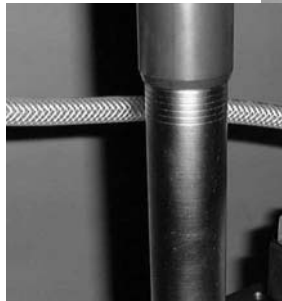


**Climax Globe Valve
Grinding and Lapping Machines
Model Numbers: VM2050S, VM2150, VM2150SV
Valve Seat Diameter Range: 0.4"-6.0"(10 mm-150 mm)**



**"On Site" grinding and lapping of
gate valves**

Easy to set up and handle

Powerful

Rigid design

High performance



CLIMAX[®]
Portable Machine Tools, Inc.

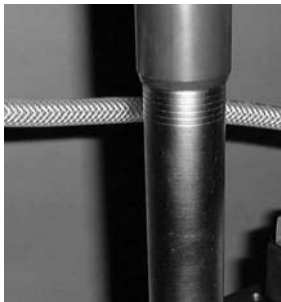
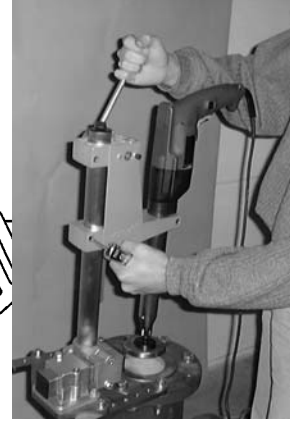
Climax Portable Machine Tools
2712 E. Second St.
Newberg, OR 97132 USA
Telephone: 503-538-2185
North America Toll-Free: 800-333-8311
E-Mail: info@cpmt.com
Internet: www.cpmt.com

VM2050S, VM2150 Overview



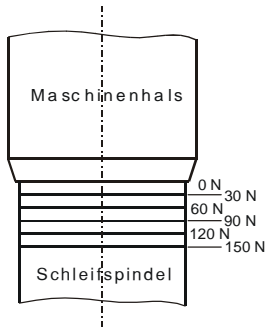
Machine to be used in "handheld operation" or mounted to the valve body.

Available with electric or pneumatic motor.

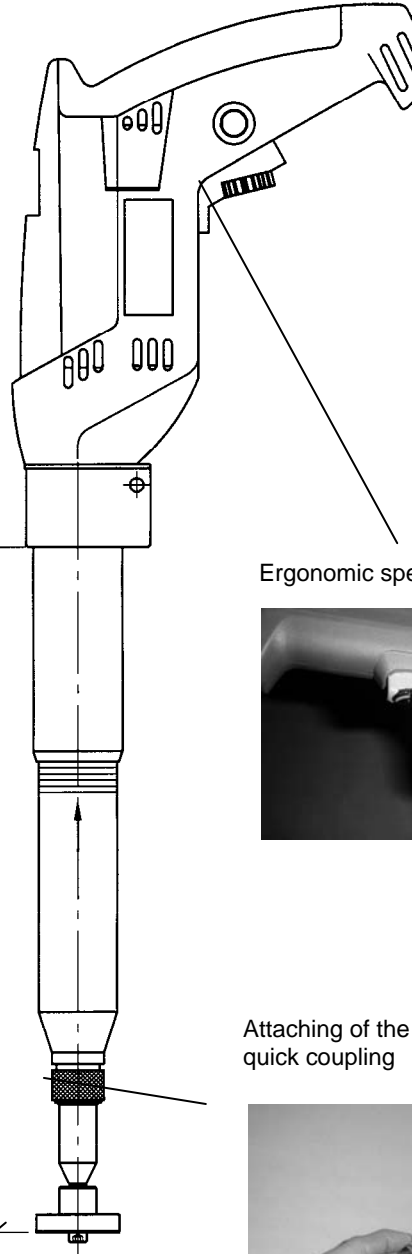


Good view at Scale for grinding pressure.

The grinding pressure may be changed **during** the operation.



Grinding spindle with self aligning coupling



Ergonomic speed adjustment




Attaching of the grinding tools by quick coupling



Technical data			
Working range-DN...	min	3/8"	10 mm
	max (VM2050S)	2"	50 mm
	max (VM2150)	6"	150 mm
Submerging Depth e	max	12"	300 mm
	max (VM2150)	20"	500 mm
Power	electric	0.75 HP(0.55 kW)	
	pneumatic	0.5 HP(0.40 kW)	
Variable Spindle Speed	electric	100 ... 550 rpm	
	pneumatic	100 ... 640 rpm	
Spindle torque	permanent	5.3 ft-lbs(7.2 Nm)	
	max	29.5 ft-lbs(40.0 Nm)	

Weight		
Machine VM2050S		
Basic machine without tooling	9 lb	4 kg
Machine Case	31 lb	14 kg
Machine VM2150S, VM2150SV		
Basic machine without tooling	9 lb	4 kg
Machine Case	27 lb	12 kg
Accessory Case	35 lb	16 kg
Machine VM2150		
Basic machine without tooling	9 lb	4 kg
Machine Case (electric)	40 lb	18 kg
Machine Case (pneumatic)	55 lb	25 kg
Accessory Case	37 lb	17 kg

Model VM2050S (Seat Diameter Range 0.4"-2.0"(10 mm-50 mm))

P/N	Description
	<p>Globe Valve Grinder VM2050S Nominal working diameter 0.4"-2.0" (10 mm – 50 mm) Submerging depth 12" (300 mm). Included Components::</p> <ul style="list-style-type: none"> 10 piece solid grinding disk set: 0.8"(20 mm), 1.0" (25 mm), 1.2"(30 mm), 1.4" (35 mm), 1.6" (40 mm), 1.8"(45 mm), 2.0"(50 mm), 2.2"(55 mm), 2.4"(60 mm), 2.6"(65 mm) diameters. 5 piece guiding discs set: 0.7"(19 mm), 0.9"(24 mm), 1.2"(31 mm), 1.5"(39 mm) and 1.9"(48 mm) diameters. Integrated grinding pressure detection with a scale. Start up set of abrasives grain 100 and 500. 1 set of tooling. Carrying case with foam inlet for the machine and the accessories.
	<p>210-00S-S02 VM2050S with electric motor 230 V / 50 Hz</p>
	<p>210-00S-S03 VM2050S with pneumatic motor</p>
	<p>210-00S-S05 VM2050S with electric motor 115V / 60 Hz</p>




VM2050S with electric motor



VM2050S with pneumatic motor
(standard scope of supply does not include maintenance unit)

Model VM2150S (Seat Diameter Range 0.4"-6.0"(10 mm-150 mm))

	P/N	Description	
		<p>Globe Valve Grinder VM2150S Nominal working diameter 0.4"-6" (10 mm-150 mm) Submerging depth 12"(300 mm). Included Components:</p> <ul style="list-style-type: none"> 21 piece solid grinding disk set: 0.8"(20 mm), 1.0" (25 mm), 1.2"(30 mm), 1.4" (35 mm), 1.6" (40 mm), 1.8"(45 mm), 2.0"(50 mm), 2.2"(55 mm), 2.4"(60 mm), 2.6"(65 mm), 2.9"(73 mm), 3.1"(80 mm), 3.3"(85 mm), 3.5"(90 mm), 3.7"(95 mm), 3.9"(100 mm), 4.1"(105 mm), 4.3"(110 mm), 4.7"(120 mm), 5.5"(140 mm), 6.5"(165 mm) diameters. 8 piece guiding discs set: 0.7"(19 mm), 0.9"(24 mm), 1.2"(31 mm), 1.5"(39 mm) and 1.9"(48 mm), 2.5"(63 mm), 3.1"(78 mm), 3.9"(98 mm) diameters. 4 pieces of guiding rollers. One pieces of ball joint coupling size 10 and 15 each. Integrated grinding pressure detection with a scale. Start up set of abrasives grain 100 and 500. 1 set of tooling. Carrying case with foam inlet for the machine and the accessories. 	
		220-00S-S12 VM2150S with electric motor 230 V / 50 Hz	
		220-00S-S13 VM2150S with pneumatic motor	
		220-00S-S15 VM2150S with electric motor 115V / 60 Hz	



VM2150S with electric motor

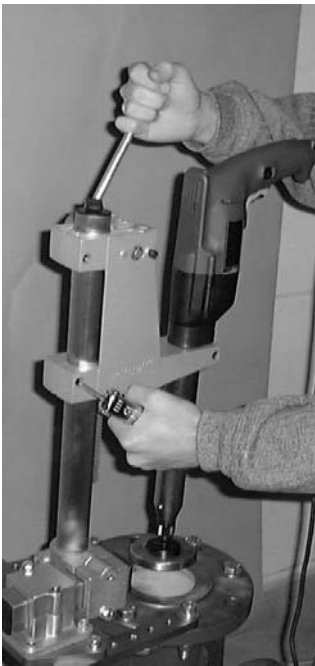


VM2150S accessory case



VM2150S with pneumatic motor
(standard scope of supply does not include maintenance unit)

Model VM2150 (Seat Diameter Range 0.4"-6.0"(10 mm-150 mm))

P/N	Description
	<p>Globe Valve Grinding and Lapping Machine VM2150 Nominal working dia DN10 to DN150 (DN3/8" to DN6"). Submerging depth 300 mm (12"). Included Components:</p> <ul style="list-style-type: none"> • 21 piece solid grinding disk set: 0.8"(20 mm), 1.0" (25 mm), 1.2"(30 mm), 1.4" (35 mm), 1.6" (40 mm), 1.8"(45 mm), 2.0"(50 mm), 2.2"(55 mm), 2.4"(60 mm), 2.6"(65 mm), 2.9"(73 mm), 3.1"(80 mm), 3.3"(85 mm), 3.5"(90 mm), 3.7"(95 mm), 3.9"(100 mm), 4.1"(105 mm), 4.3"(110 mm), 4.7"(120 mm), 5.5"(140 mm), 6.5"(165 mm) diameters. • 16 piece solid lapping disk set: (2 pieces each up to 3.1"(80 mm)diameter): 1.0" (25 mm), 1.2"(30 mm), 1.4" (35 mm), 1.8"(45 mm), 2.2"(55 mm), 2.6"(65 mm), 3.1"(80 mm), 3.9"(100 mm) and 4.7"(120 mm), • 8 piece guiding discs set: 0.7"(19 mm), 0.9"(24 mm), 1.2"(31 mm), 1.5"(39 mm) and 1.9"(48 mm), 2.5"(63 mm), 3.1"(78 mm), 3.9"(98 mm) diameters. • 4 pieces of guiding rollers. • One pieces of ball joint coupling size 10 and 15 each. • Integrated grinding pressure detection with a scale. • Mounting column with mounting plate for valves with and without flange. • Start up set of abrasives grain 100 and 500. • 2 tubes of lapping paste 10µm and 30 µm each. • 1 set of tooling. • Carrying case with foam inlet for the machine & accessories. <p>220-00S-S02 VM2150 with electric motor 230 V / 50 Hz 220-00S-S03 VM2150 with pneumatic motor 220-00S-S05 VM2150 with electric motor 115V / 60 Hz</p>



**VM2150
with electric motor**



**VM2150
accessory
case**



**VM2150 with pneumatic motor
(standard scope of supply
does not include maintenance
unit)**

Model VM2150SV for Safety Valves (Range 0.4"-6.0"(10 mm-150 mm))



P/N	Description
	<p>Globe Valve Grinding and Lapping Machine especially equipped for Safety Valves VM2150SV</p> <p>Nominal working diameters: 0.4"-6.0"(10 mm-150 mm) Submerging depth 12"(300 mm). Scope of supply:</p> <ul style="list-style-type: none"> 21 piece solid grinding disk set: 0.8"(20 mm), 1.0" (25 mm), 1.2"(30 mm), 1.4" (35 mm), 1.6" (40 mm), 1.8"(45 mm), 2.0"(50 mm), 2.2"(55 mm), 2.4"(60 mm), 2.6"(65 mm), 2.9"(73 mm), 3.1"(80 mm), 3.3"(85 mm), 3.5"(90 mm), 3.7"(95 mm), 3.9"(100 mm), 4.1"(105 mm), 4.3"(110 mm), 4.7"(120 mm), 5.5"(140 mm), 6.5"(165 mm) diameters. 8 piece guiding discs set: 0.7"(19 mm), 0.9"(24 mm), 1.2"(31 mm), 1.5"(39 mm) and 1.9"(48 mm), 2.5"(63 mm), 3.1"(78 mm), 3.9"(98 mm) diameters. 4 pieces of guiding rollers. One pieces of ball joint coupling size 10 and 15 each. Integrated grinding pressure detection with a scale. Start up set of abrasives grain 500 and 1000. 1 set of tooling. Carrying case with foam inlet for the machine and the accessories.
220-00S-S22	VM2150SV with electric motor 230 V / 50 Hz
220-00S-S23	VM2150SV with pneumatic motor
220-00S-S25	VM2150SV with electric motor 115V / 60 Hz



**VM2150SV
with electric motor**







**VM2150SV
accessory
case**



**VM2150SV with pneumatic mo-
tor(standard scope of supply
does not include maintenance
unit)**

Accessories

	P/N	Description	
	240-13K-001	Maintenance unit for pneumatic motor Required for machines with pneumatic motor. The maintenance unit is not included in the standard scope of supply with pneumatic driven machines. Includes: <ul style="list-style-type: none"> • filter • oiler • pressure gauge • speed controller 	
	220-35S-N01 220-34S-N01 220-33S-N01	Extension of submerging depth <ul style="list-style-type: none"> • Adapter to extend the grinding spindle. • Adapted to the spindle by quick coupling. • Tools are adapted to the extension also by quick coupling. 	
	300-11S-N01	3 jaw centering chuck <ul style="list-style-type: none"> • For 3.1" to 17" (80 mm-430 mm) diameters. • Guiding tube • Spindle extension 18" (450 mm) long. • Delivery in a carrying case with foam inlet 	
	185-00S-S22 185-00S-S23	Grinding adapter For using the tooling of the VM2000 on stationary drill presses. The grinding pressure is made by an application of springs. The scale for the grinding pressure is divided into two ranges: One for high rate of removal of material and the other for high precision surfaces.	

Because CLIMAX is committed to product improvement, the machine you receive may be slightly different to the pictures above.

Solid Grinding and Lapping Discs
Seat Diameter Range: 0.4"-2.6"(10 mm-65 mm)
(Ball joint coupling 0.4"(10 mm))

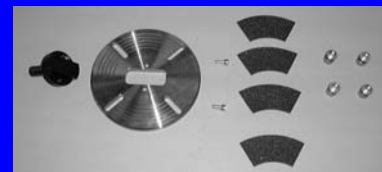


Valve Seat Nominal Dia.	Dia. of Grinding- resp. Lapping disc	Dia. of Guiding disc	Grinding Disc Part No.	Lapping Disc Part No.	Guiding Disc Part No.
0.4"(10 mm)	0.8"(20 mm)	0.3"(9 mm) (Screw head)	130-11T-001	130-12T-002	
	1.0"(25 mm)		130-11T-002		
0.8"20	1.2"(30 mm)	0.7"(19 mm)	130-11T-003	130-12T-003	130-13T-001
	1.0"(25 mm)		130-11T-004		
1.0"(25 mm)	1.4"(35 mm)	0.9"(24 mm)	130-11T-005	130-12T-004	130-13T-002
	1.6"(40 mm)		130-11T-006		
1.3"(32 mm)	1.8"(45 mm)	1.2"(31 mm)	130-11T-007	130-12T-006	130-13T-003
	2.0"(50 mm)		130-11T-008		
1.6"(40 mm)	2.2"(55 mm)	1.5"(39 mm)	130-11T-009	130-12T-008	130-13T-004
	2.0"(50 mm)		130-11T-010		
2.0"(50 mm)	2.4"(60 mm)	1.9"(48 mm)	130-11T-011	130-12T-010	130-13T-005
	2.6"(65 mm)		130-11T-012		
2.6"(65 mm)	2.9"(73 mm)	2.5"(63 mm)	130-11T-013	130-12T-012	130-13T-006
	3.1"(80 mm)				
	3.3"(85 mm)				

Solid Grinding and Lapping Discs
Seat Range 3.1"-3.9"(80 mm-100 mm)
(Ball joint coupling 0.6"(15 mm))

Valve Seat Nominal Dia.	Dia. of Grinding- resp. Lapping disc	Dia. of Guiding disc	Grinding Disc Part No.	Lapping Disc Part No.	Guiding Disc Part No.
3.1"(80 mm)	3.5"(90 mm)	3.1"(78 mm)	130-31T-001	130-32T-002	130-33T-001
	3.9"(100 mm)		130-31T-002		
	4.1"(105 mm)		130-31T-003		
3.9"(100 mm)	4.3"(110 mm)	3.9"(98 mm)	130-31T-004	130-32T-005	130-33T-002
	4.7"(120 mm)		130-31T-005		

Solid Grinding Discs
with adjustable bearings
Seat Range 3.1"-5.9"(80 mm-150 mm)
(Ball joint coupling 0.6"(15 mm))



Valve Seat Nominal Dia.	Dia of Grinding- resp. Lapping disc	Grinding disc Part No.
3.1"(80 mm)	3.7"(95 mm)	130-41T-001
3.9"(100 mm)	4.5"(115 mm)	130-41T-002
4.9"(125 mm)	5.5"(140 mm)	130-41T-003
5.9"(150 mm)	6.5"(165 mm)	130-41T-004
Guide (1 Piece) (4 Pieces are required)		130-42S-N01