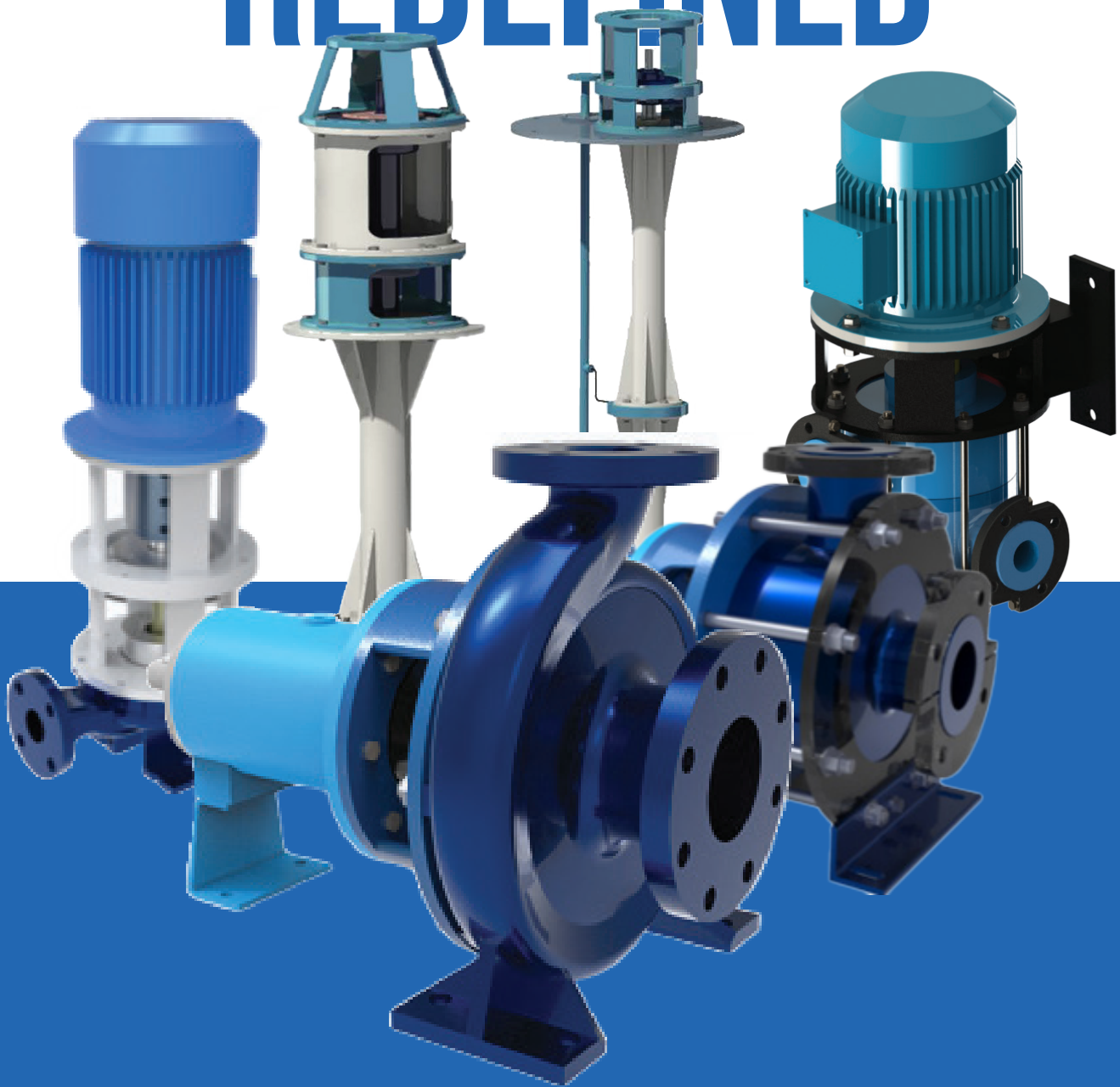




Process Pumps (I) Pvt. Ltd

# PUMPING SOLUTIONS REDEFINED



An ISO 9001 certified company

# PUMPING SOLUTIONS REDEFINED

Liquid transportation has been one of the key factors in industrial revolution and technological transformation in the world. Various industries processes have been established, validated based on the liquid flow. In the present day and age, liquids vary from handling of simple water to wide range of solvents, slurries and spectrum of acids. To cater this liquid transportation in an industry we believe in pumping solutions redefined.

We adapt an approach by understanding the fluid handling, the temperature and pressure of operation, the various liquid characteristics based on which we offer an ergonomic solution for pumping which looks at sustained energy efficiency and an overall reduced carbon foot print.

## ABOUT US

Process Pumps (I) Pvt Ltd. with a strong belief in "Make in India" , have been designing, manufacturing and supplying single stage corrosion resistant industrial centrifugal pumps, since 1984.

We offer pumps in a wide range of metallic and non metallic materials to cater the entire spectrum of hazardous and corrosive liquids handled in various chemical and process industries.

Over the decades, with the help of an ever improving technology, well skilled and qualified team, we have been delivering cost effective, world class pumping solutions.

# OUR VISION

- To build an hallmark of reliability and and exotic material pumps.
- Trusted Indian brand with an emphatic global presence.
- Leaders in critical application Pumping solutions.

# OUR MISSION

To provide pumps that :

- Are apt for the process/application.
- Have a low life cycle cost and high mean time between failure.
- Are made up of materials of the latest trends, process requirement and economics.
- Have an sustained efficiency and reliability, with continual R&D efforts in the same lines augmented with an improved manufacturing process.

Building a Customer oriented product and systems, where :

- We deliver product exacting requirement of the customer.
- We work as an equitable partner, in mutual benefit and growth.
- Customers are provided wholistic support from selection of the pump/material, suitability of type and size, technical support throughout the life cycle of the product.

# OUR MILESTONES

**1984** Company was established.

**1984** An introduction of a new concept to India - Vertical Glandless Pump

**1989** Introduction of Horizontal Single Stage Centrifugal pumps in metallic construction. Pump designed as per ISO2858.

**1994** Establishment of UHMWPE molding facility.

**1995** Introduction of a non-metallic Horizontal Single Stage Centrifugal pumps in UHMWPE.

**1998** Establishment of a captive foundry.

**1999** Design development and delivery of a high temperature fluid handling (450OC) Vertical Cantilever Shaft pump (in Inconel MOC) for Dept. of Atomic Energy.

**1999** Introduction of Vertical Cantilever Shaft pump in metallic construction.

**2002** Introduction of Vertical Sump pump in metallic construction.

**2006** Introduction of Vertical Cantilever Shaft pump in non-metallic construction.

**2010** Development of Seismic Qualified pump for Dept. of Atomic Energy.

**2011** Delivery of India's largest fully molded Plastic Vertical Glandless pump.

**2012** Introduction of Fabricated Titanium pump.

**2013** Design development and delivery of a Mercury handling Vertical Cantilever Shaft pump (in SS316LN MOC) for Dept. of Atomic Energy.

**2014** Introduction of PVDF, FEP, PFA Lined pump in Vertical Glandless and Horizontal construction.

**2015** Design and implementation of reverse vane impeller.

**2016** Introduction of innovative Horizontal Hydrodynamic Seal pump in metallic and non-metallic construction.

**2016** Design and development of Canned Motor pumps.

**2017** Design development and delivery of low capacity (0.5m<sup>3</sup>/hr) high temperature salt handling Vertical Cantilever Shaft pump (in SS316LN MOC) for Dept. of Atomic Energy.

**2019** Designed, manufactured, supplied molten Lead Bismuth pump For BARC

**2020** Designed, manufactured and supplied High temperature pump in Inconel/CZ100.

**2021** Plant expansion during covid year

**2022** Indegeniously designed, developed & manufactured pumps for nuclear application

**2023** Design, development & manufacture of fabricated titanium jacketed pump and also a pump mounted on a floating structure.



# DESIGN AND DEVELOPMENT

We have a dedicated and full-fledged design department. Our designs are derived from the first.

Principles are validated by software analysis as well as verified by actual performance.

## OUR DESIGN PHILOSOPHY ENCOMPASSES

- A user friendly product with ease in assembly and disassembly.
- Design to ensure reliable performance, sustained efficiency, low life cycle cost and high mean time between failure.
- We deliver the above by selection of appropriate material to cater to the corrosion erosion characteristics of the liquid/ environment of operation.
- Consideration of 450% mechanical safety margin on critical components.
- Maintaining a bare minimum corrosion allowance of 4 mm.
- Development of various materials and manufacturing techniques of metals, non-metals and composite materials.
- Design of different types of pumps and allied products.

# RESEARCH & DEVELOPMENT

Development of a product is based on the suitability and requirement of the customer's needs.

Over years, we have a vast data of the various supplies and feedback based on which there is

continual improvement and stride towards total customer satisfaction.

Our R&D efforts are channalised on two key areas.

## 1. IMPROVEMENT OF THE EXISTING PRODUCT BASED ON

- Hydraulics for an improved and better efficiency.
- Mechanical stability for Low LLC and high MTBF.
- Improvement in process and product for better repeatability and sustained performance.

## 2. DEVELOPMENT OF NEW PRODUCT/PROCESS

- Design of new pumps.
- Material engineering and work on new age materials.
- Advancement on the manufacturing process.

# AREA OF APPLICATION

- WATER AND EFFLUENT TREATMENT
- METALLURGICAL INDUSTRIES
- POLLUTION CONTROL EQUIPMENT
- FERTILIZER AND SOIL NUTRIENTS
- FOOD, BEVERAGES AND DISTILLERIES
- METAL FINISHING & SURFACE COATING
- NUCLEAR INDUSTRIES
- PAPER & RAYON INDUSTRIES
- PETROLEUM & PETROCHEMICAL
- PHARMACEUTICAL
- HEAVY CHEMICAL
- STEEL PLANTS

# LOCATION

Our manufacturing activities take place in two locations, with both locations being in the Peenya Industrial Area, Bengaluru, Karnataka.

Peenya Industrial Area is one of the largest industrial conglomerations in Karnataka and third largest in Asia, home to around 15,000 small, medium and large units engaged in various engineering activities.

# MANUFACTURING PROCESS

- Well-equipped machining shop with skilled man power.
- Team of established, dependable and dedicated extended arms to augment our outsourcing requirements and also ensuring high level of quality.
- Adequate testing facilities to assure sustainable quality level.
- Well-equipped foundry to undertake development activities.
- In-house moulding facility for handling specialty plastics.
- Reliable suppliers of various raw material and semi finished products.

## UNIT 1

Total area of about 2 acres including covered area of 45,000 sq. ft., housing manufacturing and administrative activities. The manufacturing activities cover machining, fabrications, plastic molding, assembly and testing.

## UNIT 2

Total area over 3/4 of an acre with a covered area of 15,000 sq. ft., housing a well-equipped developmental foundry and related activities.

# QUALITY ASSURANCE

Our products are qualified with a clear testing of each product in compliance with national and international standards.

Every raw material procured is checked as per the relevant requirement and cross referred to relevant standards.

A string of in process inspection is maintained to achieve the required tolerance as per the required component drawings. We have a well-qualified and established manufacturing process where accuracy and repeatability are of prime importance.

Customer complaints are well documented. The failure, its relevant analysis and solution is based on a well-established in-house testing of the product on all grounds backed with computer aided tools to adapt to the ever-changing demand and environment of operation.

The synergy of man and machine with knowledge and technology emboldens us to deliver a product to meet and suit the customer's requirement.

The team is highly motivated to maintain and follow high standards of quality compliance and continual improvement.

In recognition to our efforts and commitment, we have been awarded an **ISO 9001:2015** certification.

A high customer retention is a proof of our sustained quality.

# HORIZONTAL PUMPS

METALLIC



## WHAT WE OFFER

- We offer 120 pump models designed to meet ISO 2858, ANSI B 73.1, and IS 5199 standards.
- These pumps conform to API 610 available in OH1 and OH2 configurations with a capacity of up to 450 m<sup>3</sup>/hr and a design temperature of 400°C.
- Compliance testing is conducted following IS 5120, ISO 9906, API610, and HIS standards.

## TECHNICAL SPECIFICATIONS

- Head range: Up to 150m
- Capacity: 1m<sup>3</sup>/hr to 900m<sup>3</sup>/hr
- Impeller options: Closed, semi-open, or reverse vane
- Sealing options: Mechanical seal or gland packing
- Materials: Casted (except Titanium pumps, which are fabricated)

# HORIZONTAL PUMPS

## NON - METALLIC



## WHAT WE OFFER

- 75 different models designed.
- Non-Metallic Pumps are primarily used in the reducing atmosphere.
- Pumps are offered in fully moulded UHMWPE
- Pumps are offered for a temperature range of  $-30^{\circ}$  to  $90^{\circ}\text{C}$  for UHMWPE.
- Pumps are tested to be in compliance with IS 5120/ ISO 9906/ HIS

## TECHNICAL SPECIFICATIONS

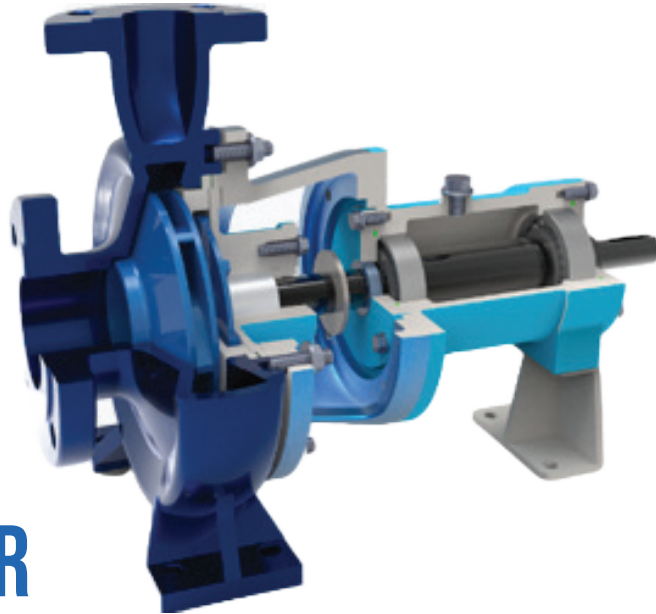
### UHMWPE

- Head of upto 60m.
- Capacity  $1.5\text{m}^3/\text{hr}$  to  $500\text{m}^3/\text{hr}$ .
- Offered only in semi open impeller.
- Pump offered with mechanical seal or gland packing to suit the liquid handled.

### LINED PUMPS

- Head of upto 60m.
- Capacity  $1.5\text{m}^3/\text{hr}$  to  $200\text{m}^3/\text{hr}$ .
- Offered only in semi open impeller.
- Pump offered with mechanical seal or gland packing to suit the liquid handled.
- The casing and stuffing box are lined on a CS base metal

# HYDRODYNAMIC SEAL PUMPS



## WHAT WE OFFER

- A conventional horizontal back pull out pump with a critically designed expeller installed behind the impeller to ensure zero leak during operation of the pump.
- This effectiveness of the hydrodynamic seal is ensured only if the suction head is not more than 3 meters for metallic and 2.5 meters for non-metallic pumps.
- An engineer's delight as it excludes the hassles of operation issues related to the mechanical seal.
- In a non-metallic construction the expeller is provided in a metallic material suitable to the liquid.

## TECHNICAL SPECIFICATIONS

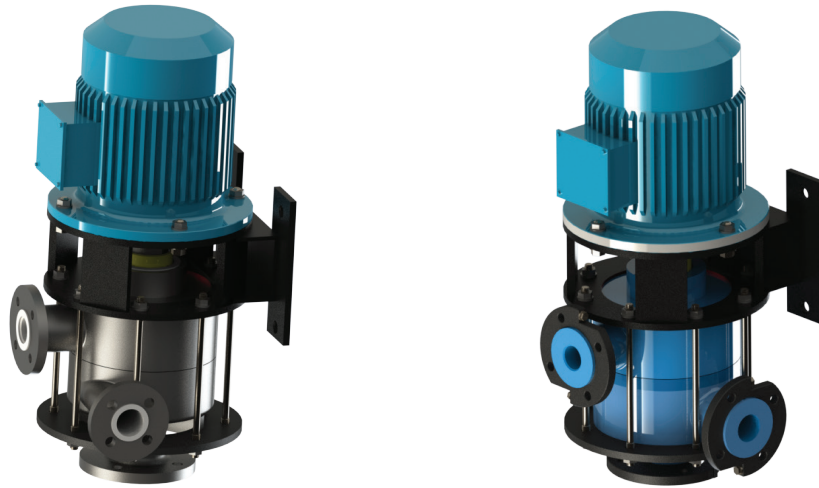
### METALLIC SERIES

- Head of upto 50m.
- Capacity 1.5 to 400 m<sup>3</sup>/hr.
- Offered in closed or semi open impeller to suit the application.

### NON-METALLIC SERIES

- Head of upto 45m.
- Capacity 1.5 to 200m<sup>3</sup>/hr
- Offered in Semi Open impeller only.

# VERTICAL GLANDLESS PUMPS



## WHAT WE OFFER

The Vertical Glandless Pump in normal hydraulic terms does not differ from any conventional centrifugal pump. The pump is designed in such a way that the liquid which would normally try to pass through the point, where the impeller drive shaft enters the back plate (stuffing box) is diverted and returns as a controlled flow to the suction tank. The need for any seal is eliminated by allowing the leakage liquid to escape through the overflow connection of the overflow chamber.

The liquid entering suction flows around the impeller casing and leaves through the delivery under pressure. Between the annular gap of upper rotor casing and impeller some leakage liquid escapes to the overflow chamber. The auxiliary impeller (expeller) prevents the leakage liquid going further up and channelizes it through outlet in the overflow chamber.

These pumps are ideally suited for continuous operation and for all scrubbing applications. The pumps are at its best with negative suction

## TECHNICAL SPECIFICATIONS

### METALLIC SERIES

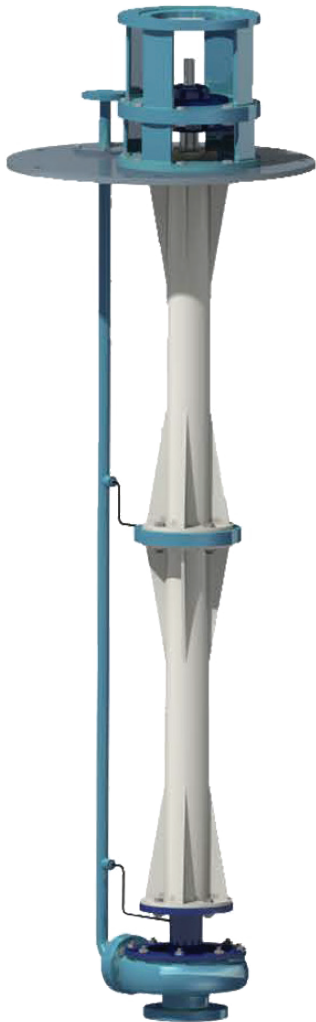
- Head of upto 60m.
- Capacity of 1.5m<sup>3</sup>/hr to 500m<sup>3</sup>/hr.
- Offered in Semi Open or Closed impeller to suit the application.

### NON-METALLIC SERIES

- Head of upto 50m.
- Capacity of 2m<sup>3</sup>/hr to 500m<sup>3</sup>/hr.
- Offered in Semi Open impeller only.



# VERTICAL SUMP PUMPS



## WHAT WE OFFER

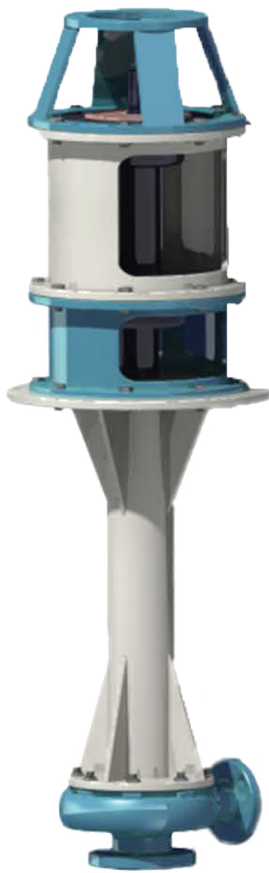
Pump used to handle liquids from pit where priming is not possible.

Extended shaft to ensure a smooth transmission of the power and a delivery pipe extending to the top for smooth delivery of the liquid.

## TECHNICAL SPECIFICATIONS

- Offered in 1440 & 2900 RPM.
- Standard design available for 4 meters and can be custom built for 6 meters depth of immersion
- These pumps comply to VS4 specification as per API 610.
- Pumps can be offered with suitable jacketing based on the application.
- Pump can be offered for a temperature range for -70o C to 170o C.
- Head of upto 120m.
- Capacity from 3m<sup>3</sup>/hr to 500m<sup>3</sup>/hr.
- Offered in Semi Open or Closed impeller to suit the application.
- Offered in metallic construction only.

# VERTICAL CANTILEVER SHAFT PUMPS



## WHAT WE OFFER

Rugged and reliable solution to handle liquids from a pit or a tank.

This design eliminates the requirement for a bush bearing, associated hydraulic flushing / cushioning. Bearings are situated above the mounting plate and the shaft designed on a cantilever principle to ensure a deflection at the impeller end being less than 50 micron.

These pumps have been designed for operating at elevated temperatures of upto 800 °C with suitable material of construction for critical applications.

## TECHNICAL SPECIFICATIONS

- Offered only in 1440 RPM.
- Maximum depth of 1.5 meters.
- Pumps offered comply to VS5 as per API 610.
- Head of upto 45m.
- Capacity from 3m<sup>3</sup>/hr to 250m<sup>3</sup>/hr.
- Offered in Semi Open or Closed impeller to suit the application.
- Offered in Metallic and Non-Metallic construction.
- Pumps can be offered for a design temperature for 800 °C with suitable MOC.

# VERTICAL INLINE PUMPS

## WHAT WE OFFER



The vertical inline pump is similar to centrifugal pump in operation. The uniqueness is the suction and delivery of this pump lies in same axis. They are utilized to maintain a constant pressure and flow in the pipeline.

The design ensures low axial load and enhances operational cost and saves valuable floor space. These pumps are suitable only for clear liquids.

Offered in metallic only.

## TECHNICAL SPECIFICATIONS

- Head of upto 75m.
- Capacity of 1.5m<sup>3</sup>/hr to 450m<sup>3</sup>/hr.
- Offered in Semi Open or Closed Impeller to suit the application.
- Pumps can be offered with Mechanical Seal or Gland packing based on the application.
- Pumps offered complying to OH3 and OH4 as per API 610.

# MATERIAL OF CONSTRUCTION

The material of construction of a pump plays a crucial role in the operation and durability of the pump. Based on the liquid handled, its nature, temperature and pressure of operation, the material of construction of the pump is to be selected with suitable corrosion allowance. Specialized in offering corrosion resistant pump, we offer the pump in a wide range of metallic and nonmetallic materials to suit the application

## METALLIC MATERIAL

### Casted Pumps

Stainless Steel conforming to various ASTM specifications such as CF8, CF8M, CF3, CF3M and many more.

Duplex and Super Duplex Steel which include CD4MCu, CD6Mn, CD3Mn and many more.

#### Inconel

Nickel (CZ100), R55

#### Monel

Acid Resistant Bronze

#### Alloy 20

#### Hastelloy C & B

### Other Exotic and Special Alloy - Fabricated Pumps

Titanium

Nickel 200 & 210

## NON METALLIC MATERIALS

### Fully Moulded

Ultra High Molecular Weight Poly Ethylene (UHMWPE)

### Lined Pumps (Insitu Moulded)

Poly Vinyl Di Fluoride (PVDF), Fluorinated Ethylene Propylene (FEP), Per Fluoro Alkoxy (PFA)

# APPROVALS

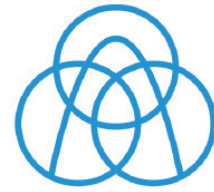
We have been approved by leading consultants based on our capability and quality which includes,



Bhabha Atomic  
Research Center (BARC)

## Jacobs

Jacobs  
Engineering



## thyssenkrupp

Thyssenkrupp Industrial  
Solutions - UHDE



TOYO Engineering  
India Pvt. Ltd.



Steel Authority  
of India Ltd.



MECON Ltd.



TATA Consulting  
Engineers Ltd. (TCE)



TATA Projects



Avant-Garde systems &  
Controls

# OUR ESTEEMED OUTLINE OF CUSTOMERS

## **NUCLEAR INDUSTRIES :-**

BARC (Bhabha Atomic Research Centre), NPCIL (Nuclear Power Corporation of India Limited), NFC (Nuclear Fuel Complex), IGCAR (Indira Gandhi Centre for Atomic Research), UCIL (Uranium Corporation of India Limited), IREL (Indian Rare Earths Limited), HWB (Heavy Water Board), NRB (Nuclear Recycle Board)

## **PETROCHEMICAL INDUSTRIES :-**

IOCL (Indian Oil Corporation Limited), ONGC (Oil and Natural Gas Corporation), HPCL (Hindustan Petroleum Corporation Limited), BPCL (Bharat Petroleum Corporation Limited), GAIL (Gas Authority of India Limited)

## **FERTILIZER AND SOIL INDUSTRY :-**

IFFCO, RCF, NFL, Coromandel Fertiliser and chemicals, GNFC, Zuari Agro, Rama Phosphates group, Chmabal Fertilisers, Paradeep phosphates

## **METALLURGICAL & MINING :-**

HZL, Sterlite, Hindalco, Kutch Copper

## **CHEMICAL INDUSTRIES :-**

GACL, Primo Chemicals, Atul Ltd. , TATA Chemicals, Archeon Chemicals Ltd. , Meghmani Organics, Vishnu Chemicals, Ultramarine Pigments and chemicals, Sudarshan chemicals, Travancore & Cochin Chemicals, VV Titanium and many more.

## **WATER & WATER TREATMENT :-**

Thermax, Wipro waters, Lars Enviro, Tecton Engineering, WT Infra, Suez Water

## **PHAMACEUTICAL :-**

Biocon, Syngene, Anthem Biosciences, Cipla, Jubilant, Privi Organics, Cadilla, Sun Pharma, Lupin and many more

## **FOOD & BEVERAGES :-**

United breweries-Diageo, Hindustan Coca-Cola Beverages, PepsiCo, Indo Nissin Foods

## **SUGAR INDUSTRY :-**

AB Sugar, Utam Sugar, Bajaj Sugar, Triveni Sugars, Bannari Amma Sugars, Parrys, Satish Sugars

## **STEEL INDUSTRY :-**

SAIL, TATA Steel, JSW, JSPL, RINL, NMDC, Arcelor Mittal

## **RAYON & PAPER :-**

Aditya Birla, Grasim, Century Rayon & Raman Paper board

# ASSOCIATE COMPANIES

## ALL CAST INDUSTRIES



Address:

#31, 1st Cross, Peenya Industrial Estate,

Bangalore: 560058.

Email: [marketing@all-cast.com](mailto:marketing@all-cast.com)

Ph: 080-28395470

We are a unique foundry manufacturing critical casting in ferrous & non-ferrous material and alloys.

The castings can be offered in rough finished, semi-finished or fully finished condition to sectors which include Electrical & Power, Chemical, Petrochemical, Aerospace and Defence.

## CATHODIC CONTROL COMPANY PVT. LTD



Address:

Plot No. 87, III Phase, Peenya Industrial

Area, Bangalore: 560058.

Email: [contact@cathodiccontrol.com](mailto:contact@cathodiccontrol.com)

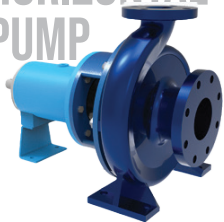
Ph: 080-28395327

Pioneer in design of cathodic protection system. We also design, manufacture, supply, do the erection & commissioning of cathodic protection system & equipment for onshore and offshore.

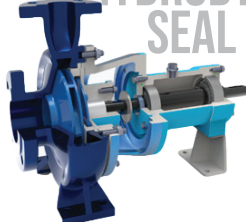
We also carry out mitigation survey & corrosion study.

# OUR PRODUCTS

HORIZONTAL  
PUMP



HYDRODYNAMIC  
SEAL PUMPS



VERTICAL  
GLANDLESS  
PUMPS



VERTICAL  
SUMP  
PUMPS



CANTILEVER  
SHAFT  
PUMP



VERTICAL  
INLINE  
PUMPS



*Pumping solutions redefined*

Click to connect

## HEAD OFFICE

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Karnataka, India

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R C Dutt Road, Baroda - 390005.

Ph: 0265 2350697

Email: [branchbaroda@process-pumps.com](mailto:branchbaroda@process-pumps.com)



Location