MICO®

MORAVIAN INDUSTRIAL COMPANY

COMPREHENSIVE CUSTOMIZED INDUSTRIAL SOLUTIONS



www.mico.cz

ABOUT COMPANY

MICo, spol. s r.o. was founded in 1993 as a service company operating at the Nuclear Power Plant Dukovany. In 1998, it started its own production in Hrotovice and in 2011 the production capacity was expanded by 50,000 m2 in Kramolín. The company focuses mainly on the design and production of heat exchangers, condensers, pressure vessels, tanks, steel structures, technological parts for nuclear and conventional power generation, chemical and food industry and seals for special applications.

The MICo team consists of highly qualified employees with many years of experience gained in construction, operation and maintenance of nuclear power plants of ČEZ, a.s. The company's quality management system is certified according to ČSN EN ISO 9001, ČSN EN ISO 3834-2 and verified by the customer ČEZ, a.s. in accordance with the requirements of for the management system according to the Atomic Act No. 263/2016 Coll., as amended, and Decree No. 408/2016 Coll. on requirements for the management system. The environmental management system is certified according to EN ISO 14001 and the occupational health and safety management system is certified according to ČSN ISO 45001:2018.

STRONG GROUP, STRONG PARTNER

MEMBER OF CE INDUSTRIES

MICo, spol. s r.o. has been part of the CE Industries group since 2023, owned by Jaroslav Strnad Sr.

Central European Industries (CEI) is a growing industrial holding focused on a selected area of uniquely interconnected commercial and industrial activities in the areas of energy, heavy engineering, raw materials recycling and rail transport.

Through these linkages, we are able to execute the challenging financing of our projects and contracts while leveraging synergies within CE Industries' operations.



OUR SERVICES

- CONDENSERS
- HEAT EXCHANGERS
- SPECIAL SEALS FOR HIGHLY EXPOSED JOINTS
- SEPARATORS
- OIL, AIR, LEACH AND RADIOACTIVE GAS COOLERS
- TANKS
- WELDMENTS AND WORKPIECES NOT ONLY FOR THE ENERGY INDUSTRY

FIELDS OF ACTIVITIES

- NUCLEAR POWER PLANTS
- CONVENTIONAL POWER PLANTS
- WATER POWER PLANTS
- HEAT POWER PLANTS
- CHEMICAL AND PETROCHEMICAL INDUSTRY
- PULP & PAPER AND FOOD INDUSTRY

CERTIFICATION

EN 1090 1 A1
ISO 9001 IN COMBINATION WITH ISO 3834-2
ISO 14001
DECREE No. 18/1979 COL
ISO 45001
NUMEX AWARD
CERTIFICATION FOR EXPORT TO RF
AD 2000
CERTIFICATE OF PRODUCTION OF PACKAGING - EKO-KOM
TI ACT No. 127/2006 Z.Z.
ITI ACT No. 174/1968 COL.
GREEN COMPANY

PRODUCTION POSSIBILITIES

Products and lifting equipment
Maximum diameter: approx. 5,500 mm
Maximum weight: approx. 150,000 kg
98% of the production area is served by cranes
Installation pit: 5×12 m, depth 4.5 m
Dividing of material
NC cutting machine: max. dimension 3,240 x 6,000 mm
Flame: maximum thickness of CS steel 350 mm
Plasma: maximum thickness of SS steel 50 mm
Sheet metal bending
Maximum length: 3,050 mm
Maximum thickness: 50 mm
Maximum diameter: 5,500 mm
Minimum diameter: 380 mm
Turning
Maximum diameter: 4,200 mm
Maximum length: 2,500 mm
Maximum weight: 40,000 kg
Drilling
Conventional + NC
Maximum drilling diameter: 45 mm
Milling and driling
Maximum workpiece weight: 40,000 kg
Expanding tubes into the tubesheets
Range of expanded tubes' size: from 15 mm to 114.3 mm
Welding
Methods: MMA, MAG/MIG, TIG, SAW
Orbital welding tube-tubesheet without preheating or with preheating
CS/SS tubesheet weld overlay
Heat treatment
Chamber annealing furnace 7500 x 2700 x 2600 mm, temperature up to 850 °C
Induction heat treatment equipment for annealing and preheating, max. output 96 kW, temperature up to 1200 °C
Surface treatment
Surface treatment of common carbon steel and stainless steel
Non-destructive tests
X-ray test, ultrasonic test, penetration test test, magnetic test, hardness measurement.

OUR SERVICES

01 NUCLEAR PROGRAMME

Our company was originally established to provide maintenance services for major technological units of nuclear power plants.
During our existence, we have provided our major customers in the field of nuclear energy, mainly ČEZ, but also ENEL, AREVA, Rolls-Royce, Bouygues Energies and the Kozloduy NPP in Bulgaria, we have completed a number of large-scale projects that had to meet the most demanding quality requirements.

We design and manufacture the following nuclear power plant equipment for our customers:

- Condensers
- Heat exchangers
- Special seals for highly exposed joints
- Separators
- Thermal barriers
- Radioactive gas, leach and oil coolers
- Steel structures classified in nuclear safety classes
- Piping systems

REFERENCES
ČEZ –Temelín NPP, Dukovany NPP
Slovak power plants – Jaslovské Bohunice NPP, Mochovce NPP
EDF – NPP Hinkley Point C



02 CONDENSERS

MICO performs thermal and strength calculations and provides complete production. These include axial and radial condensers for nuclear and conventional power generation, manufactured from carbon and stainless steel as well as titanium materials with weights up to 500 tonnes.

REFERENCES
Počerady Power Plant
Pulawy Power Plant (Poland)
Adularya (Turkey)



03 HEAT EXCHANGERS

Low and high pressure tubular heaters with direct tubes and U-tubes, which together with condensers cover the entire steam recovery system. Other applications are in the heating and petrochemical industries. MICo carries out the design and complete production. Condensers and heat exchangers can be supplied with spare tube bundle or other spare parts for on-site refurbishment.

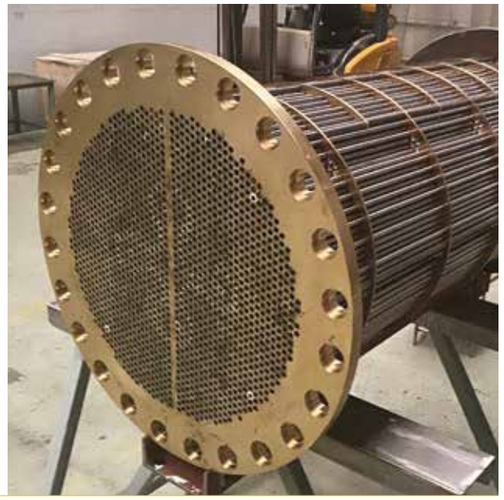
REFERENCES
Siemens - Biomass Vilnius – DHE
Třebovice Thermal Power Plant – DHE
Doosan Škoda power – BIO4 – heater



04 COOLERS OF OIL, AIR, LEACH AND RADIOACTIVE GASES

Coolers for primary and secondary circuit of nuclear power plant (main circulation pump electric motor coolers, main circulation pump bearing oil cooler,...). Design and complete production, wide range of used materials including brass.

REFERENCES
Temelín NPP
Dukovany NPP



05 SPECIAL SEALS FOR HIGHLY EXPOSED JOINTS

MICo servis has long been dealing with the issue of sealing of flange joints. It is mostly about the replacement of the original metal, asbestos or spiral seals. We provide a complete service from basic design to calculation according to ČSN EN 1591-1 and complete documentation according to the relevant regulations, including installation procedures.

Based on many years of sealing experience, especially at exposed nuclear power plant joints, the seals have been developed for the main flange joints of primary NPP circuits:

- Steam generators
- Main circulation pumps
- Volume Compensators
- Hydroaccumulators
- Beyond these main parts, MICo servis has developed and supplies seals for the parting planes of primary valves circuit and also for valves that perform safety functions in the secondary circuit
- We develop rubber seals for hermetic systems of containment and hermetic boxes

REFERENCES
Czech Republic (Dukovany, Temelín)
Slovakia (Jaslovské Bohunice, Mochovce)
Hungary (Kozloduy)
Bulgaria (Rivne, Khmelnytskyi, South Ukraine, Zaporizhzhia)
Armenia (Metsamor)



06 SEPARATORS

Steam separation for VVER-440 nuclear reactors including heating section.

REFERENCES
Dukovany NPP
Rivne NPP (Ukraine)



07 TANKS

Tanks for chemical and petroleum products, diesel and oil tanks of emergency circuits of nuclear power plants.

REFERENCES
Slovnaft - tank for crude oil and sulphuric acid
Hinkley Point C nuclear power plant - diesel and service oil tanks



08 CUSTOM PRODUCTION - WELDMENTS AND WORKPIECES NOT ONLY FOR THE ENERGY INDUSTRY

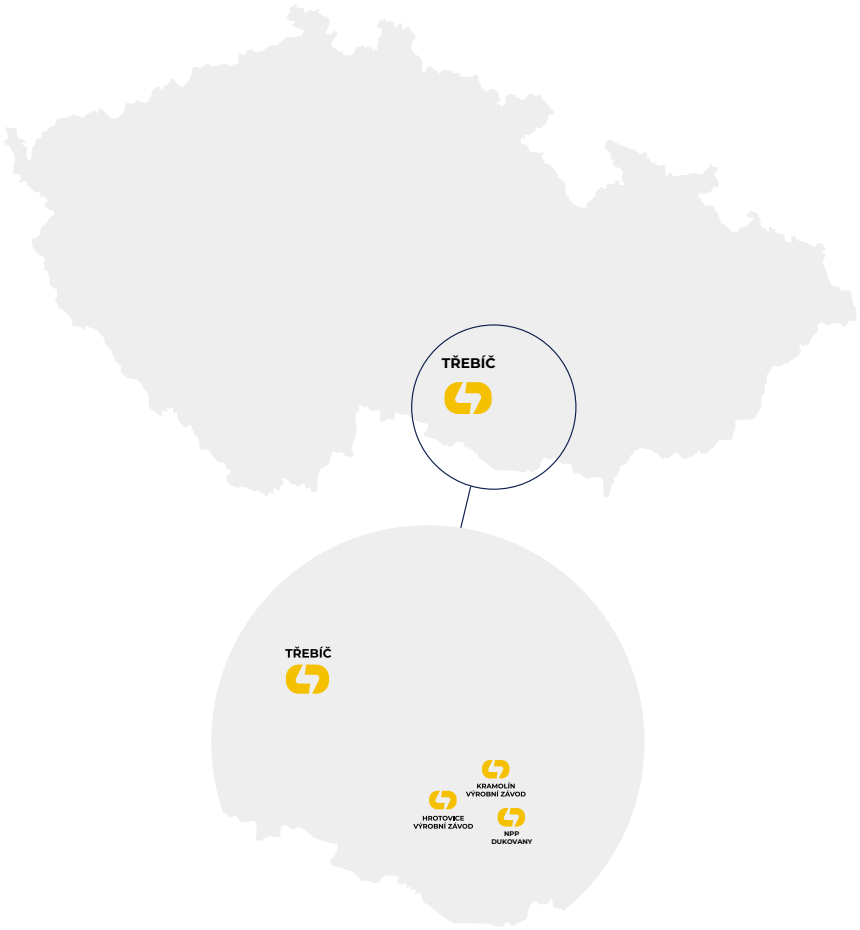
Thermal barrier of the main circulation pump of the nuclear power plant, stator skeletons of electric motors and generators, electric motor frames housings.

REFERENCES
Kozloduy NPP – HC pump thermal barrier
Siemens - main circulation pump thermal barrier





COMPANY HEADQUARTERS AND PRODUCTION PLANTS





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Třebíč 674 01

KRAMOLÍN PLANT
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