SINCE 1865

HIGH GRADE SPECIAL ALLOYS: APPLICATION AND PROCESSING

PRESENTATION

TALLINNA MASINATEHAS

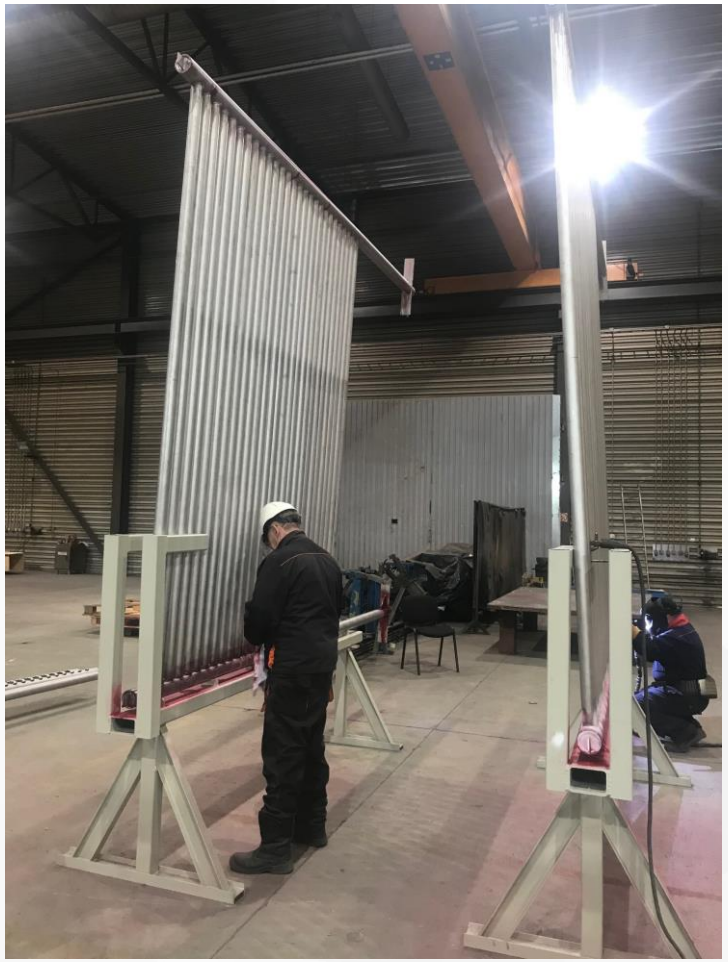
Many years our factory gained unique experience in technological design and manufacturing of vessels and heat exchangers made from various super-austenitic chromium-nickel steel grades.

Such steel grades provide high corrosion resistance, as well as pitting, crevice and intergranular corrosion, which makes equipment suitable for service in aggressive environment occurring in petrochemical, chemical, pulp and medical industries.

TMT offers heat exchanging equipment made from range of special alloys with chrome content up to 27% and nickel content up to 60%, including:

1.4563 / Sanicro 28 / Uranus 28 / Alloy 28;
AISI 904L;
Incoloy 800
Hastelloy C276
Duplex / SuperDuplex

This makes our equipment suitable for harsh operational conditions and unique customers requirements



TMT has developed and certified welding process suitable for mentioned previously list of steel grades. In this case, production is done with high-performance equipment for **MIG, MAG** and **TIG** welding processes (semi-automatic and argon-arc welding).

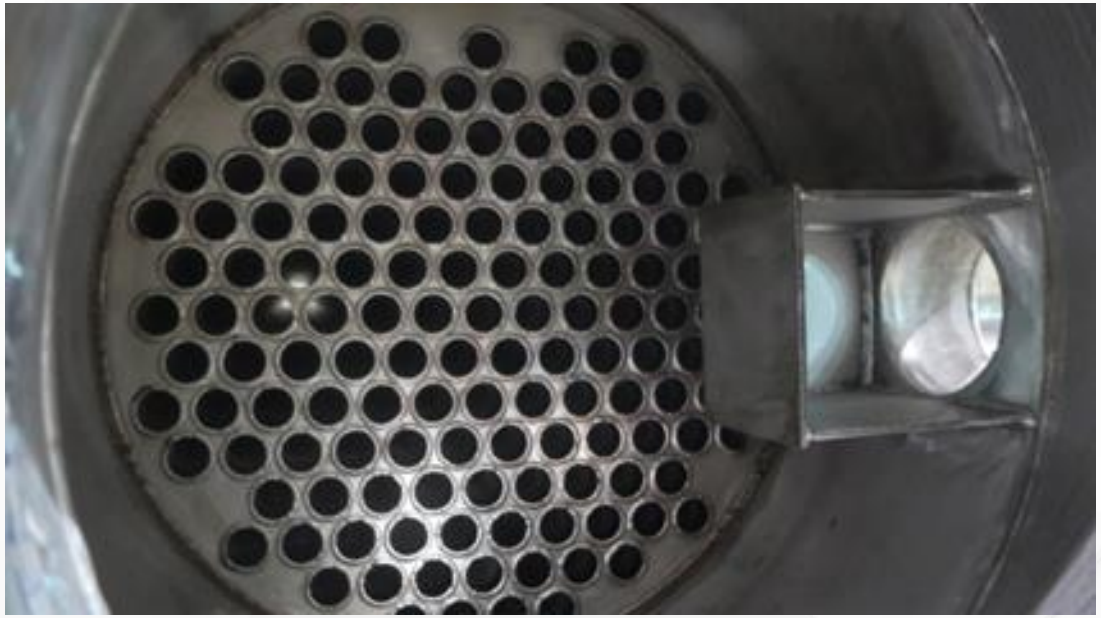
Our welding machines are equipped with microprocessors, which software is intended for treatment of special alloys. Such equipment is adjusting welding properties automatically according to thickness and spatial positioning of connected equipment parts.

TMT has mastered production of heat exchangers,
vessels, pipelines and pump parts from **Duplex 2205** and **Super Duplex 2507 alloys**, which are widely used in equipment for the chemical and petrochemical
industries.
Duplex alloys are suitable for equipment with higher
mechanical impact on it's parts, which requires increased mechanical durability, resistance to aggressive environments or sea water.

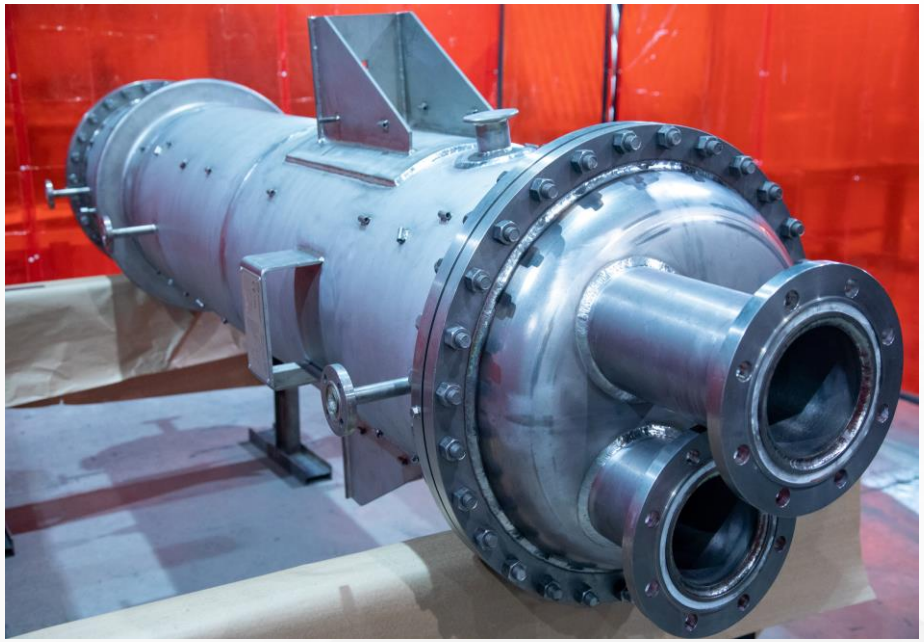
Duplex steels are widely used mostly because of their low
cost in comparison with super austenitic steels, which is mostly due to the lower content of nickel.

TMT offers heat exchangers made of **Hastelloy C-276** alloy, which has exceptional properties to resisting stress corrosion in chloride-containing solutions, and additionally is resistant to sulfide cracking.

These properties are especially valuable for equipment used in oil refining and chemical plants with very aggressive chemical processes at elevated temperatures,
up to **500 C.**



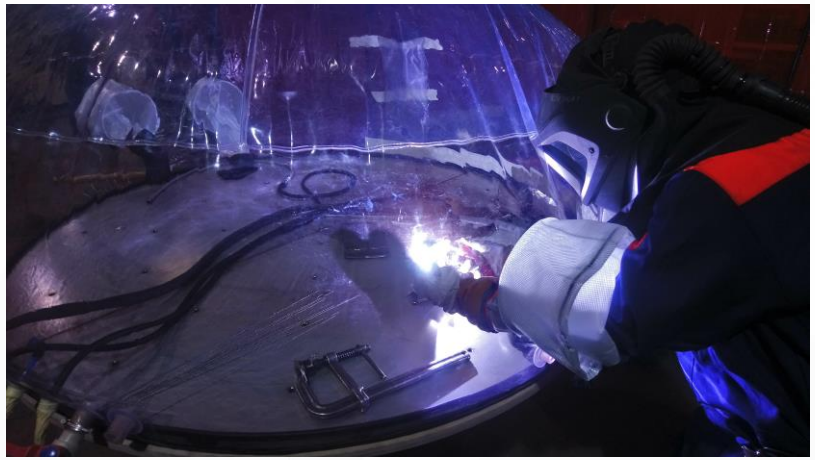
Collaboration between TMT, relevant scientific institutions and laboratories in determining the material performance, can guarantee reliable and durable operation of our high quality equipment.



TMT offers customers a full range of services for consulting, design, and fabrication of titanium heat-exchange equipment.

Corrosive power and concentration of operating fluids, as well as operating temperatures are key determinants in selecting titanium heat exchangers. At certain values, such data clearly indicate that titanium should be used as structural material for its corrosion and temperature resistant properties.

TMT's goal is to provide customers with a complete solution for supply of titanium products of consistent quality in a short time and at affordable prices



ASSEMBLY AND WELDING PRODUCTION OF TITANIUM HEAT EXCHANGER

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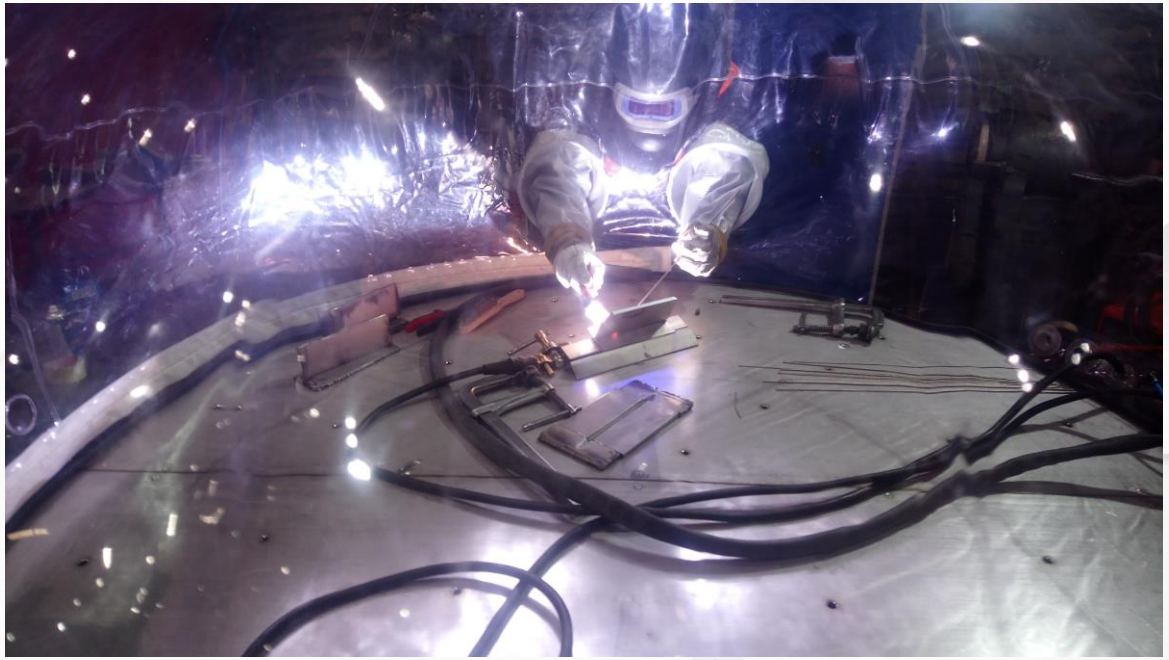

THANKS YOU FOR YOUR ATTENTION!

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