

# A LASTING SOLUTION FOR CORROSIVE APPLICATION

LEADING MANUFACTURER OF NON METALLIC AS WELL AS WELL METALLIC CENTRIFUGAL PUMPS IN INDIA



SINCE 2002

**“YOUR GUIDE TO THE WORLD-CLASS RANGE OF CHEM-PROOF PUMPS”**



## **SPECIAL FEATURES**

- .Shaft is well protected by a confined PTFE sleeve gasket.
- .Special design mechanical seal offered as a standard feature to ensure reliability.
- .Impeller clearance can be adjusted externally for all series except series 'PPM' pumps.
- .Detachable suction and discharge flanges in series CPP and "CPM" save the expensive casing replacement costs.
- .Casing and back plate of series 'CPK' pumps are offered in carbon steel (ASTM A 216 grade WCB) as a standard. SS 316 material offered on request.



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## **SERIES: CPK**



### **(PFA)**

Series “CPK” PFA lined pumps are top-of-the-line pumps for handling highly corrosive fluids including high temperature services. Hi-tech lining process is employed to manufacture defect free components. These pumps can virtually replace expensive Hastelloy-B, Hastelloy-C and ceramic lined pumps at affordable price.

### **(FEP)**

Series “CPK” FEP lined pumps are a variation of PFA lined pumps suitable for most corrosive services and moderately high temperature. Hi-tech lining process is employed to manufacture defect free components. These pumps offer economic alternative to higher alloy pumps like Hastelloy-B, Hastelloy-C and ceramic lined pumps.

### **(PVDF)**

Series “CPK” PvdF Lined pumps are a variation for wide range of corrosive applications, an economic solution to higher alloy pumps. The lined parts are manufactured using Hi-Tech lining process ensuring defect free components.

### **Range:**

Capacities	Q :	up to 400 m <sup>3</sup> /h
Heads	H :	up to 100 m
Pressure	P :	up to 10 bar
Temperature	t :	up to 260 <sup>o</sup> C (PFA) up to 180 <sup>o</sup> C (FEP) up to 120 <sup>o</sup> C (PVDF)

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## **SERIES: CPP**

Series 'CPP' solid injection moulded pumps are available in polypropylene (PP) and glass filled polypropylene (GFP) materials. These are suitable for all services compatible with PP.

The pumps incorporate robust design to handle highly corrosive fluids including corrosive slurries.

Range:

Capacities	Q :	up to 400 m <sup>3</sup> /h
Heads	H :	up to 100 m
Pressure	P :	up to 6 bar
Temperature	t :	up to 80° C



## **SERIES: CPB**

Series 'CPB' pumps are a variation of series 'CPP' pumps which incorporate back-pull-out feature. This offers all the advantages for easy maintenance, similar to metallic pumps. The metallic armour supports piping loads without any strain on the pump suction and discharge nozzles.

The pump construction and the spacer coupling together help dismantling of the rotor assembly without disturbing the suction/ discharge pipes and motor.

This feature reduces the need for coupling alignment after every maintenance interval.

Range:

Capacities	Q :	up to 400 m <sup>3</sup> /h
Heads	H :	up to 100 m
Pressure	P :	up to 6 bar
Temperature	t :	up to 80° C



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## **SERIES: CPM**



Series 'CPM' monoblock pumps are sturdy, compact in design and are most cost effective.

The pump impeller is directly installed on the motor shaft, reducing the number of components and associated costs.

These pumps are available in solid injection moulded PP and GFP materials.

Range:

Capacities	Q :	up to 50 m <sup>3</sup> /h
Heads	H :	up to 58 m
Pressure	P :	up to 6 bar
Temperature	t :	up to 80° C

## **SERIES: CVSP**



Series 'CVSP' vertical submerged pumps are robust in construction. Heavy duty column pipe supports shaft and pump assembly to minimise vibration.

These pumps are designed for Heavy duty operation and are available in PP and GFP materials.

Unique labyrinth sealing feature controls emission of corrosive vapours, aids protection to the drive equipment and surrounding environment.

Range:

Capacities	Q :	up to 50 m <sup>3</sup> /h
Heads	H :	up to 58 m
Pressure	P :	up to 6 bar
Temperature	t :	up to 80° C



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## **SERIES: CMPH**



Series 'CMP' metallic pumps are designed for heavy-duty service with oversized bearings for reliable operation. The Robust semi-opened impeller design handles moderate percentage of solids without clogging. The sturdy shaft design minimises vibration and provides smooth & trouble free operation. The pumps are offered in various materials like Carbon steel, SS 304 (CF8), SS 316 (CF8M), SS 316L (CF3M), A-20, Hast-C, Hast-B etc.

Range:

Capacities	Q : up to 1400 m <sup>3</sup> /h
Heads	H : up to 160 m
Pressure	P : up to 16 bar
Temperature	t : up to 280° C

Series 'CCIP' metallic pumps are designed for heavy-duty service with oversized bearings for reliable operation. These pumps give the best efficiency due to robust closed impeller design. The sturdy shaft design minimises vibration and provides smooth & trouble free operation. The pumps are offered in various materials like Cast Iron, Carbon steel, SS 304(CF8), SS 316(CF8M), SS 316L(CF3 M), A-20, Hast-C, Hast-B, Ni-Hard, CD4MCu etc.

Range:

Capacities	Q : up to 1150 m <sup>3</sup> /h
Heads	H : up to 160 m
Pressure	P : up to 25 bar
Temperature	t : up to 350° C

## **SERIES: CCIP**



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## **SERIES: CMP**



Series 'CMP' metallic pumps are designed for heavy-duty service with oversized bearings for reliable operation. The Robust semi-opened impeller design handles moderate percentage of solids without clogging. The sturdy shaft design minimises vibration and provides smooth & trouble free operation. The pumps are offered in various materials like Carbon steel, SS 304 (CF8), SS 316 (CF8M), SS 316L (CF3M), A-20, Hast-C, Hast-B etc.

Range:

Capacities	Q :	up to 400 m <sup>3</sup> /h
Heads	H :	up to 150 m
Pressure	P :	up to 16 bar
Temperature	t :	up to 260° C

## **SERIES: CMCP**



Series 'CMP' centre lined mounted pumps are designed for heavy-duty service with oversized bearings for reliable operation, especially for high temperature service.

The pumps are offered in various materials like Carbon steel, SS 304 (CF8), SS 316 (CF8M), SS 316L (CF3M) etc.

Range:

Capacities	Q :	up to 400 m <sup>3</sup> /h
Heads	H :	up to 150 m
Pressure	P :	up to 16 bar
Temperature	t :	up to 350° C

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## **SERIES: CPMM**

Series **CPMM** monoblock pumps are sturdy compact in design and are most cost effective.

The pump impeller is directly installed in the motor shaft, reducing the number of components and associated costs

These pumps are available in MS & SS

Range:

Capacities	Q : up to 50 m <sup>3</sup> /h
Heads	H : up to 58 m
Pressure	P : up to 6 bar
Temperature	t : up to 80 <sup>0</sup> C



## **SERIES: CSPP**

Series **CSPP** is a Thermic fluid pumps chemical process pumps made of ductile iron, SS316, Alloy 20 and Hastelloy designed for normal and demanding chemical process app. This is a seal less magnetic drive centrifugal pump, the external magnet is directly connected to the motor shaft and it transmit the torque to the internal magnet.

Range:

Capacities	Q : up to 400 m <sup>3</sup> /h
Heads	H : up to 150 m
Pressure	P : up to 16 bar
Temperature	t : up to 350 <sup>0</sup> C



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## **SERIES: CMMD**



Series **CMMD** is a metallic magnetic drive chemical process pumps made of ductile iron, SS316, Alloy 20 and Hastelloy designed for normal and demanding chemical process app. This is a seal less magnetic drive centrifugal pump, the external magnet is directly connected to the motor shaft and it transmit the torque to the internal magnet.

Range:

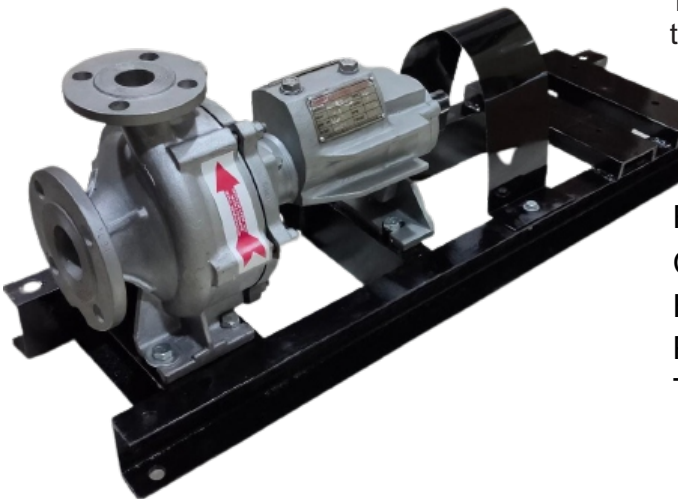
Capacities Q : up to 100 m<sup>3</sup>/h

Heads H : up to 100 m

Pressure P : up to 16 bar

Temperature t : up to 260<sup>o</sup> C

## **SERIES: CTFP**



Series **CTFP** is a Thermic fluid pumps chemical process pumps made of ductile iron, SS316, Alloy 20 and Hastelloy designed for normal and demanding chemical process app. This is a seal less magnetic drive centrifugal pump, the external magnet is directly connected to the motor shaft and it transmit the torque to the internal magnet.

Range:

Capacities Q : up to 400 m<sup>3</sup>/h

Heads H : up to 150 m

Pressure P : up to 16 bar

Temperature t : up to 350<sup>o</sup> C





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## **SERIES: CPAF**

Series **CPAF** are Axial Flow pumps for high volume / low head pumping requirements. Especially when corrosive and abrasive solution are involved.

Mainly used in Evaporator , Crystallizer Circulation

These pumps are available in CS & SS Alloy 20, Hastalloy C , Super Duplex



Range:

Pump Size : 5 inch to 36 inch (DN 125 to 900)

Flow up to : 20,000 m<sup>3</sup>/hr

Head up to : 9 meter

Temperature : 300°C

Max.working Pressure : 10 Bar

## **SERIES:CPMP**



Series **CPMP** are Metring Dosing pumps for high Pressure / low Volume pumping requirements.

These pumps are available in CS & SS Alloy 20,Hast alloy C, Super Duplex, PP ,PVC, PTFE , PVDF And other machinable Material.

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## **OTHER BRAND PUMP SPARE**



## **NON METALLIC PUMPS SPARE**

**DURCO**



**ITT GOULDS**



**OTHER METALLIC  
PUMPS IMPELLER**



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## **THERMOSYPHON VESSEL**

Series **CPTS07** Thermosyphon Vessel is used for double mechanical seals in back-to-back or tandem arrangement. This is equipped with cooling coil to dissipate heat from the barrier medium. Higher capacity up to 20 ltr. can also be offered upon request.



Operating Range:  
Capacity : 7.0 ltrs  
Design Pressure : 35 bar  
Hydraulic Test pressure : 53 bar  
Working temp. (max) : 150° C  
Heat Transfer area : 0.2 m2  
Cooling water flow rate : 5 ltrs/min

## **PP PRIMING POT**

Polypropylene priming pots are used when pumps are installed in negative suction conditions. This avoids the need of foot valve and frequent priming of pumps. The priming pot is connected to the pump suction, filled with liquid and sealed airtight before initial start up. This draws the liquid in the suction pipe resulting in priming.



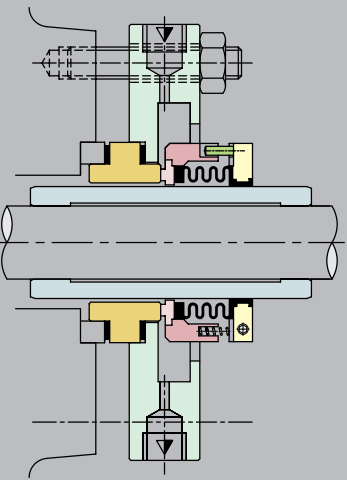
Range:  
Capacities Q : 25 to 150 ltr  
Pressure P : up to 5 bar  
Temperature t : PP up to 80°C



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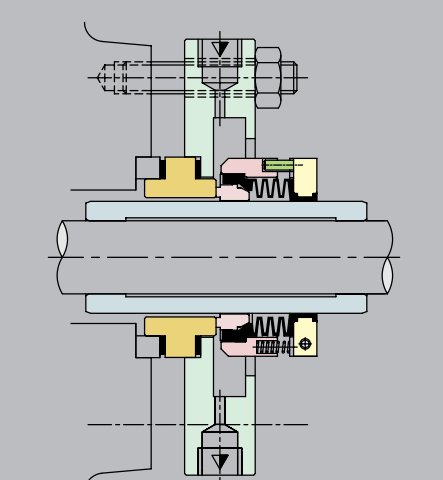
**NOTES:**

1. As a standard, pumps are supplied with C20M seal, Faces = GFT / Ceramic and sleeve ceramic.
2. Selection of mechanical seal and sleeve MOC are dependent on media, pressure and temperature.



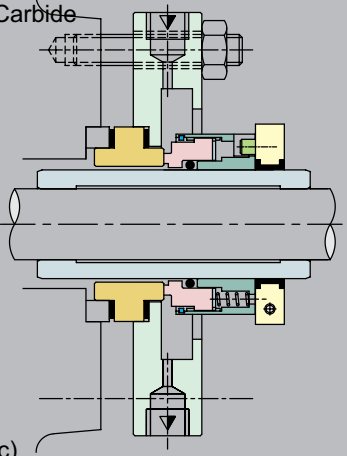
**SERIES C20M**

Face Materials: GFT / Ceramic  
 Metal Parts: SS 316, SS 304, Hastelloy C  
 Springs: Hastelloy C  
 Secondary Seals: PTFE Bellows  
 Applications: Extremely corrosive services  
 Seals Characteristics:  
 | Single Acting  
 | Outside mounted  
 | Independent of Direction of Rotation  
 Operating Limits:  
 Pressure p : 6 bar (max)  
 Temperature - 45 ... 90°C  
 Velocity v : 10 m/sec.



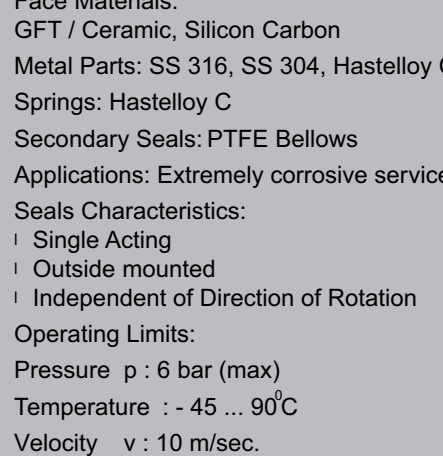
**SERIES CPT20R**

Face Materials:  
 GFT / Ceramic, Silicon Carbon  
 Metal Parts: SS 316, SS 304, Hastelloy C  
 Springs: Hastelloy C  
 Secondary Seals: PTFE Bellows  
 Applications: Extremely corrosive services  
 Seals Characteristics:  
 | Single Acting  
 | Outside mounted  
 | Independent of Direction of Rotation  
 Operating Limits:  
 Pressure p : 6 bar (max)  
 Temperature : - 45 ... 90°C  
 Velocity v : 10 m/sec.



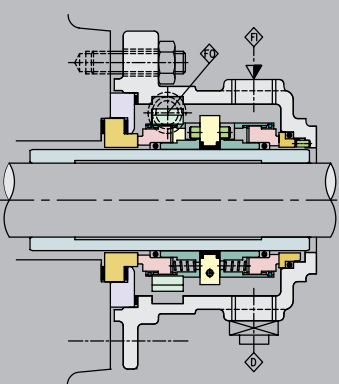
**SERIES C88B2R**

Face Materials: Carbon, Ceramic, Silicon Carbide  
 Metal Parts: SS 316, SS 304, Hastelloy C  
 Springs: Hastelloy C  
 Secondary Seals: FKM, FFKM, TCV  
 Applications: Corrosive Chemicals  
 Seals Characteristics:  
 | Single Acting  
 | Reverse Balanced  
 | Outside mounted  
 | Independent of Direction of Rotation  
 Operating Limits:  
 Pressure p : 25 bar (max)  
 Temperature- 45 ... 90°C (Carbon / Ceramic)  
 - 45 ... 180 °C (Carbon / SiC)  
 Velocity v : 20 m/sec.



**SERIES CPT20R**

Face Materials:  
 GFT / Ceramic, Silicon Carbon  
 Metal Parts: SS 316, SS 304, Hastelloy C  
 Springs: Hastelloy C  
 Secondary Seals: PTFE Bellows  
 Applications: Extremely corrosive services  
 Seals Characteristics:  
 | Single Acting  
 | Outside mounted  
 | Independent of Direction of Rotation  
 Operating Limits:  
 Pressure p : 6 bar (max)  
 Temperature : - 45 ... 90°C  
 Velocity v : 10 m/sec.



**SERIES C88B2R - C88B2R**

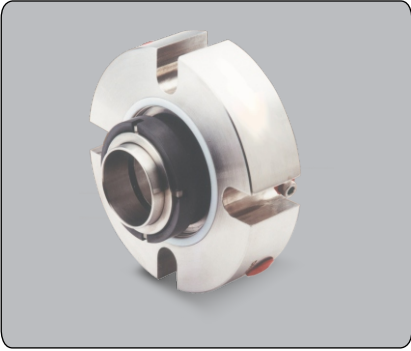
Face Materials: Carbon, Ceramic, Silicon Carbide  
 Metal Parts: SS 316, SS 304, Hastelloy C  
 Springs: Hastelloy C  
 Secondary Seals: FKM, FFKM, TCV  
 Applications: Corrosive Chemicals having tendency to crystallize. Volatile corrosive fluids. Corrosive fluids with suspended particulates.  
 Seals Characteristics:  
 | Double Acting back-to-back seals  
 | Balanced  
 | Independent of Direction of Rotation  
 | Operated with Pressurised Barrier Fluid  
 Operating Limits:  
 Pressure p : 25 bar (max)  
 Temperature- 45 ... 90°C (Carbon / Ceramic)  
 - 45 ... 180 °C (Carbon / SiC)  
 Velocity v : 20 m/sec.



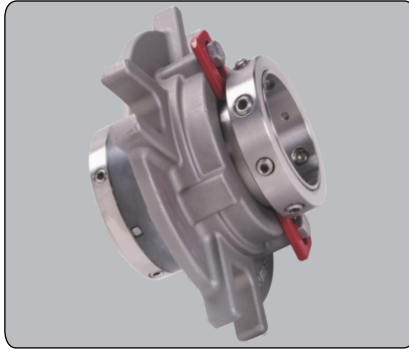


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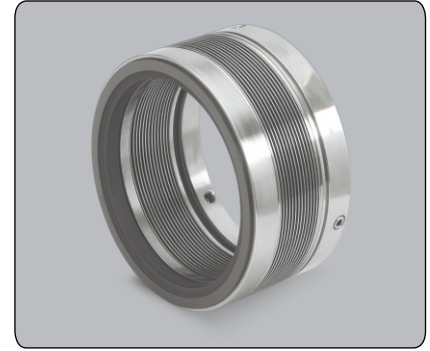
# MECHANICAL SEALS



Series CPM 900/CG



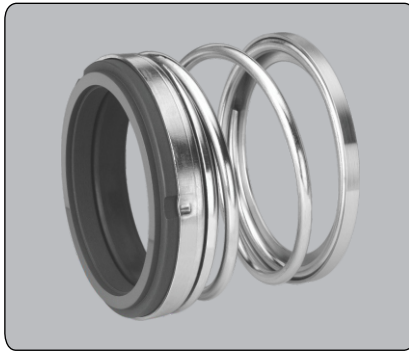
Series CPM 935/CG



Series CN40 & CN45



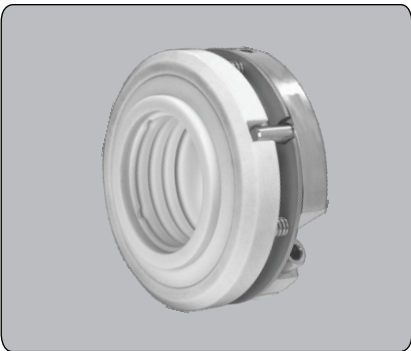
Series CPS 150



Series CP73



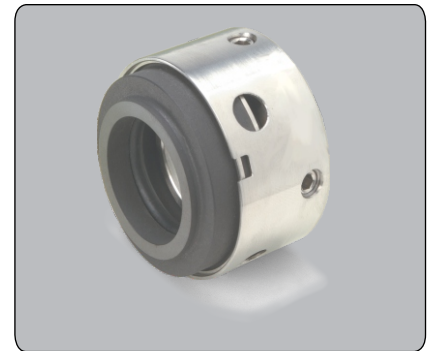
Series C2U



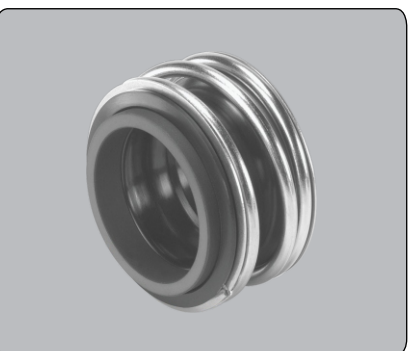
Series C20M



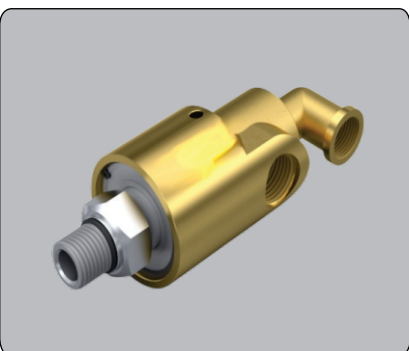
Series C80U



Series C88B2



Series CPR100



Series CPDF 201



Series CPTS07

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: MFG. UNIT :



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