



precision sealless pumps pvt. ltd.



CANNED MOTOR
PUMPS



MAGNETIC DRIVE
PUMP

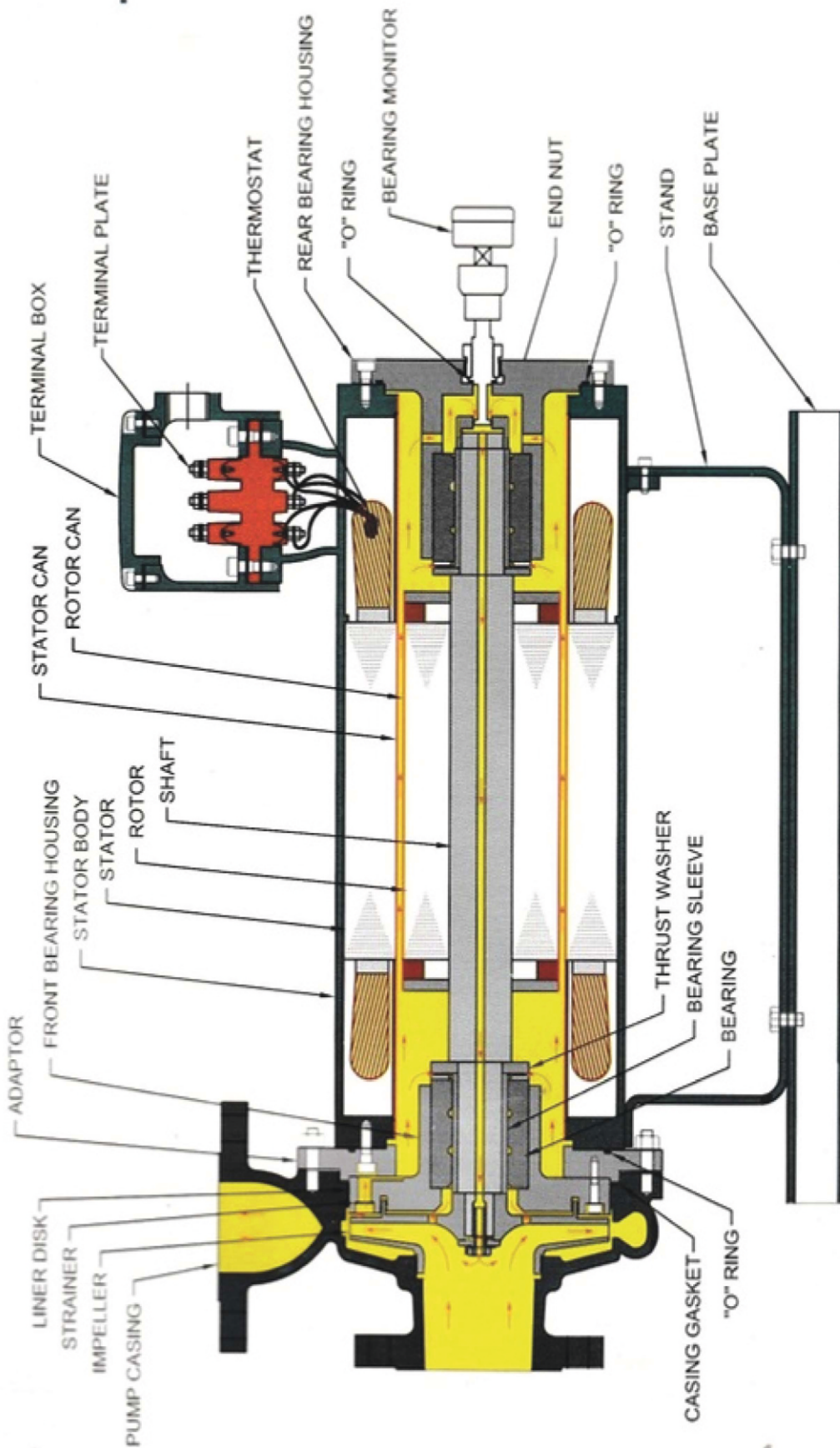


CENTRIFUGAL PUMP

ISO : 9001 - 2015 CERTIFIED COMPANY



CROSS-SECTION OF BASIC PRECISION SEALLESS CANNED MOTOR PUMP

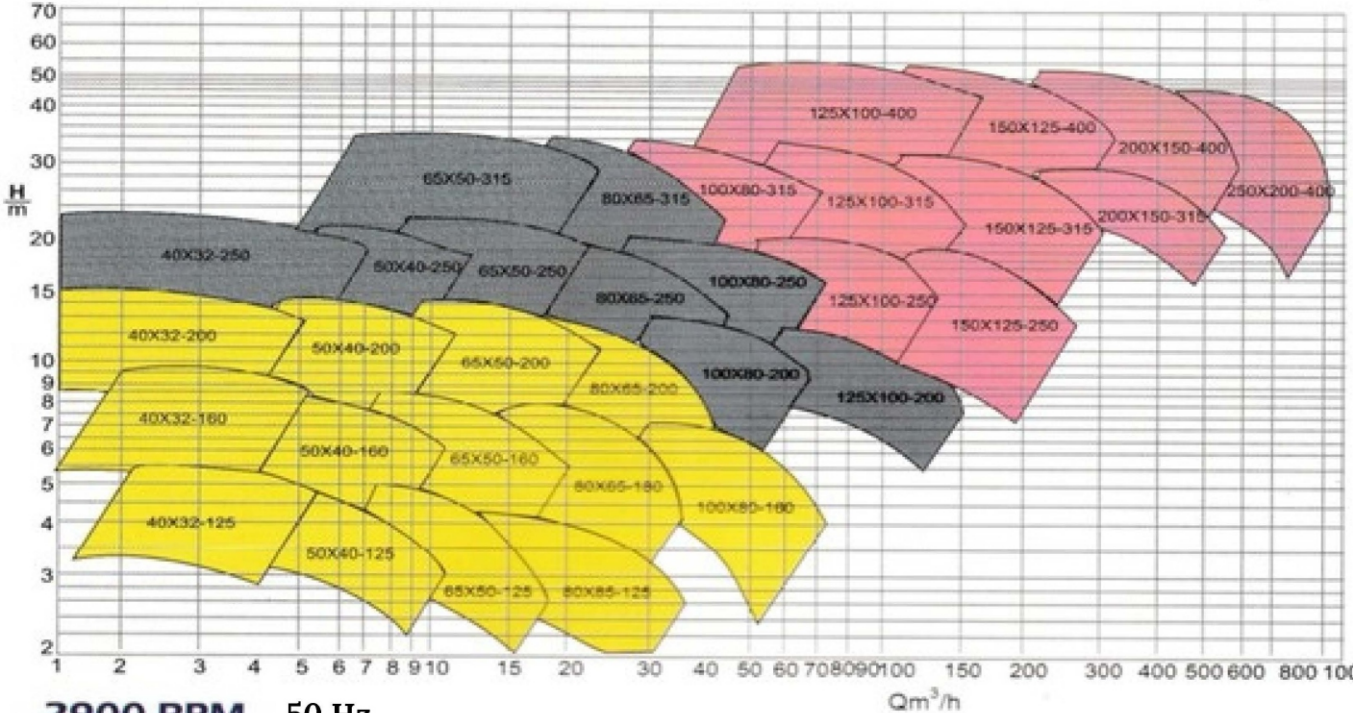


PERFORMANCE RANGE CHART:

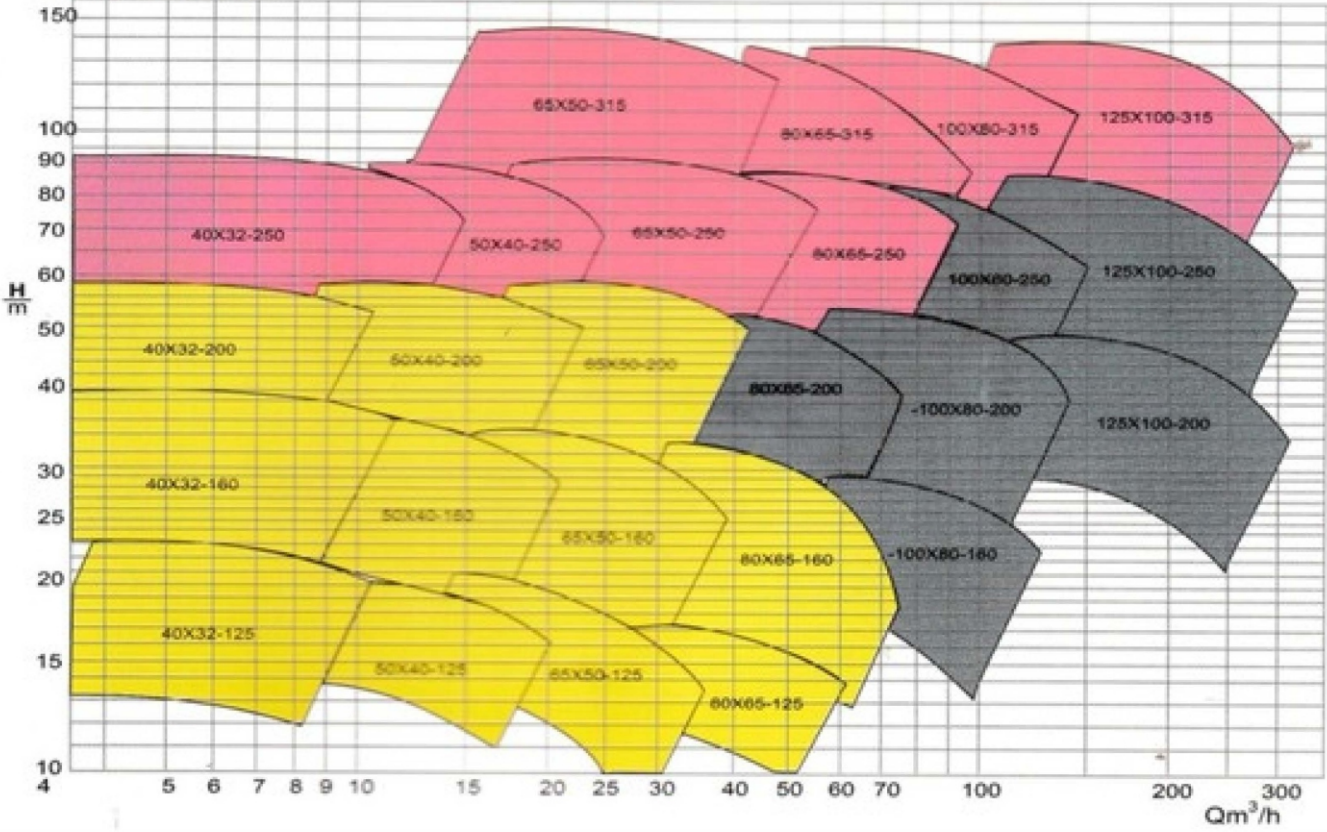
Extensive Coverage of Pumps given you more and better selection at any design point. This means, even at application points falling at the top or bottom of the chart, where efficiency is traditionally hard to come by, you can select a pump to reduce costs and do your job better.

Each pump is designed for optimum performance with greatest reliability and lowest cost

1450 RPM 50 Hz

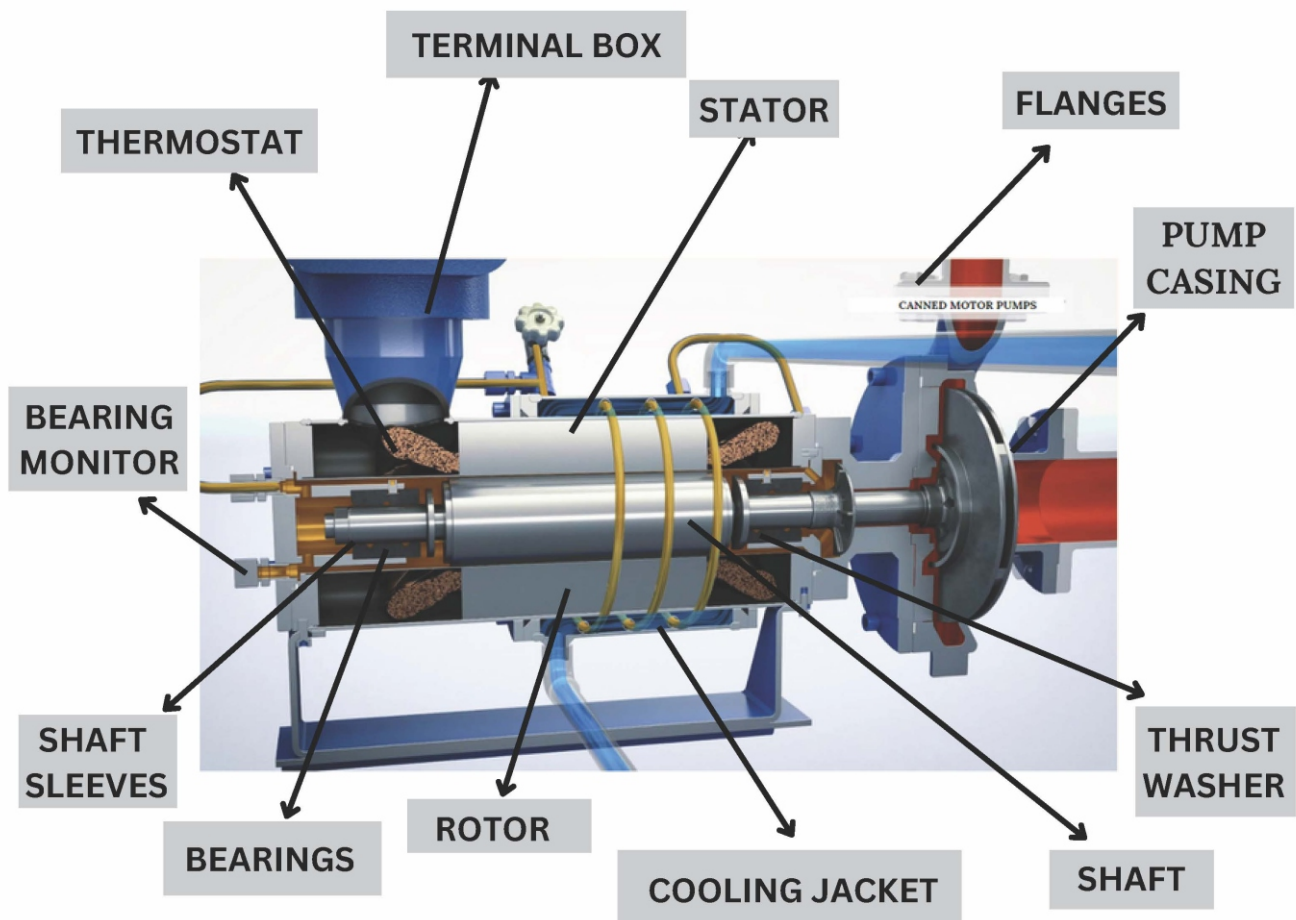


2900 RPM 50 Hz



HIGH TEMPERATURE PUMP

TYPE HT PUMPS ARE DESIGNED FOR HIGH TEMPERATURE FLUIDS UP TO 400°C. THE PUMP AND MOTOR ARE SEPARATED THERMALLY BY AN ADAPTOR WHICH PREVENTS HEAT TRANSFER FROM THE PUMP TO MOTOR AREA. IN THESE PUMPS, AN INDEPENDENT CIRCULATING SYSTEM WITH A COOLING JACKET AND HEAT EXCHANGER IS PROVIDED. THE CIRCULATION IS ACHIEVED WITH THE AID OF AN AUXILIARY IMPELLER MOUNTED AT THE FORE END OF THE MOTOR CHAMBER.



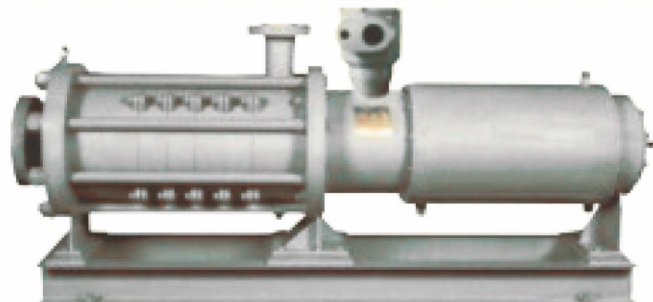
SPSCMP-SELF-PRIMING SEALLESS CANNED MOTOR PUMP

SELF-PRIMING SEALLESS CANNED MOTOR PUMP IS USED FOR PUMPING FLUIDS FROM UNDERGROUND TANKS AND FOR RAIL / RANK TRUCK UNLOADING. THE SELF PRIMING PUMP IS DESIGNED TO LIFT WATER FROM SOME LEVEL BELOW THE PUP SUCTION WITHOUT HAVING TO FILL THE SUCTION PIPING WITH LIQUID. IF ACCOMPLISHES THIS BY CREATING A PARTIAL VACUUM AT THE PUMP SUCTION WHICH REMOVES THE AIR FROM THE SUCTION LINE. THE PUMP THEN RELEASE THE ENTRAINED AIR THROUGH ITS DISCHARGE WHILE RETAINING THE INITIAL FILL OF WATER IN THE PUMP CASE. THIS AIR / WATER SEPARATION IS WHAT MAKES THE SELF-PRIMER DIFFERENT



MCMP - MULTISTAGE SEALLESS CANNED MOTOR PUMP

MULTISTAGE SEALLESS CANNED MOTOR PUMP CONSIST NUMBERS OF IMPELLER AXIALLY PLACED ON THE SINGLE SHAFT TO DEVELOP HIGH HEAD AND AT LOW RATE OF FLOW. STAGES DEPEND ON THE RATE OF HEAD TO BE ACHIEVED. DPPPL IS PROVED WITH DRAMATICALLY INCREASED PUMP EFFICIENCY, WITH AN ACCURATELY BALANCING THE AXIAL THRUST OVER THE ENTIRE RANGE OF FLOW BY A BALANCING DISK SEAT. THE PUMPS ARE COMPACT EASY TO DISASSEMBLE AND RE-ASSEMBLE AND ALL MAINTENANCE CAN BE DONE ON THE FIELD, EFFICIENT OPERATION IN HIGH HEAD APPLICATION. WE ALSO MANUFACTURE HIGH PRESSURE MULTISTAGE PUMPS



CANNED MOTOR PUMPS

pump dependability.

"ZERO EMISSION PUMPS" represent a pivotal advancement in industrial technology, embodying a crucial commitment to environmental stewardship by completely eliminating harmful emissions and adhering to rigorous environmental standards.

Obstacles

The ongoing maintenance and monitoring requirements of conventional centrifugal pumps underscore their susceptibility to operational disruptions. Mechanical seals, despite advancements, remain prone to leakage, necessitating meticulous attention to shaft seals, antifriction bearings, and flushing systems. These components directly influence the pump's longevity and operational efficiency, highlighting the critical need for proactive management and potentially exploring innovations to enhance reliability. Efforts to mitigate these vulnerabilities could significantly bolster the overall reliability and efficiency of pumping systems in critical service applications.

RESOLUTION:-

- BEYOND THEIR INITIAL APPLICATION IN NUCLEAR POWER STATIONS, CANNED MOTOR PUMPS HAVE PROVEN TO BE VERSATILE AND EFFECTIVE IN A BROADER RANGE OF INDUSTRIAL CONTEXTS. THIS REFLECTS HOW TECHNOLOGIES DESIGNED FOR HIGHLY SPECIALIZED AND DEMANDING ENVIRONMENTS CAN FIND PRACTICAL APPLICATIONS IN EVERYDAY INDUSTRIAL SETTINGS. IT SUGGESTS THAT INNOVATIONS INITIALLY CREATED FOR EXTREME CONDITIONS OFTEN TURN OUT TO BE BENEFICIAL FOR MORE COMMON, LESS EXTREME APPLICATIONS.
- UNDERSCORES THE IDEA THAT SOME TECHNOLOGIES, WHILE INITIALLY FOCUSED ON SPECIFIC HIGH-RISK SCENARIOS, OFFER UNEXPECTED AND SIGNIFICANT BENEFITS IN OTHER AREAS. CANNED MOTOR PUMPS' ABILITY TO HANDLE DANGEROUS LIQUIDS ILLUSTRATES HOW SPECIALIZED SOLUTIONS CAN PROVIDE ENHANCED SAFETY AND EFFICIENCY ACROSS A WIDER RANGE OF CHALLENGING SITUATIONS, EMPHASIZING THEIR ADAPTABILITY AND ROBUSTNESS.
- THE DESIGN'S EMPHASIS ON DUAL CONTAINMENT REFLECTS A BROADER PRINCIPLE OF REDUNDANCY IN ENGINEERING AND SAFETY. IT HIGHLIGHTS THE IDEA THAT INVESTING IN ADVANCED SAFETY FEATURES NOT ONLY PROTECTS AGAINST IMMEDIATE RISKS BUT ALSO CREATES A MORE RESILIENT SYSTEM THAT CAN HANDLE UNFORESEEN ISSUES. THIS PRINCIPLE OF REDUNDANCY IS APPLICABLE IN MANY FIELDS WHERE RISK MANAGEMENT IS CRUCIAL.

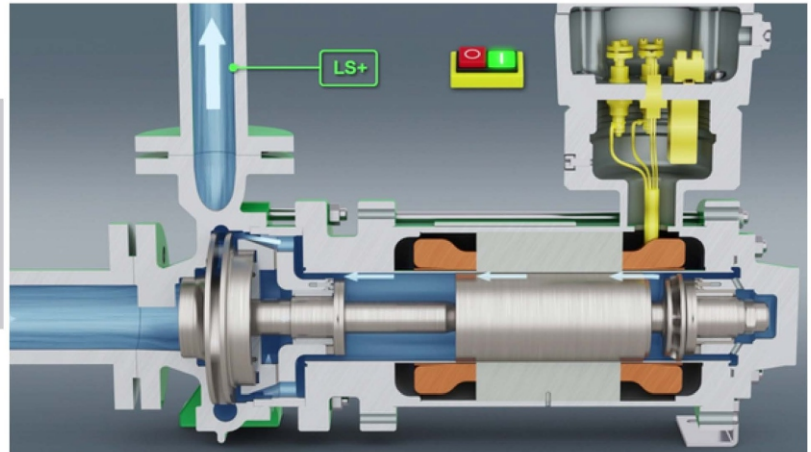
CANNED MOTOR PUMP



PROFITS:-

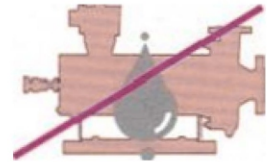
- ZERO EMISSION PERFORMANCE
- WASTE-FREE TECHNOLOGY
- EXPLOSION-RESISTANT SAFETY
- AUTO-LUBRICATION SYSTEM
- DIRECT CONNECTION EFFICIENCY
- VIBRATION-CONTROLLED DESIGN
- THERMAL STABILITY ENGINEERING
- LOW MAINTENANCE NEEDS
- VERSATILE SUPPORT STRUCTURE
- 50% SPACE REDUCTION
- SECURE OPERATIONAL SAFETY

ADVANTAGE OF CANNED MOTOR PUMP



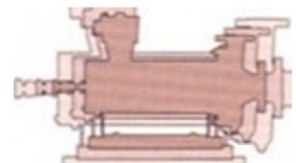
ZERO EMISSION PERFORMANCE

CONTROLS THE FLOW OF TOXIC, EXPLOSIVE, EXPENSIVE, HAZARDOUS, CRYOGENIC, AND CORROSIVE FLUIDS WITH ZERO ENVIRONMENTAL EMISSIONS.



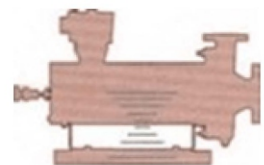
SPACE-SAVING DESIGN

CANNED MOTOR PUMPS INTEGRATE THE MOTOR AND PUMP INTO A SINGLE UNIT, ELIMINATING THE NEED FOR ALIGNMENT, GROUTING, OR ELABORATE FOUNDATIONS. THEY REQUIRE ONLY ABOUT ONE-THIRD OF THE SPACE COMPARED TO CONVENTIONAL PUMPS.



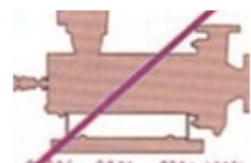
AIRTIGHT

CANNED MOTOR PUMPS ARE PERFECT FOR VACUUM APPLICATIONS OR FLUIDS THAT MUST BE KEPT FROM ATMOSPHERIC EXPOSURE.



SILENT OPERATION

MINIMAL NOISE OUTPUT IS ACHIEVED AS THE MOTOR IS COOLED WITHOUT THE USE OF A FAN. ALL MOVING COMPONENTS ARE ENCLOSED WITHIN A ROBUST CASING THAT EFFECTIVELY REDUCES NOISE



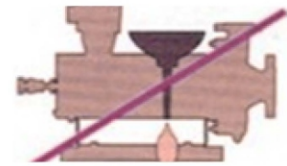
SEAL-LESS DESIGN

NO MECHANICAL SEALS OR GLAND PACKING ARE REQUIRED, ELIMINATING POTENTIAL LEAK PATHS. THE DESIGN ALSO FEATURES A SIGNIFICANTLY REDUCED NUMBER OF COMPONENTS



SELF-LUBRICATING

THE MOTOR AND BEARINGS ARE COOLED AND LUBRICATED BY THE PUMPED FLUID, ELIMINATING THE NEED TO CHECK OR MAINTAIN LUBRICATION LEVELS



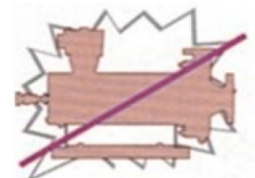
SERVICEABLE ON-SITE

ALL WEAR COMPONENTS CAN BE EFFORTLESSLY REPLACED THANKS TO THE BACK PULLOUT DESIGN.



EXPLOSION PROOF

ALL CANNED MOTORS ARE EQUIPPED WITH SPECIAL PROTECTION AND A FLAMEPROOF ENCLOSURE COMPLIANT WITH VDE 0530 AND 0171, ENCLOSURE (EX) DS 3N G5-G1 STANDARDS. HYDRODYNE CANNED PUMP MOTORS ARE CERTIFIED AS FLAMEPROOF AND EXPLOSION-PROOF, WITH CMRI CERTIFICATION EEX-D IIB T4 (EX) DS.



THOROUGHLY TESTED PERFORMANCE

EVERY HYDRODYNE PUMP AND MOTOR IS MANUFACTURED UNDER STRINGENT STATISTICAL QUALITY CONTROL TOLERANCES. EACH UNIT UNDERGOES 100% PERFORMANCE TESTING BEFORE SHIPMENT, WITH ADDITIONAL SPECIAL TESTING CAPABILITIES AVAILABLE TO CUSTOMERS

BEARING



SIC Silicon Carbide Bearings



Stellite / Antimony carbon Bearings



Carbon Graphite / Hard Chrome + HCR

THE DESCRIPTION YOU PROVIDED SEEMS TO REFER TO SPECIFIC TYPES OF BEARINGS USED IN PUMPS, PARTICULARLY THOSE DESIGNED TO OPERATE WITHOUT EXTERNAL LUBRICATION AND TO WITHSTAND HARSH CONDITIONS. THESE BEARINGS ARE OFTEN REFERRED TO AS "SELF-LUBRICATING BEARINGS" OR "SELF-LUBRICATED BUSHINGS." THEY ARE ENGINEERED TO ENDURE ABRASIVE FLUIDS AND ADVERSE CONDITIONS WITHOUT REQUIRING ADDITIONAL LUBRICATION, ENHANCING THEIR DURABILITY AND LIFESPAN. THE MATERIAL OPTIONS MENTIONED, SUCH AS CARBON GRAPHITE, SILICON CARBIDE, AND TUNGSTEN CARBIDE, HIGHLIGHT THEIR CAPABILITY TO WITHSTAND DIFFERENT TYPES OF PROCESS FLUIDS AND THEIR ASSOCIATED CHALLENGES.

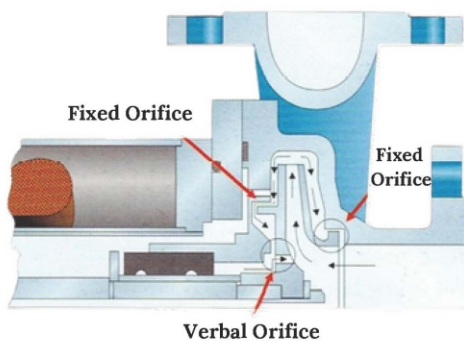
E-BEARING MONITOR



E-BEARING MONITOR

THE E-BEARING MONITOR OPERATES ON THE PRINCIPLE OF INDUCED VOLTAGE. THE CURRENT FLOWING THROUGH THE STATOR WINDING GENERATES A MAGNETIC FIELD IN THE EBM COILS. ADDITIONALLY, THE ROTOR GENERATES ITS OWN MAGNETIC FIELD AS A RESULT OF THE CURRENTS INDUCED WITHIN IT. THESE INDUCED CURRENTS IN THE ROTOR ARISE FROM THE INTERACTION WITH THE STATOR'S MAGNETIC FIELD, THEREBY CONTRIBUTING TO THE OVERALL MAGNETIC FIELD IN THE SYSTEM.

AUTOMATIC THRUST BALANCE



THIS AUTOMATIC THRUST BALANCING MECHANISM LIKELY USES HYDRODYNAMIC PRINCIPLES TO ACHIEVE A SELF-STANDING IMPELLER POSITION, WHICH HELPS IN EXTENDING THE LIFE OF BEARINGS. IT'S A COMMON FEATURE IN HIGH-EFFICIENCY PUMPS AND ROTATING EQUIPMENT TO ENSURE RELIABILITY AND LONGEVITY.

PROTECTIVE FEATURES.

DRY RUN PROTECTION

DRY RUN PROTECTION IS A LOW-CURRENT SENSING DEVICE DESIGNED TO SAFEGUARD PUMPS FROM CAVITATION, WHICH OCCURS WHEN SUCTION FLOW DROPS TO UNSAFE LEVELS. THIS PROTECTIVE DEVICE AUTOMATICALLY SHUTS OFF THE PUMP TO PREVENT DAMAGE. SUCTION FLOW MAY DECREASE DUE TO:

- STRAINER BLOCKAGE
- SUDDEN CLOSURE OF SUCTION OR DISCHARGE VALVES
- VAPOR LOCK AFFECTING SUCTION FLOW
- INADEQUATE NET POSITIVE SUCTION HEAD



THERMOSTAT

IN CANNED MOTOR PUMPS, THE MOTOR IS COOLED BY THE PUMPED FLUID ITSELF. THE APPROPRIATE INSULATION CLASS IS SELECTED BASED ON THE FLUID TEMPERATURE. SOMETIMES, THE MOTOR WINDING TEMPERATURE CAN EXCEED SAFE LIMITS DUE TO COOLING SYSTEM MALFUNCTIONS. TO PREVENT MOTOR DAMAGE, A THERMOSTAT IS INSTALLED AT THE WINDING'S HOT SPOT. TYPICALLY, THIS THERMOSTAT IS OF THE CLOSED-CONTACT TYPE, SET TO TRIGGER AND SHUT OFF THE MOTOR IF TEMPERATURES RISE ABOVE A PRESET LIMIT. THERMOSTATS ARE A STANDARD SAFETY FEATURE IN CANNED MOTOR PUMPS.

INDUCERS

INDUCERS ARE AXIAL IMPELLERS POSITIONED CLOSELY IN FRONT OF THE FIRST IMPELLER OF A CENTRIFUGAL PUMP ON THE SAME SHAFT. THEY CREATE ADDITIONAL STATIC PRESSURE AHEAD OF THE IMPELLER, REDUCING THE PUMP'S NET POSITIVE SUCTION HEAD REQUIRED (NPSHR). INDUCERS ARE USED WHERE NPSHA (AVAILABLE NET POSITIVE SUCTION HEAD) IS INSUFFICIENT.



MANUAL BARRING MONITOR

BEARING MONITOR DETECTS BEARING WEAR AND CORROSION IN SEALLESS PUMPS, TRIGGERING A PRESSURE CHANGE WHEN LIMITS ARE EXCEEDED TO SIGNAL MAINTENANCE.

MAGNET DRIVE PUMPS



The MP pumps, also referred to as the MAGPAC Core Pumps, are distinguished by their sealless design, exceptional reliability, and virtually maintenance-free operation, making them the most versatile option within the MAGPAC series. These pumps offer efficiencies on par with mechanical seal pumps and feature robust SiC-D dry-run bearings, making them a top choice for almost any pumping application. For applications requiring higher temperature resistance, additional models are available.

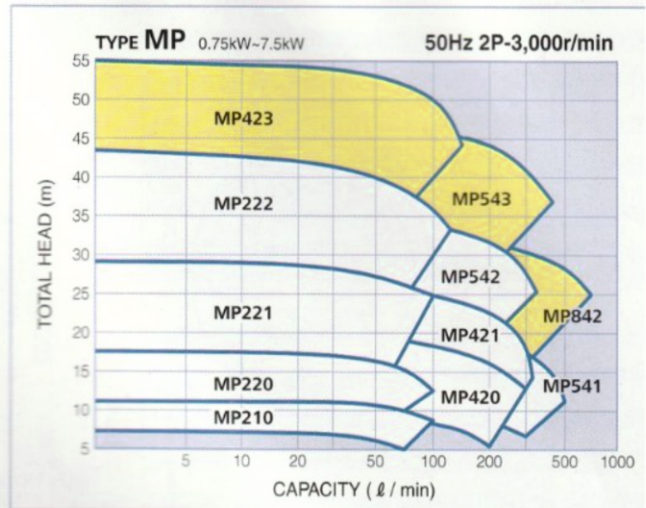
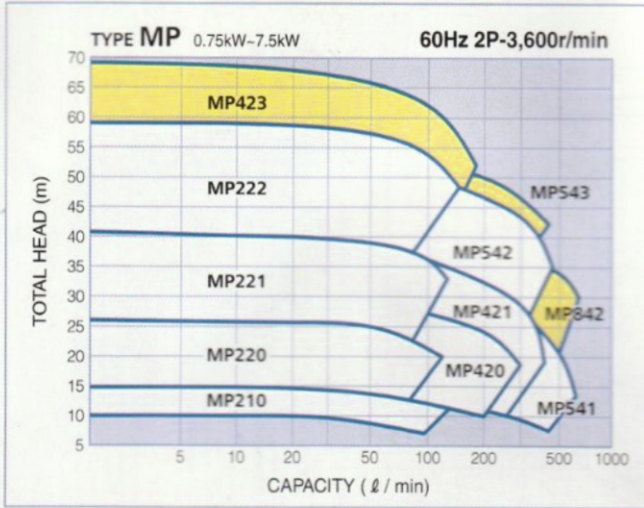


Simple, Quick and Easy Assembly
No Special Tools Required



- The nitrogen purge port is designed to prevent moisture from freezing inside the frame adapter.
- A fin type frame adapter effectively dissipates heat away from the pump.
- Rare earth Nd magnets are utilized for their superior magnetic properties.
- Rare earth SmCo magnets are employed due to their high magnetic strength and excellent resistance to demagnetization.
- Low temperature gasket material is used for its ability to seal effectively in cold conditions.
- High temperature gasket material is chosen for its heat resistance and sealing capabilities.

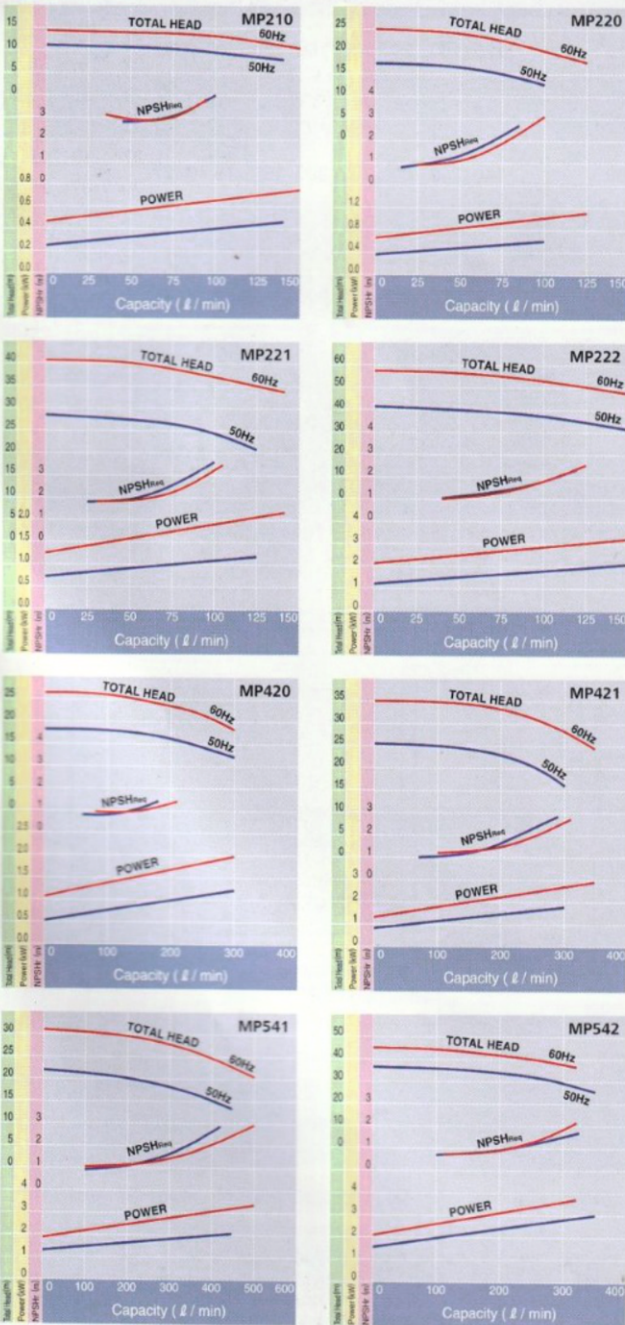
Selection charts



Performance curves for MH and ML are same as MP.

Performance curves

(60Hz 2P-3,600r/min, 50Hz 2P-3,000r/min)

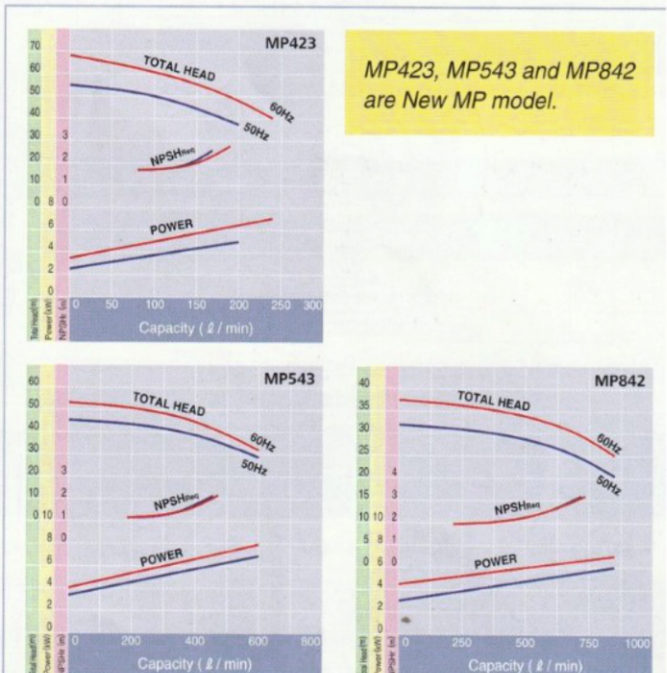


■ : Total Head (m) ■ : Power (kW) ■ : NPSHreq(m)

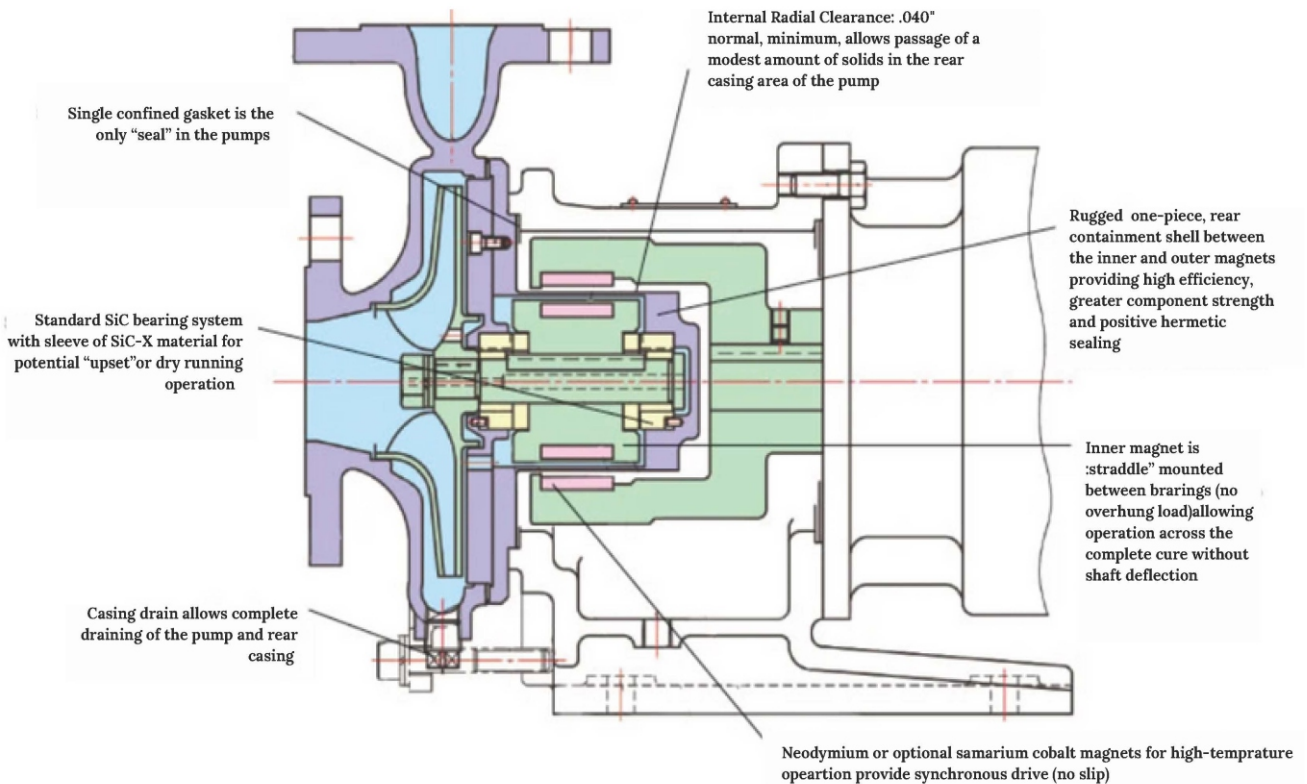
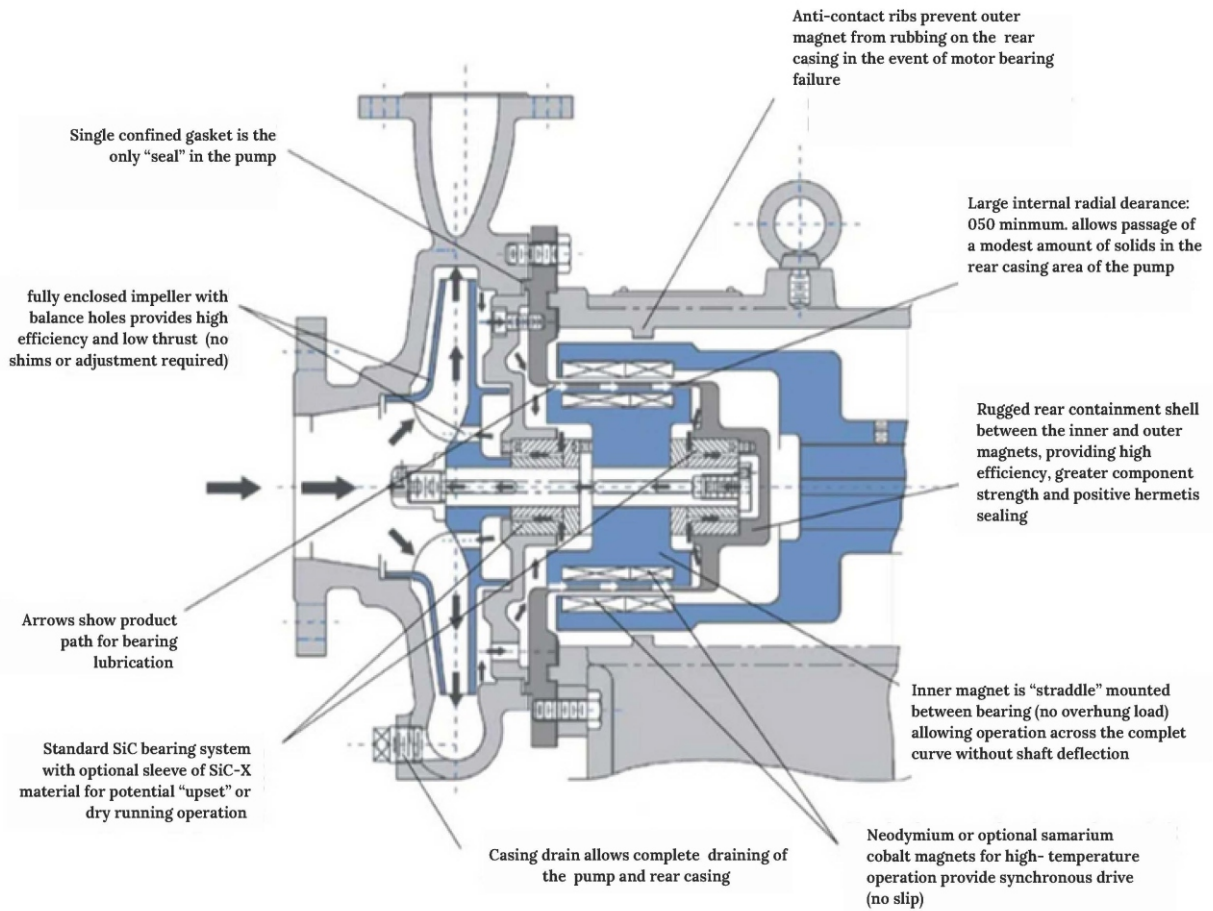
Construction details

	MP		MH	ML
Frequency	50Hz	60Hz	50Hz	60Hz
Max. total head	54m	68m	40m	58m
Max. capacity	650 l/min	700 l/min	450 l/min	500 l/min
Max. temperature applicable	150°C		280°C	R.T.
Min. temperature applicable	-30°C		R.T.	-80°C
Max. liquid specific gravity	2			
Max. liquid viscosity	300mPa·s(cP)			
Design pressure	1.0MPaG			
Bore(suction x discharge)	25x20mm-80x40mm		25x20mm-50x40mm	
Flange standard	JIS 10K RF / ASME 150LB RF			
Type of impeller	Closed			
Motor output rating	0.75kW-7.5kW(2P)		0.75kW-3.7kW(2P)	
Pump material	SCS14(SUS316), ALLOY20, Hastelloy C equivalent			
Liquid-immersed bearings	SiC-D			

Pump material of MP423, MP543 and MP842 is only SCS14(SUS316).



MP423, MP543 and MP842 are New MP model.



Examples of applicable liquid

Acrylic acid	Chlorosulfonic acid	Butadiene
Acetaldehyde	Hot oil, hot water	Fluorinert
Acetone	Acetic acid	Freon
Ammoniacal liquor	Phosphorus trichloride	Hexane
Isopropyl alcohol	Ethylene oxide	Hexamethylene Diisocyanate
Ethanol	Cyclohexane	Benzene
Ethylene glycol	Pure water	Formalin
Oxy phosphorus chloride	Styrene	Maleic acid
Octanol	Hydrocarbon	Methanol
Hydrogen peroxide water	Trichloroethylene	Methyl ethyl ketone
Caustic soda	Toluene	Sulfuric acid
Xylene	Kerosene	Various chemicals
Glycine soda	Oleum Fuming sulfuric acid	Various heat medium liquid
Chloroform (TrichloroMethane)	Phenol	Various coolant liquid

Efficiency compared with seal pump (our products)

	Pump performance	Efficiency
MAGPAC MP542	300 ℓ /min x 26m 3,000 rpm	55%
Mechanical seal pump		JIS (A) 53%

Example - Spare parts savings in Jap. Yen (10 to 20 pumps in service)

Mechanical seal pump	MAGPAC, MP	Difference
Sleeve <50%> @ 25,000yen x 5sets	Liquid- immersed bearings <10%> @ 50,000yen x 1set	Store space is cut down to 1/10th
Mechanical <50%> @ 35,000yen x 5sets		
Total 300,000yen	50,000yen	250,000yen+α

MOTOR OUTPUMP

- SEALLESS MAGNETIC COUPLING PUMP WITH OPEN IMPELLER DESIGN
- LEAK-PROOF SEALLESS MAGNETIC DRIVE DESIGN
- CAPABLE OF PROCESSING SLUDGE AND SLURRIES
- ULTRA-LOW NPSHR
- PUMPS WITH ELECTROPOLISHING CAPABILITY FOR DI, WATER, H₂O, AND OTHERS (OPTIONAL)
- QUICK AND EASY TO TAKE APART AND REASSEMBLE WHEN NECESSARY
- SIC-D BEARINGS TOLERATE ACCIDENTAL DRY-RUN ON INITIAL START-UP



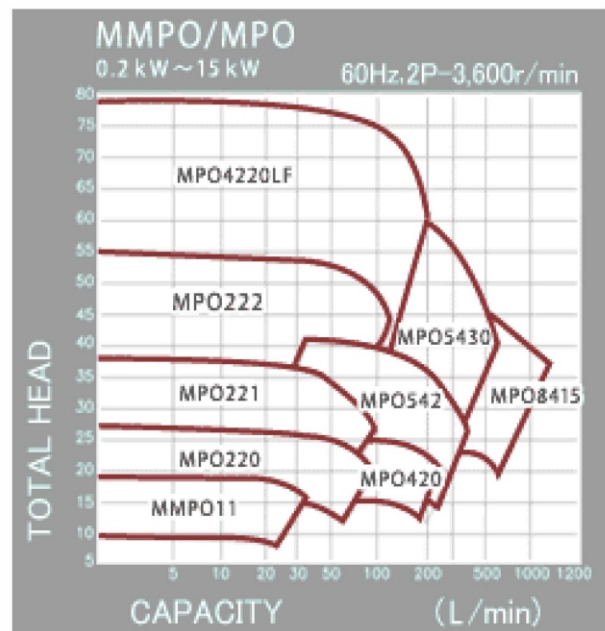
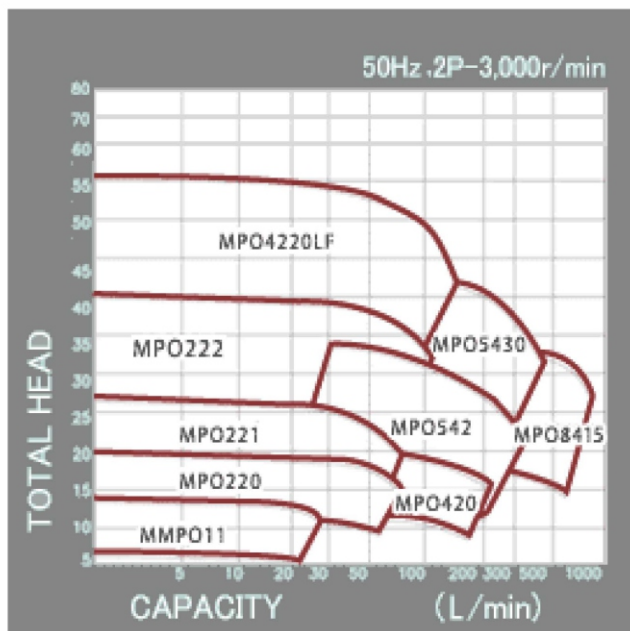
Type MPO

-30°C~+150°C 1.5kW~3.7kW



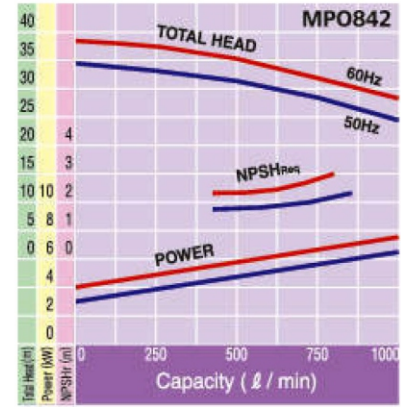
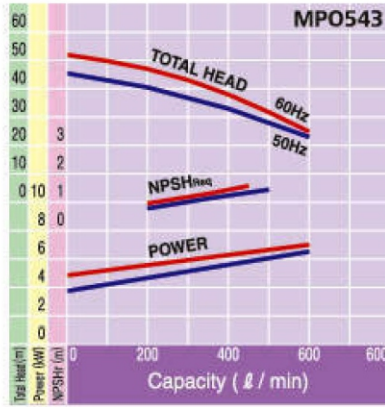
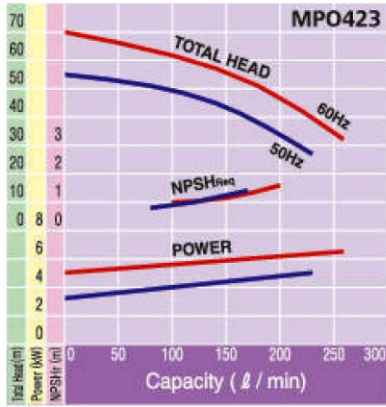
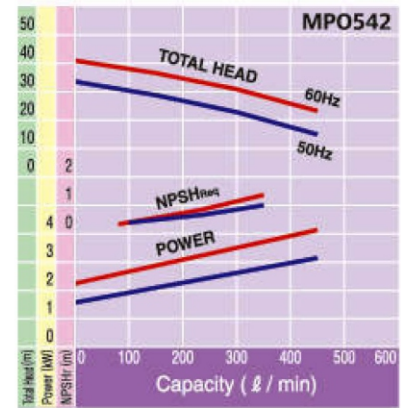
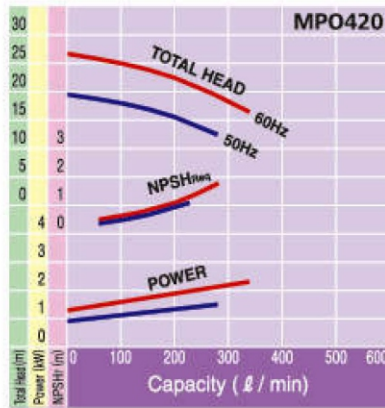
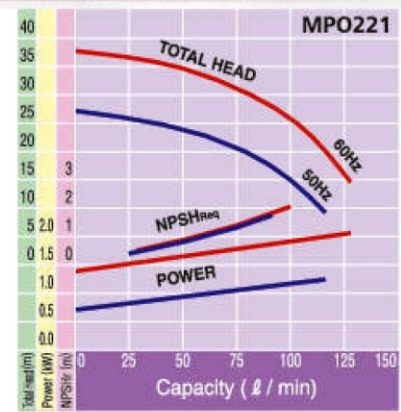
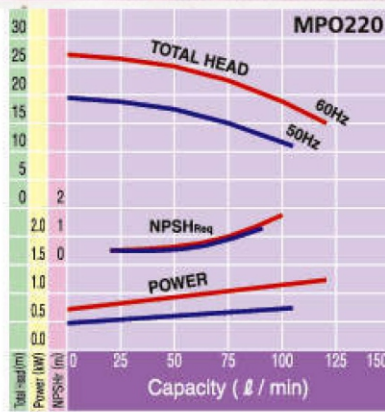
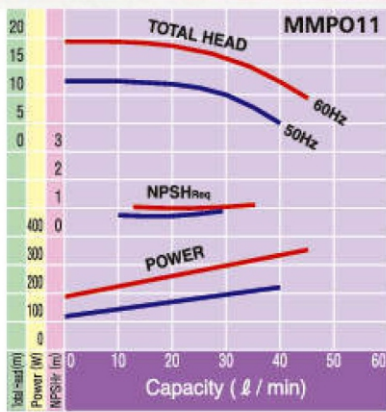
Type MMPO

-30°C~+150°C 200W,400W



Performance curves

(60Hz 2P-3,600r/min, 50Hz 2P-3,000r/min)

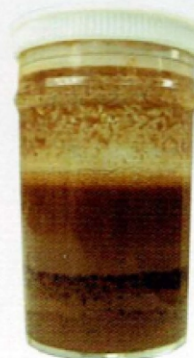


■ : Total Head (m)
 ■ : Power (kW)
 ■ : NPSHreq (m)

Applicable Slurry Liquid

Can correspond to liquid such as this;

- STORM WATER
- INORGANIC SLURRY
- IRON OXIDE, TITANIUM OXIDE
- CLAY, ACTIVE CARBON, CATALYST
- IRON SULPHIDE, SILICA
- VARIOUS ORGANIC SLURRY LIQUID



Please inquire about the corresponding conditions.

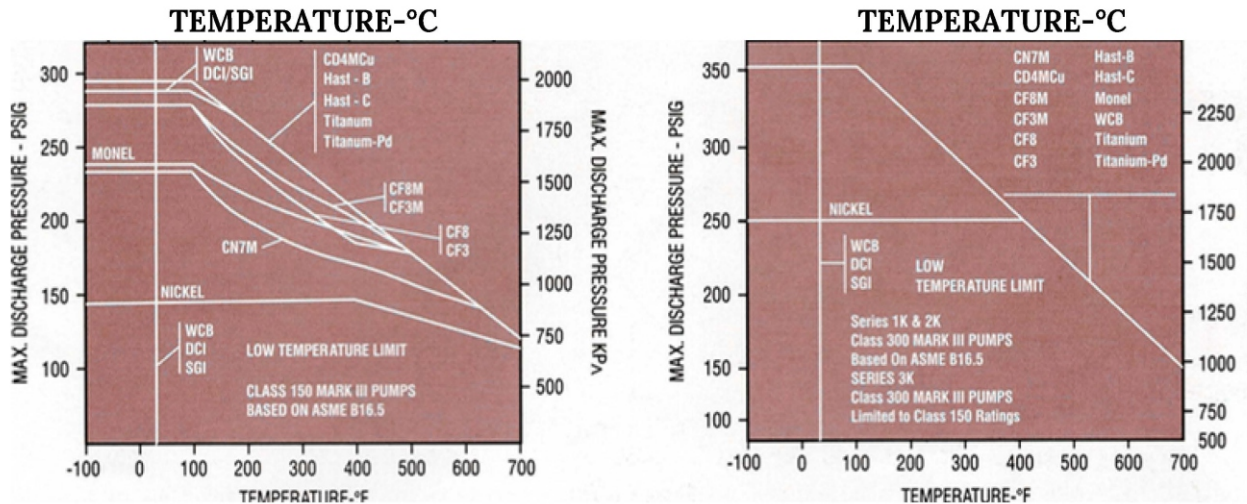
Pump Series	Pump Model	Min. Casing Thickness mm (inch)	Max. Sphere Thru Imp. (RV) mm (inch)	RV Impeller Eye Area cm ² (inch ²)	Corrosion Allow. mm (inch)	Min. Temp. °C (°F)	Max. Temp. °C (°F)	Max. Allow Horse Power			Max. Shaft End Play mm (inch)	Bearing number	Max. Impeller Dia. mm (inch)			
								960 kW	1450 kW	2900 kW						
0-k	1½ x 1 - 5	10 (0.39)	11.1 (0.43)	20 (3.1)	3 (0.12)	-149 (-236.2)	175 (380) [347 (716)] with cooling	6	10	20	0.03 (0.001)	(I.B.) 6305	130 (5.1)			
	1½ x 1 - 6	10 (0.39)	9.5 (0.37)	20 (3.1)								(O.B.) 3305A 5305	158 (6.2)			
1k	1½ x 1 - 6	10 (0.39)	9.5 (0.37)	20 (3.1)				3 (0.12)	-149 (-236.2)	175 (380) [347 (716)] with cooling	8.5	12.5	25	0.03 (0.001)	(I.B.) 6207	158 (6.2)
	3 x 1½ - 6	10 (0.39)	11.1 (0.43)	28.4 (4.4)											(O.B.) 3306/5306	158 (6.2)
	3 x 2 - 6	10 (0.39)	11.1 (0.43)	36.1 (5.6)												208 (8.2)
	1½ x 1 - 8	10 (0.39)	8.7 (0.34)	20 (3.1)												208 (8.2)
	3 x 1½ - 8	11 (0.43)	14.3 (0.56)	35.5 (5.5)												
	3 x 2 - 8	11 (0.43)	13.5 (0.53)	43.8 (6.8)												
2k	4 x 3 - 8	11 (0.43)	12.7 (0.50)	80 (12.0)				3 (0.12)	-149 (-236.2)	175 (380) [347 (716)] with cooling	31	46.5	93	0.03 (0.001)	(I.B.) 6310	208 (8.2)
	2 x 1 - 10A	11 (0.43)	10.3 (0.40)	22.6 (3.5)											(O.B.) 3310/5310	254 (10.0)
	3 x 1½ - 10A	11 (0.43)	11.9 (0.46)	35.4 (5.5)												254 (10.0)
	3 x 2 - 10A	11 (0.43)	13.5 (0.53)	41.3 (6.4)												254 (10.0)
	4 x 3 - 10	13 (0.51)	16.7 (0.65)	85.2 (13.2)												254 (10.0)
	4 x 3 - 10H	13 (0.51)	19.8 (0.77)	85.2 (13.2)												254 (10.0)
	6 x 4 - 10	13 (0.51)	17.5 (0.68)	126.5 (19.6)		254 (10.0)										
	6 x 4 - 10H	13 (0.51)	14.3 (0.56)	142 (22.0)		254 (10.0)										
	3 x 1½ - 13	11 (0.43)	15.1 (0.59)	48.4 (7.5)		330 (13.0)										
	3 x 2 - 13	11 (0.43)	10.3 (0.40)	48.4 (7.5)		330 (13.0)										
	4 x 3 - 13	11 (0.43)	17.5 (0.68)	98 (15.2)		330 (13.0)										
	4 x 3 - 13HH	11 (0.43)	17.5 (0.68)	98 (15.2)		330 (13.0)										
	6 x 4 - 13A	11 (0.43)	26.2 (1.03)	187.1 (29.0)		330 (13.0)										
	3k	8 x 6 - 14A	13 (0.51)	41.3 (1.62)	292 (45.3)	3 (0.12)	-149 (-236.2)								175 (380) [347 (716)] with cooling	134
10 x 8 - 14		16 (0.63)	38.1 (1.50)	410 (63.6)	(O.B.) 3314/5314			406 (16.0)								
6 x 4 - 16		16 (0.63)	30.2 (1.18)	172 (26.7)				406 (16.0)								
8 x 6 - 16A		14 (0.55)	31.7 (1.24)	292 (45.3)				406 (16.0)								
10 x 8 - 16		14 (0.44)	39.7 (1.56)	410 (63.6)				406 (16.0)								
10 x 8 - 16H		13 (0.51)	41.3 (1.62)	506 (78.4)				406 (16.0)								
10 x 8 - 17		13 (0.51)	39.7 (1.56)	515 (79.8)				432 (17.0)								

WORKING PRESSURE MAXIMUM 20 BAR (290 PSI) AT 40°C (104°F), TEST PRESSURE MAXIMUM 30 BAR (435 PSI)

PRESSURE TEMPERATURE RATINGS

MARK III PUMPS FOR LOW AND HIGH TEMPERATURE SERVICES

WITH A PROVEN TRACK RECORD OF PERFORMANCE, MARK III PUMPS ARE NOW WIDELY UTILIZED FOR HANDLING LIQUIDS ACROSS A BROAD TEMPERATURE RANGE, FROM AS LOW AS -149°C (-236.2°F) TO AS HIGH AS 380°C (716°F). THESE PUMPS INTEGRATE EXCEPTIONAL HYDRAULIC EFFICIENCY, STRAIGHTFORWARD MAINTENANCE, AND EASILY ACCESSIBLE PARTS WITH TAILORED DESIGN OPTIONS, PROVIDING A HIGHLY DEPENDABLE SOLUTION FOR CHALLENGING APPLICATIONS. MOREOVER, THEY OFFER A MORE ECONOMICAL ALTERNATIVE COMPARED TO EARLIER SPECIALIZED PUMPS.



CENTRIFUGAL PUMP



A CENTRIFUGAL PUMP IS A MECHANICAL SYSTEM THAT MOVES A FLUID BY TRANSFERRING ROTATIONAL ENERGY THROUGH ONE OR MORE DRIVEN ROTORS KNOWN AS IMPELLERS. THE FLUID ENTERS THE SPINNING IMPELLER ALONG ITS AXIS AND IS CAST OUT BY A CENTRIFUGAL FORCE ALONG ITS CIRCUMFERENCE THROUGH THE VANE TIPS.

MARK III SEALS ENTRY FM SERIES SEAL CHAMBERS



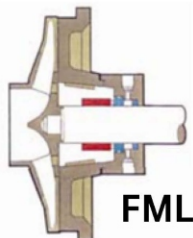
ADVANCED FM SEAL SENTRY DESIGN TECHNOLOGY ENSURES SUPERIOR PROTECTION AND RELIABILITY

- SELF-FLUSHING FOR CONTINUOUS CLEANLINESS
- SELF-VENTING FOR PRESSURE MANAGEMENT
- SELF-DRAINING FOR EFFICIENT MAINTENANCE

SUPERIOR REMOVAL OF HEAT, SOLIDS, AND VAPORS EXTENDS SEAL LIFE. SINGLE SEALS CAN REPLACE DUAL SEALS OR EXTERNAL FLUSH SYSTEMS IN SOLIDS, SLURRY, AND LIQUOR SERVICES. ELIMINATING FLUSH PLANS 11, 32, 52, AND 53 REDUCES COSTS AND BOOSTS PUMP RELIABILITY. TO MAXIMIZE SEAL LIFE, IT IS CRUCIAL TO CHOOSE THE RIGHT SEAL CHAMBER SEAL AND GLAND COMBINATION. TYPICALLY, SEAL FACES SHOULD BE POSITIONED DIRECTLY IN THE FLUSH PATH.

FLOW MODIFIERS INCREASE MECHANICAL SEAL MTBF

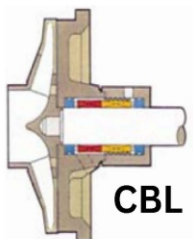
FLOW MODIFIERS CHANGE THE FLOW DIRECTION FROM A CIRCUMFERENTIAL TO AN AXIAL ORIENTATION. MAINTAINING BALANCED FLOW WITH A LOW PRESSURE DROP IN THE CHAMBER HELPS KEEP SOLIDS SUSPENDED AND REDUCES THE EROSION IMPACT OF THE PROCESS. A MECHANICAL SEAL CREATES A CENTRIFUGAL EFFECT THAT MOVES MATERIALS AWAY FROM ITS PARTS AND DIRECTS THEM INTO THE RETURNING FLOW PATH OF THE PROCESS LIQUID.



FML

PREFERRED CHOICE FOR MOST APPLICATIONS. DESIGNED FOR

- SINGLE INTERNAL CARTRIDGE SEALS
- DUAL INTERNAL AND EXTERNAL CARTRIDGE SEALS
- SINGLE INTERNAL COMPONENT SEALS
- DUAL INTERNAL "TRUE" TANDEM CARTRIDGE SEALS

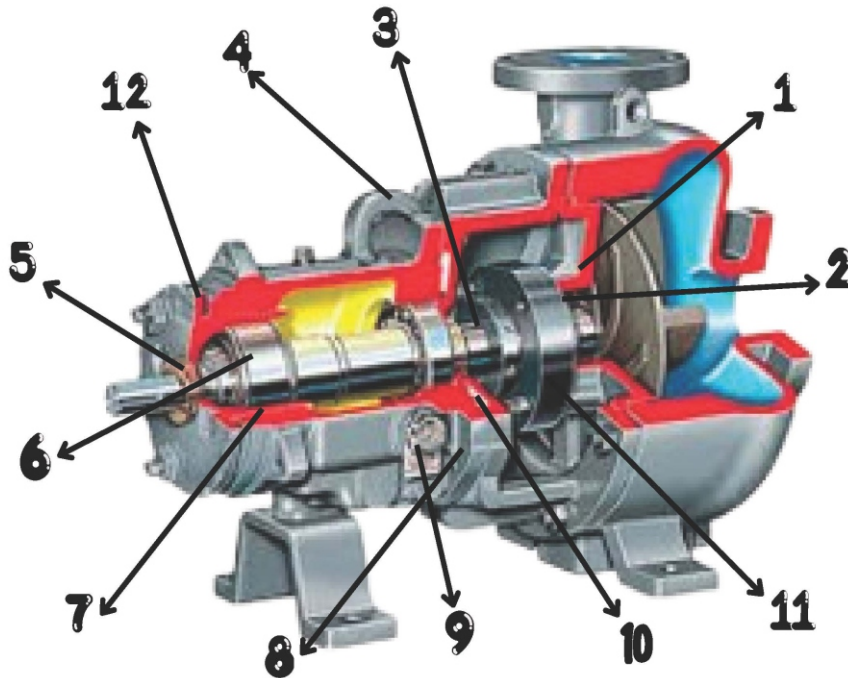


CBL

OVERSIZED CYLINDRICAL STEP BORE ENGINEERED FOR

- DUAL INTERNAL COMPONENT SEALS ISOLATE THE SEAL CHAMBER FROM THE PROCESS USING AN EXTERNAL SOURCE FLUSH.
- SINGLE SEAL WITH A THROTTLE BUSHING AND FLUSH TO INCREASE PRESSURE ABOVE THE FLASH POINT.

CENTRIFUGAL PUMP DIAGRAM



1 THREE STUFFING BOX DESIGNS

- CONVENTIONAL STUFFING BOX DIMENSIONS FOR GENERAL SEALS OR PACKING.
- ENLARGED DIMENSIONS FOR EXTENDED SEAL DURABILITY AND CUSTOM SEALS

7 O-RING THREAD PROTECTION

- SHIELDS THREADS FROM ENVIRONMENTAL CONTAMINANTS
- ENSURES SMOOTH ROTATION

2 MINIMUM SHAFT DEFLECTION

- SHAFT DEFLECTION BELOW 0.025 MM (0.001")
- MECHANICAL SEALS OPERATE WITH PRECISION

8 SPHERICAL WASHER & ADJUSTER

- FACILITATES CONVENIENT ONLINE MAINTENANCE

3 SHAFTS & SLEEVES

- RESISTANT TO CORROSION, WEAR, AND SHOCK
- HOOK-STYLE SLEEVE

9 REFLECTIVE SIGHT GLASS

- ENABLES FAST AND PRECISE OIL LEVEL MONITORING

4 BEARING HOUSING AND ADAPTER

- STANDARD: S.G. IRON FOR ENHANCED STRENGTH
- OPTIONAL: CAST STEEL AND STAINLESS STEEL

10 METAL-TO-METAL FITS

- ENSURES ACCURATE ALIGNMENT FOR EXTENDED MEAN TIME BETWEEN PLANNED MAINTENANCE (MTBPM)

5 OIL SEALS

- MAINTAIN CLEAN BEARING ENVIRONMENT.

11 "REVERSE VANE" IMPELLER

- OFFERS PEAK PERFORMANCE AND EFFICIENCY WITH LOW NPSH REQUIREMENTS AND ALLOWS IN-SHOP IMPELLER ADJUSTMENTS WITHOUT REMOVING THE CASING.

6 DOUBLE ROW THRUST AND SINGLE ROW RADIAL BEARINGS

- END PLAY UNDER 0.03 MM (0.001"), WITH A BEARING LIFE EXCEEDING 17,500 HOURS

12 MICROMETER SHAFT ADJUSTMENT

- ALLOWS FOR QUICK 20-SECOND MICROMETER ADJUSTMENTS WITHOUT FEELER GAUGES, ENSURING PRECISE BEARING ALIGNMENT AND SUPERIOR CONCENTRICITY COMPARED TO JACK SCREW DESIGNS.



precision sealless pumps pvt. ltd.

ISO : 9001 - 2015 CERTIFIED COMPANY



THANK YOU

www.precisionpumps.in

Phone:- +91-7066029374 ,7066029375

MAIL:- Precisionpumpsptltd@gmail.com
Info@precisionpumps.in

Address:- Unit no.06, Building no.01, Extension no.01, Rajprabha udyog nagar, Golani naka, Waliv vasai (E):401208.