ANAND SEAMLESS LTD.

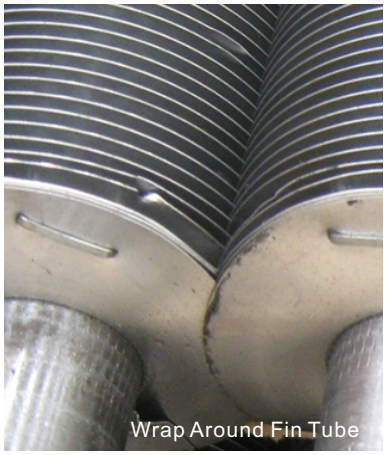
PRODUCT
catalogue

● Heat Exchanger Tubes ● Finned Tubes & Studded Pipes

ANAND SEAMLESS LTD.


Welded Fin Tube


Fin Tube


Wrap Around Fin Tube


U Tube

ABOUT US

ANAND SEAMLESS TUBES is a **leading manufacturer and exporter** of various types of **Cold Drawn Carbon Steel and Alloy Steel Seamless Tubes, Finned Tubes, Heat Exchanger Tubes and U Tube since 2006.**

We are amongst the top manufacturers and exporters for the **Seamless Tubes , Heat Exchanger Tubes, U Tubes and varies types of Fined Tubes** from India accredited with **ISO 9001 : 2015** and approved with various international and national bodies like **Engineers India Limited** (EIL)**, Indian Boiler Regulation** (IBR-"WELL KNOWN TUBE AND PIPE MAKER)**, Projects and Development India Limited** (PDIL)**, Abudhabi National Oil Corporation (ADNOC)**, **Samsung**, **Technip etc** etc.

We offer a very unique combination as a manufacturer and Supplier of **Plain Heat Exchanger Tubes as Well as various types of Finned Tubes.** We offer the flexibility and ease to the end user of getting the Plain Heat Exchanger Tubes and Finned Tubes both from one single source thereby providing a one stop solution and hassle free supply. This integration helps in giving the best and timely service to our various clients.

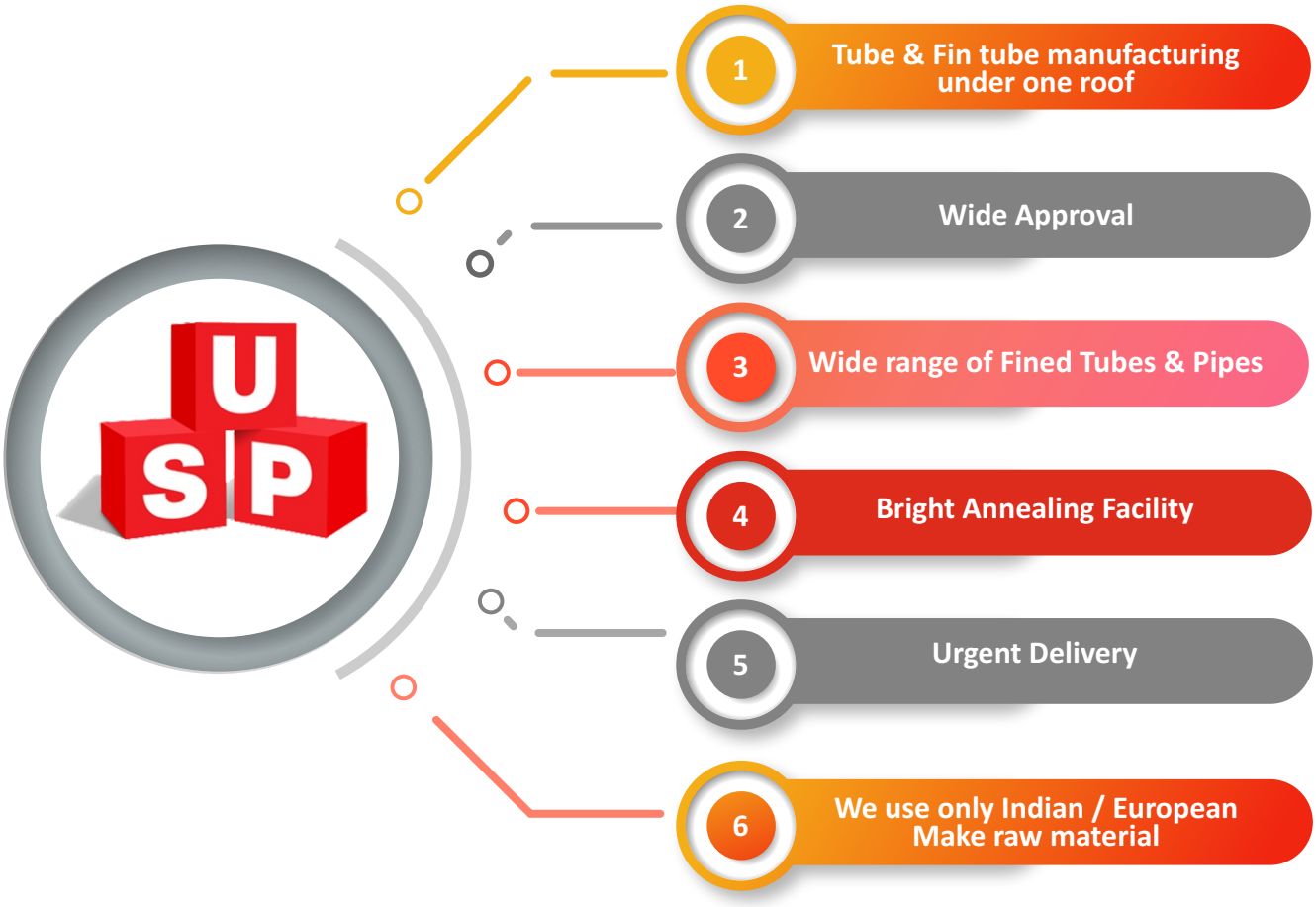
Products

Heat Exchanger Tubes
'U' Bend Tubes
Finned Tubes / Pipes
Mechanical Tubes
Hydraulic Tubes

Our Certificates

ISO 9001: 2015
ISO 14001 : 2015
ISO 18001 : 2007
Well Known Tube / Pipe Maker under the Indian Boiler Regulations
Engineers India Pvt Ltd

OUR STRENGTH



ANAND SEAMLESS LTD.

EPC / CLIENTS LIST

TAQREER	GASCO	SABIC
PDO	ADNOC	EIL
PDIL	BORL	SAMSUNG
UPL	IOCL	BPCL
HPCL	MRPL	CPCL
L & T	PEMEX	SUPER PETROLEUM
TATA PROJECTS	NAYARA ENERGY	RIL
TEMA	BHEL	PETROFAC
RCF	GAIL	NFL
ISGEC	NSPCL	MECON
DFL	AARTI IND.	RELIANCE CEMENT

and many more...

THIRD PARTY INSPECTION LIST

LLOYD'S REGISTER	TUV - N	DNV
ABS	CEIL	BV
RITES	SGS	GLIS
VELOSI	IRS	MECON
BAX COUNSEL	TUV - S	AKPG
QUEST	RINA	ICS
UHDE	JACOB H & G	TUV - R
EIL	PDIL	IBR

and many more...

ANAND SEAMLESS LTD.

OUR PRODUCTS

At, Anand Seamless Tubes Pvt Ltd , we offer a wide range of products related to the Heat Exchanger Industry, Petrochemical Refineries, Boiler Manufacturing, Power Plants, Fertilizer Plants, Automobile Industries, etc.

Being present for more than a decade as a reputed manufacturer, and engaged in manufacturing activity of Cold Drawn Carbon Steel Seamless Tubes, Cold Drawn Alloy Steel Seamless Tubes and Various types of Finned Tubes, we have gained confidence and positive reputation in the industry.

Our Key Offerings Include

1. Heat Exchanger Tubes :-

We manufacture Cold Drawn Seamless Tubes (Drawn on Mandrel Tubes) to suit to our clients requirements. We manufacture both, Cold Drawn Carbon Steel Seamless Tubes and Cold Drawn Alloy Steel Seamless Tubes.

2. Fin Tubes (Finned Tubes) :-

We are having an extensive in-house manufacturing infrastructure and we manufacture a wide range of Finned Tubes. As we manufacture our own base tube required for Finned Tubes, this in-house facility results in better quality, reduced supply time , reduced cost to customer as it avoids un-necessary transportation and other overheads. This is an unique advantage which we offer to our customers. We offer the following main types of Finned Tubes :-

- **G' Type Fin Tube** **(Embedded Fin Tube/ Grooved Fin Tube)**
- **L' / 'LL'/'KL' Type Fin Tube** **(Wrap Around Fin Tube)**
- **Extruded Fin Tube** **(Bimetallic Fin Tube / Serrated Extruded Fin Tube)**
- **Low Fin Tubes** **(Integral Fin Tube)**
- **Welded Fin Tube** **(Solid Helical Fin Tubes / Serrated Helical Fin Tube)**
- **Studded Fin Tube / Pipe** **(Stud Type Fin Tube)**

3. "U" Bend Tubes:-

We also offer "U" Bend Tubes. We have a fully equipped in-house facility for tube bending. We offer Bent Tubes for both Plain Tubes and Finned Tubes. Stress Relieving is done as per TEMA standards.

4. Mechanical Tubes / Automobile Application Tubes :-

We offer the best in class Seamless Tubes and Pipes which widely find acceptance as Hydraulic Tubing and Mechanical Tubing. We offer these tubes as per the clients requirement based on their fixed monthly requirements with rate contracts as agreed upon.

Our above tubes are supplied with highest quality and with proper certifications and traceability.

We can manufacture all the above products as per various international standards like ASTM , ASME , JIS, BS, DIN–EN, IBR etc. We can also manufacture and supply the same as per the specific requirements of customers.

ANAND SEAMLESS LTD.

HEAT EXCHANGER TUBES (STRAIGHT & “U” BEND)

We manufacture COLD DRAWN SEAMLESS CARBON STEEL and ALLOY STEEL TUBES & PIPES as per various International Specifications.

These Heat Exchanger Tubes as the name suggests are used mainly for heat transfer application . We manufacture Seamless Heat Exchanger Tubes to cater to the more critical applications of the Industry.

These HEAT EXCHANGER TUBES mainly find applications in Pressure Vessels, Cryogenic Pressure Vessels, High Pressure Equipments, Shell & Tube Heat Exchangers, Boilers, Air Pre Heater, Finned Tubes, Air Cooler Tubes, etc. They are used in Industries like Refineries, Power Plants, Steel Plants, Petro-Chemical Process Plants, Fertilizer Plants and Ship Building etc.

These tubes can be manufactured in straight lengths or “U” bent as per the customer requirements.

Our tubes are manufactured by the Cold Drawn Process (Drawn on Mandrel) to provide the closest dimensional tolerance and smooth Outside and Inside Finish. Further to achieve the desired Mechanical Properties the tubes are Heat Treated (Normalized, Stress Relieved, Annealed, Tempered Etc) as per the customer / grade requirement.

Straightening is done on multiple roll straightening machines to achieve accuracy up to 1mm: 1000mm Straightness. Our stringent quality checks and best packing practices (For Exports, special 4 layer packing) ensures that the material delivered to the customer is of the highest quality and reaches the destination in best condition.

ANAND SEAMLESS LTD.

HEAT EXCHANGER TUBES (STRAIGHT & “U” BEND)

Manufacturing Range (Heat Exchanger Tubes)

Sr.	Particulars	Range
1	Type	Straight Tube, “U” Tube
2	MOC	Carbon Steel, Alloy Steel
3	Tube Outside Diameter	6.00 mm to 101.00 mm
4	Tube Wall Thickness	0.85 mm to 12.70mm
5	Bending "R”	Min 1.5 D & Max 1000 mm
6	Base Tube Length	1.0 MTR To 27.0 MTR
7	Standards / Specification	ASTM/ASME/DIN/EN/BS/JIS/TEMA ETC

We can supply material on urgent delivery basis because of large stock holding capacity .

The Heat Exchanger Tubes can be supplied with EN 10204 3.1 or 3.2 certification. We can provide Third Party Inspection from any reputed inspection agency.

ANAND SEAMLESS LTD.

EXTRUDED FIN TUBE (BIMETALLIC FIN TUBE)

The Extruded Fin Tube also known as Bimetallic Fin Tube is one of the most preferred finning process for various applications.

The fins are manufactured by extruding the fins on the aluminium muff tube which is made to fit with close tolerance over the base tube .

The extrusion takes place on a continuous fin extruder with three tooling rolls and extrusion takes place at high pressures. Because of the cold working process the bond between the tube and fin is flawless and hence gives excellent heat transfer efficiency. At the same time the mechanical strength of the fins is also enhanced drastically, and has a longer life.

These Fin Tubes find application in AIR FIN COOLERS, DRIERS, RADIATORS etc and are used in Industries like Petro-Chemical Refineries, Power Plants, Gas Plants, Chemical Industries, Steel Plants, Chiller Plants & Food and Agriculture equipments.

Properties of Extruded Fin Tubes (Bimetallic Fin Tube) :-

Manufacturing Process	Cold Extrusion- Solid & Serrated
Fin To Tube Bond	Excellent
Heat Transfer Efficiency	Excellent
Mechanical Resistance	Excellent (Hence can be frequently cleaned with high pressure jets unlike other fin tubes. Thereby reducing down time and increasing overall life of the Fin Cooler)
Corrosion Protection	Gives excellent corrosion protection to the base tube since it entirely covers the base tube (except bare ends).
Temperature Range	Upto Maximum 300 Deg C

ANAND SEAMLESS LTD.

EXTRUDED FIN TUBE (BIMETALLIC FIN TUBE)

Manufacturing Range (Extruded Fin Tube / Bimetallic Fin Tube):-

Sr.	Particulars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel , Alloy Steel, Titanium , Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretical limit)
2	Base Tube Outside Diameter	12.70 mm to 38.10 mm
3	Base Tube Thickness	1.50mm and above
4	Base Tube Length	500 mm Min To 21000 mm
5	Fin Material	Aluminium , Copper
6	Fin Thickness	0.3mm ,0.35mm , 0.4mm , 0.45mm ,0.55mm,0.60mm,0.65mm
7	Fin Density	197 FPM (5 FPI) to 433 FPM (11 FPI)
8	Fin Height	9.8 mm to 16.00 mm
9	Bare Ends	As per client requirements
10	Manufacturing Capacity	5,00,000 Metres Per Annum

We can supply material on urgent delivery basis because of large stock holding capacity . We use only prime quality Base Tubes and Fin Material.

The Extruded Fin Tubes can be supplied with EN 10204 3.1 or 3.2 certifications . We can provide Third Party Inspection from any reputed inspection agency.

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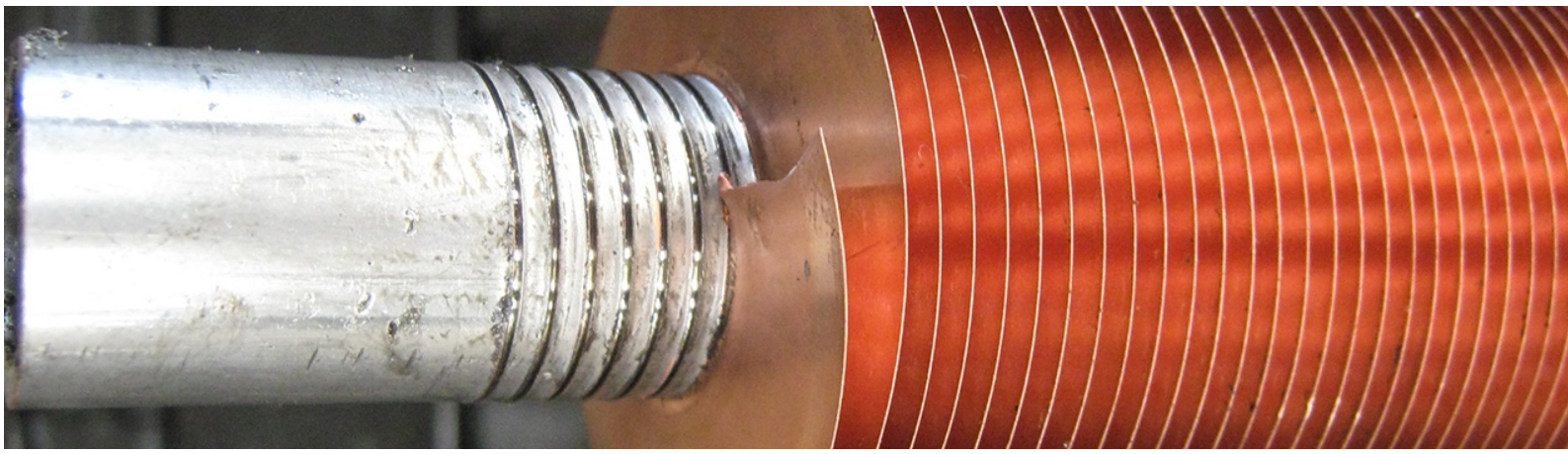

GROOVED FIN TUBE 'G' FIN TUBE (EMBEDDED FIN TUBE)

The 'G' FIN TUBE is also known as Embedded Fin Tube. This type of Fin Tube widely finds acceptance where the requirement is for higher operating temperature and relatively lower corrosive atmosphere.

The fins are manufactured by embedding the fin strip into a groove formed on the base tube. The Fin is allowed to be placed in the groove and then the backfilling of the groove is carried out to ensure firm adherence of the fins to the base tubes. Because of the process this type of Fin Tube is also known as 'G' Fin Tube or Grooved Fin Tube.

The grooving, fin stock inserting and the backfilling processes are carried out simultaneously as continuous operation. Because of the back filling procedure the bond between the Fin material and the Base tube is one of the best. This ensures optimum Heat Transfer.

These Fin Tubes find application in AIR FIN COOLERS, DRIERS, RADIATORS etc and are used in Industries like Petro-Chemical Refineries, Power Plants, Chemical Industries, Steel Plants, Chiller Plants & Food and Agriculture equipments etc.

Properties of 'G' Fin Tubes / Grooved Fin Tubes (Embedded Fin Tube) :-

Manufacturing Process	Grooving and Embedding the Fin Stock in the Base Tubes.
Fin To Tube Bond	Very Good
Heat Transfer Efficiency	Excellent
Mechanical Resistance	Moderate
Corrosion Protection	Low
Temperature Range	Up to Maximum 415 Deg C

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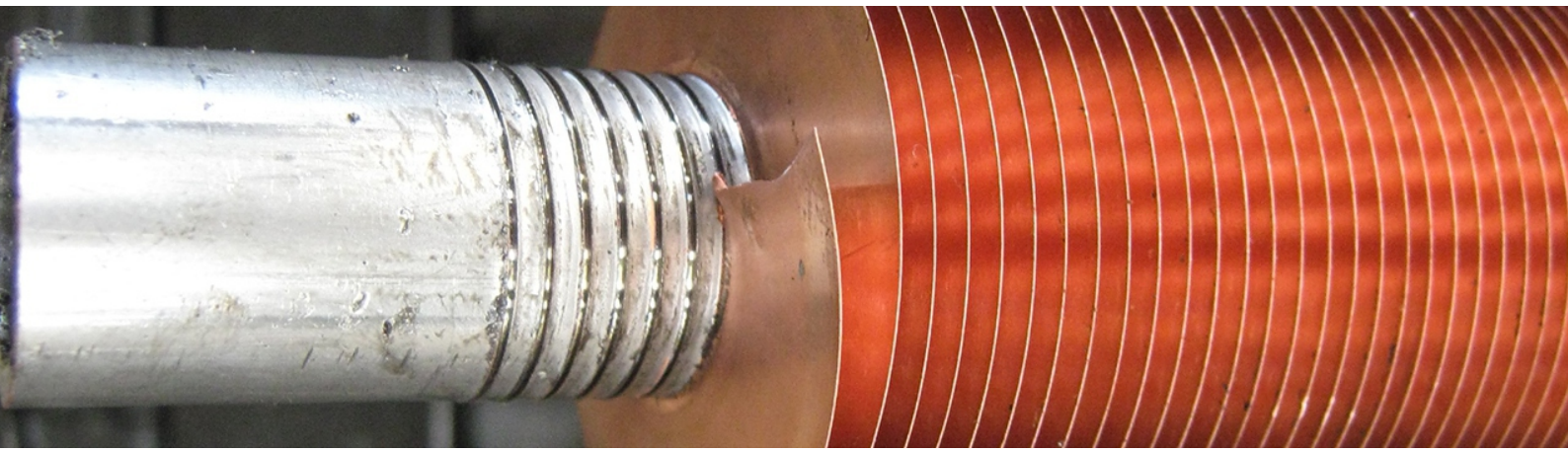

GROOVED FIN TUBE 'G' FIN TUBE (EMBEDDED FIN TUBE)

Manufacturing Range ('G' Fin Tube (Embedded Fin Tube):-

Sr.	Partculars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel , Alloy Steel, Titanium , Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretcal limit)
2	Base Tube Outside Diameter	12.70 mm to 38.10 mm
3	Base Tube Thickness	2.00 mm and above
4	Base Tube Length	500 mm Min To 21000 mm
5	Fin Material	Aluminium , Copper , Stainless Steel , etc
6	Fin Thickness	0.3mm, 0.35mm, 0.4mm, 0.45mm, 0.55mm, 0.60mm, 0.65mm
7	Fin Density	236 FPM (6 FPI) to 433 FPM (11 FPI)
8	Fin Height	9.8 mm to 16.00 mm
9	Bare Ends	As per client requirements
10	Manufacturing Capacity	5,00,000 Metres Per Annum

We can supply material on urgent delivery basis because of large stock holding capacity .
We use only prime quality Base Tubes and Fin Material.

The Grooved Fin Tubes can be supplied with EN 10204 3.1 or 3.2 certification. We can provide Third Party Inspection from any reputed inspection agency.

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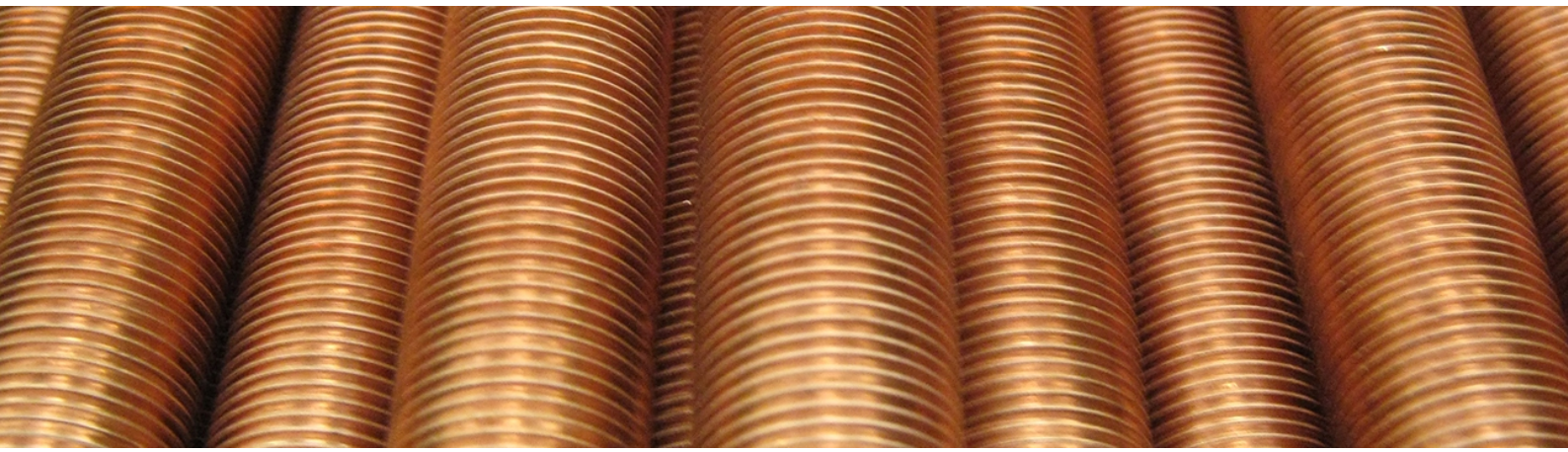


LOW FIN / INTEGRAL TUBES

The 'Low Fin Tube' is also known as "Integral Fin Tube". This type of Fin Tube is widely being used in the Industry today.

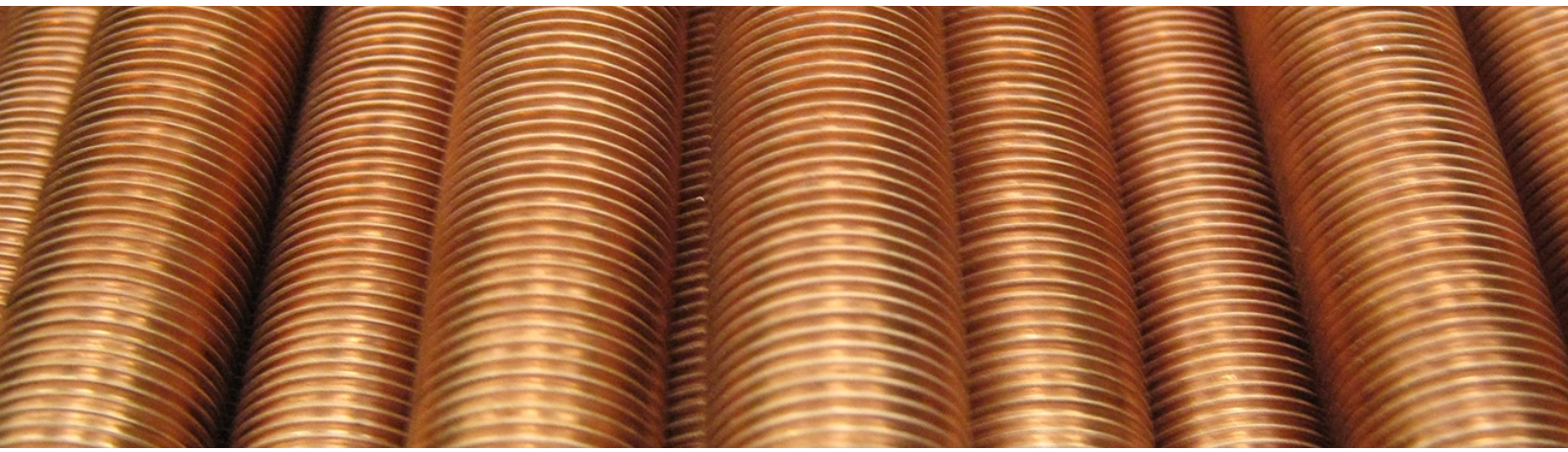
The Low Fin Tubes/ Integral Fin Tubes are increasingly being used in various Fluid Heat Exchangers. Unlike other Fin Tubes the application is not limited to Air – Fluid type of heat exchangers . As a result they are used in various types of shell and tube type heat exchanger also .

The Fins are manufactured by rolling the Fin in the Base Tube Itself. The Fin height is relatively very low. However number of Fins per inch or the Fin Density can be increased greatly and improve the heat transfer area. The rolling is done on a special machine and the same can be supplied in straight as well as 'U' bend configuration.

These Fin Tubes find application in AIR FIN COOLERS, DRIERS, RADIATORS etc and are used in Industries like Petro-Chemical Refineries, Power Plants, Gas Plants, Chemical Industries, Steel Plants, Chiller Plants, Food & Agriculture equipments.

Properties of Low Fin / Integral Fin Tubes	
Manufacturing Process	Cold Rolling of Fin on the base tube Itself.
Fin To Tube Bond	NA (Fin is extruded from the base tube itself)
Heat Transfer Efficiency	Good
Mechanical Resistance	Good
Corrosion Protection	Depending on properties of material of Fin and Pipe
Temperature Range	Depending on properties of material of Fin and Pipe

ANAND SEAMLESS LTD.



LOW FIN / INTEGRAL TUBES

Manufacturing Range (Low Fin Tube / Integral Fin Tube) :-

Sr.	Particulars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel , Alloy Steel, Titanium , Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretical limit)
2	Base Tube Outside Diameter	12.70 mm to 38.10 mm
3	Base Tube Thickness	1.65 mm and above
4	Base Tube Length	500 mm Min To 21000mm
5	Fin Density	Up to 1023 FPM (32 FPI)
6	Bare Ends	As per client requirements
7	Manufacturing Capacity	28,00,000 Metres Per Annum
8	Standards /Specification	ASTM A 498/1012 / B 359 / B891 etc

We can supply material on urgent delivery basis because of large stock holding capacity .
We use only prime quality Base Tubes and Fin Material.

The Low Fin / Integrated Tubes can be supplied with EN 10204 3.1 or 3.2 certification. We can provide Third Party Inspection from any reputed inspection agency.

STUDDED FIN TUBE

The STUDDED Fin Tube is manufactured by welding of Studs on the Bare tubes.

The fins are manufactured by welding of the Fin Material which is essentially a stud welded at base to the tube by Electrical Resistance Process.

The current is made to flow through the Tube and the base of the studs. The studs are specifically made in shapes to facilitate the welding process. The Stud, during the finning "welding" process is also mechanically pressed on the tube at the point of welding hence causing a very good mechanical bond. This type of Fin Tube find application in high pressure and high temperature applications. The mechanical bond is very strong and hence finds application in places where extreme mechanical load, stress is expected while during the process or cleaning etc.

These Fin Tubes find application in Finned Pipes, Fired Heaters, Boiler Bedcoils etc and are used in Industries like Petrochemical Refineries, Power Plants, Chemical Industries, Steel Plants, etc,

Properties of Studded Fin Tubes / Studded Fin Pipe :-

Manufacturing Process	Electric Resistance Welding
Fin To Tube Bond	Excellent
Heat Transfer Efficiency	Excellent
Mechanical Resistance	Excellent (Hence can be frequently cleaned with high pressure jets unlike other fin tubes. Thereby reducing down time and increasing overall life)
Corrosion Protection	Depending on properties of material of Fin(Stud) and Pipe.
Temperature Range	Depending on properties of material of Fin(Stud) and Pipe.

ANAND SEAMLESS LTD.

STUDDED FIN TUBE

Manufacturing Range (Studded Fin Tube) :-

Sr	Particulars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel, Alloy Steel, Titanium, Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretical limit)
2	Base Tube Outside Diameter	60 mm to 200 mm
3	Base Tube Thickness	3 mm to 12.70mm and above
4	Base Tube Length	2000 mm Min To 15000 mm
5	Stud Material	Carbon Steel, Alloy Steel, Stainless Steel
6	Stud Thickness	6 mm To 16 mm
7	Stud Density	As per client requirements
8	Stud Height	12.7mm to 63.5mm
9	Bare Ends	As per client requirements
10	Manufacturing Capacity	87,60,000 studs per year

We can supply material on urgent delivery basis because of large stock holding capacity .
We use only prime quality Base Tubes and Fin Material.

The Studded Fin Tubes can be supplied with EN 10204 3.1 or 3.2 certifications . We can provide Third Party Inspection from any reputed inspection agency.

ANAND SEAMLESS LTD.

WELDED / CONTINUOUSLY WELDED SPIRAL FIN TUBE

The fins are manufactured by Spirally Winding and continuously welding the fin around the Base Tube and Pipe. During the winding the fin is continuously welded giving the most robust bond between the Fin and the Tube.

This type of Fin Tube is used specifically where the application involves a lot of mechanical stresses like continuous vibrations etc.

The welding bond between the tube and the Fin also ensures that almost perfect heat transfer efficiency is achieved. It can also give the highest operating temperature ranges.

These Fin Tubes find application in HRSG, AIR PRE-HEATERS, WASTE HEAT RECOVERY SYSTEMS, BOILER FIN TUBES etc and are used in Industries like Power Plants, Chemical Industries, Steel Plants, Chiller Plants, Petroleum Refineries etc.

Properties of Welded / Continuously Welded Spiral Fin Tube

Manufacturing Process	Continuously Welded Spiral - Solid and Serrated
Fin To Tube Bond	Excellent
Heat Transfer Efficiency	Excellent
Mechanical Resistance	Excellent (Hence can be frequently cleaned with high pressure jets unlike other fin tubes. Thereby reducing down time and increasing overall life)
Corrosion Protection	Depending on properties of material of Fin and Pipe.
Temperature Range	Depending on properties of material of Fin and Pipe.

These Continuously Welded Fin Tube can be supplied in broadly two types as Solid Fin Tubes and Serrated Fin Tubes

ANAND SEAMLESS LTD.

WELDED / CONTINUOUSLY WELDED SPIRAL FIN TUBE

Manufacturing Range (Welded Fin Tubes)

Sr	Particulars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel, Alloy Steel, Titanium, Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretical limit)
2	Base Tube Outside Diameter	31.75 mm to 225.00 mm (1" NB Pipe to 8" NB Pipe)
3	Base Tube Thickness	2.50 mm and above
4	Base Tube Length	500 mm Min To 21000 mm
5	Fin Material	Carbon Steel, Alloy Steel, Stainless Steel
6	Fin Type	Solid / Serrated
7	Fin Thickness	0.80 mm To 2.50 mm
8	Fin Density	79 FPM (2 FPI) to 276 FPM (7 FPI)
9	Fin Height	9.8 mm to 25.00 mm
10	Bare Ends	As per client requirements
11	Manufacturing Capacity	3,00,000 Metres Per Annum

We can supply material on urgent delivery basis because of large stock holding capacity .
We use only prime quality Base Tubes and Fin Material.

The Welded Fin Tubes can be supplied with EN 10204 3.1 or 3.2 certifications . We can provide Third Party Inspection from any reputed inspection agency.

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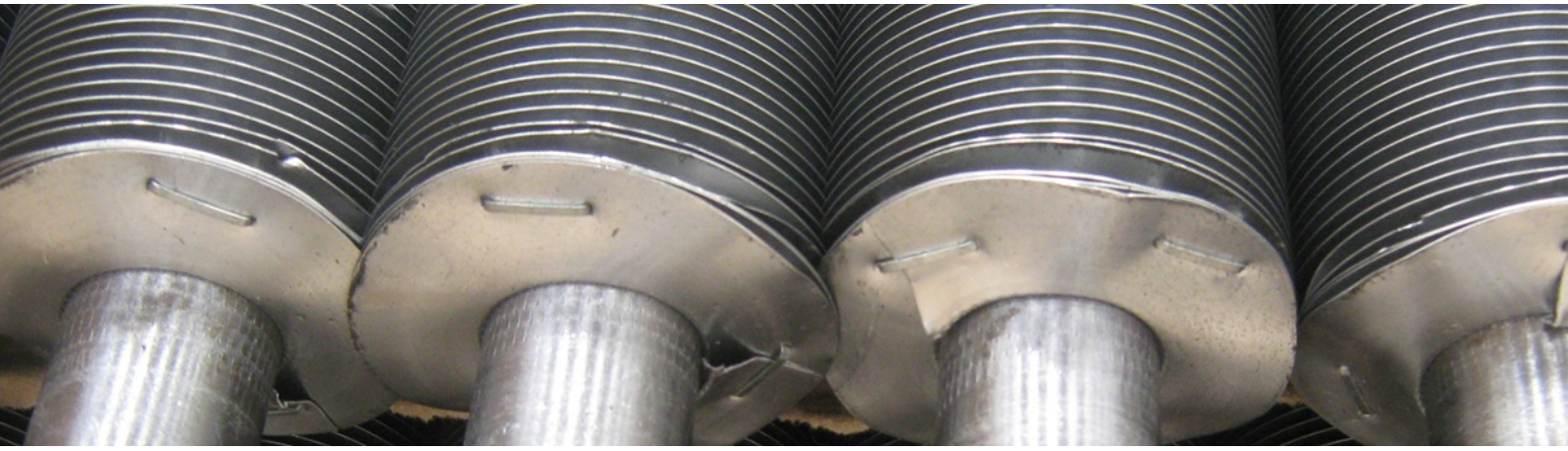


‘L’, ‘LL’, ‘KLM’ FIN TUBE (WRAP AROUND FIN TUBE)

The ‘L’ FIN TUBE , ‘LL’ FIN TUBE , ‘KLM’ FIN TUBE also known as “Wrap Around Fin Tube” . This type of Fin Tube widely finds acceptance where the Heat Transfer Temperature is relatively lower and the cost needs to be controlled.

In ‘L’ Type Fin Tube also known as ‘L’ Foot Fin Tube, the finning is done by wrapping around the Fin stock spirally around the base tube . This is the reason they are also known as spirally wound Fin Tube . The base of the fin stock is shaped in to and ‘L’ shape which gives a base for the fin to stand on firmly. Also the ‘L’ shape provides a certain protection against the atmospheric corrosion.

‘LL’ Fin Tube , manufacturing process is similar to the L Fin Tube type. However , the improvement is that the ‘L’ Foot of the previous fin is completely overlapped by the ‘L’ Foot of the next fin. This gives the Fin base a shape of two ‘L’ foot simultaneously. It provides excellent corrosion resistance.

‘KLM’ Fin Tube or ‘Knurled L Foot’ Fin Tube currently is most widely type used and preferred Fin Tube. This type of Fin Tube is manufactured simillar to the ‘L’ Fin Tube . However, the process involves Knurling the Tube and at the same time the ‘L’ base of the fin stock to form a firm bond and much better contact between the Fin and the Tube.

In all the above type of Wrap Around Fin Tubes the fins are held by Spiral Tension. The ends are required to be firmly held together by means of Mechanical Bonding , Brazing etc. This tube also has an added benefit of using much lower thickness of the base tube thereby reducing the cost considerably.

These fin tubes find application in AIR FIN COOLERS, DRIERS, RADIATORS etc and are used in Industries like Petro - Chemical Refineries, Power Plants, Chemical Industries, Steel Plants, Chiller Plants & Food and Agriculture equipments ect.

Properties of L/LL/KLM Fin Tubes :-

Manufacturing Process	Wrap Around the Base Tube with various iterations of the Fin Base
Fin To Tube Bond	Low
Heat Transfer Efficiency	Moderate
Mechanical Resistance	Moderate
Corrosion Protection	Good
Temperature Range	Up to Maximum 175 Deg C

ANAND SEAMLESS LTD.

'L', 'LL', 'KLM' FIN TUBE (WRAP AROUND FIN TUBE)

Manufacturing Range (L,LL,KLM / Wrap Around Fin Tube):-

Sr.	Particulars	Range
1	Base Tube Material	Stainless Steel, Carbon Steel , Alloy Steel, Titanium , Copper, Duplex Stainless Steel, Inconel etc. (all material in the theoretical limit)
2	Base Tube Outside Diameter	12.70 mm to 38.10 mm
3	Base Tube Thickness	1.25mm and above
4	Base Tube Length	500 mm Min To 21000 mm
5	Fin Material	Aluminium , Copper , Stainless Steel , etc
6	Fin Thickness	0.3mm ,0.35mm, 0.4mm, 0.45mm, 0.55mm, 0.60mm, 0.65mm
7	Fin Density	236 FPM (6 FPI) to 433 FPM (11 FPI)
8	Fin Height	9.8 mm to 16.00 mm
9	Bare Ends	As per client requirements
10	Manufacturing Capacity	5,00,000 Metres Per Annum

We can supply material on urgent delivery basis because of large stock holding capacity .
We use only prime quality Base Tubes and Fin Material.

The L,LL,KLM Fin Tubes can be supplied with EN 10204 3.1 or 3.2 certification. We can provide Third Party Inspection from any reputed inspection agency.

ANAND SEAMLESS LTD.

MECHANICAL TUBES / AUTOMOBILE APPLICATION TUBES :-

THE MECHANICAL TUBES are available for use like **HYDRAULLIC CYLINDER TUBE(ready to Hone Tubes), MECHANICAL SUPPORT TUBES, GENERAL ENGINEERING TUBES** and are generally used by industries like Hydraulic Cylinder Manufacturing, Automotive Component Manufacturers , Shock Absorber Manufacturer, Textile Machinery Manufacturer, Defense etc. These tubes find application in industries which require high strength along with high accuracy of the Inside/Outside Diameter of the tube. The surface finish also plays a very critical role in the application.

Theses tubes can be manufactured in straight lengths of random length cut or in fixed length.

Our **Seamless Tubes** are manufactured by the cold drawn process (drawn on mandrel) to provide the closest dimensional tolerance and smooth outside and inside finish. Further to achieve the desired mechanical properties the tubes are heat treated (Normalized, Stress Relieved, Annealed , Tempered Etc) as per the customer / grade requirement.

In order to ensure that the strict Inside/ Outside diameter requirement of the industry are met, we manufacture these tubes only on **Tungsten Carbide Dies and Tungsten Carbide Mandrels.**

Straightness is maintained as per the code requirements on a multiple roll straightening machine to achieve accuracy up 1mm: 1000mm straightness. Our stringent quality checks and best packing practices (For exports special 4 layer packing) ensure that the material delivered to the customer is of the highest quality and reaches the destination in best condition.

The tubes are supplied with such finish and accuracy that they can be directly taken up for the honing operation.

ANAND SEAMLESS LTD.

MECHANICAL TUBES / AUTOMOBILE APPLICATION TUBES :-

Manufacturing Range (Mechanical Tubes) :-

Sr.	Particulars	Range
1	Type	Straight Tube
2	MOC	Carbon Steel
3	Tube Outside Diameter	6.00 mm To 101.00 mm
4	Tube Wall Thickness	0.85 mm To 12.70 mm
5	Tube Length	As per client requirement in Fixed Length or Random Length upto 15.00 Meter.
6	Standards/Specification	EN 10305-1, E215/235/355, DIN 2391 - ST 35/45/52, and many more

The Mechanical Tubes can be supplied with EN 10204 3.1 or 3.2 certification. We can provide Third Party Inspection from any reputed inspection agency.

ANAND SEAMLESS LTD.

QUALITY MANAGEMENT & CONTROL

At Anand Seamless Tubes Pvt ltd, quality has been given the highest importance. Our quality has been appreciated and approved by various national and international agencies.

100 % material supplied from our plant carry a valid Mill Test Certificate as per EN 10204 3.1 / 3.2 certification as required by the client. The products manufactured at our plants are regularly inspected and approved by renowned Third Party Inspection agencies like **TUV, DNV, LLOYDS, BVIS ETC.**

All the raw material used by ASTPL are procured from approved standard quality suppliers. The quality assurance team ensures adherence to the QAP for manufacturing. Post receipt, all raw materials and consumables are inspected and tested.

At the production / manufacturing stage, Quality Control team conducts in-process inspection to ensure the standard / customer specific parameters adherence.

The Quality control test and checks are conducted regularly at each stage in order to maintain the uniform product quality .

Our in-house inspection uses the under mentioned tests to ensure stringent quality standards.

NON DESTRUCTIVE TEST	DESTRUCTIVE TEST
Eddy Current Test	Tensile Test
Hydrostatic Test	Hardness Test
Ultrasonic Testing	Flaring Test
Spectro Test	Flattening Test
Visual & Dimensional Inspection	Reverse Bend Test
DP / MP/ RF ECT Testing	"U" Bend mock-up Test
Boroscopic Test	Impact Test
	Corrosion Test
	Fin Bond Test
	X - Ray Test

ANAND SEAMLESS LTD.

PACKING




Packing plays very important role for Steel Tubes & Pipes. ASTPL ensures that prime importance is given to the packing process as well. All tubes and pipes are packed as per the customer specific requirements prior to shipment.

ASTPL takes special care for 'U' Bend Tubes. We ensure that protective end caps for outside or inside are used as per the requirement. Further, fumigation of wooden boxes is also done as per the request or agreement with the client.

ASTPL, as a standard uses product marking with details like

- Logo
- Make
- Size [OD X THK X LENGTH] / Specification
- Grade
- Heat number

Furthermore, TPI inspection identification is carefully transfered to all inspected material by way of punch or signature on metal or paper tags.

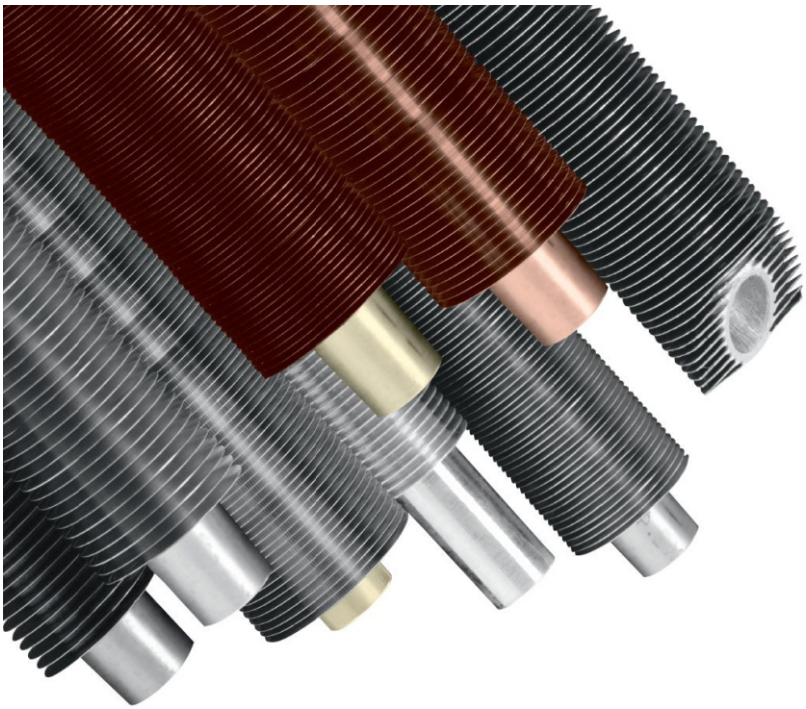
At ASTPL, we use different types of packing methods depending on the customer's need and type of product.

Standard Packing

Sr.	Type of Packing	Applicability
1	Hessian/ PVC Cloth Bundles with PVC Box Strap or Hexagonal Bundles	As per Customer Requirement.
2	Wooden Crate / Metal Box For Domestic Supply.	As per Customer Requirement.
3	Wooden Box made of treated wood or plywood sheet recommended for Long , Thin Walled & 'U' Bend Tubes and Finned Tubes	As per Customer Requirement.
4	Bare Tubes Bundles	For Big Diameter & Heavy Thickness Piping Material.
5	Tubes bundles with PVC Film and Plywood Sheets on the bundles.	For Welded Fin Tube and Studded Pipes

Notes:

(1) Selection of type packing depends on customers need as specified in customer's purchase order. If nothing is specified in the customer purchase order, our standard packing style is followed.
(2) All the tubes are supplied with standard end capes on both ends. Special types of end caps are supplied if required by customer.
(3) Care is taken during handling & packing of thin tubes to prevent dent & scratches.



ANAND SEAMLESS LTD.

Registered Address

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