REVALVE
BY PKTBA SINCE 1962

TECHNICAL SPECIFICATION

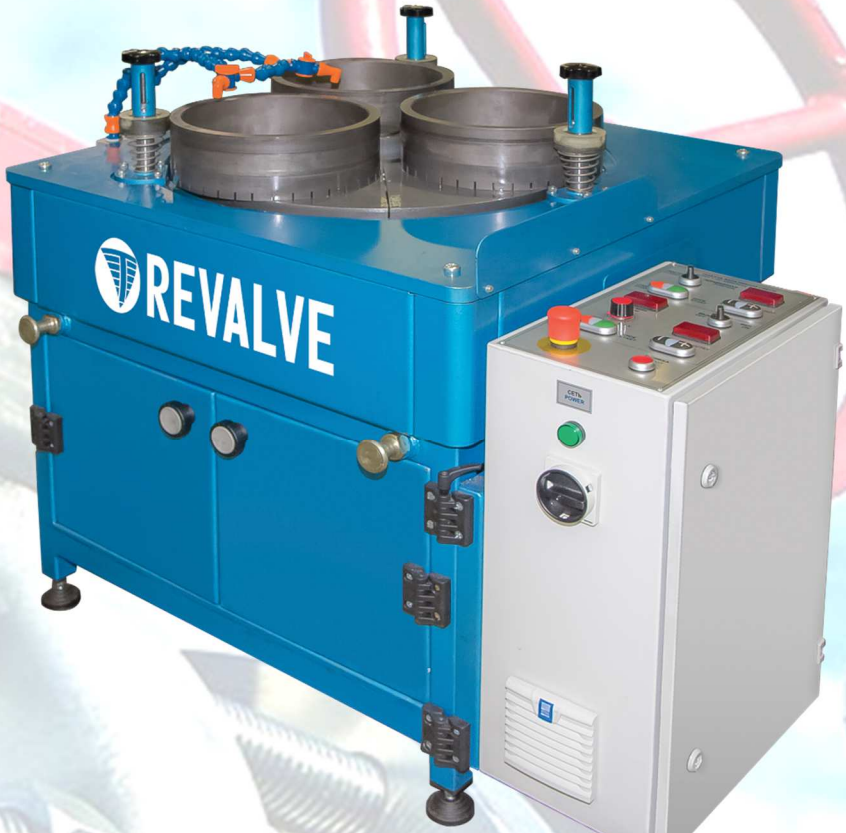
GRINDING & LAPPING EQUIPMENT

Model: PKTBA-SP-600

P.O. 440060 Russian Federation, Penza, Prospect Pobedy, 75
www.revalve.com Tel./fax: +7 (8412) 200-201
e-mail: sales@revalve.com

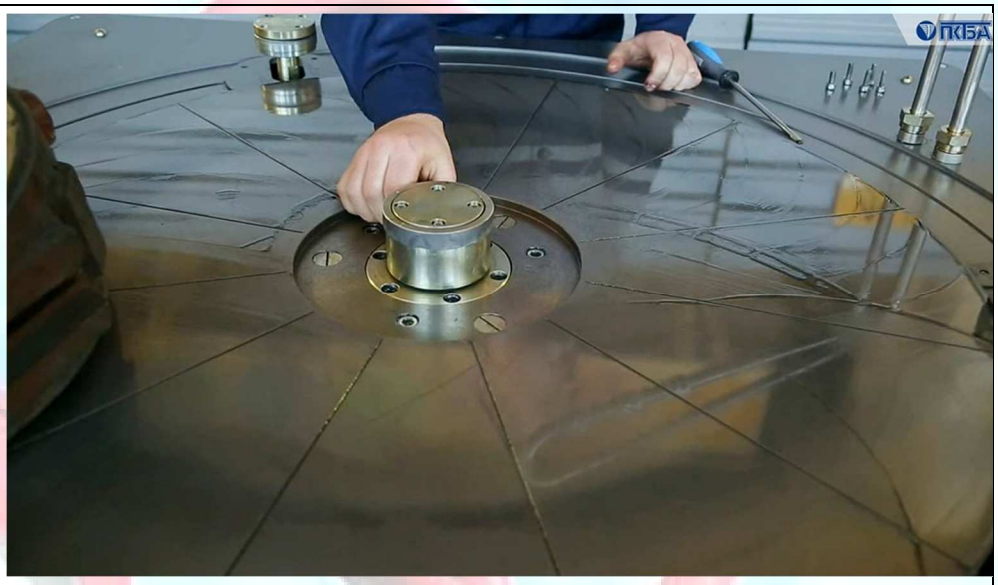
Grinding & Lapping equipment

Machine for lapping of pipeline valves PKTBA-SP-600		
1	Name	Machine for lapping of pipeline valves **PKTBA-SP-600**



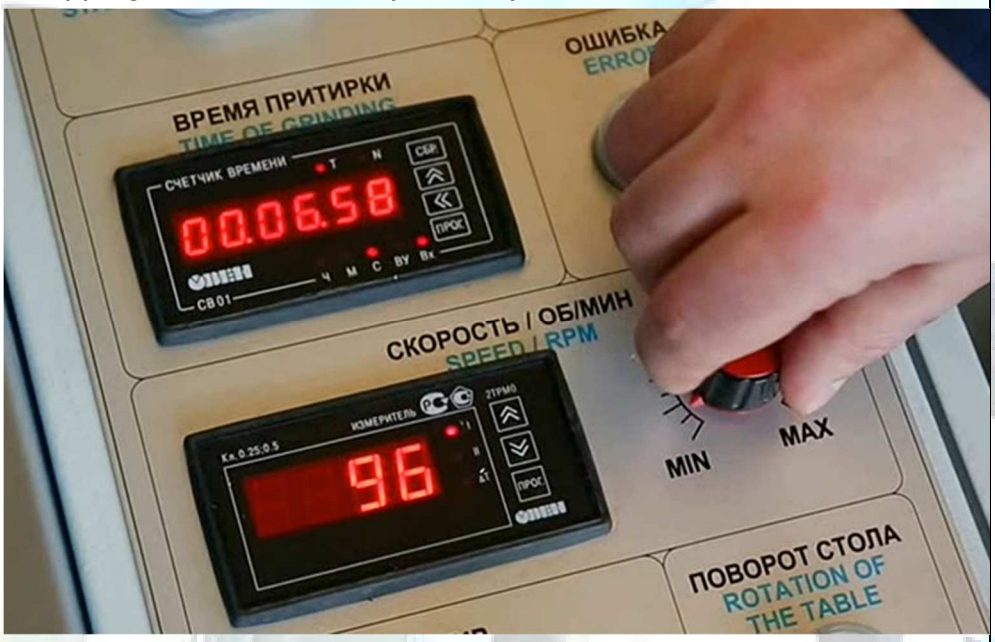
The machine general view

2	Purpose of the machine	The machine is designed for lapping of the flat surfaces, such as gate valve wedges, plates, valve discs, flanges, sealing surfaces of the wellhead equipment.
3	Composition	Main parts of the machine: • lapping disc (lap) • electric motor with reduction gear • robust steel frame • 3 lapping cassettes • lapping fluid circuit • electrical cabinet with control panel
4	Design features	The main parameters of the lapping process are **flatness and roughness** of machined part. To make these parameters absolutely high, REVALVE made all lapping discs and cassettes of **gray cast iron**.

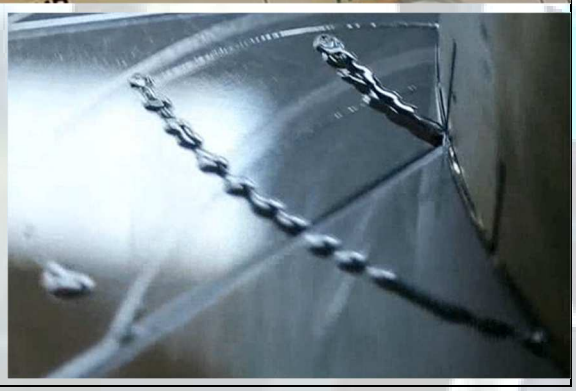


To prevent damage of the machined part during start of the lapping process, the drive soft launch option is included to the basic set. Disc rotation speed is slowly growing to the required value.

For accurate lapping process control machine is equipped with step-less rotation speed regulator. For quick and comfortable monitoring of lapping duration, control panel is provided with machine timer.



Lapping fluid is supplied by the special abrasive-resistant liquid pump through the nozzles located above the lapping disc. Intensity of the fluid supply is adjusted by the operator.



		 The liquid pump and the abrasive fluid tank are mounted on the inner part of the frame. For quick and comfortable maintenance, the pump and the tank can be easily moved out by means of rail guides.  According to world experience lapping disc is wearing-out non-uniformly due to different radial speeds of the machined parts. That's why after several months of working on regular lapping unit, lap takes lens-shaped form and need to be machined. To solve the issue, REVALVE engineers add three load units around the lap. Load applied to the lap center and periphery could be adjusted by these units to balance the wearing. In this case machining of the lap is not required. **Important note:** the machine is designed for lapping of machined parts only. To achieve parallelism valve should be preliminarily milled by valve manufacturer.
5	Diameter of the lap	620 mm
6	Operating area diameter	266 mm using 3 cassettes

Grinding & Lapping equipment

		
7	Machined surface roughness	0,08 – 0,1 μm
8	Machined surfaces non-flatness	0,6 mm
9	Lap rotation speed	10 – 50 rpm
10	Electric power supply, V/Hz/kW	400 / 50 / 4
11	Dimensions (LxWxH), mm, not exceeding	1200 x 950 x 100
12	Weight, kg, not exceeding	630

Grinding & Lapping equipment

GENERAL REQUIREMENTS		
1	Requirements for ergonomics	The design of the equipment should ensure free access to equipment for maintenance and repair. Where necessary, the design of the equipment must be capable of performing the convenience of the labor action with means of individual protection. The design of the equipment should provide the optimum distribution of functions between man and production equipment to ensure the safety and to limit severity and intensity of labor.
2	Safety requirements	The equipment complies with European union technical regulation “On safety of machines and equipment” Directive 2006/42 CE; The equipment complies with European union technical regulation “On safety of low voltage equipment” Directive 2014/35 CE.
3	Reliability requirements	The warranty period of equipment - 12 months from the date of commissioning or 18 months from the date of dispatch whatever is earlier. The total period of operation, taking into account proper service and the replacement of worn units - at least 8 years.
4	Information plate language	Russian / English
5	Operating conditions	Temperature: +5-50 °C Humidity (at + 25ºC): 30-90% (non condensing). Indoor use under the following conditions: • work site should be equipped with a ventilation system; • height above the mean sea level – not exceeding 1000 m; • no shock allowed. The use in conditions of the explosive and electric current conducting mediums or mediums, containing caustic vapors and gases is not allowed.
DOCUMENTATION		
1	Each unit	Passport / Technical certificate (including test and calibration certificates for all installed test pressure gauges and sensors) Operation / Maintenance Manuals CE Declaration

Attention! Dimensions are provided for the reference and could be a subject for amendment during the design phase without changes in the complex performance parameters.
Attention! This is a preliminary version. The set of equipment or it's specification can be altered upon request to meet customer's requirements.

Spare parts, consumables, additional services:

1. Set of spare parts and consumables for 2 years of operation.

Set of spare parts includes all necessary consumables for two years of normal operation of the equipment. Spare parts kit is included to the scope of supply and will be supplied along with equipment.

2. Factory acceptance, testing and supervision during installation and start-up. Training on customer site. Warranty and after sales service.

In accordance with internal QMS system (certified and based on ISO 9001-2015 requirements), our Quality Department will provide FAT program and corresponding agenda upon customer's request for participation in factory acceptance testing of the manufactured equipment before it's dispatch.

All the equipment stated above is certified in accordance with EN 60204-1, EN ISO12100:2010, EN 2006/42/EC, EN 2014/35/EC requirements, supplied with the EU Declaration of Conformity and has the CE Marking.

Upon request, qualified and experienced engineers of REVALVE can perform control over the installation and commissioning of the equipment.

Installation period should begin only after receiving the following confirmation:

- All the equipment is received at the installation site;
- All the installation requirements (procedures, equipment, accessories, qualified personnel etc.) are fulfilled (the list of requirements will be prepared in advance by REVALVE service team).

Under request, our qualified engineers can:

- Supervise the installation of the equipment and its launch;
- Perform the final preparation of the equipment assisting customer personnel.

Personnel training on customer's site:

We assign the utmost value to appropriate customer personnel user-training to ensure safe and efficient running and maintenance of the equipment. We consider that personnel user-training is sufficiently required, especially in cases where the personnel have no experience operating our precise equipment.

The proper study of equipment design features, safe operation requirements and maintenance methods increases the performance of the equipment, and prolongs its service life.

Training can be conducted both in Russian and in English languages.

The expected time period required for start-up supervision, commissioning and training will be determined in a due time upon request.

Warranty and after sales service.

REVALVE provides 18-month warranty after the equipment dispatch and 12-month warranty after the launch date of the equipment at customer site or 18 months since the date of dispatch. The assumed service life of our equipment is 8 years, at least.

REVALVE is a customer-centric company and our assistance policy is based on a long-term partnership with our customers.

We have a full-cycle in-house manufacturing:

- Designing.
- Raw materials preparation treatment;
- All types of machining procedures using high-duty CNC centers (our production facilities;
- account more than 200 machining units);
- Spare parts supplied by the approved world-famous manufacturers;
- Full-cycle paint coating;
- Assembling and testing of manufactured equipment with load 1,5 times exceeding nominal;
- Installation and start-up supervision;
- Comprehensive user-training.

Our customer-centric approach to the support policy ensures a due time spare parts supply and support through all service life of the products.