



VSG-X6 Valve Seat Grinding Machine

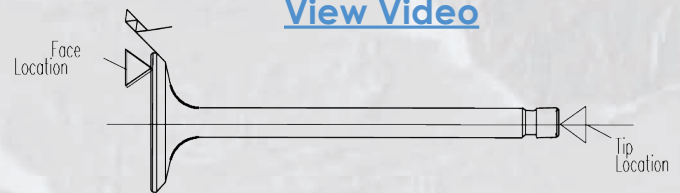
Key Points

- A Fast, Precise and Reliable Machine
- Design continuously optimised for over 15 years
- Use by major valve manufacturers in Europe, USA, Asia and South Africa
- Cycle Time: 4 to 7 Seconds
- Easy to set up and changeover
- Easy to link into fully automatic production lines



Valve Size Range (as standard)

- Head Ø: 20 – 50 mm
- Stem Ø: 5 – 10 mm
- Overall length: 90 – 160 mm
- Seat angle: 44° - 61° (29° - 46°)



Capability

- The machine can achieve Pp values > 1.67 for drawing tolerances of:
- Seat Datum to Face: +/- 0.050 mm
- Seat Run-out (TIR): 0.030 mm
- Seat Roundness: 0.005 mm
- Seat Finish: 0.4 microns Ra
- Seat Angle: +/- 0.10'



Grinding Spindle:

- Type: Ultra-precision angular contact ball bearing with integral air-purge
- Grinding Wheel: 600 mm OD wheel with 17.5 ° face angle
Conventional abrasive or Vitrified CBN.
- Drive: Direct Drive 4500 RPM Motor with inverter control.
- Wheel Balancer: *Schmitt* system with integral balance head, so that the balance head does not need to be removed for wheel changing.



Work Spindle:

- Type: Ultra-precision angular contact ball bearing with integral air-purge
- Collet Type: Single-angle pull type
- Drive: 0-1200 RPM Servo motor through poly-vee belt

Grinding Wheel Dresser

- The dresser is fixed on the pivoting base of the slides. This provides accurate 2-Axis CNC dressing with automatic compensation after dress.
- Two alternative and interchangeable dressing systems are available.

A: Fixed Dresser – supplied as standard for use with conventional grinding wheels.

- Rigid cast iron fixture with integrated coolant supply to hold a static diamond – type TBA

B: Rotary Dresser – supplied as an additional cost option for use with SG and CBN grinding wheels.

- Variable spindle speed: 0 - 9,000 RPM
- Disk diamond – approx 3" diameter x 1/4" wide.

Part Loading

- Automatic loading from inclined rails or optional conveyor
- Unloading to an exit conveyor and chute
- Quick Set Up / Changeover

Machine Control

- Siemens or Allen Bradley
- AC Servo motors with absolute rotary encoders
- 'Conversational' operator interface via colour touch screens
- Available in a variety of languages
- An ethernet modem for remote diagnostics via the internet

Coolant System:

- Various options are available

Other Features:

- Pneumatic controls: SMC or Festo
- Slides: Re-circulating roller guide-ways with hydrostatic damping.
- Automatic slideway lubrication
- Fully enclosed guarding with safety interlocks
- Optional: Fire suppression system

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