



Company Profile



Vacuum ■ Evaporation ■ Crystallization
Heat Transfer Technologies

C o n t e n t s

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In Summary

M e s s a g e

Thank you for taking time to discover more about the products and services that Chem Process Systems can offer to your company.

The investment that comprises Chem Process Systems extends well beyond the fabric of the buildings and the vast array of machine tools, computers, product- testing and inspection facilities that we enjoy, because our policy is to invest in people as well as hardware.

I am constantly reminded of the team spirit and total commitment to customer satisfaction that is the absolute byword within the company.

Our product range is certainly diverse but our objectives are consistent :-

- **Customer satisfaction**
- **Engineering excellence in all that we do**
- **Quality without compromise.**

We look forward to doing business with you.



Jayesh Parikh
Managing Director

Company Overview

Chem Process Systems enjoys a hand earned reputation as a major provider of heat transfer and vacuum related process plant equipment.

Traditionally (but certainly not exclusively) the company's markets are concentrated on the chemical, pharmaceutical, water treatment, petrochemical, oil refinery, and power generation industries. The nature of business is diverse and there is a frequent need to accommodate new equipment and methods into existing plant structures in order to adopt improved process technology. This means that the majority of the product output is specifically designed for its ultimate location.

To achieve this requirement the company employs some of the most sophisticated computerized thermal and mechanical design techniques found anywhere in the world today. Furthermore, the company's engineering team constantly reviews techniques, softwares and methods to ensure they keep pace with "state of the art " thinking in both engineering and user areas.

Acknowledged as a clear market leader Chem Process Systems offers un-rivalled expertise in the technically challenging field with special emphasis to turn around time.



International

Trading internally around the globe, we understand the importance of being able to have face to face contact with international customers.

In this day of advanced technology the world is a smaller place and with telephones, fax machines, email and the internet, it is all too easy to forget the need for one-to-one relationships. We recognise that the sophisticated technology now available to us, whilst making international trading easier and more efficient, is no replacement for personal contact.

As part of our global strategy we have partner offices in UAE, South Korea, USA, UK, Italy, Indonesia, Australia and Brazil.



- Head Office & Works
- Representative Offices

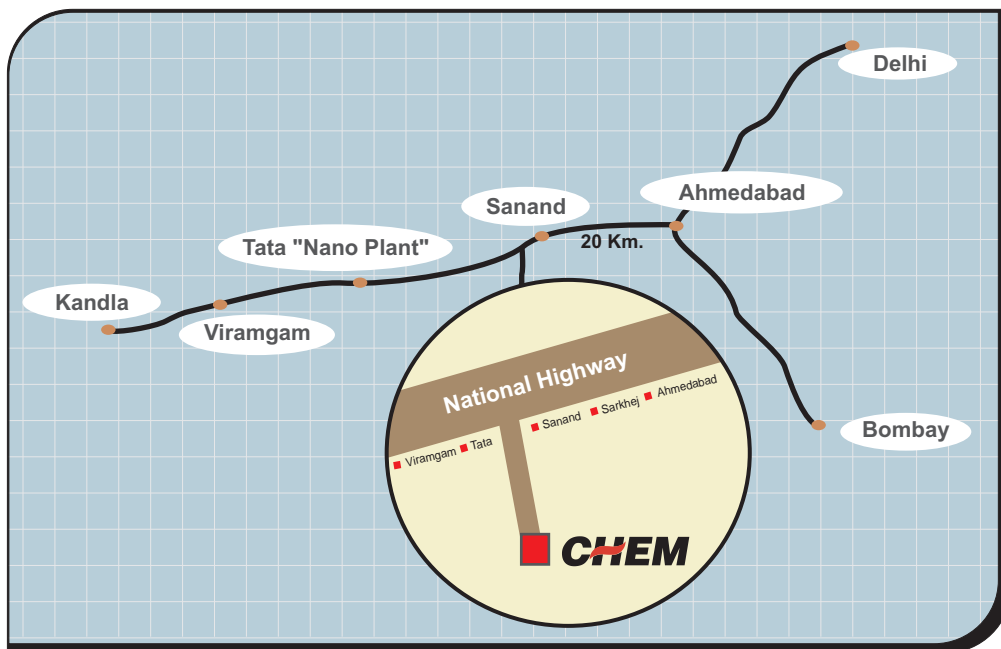
The Location

Chem Process System's production plant is a modern facility based at Sanand in Ahmedabad in the Western India.

With a history of heavy engineering, foundries and steel fabrication, spanning well back into the last century, the Chem Process facilities are situated in a purpose built engineering plant of 6 acres.

Prime Location

The advantageous location offers seamless connectivity with all the major ports, airports and major highways in India.



The People

It is often said that " a company is only as good as its people" and that is an idea that Chem Process support wholeheartedly.

Throughout reviews are carried out to ensure that not only are the best training methods employed, but to also ensure that training keeps pace with the rate of change of relevant technology. Training is carried out both in house and through external organizations, with special emphasis given to ensure that the latest techniques and thinking in industrial manufacture is applied to the company's products.

However, by the nature of the industry, there are many methods and processes found in the products which, having been developed by Chem Process, are unique and we call fully on the expertise and accumulated skills of our workforce in these areas.

We are proud to say that this multi-discipline expertise, which extends in depth at all levels throughout the company, enables us to draw on years of accumulated "in house" experience in such areas as thermodynamic and process design, quality assurance, safety and testing, purchasing, contract management and so on, bringing together a team with a unique combination of skills unrivalled within the industry.

To put a more personal face on the company here are a few key personnel:



Mr. Jayesh Parikh
Managing Director



Mr. Pradeep Ravtani
Director, Operations



Ms. Nina Shah
Director, Business
Development



Mr. Brijesh
Head, Design &
Applications Engineering



Dinesh Patel
Head,
Quality Assurance



Mr. Avinash Verma
Head, Engineering



Dhwanit Desai
Head, Business
Development



R. Venkatachalam
General Manager,
Heavy Engineering



Mr. Poonam Panchal
General Manager,
Production



Mr. Jitu Parikh
General Manager,
Purchase



Mr. Pankaj Shah
General Manager,
Operations



Mr. Jayesh Shah
General Manager,
Accounts

The Products



In our company overview, we explained how the product range positioned Chem Process as a true market leader in the vacuum, heat transfer, condensing and evaporation-crystallization related process plant market. All of this ensures that any such product listing must reflect the enormous diversity of the product:



VACUUM

- Steam Jet Ejectors & Multi Stage Vacuum Systems
- Liquid Jet Ejectors
- Liquid Ring Vacuum Pumps
- Steam Jet Ejector-Liquid Ring Vacuum Pump Combination Systems
- Eductors / Jet Mixers / Jet Heaters
- Thermocompressors
- Steam Jet Refrigeration Systems

EVAPORATION

Multiple Effect Evaporation Plants with Thermal / Mechanical Vapour Recompression

- Forced Circulation
- Falling Film
- Natural Circulation
- Rising Film
- Combination Types



CRYSTALLIZATION

- Crystallizers
- Adiabatic Vacuum
- Evaporative Forced
- Draft Tube Baffle Type
- Spray Evaporator Crystallizer
- Oslo Type

HEAT TRANSFER

- Surface Condensers
- Heat Exchangers

PRESSURE VESSELS

ZERO LIQUID EFFLUENT DISCHARGE SYSTEMS

CAUSTIC CONCENTRATION SYSTEMS

SALT RECOVERY PLANTS



The Design Process



A variety of computerized, manual, thermal and mechanical design techniques are employed in the design of bespoke installations.

Furthermore, having access to the the Heat Transfer Research Institute (HTRI) software, ensures that Chem Process have access to state of the heat transfer industry at the highest possible level.

Design Capabilities

Mechanical Design :

- ASME Sec VIII Div.I
- ASME 'U' Stamp
- HEI
- TEMA

Thermal Design :

- Sensible/ Latent Heat Transfer
- HTRI, BJAC and in-house design programmes for HEI design

Mechanical Design :

- PV Elite

Drawing Design :

- AutoCAD
- Solid Edge

Our design team is available to customers to provide support and advice prior to order placement and following installation.

The Plant & Equipment

Purpose Built facility

The 6 acre site encloses a purpose built engineering facility which provides the operational area required for the manipulation of heavy and complex fabrications, steel structures and tube forms that are an intrinsic part of the company's core products.

We are also able to accept fabrication work of a general nature. Our Director Business Development and Head Engineering will be happy to discuss these requirements on an individual basis.



Plant & Equipment

The plant and equipment that form an inseparable part of the fabrication formula include :

- Plasma cutting
- Profile cutting
- Plate rolling and bending
- Weld edge preparation
- Automatic welding machine
- Tube expansion & tube welding machines
- Lathe machines
- Radial drilling machines
- Hydraulic Press
- Plate shearing machine
- Shotblasting & painting facilities
- CNC drilling, Rubber/FRP/Glass flake lining, boring, planing, dishing, PWHT from approved sub-contractors



This also reflects the specialist nature of the machine processes involved with several of the machine tools being unique to Chem Process. In general, the machining capacity reflects the enormous structures frequently machined in this facility and the advanced level of the technology involved.

The Welding Process

A common thread that has run through this synopsis has been the incredible diversity of products produced by Chem Process in order to satisfy the demands of the process industries which is itself developing new methods and systems at an increasing pace.

However, this diversity has another factor placed upon it that we have not yet discussed - differing processes operate with differing materials, some exotic, some hostile, some benign, but all requiring different core materials to avoid chemical interactions with the process.

Chem Process have by need, developed tremendous skills in the welding of metals of all types and invested heavily in the sophisticated controls and plant required for these processes.



Main Pressure Parts

- Carbon steel to carbon steel
- Carbon steel to low alloy steels
- Carbon steel to austenitic stainless steel
- Carbon steel to copper nickel
- Carbon steel to nickel copper
- Carbon steel aluminium bronze
- Carbon steel duplex stainless steel
- Carbon steel to incoloy
- Austenitic stainless steel to austenitic stainless steel
- Low alloy steel to low alloy steel
- Copper nickel to copper nickel
- Nickel copper to nickel copper
- Incoloy to Incoloy
- Aluminium bronze to aluminium bronze
- Copper to copper
- Duplex to duplex
- Hastelloy to Hastelloy

Corrosion Resistant Cladding On Carbon & Low Alloy Steels

- Austenitic Stainless steel
- Incoloy
- Copper nickel
- Nickel copper
- Duplex stainless steels
- Aluminium bronze
- Hastelloy
- Titanium



The Welding Process

Tube end welding

- Carbon steel to carbon steel
- Low alloy steel to low alloy steel
- Austenitic stainless to austenitic stainless
- Duplex stainless to duplex stainless
- Hastelloy to hastelloy
- Copper nickel to copper nickel
- Nickel copper to nickel copper
- Titanium to titanium



Exotic Materials And a Clean Shop Policy

Exotic materials are stored and protected separately to avoid contamination. We also recognize the importance of material separation during the welding process and our workshop boasts of a controlled 'clean shop' area for this purpose.

Quality Assurance Systems

The commitment made in our objectives "Quality Without Compromise" is not a hollow statement.

Although each and every employee is totally committed to ensuring that their personal task is performed to the specification provided, a steady and consistent interpretation of the contract and engineering requirements is obviously necessary. At Chem Process this task is carried out by the Quality Assurance Department.

Our Quality Assurance Policy requires structuring and in-depth planning at the earliest stages of a contract's implementation in order to ensure conformity by both in-house manufacturing and outside suppliers.

In fact, all areas of company activities are regularly audited by in house quality management to ensure compliance with the company's Quality Manual. As a bench mark for the company's quality procedures, Chem Process's procedures meet or exceed the following, for which we are fully audited and certified :

- ISO 9001 : 2000
- ASME 'U' Stamp
- National Board 'R' Stamp
- National Board 'NB' Stamp

Obviously since Chem Process equipment is sold in a truly global market place, compliance with local as well as international regulations and codes of practice is essential. Chem Process's engineering staff are constantly reviewing requirements in this area and work closely with the Quality Assurance team to ensure that every contract carries full compliance.

Some of the relevant codes include, ASME Section VIII, HEI , TEMA, PED, BS, A D Merkblatter, Stoomwezen, etc. plus local regulations.



The Test Procedures

With safety as a total and unspoken requirement of everything manufactured by Chem Process, Product testing is of supreme importance, but testing at all stages of construction is also fundamental to the engineering ethos of the company and an integral requirement of the many codes of practice and standards we have previously discussed.

- Hydraulic medium water testing to 100 bar
- Pneumatic testing
- Vacuum drying
- X-Ray testing
- Gamma source
- Magnetic particle inspection
- Ultrasonic test
- Leak detection
- Portable spectroscope
- Paint thickness
- Dye penetrant testing
- Tensile testing
- Impact testing
- Chemical analysis

IN SUMMARY...

Whether the requirement is for heat transfer equipped to the customer' own design, completely designed from scratch, repaired or refurbished, our Design Engineering team is here to provide advice on all aspects of design and application. Together with the modern well equipped workshop, multi-skilled workforce and dedicated management team, our customer support framework is primed and focused, whatever the challenge.

Customer relationships are nurtured and cherished, not only on a single contract basis but also through partnership agreements, where our scope of commitment is for total supply of new equipment, repairs, refurbishment and spares, including support on shutdown and maintenance management- the ultimate solution for some of our "blue chip " clients.



If you would like to know more, Please contact our team. General contact numbers:

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PRODUCT RANGE

VACUUM

Steam Jet Ejectors
Multi Stage Vacuum Systems
Liquid Jet Ejectors
Liquid Ring Vacuum Pumps
Air Extraction Systems
Ring Jets : Steam Jet Ejector-Liquid Ring
Vacuum Pump Combination Systems
Eductors/Jet Mixers/Jet Heaters

THERMOCOMPRESSORS

STEAM JET REFRIGERATION SYSTEMS

EVAPORATION

**Multiple Effect Evaporation Plants with
Thermal/Mechanical Vapour Recompression**

Forced Circulation

Falling Film

Natural Circulation

Rising Film

Combination Types

CRYSTALLIZERS

Adiabatic Vacuum

Evaporative Forced

Draft Tube Baffle Type

Spray Evaporator Crystallizer

Oslo Type

HEAT TRANSFER

Surface Condensers

Heat Exchangers

ZERO LIQUID EFFLUENT DISCHARGE SYSTEMS

CAUSTIC CONCENTRATION SYSTEMS

SALT RECOVERY PLANTS

PRESSURE VESSELS

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