



# REVALVE

BY PKTBA SINCE 1962

## TECHNICAL SPECIFICATION

Automatic machine for overlaying GMAW/flux  
PKTBA-UN-2GF

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## AUTOMATIC MACHINE FOR OVERLAYING

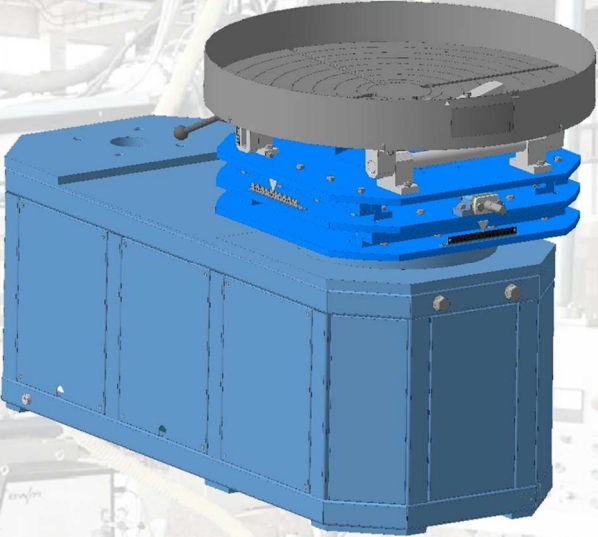
1	Name and short designation	Automatic machine for overlaying GMAW/flux PKTBA-UN-2GF
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*The machine general view*

2	The machine purpose	<p>The machine is designed for details and assembly units automatic overlaying GMAW/flux</p> <ul style="list-style-type: none"> <li>• Maximum weight of processed items— 750 kg;</li> <li>• Processed items diameters — 50 - 600 mm;</li> <li>• Maximum internal diameter of items processed inside - 50 mm.</li> </ul>
3	The machine composition	<p>The machine arrangement includes:</p> <ul style="list-style-type: none"> <li>• Welding rotator</li> <li>• Welding column</li> <li>• Automatic burner GMAW</li> </ul>

## AUTOMATIC MACHINE FOR OVERLAYING

		<ul style="list-style-type: none"> <li>• Automatic burner flux</li> <li>• Control panel</li> <li>• Welding arc power source Starmatic 650 DC</li> <li>• Documentation</li> <li>• Set of spare part</li> </ul>
4	Description & special features	<p>The machine includes:</p> <p><b>Welding rotator</b>          Designed for mounting of processed items to be welded on it and rotation with smooth adjustable speed during operation. The rotator control is performed from control panel.</p>  <p><b>Welding column</b>          Designed for burner positioning relatively to processed items, removing to perform completion-preparation operations and maintenance servicing.</p> <p>The column consists of vertical support with sliding guide for carriage traveling. Vertical carriage travelling is performed with worm gear and screw-nut transfer.</p> <p>The carriage is equipped with console with mechanism of horizontal travelling with electrode oscillation function, burner and hub used for mounting of electrode wire. The column is provided with emergency safety nut. The column arrangement includes supporting and turning device for manual rotation of the column around its axis with fixation in required position.</p>

## AUTOMATIC MACHINE FOR OVERLAYING



### **Automatic burner GMAW**

Designed for electrode wire supplying to the overlaying zone, current supply to the wire through the tip of contact tube.

The burner consists of:

- the horizontal travel mechanism with electrode oscillation function
- wire supply mechanism
- bracket
- burner.

## AUTOMATIC MACHINE FOR OVERLAYING

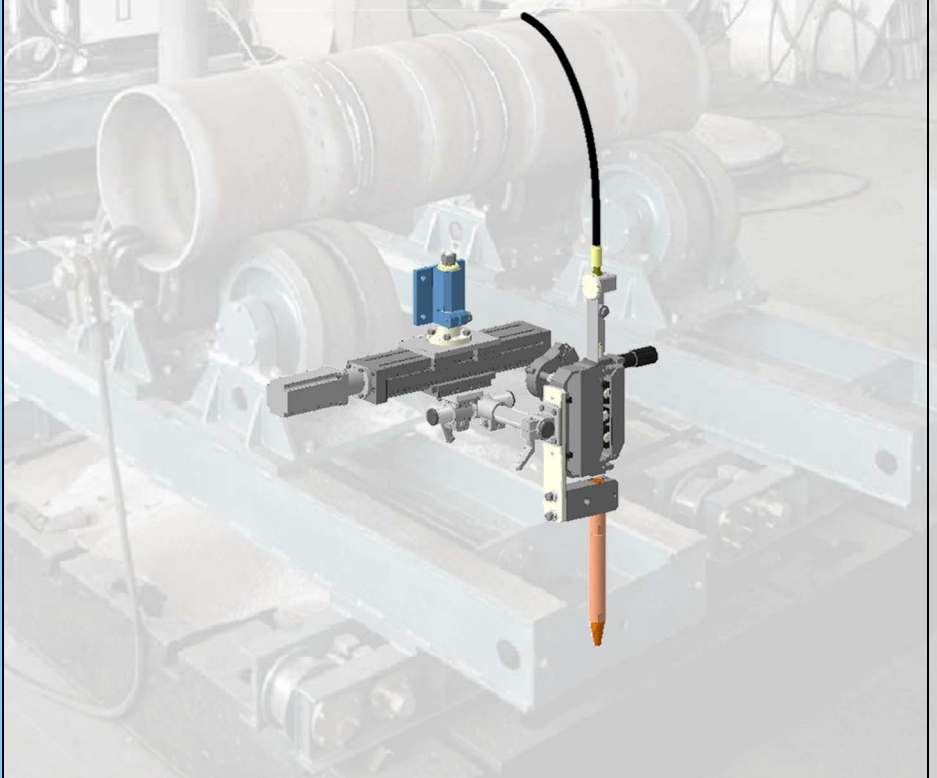


### **Automatic burner flux**

Designed for electrode wire supplying to the overlaying zone, current supply to the wire through the tip of contact tube.

The burner consists of:

- the horizontal travel mechanism with electrode oscillation function
- wire supply mechanism
- bracket
- burner.



## AUTOMATIC MACHINE FOR OVERLAYING

### **Welding arc power source Starmatic 650 DC**

Designed for network current transformation to welding current and changing it on D.C. The source is used for overlaying under the flux. The wire supplying speed depends on welding current rate.

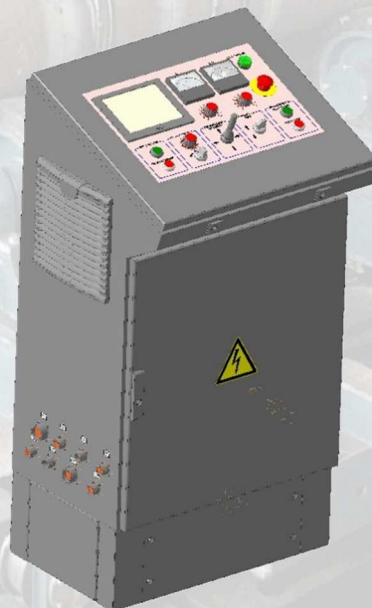


### **Control panel**

Designed for the overlaying machine control in automatic and manual mode. Including:

- the enclosure with electrical part with control panel (stationary control panel)
- remote control panel

Stationary and remote control panels are designed for machine processing control during setting and welding



## AUTOMATIC MACHINE FOR OVERLAYING

Welding column	
Console vertical travel, mm	1600
Console vertical travel speed, mm/min	2000
Column rotation angle, degrees	$\pm 180^\circ$
Column rotation	manual
Automatic burner	
The horizontal travel mechanism with electrode oscillation function	
Travel value, mm	200
Travel speed, mm/min	
- cruise	1000
- setting	200
Electrode oscillation amplitude, mm	0...50
Oscillation speed, m/hour	10...240
Amplitude step, mm	1
Delay at the edges, c	0...5
Burner GMAW	
Arc protection type	Gas
Electrode wire diameter, mm	1; 1,2; 1,6
Electrode wire supply speed, m/hour	100...1200
Burner inclining angle, degrees	$\pm 30^\circ$
Burner flux	
Arc protection type	Flux
Electrode wire diameter, mm	2; 3; 4
Electrode wire supply speed, m/hour	50...400
Burner inclining angle, degrees	$\pm 30^\circ$
Welding arc power source	
Welding current at 100%, A	650
Welding current control range, A	75...650

## AUTOMATIC MACHINE FOR OVERLAYING

Welding rotator	
Maximum carrying capacity, kg	750
Faceplate inclining angle, degrees	0...10
Faceplate rotation speed, turns/min	0,08...4,5
Overall dimensions (LxWxH), mm, not exceeding	1800 x 1100 x 3600
Weight (without set of spare parts), kg, not exceeding	1500

**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.



## AUTOMATIC MACHINE FOR OVERLAYING

### **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.