



ANDRITZ GROUP

INNOVATIVE TECHNOLOGIES FOR THE PLANET

A GLOBAL PARTNER FOR KEY INDUSTRIES THAT SHAPE THE WORLD

MARCH 2018

ANDRITZ

ENGINEERED SUCCESS



ANDRITZ HYDRO

ANDRITZ KFT.



ANDRITZ

ENGINEERED SUCCESS

2018

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PROFILE ANDRITZ KFT.



Overview

Address

ANDRITZ Kft. Dózsa telep 69, 6060 Tiszakécske – Hungary

History

Founded in 1929

nationalized in 1947

privatized in 1994

acquired by ANDRITZ AG in 2007

Manufacturing and Assembly for

Hydro

Pulp and paper

Power generation

Siemens

Main Customer

ANDRITZ

Siemens Energy



KEY FIGURES



Capacity:

- 300.000 – 350.000 Direct labour hours, maximum 600.000 direct labour hours

Staff:

- 300-350 employees
- thereof 73 white collar
- 75 apprentices

Area:

- 147.000 m² total area
- 31.159 m² building
- 4.300 m² storage area



CORE COMPETENCE



Quality Control: Non-destructive testing (VT, PT, MT, UT, RT)



ISO 9001:2008



DIN EN ISO 3834-2



AD 2000 Mbl. HPO



EN 1090-2



3/1998.(I.12.) IKIM



Certified Welders Training Area



ASME S Stamp



ASME U Stamp



ASME U2 Stamp



NATIONAL BOARD STAMPS



CHINESE Pressure Vessel Manufacturing License

CORE COMPETENCE



Production

- High quality standard production (small series) of middle and heavy-weight welded products and components including surface treatment
- Machining of middle and heavy sized parts
- Shop assembly of combustion chambers, yankee cylinders, butterfly valves
- Part weight from 1 up to 150 tons
- Main material is carbon steel but we also work with stainless steel
- Capacity range currently from 300.000 up to 350.000 direct labour hours, which could go up to maximum 600.000 direct labour hours

MAIN ACTIVITIES / TECHNOLOGIES



Fabrication

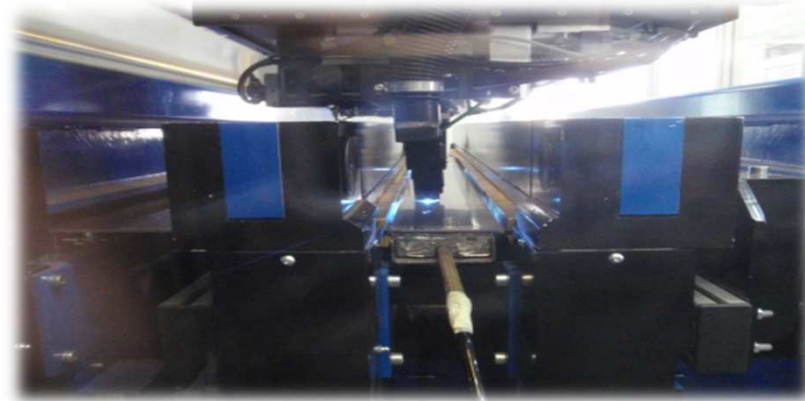
- Metal cutting (gas cutting, thickness 2 – 300 mm, plasma cutting, thickness 1 – 80 mm, water cutting, thickness 0,5 – 30 mm)
- Rolling in – sheet thickness up to 125 mm and width 3.500 mm, smallest rolling diameter: 1.260 mm
- Welding technologies (MAG, TIG, SAW, manual electrode welding)



MAIN ACTIVITIES / TECHNOLOGIES



Laser welding of stainless steel



Heat treatment

- Stationary heat treatment furnace (10 x 5 x 5 m) up to 1.200 °C
- Mobile heat treatment equipment (9 x 9 x 6,5 m) up to 650 °C



Surface treatment

- Ceramic blasting (stainless steel)
- Sand – blasting (carbon steel)
- Washing cabin
- Painting

MAIN ACTIVITIES / TECHNOLOGIES



Surface treatment

Main painting materials used:

AMERON, INTERNATIONAL, SIKA, AVENARIUS AGRO, HEMPEL, JOTUN
two-component epoxy and polyurethane paints

dimensions of painting compartments:

- 15.000 x 5.940 x 6.900 mm
- 10.000 x 5.940 x 7.600 mm
- 15.000 x 6.000 x 7.600 mm

dimensions of blasting compartments:

- 15.000 x 7.400 x 7.000 mm
- 14.000 x 6.700 x 7.900 mm
- 14.000 x 6.700 x 7.900 mm

dimensions of washing compartment:

- 10.000 x 5.940 x 7.850 mm



MAIN ACTIVITIES / TECHNOLOGIES.



Turning and milling of complex parts on CNC controlled machines



Waldrich vertical lathe:

- max. product weight on rotating table: 200t
- rotating table diameter: 6.000 mm
- max. machining diameter: 6.500 mm
- max. machining height: 4.000 mm



PAMA horizontal boring mill :
length 24 m, vertical 6 m, depth 2.6 m



Schiess vertical lathe:

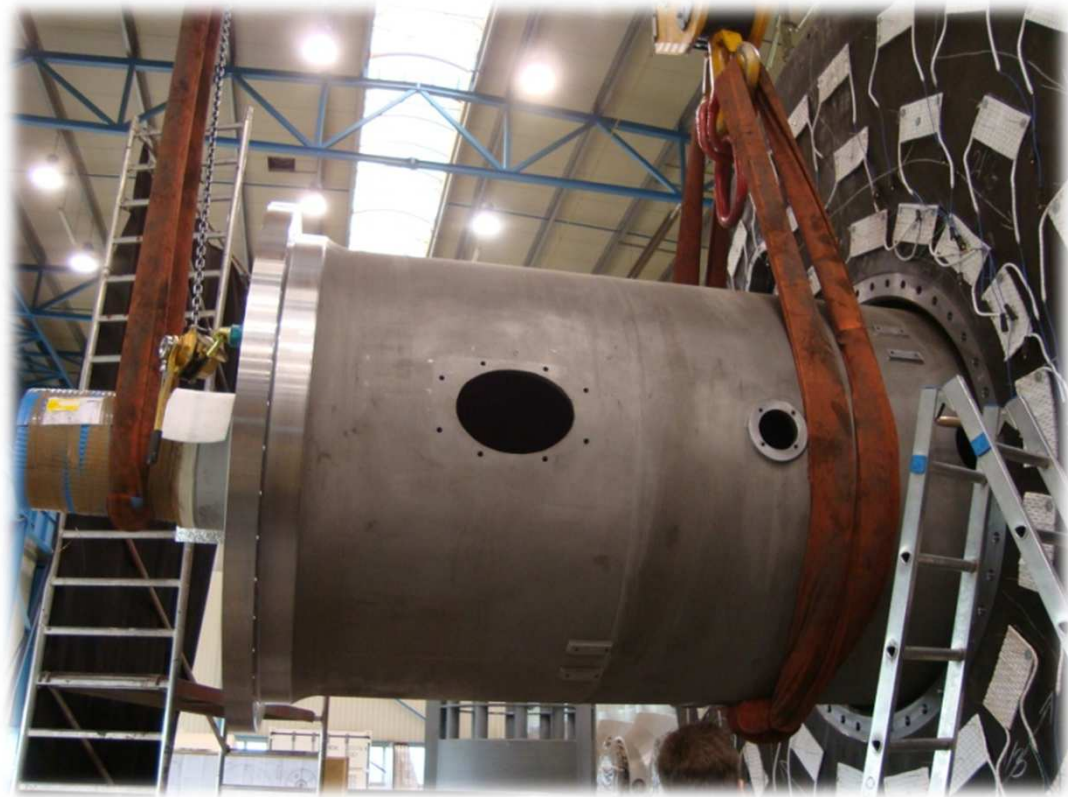
- max. product weight on rotating table: 150t
- rotating table diameter: 7.000 mm
- max. machining diameter: 12.000 mm
- max. machining height: 4.150 mm

MAIN ACTIVITIES / TECHNOLOGIES



Assembly

- In – house assembly for Yankee cylinders
- In – house assembly for butterfly valve
- In – house assembly and electrical installation for combustion chamber

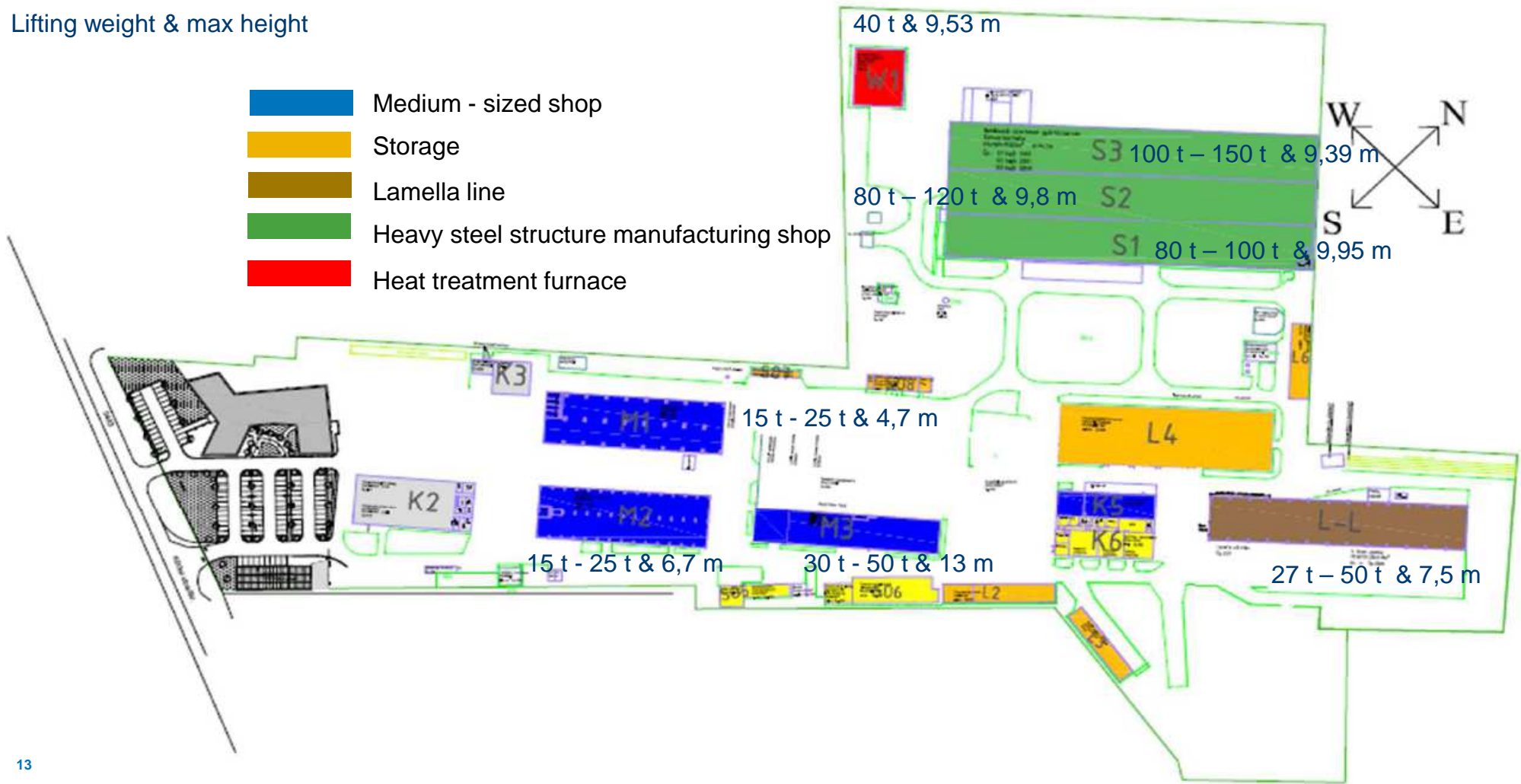


LAYOUT ANDRITZ KFT.



Lifting weight & max height

- Medium - sized shop
- Storage
- Lamella line
- Heavy steel structure manufacturing shop
- Heat treatment furnace



PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO - Hydrogenerators and components

Generator casing (Boyabat):

weight: 53.800 kg; \varnothing 10.300 x 3.000 mm;

material: S355J2+N



Upper bracket (Hissmoforce):

weight: 12.620 kg; \varnothing 7.500 x 800 mm;

material: S355



Generator casing (Navizance):

weight: 8.190 kg; \varnothing 3.500 x 2.150 mm;

material: S355



Lower bracket (Hissmoforce):

weight: 22.000 kg; \varnothing 6.000 x 1.950 mm;

material: S355



PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO – Other components



Draft Tube Ruacana:

weight: 11.800 kg; \varnothing 3.960 x 3.760 mm;
material: S235, S355, 1.4313, 1.4307

Butterfly valve Tatar/Pembelik:

weight: 53.000 kg

\varnothing 4.400 mm; material: S355J2+N, G20Mn5, 1.4307, 1.4313



PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO – Pump components



Pump covers Kalesh:

weight: up to 16.000 kg;
up to \varnothing 3.800 mm outer diameter;
material: S235 J0+N/S355J0+N



Spiral Casing Ruacana:

weight: 71.440 kg
 \varnothing 3.000 8.000 x 8.000 3.500 mm;
material: S355J2+N

Pit liner Kalesh:

Material: S355J2+N, S235JR, S275JR,
1.4301

Dimension: up to 4.500 mm outer diameter



PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO – Penstock and gates



Spillway -/ Diversion - / Intake stoplog:

Material: S355J0+N, S235JR

Dimension: up to 220 tons, 30 m length,
12,8 m width



Trash rack:

Material: S355J0+N, 1.4162, 1.4301

Dimension: up to 30 m length, 8,7 m
width, 70tons (36 panels)

Adit gate:

Material: S235J2+N, 1.4301,

Dimension: up to 4 * 4 m, 12 tons



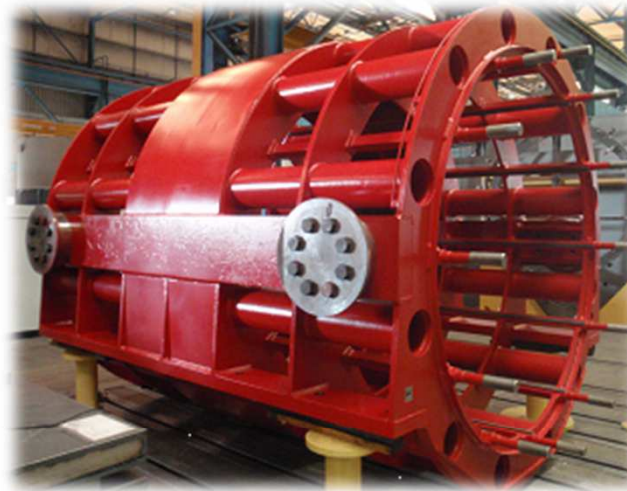
PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO - H₂-cooled turbogenerator and components



MAC (A63) Generator Casing :
weight: 83.200 kg 9.800 x 4.100 x 4.100 mm;
material: S355J2+N



7A6 Generator Casing:
weight: 11.050 kg
3.250 x 3.000 x 4.000 mm;
material: S235J0+N



9A5 Generator casing :
weight: 44.000 kg
7.050 x 3.585 x 3.585 mm;
material: S235J0+N

PRODUCTS ANDRITZ KFT.



Products of ANDRITZ HYDRO - H₂-cooled turbogenerator and components



M324 Generator Casing:
weight: 83.300 kg
8.350 x 4.390 x 4.450 mm;
material: P275NH, 1.4306



7FH2B Generator Casing:
weight: 77.200 kg
7.320 x 4.350 x 4.070 mm;
material: S355J2+N, P355NH

PRODUCTS ANDRITZ KFT.



Products of ANDRITZ – Components for pulp & paper



Drying cylinder:

Material: P355NH+Z35

Dimension: 7,5 t, od 1,9m, length 4 m



Yankee cylinder:

weight (heaviest): 140.000 kg

Ø3.600 – 6.700 mm

material: P355NH, SA516 Gr70



PRODUCTS ANDRITZ KFT.



Products of ANDRITZ – Components for pulp & paper



Lamella Packages (modules):

- Field of application: pulp and paper manufacturing – evaporators
- Heating surface / lamella: ~ 21-44 m²

PRODUCTS ANDRITZ KFT.



Products of ANDRITZ – Components for pulp & paper



Evaporator, Visy

weight: 29.000 kg; 15.400 x 3.030 x 2.850 mm; material: 1.4307

PRODUCTS ANDRITZ KFT.



Products of Siemens Energy Mülheim - Generator casings



Stator Frame S4R3:

weight: 59.400 kg; 11.060 x 4.550 x 4.150 mm; material: S355J2+N, S355J2C+N



Lead Box S4R3:

weight: 5.330 kg; 3.150 x 300 x 1.700 mm;
material: 1.4541



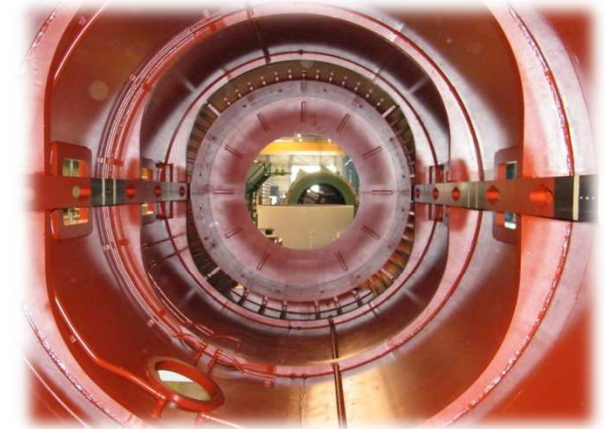
PRODUCTS ANDRITZ KFT.



Products of Siemens Energy Mülheim - Generator casings



Generator casing THDF (H₂-cooled):
weight: 116.000 kg; 11.000 x 4.900 x
4.200 mm; material: S235JRG2+N



Generator casing HMP-H (Air-cooled):
weight: 71.500 kg; 10.200 x 4.700 x 4.250 mm;
material: S235, S355



PRODUCTS ANDRITZ KFT.



Products of Siemens Energy Mülheim - Generator components



Bearing brackets THDF (H2-cooled):

weight: 8.400 kg; 3.700 x 1.300 x 1.920 mm;

material: S235JRG2+N



Cooling head THDF:

weight: 22.000 kg;

material: S235JRG2+N 4.210 x 4.350 x 1.600



Main lead box THDF:

weight: 5.100 kg;

material: X6CrNiTi1810 3.200 x 2.200 x 1.430



PRODUCTS ANDRITZ KFT.



Products of Siemens Energy Berlin - Gasturbine and components



Combustion chambers:

weight: 21.600 kg

ø2.600 x 6.500 mm; material: 16Mo3



Final assembly of combustion chambers



THANK YOU FOR YOUR ATTENTION



ANDRITZ

ENGINEERED SUCCESS

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