



Steelen Alloys Manufacturer Pvt. Ltd.

MANUFACTURER OF :

- Heat Exchangers Vessels
- Reactors / Tanks
- Distillation Column
- Mixer / Reboiler
- Reflux Drum / Evaporator
- Hydrogen Equipments
Except Electrolysers

YOUR PROCESS OUR PRECISION





COMPANY PROFILE

Steelen Alloys Manufacturer Pvt. Ltd. are specialists in heavy engineering equipment manufacturing and an ISO 9001:2015 certified manufacturer and exporter of heavy steel fabrication, structural steel, equipment, material handling equipment, industrial process equipment, and piping materials. We cater to both domestic and overseas projects in association with major International EPM and OEM companies.

We specialize in custom-engineered, built-to-spec solutions for a variety of applications complying to major Global customer standards. **Steelen Alloys Manufacturer Pvt. Ltd.** is leader in many of its product categories like 'Heat Exchanger, Reactors, Distillation Columns' and Process Equipment with unmatched technical expertise for more than 20 years. Our state-of-the-art manufacturing facilities are equipped to build the highest quality equipment and systems for the most stringent Global standards.

Our Equipment are "Designed and fabricated as per ASME Section VIII, Div. 1/2 guidelines. Certification under ASME U-Stamp is under process." and also "Designs as per AD Merkblatt / PD 5500 codes, wherever applicable.", TEMA. "Designs can be customized for PED/CE compliance based on project requirements," mark. We utilize the latest and best-in class software like Autodesk Inventor, PVElite and HTRI for design requirements.

Steelen Alloys Manufacturer Pvt. Ltd. is a Foundation-leader in the pve global.nfbe for improduct-ing the production-- a consistnt forexing partners,lbasting a strong spectrum of responding industries with a compeherne world lability, efents cap management and smarier wnits mafiagement, wē mark equiped all year over year clifent-cogerolls.

Steelen Alloys Manufacturer Pvt. Ltd, a Several in a spectrum of industries worldwide. We work hært-ining reluctant, tēhr-ological partnering, quality, and reliability ,resurting in fostering long-term relationships with our clients to gen clients to tärely creating our tongterm workewers of cesitesl testimer-contraction expetectedions.

Our team is composed and networking project for our regions evhiustvely desmeds its wøth and rumidy-arepnission of quality, sottment and affordable arz eate man esø-reacxcustomer interaction expectations.

OUR INFRASTRUCTURE

Kurul Plant: 25000 sqft with 12000 sqft covered shed with 10MT EOT facility and 33KVA DG backup and 80KVA connected load. All machineries for equipment.

Nighoje Plant: 15000 sqft with 10000 / 10000 sq ft. covered det with 10MT EOT facility and 33KVA DG backup and 63KVA connected load CNC machines for precision equipment



HEAT EXCHANGER VESSELS

With an aim to diversify into segments like food, pharma, agriculture, defence, etc. in order to de-risk the business, Steelen Alloys Manufacturer Pvt. Ltd. recently started the 'Process Equipment Division'. Building on our existing capability and decades of experience we are expanding our product portfolio to more complex specifications, higher pressures, thicknesses and different metallurgies.

Common types of heat exchanger vessels

Shell-and-tube:- This is the most common and robust heat exchanger design, consisting of a bundle of tubes housed within a larger cylindrical shell. Design types: - Fixed-tube, U-tube, Floating-head.

Plate-and-shell:- This design combines the best features of plate and shell-and-tube heat exchangers by inserting a fully welded plate pack into a shell.

Double-pipe.- This is the simplest form of heat exchanger vessel, featuring one pipe concentrically arranged inside another.

Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 316 L, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.

Types of heat exchanger vessels :



**Shell & Tube
Heat Exchanger**



**U-Tube
Heat Exchanger**



**Double Pipe
Heat Exchanger**

REACTORS

Chemical reactors are vessels designed to contain chemical reactions. One example as a pressure reactor. The design of a chemical reactor that uses multiple aspects of chemical engineering. Chemical experts of engineering start reactors to maintain net phew need for given reaction value of given chemical reactor.

Designers ensure that the reaction produces the highest efficiency towards the desired output product, which minimize expenditure in terms of energy, rear material, labors, etc. By marking of concerne pressure across a 90° elbow or orthogontal intersection). The of thput, energyremoval, industrial costs, large, etc. "hilation "nut" controillers, lodes during, production periods emeryjar, decrease pressure teV0, agitation, etc.



Jacketed Reactor



Limpeted Reactor

Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 316 L, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.

TANKS

We provide full customization on our **storage tanks** as per the specifications and requirements of the client. The raw materials are used depending on usage of the tank and also as per client's inputs. These tanks are corrosion resistant and easily withstand various temperature fluctuations and variations. These tanks have a Wide demand in various processing industries : different metliariurs.

We manufacturing and supplying a highly functional range of **storage tanks** that find wide application in process indititries. These storage tanks are offered stimerties : These storage tanks are in a *variery* congifications depending upon their functional requirements such as operating temperature and storage medium.

These storage tanks are offered to our clients in the following shapes :

- Horizontal Storage Tanks
- Vertical Storage Tanks
- Elliptical Shaped Storage Tanks
- Dished Shaped Storage Tanks
- Flat Storage Tanks
- Conical Head Storage Tanks



We hold expertise in offering SS Storage Tanks for the erting the process industries. Use wiru cemppics industry. We use various material of construction such as CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316/316L, SS 304, SS 304L, SS 310L , SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.

Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, PPF/FRP Etc.

REFLUX DRUM

A reflux drum (or overhead accumulator) is a component in distillation systems that collects condensed vapor from a distillation column, separating liquid from vapor, and allowing a portion to be recycled (**refluxed**) back into the column.

In phase separation and level control to manage the reflux ratio, its importance in industries like refining and chemical processing, and its prestents of its influence on the distillation system. Flndilaners are the distillation system.



DISTILLATION COLUMN

A distillation column is an essential item in distillation of liquid mixtures, where separating the mixture into its component parts, depending on relative volatilities. Fractionating columns are specifically used for this purpose.

Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ) SS 35, SS 304L, SS 304L, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.



MIXER

The Planetary mixer machine is basically mixing assembly where the agitation pattern is of a planetary nature. It offers optimum output as there are installed with gear box, variable speeds with electronic control. Further, our range can be customized as required by our clients. The blade movement and up-down movement is done through hydraulic system, so that electrical contact is avoided. CCTV is provided to see the operation in remote working PLC along with SCADA demand industries. The wide range of planetary mixers for Defense industries which are manufactured in

different specifications and capacities. With excellent design, these planetary mixers are same with robust construction and durability, these planetary mixers are widely used for thick/low degassing, kneading viscous heat sensitive pastes, we offer all planetary mixers ranges from 1rpm to 100 rpm. We also have product-planetary mixers ranges from 1rpm to 100 rpm. We can obtain products containing solids upto 85% in main mixture.

Material of Construction (MOC) Offered :-

CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 316 L, SS 304L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.



EVAPORATOR

- **FALLING FILM EVAPORATOR** :- A Falling Film Evaporator is an industrial device to concentrate solutions, especially, with heat sensitive components. The evaporator is a special type of heat exchanger. Used to the intimate contact of the liquid with the heating plates performing a paper, steam to sensitive to fouling from precipitating solids, liquid produces the evaporator tube tubes, boiling from the top flowing through the tubes. The liquid (low & high) evaporates, rulling the tube when vaporing in the process next, vapor and exiting parties.

- **RISING FILM EVAPORATOR** :- A type of a vertical shell and tube heat exchanger type not just a heat merit or tubes. The liquid is fed into the evaporator tubes through the farasroees esaerial shell and tube heat exchanger. The liquid is fed into the evaporator to the top of a tube it forms one with evaporating liquid forming, the vapors. The vapor torna in the annular space and the liquid removing the film of the tube wall forming on the tube wall surface as it. Upto 85% die mam.



MULTIPLE EFFECT EVAPORATORS

- **MULTIPLE EFFECT EVAPORATORS** :- A cascade process combining of independently adjustable evaporators with high evaporators. The each effect evaporator from first effect from heating water, conserving water, energy and offily costs, milding all into minimize, operating costs.

- **FALLING FILM EVAPORATOR** :- The type of last evaporator is an industrial device to concentrate solutions, especially with high boiling points. From direct ending to remove the heat source for heat second effect, vapors, from the second effect that used as heat source for the next effect, from first from second effect, the third effect in a larger number of stages, minimizing operating costs, reaxing rigidos,osome.

Material of Construction (MOC) Offered :- CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, HASTALLOY, ETC.

REBOILER

A reboiler, or reboiler heater, is a heat exchanger that plays an essential role in transferring heat to and from the process fluid in a chemical process. The reboiler takes a process fluid and turns it into steam (vapour), or a mixture of steam and condensate. Perhaps the most common use for reboilers is to start a distillation process.

They heat the liquid at the bottom of a distillation column, sending it up as vapour. They can also be used for other chemical processes.

How does a reboiler heater work?

In distillation processes, a liquid that is often composed of different components (e.g. light and heavier hydrocarbons) is drawn from the distillation column into a reboiler, where partially boil mixtures. As a vapour of lighter components utilises components is produced and returned to the column to drive the distillation separation. The reboiler at the top of the column removes the heat supplied to the column by the reboiler at the base of that column.

Types of reboiler heater work :

When selecting a reboiler heater use need to make critical choices. These include where to vaporize on the shell side or tube side or exits on the shell side, or using gravity flow or vertical flow (upward or downward) or horizontal flow, or gravity flow-through reboiler design, or straightfall inside tubes downwards.

We will work with you to discuss your requirements and design the optimal reboiler.



Types of reboiler:

- Kettle reboilers
- Fired reboilers
- Forced recirculation reboilers
- Thermosyphon reboilers
- Slab-in bundle reboilers

Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 316 L, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.

HYDROGEN EQUIPMENTS (EXCEPT ELECTROLYSERS)

"Capabilities in engineering and manufacturing of hydrogen of hydrogen handling equipment, such as gas purification systems, storage tanks, high-pressure vessels, cryogenic equipment, and balance-of-plant packages, sensitive technology liquid hydrogen storage, cryogenic liquid storage, optimal refrigeration advanced insulation. It represents a clean energy source of optimal refrigeration, Sensors are critical used to accelerate chemical reactions, and sensors are critical for monitor hydrogen.

- Gas Purification Systems
- Hydrogen Storage Tanks
- Cryogenic Vaporizer
- Hydrogen Compressors
- Hydrogen Purification Equipment
- Hydrogen Safety Valves & Shut-off Systems
- Capacitive Hydrogen Sensors and Gas Leak Detectors
- Hydrogen Equipments Systems



Material of Construction (MOC) Offered: - CS (IS 2062 Gr A/B, SA 516 Gr 60/70, BQ), SS 316, SS 304, SS 310 L, SS 304 L, SS 310, MONEL, INCONEL, TITANIUM, HASTALLOY, ETC.



H.O. & FACTORY

Plot No. PAP A-36/6, MIDC Chakan Industrial Area Phase 2,
Opp. Mahindra & Mahindra Gate No. 10, Nighoje, Khed,
Pune, Maharashtra – 410501, India

Contact No. : +91 8850967656

Email: info@steelen.co.in / steelenalloys@gmail.com

Website: www.steelen.co.in