

OPERATION MANUAL



LATERAL BENDER TYPE HGP5010

Producent / Producer / Производитель

**Zakłady Metalowe ERKO R. Pełtak spółka jawna
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#VHGP5010 100210

**Thank you for buying our product.
Before using this equipment, please carefully read user and maintenance
manuals.**

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* ERKO has the right to introduce construction modifications due to equipment modernization.



ISO 9001
ISO 14001

Before using this equipment, please read user and safety manuals.

1. APPLIANCE

HGP type head is used for lateral bending of copper and aluminum rails of 20, 30, 40 and 50mm width and 5, 10mm thickness.

HGP head cooperates with H 800 hydraulic pump, hydraulic units AH 500, AH550 and processing stations SH400PLC.

2. TECHNICAL DATA

Max dimensions L x W x H	700 x 250 x 230
Working pressure	630 bar
Force	196 kN
Bending range	0-90°
Weight	49 kg

3. EQUIPMENT

Standard equipment:

1.	An insert for bending
2.	Equipped with set of rollers (two supporting rollers, stamp with punch clamp) for busbars of 5mm thickness.
3.	Equipped with set of rollers (two supporting rollers, stamp with punch clamp) for busbars of 10mm thickness.

Additional equipment:

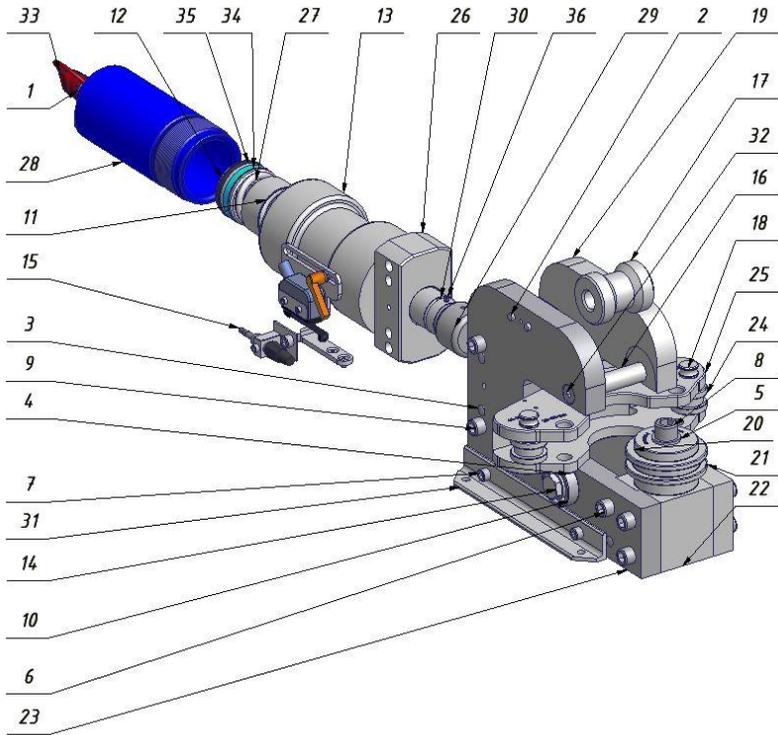
1.	Repeatable bending angle sensor with the base, knob, electrical connector of the JACK type, driver running limit stop disabling and set of screws fastening device set for the equipment cheek (HGP105).
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4. MAINTENANCE AND OPERATION RECOMENDATIONS

1. In the case of using the hydraulic unit, it is unacceptable to switch it on during carrying out the work (assembly and disassembly of components, positioning of elements being processed).
2. Running the unit should be done at the end of the preparatory work and making sure that there is no danger of injury.

3. Before starting the bending, check the technical condition of the device.
4. Periodically lubricate moving parts with oil.
5. Before starting the bending, check the correctness of the assembled arrangement, in relation to the thickness and width of the processed rails - Stamp [21] and the pressure stamp [20] the stamping [22] - support rollers [24] and the pins [18] on the bending liner [25]
6. Do not exceed the scope of the bending angle.
7. Application of lateral bender for bending rails greater thickness and materials other than specified in this manual may result in mechanical damage and void your warranty.
8. Protect the device from the feather, corrosion, dirt and mechanical damage.
9. Keep the quick coupler clean as the pollution can get through to the pump circulation and damage the equipment or cause leak of quick coupler.

5. DESCRIPTION OF THE CONSTRUCTION



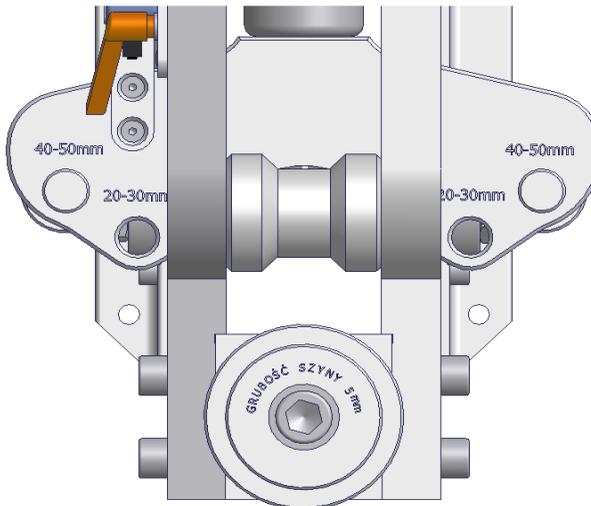
Item No.	No.Used	Description	Code No.
1	1	Quick coupler	PT-00
2	2	Pin	NEZK_WH-8M6-30
3	3	Pin	NEZK_WH-12M6-120
4	2	Washer	NEZP_P1A-13-OC
5	1	Washer	NEZP_P1A-17-OC
6	6	Screw	NEZS_WI-M12-50-8.8OC
7	4	Screw	NEZS_WI-M8-20-8.8OC
8	1	Screw	NEZS_WI-M16-80-8.8OC
9	2	Screw	NEZS_WI-M12-120-8.8OC
10	2	Bearing	NLPK_6204-ZZ
11	1	Coupler	HGP5010-16
12	1	The piston rod	HGP5010-15
13	1	Coupler	HGP5010-14
14	2	Screw	HGP5010-11
15	1	Sensor	HGP5010-105
16	1	Axis	HGP5010-10
17	1	Roller	HGP5010-09
18	2	Pivot	HGP5010-08
19	1	Cheek	HGP5010-07
20	1	Holdfast	HGP5010-06
21	1	Punch	HGP5010-05
22	1	Basis	HGP5010-04
23	1	Cheek	HGP5010-03
24	2	Roller	HGP5010-02
25	1	Bending insert	HGP5010-01
26	1	Coupler	HGD125-02-03
27	2	Spring	HGD125-01-10-A
28	1	Cylinder	HGD125-01-06-A
29	1	Pin	HGP5010-17
30	1	Circlip	HGD100-01-13
31	2	Angle	HC125-01-10-A
32	2	Screw	NEZS_VI-M10-30-10.9CZ
33	1	Cover	PT_OSLONA
34	1	The guiding ring	HUTR_GP6900630-C380
35	1	Sealing ring	HUTR_PS1400630-T46N
36	1	Screw	NEZS_BI-M6-6W-CZ

Table 1.

6. OPERATING PRINCIPLES

1. Attach the device to the workshop: openings fi 9 in brackets [31].
2. Connect the head to the drive.
3. Select the respective punch [21] and holdfast [20] depending on the thickness of the rail (5 or 10mm).
4. Select the appropriate roller [24] depending on the thickness of the rail (5 or 10mm).
5. Set the roll [24] in the right place (depending on the width of the rail 20-30mm or 40-50mm range) and secure the bolts [18] in the bending liner [25].
6. Push the rail up to the required length in the workspace.
7. Lightly tighten the screw wrench [8]
8. Start the bending process by pumping the foot pump, or by pressing the pedal of the power supply.
9. After bending to the desired angle, release the pressure by pushing lever pump drain field, or release the pedal of the power supply (pusher returns to the starting position).
10. Loosen the screw [8] and remove the bend rail.
11. When working with the bending angle repeatability sensor HGP105 pre-set controlling sensor, bend the rail for testing, measure the resulting angle, make adjustments and repeat bending to the desired value of the angle.

The following figure shows a view of the bending apparatus.



7. ASSEMBLY OF REPEATABLE BENDING ANGLE SENSOR

Repeatable bending angle sensor is attached to the cheek [23] (Table 1) using the knob [7] (Table2). After mounting the sensor, for safety reasons set it to the position of leftmost - the measuring range is limited by longitudinal hole in the base of the limit switch [5] (Table2). Basic movement is limited by the movement of the two pins [2] (Table 1) stuck on the cheek [23] (Table 1) Adjustment involves moving the base limit switches [5] along the opening and locking knob [7]. In addition, the driver must be attached [6] (Table2) by screws [10] (Table2) to the bending of the insert [25] (Table 1).

The following figure shows the repeatable bending angle sensor.

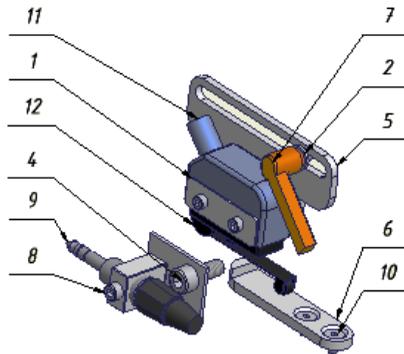


Table 2.

8. SAFETY WORK AND HYGIENE MANUAL

1. Before starting work with the device, make sure it is set so as not to pose a threat to the employee.
2. Ensure there is free space around the workplace.
3. Before performing work on the unit, check the tightness of the hydraulic system, correct connection with hydraulic drive, and the correctness of the mounted controls.
4. It is unacceptable to manipulate the moving parts inside the device during the operation of cutting holes or bending.
5. In the case of using the hydraulic unit, it is unacceptable to switch it on during carrying out the work (assembly and disassembly of components, positioning of elements being processed).
6. Running the unit should be done at the end of the preparatory work and making sure that there is no danger of injury.

9. SERVICING

ERKO provides full service both during and after the guarantee period.

Lp. / Item No.	Ilość / No.Used	Nazwa elementu / Description	Nr. zamówieniowy części / Code No.
1	1	Overlay	SH405PLC-02
2	1	Washer	NEZP_P1A-6.4-OC
3	2	Screw	NEZS_WI-M4-30-8.8OC
4	1	Screw	NEZS_WI-M8-20-8.8OC
5	1	Overlay basis	HGP5010-13
6	1	Carrier	HGP5010-12
7	1	Knob set.	HGD125-01-17
8	1	Housing	HGD105-02-06-B
9	1	Plug	EOWJ_WT-6,3-STEREO
10	2	Screw	NEZS_VI-M5-10-10.9OC
11	1	Housing	EOOB_TAP-Y
12	1	Limit switch	E_TM-1703

10. DISPOSAL

After the end of the exploitation period, utilize or recycle the particular elements of this equipment according to the regulations in force.

“Zgodnie z przepisami Ustawy z dnia 29 lipca 2005r. o ZSEiE zabronione jest umieszczanie łącznie z innymi odpadami zużytego sprzętu oznakowanego symbolem przekreślonego kosza.

Użytkownik, chcąc pozbyć się sprzętu elektronicznego lub elektrycznego, jest obowiązany do oddania go do punktu zbierania zużytego sprzętu.

Powyższe obowiązki ustawowe zostały wprowadzone w celu ograniczenia ilości odpadów powstałych ze zużytego sprzętu elektrycznego i elektronicznego oraz zapewnienia odpowiedniego poziomu zbierania, odzysku i recyklingu. W sprzęcie nie znajdują się składniki niebezpieczne, które mają szczególnie negatywny wpływ na środowisko i zdrowie ludzi.”