

VM2350,2500,2600 GLOBE VALVE GRINDING & LAPPING MACHINE

04 | 2014
VM 2350-2600

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

Quick and Easy Setup

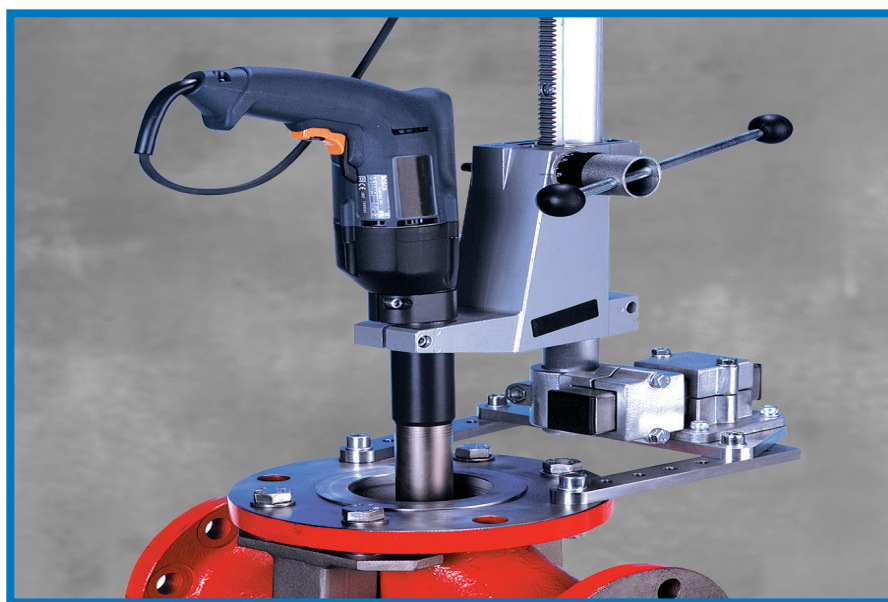
- Quickly change between electric and pneumatic by simply loosening a single clamping bolt.
- The adhesive on the media discs is specifically formulated to provide a firm hold while in use, but are easy to remove after use.

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.

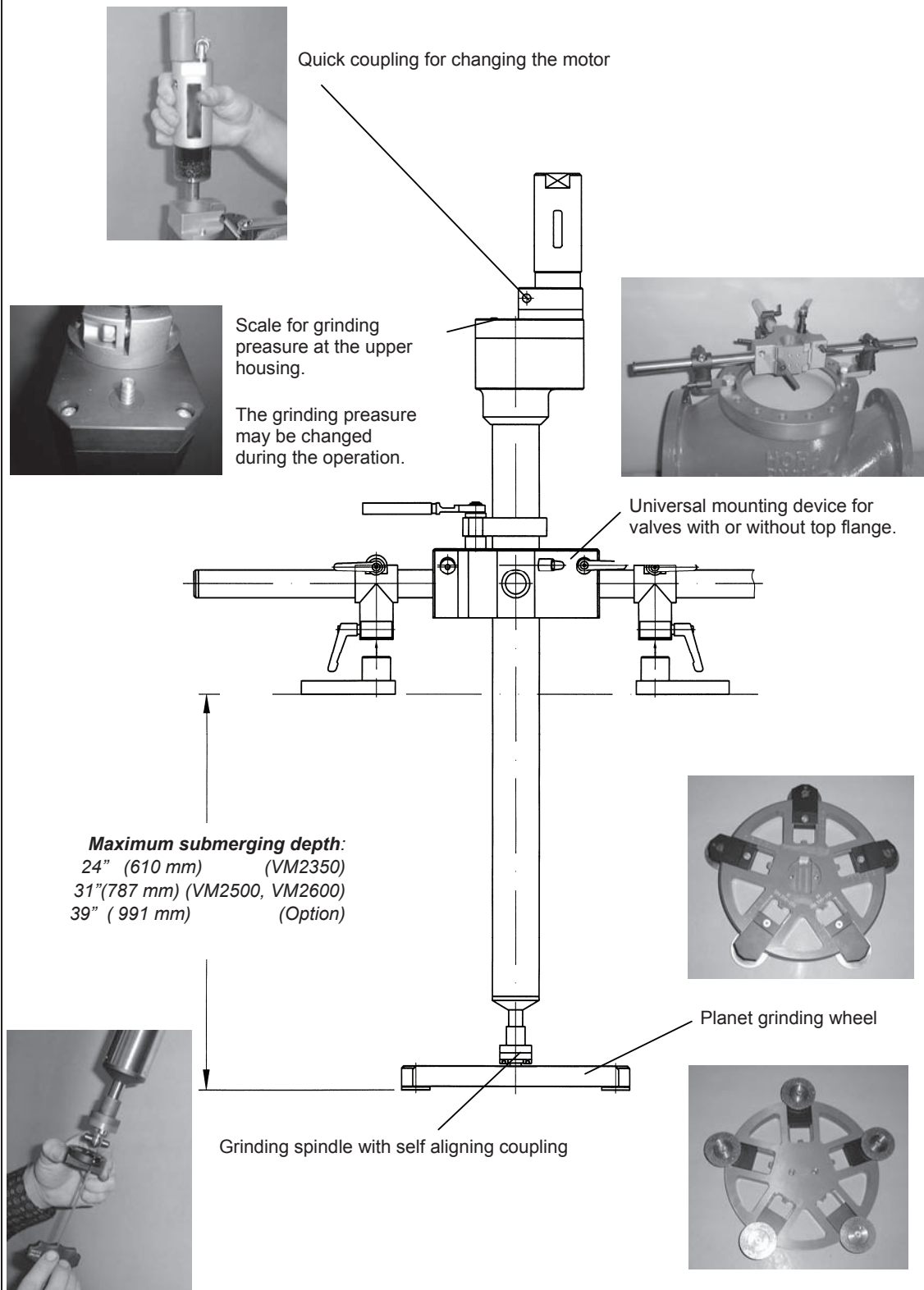


SPECIFICATIONS

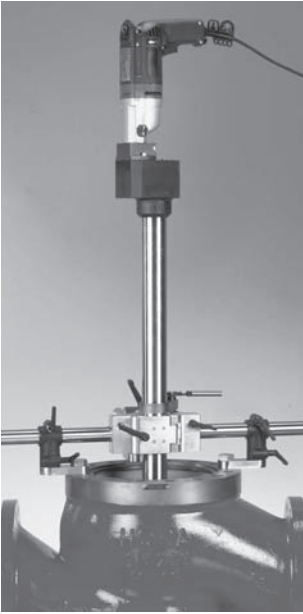

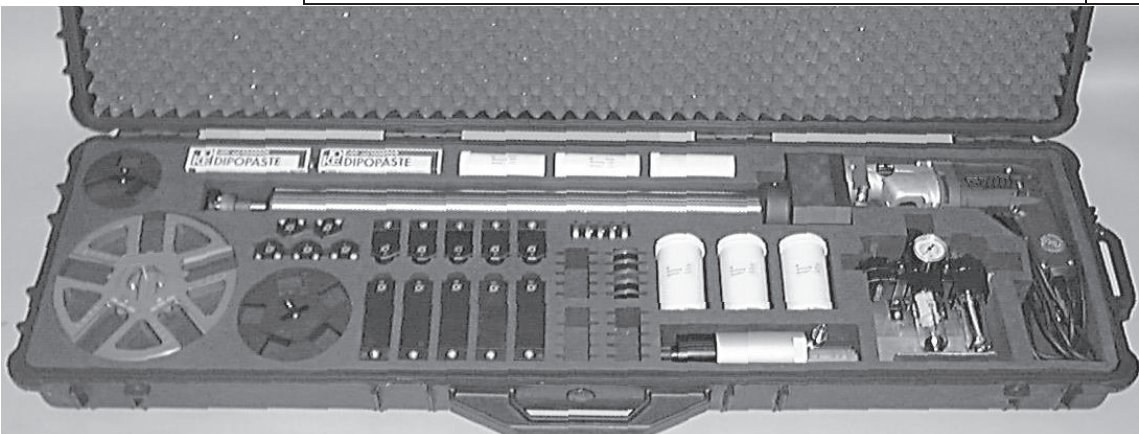
		US	Metric
Operating Ranges:			
Working range (nominal diameter)			
	Minimum	3 inches	80 mm
	Maximum (VM2350)	14 inches	350 mm
	Maximum (VM2500)	20 inches	500 mm
	Maximum (VM2600)	24 inches	600 mm
Submerging Depth	Maximum (VM2350)	24 inches	600 mm
	Maximum (VM2500,2600)	31 inches	800 mm
	Optional	38 inches	1000 mm
Power	Electric	1.3 Hp	1.0 kW
	Pneumatic	0.7 Hp	0.55 kW
Variable spindle speed	Electric	30 - 550 rev/min	30 - 550 rev/min
	Pneumatic	30 - 400 rev/min	30 - 4000 rev/min
Spindle Torque	Permanent	19 ft-lbs	26 N•m
	Max	80 ft-lbs	108N•m
Weight			
VM2350			
	Basic machine without tooling	29 lbs.	13 kg
	Machine Case	77 lbs	35 kg
	Accessory Case	42 lbs	19 kg
VM2500			
	Basic machine without tooling	31 lbs	14 kg
	Machine Case	80 lbs	39 kg
	Accessory Case	71 lbs	36 kg
VM2600			
	Basic machine without tooling	31 lbs	14 kg
	Machine Case	80 lbs.	39 kg
	Accessory Case	71 lbs	36 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.

VM2350, VM2500, VM2600 Globe Valve Machines Overview

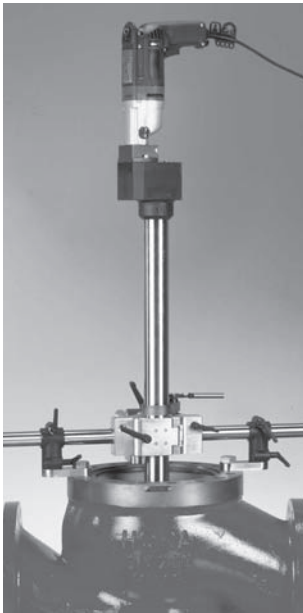

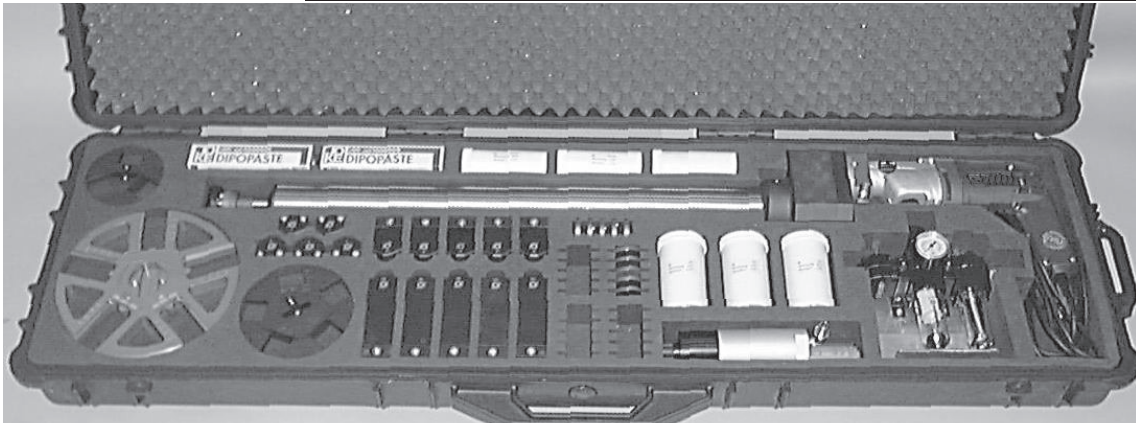


TOOL CONFIGURATIONS

Model VM2350 (Seat Diameter Range: 3"-14" (80 mm-350 mm))			
	P/N	Description	
		Globe Valve Grinder VM2350S Nominal working diameter 3" to 14" (80 mm to 350 mm) Submerging depth 24" (600 mm). Included Components: <ul style="list-style-type: none"> • 3 sets of planet arms (5 arms/set) 1.2" (30 mm), 2.4" (60 mm), 4.5" (115 mm) in length • Set of 3 planet wheels 3.9" (100 mm), 5.3" (135 mm), 8.7" (220 mm) in diameter. • 1 set of 5 grinding discs 2.0" (50 mm) in diameter. • Integrated grinding pressure detection with a scale at the upper machine housing. • 1 set of clamping equipment for mounting the machine on valves with and without top flange. • Start up set of abrasives grain 100 and 500. • 1 set of 5 CBN grinding disks 2.0" (50 mm) in diameter. • 1 set of tooling. • Carrying cases with foam inlet for the machine and the accessories. 	
	240-00S-S12	VM2350S with electric motor 230 V / 50 Hz	
	240-00S-S13	VM2350S with pneumatic motor	
	240-00S-S14	VM2350S with electric motor 230V / 50 Hz and pneumatic motor	
	240-00S-S15	VM2350S with electric motor 115 V / 60 Hz	
	240-00S-S16	VM2350S with electric motor 115V / 60 Hz and pneumatic motor	
		Globe valve grinding and lapping machine VM2350 Machine like VM2350S but with the following additional lapping equipment : <ul style="list-style-type: none"> • 2 sets (5 discs/set) of lapping disks 1.2" (30 mm) and 2.0" (50 mm). • Lapping paste 10 and 30 µm. 	
	240-00S-S02	VM2350 with electric motor 230 V / 50 Hz	
	240-00S-S03	VM2350 with pneumatic motor	
	240-00S-S04	VM2350 with electric motor 230V / 50 Hz and pneumatic motor	
	240-00S-S05	VM2350 with electric motor 115 V / 60 Hz	
	240-00S-S06	VM2350 with electric motor 115V / 60 Hz and pneumatic motor	
			

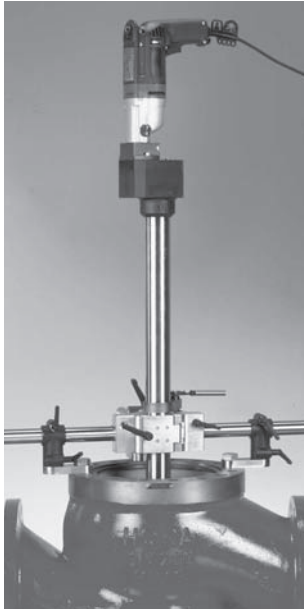

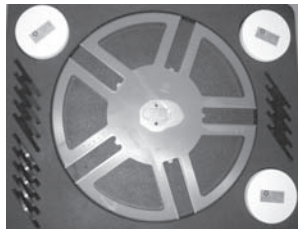
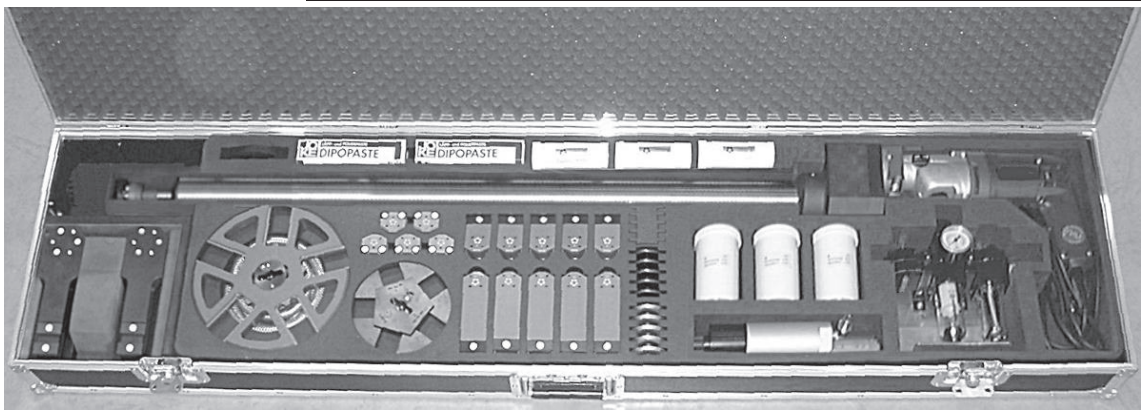
Pneumatically driven machines also require the accessory pneumatic motor maintenance kit

TOOL CONFIGURATIONS

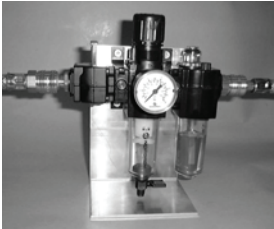
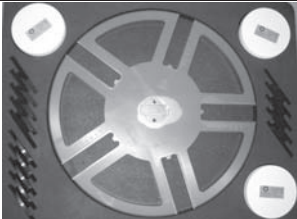
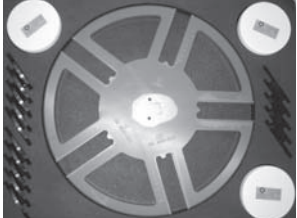

Model VM2500 (Seat Diameter Range: 3"-20" (80 mm-500 mm))		
	P/N	Description
		Globe Valve Grinder VM2500S Nominal working dia 3" to 20" (80 mm to 500 mm) Submerging depth 31" (800 mm). Included Components: <ul style="list-style-type: none"> • 3 sets of planet arms (5 arms/set) 1.2" (30 mm), 2.4" (60 mm), 4.5" (115 mm) in length. • Set of 4 planet wheels 3.9" (100 mm), 5.3" (135 mm), 8.7" (220 mm), 15.0" (380 mm) in diameter • 2 sets (5 discs/set) of grinding discs 2.0" (50 mm) and 3.2" (80 mm) in diameter. • Integrated grinding pressure detection with a scale at the upper machine housing. • 1 set of clamping equipment for mounting the machine on valves with and without top flange. • Start up set of abrasives grain 100 and 500. • 1 set (5 discs/set) of CBN grinding disks 2.0" (50 mm) in diameter. • 1 set of tooling. • Carrying cases with foam inlet for the machine and the accessories.
	240-00S-S32	VM2500S with electric motor 230 V / 50 Hz
	240-00S-S33	VM2500S with pneumatic motor
	240-00S-S34	VM2500S with electric motor 230V / 50 Hz and pneumatic motor
	240-00S-S35	VM2500S with electric motor 115 V / 60 Hz
	240-00S-S36	VM2500S with electric motor 115V / 60 Hz and pneumatic motor
		Globe valve grinding and lapping machine VM2500 Machine like VM2500S but with the following additional lapping equipment : <ul style="list-style-type: none"> • 3 sets (5 discs/set) of lapping disks 1.2" (30 mm), 2.0" (50 mm), and 3.2" (80 mm) in diameter • Lapping paste 10 and 30 µm.
	240-00S-S22	VM2500S with electric motor 230 V / 50 Hz
	240-00S-S23	VM2500S with pneumatic motor
	240-00S-S24	VM2500S with electric motor 230V / 50 Hz and pneumatic motor
	240-00S-S25	VM2500S with electric motor 115 V / 60 Hz
	240-00S-S26	VM2500S with electric motor 115V / 60 Hz and pneumatic motor
		









Pneumatically driven machines also require the accessory pneumatic motor maintenance kit

TOOL CONFIGURATIONS

Model VM2600 (Seat Diameter Range: 3"-24"(80 mm-600 mm))			
	P/N	Description	
		Globe Valve Grinder VM2600S Nominal working dia 3" to 24" (80 mm to 600 mm) Submerging depth 31"(800 mm). Included Components: <ul style="list-style-type: none"> 4 sets of planet arms (5 arms/set) 1.2"(30 mm), 2.4"(60 mm), 4.5"(115 mm), 7.5" (190 mm) in length. Set of 4 planet wheels 3.9" (100 mm), 5.3" (135 mm), 8.7" (220 mm), 15.0" (380 mm) in diameter. Integrated grinding pressure detection with a scale at the upper machine housing. 1 set of clamping equipment for mounting the machine on valves with and without top flange. Start up set of abrasives grain 100 and 500. 1 set (5 discs/set) of CBN grinding disks 2.0" (50 mm) in diameter.. 1 set of tooling. Carrying cases with foam inlet for the machine and the accessories. 	
	240-00S-S52	VM2600S with electric motor 230 V / 50 Hz	
	240-00S-S53	VM2600S with pneumatic motor	
	240-00S-S54	VM2600S with electric motor 230V / 50 Hz and pneumatic motor	
	240-00S-S55	VM2600S with electric motor 115 V / 60 Hz	
	240-00S-S56	VM2600S with electric motor 115V / 60 Hz and pneumatic motor	
		Globe valve grinding and lapping machine VM2500 Machine like VM2600S but with the following additional lapping equipment : <ul style="list-style-type: none"> 3 sets (5 discs/set) of lapping disks 1.2" (30 mm), 2.0" (50 mm), and 3.2" (80 mm) in diameter Lapping paste 10 and 30 µm. 	
	240-00S-S42	VM2600S with electric motor 230 V / 50 Hz	
	240-00S-S43	VM2600S with pneumatic motor	
	240-00S-S44	VM2600S with electric motor 230V / 50 Hz and pneumatic motor	
	240-00S-S45	VM2600S with electric motor 115 V / 60 Hz	
	240-00S-S46	VM2600S with electric motor 115V / 60 Hz and pneumatic motor	
			
			

Pneumatically driven machines also require the accessory pneumatic motor maintenance kit

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 	
	240-66S-N01	Extension Kit 20" (500 mm) for grinding To extend the working range of the VM2350(S) to 20" (500 mm). 1 planet wheel 15.0" (380 mm) diameter. 1 set (5) grinding discs 3.2" (80 mm) diameter. 1 start up set self-adhesive abrasive discs 3.2" (80 mm) diameter, grain 100 and 500.	
	240-67S-N01	Extension Kit 20" (500 mm) for grinding and lapping To extend the working range of the VM2350 to 20" (500 mm). 1 planet wheel 15.0" (380 mm) diameter. 1 set (5) grinding discs 3.2" (80 mm) diameter. 1 set (5) lapping discs 3.2" (80 mm) diameter 1 start up set self-adhesive abrasive discs 3.2" (80 mm) diameter, grain 100 and 500.	
	110-24S-N01	Planet arm to extend seat range from 20" (500 mm) to 24" (600 mm) Each (A total of 5 are required) A planet arm (7.5" (190 mm)), that extends the grinding range of the 15" (380 mm) diameter planet wheel up to 24" (600 mm).	
		Extension of submerging depth Allows you to extend the submerging depth without changing the maximum grinding diameter (Must be ordered with the machine. Can not be ordered after delivery of the machine. e.g... 240-00S-S05-M01)	
	-M01	Extension of submerging depth from 24" to 31" (600 mm to 800 mm) (only VM2350(S)) <ul style="list-style-type: none"> • Extension of the machine arm. • Adaption of the machine case. 	
	-M02	Extension of submerging depth from 24" to 39" (600 mm to 1000 mm) (only VM2350(S)) <ul style="list-style-type: none"> • Extension of the machine arm. • Adaption of the machine case. 	
	-M03	Extension of submerging depth from 31" to 39" (800 mm to 1000 mm) (only VM2500(S) or VM2600(S)) <ul style="list-style-type: none"> • Extension of the machine arm. • Adaption of the machine case. 	

Accessories		
	P/N	Description
 	300-10S-N01	3-jaw centering chuck <ul style="list-style-type: none"> Clamping dia 80mm ... 430 mm Delivery in a high quality plastic case 3-jaw centering chuck (additional to the machine)
	-M10	3-jaw centering chuck <i>instead</i> of the universal clamping device Extend the P/N by "M10": e.g. 240-00S-S05-M10
	185-00S-S22	Grinding adapter For using the tooling of the VM2000 series machines... 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. Grinding adapter MT2 For using on stationary drill presses with morse taper #2.
	185-00S-S23	Grinding adapter MT3 For using on stationary drill presses with morse taper #3.
	110-33S-N01	CBN grinding disks 2" (50 mm) diameter. (each) (A total of 5 required) Required for rough grinding of heavily damaged seats (1 set is included in each component package).
	110-34S-N01	CBN grinding disks 3.2" (80 mm) diameter. (each) (A total of 5 required) Required for rough grinding of heavily damaged seats.
	110-41S-N01	Lapping disks 1.2" (30 mm) diameter (each) (A total of 5 required)
	110-42S-N01	Lapping disks 2" (50 mm) diameter (each) (A total of 5 required)
	110-43S-N01	Lapping disks 3.2" (80 mm) diameter (each) (A total of 5 required)

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

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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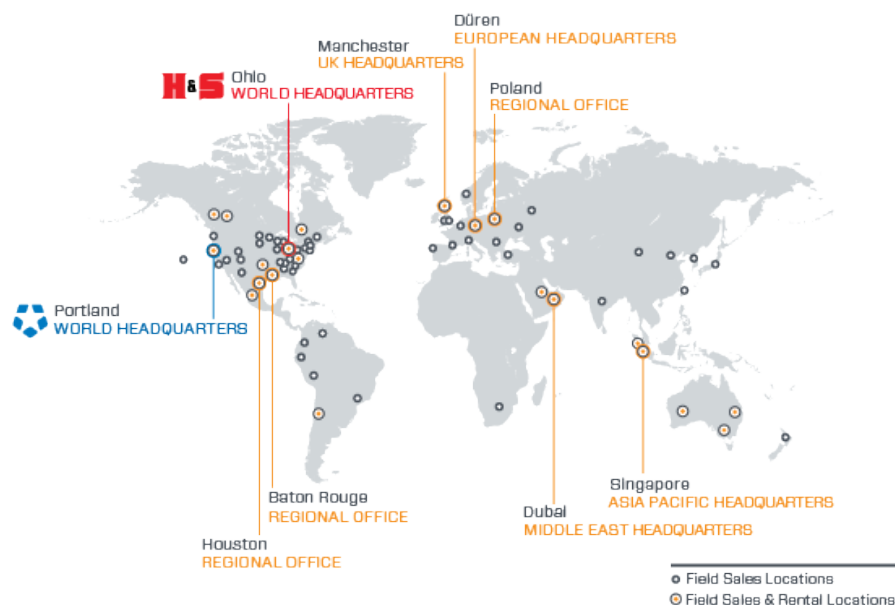
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