Supplying To The World Of Quality Finned Tubes

FINNED TUBES
WIRE WOUND FIN TUBES

We are one of the largest Wire Wound Fin Tube manufacturers in India. The Wire Wound Fin Tube is our star product because of its superior efficiency. It consists of wound wire loops that are solder-bonded to the external surface of a round tube. The variable density of wire loops allows for optimal thermal selection. With our flexible manufacturing process this tube is now very cost effective for both small and large volume applications.

The Wire Wound Fin Tube has number of unique characteristics:

A) High air side turbulence resists the buildup of dirt on fins and to an extent is self cleaning. It comes with an optional turbulator either fixed soldered or flexible unsoldered.

B) It gives a higher heat transfer coefficient enabling the design of a highly compact heat exchanger unit having lower pressure drop as compared to other conventional fin tubes in identical working conditions.

C) Wire wound fin tubes can withstand temperatures up to 180°C with standard solder wire. However for high temperature applications it can withstand temperature up to 290°C. This is with the use of special silver content solder wire.

D) It can be manufactured using various base tube material such as Carbon Steel, Copper, Cupro–Nickel, Brass and Alu./Adm.Brass, Stainless Steel with fins of Copper, SS 304, SS 316, C.S & G.I.

E) It is suitable for various applications including high pressure Water & Steam, Process Liquid & Gases, Oil & Diesel as well as Charged Air.

F) Wire wound fin tubes offer a versatility and flexibility which is unmatched by any other type of Fin Tubes.
## WIRE WOUND FIN TUBES

**Standard Sizes:**

<table>
<thead>
<tr>
<th>Tube OD</th>
<th>Fin OD (Min)</th>
<th>Fin OD (Max)</th>
<th>Loops/Turn</th>
<th>Turns/Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.525 mm (3/8&quot;)</td>
<td>19.00 mm</td>
<td>33.00 mm</td>
<td>47</td>
<td>60</td>
</tr>
<tr>
<td>12.70 mm (1/2&quot;)</td>
<td>25.00 mm</td>
<td>38.00 mm</td>
<td>62</td>
<td>60</td>
</tr>
<tr>
<td>15.875 mm (5/8&quot;)</td>
<td>32.00 mm</td>
<td>42.00 mm</td>
<td>78</td>
<td>66</td>
</tr>
<tr>
<td>19.05 mm (3/4&quot;)</td>
<td>38.00 mm</td>
<td>45.00 mm</td>
<td>94</td>
<td>66</td>
</tr>
<tr>
<td>25.40 mm (1&quot;)</td>
<td>45.00 mm</td>
<td>52.00 mm</td>
<td>120</td>
<td>66</td>
</tr>
</tbody>
</table>

Length—any length up to 8 mtrs.

The above Loops per turn are calculated with **wire diameter of 0.71 mm**. We can also give Loops per turn and Turns per foot other than above as per customer requirement.

We can also provide a wire diameter ranging from **0.50 to 0.91 mm** in C.S. /G.I. & S.S whereas for Copper **0.50 to 1.30 mm**.
In these types of fin tubes, the strips are wound on tubes and tack welded at the ends. These type of fin tubes can also be supplied Root Soldered where the base of the fins are soldered to the tubes for better bonding. The extended surface area of these finned tubes are used in many applications. The fin tubes can be made with tubes of Copper, Copper-Nickel, Admiralty/Aluminium Brass and fin material of Copper, Aluminum & C.S. wound around it.

**Turbulated Fin Tube Option**

We can offer these tubes with both **soldered finned type** turbulators and **unsoldered flexible type** turbulators.

**Turbulated Plain tubes:** We can also offer tubes of Cupro-Nickel, Alu Brass, CS & SS with the required turbulators already inserted. We have a close relationship with the tube manufacturers which allows us prompt and unhindered deliveries.
LOW OR INTEGRAL TYPE FIN TUBES

We offer a high quality tubes made on very accurate machines. These tubes are very useful in Shell & Tube Exchangers under the following conditions.

1. When the tube side fluid is water or condensing steam. Here the low fins improve efficiency by offering both a larger surface area and also by breaking the film of the condensate allowing it to drip off.

2. When the shell side resistance to heat transfer is greater than roughly two times the resistance on the tube side.

3. When shell side fouling is severe.

4. When the shell side fluid is a vapour.

In general, for a given heat transfer only one half of integral fin tubes are needed as would be required for bare tubes. This effectively saves more than 30% on tubes alone.

A complete range of sizes from 5/8” to 1” OD, and thickness of 0.635 mm and heavier are available. We can manufacture 19 FPI & 26 FPI.

MATERIAL:

Copper
Cupro—Nickel
Carbon Steel
Stainless Steel
These types of blocks are largely used in the Air conditioning & Refrigeration industries.
**COIL OPTIONS:**

- **Fins**: Copper or Aluminum
- **Tubes**: Copper
- **Casings**: Aluminum, G.I, Copper & Stainless Steel.

The range of Flat fins (Block fins) we can manufacture is as follows:

- **Tubes Outer Diameter**: 3/8”, 1/2”, 5/8”
- **Tube Thickness**: 27 G (0.40 mm) to 24 G (0.55 mm)
- **Fins Per Inch**: 8 to 10 with 0.18 ~ 0.20 mm thk.
  10 to 15 with 0.15 ~ 0.16 mm thk.

**TURBULATOR OPTIONS:**

We can give these blocks with flexible wire turbulators preinserted. This is useful for many applications in oil cooling, refrigeration and condensing. Turbulators can also be offered separately.
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