



Przedsiębiorstwo Produkcyjno-Wdrożeniowe NABOR offer production of precision rubber, metal and rubber-metal products. We owe our strong position to our consistently high quality of our products, rubber, metal and rubber-metal product manufacturing technology and the ability to create our own state-of-the-art constructions.



Don't make a photo during the tour. Thank You. The company Nabor works 3 divisions: elastomer processing, machining and sheet metal forming.

Our business offer comprises production of the following important and precision products:

- seals for rolling bearings,
- seals, shields and shock-absorber elements,
- rubber and rubber-metal elements for pneumatic and power hydraulic installations,
- products for the food industry,
- elements for gear drives for the construction industry,
- components for the aerospace industry,
- molds, tooling and tools,
- bending and welding elements e.g. painting, machine housings,

many other applications.

2012: 64% - export, 36% inland market **2013:** 69% - export, 31% inland market **2014:** 52% - export, 48% inland market

Main directions of export:

The Netherlands, Denmark, Italy, Canada, Germany, Lithuania

A shortcut history:

1983 – Foundation – 10.1983

- **1992** Start of implementation of the quality assurance system according to ISO9001 standards
- 1994 Purchase of new headquarters
- 1996 3rd place in Poland in the contest Employer Safe Work Organizer
- **1998** Purchase of next productionsites, expanding the production of metal production , 1st place in the competition in the District Employer Safe Work Organizer
- 1999 Obtaining certification by Lloyds Register QA ISO9001
- 2002 Obtaining ISO9001 certification by BVQI
- 2005 Purchase hall and the start of the process of modernization (10 000 square meters)
- 2010 Transfer of part of production to the new hall
- 2011 The next stage of the transferring to the new hall, expanding company profile for metal sheet forming production
- 2012 Receiving the Gold Certificate for integrity company.
- 2013 Transfer of the complete production to the new hall,
- 2013 Joining to the Aviation Valley cluster,
- 2014 The largest investment for machining department. Three 5 axis milling centers, EDM, new programs for the design department, a large measuring machine
- 2015 Obtaining TS16949 certification by BVQI (Automotive) Obtaining ISO14001 certification by BVQI (Enviroment) A separate department of stainless steel and new laser cutting machine



ELASTOMERS

The vulcanization process involves injection, pressing and piston driving.

1. Vulcanizing presses with pressure of 600kN,

- Heating plates with dimensions of 410x400mm,
- Overall height of plates 150mm

12 pieces.

2. Vulcanizing presses with pressure 1000kN,

• Heating plates with dimensions of 400x400mm,

• Overall height of plates 180mm 10 pieces

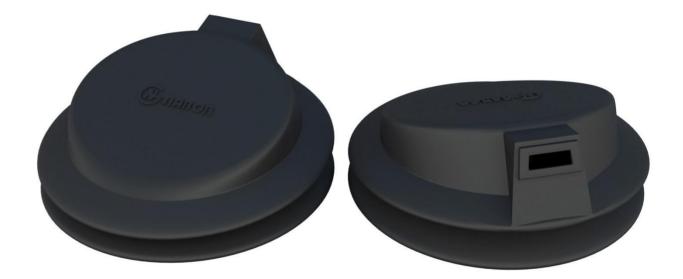
3. Vulcanizing presses with pressure 4000kN,

- Heating plates with dimensions of 600x600mm,
- Overall height of plates 248mm

7 pieces.

4. Injection DESMA,

- Displacement volume 1500cm³,
- Closing force 1600kN,
- 2000bar injection pressure.







Automatic line for phosphating.

Automatic lines for applying the adhesive coating.

Shot blasting and vibrating wheel reel RÖSLER.

We use a broad range of rubber mixtures in production:

- acrylic-nitrile (NBR),
- chloroprene (CR),
- acrylic (ACM),
- ethylene-acrylic (AEM),
- silicate (MQ, MVQ, MPQ, MPVQ),
- fluorosilicate (FVMQ),
- natural (NR),
- butadiene (BR),
- butadiene-styrene (SBR),
- ethylene-propylene (EPM, EPDM).

Thanks to the extensive knowledge and experience of our specialists as well as modern equipment we are capable of manufacturing top quality products. Due to the precise workmanship and properties these products are reliable, and guarantee safety of use.



EXAMPLES OF PRODUCTS / ELASTOMERS





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MACHINING

Lathes:

• CNC lathes with a maximum workpiece for machining 250 mm x 450 mm,

• Automatic double-head CNC lathe with feeder - spindle bore till 65 mm,

• Universal lathes with maximum workpiece for machining 500 mm x 1500 mm.





Milling:

- CNC 5-axis dimmension detail Ø800 x 400, weight 500 kg,
- CNC 4-axis 550 mm x 400 mm x 400 mm,
- CNC 3-axis 550 mm x 410 mm x 510 mm,
- CNC 3-axis horizontal 2-Palette,
- Universal milling machines max 1000 mm x 300 mm x 400 mm.

Drilling:

• Drill deep-holes - ø 4 mm ÷ 20mm L from 300 to 1100 mm.





Grinding:

- Round grinder φ 350 mm x L 1000 mm,
- Flat grinder max L 1000 mm x H 400 mm,
- Thread grinder φ 160 mm x 500 mm,
- Centerless grinder φ 70 mm.

Drilling Electro:

- Wire EDM rides: 550 mm x 350 mm x 400 mm, detail dimensions 1200 x 700 x 400, weight 1500 kg, angle 45°,
- EDM small hole ϕ 0.2 \div 3, rides : 300 x 200 x 300 , detail dimensions 700 x 450 x 200 , weight 300 kg,
- Hollowing EDM length 260 mm x height 200 mm x width 250 mm.





EXAMPLES OF PRODUCTS / MACHINING





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SHEET METAL:

• Laser cutting table 3000 x 1500 mm

cutting thickness:

- black steel 0,5 mm 30 mm
- stainless steel 0,5 mm 25 mm
- aluminum: 0,5 mm 18 mm

bending on CNC press brakes
length 2000mm, pressure 500kN; length 3100mm, pressure 1100kN
length 3100mm, pressure 1600 kN; length 4300mm, pressure 1100kN,

• punching on eccentric presses with pressure of 100, 120, 160, 250, 600, 630, 1000 kN,

- hydraulic presses with a pressure of 30, 100, 400, 600, 630 kN,
- CNC punching dimensions. 2540 x 1000 and a thickness of 0.8-4mm max. pressure: 20 Ton rotary head with 20 tools including 2 auto indexing,
- TIG, MIG, MAG welding,
- Spot welding for joining sheet metal and stainless steel.



EXAMPLES OF PRODUCTS / SHEET METAL





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DESIGN OFFICE:

Our design office has gained significant experience over the past 30 years, and specialises in the design of vulcanised forms of rubber, stamping dies, bending dies, blanking dies and other production equipment.

Our highly qualified technical staff are equipped with the state-of-the-art 3D computer aided design systems such as SOLID WORKS, CATIA and modelling aids, and is so able to design vulcanised forms with complex surface details.









QUALITY

Our test centre is equipped with specialized devices controlling the parameters of raw materials and manufactured goods, including marking the vulcanization process using vulcameter, rheometer measurements, permanent deformation, hardness, breaking resistance, abrasion resistance, low and high temperatures, aging analyses in different media (lubricants, oils, liquids) and other finished product parameters at the customer's request.

Measuring machine 1524 x 1016 x 813 mm MPE E 1,8 μ m x L/400 mm

The high quality and precision of our products has been confirmed by our quality certificate ISO:9001:2008, TS16949, ISO14001 awarded by Bureau Veritas Quality International. It covers the product design process, production technology, raw materials and complete control of finished elements.

The company is in the process of implementing Aerospace Quality Standards AS9100.

We look forward to doing business with you...







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