MBNS – International, spol. s r.o.

Brno, 02-2025

COMPANY

MBNS spol. s r.o. International

HISTORY

- established 1990
- private owned from 1995
- own fabrication from 2005

DATA

- Location: Brno, Czech Republic
- Staff: aprx. 80
- Markets: EU, Middle East, Asia, North Africa

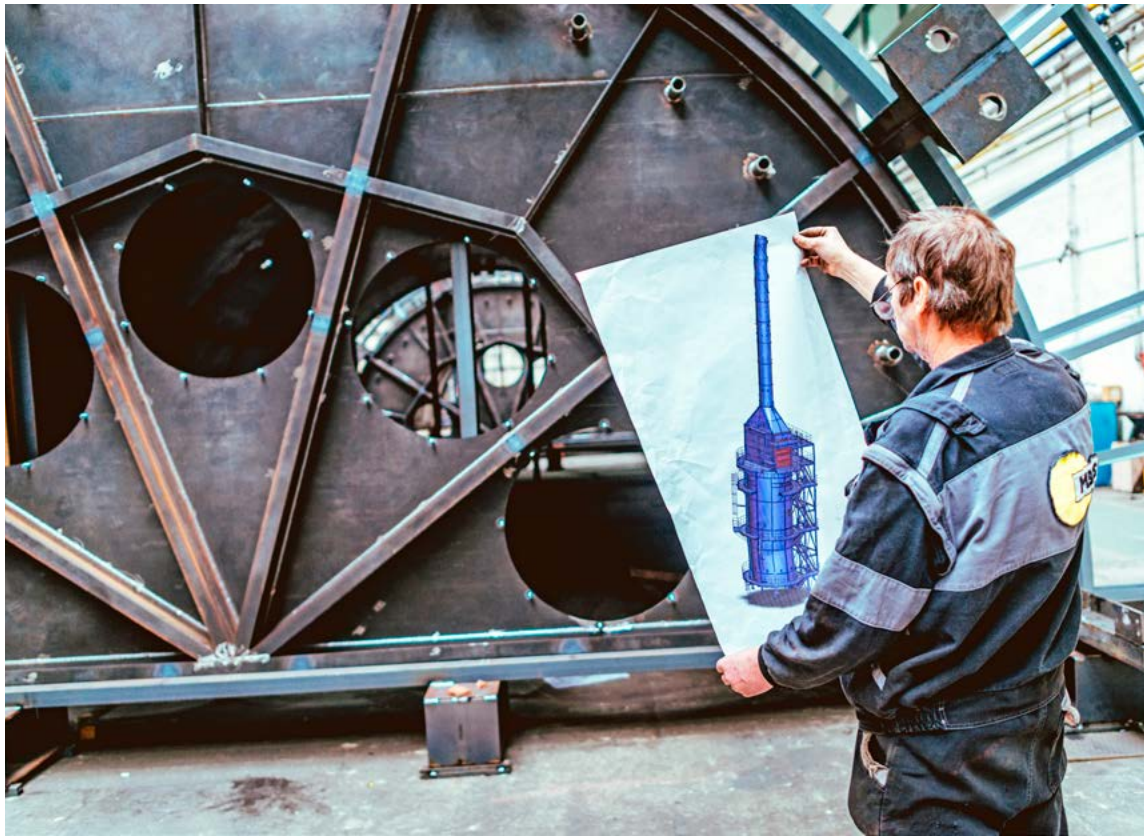
PRODUCTS

MBNS spol. s r.o. International

FABRICATION OF THE EQUIPMENT FOR OIL, GAS, CHEMICAL, PETROCHEMICAL AND POWER INDUSTRIES

- Fired heaters, process furnaces, reformers
- Convection modules, WHRSs
- Coils - radiant, convection, helical etc.
- Pre-heaters, stacks, structures etc.
- RLOHs, manifolds, collectors, transferlines (TLE), cross-overs, pigtails etc.
- Columns, reactors, pressure vessels
- Mechanical pressure static equipment
- Piping and tubular systems
- Heavy steel structures

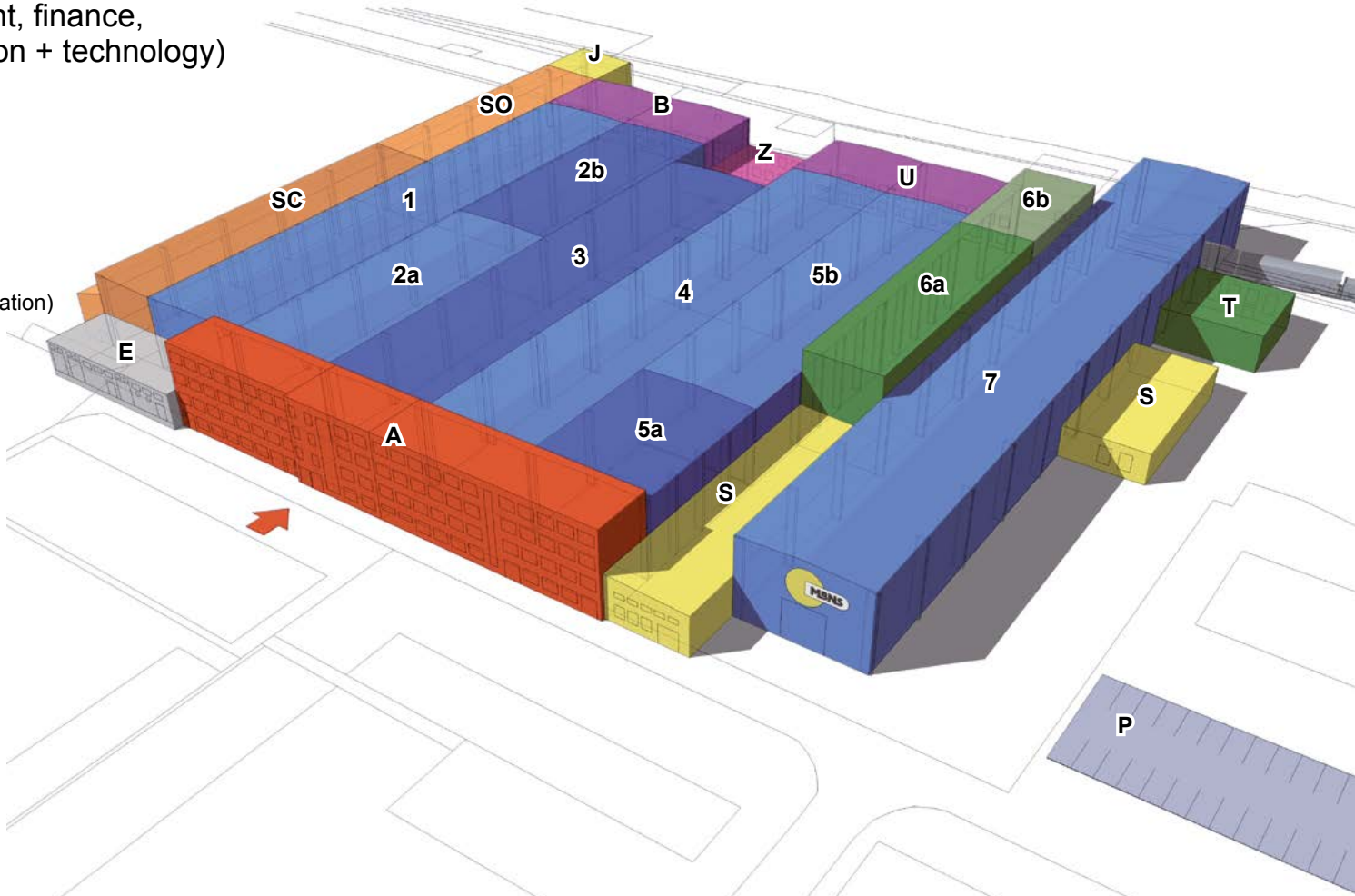
- **up to max. weight 100 tons/pc; max. length 30 m/pc; max. diameter 5,5 m**



FABRICATION SHOPS

MBNS spol. s r.o. International

A	administration offices (management, finance, trade, QM, engineering, construction + technology)
1	machining shop
2a	welding and assembly shop
2b	mechanic and plate forming shop
3	tube bending and rolling shop
4	welding and assembly shop
5a	clean room (stainless and special steel fabrication)
5b	welding and assembly shop
7	heavy assembly & shipment shop
Z	non-destructive analysis (X-ray)
6a	paint shop
6b	paint shop
T	blast cleaning shop
S	stores
SC	closed store
SO	open store
J	scrap yard
B	grinding shop & tool crib
U	maintenance
E	substation
P	parking



Total area 40 000 sq m
Covered production area 17 000 sq m

FABRICATION FACILITIES

MBNS spol. s r.o. International

MECHANIC AND PLATE FORMING SHOPS

Plate edge planning - HHP 10 planning machine
- min. plate width 90 mm, max. plate length 9000 mm, through height 90 mm

Pre-bending - press HPC 250 TO
- max. die width 1000 mm, max. piston stroke 520 mm, max. piston centre-to-housing frame depth 500 mm

Plate roll bending
- max. plate thickness 45 mm, width 3000 mm

Oxy-acetylene cutting
- automatic max. 50 mm, manual max. 20 mm (CS)

Plasma cutting
- max. 50 mm (SS)

Plate cutting
- max. 10 x 3000 mm

Saw cutting
- At an angle up to 130 mm, upright 300 mm

FABRICATION FACILITIES

MBNS spol. s r.o. International

WELDING

Submerged arc welding (SAW) and plasma arc welding (PAW)
- min. Ø 750 mm, max. Ø 5500 mm (ESAB + Lincoln machines)

Standard thickness of welded plates, pipes and flanges
- carbon steel 3 - 100 mm, stainless steel 3 - 100 mm

GTAW (TIG/WIG)
- pipe outside Ø 16 - 800 mm (EWM, Fronius, Omicron – 15pcs)

GMAW (MIG/MAG)
- conventional and pulse welding in shield gas, pulse welding-mainly SS, sources up to 500 A/60%ED (EWM, Fronius, Omicron – 15pcs)

Electrode
- conventional and special welding (EWM – 5pcs)

GTAW (TIG/WIG)
- pulse sources up to 500 A/60%ED (EWM – 2pcs)

Stud welding
- NELSON resistance stud welding from Ø 6 to Ø 14 mm (2pcs)

FABRICATION FACILITIES

MBNS spol. s r.o. International

TUBE BENDING

Hot bending
- D 89 - 377 mm, R min. 3 D but min. 450 mm,
- R max. 3000 mm, max. bend angle 180º, max. wall thickness 23 mm

Cold bending/rolling
- D from 16 to 108 mm, R min. 3 D, max. bend angle 180°
- D from 20 to 159 mm, R max. unlimited, bend angle 360°, max. wall thickness 8 mm (AMOB MAH150 and HPR 12-V-H machines)
- tubes can be bent with the bend axis placed in more planes, as well as helically up to max. Ø 159 mm
- D from 15 to 80 mm, R min. 1 D, max. bend angle 180° max. tube length 14 m (2023 AMOB CH 80 CN1 booster machine)

Press for panel straightening
- load – 350 tons (own design and fabrication)

FABRICATION FACILITIES

MBNS spol. s r.o. International

MACHINING

Horizontal boring and milling machine PT160
- spindle Ø 160 mm, X = 3150 mm, Y = 2300 mm, Z = 1600 mm, clamping area 6000 x 4000 mm, maximum load 20 t

Vertical lathe SK25A CNC, SK 16
- max. machining Ø 2700 mm, max. workpiece height 1500 mm, maximum load 12,5 t

Lathes
- max. machining Ø 620 mm, max. L = 4500 mm, maximum load 3 t

Milling machines
- spindle Ø 110 mm, X = 1600 mm, Y = 1250 mm, Z = 800 mm, clamping area 1400 x 1400 mm, maximum load 8 t

Drilling machines
- max. drilling Ø 40 mm, max. working span D = 2000 mm, max. workpiece height 1200 mm

FABRICATION FACILITIES

MBNS spol. s r.o. International

OTHER

Non-destructive testing (indoors)
▪ X-ray RT, ultrasonic testing UT (new Olympus machine), magnetic testing MT, penetration testing PT, visual inspection, positive material identification PMI (NITON machine)

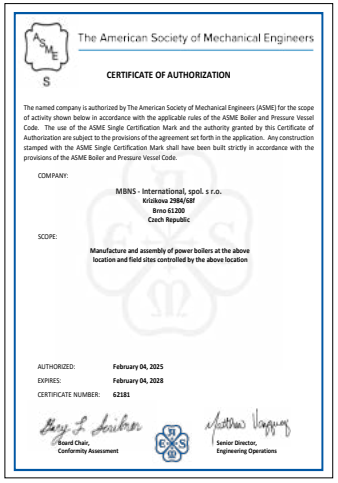
Surface treatment
▪ blast cleaning, painting, pickling (ext.)

Heat treatment
▪ local post welding heat treatment/stress relieving PWHT (Weldotherm machine)
▪ furnace HT (ext.)

Refractory works
▪ refractory & anchors supply and installations, dry-outs (ext.)

CERTIFICATES

- EN ISO 9001 : 2015 in connection with EN ISO 3834-2 : 2021
- ASME BPV Code, Sect.VIII Div. 1, Sect. I and ASME B31.1, U+S stamps, NB Reg.
- AD 2000 Merkblatt HP 0
- EN 1090-2 + A1:2011, EXC 3
- ASME certified welders (WPQ) & procedures (PQR)



FIRED EQUIPMENT 2000-2024

MBNS spol. s r.o. International

- **2024** Romania, crossover & inlet system, convection mixed feed preheat coil, Petromidia refinery, T.EN
- **2024** Czech Republic, flue gas ducting, Litvínov refinery, ORLEN Unipetrol
- **2024** Egypt, RLOH (refractory lined outlet header), pigtails, refinery MIDOR, T.EN
- **2023** France, gasifier & afterburner of biomass gasification furnace, Clairefontaine
- **2023** Slovakia, convection section of the heater 17H301, refinery Slovnaft, MOL
- **2023** Estonia, convection section of the heater P-3, shale oil plant, Kohtla-Jarve
- **2022** Qatar, 656pcs of outlet pigtails, Ras Laftan Qatar Shell GTL plant, T.EN
- **2021** Russia, radiant coils of heaters P-111A and P-111B, refinery Slavneft-YANOS
- **2021** France, reboiler heater B202N, VE/WOOD for Petroineos refinery in Lavera
- **2021** Russia, convection sections of ammonia reformer, KCKK Uralchem, Kirovo-Chepetsk
- **2021** Pakistan, inlet pigtails, support frames, tube sheets, Engro Fertilizers Limited
- **2020** France, regeneration gas heater F1201, ExxonMobil Chemical France
- **2020** Czech Republic, incinerator of BBU Unit, Unipetrol RPA, Litvínov
- **2020** Czech Republic, vacuum distillation unit charge heater stack, Unipetrol RPA
- **2019** Middle East, HT + LT CROSSOVERS, Kharg Ethylene plant – Olefin Complex
- **2018** Egypt, 4 pcs of regeneration gas heaters for Zohr gas project, Vergaengineering
- **2017** Czech Republic, spare parts of the heater 2512-H03, refinery Kralupy
- **2017** Iran convection bank flue gas ducts, header boxes, Polymer Arian Company
- **2017** Slovakia, radiant coils of distillation fired heater B101.101, refinery Slovnaft
- **2016** Slovakia, effluent chambers,192 pigtails, heater BA102.301, refinery Slovnaft
- **2015** Russia, 4pcs of fired heaters 208-20-H002 and 208-10-H001-003, Antipinsky oil refinery
- **2015** Russia, steam preheater 12 H-163 of sulphur acid plant, Ryazan refinery
- **2015** Belarus, cylindrical fractional column feed heater P-351N, Mozyr oil refinery
- **2015** Russia, hydrogen steam reformer effluent chamber OH-2001, Ryazan refinery
- **2014** Middle East, effluent transfer line+line between superheaters, Pardis Petrochemical
- **2014** Belarus, helical coils of reformer heaters No. 4+5, OAO Naftan refinery
- **2012** Iraq, heater H-01, Basrah refinery
- **2012** Belorussia, heater P150N, reboiler for column K150N, Mozyr oil refinery
- **2011** Russia, magnesite plant furnace, PKI Teplotechna/Magnezit
- **2011** Russia, 3 pcs of vacuum heaters, Nizhnekamsk refinery, TANEKO
- **2009** Russia, atmospheric heater of crude oil distillation unit, Usinsk refinery
- **2009** Russia, steam/gas mixture superheater of ammonia AM-76, KuibyshevAzot
- **2008** Ukraine, heaters 222-H1+222-H2, combustion air ducts, Nadvirna refinery
- **2008** Russia, collectors of the steam reformer of methanol plant, Novatek
- **2007** Germany, heater BA-6430, refinery BP, Gelsenkirchen
- **2006** Iraq, shaft heater and drum heater for Basrah Refinery
- **2006** Russia, effluent transfer line+12 risers of ammonia plant AM-76 reformer, KuibyshevAzot
- **2000-2003** Uzbekistan completion of the nitric acid production plant of capacity 360 ths. t/year and of the ammonium nitrate plant of capacity 450 ths. t/year

RECENT PROJECTS 2017+2019+2023

MBNS spol. s r.o. International

- 2 pcs of oil regeneration heaters 2D-400, incl. on-site assembly, HyLube 1+2 (2017+2019)
- 3 pcs of fired heaters 3D-110, 3D-111, 3D-400 + APH incl. on-site assembly, HyLube3 (2023)
- PURAGLOBE, ALTTROGLITZ, GERMANY

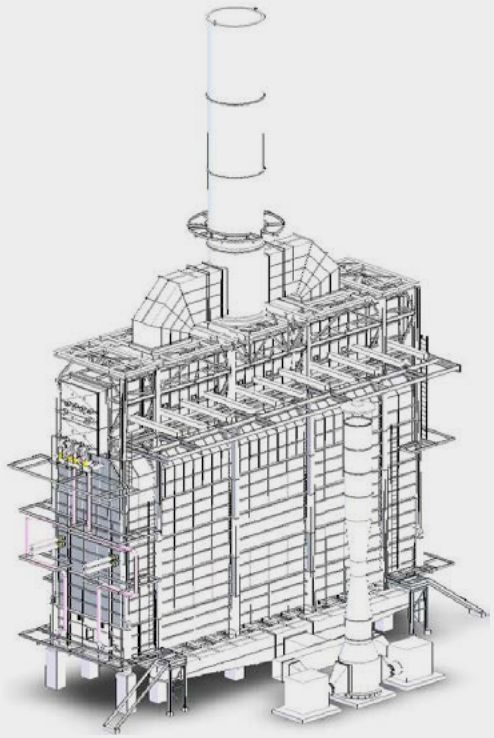


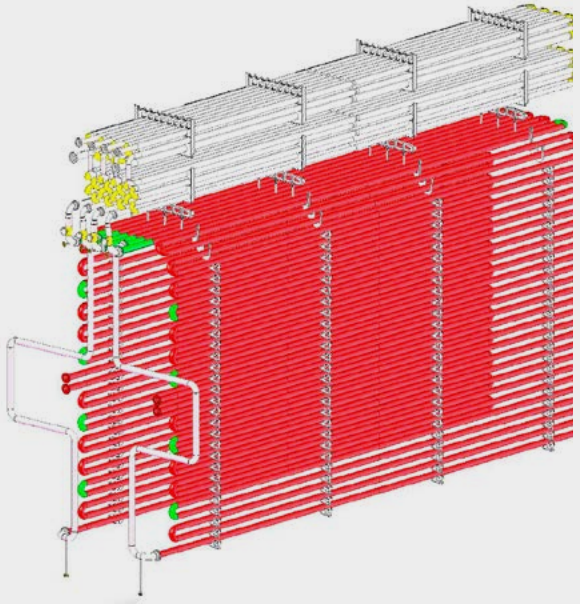



RECENT PROJECTS 2018

MBNS spol. s r.o. International

- atmospheric heater 4-H01 for PU-001 Crude Oil Distillation Unit with CDU No. 4 LPG Unit for Basrah Refinery, IRQ; dimensions approx. 25 x 7 x 40 m, total weight approx. 800 tons





RECENT PROJECTS 2018

MBNS spol. s r.o. International

- atmospheric heater 4-H01 for PU-001 Crude Oil Distillation Unit with CDU No. 4 LPG Unit for Basrah Refinery, IRQ; dimensions approx. 25 x 7 x 40 m, total weight approx. 800 tons





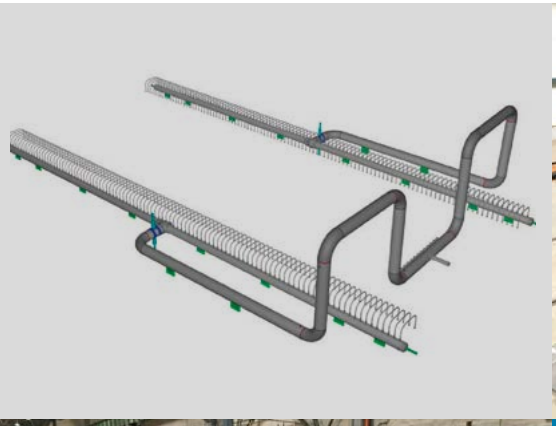


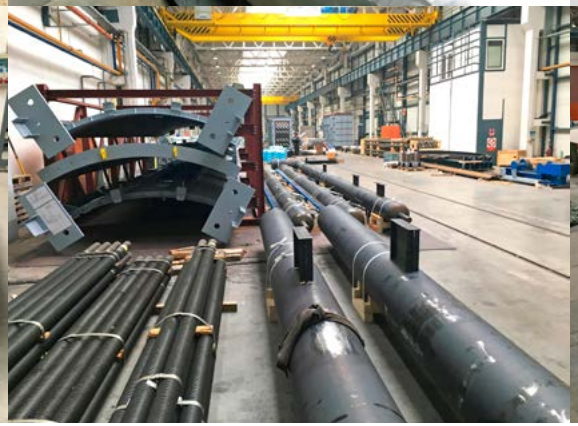
RECENT PROJECTS 2018+2020

MBNS spol. s r.o. International

- Spun cast Mixed Feed Inlet Headers of primary reformer H501 of Ammonia for Yara Sluiskil, NL, SMLS TUBES 355,6 x 27,3 mm and 457,2 x 33,45 mm A312 TP321H, pigtails 42,16 x 3,11 mm Incoloy 800H



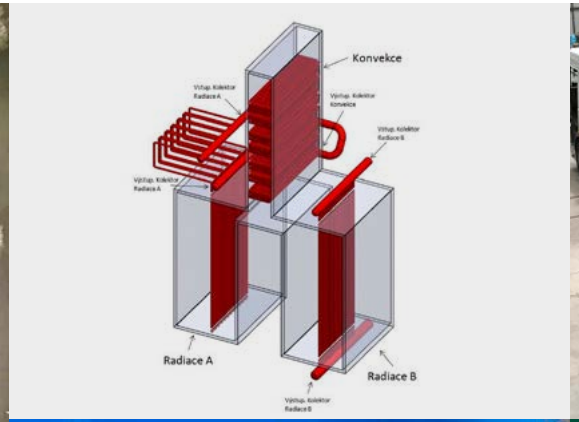


RECENT PROJECTS 2019

MBNS spol. s r.o. International

- Revamp of heater B-101 of Styren III unit at SYNTHOS Kralupy, CZ, radiant coils: A - inlet manifold ø457,2 x 12,8 mm, A358Gr.304H, tubes Centralloy - HP40Nb+micro, outlet manifold ø508 x 18 mm, Alloy 800HT + B - inlet manifold ø508,13,2 mm, A358Gr.304H, tubes 88,9 x 6,35 mm Centralloy - HP40Nb+micro, outlet maniflod ø609,6 x 17,5 mm, Alloy 800HT; radiant coils operating temperature 900 – 1200 °C; convection: inlet manifold ø406,4 x 12,7 mm, A106 Gr.B, tubes ø88,9 x 5,49 mm, outlet maniflod ø457,2x12,8 mm, A358 Gr304H; cross-over piping: Alloy 800HT



RECENT PROJECTS 2021

MBNS spol. s r.o. International

- Technip Parallel Reformer (TPR), OD = 2,4 m, L = 23,5 m, W: 150 t, material: SA387GR11/GR12, reaction tubes, refractory lined, ASME VIII. Div. 1./API 934/API 936, Technip Energies, India, 2021

RECENT PROJECTS 2022

MBNS spol. s r.o. International

- Atmospheric heater F1 – AVD – 5, tubes Ø 168,3 x 7,11 mm, Ø 141,3 x 6,55 mm (finned), Ø 323,8,3 x 7,11 mm, mat. A335 P9 + radiant coil and convection module of heater B103.101, tubes Ø 114,3 x 19,5 mm, mat. A213 TP347H, refinery Slovnaft, MOL (time-lapse video of the heater replacement: https://www.youtube.com/watch?v=VP017q_gOm8)




RECENT PROJECTS 2022

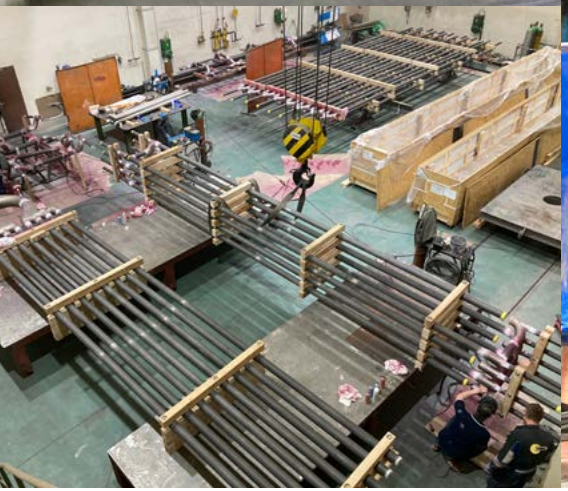
MBNS spol. s r.o. International

- Refractory lined outlet header (RLOH) of hydrogen reformer package, Ø 1016 mm, L=16000 mm, W = 26,5 t, mat. A387 Gr.11/B409-N08810/A608/B564-N08811, Assiut refinery, T.EN

RECENT PROJECTS 2023

MBNS spol. s r.o. International

- HP steam convection tube bank incl. header box with refractory, mat. SA-106 Gr. B finned tubes, A335 P11, total weight 55 t, radiant section reformer tubes assemblies, mat. HTE+ET45Micro, S+C for YPF & Dow Chemical, Argentina



RECENT PROJECTS 2023

MBNS spol. s r.o. International

- Convection coils, inlet system and pigtails, convection section modules assembly incl. refractory installation, mat. SA-106 Gr. B, SA-312 Gr. TP347H, SA-335 Gr. P11, total weight aprx. 300 t, Assiut refinery Egypt, T.EN
  https://www.mbns.cz/images/IMG_2979.mp4

RECENT PROJECTS 2023

MBNS spol. s r.o. International

- 6pcs of Primary Decoke Cyclones + 6pcs of Secondary Decoke Cyclones, mat. HARDOX / RELIA 400, WRS wear resistant material, weight aprx. 12t each, incl. FEA analysis, T.EN

RECENT PROJECTS 2024

MBNS spol. s r.o.
International

- radiant coils and convection section of the heater F2, mat. A335 P9/ A335 P5/ A312 TP304, refinery Slovnaft, MOL





RECENT PROJECTS 2024

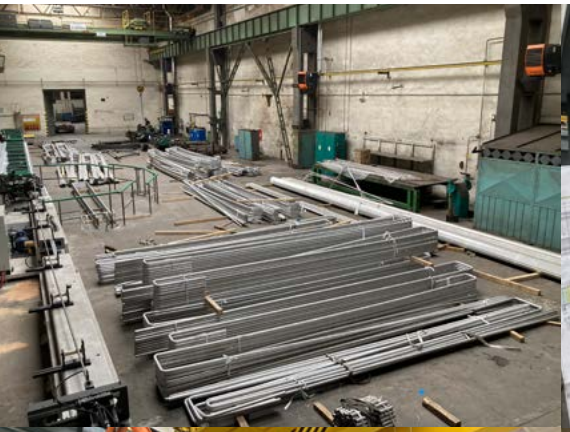
MBNS spol. s r.o. International

- decarbonization cylindrical fired heater of Dow Chemical plant in Stade, mat.13CrMo4-5/X8CrNi25-21/S355J2, AD2000 Merkblatt, Air Liquide/Novargi

RECENT PROJECTS 2024

MBNS spol. s r.o.
International

▪ 2 units of Waste Heat Recovery Systems of gas reforming plants belonging to a 5000t/day methanol synthesis plants consisting of 2x E-1010 feed preheaters for steam reformers, 2x E-1012 feed preheaters for pre-reformers, 2x E-1009II, E-1009IA, E-1009IB feed preheaters for auto thermal reformers, 2x E-1013 Natural gas feed preheaters, interconnecting piping OD406,4x16,7 SS 304, refractory for Flue Gas Waste Heat Recovery System H-1002, total 160 tons of seamless tubes OD42,4x3,6/3,2 SS 304H + finned tubes OD42,4x3,6 SA213 T11, headers OD406,4x32 304H + OD406,4x21,44 SA335 P11, total weight 520 tons






MBNS STRENGHTS

Benefits of cooperation with MBNS:

COMPETENCE

- core MBNS fabrication commodities are fired heaters and its parts (convection modules, coils, WHRSs, RLOHs, collectors, transfer lines, pigtails, stacks, structures etc.) = long-term experience, know-how, references (Technip Energies, Chempex-HTE, Vergaengineering, Novargi, Schmidt Clements, Furnace Engineering, APEX Group, PURAGLOBE, Dow Chemical, Air Liquide, MOL, Orlen etc.)
- MBNS work shop has been adapted to meet heater fabrication requirements incl. panels straightening, refractory installation etc.

QUALITY

- high technological production quality, compact and clean fabrication process, qualified and skilled staff
- materials exclusively from EU suppliers – Italy, Spain, Germany, Austria, CZ, Netherlands etc.
  (MBNS does not use materials from China & India)

FLEXIBILITY

- small-sized enterprise – flexible and adaptive to any changes and issue solving
- meeting deadlines – OTD (On-Time Delivery Rate) 2020: 93,3 %, 2021: 100 %, 2022: 90,5 %, 2023: 95,3 %

DETAIL ENGINEERING

- strength analysis calculations, shop drawings – 3D design (AUTOCAD, TEKLA, SOLIDWORKS, VISUAL VESSEL DESIGN, AUTOPIPE)


M3NS
RADIOAKTIVNÍ ZÁŘENÍ

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