



Stud finned tube

A stud finned tube is a type of heat exchanger tube that features fins that are mechanically attached to the tube using a stud welding process.



Stud Finned Tube, also known as nail head Finned Tube (also known as needle-shaped tube, nail-shaped ribbed tube), adopts a square or hexagonal arrangement and is equally divided into cylindrical needles welded on the surface of the heat exchange tube. The square or hexagonal reinforced heat exchange nail head tube is assembled and welded to form a high-efficiency and energy-saving needle tube heat exchange tube group.

Because the Stud Finned Tube pin rib is a cantilever structure with a compact structure, under the impact of the airflow, the pin rib vibrates, making it difficult for soot to accumulate; coupled with the strong turbulent scouring of the flue gas, the Stud Finned Tube heat exchange The element has high heat transfer efficiency and strong self-cleaning ability.

Delivery conditions

The tube ends are square cut, free of burrs, the inside is dry and blown clean, and the two ends of the extruded bimetallic finned tube are coated with varnish on the outside.

Acceptance Criteria

API Standard 661 (Air-Cooled Heat Exchangers for General Refinery Service) or Delivery Conditions (TDC).



Features of Stud Finned Tubes

The structure of Stud Finned Tubes is compact. Under the impact of the airflow, the needle ribs vibrate, making it difficult for soot to accumulate; coupled with the strong turbulent scouring of the flue gas, the Stud Finned Tube heat exchange element has high heat transfer efficiency and has Strong self-cleaning ability.

Due to the high rigidity of Stud Finned Tubes, studded tubes can be used even under extreme temperature and pressure conditions.

It widely application to Economizer,Boilers, Heat ex-changers,tube bundles,Radiators, air coolers, air preheater etc.

Base Tube Material:

- stainless steel stud tube, carbon steel stud pipe, alloy steel studded tube.

Material Grade:

- A335 P1,P5,P9,P11, A213 T9,T11,T22,TP304,TP316/316L,TP321
- A106GrB,A210 Gr A1, A210 GrC,ASME SA192/ASTM A192
- ASME SA213/ASTM A213 TP304/304L TP316/TP316L TP321
- TP310S TP317,

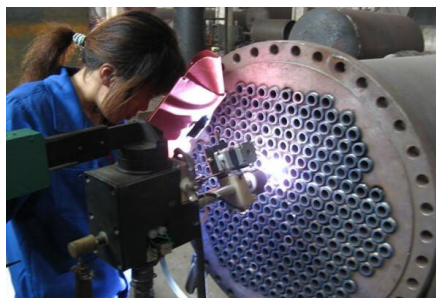


Studs Material:

- Carbon steel ASTM A510 grade 1005 to 1010. Stainless steel AISI 304, 316, 410, 347, 321. ASTM A193 Grade: B6, B6X, B8, B8a, B8M, B8C. Cr-Mo alloy etc.
- Base pipe O.D:31.75-165mm Stud height:10-60mm
- Stud pitch: as customer's request.
- End: Plain Ends, Beveled Ends
- Bare tube length on both side: As Customer's request.

Application

The nail head tube group is especially suitable for compact waste heat boilers, oil-fired, gas-fired boilers and oil heaters. Under the same heat exchange, its weight and external dimensions are greatly reduced. The anti-fouling performance of the nail head tube group is greatly improved compared with other conventional enhanced heat transfer boiler tubes. In the case of low flue gas temperature, the nail head tube can still recover waste heat economically, and has broad application prospects in heat exchange and energy saving projects.



Studded Tubes

Another one of our flagship products is the studded tube



Studded tubes are mainly used in furnaces and boilers where the surface is exposed to a very corrosive environment and dirty gases. Hence, frequent and aggressive cleaning is needed.

The steel studs are automatically resistance welded to the tube, producing high quality forge welds. Our automatic studding machines are capable of handling tube diameters from 60mm o/d to 219mm o/d and standard stud diameter of 12.7mm.

The welding process enables the combination of any grades for studs and tube: carbon, alloy, stainless steels and high nickel alloys. Alloy steel pipes are stress-relieved after studding, according to the relevant specifications for the class and grade of steel used.

Uses of Studded Tubes

Steel studded tubes are used instead of finned tubes for heat transfer in the petrochemical industry, generally in furnaces and boilers where the surface is exposed to a very corrosive environment and where very dirty gas streams require frequent or aggressive cleaning.

Note: Mill test certificates will be issued according to EN10204.3 3.1 or 3.2

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