

# V-TEC GRINDING AND LAPPING MACHINES



V-TEC is powered by Ventil



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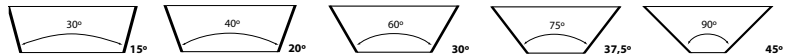
## V-TEC POLIR

The V-TEC POLIR range of machines are designed for Grinding and Lapping flat seats inside the Shut-off or Safety valve body. The light weight battery or pneumatic drive unit, enables safe and efficient 'in-shop' and 'on-site' use. The POLIR machines are delivered ready for use, including all necessary tools, accessories, a large consumer quantity of abrasive 3M foil rings and are packed in robust carrying cases.



### 'C' attachment set for Conical seats

The POLIR machine can be equipped with an attachment set for Grinding and Lapping conical (Control) valves seats. The C attachment is available for all sizes in seat angles 30 / 40 / 60 / 75 / 90 degrees.





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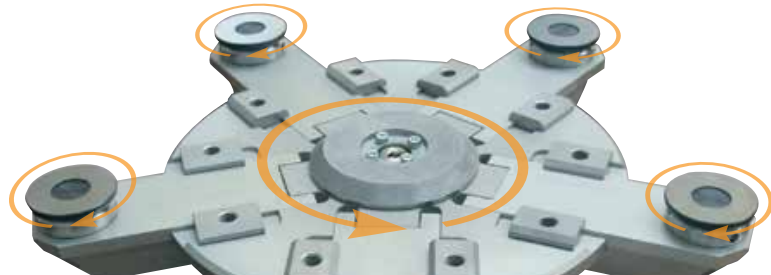
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## V-TEC ORBIT

The V-TEC ORBIT range of machines are designed for 'In-Situ' or 'In-Shop' valve repair.

The light weight, versatile machines are equipped with a variety of unique features, like for example the orbital, mechanical driven grinding head. This results in a very high material removal rate and the best flatness accuracy. The ball-joint and tilting construction makes the machine suitable for:

- Gate and Parallel slide valves
- Check valves
- Globe and Safety valves





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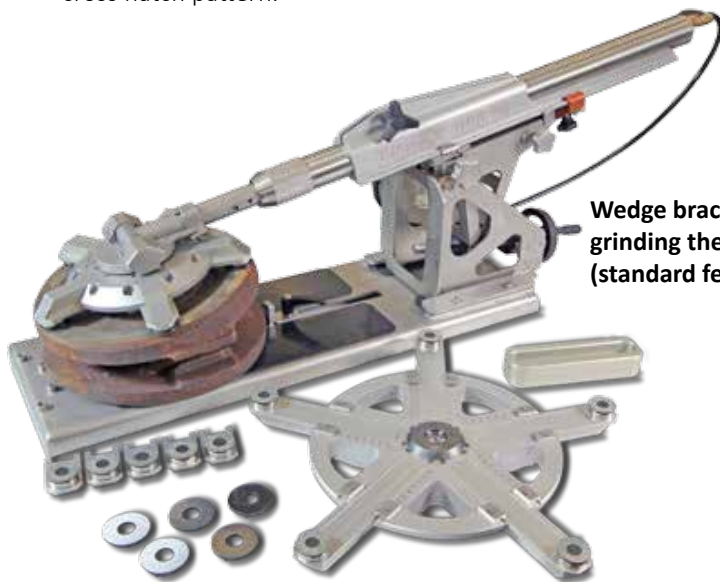
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#### ORBIT UNIQUE FEATURES

- Universal tool for Gate-, Parallel Slide-, Globe and Safety valves
- Robust and light weight
- The unique orbital, - mechanical driven grinding and lapping system results in a very high material removal rate and extreme good flatness accuracy. The grinding heads are mechanically driven by an internal gear system that rotates the wheels at the same speed producing a perfect cross hatch pattern.

The ORBIT machines are delivered ready for use, including all necessary tools, accessories, a large consumer quantity of abrasive 3M foil rings, packed in robust carrying cases.

Model	Application
ORBIT 10	1½ - 10" / DN40 - 250 mm
ORBIT 24	6 - 24" / DN150 - 600 mm
ORBIT 40	6 - 40" / DN150 - 1000 mm
ORBIT 64	6 - 64" / DN150 - 1600 mm



**Wedge bracket for grinding the wedge (standard feature)**



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## V-TEC PRO DUAL

The V-TEC PRO DUAL covers the full range of stationary machines for 'In-Shop' repair of valve seats. The ridged column machine is mounted on a strong work bench base with clamping table and drawers for the storage of all accessories, drive heads, tools and consumables. The tilting arrangement of the clamping table enables easy clamping and alignment of Gate valve bodies and wedges.

The PRO DUAL machines are completed with the unique orbital, mechanical driven grinding head for the highest material removal rate and the best flatness accuracy. The PRO DUAL is suitable for any type of;

- Gate and Parallel slide valves
- Check valves
- Globe and Safety valves



PRO DUAL table







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## V-TEC TITAN

The V-TEC TITAN portable turning and facing machine is designed for 'In-Situ' repair and prefabricating sealing faces on the out and inside of valves, pumps, turbine houses, flanges and other pipe ends. The completely pneumatic driven TITAN can be used in any position, upside down and sideways, wherever you need to repair. This facing machine is completed with a universal base for easy mounting and alignment and has fine axial and radial feeds for accurate and high quality machining.



### TITAN UNIQUE FEATURES

- (Re)facing/cutting sealing seats and flanges
- (Re)cutting grooves for seals, O-rings etc.
- (Re)facing conical faces
- Precision height and centre adjustment
- Full-automatic radial and axial feed



	Titan 16	Titan 24
Range	0 - 16" / 0 - 400 mm	0 - 24" / 0 - 600 mm
Machine dimensions	1200 x 850 x 1510 mm	1200 x 1100 x 1900 mm
Main drive motor	1,2 kW	5,59 kW
Axial feed motor	0,09 kW	0,18 kW
Air consumption	1620 [l/min] / 57,2 [scf/min]	106,3 [l/s]
Speed Range	0 - 160 rpm	0 - 169 rpm
Radial feed	0,05 - 0,20 mm / 0,002 - 0,008"	0,05 - 0,20 mm / 0,002 - 0,008"
Axial feed (auto)	0 - 40 [mm/min] / 0 - 1,6 -inch/min	0 - 40 [mm/min] / 0 - 1,6 - inch/min
Axial feed (manual)	4 mm / 0,16"	4,5 mm 0,18"
Weight	250 kg	350 kg



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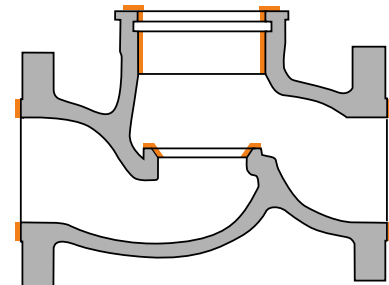
## V-TEC PROFILE

The V-TEC PROFILE high speed grinding machines is designed for precision finishing of flat and conical sealing faces. The pneumatic driven PROFILE can be used in any position, upside down and sideways, wherever you need to repair. This high speed grinder is completed with a universal base for easy mounting and alignment and has fine axial and radial feeds for fine finishing.

The machine is delivered ready for use, including a set of grinding cones for seat angles 30 / 40 / 60 / 75 / 90 degrees. The machines is packed in a robust transport trolley.



Machinable faces



	Range"	24"
	DN6 – 0/400 mm	DN6 – 0/600 mm
Spindle Drive	400 W max. 14 Nm	400 W max. 14 Nm
Grindingmotor	120 W max. 0,10 Nm	120 W max. 0,10 Nm
Variable speed	0-60 RPM	0-60 RPM
Required air supply	Air drive max 6 Bar	Air drive max 6 Bar
Angle °	30°, 40°, 60°, 75°, 90°	30°, 40°, 60°, 75°, 90°
Maximum insertion depth	650 mm	650 mm
Average achievable roughness [Ra]	0,2 – 0,8 µm	0,2 – 0,8 µm
Weight	70 kg	90 kg



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## V-TEC OPTIC

The V-TEC OPTIC open face, flat lapping and polishing machine is the complete solution for high precision finishing of safety valve seats, nozzles and mechanical seats. The OPTIC can be used to reach a flatness accuracy within 3 light bands ensuring the best seat tightness.

The fine finishing lapping machine is available in different sizes with a single or set of 3 conditioning rings. The machine features a robust structure, but is still equipped with fine controls, activation timer and an automatic liquid diamond and lubricate steering and dispensing system.

	OPTIC 15	OPTIC 24	OPTIC 36	OPTIC 60
Lapping plate diameter	380 mm. / 15"	610 mm. / 24"	900 mm / 36"	1500 mm / 60"



The OPTIC machine is delivered ready for use, including consumables, Monochromatic light and optical flats for checking the flatness accuracy.





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## V-TEC BG-10

The V-TEC BG-10 Ball grinding and polishing machine is specially designed for repairing balls of floating ball valves or trunnion mounted ball valves in the range 2½ up to 10”.

The simple but ingenious constructed BG-10 features (2) independently controlled drives, one rotating the ball and the other rotating the lapping bowl. The right-angled rotations of the ball and bowl results in fine cross hatch pattern finish. The BG-10 features very simple controls and is delivered ready for use, including a set of bowls and consumables.





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## V-TEC NR-10

The V-TEC NR-10 PSV work station is the complete solution for safe and efficient (dis)assembly of Pressure Safety Valves. The NR-10 exists of a ridged base structure with 3-Jaw Chuck for clamping a PSV on the inlet nozzle.

The versatile NR-10 work station is designed and equipped for 2 basic purposes;

- The ridged fixation and base structure gives you full surrounding access for inspection and (dis)assembling of the PSV.
- 'Backbreaking' use of long pipe ends for (un)screwing the nozzle is no longer needed with the high torque drive system, connected to the Chuck.



Range	½ - 10" (larger sizes available on request)
Nominal torque	4200 Nm
Peak torque	8400 Nm
Dimension	1540x895x1500 mm / 60x35x60 Inch
Weight	700 kg (1550 Lbs)



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## V-TEC TOOLS & ACCESORIES

V-TEC offers a variety of tools and equipment used within the valve repair process;

- Inspection kits for checking the interior of the valve body.
- Tool set for removing gaskets and spindle packing rings.
- Valve Brushin set for cleaning the valve body, spindle and components.
- Safe transport of valves.
- Foto's van de Inspect set, Valve Maintenance set, V-RAT en Valve Brush tool kit



Tool set



Inspection set



Valve brushing set



V-RAT  
Transport trolley



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**HEAD OFFICE:**

Unit 2, 52 Vinnicombe Drive, Canningvale, Perth, WA, Australia. 6155  
[www.mactechaustralia.com.au](http://www.mactechaustralia.com.au) • [alan@mactechaustralia.com.au](mailto:alan@mactechaustralia.com.au)

**Ph: +61 (08) 9455 6677**

**Mob/cell: 0409 081 343**

**Fax: +61 (08) 9455 6644**