## Excellences in Stainless steel



# G.T. METALS & TUBES



## AN INTRODUCTION

**GTMETALS & TUBES** is worldwide recognized organization engaged in designing and manufacturing a supreme range of SS Electro Polished Pipe, Fittings & valves in Ahmedabad Gujarat, India. Since the company incorporated in 1998, we have grown rapidly to become global leader. To improve and expand our business, we are regularly making all essential changes and upgrading technology to face the present and upcoming challenges. We have a team of young visionaries who are excellent to perform the duty.

**G T METALS & TUBES** undertake Pharma, Biotech, dairy turnkey projects on a single point responsibility. We are working with Isomatric drawing, Line Layout and actual BOQ Workout before start working. Our Objective is client satisfaction and completion of Project in budgetary time.

We have a well structured infrastructure including latest manufacturing machines and efficient manpower. A team of elite engineers keep themselves totally devoted in obtaining a new way of production so that further improvement in the quality and quantity could be initiated. Our tubes and pipes give no leakage and spillage complaints and they are technically strong to withstand all kinds of adverse situations.

we are able to produce as per the requirement of the clients because we maintain a good stock of raw materials, latest manufacturing machines and efficient manpower. Our customized products are given shapes and dimensions as per the specification provided by the clients.

#### **Quality Aspect**

We exercise strict control over quality of the products and take stringent measures to keep it at par with the international norms. **GTMETALS & TUBES** has a well developed quality inspection center and laboratory which is fully armored with latest testing machines and equipments. Right from the raw materials procurement to the manufacture of finished goods, a thorough quality test is conducted to make the products flawless in all respects.



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## **G. T. METALS & TUBES**





Electro Polished Pipe



Pendant



Housing Filters



Butterfly Valve



Clamp



Sandwich
Butterfly Valve



Flush Bottom Valve



Cross Tee



Bend



Diaphragm Valve



Eccentric Reducer



Ball Valve





Sample Valve



Pipe Holding Clamp



Butt Welded Tee



Zero End Dead Leg Valve



Spray Ball Valve



SMS Union



Stainless Steel Flanges



Y Type Steam Valve
Accutor Operator



Float Valve



Silicon Braided hose Tubes



Safety-Valve



Cocentric Reducer

## **G. T. METALS & TUBES**





SS Scoop



Needle Valve



TC End Bend



Diaphragm



Stainless Steel
Corrugated
Flexible Hoses



TC Blind Ferrule



TC End Reducer



TC Ferrule



Non Return Valve



TC Hose Nipple

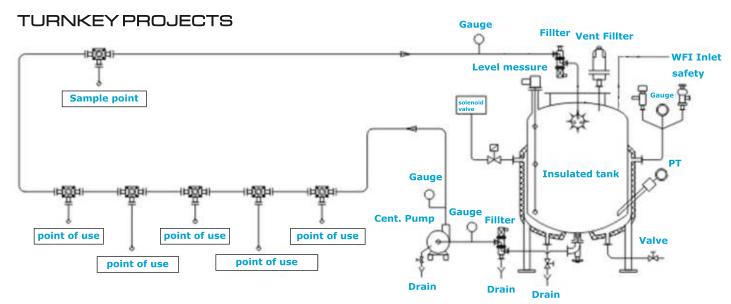


Tri Clover Clamp



Filter Cartridge





#### Distribution Loop Piping

#### Purified water and water for injection distribution loops

The water distribution loop must be made from sanitary materials of the same characteristics as those of the storage and distribution skid. The main characteristic is that they must be 100% drainable so they will be designed with gradients towards the points of use so that in the event of a shutdown of the installation no water will be retained in the loop. As for fluid mechanics, the water must circulate in the pipe in turbulent flow (speeds over 1 m/s and Reynolds number over 10,000 are advisable) in order to minimise risks of contamination which would occur if it were to circulate in laminar flow, a positive pressure must also be guaranteed in the return to the tank (1 bar). For this, various instruments will be used such as a variable speed drive for the pump, pressure probe and flow meter.

The loops must be correctly insulated in order to minimise heat loss, thus achieving considerable energy saving, and in clean rooms this must be of stainless steel.

The fixing of the installation must be made using hex type sanitary pipe hangers covered with polymer material (according to the temperature) to minimise the risk of external corrosion of the pipe.

Distribution loop consisting of the following features

- SS316L, Seamless tubes, Electro-polished.
- Internal surfaces finish less than 0.4 Ra.
- Outside mirror polish / matt finish
- Installed at a slope of 1:100 for complete drainability.
- Properly supported with SS304 contact parts.
- Dead legs of not more than 1.5 D.
- No hold up volume in case of shut down.
- Normal velocity of 2.8 m/s and during peak load velocity of min 1.2 m/s shall be maintained.
- All possible joints shall be orbital welded; remaining joints shall be sanitary tri-clamp type with silicon gaskets.



#### Stainless Steel Storage Vessels:



#### PW & WFI Storage Tanks

- All tanks are designed and manufactured as per GMP guidelines and comply with ASME (BPE) and ASME section VIII, Div 1 standards
- Capacity varies from 100 Litres to 10, 000 Liters
- All wetted parts are of sanitary stainless steel AISI 316L material and rest is manufactured from stainless steel AISI 304
- In house hydro test facility is available. Jackets are tested at up to 6 Kg/cm2 pressure and limpets are tested at up to 10 Kg/cm2 pressure.
- All wetted surfaces are internally electro-polished up to 0.4 Ra finish
- Option of electrical immersion heaters / ceramic heaters can be provided
- Plain, single / dual jacketed and limpet tanks are provided with suitable insulation and stainless steel AISI 304 cladding
- Flush nozzles are provided to ensure minimum dead leg
- If required all necessary accessories can be provided like dynamic spray ball, steam safety valve assembly, back pressure valve, electrical heat traced vent filter housing with 0.2 micron hydrophobic vent filter, compound pressure gauge, temperature transmitter, level switch, level controller, ball valves, steam inlet valve, steam trap and rupture disk

#### ORBITAL WELDING

We at GT Metals & Tubes, undertake turnkey orbital welding jobs with supply of world class fittings and tubing / piping. We also undertake subcontracting jobs for orbital welding. We have our own 3 state of the art orbital welding machines. More machines are available on requirement. The welding machines are microprocessor based with weld documentation facility. We use only genuine electrodes / consumables as specified by manufacturer so that quality of the weld will be identical. All the support equipments like tube facing machines, flow measurement devices, etc are from world class manufacturers.

## Videoscopy / Boroscopy

Boroscope / Videoscope is an instrument which is used for the inspection of piping internal surface and weld joints.

It is the current pharmaceutical industry practice to use boroscope for documentation of orbital welding joints for inspection.

Normal Practice is to do 10% of Boroscopy / Videoscopy of the total welding joints and 100% in critical application.





### **Exporters & Manufacturer:**

Turnkey Projects, Stainless Steel Vessels, Loop Piping

Process Piping, Utility Piping, Stainless Steel Pendant,

Stainless Steel Electro Polished Tubes, Tri Clover Clamp,

Tubes Fittings, Valves, Housing Filters, Filter Cartridge,

Elbow, Flanges, Tee, Reducer, Float Valve, Silicon Gasket,

In 304, 304 L, 316 316 L Grade Etc. As Per Customer Requirement



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