PROCESSING LINE - LASER WELDING OF FINNED TUBES

The line comprises the transport system of supply pipes and finished products, welding station, tack welding and cutting the fin strip, control panel, station for preparing the strip (including fins) and laser source. It can be additionally equipped with a prewelding heating system, a system to maintain the temperature after welding and a small room for storage of finished products.

The line allows the fully automated process of finned tubes manufacturing where the operator controls the process accuracy. The products meet the requirements of 97/23/EC and EN12952 Directives.

Technical parameters:

- Fins density: up to 400 fins/m
- Fin thickness: from 0.6 mm to 1.2 mm
- Fin height: up to half of the diameter of the pipe
- Finned tube length: up to 24 m (line can be extended, option)
- Diameters: from 15 mm to 114 mm (can be adjusted to other diameters)
- Materials: ferrite-pearlite, bainitic, martensitic, austenitic steels and nickel alloys in any combination
- Linear welding speed: up to 20 m/min

The unique advantages of laser welding technology of finned tubes:

- 8 times improved manufacturing efficiency,
- 9-fold reduction of manufacturing costs,
- Abandonment of the use of welding wire,
- Elimination of shielding gases in the welding process,
- Guarantee of complete melting/fin-pipe connection on the entire length of the fin, EN ISO 13919 „B” level compliance

The line is designed to operate in continuous production mode, no interruptions in technological process are required.

Processing lines of finned tubes laser welding can be assembled into production line systems in order to increase the production capacity.