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VAMECH PUMPS

TOTAL PUMPING SOLUTION



Innovating Liquid Transfer Technology



WWW.VAMECH.CO.IN



VAMECHSEALS@GMAIL.COM



91 98252 04147



VAMECH PUMPS

TOTAL PUMPING SOLUTION



VAMECH PUMPS is one of the leading manufacturer of industrial pump and pump spares in Gujarat state, with its Extensive experience of more than 45 years, justified with existence of broad product range, it continuously strive to satisfy the utmost needs of the customer.

We at **VAMECH PUMPS** provide "TOTAL PUMPING SOLUTION" with various metallurgy like Hastalloy-B, Hastalloy -C, Alloy - 20, Monel, SS 316L, SS 316, R-55, Cd4mCu, Ni-reisit, Cast steel, SS 410, EN - 8/9/16, C.I. etc. to serve various chemical application, as per the requirement and service conditions of our esteemed customer.

We are a small scale industry, our products prices are very competitive, for the same quality compared to other leading pump manufacturer.

The key elements to survive in this globalized market are flexibility toward market change and ability to innovate - both in product design as well as business processes. By following the world wide development in pump industry, our staff constantly faces with the growing challenge to keep abreast of the numerous innovations in pump design and this is justified by having a separate R & D department.

The basic objective of **VAMECH PUMPS** is expanding the business partnerships and building the brand name of our products worldwide.

**ALL OF OUR MOTO IS:
"TOTAL PUMPING SOLUTION"**

In view of the above we request you to enlist us as manufacturer and supplier of Chemical process pump and spare for other leading manufacturer's pump and send us your valued enquires to prove our competence.

We also undertake repairing jobs other than model develop by us.

METALLIC PUMPS



VAMECH - METALLIC PUMP

VAMECH PUMPS is one of leading manufacturer of industrial pump and spares and Our aim is to attain maximum level of customers satisfaction with "TOTAL PUMPING SOLUTION". Metallic pumps are made with various M.O.C like Hast alloy-B, Hast alloy-C, Alloy-20, Cd4mcu, Ni-Resist, R-55, SS 316, SS316L, SS 304, SS 410, Cast steel, C.I etc. VAMECH PUMPS are used in Chemical & Petrochemicals Industry, Food Industry, Dyeing, Sugar Industry, Paper & Pulp Industry, Fertilizer Units & Etc.

APPLICATION

Handling of all types of Liquids, Acids, Alkalis, Dyes, Hydrocarbons, Corrosive Slurries (Solids Up to 15mm), Green, Black Liquor, Pulp (Consistency up to 2%) raw sewage, chlorinated water & Etc. Cooling tower water circulation, power plants.



ADVANTAGES

- Rigid construction assures the durability of pump.
- Centrifugal pump is back pull or design for easy maintenance without disturbing pipe line, pump can be repaired. Long service life, low operating cost, minimum downtime.
- Good quality casting with consistent surface finish hence it gives better efficiency.
- Versatile shaft sealing (single & double mech seal) and gland packing arrangement.
- Proper cooling arrangements for mechanical seal reduces chances of seal failure.

OPERATING RANGE

Capacity	Up to 600 M/Hr.
Head	Up to 180 Mtrs (590 Feet).
Pump Sizes - DN	50 mm To 100 mm.
Speed - N -	1440/2880 rpm at 50 Hz & 1750/3500 rpm at 60 Hz.
Temperature	Up to 300 C.
Casing Pressure	Up to 22 Kg / cm.

PVDF LINED PUMPS



VAMECH - PVDF LINED

VAMECH PUMPS is a leading manufacturer of centrifugal chemical Process pumps in specialized Fluoropolymers for handling of various corrosive liquids. The company has been serving chemical industry since last a decade. We serve a wide range of sizes of pumps in solid injection molded PVDF material as well in vertical submersible pumps.

- Under the specified category of products we have introduced PVDF, FEP, PFA Lined Pumps, designed & developed at our workplace under our expert's guidance, These pumps are manufactured using premium quality materials and thus, are capable of delivering efficient performance. The fluorinated polymers are widely appreciated for their remarkable chemical inertness and their excellent resistance to aging.

APPLICATION

- These are horizontal back pullout process pump with non metallic lining which is built ensure improved efficiency & performance characteristics.
- The lining covers all whetted components.
- Application Very high corrosive liquids with greater temperature. chlorinated solvents, aromatic organic compounds, alcohols, ejector systems etc.
- Avail extensive range of shaft sealing options, gland packing and mechanical seals.
- For demanding budgets, off the shelf deliveries are provided with most competitive prices.



ADVANTAGES

- Horizontal Back pullout process pump with with non metallic lining built with design to offer improved efficiency and performance characteristics.
- State of the art high pressure lining process, free of adhesive bonding, ensures sound lining with out cavities/voids.
- Unique dove-tail grooves made on the lining areas of metal components provides firm mechanical grip of lining.
- The lining covers all whetted components.
- Variety of lining materials can be offered to handle almost any fluid with the temp. range of -25 to 110 to 160Deg°C.
- Shaft Sleeves are available in high alumina Ceramic , Hast Alloy, Titanium& Silicon Carbide.

OPERATING RANGE

Capacity	Maximum up to 400 m3/hr.
Head	Maximum up to 100mts.
Pump Sizes - DN	50 mm To 100 mm.
Speed - N -	1440/2880 rpm at 50 Hz & 1750/3500 rpm at 60 Hz.
Temperature	110 Deg°C - 160 Deg°C
Pressure	Up to 10 kg

FEATURES

- Sturdy finish.
- Rugged design.
- Easy to install.

INNOVATING LIQUID TRANSFER TECHNOLOGY

POLYPROPYLENE PUMPS



VAMECH - POLYPROPYLENE PUMP

VAMECH PUMPS is one of leading manufacturer of industrial pump and spares. Our aim is to attain maximum level of customers , with "TOTAL PUMPING SOLUTION" and this is done by offering Range of Polypropylene Pumps as per the market demand. The entire range of pumps offered by us is manufactured with the aid of latest technology and sophisticated machines. We make available these Polypropylene Pumps to the customers at highly competitive prices.

APPLICATION

- Effluent Treatment.
- Water Treatment Plants.
- Drugs And Pharmaceuticals.
- Fertilizer Plants.
- Thermal And Atomic Power Plants.
- Filter Press For Dyes And Chemical.
- Pickling Plants , Caustic Soda Plants.
- Transferring Of Concentrated HCL From Road Tankers.
- Scrubbing Corrosive Gases Like Cl₂, Br₂,F₂,So₂,So₃,Co₂, NH₃ etc.
- Recirculation Of Chemicals In Electroplating.
- Paper And Pulp Industries , Dyestuffs.
- Pharmaceutical Industry etc.



ADVANTAGES

- Volute, impeller are injection molded polypropylene material with smooth passage, hence it gives better efficiency.
- Less space required and easy to handle.
- Economical to transfer corrosive liquids.
- Shrouded vanes of open impeller to handle slurries.
- Available in 1440 rpm and 2900 rpm.
- Shaft sleeves are available in high alumina Ceramic, Hast Alloy, Titanium, silicon carbide.
- Temperature range from 0 to 80 deg C can handle by PP MOC.
- Temperature range from 0 to 110 deg C. can handle by PVDF MOC.

OPERATING RANGE

Capacity - Q- Up To	300 M3/Hr.
TDH H - Up To	65 Mtr.
Pump Sizes - DN	50 mm To 100 mm.
Speed - N -	1440/2880 rpm at 50 Hz & 1750/3500 rpm at 60 Hz.
Temperature	80 C.
Pressure	Up to 6.5 kg/cm ² .

POLYPROPYLENE PUMPS



RANGE OF PERFORMANCE

- Polypropylene Pumps are available with open and closed type impellers.
- Impellers are of three piece design integrally molded with unique design.
- Base shaft is EN8.
- It is molded with PP and sleeved
- Back pull out design .
- Graphite impregnated PTFE/single or double
- Compatible with 95% of aggressive chemicals & corrosive
- Single piece unique design.

MATERIAL OF CONSTRUCTIONS

- Polypropylene (P. P).
- Polyvinylidene fluoride (P. V. D. F).
- Ultra high molecular weight polyethylene (U. H. M. W. P).
- Fluorinated ethylene propylene (F. E. P).

OPTIONAL ACCESSORIES

- M.S. Fabricated Base Frame.
- Flexible Coupling.
- Coupling Guard.
- Foundation Bolt.



VAMECH - POLYPROPYLENE PUMPS SPARES

VAMECH PUMPS prides itself in manufacturing various types of PP pump components to with stand highly corrosive liquids.

The components so designed to allow interchangeability to OEM, pumps parts are manufactured from various types of MOC like - PP, PVDF, FEP components to impart high strength and durability. Spares are developed with 100% warranty & Guarantee



Impellers

VAMECH make Pump impellers is appreciated for its efficacious and critical performances. Impeller variants are often created by modifying the impeller depending on the requirements of pressure, flow and application. Impeller design is engineered to reduce turbulence, eliminate re-circulation, lower radial thrust loads and provide a smooth flow of fluid through the pump. All impellers are dynamically balanced as per international standard. Pump impeller is available in different moc grades and sizes as per the needs of our honored customers.

Casings

VAMECH make Pump casing has been beefed up in critical wear areas for extra life. The concentric housing eliminates vibration turbulence and cavitation. We manufactured pump casing and similar other products in cast iron and high alloy casting.

Pump volute chamber are carefully designed to give the best suction lift. These pump casing are precision engineered as per the requirements of client thus ensuring their high quality and durability.



Shafts & Sleeves

VAMECH make Various shafts manufactured from highest quality alloy steel dully hardchrome, grinding finish and case harden, core harden, shaft is Design to transmit the maximum torque with minimum shaft deflection.

Shaft sleeve is manufactured from various steel and alloy steel casting dully hard chrome, and harden to impart extra life and so design to protect shaft from abrasive

Various Pumps Components

Vamech pumps prides itself in manufacturing various types of heavy duty pump components to with stand high piping loads.

The components so designed to allow interchangeability to open, pumps parts are manufactured from various types of cast steel alloy components to impart high strength and durability.





'O' Rings

We manufacture wide range of extruded rubber components as per customer design and specifications. The range of rubber products we offer cater to the application needs of automobiles, chemicals industry, food, pharmaceuticals and other engineering industries. We offer high sealing performance 'O' rings against Water, Oil, Various Gases and Chemicals. We offer various products like rubber washer, bellows, rollers, rubber 'O' rings bushes, cords, gaskets, diaphragms in various M.O.C like Neoprene, Silicone, Nitrile (NBR), EPDM, Viton, Extreme viton, karlez, FEP-Encapsulated, TTV, Buna-s etc. Strong quality parameters are maintained like hardness, specific gravity, tensile and elongation strength, compression strength, bursting strength, aging, tolerances, accuracy etc.

Teflon Products

We have wide experience of fabricating, machining and manufacturing PTFE products. We specialize in various Teflon fabricated parts like Rings, Washers, Valve Seats, 'O' Rings, Gaskets, Bellows, Diaphragms, Balls, Piston Rings, Wear Rings, Packing Rings, Wear Strips, Mechanical Seals, impellers, Nozzles, 'V'Rings set, Stop cock, Laboratory items, Compressor spares etc. We can also supply items made from different filled grades of PTFE like Carbon, Glass, Bronze, Graphite, Mos2, Alumina, and various M.O.C like Nylon, PVDF, HDPE, PP, PU (polyurethane). We offer Teflon parts with close tolerance as per client's drawings or specifications to ensure supply of quality products at competitive prices backed by efficient after sales service.



Oil Seals

VAMECH SEALS make Various rubber oil seals are developed with high sealing performance that employ a linear-contact lip, which provide proper radial lip load on shafts. The lip design ensures excellent sealing performance on shafts. Oil seals are developed in various M.O.C like Nitrile (NBR), Viton, Buna-S, Silicon, HNBR. Oil seal with special rubber material are developed with high self lubricating performance These rubber material show limited chemical changes such as hardening, softening and

Carbon Graphite and Silicon Carbide Bearing Bushes

The Carbon bushings that we offer are used as bush bearings. Carbon is self lubricating and has a low coefficient of friction at high and low temperatures. These are used where oil and grease lubricants do not work with corrosive liquids and gases, in such cases contamination by conventional lubricants are to be avoided. Vamech make Various types of Carbon-Graphite bush, rings, steam-joints, Three segments split rings, Gland rings are manufactured as per the drawings or sizes given by customer. They can be manufactured in various carbon or graphite grades. Carbon Bushes can be plain with straight groove or with spiral for easy flow of medium being used.





VAMECH PUMPS

TOTAL PUMPING SOLUTION

PUMP LIST

HORIZONTAL CENTRIFUGAL NON SELF PRIMING PUMPS

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
RP	25 X 125 40 X 150 75 X 150	AKAY	SCP	1 X 1-5 1.5 X 1-6 3 X 1.5-6
BP	25 X 175 40 X 175 75 X 175 75 X 175	AKAY	CHP-S	1 X 1-7 1.5 X 1-7 3 X 1.5-7 3 X 2-7
TYBP-S	40 X 150 75 X 175 75 X 175 40 X 200 75 X 175 75 X 175	AKAY	CHP-ST	1.5 X 1-6 3 X 1.5-6 3 X 2-6 1.5 X 1-8 3 X 2-8 3 X 1.5-8
PM	50 X 225 75 X 300 100 X 300 150 X 300	AKAY	CHP-M	2 X 1-9 3 X 2-12 4 X 3-12 6 X 4-12 6 X 4-10.5*
PM	150 X 300 150 X 300	AKAY	CHP-MT	3 X 2-9 3 X 1.5-9 4 X 3-9 6 X 4-12

HORIZONTAL CENTRIFUGAL NON SELF PRIMING PUMPS

TYPE	SIZE	MAKE	TYPE	SIZE
VR-S	40 X 125 40 X 160 40 X 180	AKAY	MSP-1A	40-125 40-160 40-180
RP-S	32 X 125 40 X 160 40 X 200 65 X 160 65 X 200 80 X 200 125 X 200	KHIMLINE (SULZER)	CC	32 - 125 40 - 160 40 - 200 65 - 160 65 - 200 80 - 200 125 - 200
PM-S	32 X 125 40 X 160 100 X 250 125 X 400	KSB	CPK CIRL CIRL MEGA KWPZC MERCURY ETANORM	32-125 40-160 100-250 125-400
PM-S	40 X 160 100 X 65 - 315 40 X 160 150-400.1	KSB		40-160 100X65-315 40-160 SYA-150-40
MR-S	1.5 X 1-5 1.5 X 1-6 1 X 1-6	MICROFINISH	OK	1.5 X 1-5 1.5 X 1-6* 1 X 1-6*
KR-S	75X150 38X200	MICROFINISH	1K	3X1.5-6 1.5X1-8
RR-S	6 X 4-13A 6 X 4-10A 2 X 3-8	MICROFINISH	2K	6 X 4 -13A* 6 X 4 -10A* 2 X 3 -8*



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HORIZONTAL CENTRIFUGAL NON SELF PRIMING PUMPS

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
NI-S	125-200	MATHER & PLATT	-	125-200 ISO PN-9&21 ISO PN-30
NI-R	50 / 16 80 / 32 50 / 13 40 / 13 40 / 16	KIRLOSKAR	DB	50 / 16 80 / 32* 40 / 16 40 / 13 40 / 13
VT-S	32-125 50-200	KISHORE	KG-S CHL	32-125 50-200
MNS-TS	32-250 25-160	JHONSON	CCR CN/CCR	32-250 25-160
DP	40 X 160 50 X 160 50 X 125 65 X 200 80 X 315	AURO	ACC	40 X 25-160 50 X 32-160 50 X 32-125 65 X 50-200 80 X 50-315

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
JSH-Q	100 120 130	ANTICO	HE HE HE	100 120 130
JSE-Q	50 55 40 160 170	ANTICO	EXP EXP EXP EXP EXP	50 55 40 160 170
JSPP-Q	50 75 100	ANTICO	PPCL PPCL PPCL	50 75 100
JSPV-Q	25 40 50 60 70 90	FLUROLINED	PVDF PVDF PVDF PVDF PVDF PVDF	25 40 50 60 70 90

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
ALLWEILER	65 X 160 200 X 500	IMPELLER ALLWEILER	NTT CTT	65 X 160 200 X 500*
KENFLOW VACCUM PUMP	ROTOR	ROTOR	-	ROTOR DIA 260.00MM

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HORIZONTAL CENTRIFUGAL NON SELF PRIMING PUMPS

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
JSCP-LC-Q	25-130 25-180	INVESTA	SCP-LC SCP-LC	25-130 25-180
JSCP-SM-Q	25-150 40-150 50-150 25-200 40-200 50-200	INVESTA	SCP-SM SCP-SM SCP-SM SCP-SM SCP-SM SCP-SM	25-150 40-150 50-150 25-200 40-200 50-200
JSCP-MD-Q	25-230 40-230 50-230 80-230 25-270 40-270 80-270 40-315 50-315 80-315 100-315	INVESTA	SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD SCP-MD	25-230 40-230 50-230 80-230 25-270 40-270 80-270 40-315 50-315 80-315 100-315
JSTP	25 40 65	INVESTA	STP STP STP	25 40 65
JSPQ-Q	40 25	INVESTA	SSP SSP	40 25

VERTICAL CENTRIFUGAL PUMPS

VAMECH BRAND CHEMICAL PROCESS PUMP		EQUIVALENT TO		
TYPE	SIZE	MAKE	TYPE	SIZE
KP	40 X 200 40 X 315 85 X 280 100 X 315	KISHORE	CVO CVO CVO CVE-R	40 X 200 50 X 315 85 X 280 125 X 100 X 315
KP	80 X 315	KISHORE	CVO KVR	50 X 250* 80 X 315

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DIAGNOSTIC CHART FOR CENTRIFUGAL PUMP TROUBLES

PROBLEM	POSSIBLE CAUSES
Pump does not deliver water	1-2-3-4-6-11-14-16-17-22-23
Insufficient capacity delivered	2-3-4-5-5-7-8-9-10-13-16-19-21-22-28-29-30
Insufficient Pressure delivered	5-13-15-16-19-21-28-29-30
Pump loses prime after starting	2-3-5-6-7-8-10-11-12
Pump requires excessive Power	14-15-16-17-18-19-22-23-25-26-28-32-33-36
Stuffing box leaks excessively	12-23-25-31-32-33-34-35-37-38-39
Packaging has short life	11-12-23-25-27-31-32-33-34-35-36-37-38-39
Pump vibrates or is noisy	2-3-4-9-10-20-22-23-24-25-26-27-29-34-35-40
	41-42-43-44-45-46
Bearings have short life	23-25-26-27-34-35-40-41-42-43-44-45-46
Pump overheats and seizes	1-4-20-21-23-26-27-34-35-40

LIST OF POSSIBLE CAUSES

Suction troubles

- Pump not Primed
- Pump or suction pipe not completely filled with liquid
Suction pipe too high
- Insufficient margin between suction pressure and vapor pressure.
- Excessive amount of air or gas in liquid
- Air pocket in suction line
- Air leaks in suction line
- Air leaks into pump through stuffing box
- Foot valve too small or partially clogged
- Inlet of suction pipe insufficiently submerged
- Water seal pipe plugged
- Seal cage improperly located stuffing box,
- preventing sealing fluid entering space to form seal
- Casing gasket defective permitting internal leakage
- Shaft or shaft sleeves worn or scored at the packing
- Packing improperly installed
- Incorrect type of packing for operation conditions
- Shaft running off center because of worn bearings or misalignment
- Rotor out of balance resulting in vibration
- Gland too tight resulting in no flow of liquid to lubricate packing
- Failure to provide cooling liquid to water cooled stuffing box
- Excessive clearance at bottom of stuffing box between the shaft and casing, causing packing to be forced into pump interior
- Dirt or grit in sealing liquid, leading to scoring of shaft or shaft sleeves
- Excessive thrust caused by a mechanical failure inside the pump or by the failure of the hydraulic balancing device, if any
- Excessive grease or oil in bearing housing or lack of cooling, causing excessive bearing temperature
- Lack of lubrication
- Improper installation of antifriction bearings (damage during assembly, incorrect assembly of stacked bearings, use of unmatched bearings as a pair, etc)
- Dirt getting into bearings
- Rusting of bearings due to water getting into housing
- Excessive cooling of water cooled bearing resulting in condensation in the bearing housing form moisture in the atmosphere.

System troubles

- Speed too low
- Speed too high
- Wrong direction of rotation
- Total head of system higher than design head of pump
- Total head of system lower than design head of pump
- Specific gravity of liquid different form design
- Viscosity of liquid different form design criteria
- Operation at very low capacity
Parallel operation of pump unsuitable for such operation

Mechanical Troubles

- Foreign matter in impeller
- Misalignment
- Foundations not rigid
- Shaft bent
- Rotating part rubbing on stationary part
- Bearings worn
- Wearing rings worn
- Impeller damaged



VAMECH SEALS

PLOT NO. 750/B, 40 SHED AREA, G.I.D.C. ESTATE, VAPI. 396 195. DIST. (GUJARAT) INDIA.

TEL : (0260) 2400422 M. : 98252 04147 EMAIL : VAMECHSEALS@GMAIL.COM, WEBSITE: VAMECH.CO.IN