

OMEGA



THERMO PRODUCTS

LASER WELDED TANK SHELLS AND HEADS

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LEADING IN HEAT TRANSFER TECHNOLOGY



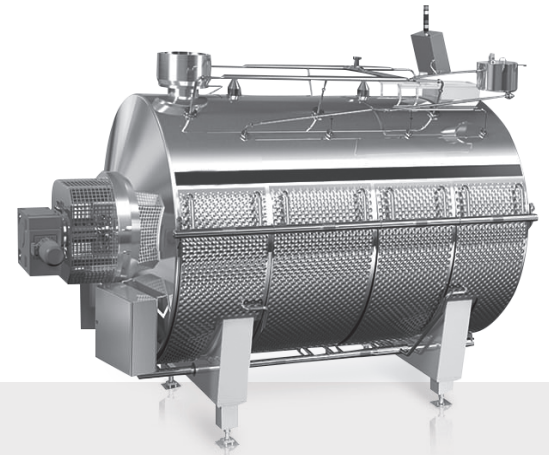
Laser Plate jacketed tank components are a more efficient solution than half-pipe and double wall constructions.

At Omega Thermo Products jacketed tank components are welded using the latest technology of laser welding. Because of the high efficiency and easy assembly, the Laser Plate is a better and more cost effective alternative. In addition, it is easier to make an isolation (for example around the manway of a tank) in the jacket of the tank at the desired location.

Laser Plate advantages

- › Lower operating costs because less man hours are required.
- › Excellent heat transfer.
- › Improved control characteristics due to low volume in the jacket.
- › Even distribution of cooling and/or heating media.
- › Design not limited due to complex Geometries.
- › Less volume.

OMEGA LASER WELDED TANK SHELLS AND HEADS



Applications

Omega jacketed tank components are the best solution for all your heat transfer applications.

Beverage processing vessels.

Fermenters, beer vessels, cooking vessels.

Dairy processing vessels.

Pharmaceutical and processing vessels.

Storage tanks.

Reactor vessels.

Omega Thermo Products also manufactures low pressure bottoms heads, torispherical, flanged, reverse heads and cones with Laser Plates.

Is using laser welded jackets hard to do?

No, it's as easy as 1-2-3



Laser welding

The custom designed and engineered laser weld pattern will be welded to create the Laser Plate. This includes the outside perimeter weld to create the pressure boundary.

STEP 1



Forming

After welding, the Omega Laser Plate will be flat. Depending on the final product, the Laser Plate can be formed by the customer or Omega Thermo Products. Laser Plates can be either formed in shells, dished heads or conical shapes.

STEP 2



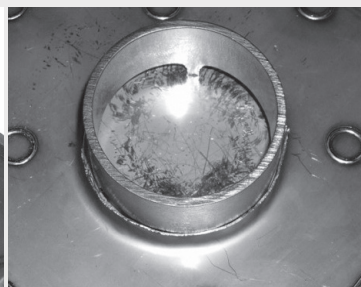
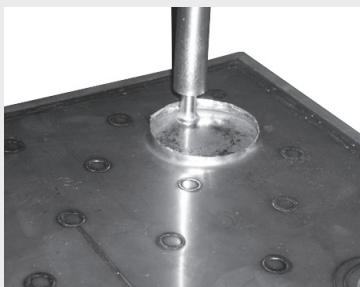
Nozzle installation and inflation

Prior to laser welding, Omega laser cuts the required shape of the product which includes the pre-determined connection locations for easy installation. The laser cut holes will have to be swaged open and lifted until the supplied pipe stools fit within the hole and the opening between the legs are covered by the Laser Plate. The next step is to TIG weld the legs on the interior to the base material and do a circumferential weld of the laser plate to the outside of the pipe ...

Additional fittings or flanges can be installed onto the pipe stool and used for inflation.

Omega will supply detailed procedures on how to install connections and inflate the Laser Plates. Our experienced engineering team is available to assist with your first Laser Plate inflation!

STEP 3



Specifications

Materials

- › Austenitic materials (304, 304L, 316, 316L, 316Ti, 317, 321)
- › (Super) duplex materials (2205, 2507, 2304, LDX-2101)
- › High nickel alloys (Nickel, Hastelloy, Alloy, Inconel)
- › AL6XN
- › 904L

Pressure

Omega's Laser Plates can handle pressures of more than 1500 psi, this is depending on the required design temperature and pressure (provided by the customer) we calculate the required plate thickness of the jacket. When required we also will calculate the heat transfer capacity of the jacket. Feel free to contact Omega if you have specific requirements.

Omega Thermo Products qualifications



ASME U-stamp, CRN, CE/PED



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