

SERDI 5.0

Efficient - Repeatability

The SERDI 5.0 is a **semi-automatic** valve seat and valve guide machine programmed through a learning program. The model 5.0 is **controlled by a PC** Pentium MMX, Windows 98 environment with reader for 3.5" floppy diskettes and CD-Rom, and 15" color screen. **Touch screen control panel**, conveniently located for easy access to all machine operating functions.

The **spindle** down feed is **numerically controlled** and allows to machine either in absolute values or in relative values in relation to the cylinder head planes (probe).



This machine **does not require** time consuming and complicated programming. The SERDI 5.0 will automatically **convert** simple **manual machining** of a valve seat and/or valve guide **into optimized programming data**. An integrated **laser** controlled system provides accurate and consistent **machining depth**.



After having stored the cutting parameters by means of a manual learning programming, the 5.0 will **automatically reproduce the working cycle**. The machine does not require any specific operator skills.

- Machining capacity .551"/14mm to 2.363"/60mm.
- LABVIEW National Instruments' programming language, the worldwide reference for data acquisition.
- Repeatability of machining depths by means of probe or laser measuring.
- Touch screen control panel, conveniently located for easy access to all machine operating functions.
- Featuring the new generation of SERDI tooling. Provides more than a 30% decrease of cutting forces during machining, appropriate for cutting even the hardest valve seats.
- Patented lightweight workhead: built-in spindle motor and triple Air-Float Automatic Centering System. Minimal workhead inertia and maximal floatation for unmatched centering sensitivity.
- Fully integrated spindle motor: infinitely variable spindle speed, 100 to 1200 r.p.m., with sensorless Vector Flux Control in open loop (extremely broad torque rating from lowest r.p.m.). Digital spindle rotation read out.
- Pre-clamping of the sphere-cylinder by vacuum, followed by heavy duty air-over-hydraulic clamping.
- Crosswise movement of cylinder head through air-floated table featuring pneumatic clamping.