



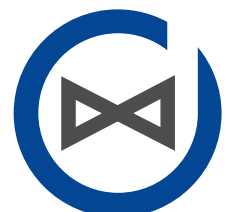
SERVICING, CAPITAL OVERHAUL AND TESTING OF INDUSTRIAL VALVES



We are increasing the efficiency of your plant by using reliable technology

www.armatura-servis.hr

**ARMATURA
SERVIS**



INDUSTRIAL VALVES SERVICING

We service and revitalize industrial valves on-site or in our workshop:

- ▶ globe valves up to DN 300 mm
- ▶ control valves up to DN 300 mm
- ▶ safety valves up to DN 600 mm
- ▶ gate valves up to DN 2000 mm
- ▶ butterfly valves up to DN 2300 mm
- ▶ taps up to DN 800 mm

ADVANTAGES

- ▶ servicing cost is 10-35% price of the new valve.
- ▶ industrial valves servicing takes up to five days, while for the new valve delivery time may be several months.
- ▶ avoiding unplanned shutdowns, increasing the quality, safety and equipment life.

CLIENTS

- ▶ thermal power plants
- ▶ hydropower plants
- ▶ heating plants
- ▶ refineries
- ▶ petrochemical industry
- ▶ oil pipelines
- ▶ chemical industry
- ▶ process industry
- ▶ food industry
- ▶ water supply
- ▶ sewerage



SERVICING PROCEDURE

- ▶ dismantling of industrial valves
- ▶ sandblasting and cleaning
- ▶ inspection of damage
- ▶ machining of sealing surfaces by grinding, lapping and in case of substantial damage turning
- ▶ replacement of damaged parts and sealing material
- ▶ assembling of industrial valves
- ▶ functional testing
- ▶ leakage testing
- ▶ protection from corrosion
- ▶ drafting a servicing report

VALVE SERVICING EXAMPLES

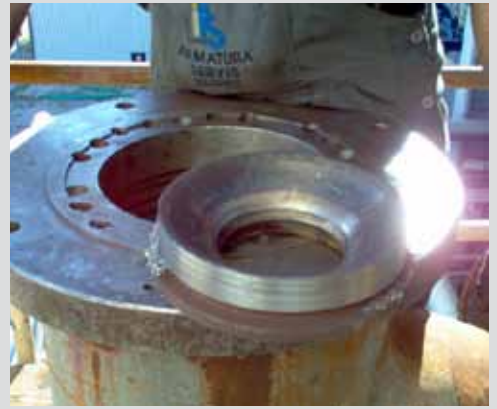


Water supply – gate valve servicing



Process industry - servicing and testing of a control valve

Hydro power plant – butterfly valve servicing



Thermal power plant - control valve seat replacement



Petrochemical industry – gate valve servicing

SAFETY VALVES - TESTING, SERVICING AND ADJUSTMENT

We are accredited according to the standard ISO/IEC 17020:2005 for testing and adjustment of safety valves from 0,35 bar to 187,5 bar. We are equipped with stationary valve test benches, as well as portable valve test bench and LEGATEST device for on-site testing and adjustment of safety valves.

The process servicing, testing and adjustment of safety valves:

- ▶ dismantling, cleaning, inspection of damage
- ▶ machining of sealing surfaces, valve seat and disc (grinding, turning, lapping, surfacing if necessary)
- ▶ sandblasting, protection from corrosion
- ▶ assembling, including the sealing material
- ▶ testing and adjustment of the safety valve
- ▶ drafting of safety valve test report
- ▶ setting the seal and valve card



The operation of pressurized security system equipment must be checked and adjusted at least once a year!

TESTING OF INDUSTRIAL VALVES



Globe valve



Gate valve



Tap



Safety valve

MISCELLANEOUS FROM OUR ACTIVITIES



Turning the seat of the non-return flap



Flange facing



Turning the valve seat at the depth 1150 mm



High speed grinding of valve seat



Surfacing of the valve seat



Gate valve wedge grinding



Sandblasting of hydropower dam shutter



Butterfly flap servicing



Turning a bore on a coupling turbine - generator

OUR EQUIPMENT

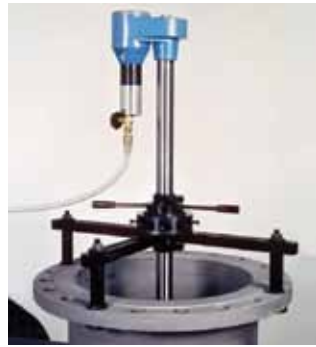
For machining sealing surfaces of industrial valves we use advanced equipment from company EFCO Maschinenbau GmbH, Düren, Germany. We represent EFCO and maintain their equipment on the territory of Croatia.



MOBILE EQUIPMENT



EFCO VALVA-1, S-1
grinding and lapping
sealing surfaces
DN 8-150 mm



EFCO VALVA S-15
grinding and lapping
sealing surfaces
DN 80-300 mm



EFCO VSK
grinding and lapping conical
sealing surfaces
30°, 40°, 60°, 75°, 90° DN 8-150 mm



EFCO VSA
high speed grinding flat or
tapered sealing surfaces
DN 50-300 mm, work depth up to 650 mm



EFCO TD-2
sealing surfaces turning
DN 0-600 mm
work depth up to 540 mm



EFCO TD-03
sealing surfaces turning
work range Φ 40-150mm
work depth up to 250 mm



EFCO TDF-1
flange turning
work range Φ 0-500 mm
mounting Φ 260-600 mm



EFCO TDF-2
flange turning
work range Φ 300-1200 mm
mounting Φ 480-1380 mm



EFCO SL-05, SL-15
valves and check valves sealing
surfaces grinding and lapping
DN 20-300 mm work depth up to 600 mm



EFCO SL-2, SL-3
valves and check valves sealing
surfaces grinding and lapping
DN 200-1600 mm work depth up to 1200 mm

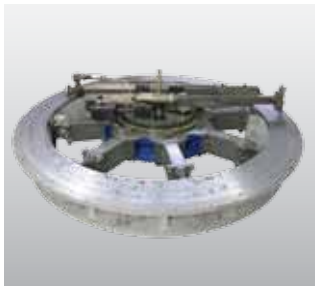


EFCO PS-T10.2
valve mobile test bench
DN 15-200 mm
pressure testing up to 210 bar



LEGATEST
on-site testing and
adjustment of safety
valves





PTS-3000

machining of large flanges
 Φ 1350-3000 mm,
 pneumatic drive



KDM-1

machining of bore on a coupling of
 turbine, generator, gearbox, boat
 shaft, Φ 35-55 mm, max.
 turning length 220 mm



PPB - 0,5-3

machining of bore on a coupling of
 turbine, generator, gearbox, boat shaft,
 Φ 30-200 mm, max.
 turning length 500 mm



TPS-40

machining of bore on a coupling of
 turbine, generator, gearbox,
 boat shaft, Φ 48-100 mm, max.
 turning length 600 mm

STATIONARY EQUIPMENT



EFCO PS-15

valve test bench, clamping force 15 t, DN 15-250 mm
 pressure testing up to 210 bar, medium water, air or gas



EFCO PS-50

valve test bench, clamping force 50 t, DN 25-400 mm
 pressure testing up to 210 bar, medium water, air or gas



Lathe PA-900



Lathe Raša 480D



Bohrwerk UNION WMW



Mill ALG-200B



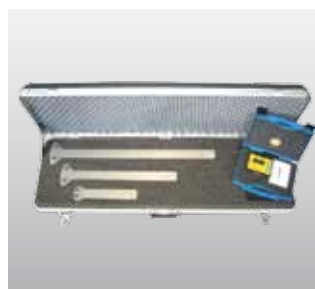
Radial drill SARLAH RBI 5A



Sandblasting machine BLAST 3



**Welding equipment,
 REL, TIG, MIG / MAG**



**Equipment for checking
 of gate valve angle**



CERTIFICATES



ISO 9001:2008 - Quality management



ISO 14001:2004 - Environmental management



OHSAS 18001:2007 - Management of health and safety at work



ISO/IEC 17020:2005 - Accreditation for testing and adjusting safety valves



REFERENCES

1. HEP Toplinarstvo, Zagreb, Croatia
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3. HEP Proizvodnja, TE-TO Osijek, Osijek, Croatia
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ARMATURA-SERVIS d.o.o.

Slavonska avenija 22e
(Business center Žitnjak)
10000 Zagreb
Croatia
VAT nr. : 28954208925

tel: +385 1 2406 055
fax: +385 1 2455 238
info@armatura-servis.hr

www.armatura-servis.hr



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