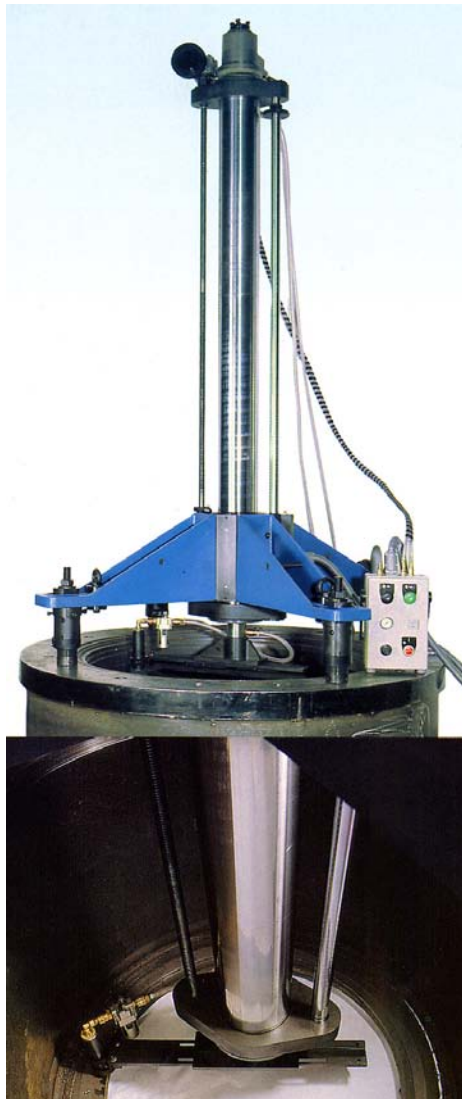


# VSA series

**High-speed grinding machines for machining flat and conical seats in valves and on flanges.**

**DN 20 – 1500 mm  
(3/4" – 60")**



**Quality, reliability and innovative technology**

## Employing tomorrow's technology to machine today's valves

### EFCO-VSA

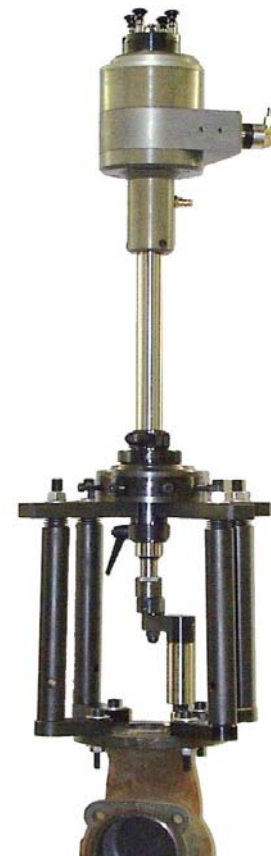
...the new generation of precision grinding machines for machining sealing faces, conical faces and bores in valves, cylinders, pump housings, flanges and many more.

The VSA machines are suitable for use on site and in the workshop, in nuclear and conventional power stations, for valve service, for chemical and petrochemical plants, for shipyards etc.

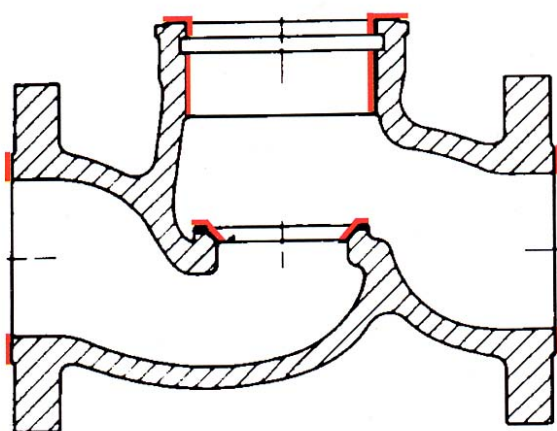
The controls for rotation and axial feed are easily accessible. Control of the machine is safe in any mounting position. Axial feed is via max. four buttons. The axial path is determined via limit switches in conjunction with the bore grinding device.

VSA machines are mounted on a flange as standard. The machine is adapted to the appropriate pitch circle diameter using interchangeable clamping arms. Horizontal adjustment is via bolts with a fine thread, and centering via adjusting screws. As an alternative, external clamping devices are available so that the flanges, too, can be machined.

The machine can thus be mounted even if there is no flange.



VSA-05



Machinable faces

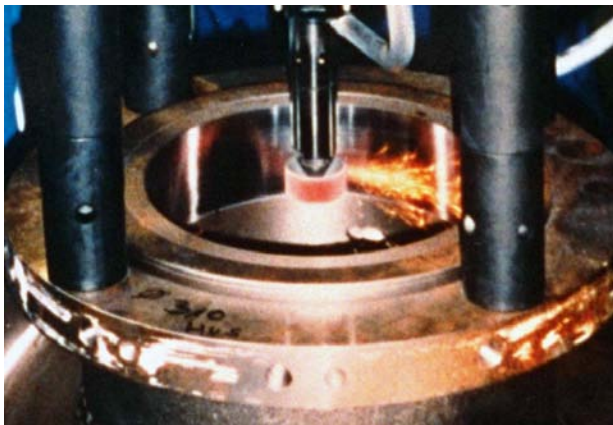
### Benefits:

- Continuous axial feed - can also be controlled manually.
- High stability.
- Can be used in any mounting position - on site or in the workshop.
- Flexible mounting systems.
- Very precise height adjustment and centering.
- Interchangeable guide tubes in various lengths can also be supplied.

## Bore grinder

This very robust accessory ensures the highest precision in any mounting position.

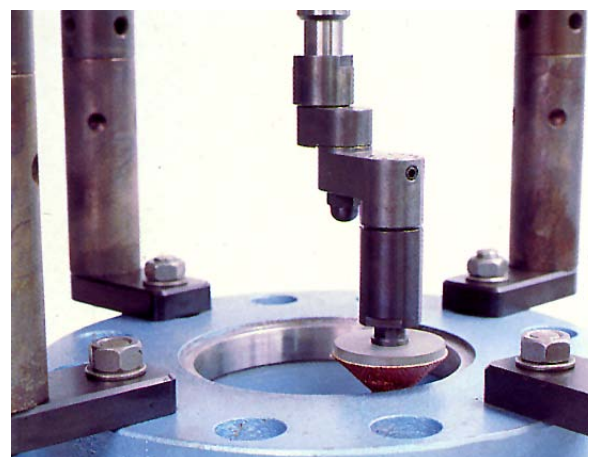
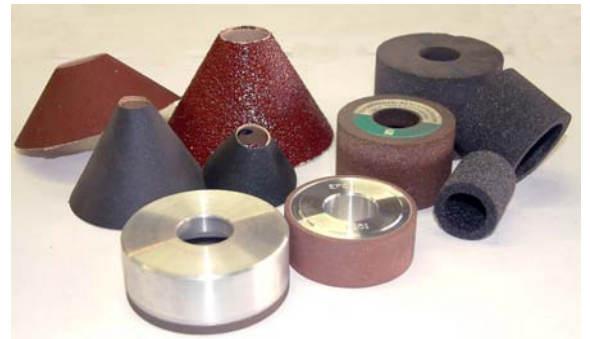
The bore grinder (special accessory) enables precise grinding of valve bores with automatic reversible stroke. It is particularly suitable for grinding cylindrical faces for radial seals (e.g. Brettschneider).



## Grinding tools

Various grinding tools are available:

- Cup wheels (silicon carbide, special fused alumina)
- Conical abrasive sleeves for the grinding of sealing faces at various angles.
- CBN abrasive wheels



## EFCO-VSA - The Complete Solution

Specification	VSA-05	VSA-1	VSA-2	VSA-3
Nominal bore (DN - mm)	20-150 (¾"-6")	50-400 (2"-16")	250-800 (10"-32")	500-1500 (20"-60")
Working range (mm)	up to 150 dia. (5.9")	up to 400 dia. (15.7")	up to 800 dia. (31.5")	up to 1500 dia. (59")
Insertion depth (mm)	250 (9.8")	650 (25.6")	1000 (39.4")	up to 1500 (59")
Clamping diameter mm	min. 200 (7.9") max. 540 (21.3")	min. 290 (11.4") max. 600 (23.6")	min. 290 (11.4") max. 1150 (45.3")	min. 500 (19.7") max. 1350 (53.2")
Drive	pneumatic 6-7 bar			

**The VSA machines, as do all EFCO products, provide a complete repair system.**

The machines are supplied with extensive accessories.  
Machine and accessories are supplied in a practical workshop trolley.



VSA in workshop trolley

Subject to technical change.

**EFCO Maschinenbau GmbH – Valve repair and testing equipment**

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