



INDIAN PROOF
SEALS ENGINEERING

**Trust in Quality,
Excellence in
Every Seals**



SUPPLY OF NEW MANUFACTURING MECHANICAL SEAL & PUMP SPARE PARTS SPECIALIST IN
ALL TYPE OF INDUSTRIAL MECHANICAL SEAL SERVICING & REPAIRING



About Us

At **IPS ENGINEERING**, we are a leading global manufacturer of high-quality mechanical seals and sealing solutions. With decades of industry experience, we specialize in providing reliable, durable, and precision-engineered sealing products to a wide range of industries, including chemical processing, pharmaceuticals, food and beverage, oil and gas, water treatment, and more.

Founded in our commitment to innovation and excellence has made us a trusted partner for customers worldwide. Our team of skilled engineers and technicians works diligently to design and produce mechanical seals that meet the strictest standards of performance, safety, and efficiency.

We understand that the reliability of your machinery is crucial to the success of your operations. That's why we use the latest technology and highest-quality materials to create seals that offer optimal performance and extended service life. Our products are designed to minimize downtime, reduce maintenance costs, and improve operational efficiency.

As part of our customer-first philosophy, we offer personalized support, providing expert consultation, installation assistance, and after-sales service to ensure that your sealing systems perform flawlessly. Our solutions are tailored to meet the unique demands of each client, whether you're looking for standard designs or custom-engineered seals for specialized applications.

With a strong global presence and a commitment to sustainability, **IPS ENGINEERING** is dedicated to providing innovative sealing solutions that drive success and reduce the environmental impact of industrial operations.

OUR VALUES:

Innovation: Continuously improving our products to meet evolving industry needs.

Quality: Delivering seals that guarantee durability and performance.

Customer Commitment: Ensuring every solution is tailored to your specific requirements.

Sustainability: Creating products that contribute to a cleaner, more sustainable future.





Mechanical seal

Premium Quality

REVERSE BALANCED SINGLE ACTING

Series IPSM 725 is factory assembled cartridge seals for stainless steel agitators. These seals are used as wet seals with clean lubricating medium to lubricate seal faces.



Operating Limits:

Shaft Diameter d1 : 25 ... 350mm
Pressure p : Vacuum ... 10 bar (max)
Temperature t : Amb. 1800° C (max)
Velocity v : 10 m/sec

WET RUNNING SINGLE ACTING

Series IPSM 724 is factory assembled cartridge seal units for stainless steel agitators. Lubrication of faces aids reduction of heat generation and heat removal from faces.



Operating Limits:

Shaft Diameter d1 : 25 ... 350 mm
Pressure p : Vacuum10 bar (max)
Temperature t : Amb. 1800° C (max)
Velocity v : 10 m/sec

WET RUNNING SINGLE ACTING

Series IPSM 723 is factory assembled cartridge seal units for stainless steel agitators. Lubrication of faces aids reduction of heat generation and heat removal from faces.



Operating Limits:

Shaft Diameter d1 : 25 ... 350 mm
Pressure p : Vacuum10 bar (max)
Temperature t : Amb. 1800° C (max)
Velocity v : 10 m/sec

BALANCED SINGLE ACTING

Series IPSM 718 seals are developed for high pressure applications in food processing industries for Votator, Crystalliser etc. Seal faces are TC/TC, Elastomers in Silicon/Viton.



Operating Limits :

Shaft Diameter d1 : 25 ... 150mm
Pressure p : Vacuum ... 120 bar (max)
Temperature t : Amb. 2000° C (max)
Velocity v : 20 m/sec

BALANCED COMPACT CARTRIDGE SINGLE ACTING

Series IPSM 715 is a cartridge construction multiple spring balanced seal specially developed for equipment handling clean media as well as slurries, sludges, syrups and other fluids that solidify with the change in temperature. The springs are isolated from the fluid being sealed by dynamic O-ring.

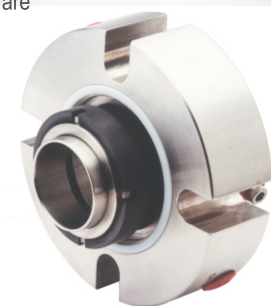


Operating Limits:

Shaft diameter d1: 20 ... 75 mm
Pressure p : 18 bar (max)
Temperature t : -20 ... +1800° C
Velocity v : 20 m/sec

BALANCED COMPACT CARTRIDGE SINGLE ACTING

Series IPSM 716 is a cartridge construction multiple springs balanced seal developed for equipment handling slurries, sludge, syrups, bitumen, fatty acids etc. The springs are isolated from the fluid by dynamic O-ring.



Operating Limits:

Shaft Diameter d1 : 20 ... 75 mm
Pressure p : 18 bar (max)
Temperature t : -20 ... + 1800° C
Velocity v : 20 m/sec



Mechanical seal

Premium Quality

PTFE BELLOW SINGLE ACTING

Ptfe Bellow Single Acting is used for extremely corrosive services. In this seal series Glass filled PTFE face is composite moulded with highly flexible PTFE bellow.

Operating Limits:

Shaft Diameter d1 : 18 ... 100 mm
Pressure p : 6 bar (max)
Temperature t : -45 ... + 1200° C
Velocity v : 20 m/sec



PTFE BELLOW SINGLE ACTING

Ptfe bellow single acting is used for extremely corrosive services. The lugs impart smooth drive to the face. Replacement of face is done easily.

Operating Limits:

Shaft Diameter d1 : 18 ... 100 mm
Pressure p : 6 bar (max)
Temperature t : -45 ... + 1200° C
Velocity v : 20 m/sec



UNBALANCED SINGLE ACTING

Series IPSM 711 are single wave spring seals suitable for most general applications including those with suspended particles. Compact in design, easily fits into shallow stuffing.

Operating Limits:

Shaft Diameter d1 : 16 ... 100 mm
Pressure p : 10 bar (max)
Temperature t : - 45... + 1800° C
Velocity v : 20 m/sec



BALANCED SINGLE ACTING

Series IPSM 712 is multiple spring seal specially designed for higher axial float of the shaft. High axial float is inherent in some between bearings pump designs and other equipment. This seal has advantage over standard seals and can work successfully where axial float of shaft is up to ± 3.0 mm.

Operating Limits:

Shaft diameter d1 : 25 ... 150mm
Pressure p : Vacuum ... 25 bar (max)
Temperature t : Amb. 2000° C (max)
Velocity v : 20 m/sec

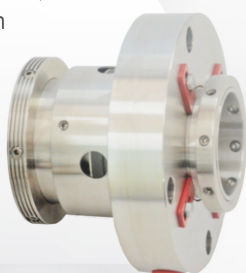


CARTRIDGE CONSTRUCTION MULTIPLE SPRING INSIDE MOUNTED BALANCED SEAL

Series IPSM 720 is a cartridge construction multiple spring inside mounted balanced seal specially developed for Boiler Feed Water. Compact design seal fits in most of pumps. No external cooling required this eliminates cooling water, Heat Exchanger etc. Multiple flush option distributes API PLAN 11 flow around the seal faces.

Operating Limits:

Shaft Diameter d1 : 18 ... 100 mm
Pressure p : 6 bar (max)
Temperature t : -45 ... + 1200° C
Velocity v : 20 m/sec



METAL BELLOW SINGLE ACTING

Series IPSM 727 is welded metal bellow seal used for high temperature and moderate pressure applications in Petrochemical plants, Petroleum refineries, Edible oil refineries etc.

Operating Limits:

Shaft Diameter d1 : 35.... 100 mm
Pressure p : 20 bar (max)
Temperature t : - 20 + 4000° C
Velocity v : 20 m/sec





Rotary Atomizer Wheel

Flange Guards

Viton Rubber o-Ring

ROTARY ATOMIZER WHEEL

ROTARY WHEELS INSTALLED ON ATOMIZERS, PRODUCE HIGHLY-HOMOGENEOUS SPRAY OVER A WIDE RANGE OF MEAN DROPLET SIZES.

ATOMIZER WHEEL HAVE IMPORTANT

OPERATIONAL FEATURES. The characteristics of the spray can be adjusted by changing the rotating speed and by selecting the most appropriate type of wheel based upon the characteristics of the product to atomize, and the target specifications in terms of final particle size. A correct choice of the wheel, virtually

excludes any possibility of clogging. The wheel is one the mainly component of the atomizer, and it is the most stressed part because of:

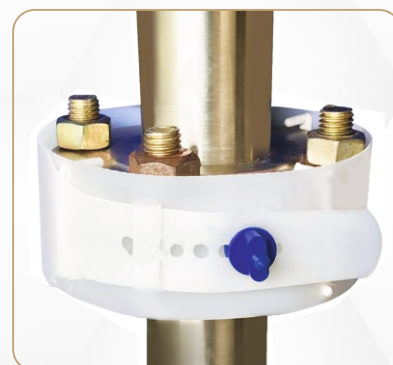


FEATURES

- High rotating speed (up to 250 m/sec) means high centrifugal forces
- Contact with abrasive, corrosive products, or with a combination of both
- Contact with high temperature of process air for drying
- Contact with high temperature of process air for drying

UV RESISTANT PP STRIP TYPE FLANGE GUARDS

- MOC-UV resistant HDPE sheet
- Warrantee: 12 months from the date of dispatched the material
- It can be used in Acid/ Alkali/ Caustics/ Hazardous chemical flange joints
- No effect of ultraviolet radiation
- It can be used up to 85° C temperature
- It can be used for piping inside or outside plant
- Flexible & reusable hence cost effective
- Easy to fix & remove
- Its having proper nut & bolt
- Give effective performance
- Do not require highly skilled manpower for fixing & removing unlike metal or other flange guards, these are semitransparent guard's leakage inside flange joint can be observed/checked. Without removing guard timely action can be taken
- Available in any size depending upon requirement



VITON RUBBER & PTFE O-RING

VITON RUBBER O-RING & PTFE TEFLON, PEEK O-Rings as per IS, BS, ASTM, DIN, SWEDISH, FRENCH, JAPANESE, METRIC & INCHES, IMPERIAL STANDARDS, ISO 3601, AS-568A, DIN 3771, BS 1806, BS 4518, SMS 1586, METRIC, JIS 2401, NF T 47-501, AS, AN, AMS, NAS, FDA 21 CFR 177.2600, KTW, DVGW, BAM, WRAS (WRC), USP Class VI, or ISO 10993 and as per Custom Specifications to suit individual functional requirements. Rubber range includes SILICONE, VITON FKM, NITRILE, NEOPRENE, BUTYL, POLYURETHANE, FLUOROSILICONE, EPDM, VMQ, FVMQ, PTFE, Teflon, NBR, X-NBR, H-NBR, FFKM, PEEK, PU from 1mm ID to over 1000mm ID in various cross-sections viz:-1, 1.5, 1.78, 2, 2.2, 2.5, 2.62, 3, 3.53, 4, 4.5, 5, 5.33, 5.7, 6, 6.34, 6.99, 7, 8, 9, 10, 12, 16, 18, 20, 25 mm & 1/16", 3/32", 1/8", 3/6", 5/16", 1/4", 5/8", 3/8", 1/2", 5/8", 3/4", 1" inches etc..

Hardness range from 40 to 90 Shore A Durometer & Various Colours

Ptfe-Teflon, PEEK ranges includes virgin, CFT, GFT, Bronze-FT, MOS2 filled grades from 3mm ID to over 800mm ID in various cross-sections.





MICROFACE

Chemicals Process Pumps

Custom Made With Sophisticated Simplicity.

The First Choice of Decision Makers Because they save money in the long run...

- Unique external Micrometer Impeller adjustment quick Easy and accurate setting.
- Reverse Vane Impeller requires less NPSH minimizing Cavitation problems. Maintains lower static pressure that increases Mechanical Seal life. Impeller setting against the face of Stuffing Box Cover, so the Wear Surface is Cover and not the more Expensive Casing.
- New Heavy Duty Power-End for rugged dependable
- New Pump Sizes for improved Hydraulic coverages and higher Efficiencies resulting in longer OPEX
- The Built in Quality that makes MICROFACE the Benchmark the Process industries.

Bearing Housing and Adapter

- S.G. Iron for More Strength (Standard).
- Cast Steel and Stainless Steel (Optional).

Shafts & Sleeves

- Corrosion, Wear and Shock Resistance.
- Hook Type Sleeve.

Minimum Shaft Deflection

- Less than 0.025 mm (0.001").
- Mechanical Seals run true.

Micrometer Shaft Adjustment

- 20 Second Adjustment Without Feeler Gauges.
- Double Accurate Bearing Alignment.
- Concentricity is maintained thus better than Jack Screw Designs.

Breather

Three Stuffing Box Designs

- Standard Dimension for Most Seals or Packing.
- Oversize Dimensions for Longer Seal Life and Special Seals.

PTFE & Silicon Rubber Impeller Gasket

- Corrosion resistance of PTFE.
- Sealing resiliency of Silicon Rubber.
- Maximum Protection of Impeller and Shaft Threads.

Exclusive MICROFACE "Reverse Vane" Impeller

- Optimum Performance and Efficiency.
- Lowed overall NPSH requirements.
- In-shop Impeller Setting without disturbing Casing from pipeline.

Spherical Washer & Adjuster

- For Ease of Online Maintenance.

Reflective Sight Glass

- For Quick, Accurate Oil Leveled Reading.

Metal-to-Metal Fits.

- Precision Alignment for Longer Mean Time between Planned Maintenance.

Double Row Thrust. Single Row Radial Bearings.

- Less than 0.03 mm (0.001") End Play.
- Exceeds Bearing Life of 17,500 hours.

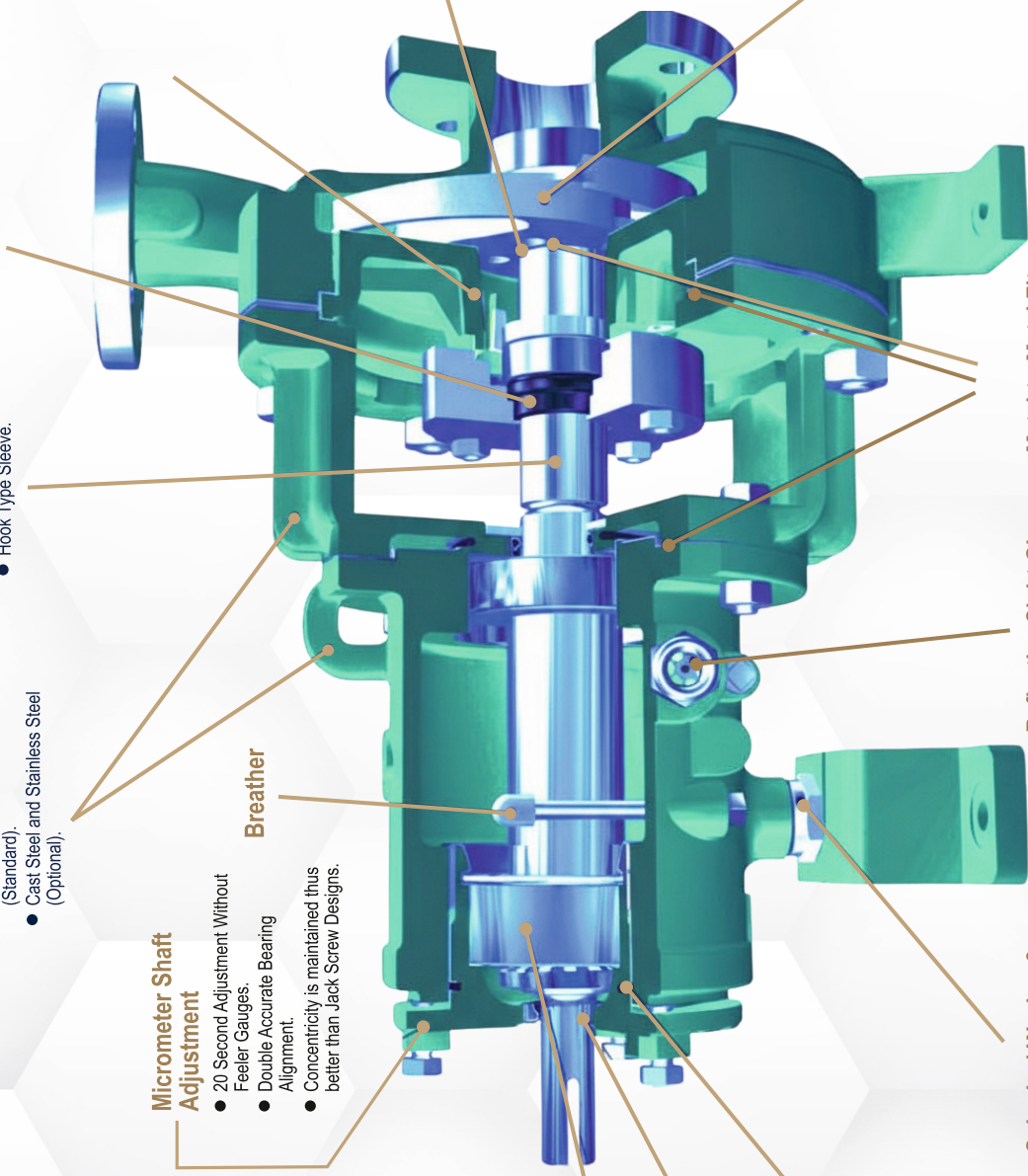
Oil Seals

Inboard and Outboard.

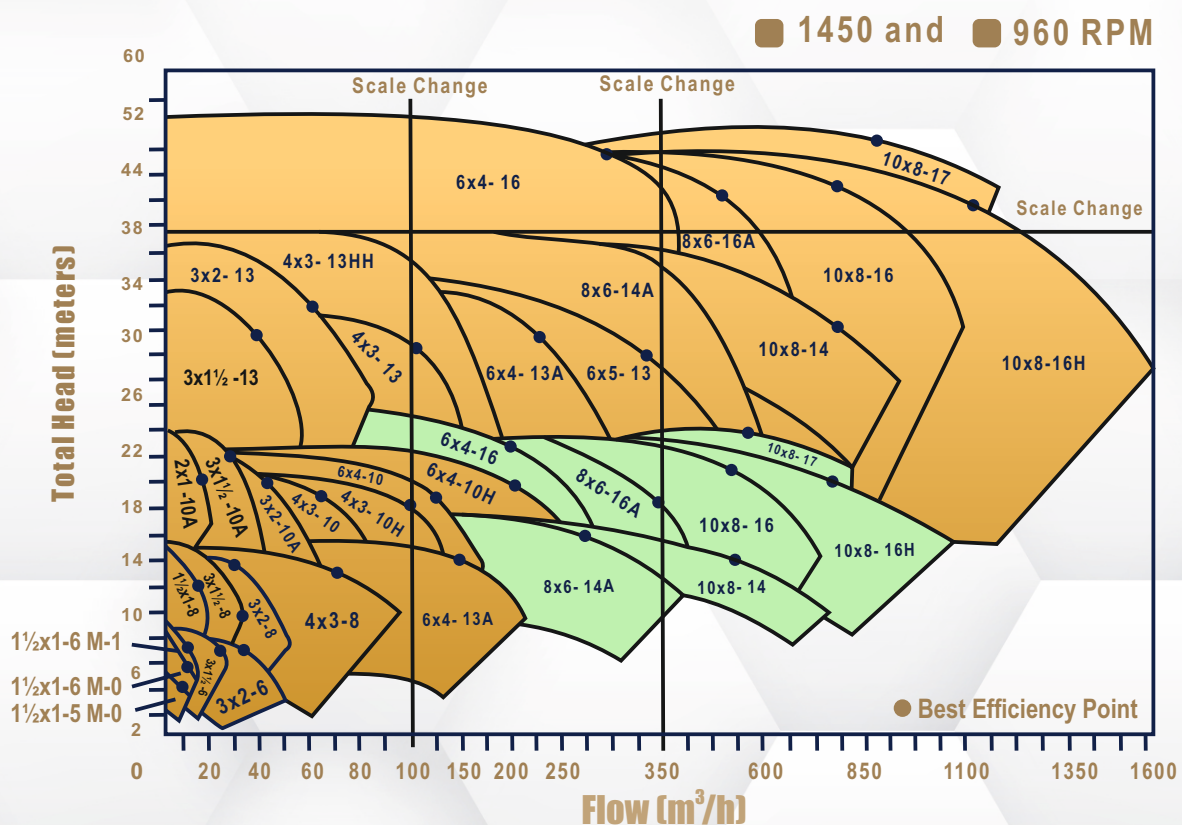
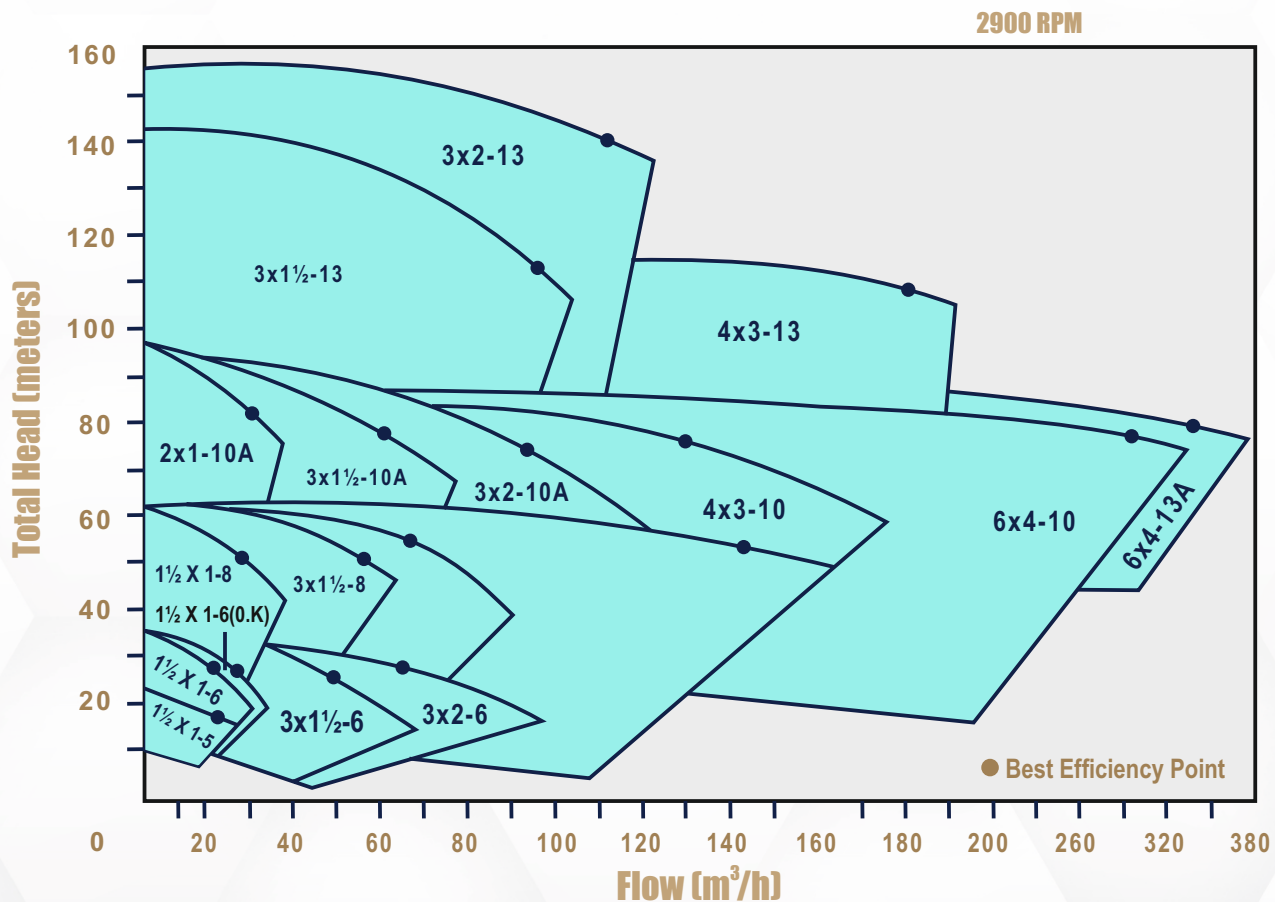
- Maintain Clean Bearing Environment.

O-Rings Thread Protection

- Seal Threads from Environment.
- Insures easy Rotating.



Microface Process Pump Selection Performance Curves

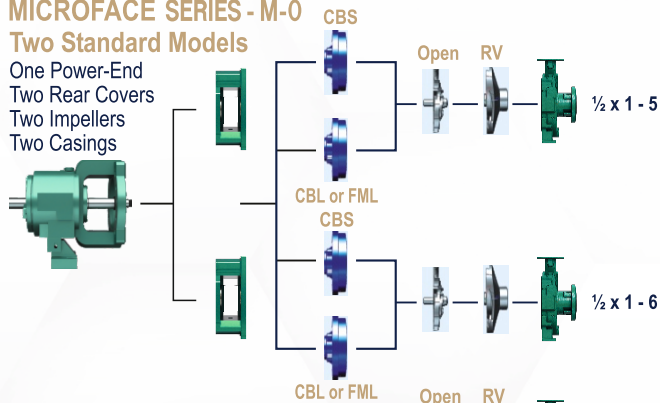


Microface Process Pump

Interchangeability

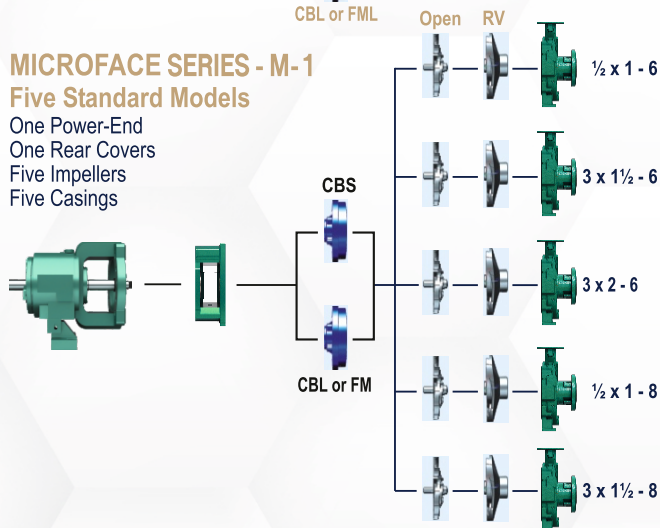
MICROFACE SERIES - M-0 Two Standard Models

One Power-End
Two Rear Covers
Two Impellers
Two Casings



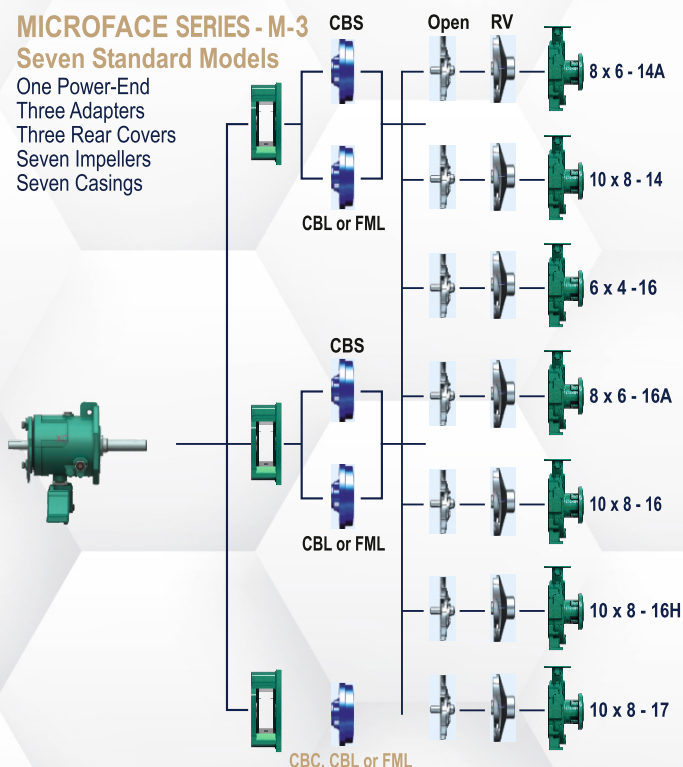
MICROFACE SERIES - M-1 Five Standard Models

One Power-End
One Rear Covers
Five Impellers
Five Casings



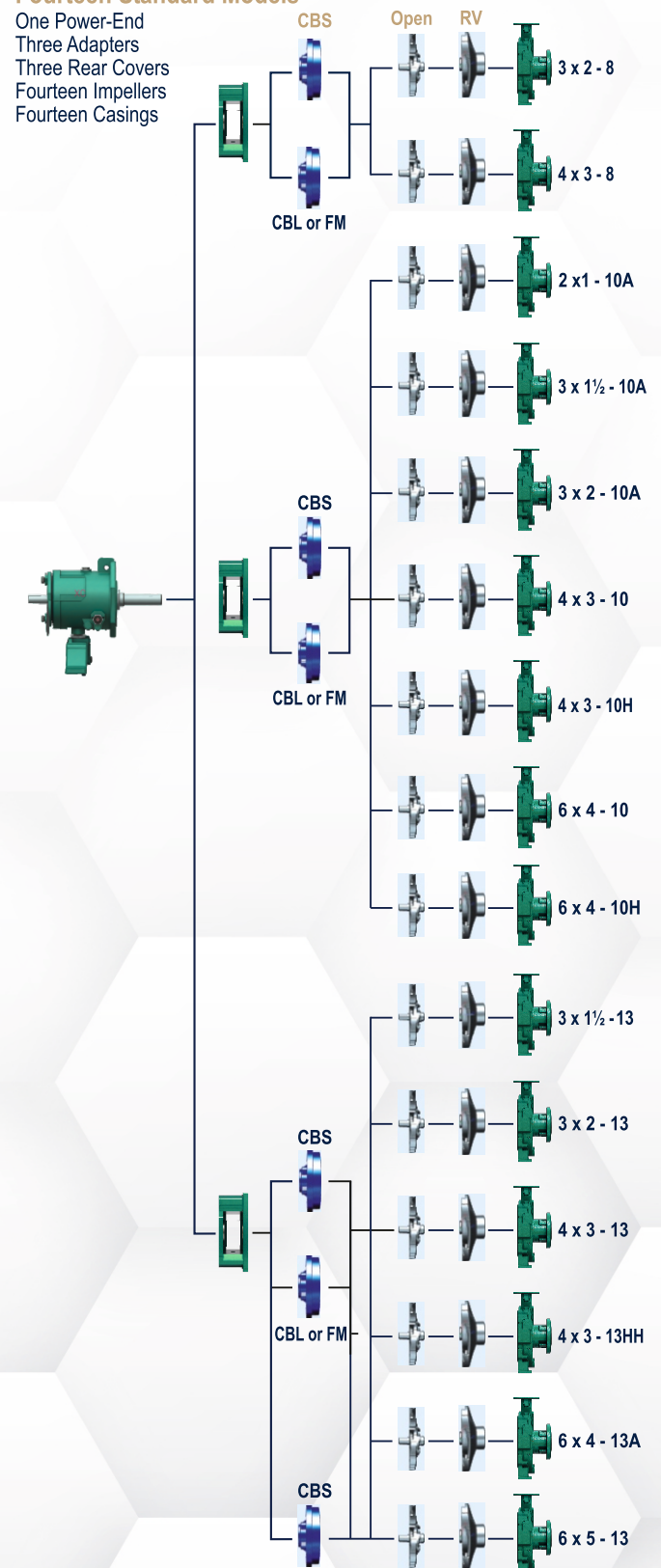
MICROFACE SERIES - M-3 Seven Standard Models

One Power-End
Three Adapters
Three Rear Covers
Seven Impellers
Seven Casings



MICROFACE SERIES - M-2 Fourteen Standard Models

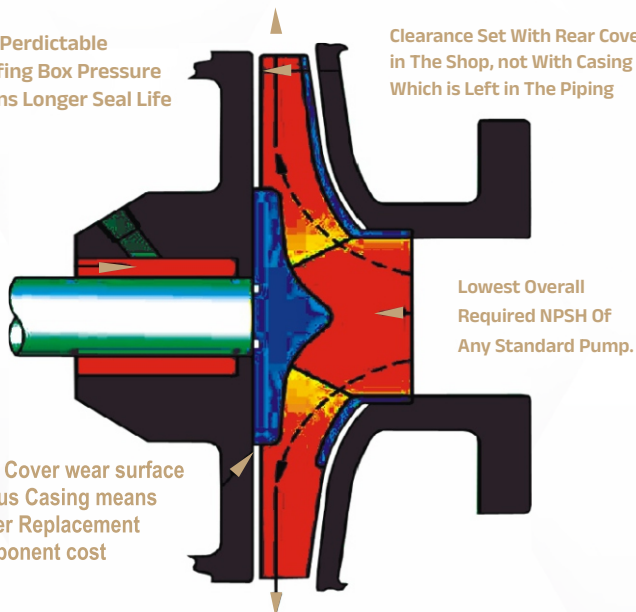
One Power-End
Three Adapters
Three Rear Covers
Fourteen Impellers
Fourteen Casings



Microface Pumps Impellers

Low Predictable
Stuffing Box Pressure
Means Longer Seal Life

Clearance Set With Rear Cover
in The Shop, not With Casing
Which is Left in The Piping



Lowest Overall
Required NPSH Of
Any Standard Pump.

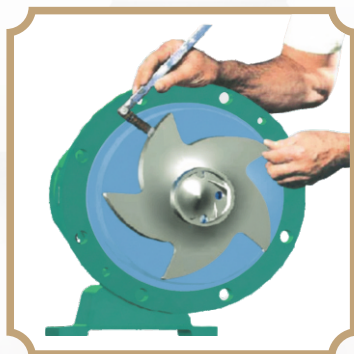
Rear Cover wear surface
Versus Casing means
Lower Replacement
component cost

Unique Advantages of Reverse Vanu Impeller

Reverse Vane Impeller (semi open) deliver Unequalled Efficiency and Performance, This Exclusive Impeller Design Extends Bearing as well as Seal Life

- **Low, Predictable Stuffing Box Pressure and Thrust Loads** -Resulting from Back Vane Pumping Action and Balance Holes
- **Low, Required NPSH**-Provides Efficient Pumping even in marginal NPSH conditions minimizing cavitation problems.
- **Stuffing Box Cover Wear Surface**-as the Flow Path exits at the Rear of the Impeller, thus Abrasive Wear on the Rear Cover rather than on more Expensive Casing.

- **In-shop Impeller Adjustment** with the only Impeller Design that takes full advantage of the back pull out feature, Since the critical running clearance is set between the Rear of the Impeller and Mechanical Seal settings can be done in the Shop, "on the bench," instead of under adverse field conditions.
- **Repeatable Performance Assurance**-with the only Impeller Design that offers repeatability in Seal Chamber Pressure and Seal Chamber Pressure and Bearing Thrust Loads.



In-shop Impeller Adjustment...Practical as well as productive



Exclusive Reverse Vanu Impeller
With balance holes of fers improved performance and reducing maintenance time
The only ASME Pump Impeller Design that offers repeatable Pump performance ththroughout the life of the Pump.



Front Vane Open Impeller (Optional)
is fully interchangeable with the Reverse Vane Impeller, Excellent choice for Slurry, Stringy and Certain applications requiring high shear against the casing.



Inpro VBX bearing isolator
MICROFACE 3A Power-End

Fastest Maintenance Turnaround time

- Micrometer type Shaft and Impeller Adjustment Accurately Set Impeller clearance to rear cover in 20 seconds...In the shop or Field.
- Mechanical Seals and all critical settings can be accurately set in the shop or field.

Recognized Worldwide as the Premier Name in MICROFACE Chemical Process Pumps
The advanced design and precision manufacture of the rugged, heavy-duty MICROFACE Chemical service Pump significantly Enhances Bearing and Seal Life.

It is committed to help users maximize mean time between planned maintenance (MTBPM)

The Unique Features and Enhancements of MICROFACE Pumps provide significant Performance benefits for Pump users.

A Choice of Power Ends

- Standard MICROFACE Power Ends with oil seals.
- MICROFACE 3A Power Ends (shown here) featuring Inpro VBX bearing Isolators and up to a three-year performance guarantee.

Trust Running MICROFACE Pump

- Four precision machined metal-to-metal fit locations. (See on page 6 & 7) Other manufacturers offer only two or three machined fits.
- Precision machined metal-to-metal cap bearing housing reduces stack-ups to improve shaft concentricity.
- Superior to jackscrew designs which can cause cocking. Extends bearing and Mechanical Seal Life.

The MICROFACE Standard Process Pump cover a broad hydraulic range

Twenty Nine Sizes

- Two (2). Group M-0
- Five (5). Group M-1
- Fifteen (15). Group M-2
- Seven (7). Group M-3

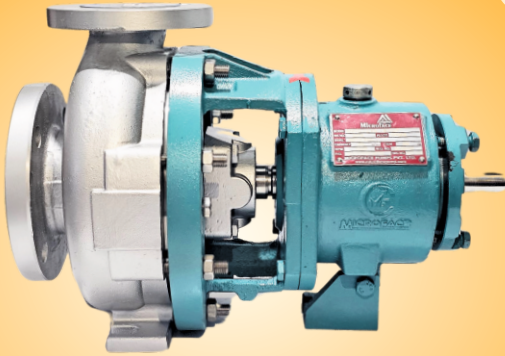
Capacities

- 0.6 m³/h to 1390 m³/h

Head

- 3 m to 152 m (See page 3 & 4 for Component Interchangeability & Performance Data.)

Chemicals Process Pumps



**Chemical Process,
Centrifugal Pump**



**Chemical Process,
Centrifugal Pump**



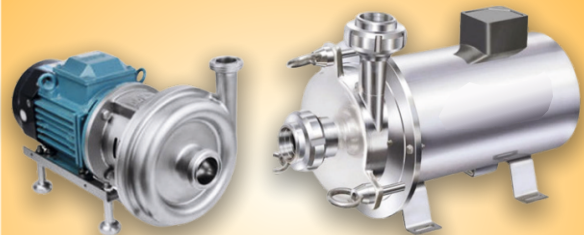
**Chemical Process,
Centrifugal Pump**



Polypropylene. PP Pump



Polypropylene PVDF Pump



SS Mik Pump, Dairy Milk

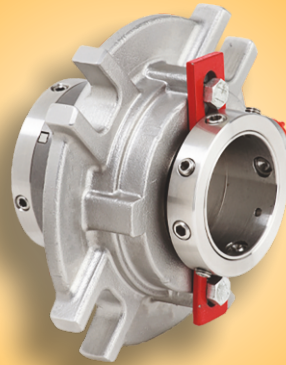
All Type Of Pump Parts





INDIAN PROOF

SEALS ENGINEERING



**All Types Of Mechanical Seal & Chemical Process Pump Manufacturing
And Seal & Pump Repairing & Service**



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SALES & SERVICES

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Ankleshwar-393002**

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