



Valve Seat and Guide Machine



PROVALVE

1 CONTROL PANEL



Electrical Switch Control Panel

- a) Spindle speed rotation start / stop electrical switch, potantiometer 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

HORIZANTAL MOVEMENT OF WORK-HEAD

1) Longitudinal horizantal 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 LED LIGHTNING

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

4 CUTTING INSERT SHARPENER

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

5 SPINDLE

- a) Spindle rotation by A.C Servo motor with constant torque coupled planetary helical gear reducer.
- b) Infinity variable speed from 0 to 1000 r.p.m.
- c) It is long life and maintenance free.
- d) The spindle motor provides constant a torque at variable speeds when machining valve seats.
- 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 cabinetswivels 130 degrees.

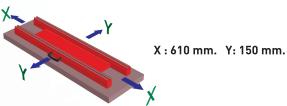
DIMENSIONS of TOOLING STROGE CABINET L350 x D280 x H310 mm.

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



- 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.

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 thick sheet steel construction.

111 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



Valve Seat and Guide Machine

- Machining capacity of valve seat (minmax.) 016 mm − 060 mm 016 mm − 060 mm - Longitudinal movement of the work-table (ree alt directions – with air cushion) 150 mm 150 mm - Longitudinal movement of the work-hable (ree alt directions – with air cushion) 150 mm 220 mm - Longitudinal total machining capacity of valve seat 830 mm 830 mm - Spindle inclination in all direction – with air cushion) 10° 10° - Spindle inclination in all direction – with air cushion) 14 mm 14 mm - Spindle robation speed 0-1000 rp.m. 0-1000 rp.m. - Spindle motor (A.C. Serve motor) 0.75 kw. 0.75 kw. - Spindle by sharpener motor 0.25 kw. 0.25 kw. - Carbide tip Sharpener motor (vacuum testing) 0.08 kw. 0.08 kw. - 2 th Vacuum pump motor (vacuum testing) 0.08 kw. 0.25 kw. - 2 th Vacuum pump motor (seding of work-table I 0.25 kw. 0.25 kw. - 2 th Vacuum pump motor (seding of work-table I 0.25 kw. 0.25 kw. - 2 th Vacuum pump motor (seding of work-table I 0.25 kw. 0.25 kw. - Max. cylinder head length I with single roll-over fixture I 800 mm <th>TECHNICAL SPECIFICATIONS</th> <th>800</th> <th>800 S</th>	TECHNICAL SPECIFICATIONS	800	800 S
- Transverse movement of the work-table (recetl directions – with air cushion) 150 mm 120 mm 220 mm 220 mm 200 mm 830 mm 200 mm 200 mm 200 mm 10° 10° 10° 10° 5pindle stroke 200 mm 14 mm 14 mm 14 mm 14 mm 14 mm 14 mm 15 pindle rotation speed 0-1000 r.p.m. 0-100	- Machining capacity of valve seat (minmax.)	Ø16 mm – Ø60 mm	Ø16 mm – Ø60 mm
- Longitudinal movement of the work-head (with air cushion) - Longitudinal total machining capacity of valve seat - Spindle stroke - Spindle stroke - Spindle inctination (in all direction—with air cushion) - Spindle inctination (in all direction—with air cushion) - Spindle inctination speed - Spindle rotation speed - Spindle motor (A.C. Servo motor 1) - Carbide tip sharpener motor - Spindle motor (A.C. Servo motor 1) - Carbide tip sharpener motor - Control panel - Carbide tip sharpener motor - Control panel - Carbide tip sharpener motor - Control panel - Carbide tip sharpener	- Longitudinal movement of the work-table (free all directions – with air cushion)	610 mm	610 mm
- Longitudinal total machining capacity of valve seat 830 mm 830 mm - Spindle stroke 200 mm 200 mm - Spindle inclination lin all direction –with air cushion] 10° 10° - Sphere cylinder movement [radius –with air cushion] 14 mm 14 mm - Spindle rotation speed 0-1000 r.p.m. 0-1000 r.p.m - Spindle motor (A.C. Servo motor) 0.75 kw. 0.75 kw. - Carbide tip sharpener motor 0.25 kw 0.25 kw - 1 th Vacuum pump motor (vacuum testing) 0.08 kw. 0.08 kw. - 2 th Vacuum pump motor (locking of work-table 1 0.25 kw. 0.25 kw. - Max. cylinder head length (with single roll-over fixture 880 mm 800 mm - Max. cylinder head width (with single roll-over fixture 2020 mm 200 mm - Max. cylinder head height (vith single roll-over fixture 2020 mm 200 mm - Max. cylinder head width (Ion the parallel blocks / EXTRA) 1000 mm 1000 mm - Max. cylinder head width (Ion the parallel blocks / EXTRA) 1000 mm 1000 mm - Max. cylinder head width (Ion the parallel blocks / EXTRA) 2500 mm 270 mm - Max. spindle – on the work table between distance 425 mm 425 mm - Max. spindle axis – vertical column between distance 270 mm 270 mm - Overall dimensions (wxbxH) 1415 mm x 1000 mm x 2175 mm - Max. in requirements (Pressure & Yolume supply) 7 Bar – 400 VAC - 50/60 Hz - Air requirements (Pressure & Yolume supply) 7 Bar – 400 VAC - 50/60 Hz - Air requirements (Pressure & Yolume supply) 8 RAL 3000 Flame red & RAL 7011 Iron grey - Control panel Electrical switch 10° HMI (Color touch screen - USB PORT - STANDARD - STANDARD	- Transverse movement of the work-table (free all directions – with air cushion)	150 mm	150 mm
Spindle stroke 200 mm 200 mm - Spindle inclination (in all direction – with air cushion) 10° 10° - Sphere cylinder movement (radius – with air cushion) 14 mm 14 mm - Spindle motor (Ac. Servo motor) 0.75 Kw. 0.75 Kw. - Carbide tip sharpener motor 0.25 Kw. 0.25 Kw. - 1 th Vacuum pump motor (vacuum testing) 0.08 Kw. 0.08 Kw. - 2 th Vacuum pump motor (locking of work-table) 800 mm 800 mm - Max. cylinder head length I with single roll-over fixture! 800 mm 800 mm - Max. cylinder head width kinth single roll-over fixture! 800 mm 220 mm - Max. cylinder head height with single roll-over fixture! 220 mm 220 mm - Max. cylinder head width (in the parallet blocks / EXTRA) 1000 mm 500 mm - Max. cylinder head width (in the parallet blocks / EXTRA) 500 mm 500 mm - Max. spindle - on the work table between distance 425 mm 270 mm - Max. spindle axis - vertical column between distance 1415 mm x 1000 mm x 2175 mm - Max. spindle axis - vertical column between distance 1200 Kg 1200 Kg - Ractical	- Longitudinal movement of the work-head (with air cushion)	220 mm	220 mm
- Spindle inclination (in all direction -with air cushion) 10° 10° - Sphere cylinder movement (radius -with air cushion) 14 mm 14 mm - Spindle rotation speed 0-1000 r.p.m. 0-1000 r.p.m. - Spindle motor (A.C. Serve motor) 0.75 Kw. 0.75 Kw. - Carbide tip sharpener motor 0.25 Kw 0.25 Kw - 1 th Vacuum pump motor (vacuum testing) 0.08 Kw. 0.08 Kw. - 2 th Vacuum pump motor (tocking of work-table) 0.25 Kw. 0.25 Kw. - Max. cylinder head length (with single roll-over fixture) 800 mm 800 mm - Max. cylinder head width (with single roll-over fixture) 400 mm 400 mm - Max. cylinder head length (with single roll-over fixture) 220 mm 220 mm - Max. cylinder head width (with single roll-over fixture) 500 mm 500 mm - Max. cylinder head width (no the parallet blocks / EXTRA) 1000 mm 1000 mm - Max. cylinder head width (no the parallet blocks / EXTRA) 500 mm 500 mm - Max. spindle exis - vertical column between distance 425 mm 425 mm - Max. spindle axis - vertical column between distance 1415 mm x 1000 mm x 2175 mm	- Longitudinal total machining capacity of valve seat	830 mm	830 mm
- Sphere cylinder movement [radius - with air cushion] 14 mm 14 mm - Spindle rotation speed 0-1000 r.p.m. 0-1000 r.p.m Spindle motor [A.C. Servo motor] 0.75 Kw. 0.75 Kw Carbide tip sharpener motor 0.25 Kw 0.25 Kw - 1 th Vacuum pump motor (vacuum testing) 0.08 Kw. 0.08 Kw 2 th Vacuum pump motor [locking of work-table] 0.25 Kw 0.25 Kw Max. cylinder head length (with single roll-over fixture) 800 mm 800 mm - Max. cylinder head width (with single roll-over fixture) 400 mm 4000 mm - Max. cylinder head height lother fixture] 220 mm 220 mm - Max. cylinder head height (no the parallel blocks / EXTRA) 1000 mm 1000 mm - Max. cylinder head width (no the parallel blocks / EXTRA) 1000 mm 500 mm - Max. spindle - on the work table between distance 425 mm 425 mm - Max. spindle axis − vertical column between distance 270 mm 270 mm - Overall dimensions [wxb.H] 1200 Kg 1200 Kg - Electrical requirements Pressure & Volume supply) 7 Bar − 400 VMC − 50/60 Hz 3 Ph − 400 VAC − 50/60 Hz - Air requirements [Pressure & Volume supply] 7 Bar − 400 Vmin 7 Bar − 400 Vmin - Paint color code RAL 3000 [Flame red] & RAL 7011 Liron grey] - Control panel Electrical switch 10" HMI [Color touch screen] - USB PORT	- Spindle stroke	200 mm	200 mm
- Spindle rotation speed 0-1000 r.p.m. 0-1000 r.p.m Spindle motor (A.C. Servo motor) 0.75 Kw. 0.75 Kw Carbide tip sharpener motor 0.25 Kw 0.25 Kw - 1 th Vacuum pump motor (vacuum testing) 0.08 Kw. 0.08 Kw 2 th Vacuum pump motor (locking of work-table) 0.25 Kw 0.25 Kw. - Max. cylinder head length (with single rotl-over fixture) 800 mm 800 mm - Max. cylinder head width (with single rotl-over fixture) 400 mm 400 mm - Max. cylinder head height (with single rotl-over fixture) 220 mm 220 mm - Max. cylinder head length (in the parallel blocks / EXTRA) 1000 mm 1000 mm - Max. cylinder head width (on the parallel blocks / EXTRA) 1000 mm 500 mm - Max. cylinder head width (on the parallel blocks / EXTRA) 500 mm 500 mm - Max. spindle – on the work table between distance 425 mm 425 mm - Max. spindle axis – vertical column between distance 270 mm 270 mm - Overall dimensions (Wx0xH) 1415 mm x 1000 mm x 2175 mm - Machine weight 1200 Kg 1200 Kg - Electrical requirements (Pressure & Volume supply) 7 Bar – 400 VMC – 50/60 Hz 3 Ph – 400 VAC – 50/60 Hz - Air requirements (Pressure & Volume supply) 7 Bar – 400 V/min 7 Bar – 400 V/min - Paint color code RAL 3000 (Flame red) & RAL 7011 (Iron grey) - Control panel Electrical switch 10" HMI (color touch screen) - USB PORT	- Spindle inclination (in all direction –with air cushion)	10°	10°
- Spindle motor (A.C. Servo motor)	- Sphere cylinder movement (radius -with air cushion)	14 mm	14 mm
- Carbide tip sharpener motor - Carbide tip sharpener motor - 1 th Vacuum pump motor (vacuum testing) - 2 th Vacuum pump motor (locking of work-table) - 2 th Vacuum pump motor (locking of work-table) - 2 th Vacuum pump motor (locking of work-table) - Max. cylinder head length (with single roll-over fixture) - Max. cylinder head width (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head height (no the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Max. axinder max = 1000 mm	- Spindle rotation speed	0-1000 r.p.m.	0-1000 r.p.m
- 1 th Vacuum pump motor (vacuum testing)	- Spindle motor (A.C. Servo motor)	0.75 Kw.	0.75 Kw.
- 2 th Vacuum pump motor (locking of work-table) - Max. cylinder head length (with single roll-over fixture) - Max. cylinder head width (with single roll-over fixture) - Max. cylinder head width (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head height (not the parallel blocks / EXTRA) - Max. cylinder head length (not the parallel blocks / EXTRA) - Max. cylinder head width (not the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Overall dimensions (WxDxH) - Overall dimensions (WxDxH) - Machine weight - Standard - Ral 3000 (Flamered) & Ral 7011 (Iron grey) - Control panel - Control panel - Control panel - STANDARD - STANDARD - STANDARD	- Carbide tip sharpener motor	0.25 Kw	0.25 Kw
- Max. cylinder head length (with single roll-over fixture) - Max. cylinder head width (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head length (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Overall dimensions (WxDxH) - Overall dimensions (WxDxH) - Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - RAL 3000 (Flame red) & RAL 7011 (Iron grey) - Control panel - Control panel - USB PORT	- 1 th Vacuum pump motor (vacuum testing)	0.08 Kw.	0.08 Kw.
- Max. cylinder head width (with single roll-over fixture) - Max. cylinder head height (with single roll-over fixture) - Max. cylinder head length (on the parallel blocks / EXTRA) - Max. cylinder head length (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Overall dimensions (wxDxH) - Machine weight - Standard - Machine weight - Lectrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - Control panel - Control panel - Electrical switch - STANDARD - STANDARD	- 2 th Vacuum pump motor (locking of work-table)	0.25 Kw.	0.25 Kw.
- Max. cylinder head height (with single roll-over fixture) - Max. cylinder head length (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Overall dimensions (WxDxH) - Overall dimensions (WxDxH) - Machine weight - Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - Control panel - Control panel - Electrical switch - STANDARD - STANDARD - STANDARD	- Max. cylinder head length (with single roll-over fixture)	800 mm	800 mm
- Max. cylinder head length (on the parallel blocks / EXTRA) - Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Max. spindle axis – vertical column between distance - Overall dimensions (WxDxH) - Machine weight - Overall dimensions (WxDxH) - Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - RAL 3000 (Flame red) & RAL 7011 (Iron grey) - Control panel - Control panel - Electrical switch - USB PORT	- Max. cylinder head width (with single roll-over fixture)	400 mm	400 mm
- Max. cylinder head width (on the parallel blocks / EXTRA) - Max. spindle – on the work table between distance - Max. spindle axis – vertical column between distance - Overall dimensions (WxDxH) - Overall dimensions (WxDxH) - Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - Control panel - USB PORT - ETHERNET PORT - STANDARD - STANDARD	- Max. cylinder head height (with single roll-over fixture)	220 mm	220 mm
- Max. spindle – on the work table between distance 425 mm 425 mm 270 mm - Max. spindle axis – vertical column between distance 270 mm 270 mm - Overall dimensions (WxDxH) 1415 mm x 1000 mm x 2175 mm - Machine weight 1200 Kg 1200 Kg - Electrical requirements Pressure & Volume supply 7 Bar – 400 VAC – 50/60 Hz 3 Ph – 400 VAC – 50/60 Hz - Air requirements (Pressure & Volume supply) 7 Bar – 400 l/min 7 Bar – 400 l/min - Paint color code RAL 3000 (Flame red) & RAL 7011 (Iron grey) - Control panel Electrical switch 10" HMI (Color touch screen) - USB PORT - STANDARD - ETHERNET PORT	- Max. cylinder head length (on the parallel blocks / EXTRA)	1000 mm	1000 mm
- Max. spindle axis – vertical column between distance 270 mm 270 mm - Overall dimensions (WxDxH) - Machine weight - 1200 Kg - Electrical requirements 3 Ph- 400 VAC- 50/60 Hz 3 Ph- 400 VAC- 50/60 Hz - Air requirements (Pressure & Volume supply) 7 Bar – 400 l/min 7 Bar – 400 l/min - Paint color code RAL 3000 (Flame red) & RAL 7011 (Iron grey) - Control panel - USB PORT - USB PORT - ETHERNET PORT	- Max. cylinder head width (on the parallel blocks / EXTRA)	500 mm	500 mm
- Overall dimensions (WxDxH) - Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - Control panel - USB PORT - ETHERNET PORT - Overall dimensions (WxDxH) 1415 mm x 1000 mm x 2175 mm 1200 Kg	- Max. spindle – on the work table between distance	425 mm	425 mm
- Machine weight - Electrical requirements - Air requirements (Pressure & Volume supply) - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - USB PORT - ETHERNET PORT - Machine weight - 1200 Kg	- Max. spindle axis – vertical column between distance	270 mm	270 mm
- Electrical requirements - Air requirements (Pressure & Volume supply) - Paint color code - Control panel - USB PORT - ETHERNET PORT - Electrical requirements (Pressure & Volume supply) - Control panel - STANDARD - STANDARD	- Overall dimensions (WxDxH)	1415 mm x	1000 mm x 2175 mm
- Air requirements (Pressure & Volume supply) - Paint color code RAL 3000 (Flame red.) & RAL 7011 (Iron grey.) - Control panel - USB PORT - ETHERNET PORT 7 Bar - 400 l/min 8 Par - 400 l/min 8 Par - 400 l/min 8 Par - 400 l/min 9 Par - 400 l/min	- Machine weight	1200 Kg	1200 Kg
- Paint color code RAL 3000 (Flame red.) & RAL 7011 (Iron grey.) - Control panel Electrical switch 10" HMI (Color touch screen.) - USB PORT - STANDARD - ETHERNET PORT STANDARD	- Electrical requirements	3 Ph- 400 VAC- 50/60 Hz	3 Ph- 400 VAC- 50/60 Hz
- Control panel Electrical switch 10" HMI (Color touch screen) - USB PORT - STANDARD - ETHERNET PORT STANDARD	- Air requirements (Pressure & Volume supply)	7 Bar – 400 l/min	7 Bar – 400 l/min
- USB PORT - ETHERNET PORT STANDARD STANDARD	- Paint color code	RAL 3000 (Flar	me red) & RAL 7011 (Iron grey)
- ETHERNET PORT STANDARD	- Control panel	Electrical switch	10" HMI (Color touch screen)
	- USB PORT		STANDARD
- 4.0 INDUSTRY EXTRA	- ETHERNET PORT		STANDARD
	- 4.0 INDUSTRY		EXTRA

BASIC EQUIPMENTS

- SINGLE AXIS 360° ROLL OVER FIXTURE / CF800 (1 pair)
- CARBIDE BIT SHARPENER / CBS100
- VACUUM TESTING / VTS (including vacuum pump, vacuum filter, vacuum manometer)
- PADS WITH FOAM FOR VACUUM TESTER / VP (various sizes 7)
- MICROMETER FOR COUNTERBORING / 25100
- TOOL SETTING DEVICE / $\ensuremath{\mathsf{TAD}}$
- BUBBLE LEVEL / 20952
- TOOL RACK WITH DRAWERS / TR352831 (mounted on the machine)
- TORX T9 SCREW DRIVER / 23801T9
- ALLEN KEY T 2.5 mm / 23801T25
- PROTECTED GLASSES / 1665

EXTRA

- PARALLEL BLOCKS (h:140 mm l:340 mm) / PB140340 (1 pair)
- UNIVERSAL QUICK CLAMPING / CH (1 pair)
- PROTECTION CLOTH BELLOWS
 OF VERTICAL COLUMN SLIDE / PCB220
- HANDLE WITH MICROSWITCH AND LED MOVIE OF WORK-HEAD / EBR150SWBF2.5



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



User Friendly and High Efficiency Machines

İvedik Organize Sanayi Bölgesi 1548. Sk. No: 21-23 06378 Yenimahalle / ANKARA – TURKEY Tel : +90 312 395 39 65 / +90 312 395 39 66

Mobil: +90 507 923 89 03 Fax: +90 312 395 41 69 DEALER