

800

User Friendly and
High Efficiency
Machines



PROVALVE
Valve Guide And Seat Machine



New advanced technology
with three dimensional
friction free air cushion
positioning system

CE

800

Valve Seat and Guide Machine

Automatic start of the precise centering process and automatic stop at the end of process.

New advanced technology with three dimensional friction free air cushion positioning system

Dept control and memory with digital counter and stop with the buzzer

Spindle rotation speed reading by digital tachometer with inductive sensor

Machining capacity from $\varnothing 16$ mm. to $\varnothing 80$ mm..

Four friction free air cushion



PROVALVE
Valve Guide And Seat Machine

CE

1 CONTROL PANEL



Electrical Switch Control Panel

a) Spindle speed rotation start / stop electrical switch, potentiometer and digital tachometer.

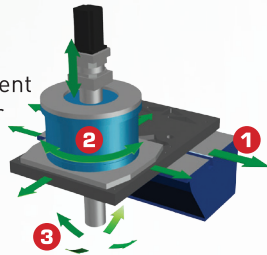
- b) Depth control measurement is accurate until 0.02 mm. digital counter, push button for reset, buzzer
- c) The switches active / lock of air cushions sphere, sphere cylinder, work-table.
- d) The switch activate / lock locking of work table.
- e) The push button start of automatic centering process and signal lamp of centering ready
- f) Electrical switch activate / lock movement of work-head.
- g) Electrical switch activate / lock vacuum testing and vacuum manometer.

2 MOVEMENTS of FRICTION FREE AIR CUSHIONS HORIZONTAL MOVEMENT OF WORK-HEAD

1) Longitudinal horizontal movement of work-head by friction free air cushion 220 mm

MOVEMENT OF SPHERE and SPHERE CYLINDER DURING SENSITIVE CENTERING

- 2) Front-back-right-left as radius movement of sphere cylinder by friction free air cushion 14 mm.
- 3) Spindle inclination in all directions by spherical bearing by friction free air cushion 10 degree



3 CUTTING INSERT SHARPENER

- Diamond wheel cutting bit sharpener for fast easy sharpening of single angle and three angle tool bits mounted on machine.

4 LED LIGHTNING

- LED lighting for an increased light ratio and a better energy saving.

5 SPINDLE

- a) Spindle rotation by A.C Servo motor with constant torque coupled planetary helical gear reducer.
- b) Infinitely variable speed from 0 to 700 r.p.m with servo driver.
- c) It is long life and maintenance free.
- d) Spindle output constant torque 12 Nm.
- e) Spindle cover with diameter 80 mm. hardened and plated hard chrome
- f) The cone standart of spindle ISO 30.
- g) Spindle movement up-down 200 mm
- h) Spindle stroke steering wheel for rapid and fine feed mechanism

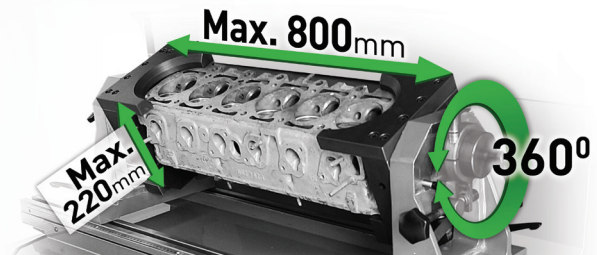
6 TOOLING STORAGE CABINET



- a) Three drawers and a top tray allows convenient storage of a wide selection of tooling
- b) The mounted arm of tooling storage cabinets swivels 130 degrees.

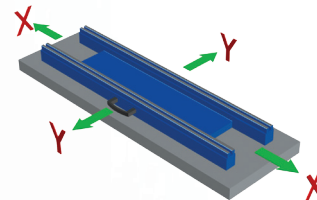
DIMENSIONS of TOOLING STROGE CABINET
L350 x D280 x H310 mm.

7 SINGLE AXIS ROLL-OVER FIXTURE



- Cylinder head clamping system that combined a side clamps for cylinder head, used for different angles with a universal mechanical fixture and rotatable adjustable 360° also for simple and combined angles.

8 WORK - TABLE



X : 610 mm. Y: 150 mm.

- a) The work-table is made of rigid cast-iron.
- b) The work-table move free all directions on the table bed rigid platform by friction free air cushion.
- c) Locking of work-table is done by providing aconstant vacuum pressure through 2 th vacuum pump motor.

9 TABLE BED

- a) The table bed made of rigid cast-iron.
- b) The surface of the table bed is precision grinded.

USEFUL AREA of PLATFORM 480 x 1300 mm.

10 MAIN BASE

- The main base made of welded thin sheet steel construction.

11 VACUUM TESTING

- a) Vacuum test is done by providing a constant vacuum pressure through 1 th vacuum pump motor.
- b) The machine contains vacuum pipe, vacuum filter and pads with foam

SIZE OF VACUUM PADS (7)

Ø40 mm / Ø50 mm / Ø60 mm / Ø75 mm
50x65 mm / 50x80 mm / 60x90 mm

TECHNICAL SPECIFICATIONS	800	800 S	1000 S
-Machining capacity of valve seat (min.-max.)	Ø16 – Ø80 mm	Ø16 – Ø80 mm	Ø16 – Ø80 mm
-Longitudinal travel of the Work-Table (free all directions)	610 mm	610 mm	610 mm
-Transverse travel of the Work-Table (free all directions)	150 mm	150 mm	150 mm
-Longitudinal travel of the Work-Head	220 mm	220 mm	380 mm
-Longitudinal total machining capacity of valve seat	830 mm	830 mm	990 mm
-Spindle stroke	200 mm	200 mm	200 mm
-Spindle inclination (in all directions)	10°	10°	10°
-Sphere cylinder movement (radius)	14 mm	14 mm	14 mm
-Spindle speed	0 to 700 r.p.m	0 to 700 r.p.m	0 to 700 r.p.m
-Spindle motor - AC Servo motor with Servo driver	0.75 Kw	0.75 Kw	0.75 kW
-Spindle nominal torque (Constant torque in all speeds)	12 Nm	12 Nm	12 Nm
-Carbide tip sharpener motor	0.25 kW	0.25 kW	0.25 kW
-1 th Vacuum pump motor for vacuum testing	0.25 kW	0.25 kW	0.25 kW
-2 th Vacuum pump motor for locking of work-table	0.25 kW	0.25 kW	0.25 kW
-Maximum cylinder head length (with single roll-over fixture)	800 mm	800 mm	800 mm
-Maximum cylinder head width (with single roll-over fixture)	400 mm	400 mm	400 mm
-Maximum cylinder head height (with single roll-over fixture)	220 mm	220 mm	220 mm
-Maximum cylinder head length (on the parallel blocks)	-----	-----	1000 mm
-Maximum cylinder head width (on the parallel blocks)	-----	-----	500 mm
-Maximum cylinder head height (on the parallel blocks)	-----	-----	425 mm
-Electrical requirements	3 Ph-400 VAC-50/60Hz	3 Ph-400 VAC-50/60Hz	3 Ph-400 VAC-50/60Hz
-Air requirements (Pressure & Volume supply)	6 Bar-400 l/min	6 Bar-400 l/min	6 Bar-400 l/min
-Machine dimensions (wide x deep x high)	1415 mm	x 1000 mm	x 2175 mm
-Machine weight	1200 Kg	1200 Kg	1250 Kg.
-Vertical column – spindle axis between distance	265 mm	265 mm	265 mm
-Control panel	Electrical switch	10" Touch color screen	10" Touch color screen
-Useful area of table bed	480x1300 mm	480x1300 mm	480x1300 mm
-Main base	Welded Sheet Stel Construction		
	-----	USB & ETHERNET PORTS	USB & ETHERNET PORTS
	-----	4.0 INDUSTRY	4.0 INDUSTRY

BASIC EQUIPMENTS

- SINGLE AXIS ROLL – OVER FIXTURE (1 set)
- CARBIDE BIT SHARPENER
- VACUUM TESTING
- PADS WITH FOAM FOR VACUUM TESTER (7)
- TOOL RACK WITH DRAWERS
- TOOL SETTING DEVICE
- BUBBLE LEVEL FOR PILOT DIA SHANK Ø9.52 mm.
- TORX T9 SCREW DRIVER / ALLEN KEY T 2.5 mm.
- PROTECTED GLASSES

• Dimensions, weights and construction are not binding and may be modified.

OPTIONS

- PARALLEL BLOCKS (h:140 mm L:340 mm.) (1 set)
- UNIVERSAL QUICK CLAMPING (1 set)
- CYLINDER HEAD ALIGNMENT ROD
- MICROMETER FOR COUNTERBORING TIPS
- PROTECTION CLOTH BELLOWS of VERTICAL COLUMN SLIDE
- HANDLE WITH MICROSWITCH AND LED MOVIE OF WORK-HEAD



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