

Kemet

PORTABLE VALVE GRINDING MACHINES



Portable Valve Grinding Machines

The range of portable industrial valve grinders offered by Kemet are a patented design concept that are a proven solution for on-site valve reconditioning.

Repairing leaking valves in industrial pipelines is a laborious operation involving extended downtime, production losses and substantial unwanted costs. Losses are minimised if valves can be reground in situ, precluding the need to dismantle and remove defective valves from the pipeline. Available in overlapping sizes, these grinders combine unsurpassed versatility with exceptional ease of handling and operation. A combination guaranteed to give these grinders cutting edge performance, whatever the valve location.

These valve grinding machines have a unique, lightweight universal clamping system which allows rapid and accurate mounting for grinding valve seats or wedges. Operating checks and replacement of abrasive discs can be carried out without disturbing the assembly. No realignment is necessary when repositioning the grinding head.

Valve Grinding Gate, Check Valves & Gate Valve Wedges

Model S for valves 1" - 6" (25 - 150mm)

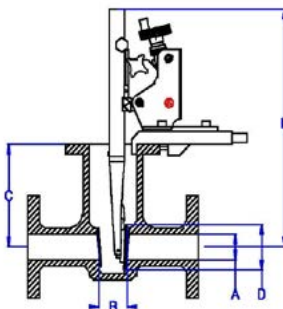
All S machines are equipped with a silencer for your comfort.

The Model S drive head is equipped for 3° angle grinding located on the opposite side of the flat grinding head. The S can be equipped with a range of grinding heads, permitting numerous combinations within the 25 - 150mm range (1" - 6").

The model S valve grinder is easily set up for wedge grinding using the clamping system. The model S is supplied with a rugged, customised carrying/storage case complete with accessories. The case is fitted with specially designed compartments molded to the shape of each component, allowing operators to confirm at a glance that all items are in place before and after grinding.

Possible range for model S:

- A= 25 - 150mm (1" - 6")
- B= 19mm (0.74") min
- C= 40mm (1.6") min
350mm (13.8") max
- D= 35 - 120mm (1.38" - 4.72")
- L= 320mm (12.6") min
440mm (17.3") max



Technical Details	Model	
	S-C 100 25 - 100mm (1" - 4")	S-C 150 25 - 150mm (1" - 6")
Mounting plate	●	●
Adjustable mounting frame	●	●
Wedge plate	●	●
Drive shaft for gate valves	●	●
Pneumatic drive unit for gate valves (6 - 7 bar)	option	option
Regulator for pneumatic drive unit	option	option
Silencer for pneumatic drive unit	option	option
Electric drive unit 110 or 220V	option	option
S grinding plate Ø25, 32, 40, 50, 65, 80, 100mm (1", 1 ¼", 1 ½", 2", 2 ½", 3", 4") for flat and 3° seats	●	●
S grinding plate Ø125, Ø150mm (5", 6") for flat and 3° seats	N/A	●
Rough, medium and fine grinding discs Ø17, 20, 25mm (0.67", 0.79", 1")	●	●

A selection of standard models, other configurations and accessories are available on request

Valve Grinding Safety & Control Valves with Flat & Conical Seats

Model K for valves 0.5" - 6" (12 - 150mm)

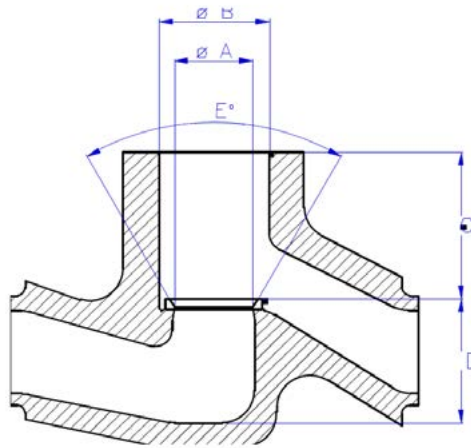
This unique, handheld system is easy to assemble. The design of the K makes it possible to use different drive units for the same equipment.

Every model K is supplied with a rugged, customised carrying/storage case complete with accessories. The case is fitted with specially designed compartments molded to the shape of each component, allowing operators to confirm at glance that all items are in place before and after grinding.

The Model K can easily be used to grind conical seats by using our unique centering system. You can also choose from three different driving units; pneumatic, electrical, battery or a combination of all three and still use the same drive shaft.

Possible range for model K:

A Min =	8mm
A Max =	150mm
B Min =	18mm
B Max =	170mm
C Min =	80mm
C Max =	280mm
D Min =	20mm
E =	30° (2 x 15°)
E =	40° (2 x 20°)
E =	60° (2 x 30°)
E =	75° (2 x 37.5°)
E =	90° (2 x 45°)



Technical Details	Model					
	K A 65 12-65mm (1/2" - 2 1/2") Globe, control and safety valves with angled seats	K A 100 12-100mm (1/2" - 4") Globe, control and safety valves with angled seats	K B 100 12-100mm (1/2" - 4") Globe, control and safety valves with flat seats	K AB 65/100 12-65/100mm (1/2" - 2 1/2" for conical seats) (1/2" - 6" for flat seats) Globe, control and safety valves with flat and angled seats	K AB 100/150 12-100/150mm (1/2" - 4"/6") Globe, control and safety valves with flat and angled seats	K B 100 LapBlock 12-100mm (1/2" - 4") Globe, control, safety valves and wedges with flat seats
Electric drive unit 110 or 220V	option	option	option	option	option	option
Electric drive unit battery operated 110 or 220V	option	option	option	option	option	option
Pneumatic drive unit (6 - 7 bar)	option	option	option	option	option	option
K shaft I short	●	●	●	●	●	●
K shaft II long	●	●	●	●	●	●
Centralising cone I	●	●	●	●	●	●
Centralising cone II	●	●	N/A	●	●	N/A
Centralising cone III	●	●	N/A	●	●	N/A
Ball joint adaptor and grinding plate for 8mm	N/A	N/A	●	●	●	●
Support adaptor for grinding cones	●	●	N/A	●	●	N/A
Flat seat grinding plates for grinding seats	Kit K 100 12-100mm (1/2" and 4")	N/A	●	●	N/A	●
	Kit K 150 12-150mm (1/2" and 6")	N/A	N/A	option	●	option
Guiding plates	Kit K 100 12-100mm (1/2" - 4")	N/A	●	●	N/A	●
	Kit K 150 12-150mm (1/2" - 6")	●	●	option	●	option
Grinding cones including guide plates	3° kit 65, 30°, 60°, 90° 12-65mm(1/2" - 2 1/2")	option	N/A	N/A	option	N/A
	5° kit 65, 30°, 40°, 60°, 75°, 90° 12-65mm(1/2" - 2 1/2")	option	N/A	N/A	option	N/A
	3° kit 100, 30°, 60°, 90° 12-100mm(1/2" - 4")	N/A	option	N/A	N/A	option
	5° kit 100, 30°, 40°, 60°, 75°, 90° 12-100mm(1/2" - 4")	N/A	option	N/A	N/A	option
2 LapBlock long life lapping plates available in two different microns	N/A	N/A	N/A	N/A	N/A	●
Self adhesive grinding discs in rough medium and fine	●	●	●	●	●	●
Heavy duty case for transport and storage including tools to operate	●	●	●	●	●	●

A selection of standard models, other configurations and accessories are available on request

Valve Grinding Gate, Globe, Check, Safety, Control Valves & Gate Valve Wedges

Model FL for valves 2.5" - 12" (62 - 300mm)

Drive heads on the model FL incorporate individually gear driven grinding discs, permitting rapid and efficient grinding of exceptionally smooth, flat surfaces for tightest possible seats.

The Model FL can be mounted easily to grind the flanges on the valves, this reduces the risk of cutting damage to the seat. To cover your needs the FL can be equipped with a range of driving and grinding heads, permitting numerous combinations within the 62 - 300mm range (2.5" - 12").

Every model FL is supplied with a rugged, customised carrying/storage case complete with accessories. The case is fitted with specially designed compartments molded to the shape of each component, allowing operators to confirm at a glance that all items are in place before and after grinding.

Possible range for model FL:

A= 40 - 300mm (1.6" - 12")

B= 39mm (1.56") min

C= 100mm (4") min

600mm (24") standard

1000mm (60") max (option)

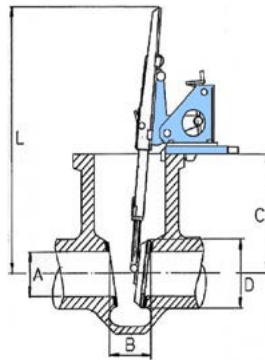
D= 80 - 507mm (3.20" - 14.8")

L= 570mm (22.8") min

Carrying case Model FL-BC 200:

760 x 560 x 280mm (30.4" x 22.4" x 11.2")

Total weight Model FL-BC 200: 39 kg



Technical Details	Model					
	FL B 200 65-200mm (2" - 8")	FL B 300 65-300mm (2" - 12")	FL C 200 65-200mm (2" - 8")	FL C 300 65-300mm (2" - 12")	FL BC 200 65-200mm (2" - 8")	FL BC 300 65-300mm (2" - 12")
Base unit	●	●	●	●	●	●
Bottom plate for grinding gate valve wedges	option	option	●	●	●	●
Drive shaft for gate valves	option	option	●	●	●	●
Drive shaft for globe valves	●	●	option	option	●	●
Electric drive unit 110V or 220V	option	option	option	option	option	option
Pneumatic drive unit (6 - 7 bar)	option	option	option	option	option	option
Regulator for pneumatic drive unit	option	option	option	option	option	option
Holder for drive shaft. Maximum depth 600mm (24")	●	●	●	●	●	●
Holder for drive shaft. Maximum depth 900mm (36")	option	●	option	●	option	●
Driving head FL Ø65, 80, 100, 125, 150, 200mm (2.5", 3", 4", 5", 6", 8")	●	●	●	●	●	●
Driving head FL Ø175, 225mm (7", 9")	option	option	option	option	option	option
Driving head FL Ø250, 300mm (10", 12")	option	●	option	●	option	●
FL grinding head Ø28, 35, 40mm (1.1", 1.4", 1.6")	●	●	●	●	●	●
FL grinding head Ø50mm (2")	option	option	option	●	option	●
FL grinding head Ø70mm (2.8")	option	option	option	option	option	option
Conical segments in different angles Ø65 - 200mm (2 ½" - 8")	option	option	option *	option *	option	option
Transport and storage case with tools	●	●	●	●	●	●
Grinding discs rough, medium and fine Ø28/35/40mm	●	●	●	●	●	●

* Requires B drive shaft

A selection of standard models, other configurations and accessories are available on request

Valve Grinding Gate, Check, Safety, Control Valves & Gate Valve Wedges

Model G for valves 6" - 32" (150 - 812mm)*

Drive heads on the model G incorporate individually driven discs, permitting rapid and efficient grinding of exceptionally smooth, flat surfaces for tightest possible seats.

The Model G drive head carries five telescopically adjustable radial arms to which the grinding heads are attached. Grinding heads are available in a range of lengths and sizes, permitting numerous combinations within the 150 - 1300mm range (6" - 32").

* Other accessories are available to increase the capacity to 52" (1320mm)

Drive heads can be angled to grind valve seats in any angle from vertical to horizontal. The valve grinder is easily set up for wedge grinding using the existing clamping system. Supplied with a rugged, customised carrying/storage case complete with all necessary accessories. The case is fitted with specially designed compartments moulded to the shape of each component, allowing operators to confirm at a glance that all items are in place before and after grinding.

Possible range for Model G:

A = 140 - 1361mm (6" - 54.4")

B = 68mm (2.72") min

C = 100mm (4") min

900mm (36") standard

1500mm (60") max (option)

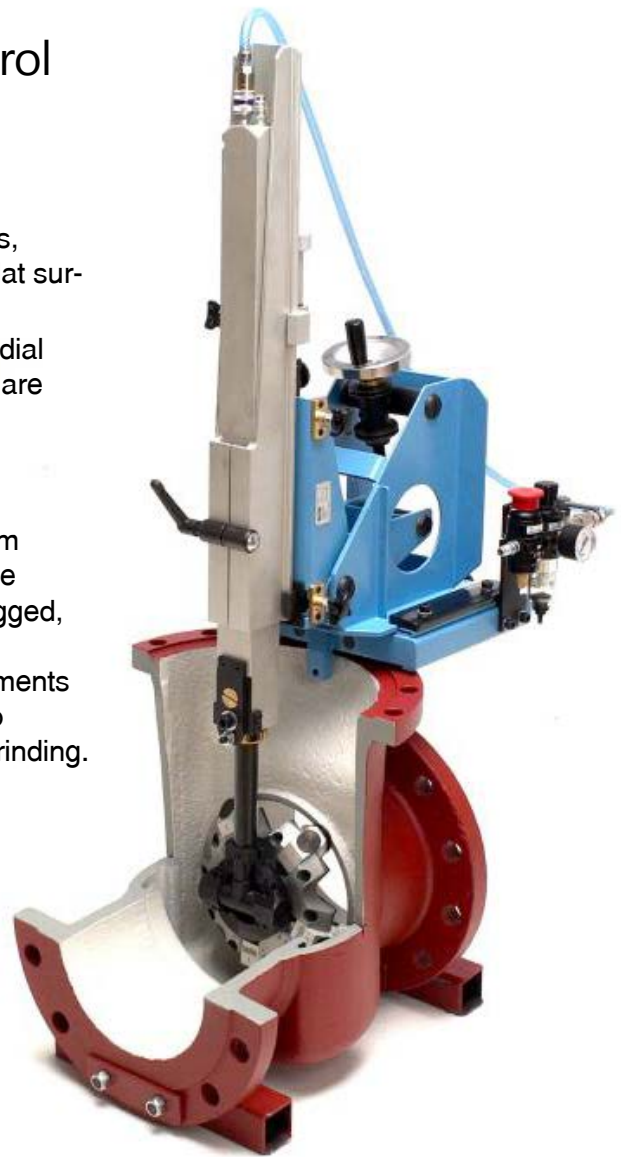
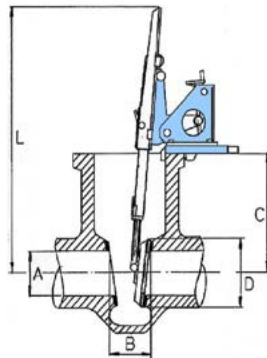
D = 150 - 1371mm (6" - 54.8")

L = 730mm (29.2") min

Total weight Model G 600: 67 kg

Carrying case Model G 600:

960 x 520 x 380mm / 15.2" x 20.8" x 38.4"



Technical Details	Model					
	G 300 150 - 300mm (6" - 12")	G 600 150 - 600mm (6" - 24")	G 800 150 - 800mm (6" - 32")	G 1000 150 - 1000mm (6" - 40")	G 1300 150 - 1300mm (6" - 52")	G 300-1300 300 - 1300mm (12" - 52")
Base unit	●	●	●	●	●	●
Bottom plate for grinding gate valve wedges	●	●	●	●	●	●
Pneumatic drive unit (6 - 7 bar)	option	option	option	option	option	option
Regulator for pneumatic drive unit	option	option	option	option	option	option
Electric drive unit 110V or 220V	option	option	option	option	option	option
Holder for drive unit. Maximum depth 900mm (C-measure)	●	●	●	●	●	●
Extra long holder for drive unit. Maximum depth 1500mm (C-measure)	option	option	option	●	●	●
Driving head G I	●	●	●	●	●	N/A
Driving head G II	●	●	●	●	●	●
Driving head G IV	option	option	option	●	●	●
Grinding arm I	●	●	●	●	●	N/A
Grinding arm II	●	●	●	●	●	●
Grinding arm III	option	●	●	●	●	●
Grinding arm IV	option	option	●	●	●	●
Grinding arm VI	option	option	option	●	●	●
Adapter plates ø 50mm/2" for wider seats	●	●	●	●	●	●
Adapter plates ø 70mm/2.8" for wider seats	option	option	option	●	●	●
Adapter plates ø 105mm/4.2" for wider seats	option	option	option	option	●	●
Transport and storage case with necessary tools to operate the G	●	●	●	●	●	●
Rough, medium and fine grinding discs 100 of each size applicable to your choice	●	●	●	●	●	●

A selection of standard models, other configurations and accessories are available on request

Valve Grinding Globe, Control & Safety Valves with Flat or Angled Seats

Model D for valves with flat and angle seats 50 - 1300mm (2" - 52")

The machine is mounted to the valve body using a unique three segment, fully adjustable, self centering conical frame, allowing a fast and accurate set up whether in the workshop or on site. Available with electric or pneumatic drive, the Model D1/ D2 valve grinding system can be supplied as a standard kit or customised to suit exact requirements.

- Suitable for valves with flat and/or angle seats Ø40 - 1300mm.
- Absolutely flat sealing surface.
- Cone segments in different angles are available.
- Orbital driven grinding heads.
- Air drive unit as standard 6 - 7 bar.
- Electric drive unit 110V or 220V as optional.
- Infinity variable grinding speed for close control of surface finish.
- Fine adjustment of pressure for precise grinding of surface.
- Self-adhesive grinding discs for fast attachment on the grinding heads
- Supplied with rough, medium and fine grinding discs
- Self-adhesive grinding discs 40 to 1000 grit are available.
- Diamond grinding discs available.
- Extra strong carrying/storage case for complete machine and all necessary accessories.

Possible range for model D:

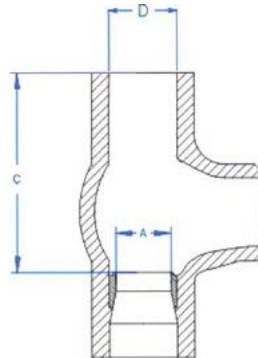
Model D base unit comes in two sizes:

Model DF

Internal diameter	A	40 - 300mm
External diameter	D	80 - 356mm
Maximum depth	C	500mm

Model DG

Internal diameter	A	140 - 1361mm
External diameter	D	150 - 1371mm
Maximum depth	C	1000mm



Technical Details	Model	
	D1-AB 20 0 Flat & conical seats. Ø40 - 200mm (1.6" - 8") Globe valves	D2-B 600 Flat seats Ø150 - 600mm (6" - 24") Globe valves
Conical Frame	●	●
Driving head FL Ø65, 80, 100, 150, 200mm (2.5", 3", 4", 5", 6", 8")	●	N/A
Driving head FL Ø175, 225, 250, 300mm (7", 9", 10", 12")	option	N/A
FL driven grinding head Ø28, 35, 40mm (1.1", 1.4", 1.6")	●	N/A
FL driven grinding head Ø50mm (2")	option	N/A
Driving head G I, 150 - 600mm (6" - 24")	N/A	●
Driving head G IV, 600 - 1300mm (24" - 52")	N/A	option
G driven grinding head I Ø35mm/1.4", head II Ø35mm/1.4", head III Ø35mm/1.4"	N/A	●
G driven grinding head IV Ø35mm/1.4", V Ø35mm/1.4", VI Ø35mm/1.4"	N/A	option
Adding plates ø 50mm/2" for wider seats	N/A	●
Adding plates Ø70, 105mm (2.8", 4.2") for wider seats	N/A	option
Cone segments in different angles Ø65 - 200mm (2 ½" - 8")	●	N/A
Air Speed regulator	●	●
Adjustable guiding plates in different sizes	option	option
Rough, medium and fine grinding discs Ø7, 20, 25, 28, 35, 40mm	●	option
Rough, medium and fine grinding discs Ø35/50mm	option	●

A selection of standard models, other configurations and accessories are available on request

Valve Grinding Consumables

The efficiency of the machine relies on the grinding discs used. The wrong discs will either slow you down drastically or in worst case damage the valve. The grinding discs are specially designed for valve grinding. They have been proven in our facilities and out on the field. To make you sure that you get the best out of your machine, we have a wide selection of grinding discs from 40 grit down to 3 microns with diameter sizes from 17 - 70mm.



Grinding Accessories

Grinding accessories are available to suit all models. These include Cast iron and diamond faced discs including special angled discs.



Sabre Aluminium Oxide Paste

Specially formulated containing Aluminium Oxide Abrasive. It is suitable for a wide range of lapping/polishing operations, and it is particularly effective when used for smoothing soft metals such as brass, aluminium and copper. Sabre Pastes are also available based on both silicon carbide and boron carbide abrasives. Available in 20g syringes.

Micron	Code
0.1	300206
0.5	300205
3	300204
7	300203
9	300202
23	300201



Diamond Compound / Paste

Kemet offer a huge range of Diamond Compounds for rapid stock removal, superfine surface finish, lapping and pre-polishing. Available from 1/10 to 90 micron, soluble in either oil (Type L), water (Type W) or both (Type KD). High thermal stability of the chemical carrier ensures that Kemet Diamond Compound resists frictional heat, remains stable, and keeps its suspension properties under operating conditions. For our full range, please visit www.kemet.co.uk



Lapping Pastes

Kemet manufacture a wide range of abrasive lapping pastes. Our range of Silicon Carbide and Aluminium Oxide pastes have many applications but are particularly suited to the lapping of mechanical seals and valve seats. The pastes are **water soluble** and safe to use.

Product	Type	Micron	FEPA Grade	Pastes
				1kg
Green Silicon Carbide	Fine	3	1200	361547
		5	1000	361552
		7	800	362616
	Medium	9	600	361514
		17	400	361551
		23	360	361548
		30	320	361558
Coarse	37	280	361538	
	75	180	361549	
Black Silicon Carbide	Coarse	109	120	361689
		White Aluminium Oxide	Fine	3
5	1000			361624
Medium	7		800	361545
	9	600	361543	
	13	500	361546	
	23	360	361542	



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