

■ MBNS – International, spol. s r.o.



Brno 2020

HISTORY

- existing from 1991
- private owned from 1995
- own fabrication from 2005

DATA

- Location: Brno, Czech Republic
- Employees: approx. 60 - 80
- Main markets: EU, C.I.S., Middle East



PRODUCTS

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

- Fired heaters, process furnaces, reformers
 - Coils - radiant, convection, helical etc.
 - Pre-heaters, stacks, structures etc.
 - Effluent chambers, manifolds, transferlines (TLE), cross-overs, pigtails etc.
 - Columns, reactors, pressure vessels
 - Mechanical pressure static equipment
 - Piping and tubular systems
 - Heavy steel structures
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- up to max. weight 100 tons/pc;
max. length 28 m/pc; max. diameter 5,5 m



FABRICATION SHOPS

A administration offices (management, finance, trade, QM, engineering, construction + technology)

1 machining shop
2a welding shop (automatic)
2b mechanic and plate forming shop
3 tube bending shop
4 welding and assembly shop
5a clean room (stainless and special steel fabrication)
5b welding and assembly shop
7 heavy assembly & shipment shop

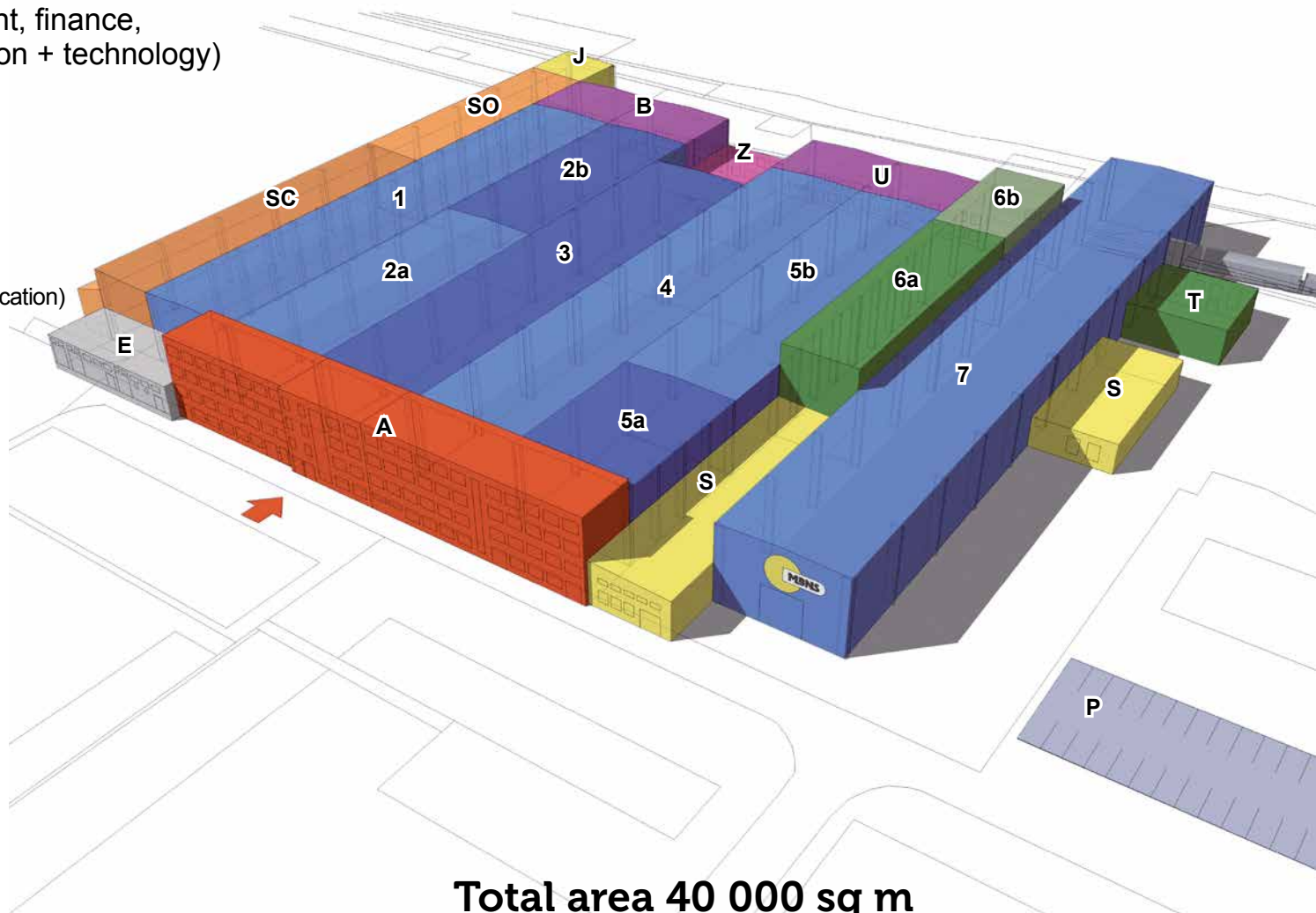
Z non-destructive analysis (X-ray)

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



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

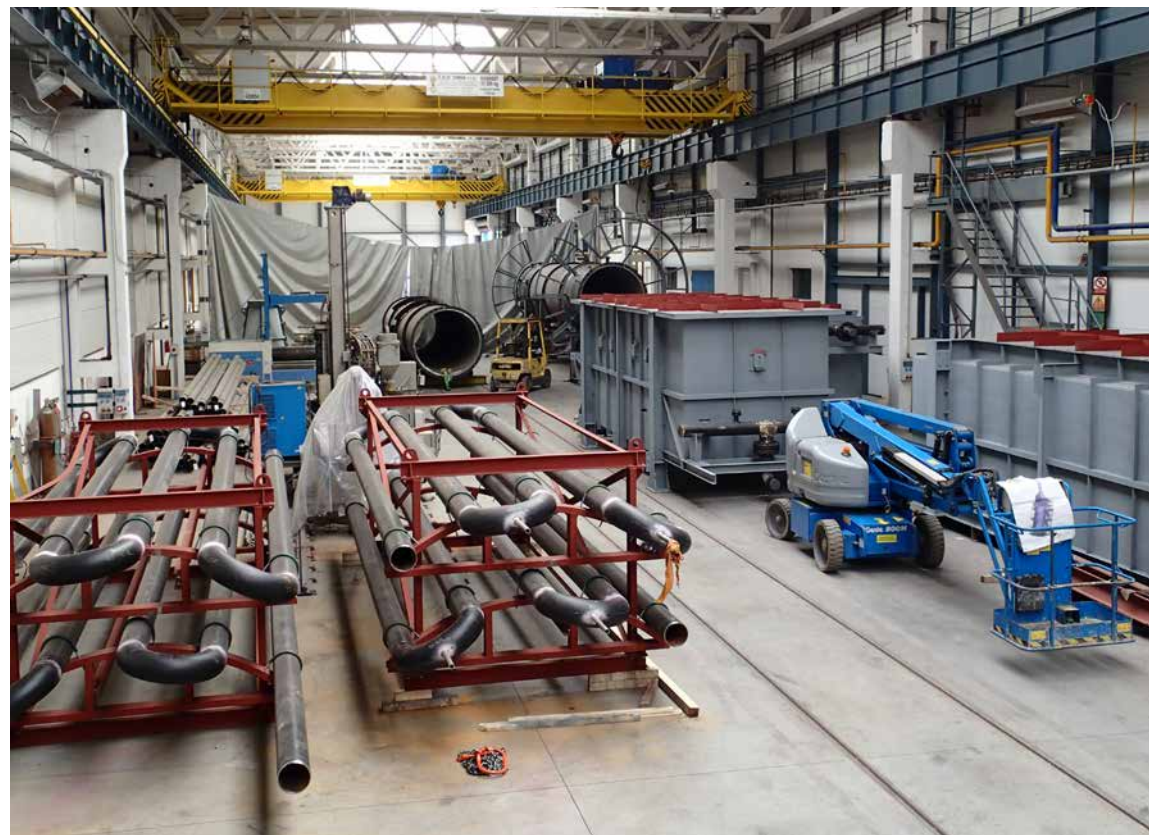
- max. 50 mm (SS)

Plate cutting

- max. 10 x 3000 mm

Saw cutting

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



FABRICATION FACILITIES

WELDING

Submerged arc welding (SAW) and plasma arc welding (PAW)

- min. Ø 750 mm, max. Ø 5500 mm (3x 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

TUBE BENDING

Hot bending

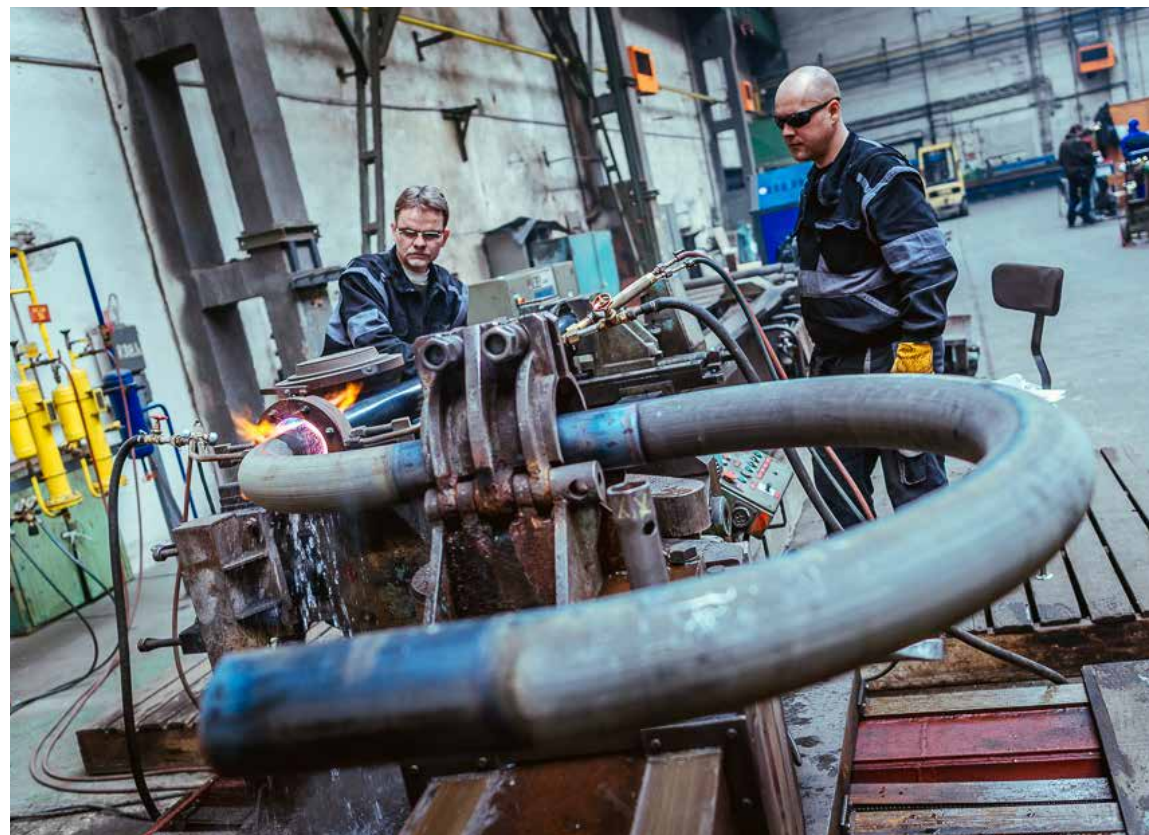
- D 89 - 377 mm, R min. 3 D but min. 450 mm,
- R max. 3000 mm, max. bend angle 180°, max. wall thickness 23 mm

Cold bending

- D from 16 to 51 mm, R min. 3 D, max. 200 mm, max. bend angle 180°, max. wall thickness 3,5 mm
- D from 57 to 108 mm, R min. 3 D - max. 600 mm, max. bend angle 180° (new AMOB machine)
- D from 20 to 159 mm, R min 3 D, R max. unlimited, bend angle 360°, max. wall thickness 2-8 mm
- tubes can be bent with the bend axis placed in more planes, as well as helically up to max. Ø 159 mm

Press for panel straightening

- load – 350 tons (own design and fabrication)



FABRICATION FACILITIES

MACHINING

Horizontal boring and milling machine PT160 (new 2017)

- 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 (new 2018), SK 16, SK12

- 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

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

Heat treatment

- post welding heat treatment/stress relieving PWHT (Weldotherm machine)

Refractory works

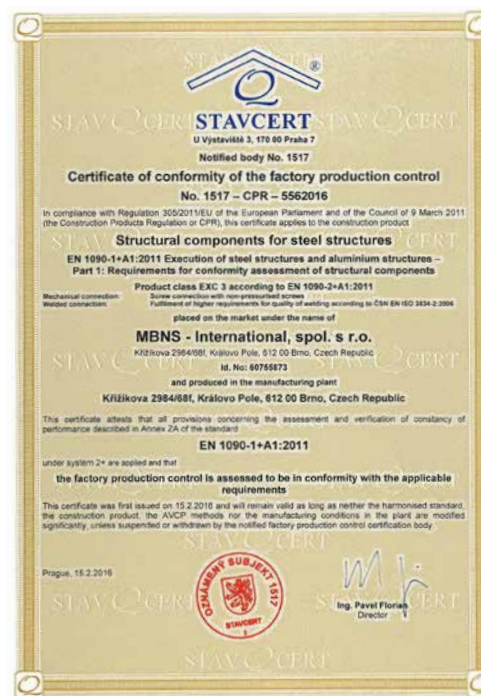
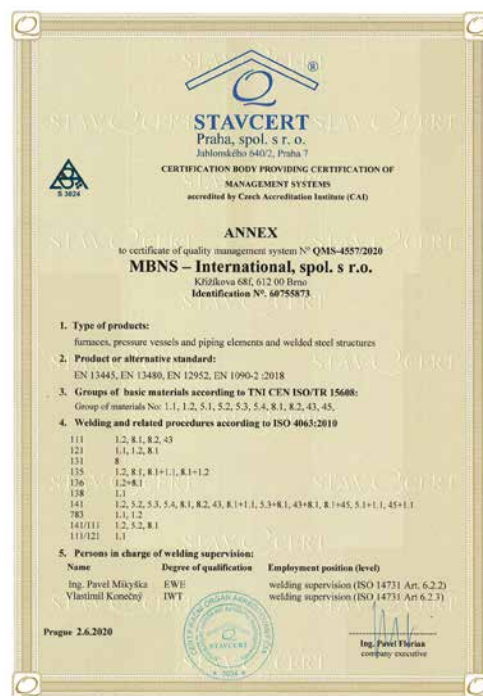
- refractory & anchors supply and installations, dry-outs



CERTIFICATES

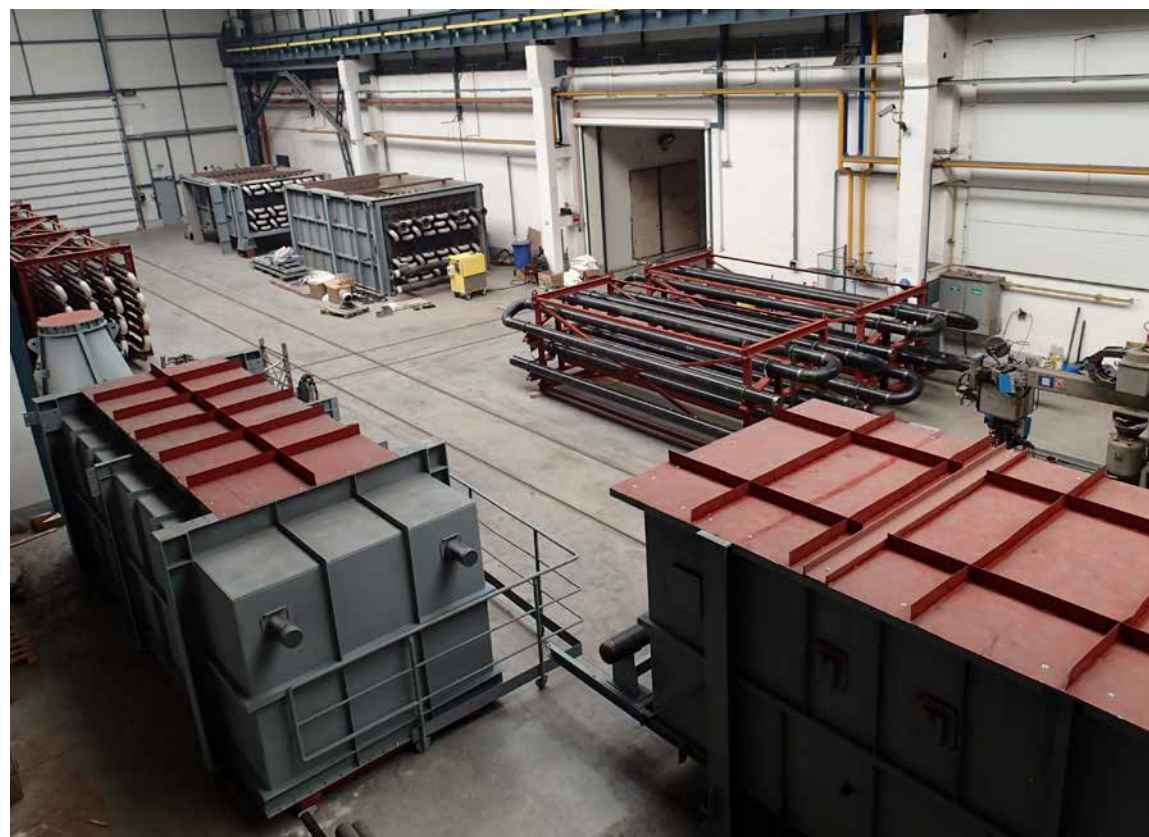


- EN ISO 9001 : 2015 in connection with EN ISO 3834-2 : 2005
- AD 2000 Merkblatt HPO & EN ISO 3834-2 : 2005
- EN 1090-2 + A1:2011, EXC 3
- MBNS also provides GOST-TRCU certification for particular projects in C.I.S. countries
- ASME certified welders (WPQ) & procedures (PQR)



CHOSEN REFERENCES 2011-2016

- effluent chambers and pigtails of the heater BA102.301 (SK, Slovnaft, 2016)
- combined feed heater 208-10-H001 (RF, Antipinsky, 2015)
- stripper reboiler heater 208-10-H003 (RF, Antipinsky, 2015)
- naphtha splitter heater 208-10-H003 (RF, Antipinsky, 2015)
- stabilizer reboiler heater 208-20-H002 (RF, Antipinsky, 2015)
- steam preheater 12 H-163 of sulphur acid plant (RF, Ryazan, 2015)
- feed heater P-351N (BLR, Mozyr, 2015)
- reformer effluent chamber OH-2001 (RF, Ryazan, 2015)
- reformer effluent chamber 28 m + line between superheaters DN 508 x 65 mm (IR, Pardis Petrochemical, 2014)
- helical coils for reformer No. 4+5 (BLR, Naftan, 2014)
- 4pcs of preheaters + ducts (CZ, APEX, 2014)
- 9 vessels + 2 heat exchangers (IRQ, Dukan, 2014)
- radiant coils + inlet/outlet manifolds (RF, Ryazan, 2014)
- heater H-01 (IRQ, Basrah, 2012)
- heater P150N, reboiler for column K150N (BLR, Mozyr, 2012)
- 3pcs of vacuum heaters (RF, TANEKO, 2011)



2017 FINISHED PROJECTS

- oil regeneration heater 2D-400, GER (incl. assembly)
- radiant coils of distillation fired heater B101.101, SK



2017 FINISHED PROJECTS

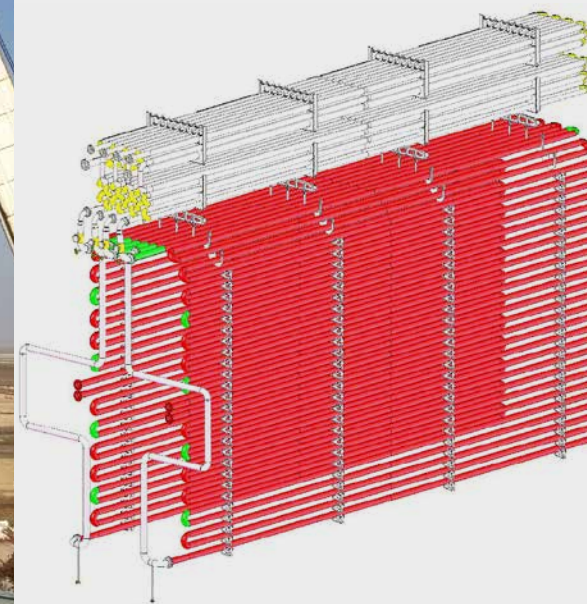
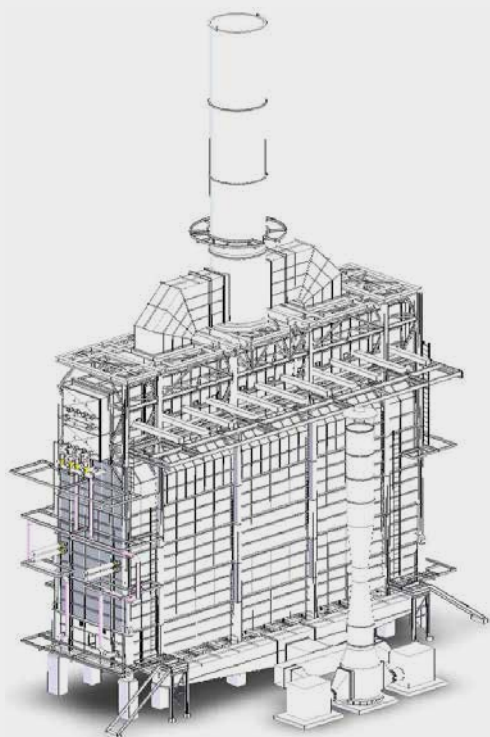


- methanol plant primary reformer convection bank flue gas ducts, header boxes and steel structure, IR
- spare parts for heater 2512-H03, CZ



2018 FINISHED PROJECTS

- 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



2018 FINISHED PROJECTS



- 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



2018 FINISHED PROJECTS



- 4pcs of Regeneration Gas Heaters for VE for Zohr Development Project, Egypt, tubes 141,3 x 9 mm, CS A335 Gr.P22



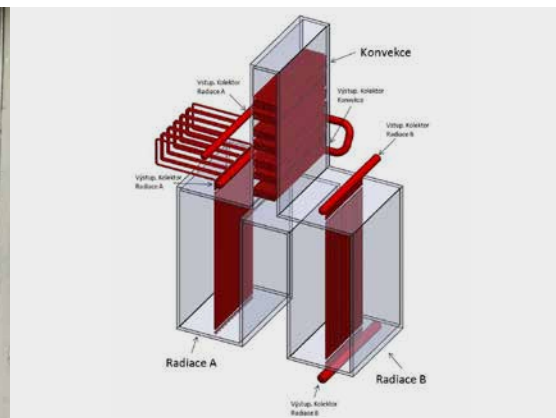
2018 FINISHED PROJECTS

- 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



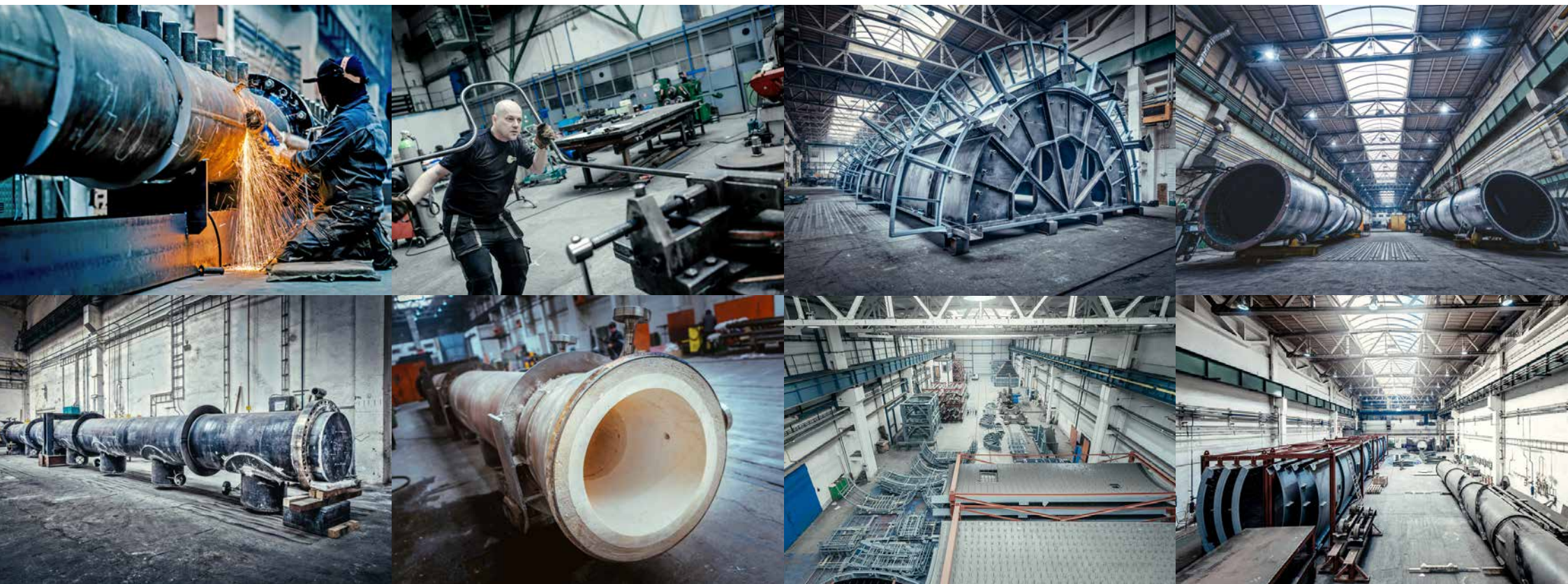
2019 FINISHED PROJECTS

- Revamp of heater B-101 of Styren III unit at SYNTHOS Kralupy, CZ, radiant coils: A - inlet manifold $\varnothing 457,2 \times 12,8$ mm, A358Gr.304H, tubes Centralloy - HP40Nb+micro, outlet manifold $\varnothing 508 \times 18$ mm, Alloy 800HT + B - inlet manifold $\varnothing 508,13,2$ mm, A358Gr.304H, tubes $88,9 \times 6,35$ mm Centralloy - HP40Nb+micro, outlet manifold $\varnothing 609,6 \times 17,5$ mm, Alloy 800HT; radiant coils operating temperature $900 - 1200$ °C; convection: inlet manifold $\varnothing 406,4 \times 12,7$ mm, A106 Gr.B, tubes $\varnothing 88,9 \times 5,49$ mm, outlet manifold $\varnothing 457,2 \times 12,8$ mm, A358 Gr304H; cross-over piping: Alloy 800HT





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