



solutions to high-purity water generation | storage | distribution system

the mechanical zeal

OUR STRENGTH

A single point source to all your requirements concerning pure water mechanics.

Our understanding of aseptic requirements and related engineering / manufacturing practices.

Exstocks availability of imported tube, fittings & valves duly electropolished and ready to install.

Our expertise in orbital welding at site with a state of the art machines which results in a weld quality that meets any international standards.

Complete familiarity with current international regulations related to purified water distribution system & validation documents.



ACTIVITIES

Purified water generation, designing, engineering, supply & installation of high-purity water distribution system as per the current international guidelines with automation & validation of the system.

Turnkey execution of utility piping & process piping.

Supply of specially designed & fabricated storage vessel, pressure vessel, mixing vessels with internal surface electro polishing to the best of hygienic conditions.

Supply of imported tubes & fittings duly electro polished to maintain hygienic standard throughout the entire system.

Supply of valves of international manufacturers such as diaphragm valve, zero dead leg valve, butterfly valve & ball valve etc.

Passivation and validation of the erected system supported by the documentation.

SOME OF OUR VALUED CUSTOMERS

- Alembic Limited, Baroda
- Amneal Pharmaceuticals (I) Pvt. Ltd., Ahmedabad
- Axa Parentarals Limited, Roorki
- Cadila Healthcare Ltd., Ahmedabad
- Cadila Healthcare Ltd., Ankleshwar
- Daywell Pharmaceuticals Pvt. Ltd., Chhatral
- Didi Private Limited, Baroda
- Halcyon Labs Pvt. Ltd., Ahmedabad
- Intas Pharmaceuticals Ltd., Ahmedabad
- · Intas Pharmaceuticals, Sikkim
- Jenburkt Pharmaceuticals Ltd., Bhavnagar
- Mitra Industries Pvt. Ltd., Faridabad
- · Mark Biosciences Ltd., Kheda
- · Nirma Limited (Nirlife), Sachana
- Puro Pharma Laboratories, Ahmedabad
- Sun Pharmaceutical Industries Ltd., Halol
- Wockhardt Ltd., Ankleshwar
- Zydus Hospira Oncology Pvt. Ltd., Ahmedabad
- Zydus BSV Pharma Pvt. Ltd., Ahmedabad
- · Zydus Wellness Ltd., Ahmedabad

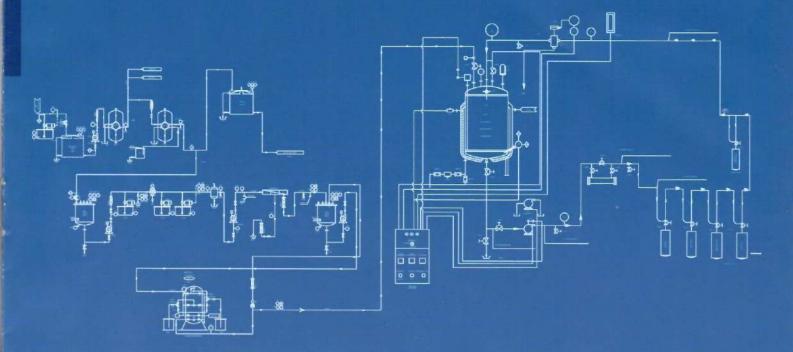


QUALITY ASSURANCE

- Materials received are tested for the quality by liquid molybdenum test.
- · Sample of material are sent to laboratory for chemical composition.
- · Standard Fabrication drawings issued to shop floor.
- · Dimension checking with issued fabrication drawing after completion the job.
- · Surface roughness test after polishing.
- · Preparation of documents for each lot and releasing for dispatch.

TURNKEY PROJECTS





TURNKEY WATER DISTRIBUTION SYSTEM

At Mechzeal, we design, engineer, supply, install and commission complete water distribution system as per current international guidelines.

Mechzeal is executing such project on turnkey bases on a single point responsibility.

Based on the URS given, we can erect the system to the best of customer satisfaction.

ORBITAL WELDING

A substitute of conventional manual argon welding is an automatic orbital tig welding which gives a weld joint that facilitate the hygienic conditions inside the system.

It's a fusion welding process with argon purging gives the superior quality of weld joints internally & externally.

Having a complete setup for orbital welding, Mechzeal provides the onsite & offsite services and deliver the highest standard of a documented weld joint.









PROCESS AND UTILITY PIPING

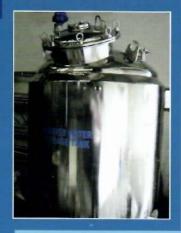
Process / Utility Piping Engineering / Design for manufacturing and commercial industries is one of the three services offered by Mechzeal Interphasing Pvt Ltd. that are considered to be the company's bread and butter. The level of design constructability, design thoroughness, project diversity and construction field experience is second to none...We guarantee it! In our efforts to maintain this reputation, our engineers are active members of the **ASME** as well as the **ASTM** so that the latest of codes and testing procedures are incorporated, as well as being able to immediately make comments to the committees on any codes or procedures that need clarification or modification.

We are working with Proposed isometric drawing, Line Layout and actual BOQ workout before start the site activity. Our motto is client satisfaction and project completion in budgetary time. No matter what your need is, whether it is a large industrial capital project, assisting your maintenance department with a small modification to an engineered system, or updating your drawings and supporting documentation, we can be a most cost effective option. We believe that there is no job to small.

Process piping: Piping, Connecting with Reactor, Heat Exchanger, Column, Receiver, Condenser, Manufacturing vessel and manufacturing area according to GMP / GEP Norms Used in API / Bulk drugs / Liquid / oral manufacturing Plant.

Utility Piping: Piping involves service to machine, manufacturing area, Packing, Production area Like Steam, Hot Water, Comp. Air, Soft Water, Raw Water, Gases, Filter Water.





TANKS FABRICATION TO FINAL **FINISHING**

Capacity: Upto 10 KL



Fabrication facility... Located at: Santej (Ahmedabad)

Area: 5200 sq feet

SKID MOUNTED CIP/SIP SYSTEMS



PENDANT SERVICE SHAFTS



RANGE OF VALVES

- Hermetical separation of fluids from the operating mechanism by diaphragm
- Zero dead volume
- Self-draining operationVarious internal surface finish available



Flush Bottom Valve & T ZDL



Tank Bottom Valve



Diaphragm Valve



PRV, FDV Valve



Block Valve



Multiport Valve



Zero Ded Leg Valve



OTHER PRODUCTS





SS Fittings



Stability Chamber Tray



T.C. Liner



Sample Bottle



T.C. Hose Nipple & T.C. Converter



Spry Ball, BP Nozzle



Gasket Silicon. Teflon



Zero Dead Leg Valve



SS Housing DOE



Spray Ball



FILTER HOLDER

The filter holder is used to sterilize liquids or gases by pressure filtration through a 293-mm diameter disc filter of suitable pore size. A disc pre-filter can be placed in the same holder, upstream of the membrane filter, to increase ultimate throughput capacity.

Filter sealing surfaces are Teflon® faced to permit autoclaving with the filter in place. The Tri-Clamp® inlet and outlet connections have no screw threads to trap contaminant and are easily cleaned.

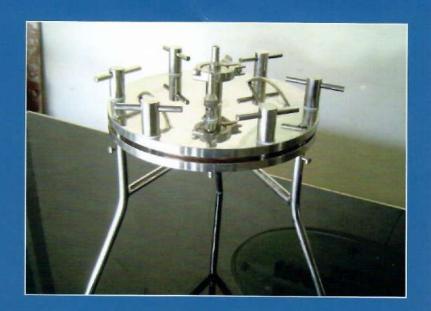
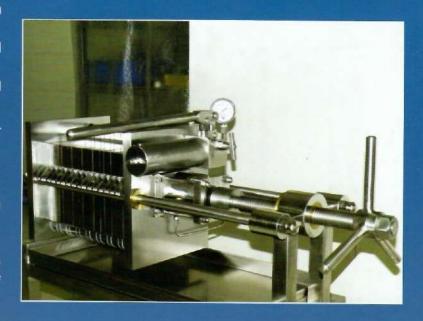


PLATE & FRAME TYPE FILTER PRESS

- Totally enclosed sheet filter system eliminating undesirable product loss
- Enclosed design allows for CIP cleaning & SIP sterilization
- Mechanical dehydration ensures higher yield & reduction in residual moisture in the filter cake
- Mechanical dehydration allows for a dry compact cake in a short time when compared to a typical gas drying
- Utilizes standard depth filter sheets for maximum selectivity
- Sizes from 200 x 200 mm, 400 x 400 mm and 600 x 600 mm available for maximum scalability
- Can be equiped with automatic plate shifters and cleaning portals
- Filter plate & frame materials are available in 316L
 & 316 stainless steel

Features of reverse flow model:

- Zero hold-up of filtrate without scavenging operation.
- Superior clean filter tank processing.
- Fast and easy removal of filter plate cartridge due to top dome construction. Hence easy removal of cake.



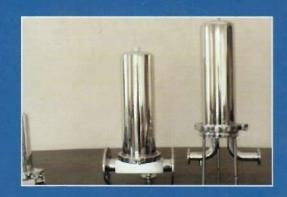
S.S. FILTER HOUSINGS

CONFIGURATIONS

Materials of Construction: SS 304 / 316L

Inlet Connection: To be designed as per required flow rate **Outlet connection:** To be designed as per required flow rate **Connection type:** Threaded BSP (F) / Flanged / Triclover

Cartridge type: DOE / Code 7 **Vent:** As per Client Requirements



PRESSURE VESSEL



SALIENT FEATURES

- These vessels are manufactured from high alloy S.S.
 AISI 316 /316L Quality.
- All joints are argon welded with super finishing. Caps and dead corners are reduced to an absolute minimum internally and externally of vessels are ground and mirror polish finished up to 240 Grit Finish.
- A long tube is provided to ensure complete drawing of fluid.
- Each Vessels is tested at 7 Kg/CM2
- A pressure relief valve is provided.
- Outlet Nozzle provided with Deep Pipe
- Available in models of 5 to 200 Ltrs.



interphasing pvt. Itd.

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Plant

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