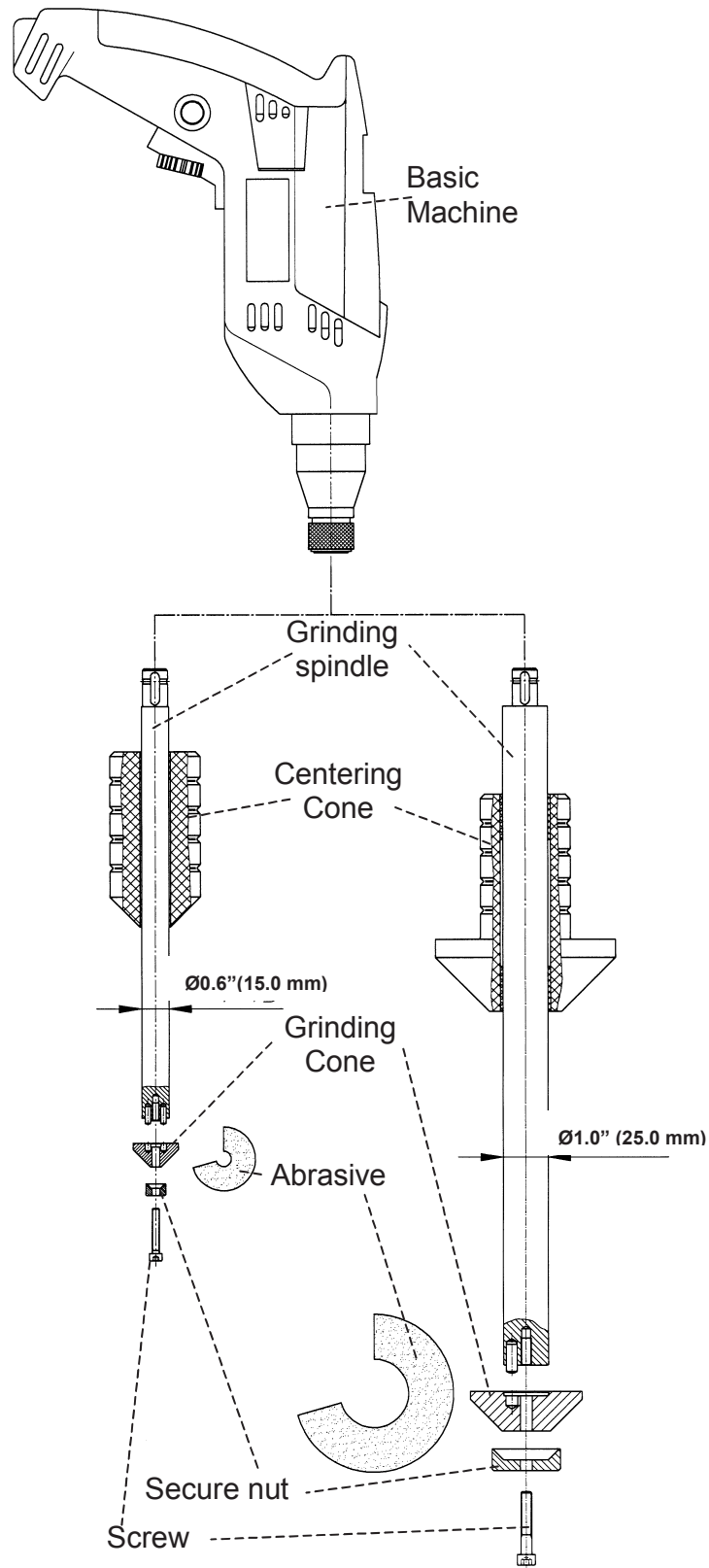


# SPECIFICATIONS

		US	Metric
<b>Operating Ranges:</b>			
Working range diameter (nominal diameter)			
	Minimum	0.4 inches	10 mm
	Maximum (VM2050C)	2 inches	50 mm
	Maximum (VM2100C)	4 inches	100 mm
	Maximum (VM2150C)	6 inches	150 mm
Submerging Depth	VM2050C, VM2100C	10 inches	250 mm
	VM2150C	18 inches	450 mm
Power	Electric	0.85 Hp	0.65 kW
	Pneumatic	0.5 Hp	0.40 kW
Variable spindle speed	Electric (nominal load)	100 - 450 rev/min	100 - 450 rev/min
	Pneumatic	100 - 650 rev/min	100 - 650 rev/min
Spindle Torque	Permanent	5.3 ft-lbs	7.2 N•m
	Max	29.5 ft-lbs	40.0 N•m
<b>Weight</b>			
Basic machine without tooling		11 lbs.	5 kg
VM2050C (for two different seat angles)			
Machine Case		57 lbs	26 kg
VM2100C (for two different seat angles)			
Machine Case		33 lbs.	15 kg
Accessory Case		57 lbs	26 kg
VM2150C (for two different seat angles)			
Machine Case		33 lbs.	15 kg
Accessory Case		71 lbs	32 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.

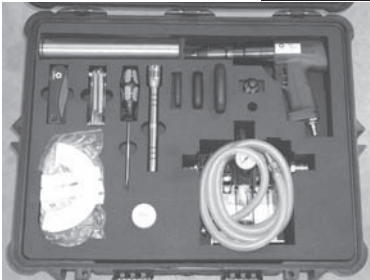
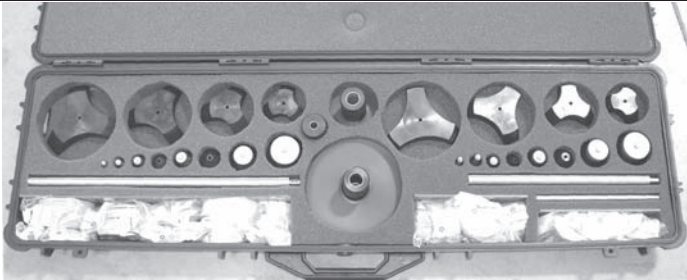

## Model VM2050C, VM2100C, VM2150C



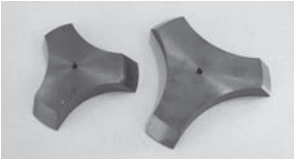



# TOOL CONFIGURATIONS

Model VM2050C and VM2100C		
P/N	Description	
	<b>Globe Valve Grinder VM2050C basic package</b> The basic package includes all accessories <b>except the grinding cones and abrasives</b> . These items have to be purchased separately depending on the seat angles. Nominal working diameter 0.4" to 2" (10 mm to 50 mm) Submerging depth 10"(250 mm). Scope of supply: <ul style="list-style-type: none"> <li>Machine with quick change coupling to accept the grinding spindle.</li> <li>Grinding spindle diameter 0.6" (15.0 mm) for grinding seats up to 0.6" (15.0 mm) diameter. Submerging depth 6"(150 mm)</li> <li>Grinding spindle diameter 1.0 "(25.0 mm) for grinding seats up to 2.0" (50 mm). Submerging depth 10" (250 mm).</li> <li>Centering cone for 0.6" (15.0 mm) diameter grinding spindle</li> <li>Centering cone for 1.0 "(25.0 mm) diameter grinding spindle</li> <li>1 set of tooling.</li> <li>Carrying cases with foam inlet for the machine and the accessories.</li> </ul>	
320-00S-L02	VM2050C with electric motor 230 V / 50 Hz	
320-00S-L03	VM2050C with pneumatic motor	
320-00S-L05	VM2050C with electric motor 115 V / 60 Hz	
	<b>Globe Valve Grinder VM2100C basic package</b> The basic package includes all accessories <b>except the grinding cones and abrasives</b> . These items have to be purchased separately depending on the seat angles. Nominal working diameter 0.4"to 4.0"(10.0 mm to 100.0 mm). Submerging depth 10"(250 mm). Scope of supply: <ul style="list-style-type: none"> <li>Machine with quick change coupling to accept the grinding spindle.</li> <li>Grinding spindle diameter 0.6" (15.0 mm) for grinding seats up to 0.6" (15.0 mm) diameter. Submerging depth 6"(150 mm)</li> <li>Grinding spindle diameter 1.0 "(25.0 mm) for grinding seats up to 4.0" (100 mm). Submerging depth 10" (250 mm).</li> <li>Centering cone for 0.6" (15.0 mm) diameter grinding spindle</li> <li><b>Two</b> centering cones for 1.0 "(25.0 mm) diameter grinding spindle</li> <li>1 set of tooling.</li> <li>Carrying cases with foam inlet for the machine and the accessories.</li> </ul>	
320-00S-L12	VM2100C with electric motor 230 V / 50 Hz	
320-00S-L13	VM2100C with pneumatic motor	
320-00S-L15	VM2100C with electric motor 115 V / 60 Hz	



Model VM2150C		
P/N	Description	
	<b>Globe Valve Grinder VM2150C basic package</b> The basic package includes all accessories <b>except the grinding cones and abrasives</b> . These items have to be purchased separately depending on the seat angles. Nominal working diameter 0.4 " to 6" (10 mm to 150 mm) Submerging depth 450 mm (18"). Scope of supply: <ul style="list-style-type: none"><li>Machine with quick change coupling to accept the grinding spindle.</li><li>Grinding spindle diameter 0.6" (15.0 mm) for grinding seats up to 0.6" (15.0 mm) diameter. Submerging depth 6"(150 mm)</li><li>Grinding spindle diameter 1.0 "(25.0 mm) for grinding seats up to 6.0" (150 mm). Submerging depth 10" (250 mm).</li><li>Grinding spindle diameter 1.0 "(25.0 mm) for grinding seats up to 6.0" (150 mm). Submerging depth 18" (450 mm).</li><li>Centering cone for 0.6" (15.0 mm) diameter grinding spindle</li><li><b>Two</b> centering cones for 1.0 "(25.0 mm) diameter grinding spindle</li><li>1 set of tooling.</li><li>Carrying cases with foam inlet for the machine and the accessories.</li></ul>	
320-00S-L22	VM2150C with electric motor 230 V / 50 Hz	
320-00S-L23	VM2150C with pneumatic motor	
320-00S-L25	VM2150C with electric motor 115 V / 60 Hz	
<div></div> <div></div>		
<div></div>	240-13K-001	<b>Maintenance unit for pneumatic motor</b> Required for machines with pneumatic motor. The maintenance unit is <b>not</b> included in the standard scope of supply with pneumatic driven machines. Includes: <ul style="list-style-type: none"><li>filter</li><li>oiler</li><li>pressure gauge</li><li>speed controller</li></ul>

<b>Tooling and accessories</b>		
	<b>P/N</b>	<b>Description</b>
		<b>Grinding cones for 0.4" - 2" (10 mm-50 mm) diameter seats</b> <ul style="list-style-type: none"> <li>7 pieces grinding cones</li> <li>required number of securing nuts</li> <li>100 pieces abrasives Grain 120 and Grain 500 each for every dimension (total 1400 pieces)</li> </ul>
	<b>320-61S-L21</b>	Seat <b>angle 15°</b> (total 30°)
	<b>320-63S-L21</b>	Seat <b>angle 30°</b> (total 60°)
	<b>320-64S-L21</b>	Seat <b>angle 37.5°</b> (total 75°)
	<b>320-65S-L21</b>	Seat <b>angle 45°</b> (total 90°)
		<b>Grinding cones for 2.5" - 4" (65mm- 100 mm) diameter seats</b> <ul style="list-style-type: none"> <li>1 grinding cone with securing nut for 2.5" (65.0 mm) diameter</li> <li>2 segment grinding cones for 3.0" (80 mm) and 4.0" (100 mm) diameters</li> <li>100 pieces abrasives grain 120 and grain 500 each for 2.5" (65 mm) diameter</li> <li>100 pieces rectangular abrasive pads grain 120 and grain 500 each for 3.0" (80 mm) and 4.0" (100 mm) diameters</li> </ul>
	<b>320-61S-L22</b>	Seat <b>angle 15°</b> (total 30°)
	<b>320-63S-L22</b>	Seat <b>angle 30°</b> (total 60°)
	<b>320-64S-L22</b>	Seat <b>angle 37.5°</b> (total 75°)
	<b>320-65S-L22</b>	Seat <b>angle 45°</b> (total 90°)
		<b>Grinding cones for 5" - 6" (125mm - 150mm) diameter seats</b> <ul style="list-style-type: none"> <li>2 segment grinding cones for 5" (125 mm) and 6" (150 mm) diameters</li> <li>100 pieces rectangular abrasive pads grain 125 and grain 500 each for 5" (125 mm) and 6" (150 mm) diameters</li> </ul>
	<b>320-61S-L23</b>	Seat <b>angle 15°</b> (total 30°)
	<b>320-63S-L23</b>	Seat <b>angle 30°</b> (total 60°)
	<b>320-64S-L23</b>	Seat <b>angle 37.5°</b> (total 75°)
	<b>320-65S-L23</b>	Seat <b>angle 45°</b> (total 90°)
	<b>320-23S-N01</b>	<b>Grinding Spindle for submerging depth 18" (450 mm)</b> To extend the submerging depth of VM2050C or VM2100C to 18" (450 mm)
	<b>320-32S-L02</b>	<b>Centering cone to 8" (200 mm)</b> To extend the centering diameter of VM2050C or VM2100C to 8" (200 mm)
	<b>320-33S-N01</b>	<b>3-jaw centering chuck</b> <ul style="list-style-type: none"> <li>Centering diameter 3.2"-16.9" (80 mm to 430 mm)</li> <li>includes the complete chuck and a guiding bushing to accept the 1.0" (25.0 mm) grinding spindle</li> <li>comes in a case with foam inlet</li> </ul>

CLIMAX is committed to product improvement. The machine you receive may vary slightly from what is shown.



# CLIMAX TRAINING AND SUPPORT

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 several training facilities across the United States - the Global Learning Center, situated in our corporate headquarters near Portland, Oregon and Houston, Texas Training Facility. All 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.

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### Rentals

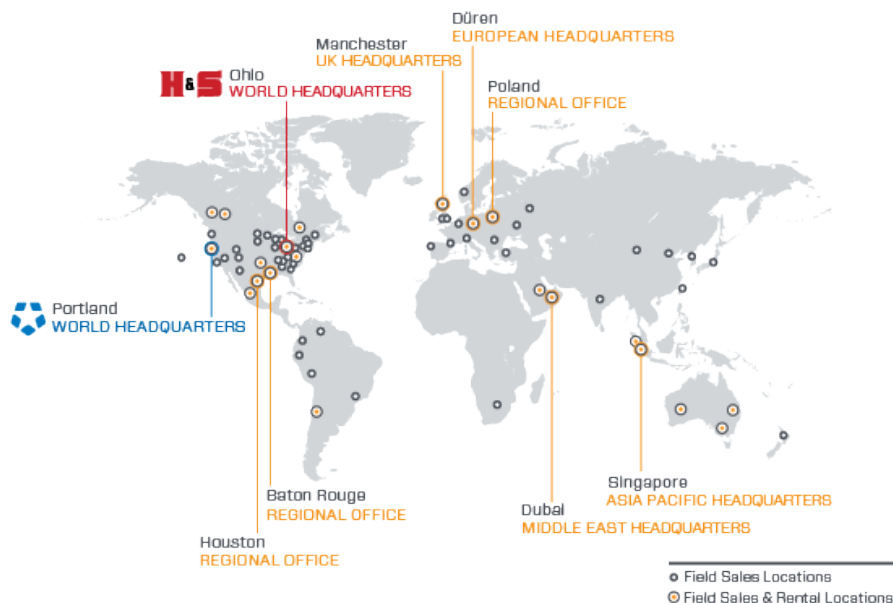
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