Finned Tubes (Fintubes)

Extended surface tubing for air-cooled and recovery duty



Finned tubes - fintubes - that multiply the heat transfer surface of a bare tube by five to twenty times, so air-cooled exchangers, economisers and waste heat recovery units can be built smaller. Supplied as extruded, embedded (G-fin), high frequency welded, wrapped L / LL / KL foot and studded tube, with the fin material and bond type matched to the gas-side temperature and fouling.

Stock status: Made to specification - Typical lead time: 4 - 8 weeks depending on fin type and quantity

Key features

- Five to twenty times the surface area of a bare tube
- Fin type selected against gas-side temperature, fouling and cleaning method
- Core tube supplied in carbon, stainless, duplex, Cr-Mo or nickel alloy
- Fin bond pull-off testing and core tube hydro reports on every batch

Types & configurations

Type	Specification
Extruded finned tubes	Aluminium muff extruded over the core tube, full bi-metallic cover, up to 300 C gas side
Embedded (G-fin) tubes	Fin rolled into a machined groove in the tube wall, mechanically locked, up to 400 C
High frequency welded fins	Solid or serrated steel fin HF welded to the tube, up to 500 C and higher with alloy fin
Wrapped L / LL / KL foot fins	Tension-wound aluminium fin, economical for ambient and low temperature duty
Studded tubes	Welded studs for heavy fouling and ash-laden flue gas in fired heaters
Longitudinal finned tubes	Welded longitudinal fin for double-pipe and viscous-fluid exchangers

Specifications

Property	Value
Core tube	Carbon steel, A179 / A192 / A210, stainless 304L / 316L / 321, duplex, Cr-Mo and nickel alloys
Fin material	Aluminium 1060 / 1100, carbon steel, stainless steel and copper
Fin geometry	Fin height 9 - 25 mm, 3 - 11 fins per inch, solid or serrated
Core tube size	15.88 mm to 50.8 mm OD typical, lengths to 18 m
Testing	Hydrostatic test on the core tube, fin bond and pull-off test, dimensional and fin count check

Standards

ASTM A179 / A192 / A210 (core tube), ASTM A213 (alloy core tube), API 661 (air-cooled exchangers), TEMA, EN 10204 3.1 / 3.2

Industries served

Oil & Gas, Petrochemical, Refining, Power Generation, Water & Desalination, Chemical Processing

Typical applications

- Air-cooled heat exchangers and fin-fan coolers
- Economisers and waste heat recovery units
- HRSG and boiler economiser sections
- Fired heater convection sections (studded tube)
- Gas coolers, air heaters and process heaters
- District cooling and HVAC coils