

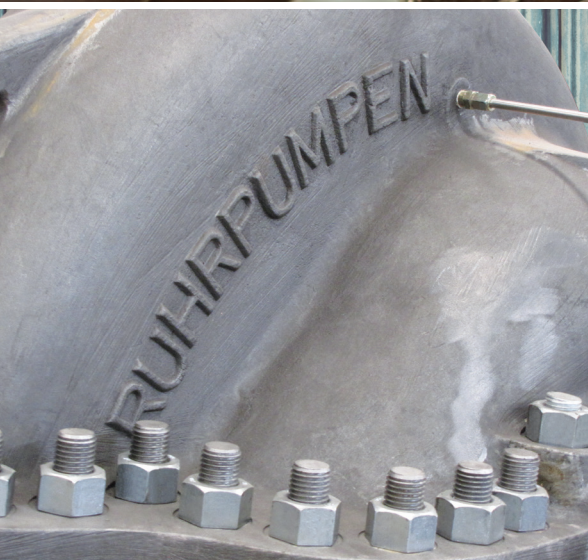
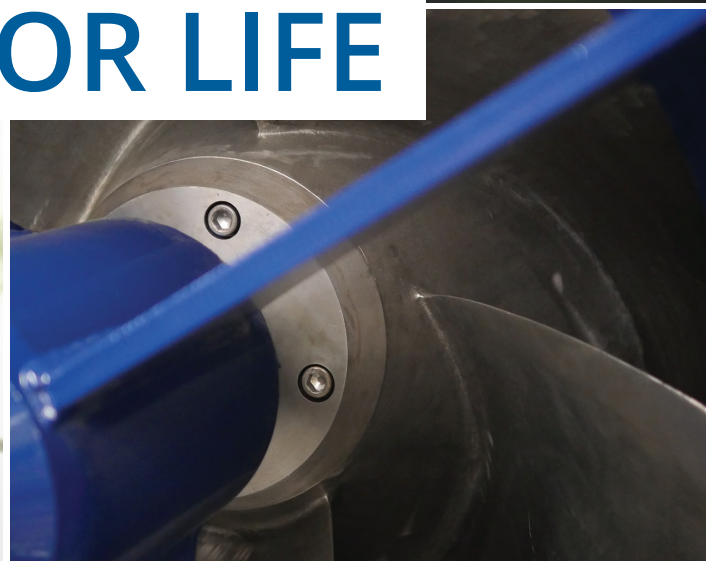


# INDUSTRIAL PUMPS

## CATALOGUE



# PUMPING TECHNOLOGY FOR LIFE



# CREATING YOUR **SOLUTION**

Aiming to provide **the best available technology** through centuries of industrial application experience, **not impacting our planet..**

<b>Efficiency</b>	Low carbon footprint
<b>Reliability</b>	Reduced waste & resources
<b>Ecological materials</b>	Sustainable with VOC caution
<b>Modularity</b>	Consumable recycled and investment cast
<b>Manufacture</b>	Optimized space
<b>People</b>	Health, safety and ecological culture
<b>Waste</b>	Sustainable within our strategy



# 70 YEARS CREATING PUMPING TECHNOLOGY FOR LIFE

**We deliver industrial fluid-handling solutions ranging from off-the-shelf pumps, through to pre-configured process packages, and engineered-to-order systems.**

The Ruhrpumpen brand means "Solution". Our experienced fluid handling team assist with commercially-centric application challenges across all areas of the world.

Safeguarding families with fire protection packages, facilitating health within pharmaceutical production, and providing clean drinking water, are just a few reasons which make Ruhrpumpen the ideal life-choice for industrial pumping equipment.

We aim to reduce our planet's carbon footprint and waste plastic. Ecologically-biased engineers use lean and clean processes to manufacture solutions by employing parts that have a long lifetime and can eventually be recycled.

## Ruhrpumpen at a Glance



Vertical  
Integration



70 years of  
experience



Sales offices  
in more than  
35 countries



+2,000  
employees



Manufacturing  
facilities in 10  
countries



Global Service  
Centres

*Sustainable pumping solutions  
installed globally*



**PUMPING TECHNOLOGY FOR LIFE...**

# OUR SERVICES

**Your aftermarket supplier of choice** for spare parts, mechanical seals, repairs, upgrades, field service, and total-pump-management.

The dedication of Ruhrpumpen to our customers goes beyond simply supplying world class products. Our dedicated Aftermarket Staff is ready and waiting to assist you in solving all your pumping needs. From on-site service to standard overhauls, in Ruhrpumpen we are ready to supply parts, service and training for your complete pump line.

## Field Service

- Available for worldwide assignments
- Our Specialists can be dispatched within 24 hrs
- Reliability Engineering
- Field Technicians
- Application Engineering

## OEM & Spare Parts

- OEM Spare parts
- Reverse Engineering
- Mechanical Seals

## Upgrades & Retrofits

- Retro-fits & Upgrades

## Repairs














- Workshop repairs
- Performance Testing
- Reverse Engineering

## Approvals Maintenance








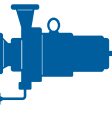
- Fire-Pump service
- ATEX assesment



# MEET OUR PUMPS

RP MODEL	DESCRIPTION	DESIGN STANDARDS	OPERATING LIMITS			
	<b>CRP</b>	Single stage, end suction ISO process pump	DIN EN ISO 2858, ISO 5199 HI design (OH1)	Q = up to 500 m <sup>3</sup> /h H = up to 215 m	P = up to 25 bar T = up to 300 °C	RUHR <sup>CHEM</sup> - CHEMICALS
	<b>CRP-M</b>	Sealless process pump with magnetic drive	DIN EN ISO 2858 & ISO 15783 (OH1)	Q = up to 500 m <sup>3</sup> /h H = up to 215 m	P = up to 16 bar T = -120 to 450 °C	
	<b>CPP / CPP-L</b>	Single stage, end suction ANSI process pump (enclosed impeller)	ANSI B73.1 HI design (OH1)	Q = up to 1,150 m <sup>3</sup> /h H = up to 235 m	P = up to 26 bar T = -45 to 315 °C	
	<b>CPO / CPO-L</b>	Single stage, end suction ANSI process pump (open impeller)	ANSI B73.1 H1 design (OH1)	Q = up to 1,590 m <sup>3</sup> /h H = up to 198 m	P = up to 26 bar T = up to 371 °C	
	<b>CPA-M</b>	Sealless process pump with magnetic drive	ANSI B73.3 H1 design (OH1)	Q = up to 500 m <sup>3</sup> /h H = up to 215 m	P = 16 bar T = -120 to 450 °C	
	<b>CLP</b>	Sealless Fluoropolymer lined up pump with magnetic drive	DIN EN ISO 2858 & DIN 24256 (OH1)	Q = up to 300 m <sup>3</sup> /h H = up to 90 m	P = 16 bar T = -60 to 180 °C	
	<b>IVP / IVP-CC</b>	Vertical in-line pump in extended and close coupled configurations	HI design (OH4 / OH5)	Q = up to 2,271 m <sup>3</sup> /h H = up to 122 m	P = up to 19 bar T = -45 to 150 °C	RUHR <sup>IND</sup> - INDUSTRIAL
	<b>IRP</b>	Single stage, end suction industrial water-type pump	DIN EN ISO 2858 & DIN 24255 (OH1 & Close coupled)	Q = up to 681 m <sup>3</sup> /h H = up to 130 m	P = up to 10 bar T = up to 140 °C	
	<b>Combitube</b>	Single stage, pitot tube pump for low flow, high head applications	Industrial & API norms	Q = up to 80 m <sup>3</sup> /h H = up to 1,480 m	P = up to 160 bar T = up to 200 °C	
	<b>SWP</b>	Self-priming pump for solids handling applications	HI design (OH1)	Q = up to 1,476 m <sup>3</sup> /h H = up to 42 m	T = up to 70 °C	
	<b>PS</b>	Single stage, end suction, centrifugal solids handling stock pump	HI design (OH1)	Q = up to 1,817 m <sup>3</sup> /h H = up to 91 m	P = up to 10 bar T = up to 144 °C	
	<b>ZW</b>	Horizontal & Vertical double suction, single stage, split case pumps	HI design (BB1)	Q = up to 9,000 m <sup>3</sup> /h H = up to 340 m	P = up to 98 bar T = up to 120 °C	
	<b>SHD / ESK SKO / SK / SKV / ST / STV</b>	Single stage, end suction pumps (solids handling)	HI design (OH1)	Q = up to 8,000 m <sup>3</sup> /h H = up to 116 m	P = up to 10 bar T = up to 80 °C	
	<b>SD / SDV</b>	Single stage, end suction pumps (solids handling) for vertical and horizontal installations	HI design (OH3)	Q = up to 14,000 m <sup>3</sup> /h H = up to 45 m	P = up to 4.4 bar T = up to 40 °C	RUHR <sup>W&amp;W</sup> - WATER & WASTE
	<b>NE</b>	Submersible Non-clog centrifugal wastewater pump with oil-filled motor	HI design Industrial norms	C = up to 522 m <sup>3</sup> /h H = up to 53 m	P = up to 4.8 bar T = up to 70 °C	
	<b>SHS</b>	Submersible Non-clog centrifugal wastewater pump with dry-running motor	HI design Industrial norms	C = up to 1,600 m <sup>3</sup> /h H = up to 73 m	P = up to 10.3 bar T = up to 120 °C	
	<b>VTP</b>	Multi-stage, vertical turbine pumps with diffuser type bowl	HI design Industrial & API 610 (VS1) norms	Q = up to 13,636 m <sup>3</sup> /h H = up to 762	P = 74 bar T = 0 to 121 °C	RUHR <sup>VERT</sup> - VERTICAL
	<b>VSP / VSP CHEM</b>	Single stage vertical sump pump design for wet pit applications	ANSI B73.1, ISO 5199 EN ISO 2858 and API 610 (VS4) norms	Q = up to 1,200 m <sup>3</sup> /h H = up to 130 m	P = up to 40 bar T = up to 200 °C	

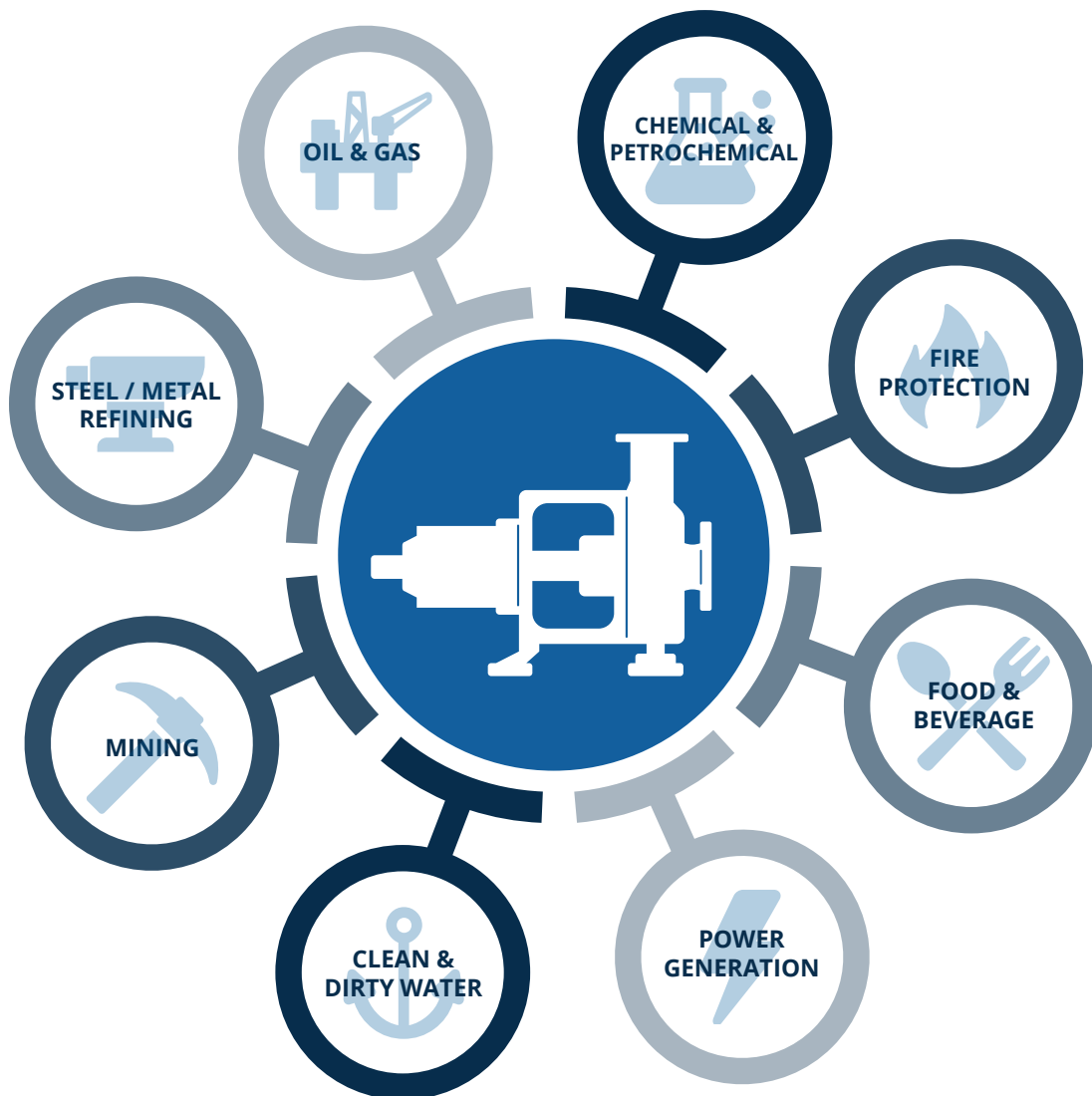
# MEET OUR PUMPS

RP MODEL	DESCRIPTION	DESIGN STANDARDS	OPERATING LIMITS			
	<b>VSS</b> Vertical multi-stage centrifugal in-line pump with balanced mechanical seal	Industrial norms	Q = 1,120 m³/h H = 300 m	P= up to 30 bar T = up to 120°C	RUHRPUMP HIGH PRESSURE	
	<b>GP GPA</b> Horizontal, multi-stage, ring-section type process and boiler feed water pump	ISO 5199, Industrial norms and API 610 (BB4)	Q = up to 900 m³/h H = up to 4,000 m	P = up to 416 bar T = up to 205 °C		
	<b>MPP</b> Single stage, end suction, Hard-metal mining & slurry pump	Heavy duty design norms (OH1)	Q = up to 4,500 m³/h H = up to 70 m	P = up to 20 bar T = up to 120 °C	RUHRPUMP MINING	
	<b>ZW - F</b> Horizontal, single stage, split case fire pumps	NFPA 20 FM / UL approvals	Q = 150 to 5,000 US gpm (1,135 m³/h) P = up to 355 psi (25 bar)		RUHRPUMP FIRE PROTECTION	
	<b>IRP - F</b> Horizontal, single stage, end suction fire pumps	NFPA 20 FM / UL approvals	Q = up to 1,500 US gpm (340 m³/h) P = up to 185 psi (13 bar)			
	<b>Pre-Packaged Fire Pump Systems</b> Fire systems incorporate pumps, drivers, control systems and pipework in a single container. They can be skid mounted, with or without enclosure and supplied with electric motor or diesel engine.	NFPA 20-850 FM / UL approvals	Q = up to 5,000 US gpm (1,135 m³/h) P = up to 355 psi (25 bar)			
	<b>PSKI &amp; PDKI</b>	Component Single & Dual mechanical seals	DIN 24960, EN 12756, ATEX II2G & II3G	T min = - 50 °C T max = 400 °C	P = up to 80 bar	RUHRPUMP MECHANICAL SEALS
	<b>CSCI &amp; CDCI</b>	Cartridge Single & Dual mechanical seals	EN 12756, ATEX II2G & II3G	T min = -40 °C T max = -220 °C	P = up to 25 bar	
	<b>CSCI &amp; CDCI</b>	Cartridge Single & Dual mechanical converter seals	EN12756, DIN24960, ISO 3069, ATEX II2G & II3G	T min = -40 °C T max = -220 °C	P = up to 20 bar	
	<b>CSCA &amp; CDCA</b>	Cartridge Single & Dual Mechanical seals	API 682, ISO 21049, EN 12756, ATEX II2G & II3G	T min = -40 °C T max = -220 °C	P = up to 25 bar	
	<b>SSCM, SSCL &amp; SSCU</b>	Split semi-cartridge mechanical seals	FDA, DIN28136 T2 & T3, DIN 28137 T2, DIN28141/ U154, DIN 28154, DIN 28159, ATEX II2G & II3G	T min = -20 °C T max = 500 °C	P= FV P = up to 25 bar	
	<b>PSGI, PDGI, CSGI, CDGI, CSGL, CDGL, CSGU, CDGU, CSGM &amp; CDGM</b>	Dry Gas cartridge single & dual mechanical seals	FDA   DIN28136 T2 & T3, DIN 28137 T2, DIN28141/ U154, DIN 28154, DIN 28159, ATEX II2G & II3G	T min = -20 °C T max = 170 °C	P= FV P = up to 25 bar	
	<b>Support Systems</b>	Thermosyphon circulation and cooling systems	API 682 / ISO 21049: PLAN 52 & PLAN 53A, PED 2014/68/EU, ASME VIII, Div. 1	T min = - 60 °C T max = 200 °C	P = 40 bar	
	<b>Engineered Seals</b>	Cartridge & component Single & Dual API & Chemical mechanical seals	API 682, FDA, DIN	T min = - 50 °C T max = 500 °C	P= FV P = up to 150 bar	
	<b>SCE</b>	Horizontal, centerline mounted, single stage API process pump	API 610 (OH2)	Q = up to 3,200 m³/h H = up to 480 m	P = up to 90 bar T = -80 to 450 °C	RUHRPUMP OIL & GAS
	<b>SCE-M</b>	Horizontal, centerline mounted, single stage API process pump with magnetic drive	API 685 (OH2)	Q = up to 2,200 m³/h H = up to 330 m	P = up to 40 bar T = -120 to 450 °C	

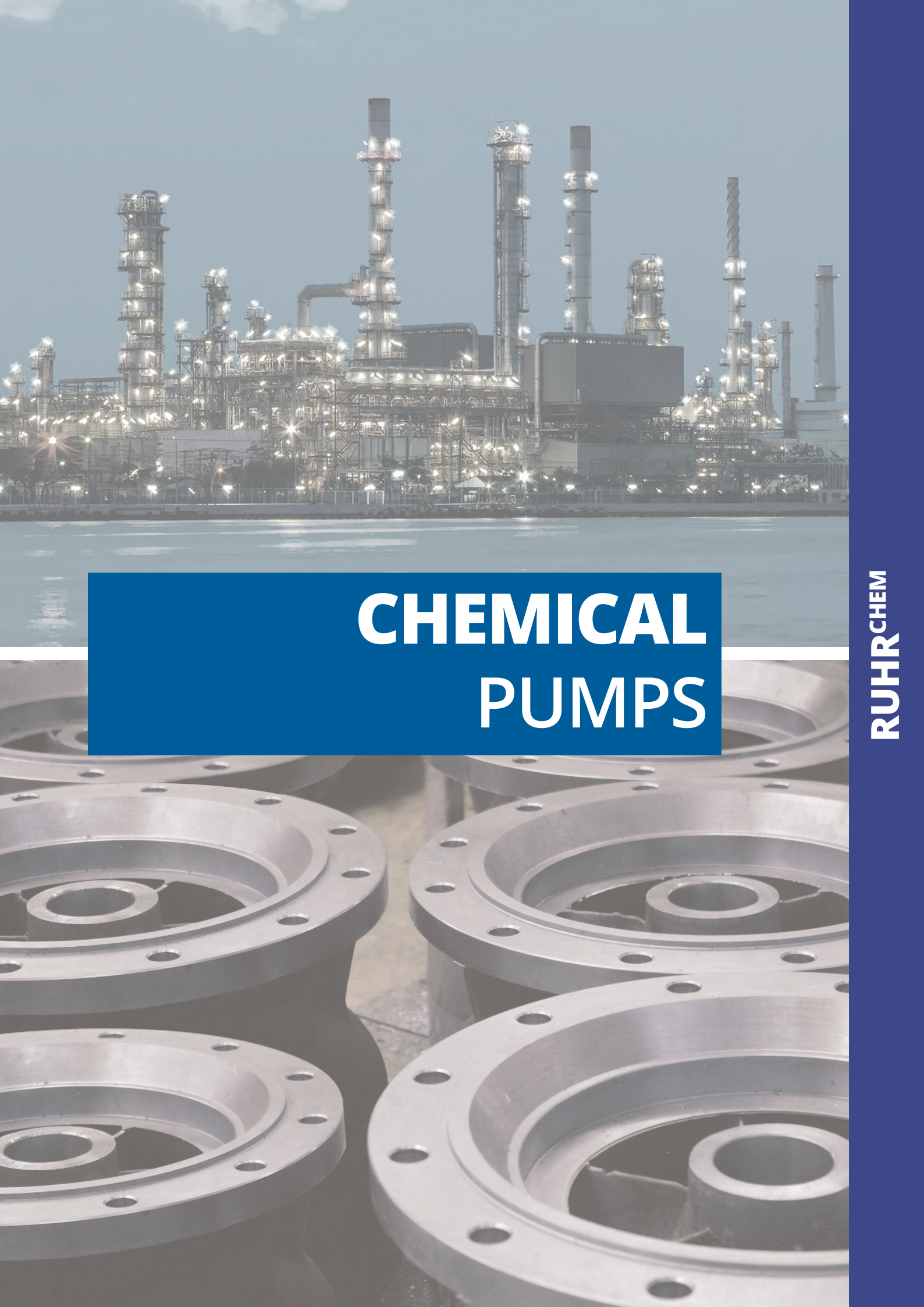
# A WIDE RANGE OF APPLICATIONS

**We offer 70 years of experience** solving thousands of specific industrial needs in fluid transfer technology.

Our customers can be sure that we are constantly developing more efficient pumps for new and existing industrial processes. Our products are used in a wide variety of industrial applications, including but not limited to:







# CHEMICAL PUMPS

**RUHR**CHEM

# CRP

## ISO 2858 / 5199 End Suction Chemical Process Centrifugal Pump (OH1)



### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung centrifugal pump
- High-end shaft rigidity and seal face deflection
- Single & Dual component & cartridge seals & system options
- Enclosed impeller
- Corrosion resistant material options
- 17.500, 25.000 and 40,000 Bearing life options

### OPERATING LIMITS

Capacity	up to 500 m <sup>3</sup> /h	Pressure	up to 25 bar
Head	up to 215 m	Temperature	-60 to 300 °C

# CRP-M

## Permanent Magnetic Drive Centrifugal Pump acc. ISO 2858 /15873 (OH1)



### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung sealless centrifugal pump
- Patented spherical journal bearing design
- 100% leakage free containment shell
- Secondary containment & control options
- Highly efficient magnetic drive, fully drainable
- Corrosion resistant material & ceramic containment shell options

### OPERATING LIMITS

Capacity	up to 500 m <sup>3</sup> /h	Pressure	up to 16 bar
Head	up to 215 m	Temperature	-120 to 450 °C

# CPP / CPP-L

## ANSI B73.1 End Suction Process Pump (OH1: Closed Impeller)



### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung centrifugal pump
- High-end shaft rigidity and seal face deflection
- Single & dual component & cartridge seals & systems options
- Enclosed impeller
- Corrosion resistant material options
- Air-fin & liquid cooled bearing bracket options
- Low flow / High head standard models available

### OPERATING LIMITS

Capacity	up to 1,150 m <sup>3</sup> /h	Pressure	up to 26 bar
Head	up to 235 m	Temperature	-60 to 315 °C

# CPO / CPO-L

ANSI B73.1 End Suction Process Pump (OH1: Open Impeller)



## CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung centrifugal pump
- High-end shaft rigidity and seal face deflection
- Single & Dual component & cartridge seals & systems options
- Open impeller
- Corrosion resistant material options
- Air-fin & liquid cooled bearing bracket options
- Low Flow / High Head standard models available

## OPERATING LIMITS

Capacity	up to 1,590 m <sup>3</sup> /h	Pressure	up to 26 bar
Head	up to 198 m	Temperature	-60 to 370 °C

# CPA-M

Permanent Magnetic Drive Pump acc. ANSI B73.3 (OH1)



## CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung sealless centrifugal pump
- Patented spherical journal bearing design
- 100% leakage free containment shell
- Secondary containment & control options
- Highly efficient magnetiv drive, fully drainable
- Corrosion resistant material & ceramic containment shell options

## OPERATING LIMITS

Capacity	up to 500 m <sup>3</sup> /h	Pressure	16 bar
Head	up to 215 m	Temperature	-120 to 450 °C

# CLP

Permanent Magnetic Drive Pump acc. ISO 2858/ DIN 24256 (OH1)



## CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung sealless centrifugal pump
- PTFE/PFA/Polypropylene, polyethylene, lined ductile cast iron casing
- 100% leakage free containment shell
- Positively keyed isostatically pressed lining
- Metal core rigid impeller
- Drain options

## OPERATING LIMITS

Capacity	up to 300 m <sup>3</sup> /h	Pressure	16 bar
Head	up to 90 m	Temperature	-60 to 180 °C

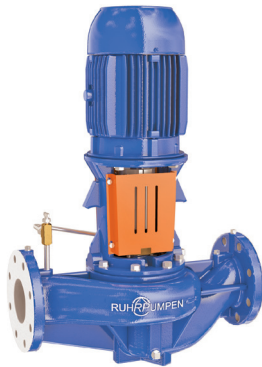
**RUHR<sup>PRO</sup>**

The image is a composite of two photographs. The top photograph shows a complex industrial facility with numerous stainless steel pipes, valves, and large cylindrical tanks. The bottom photograph is a close-up of a large, blue-painted industrial pump or valve. The word 'RUHR' is embossed in large, raised letters on the blue surface. The pump has a circular opening with a brass-colored interior and a flange with several bolt holes around its perimeter.

# **INDUSTRIAL PUMPS**

# IVP / IVP-CC

ISO 2858 / DIN 25256 Vertical In-line Centrifugal Pump (OH4 / OH5)



## CHARACTERISTICS AND DESIGN FEATURES

- Single stage, vertical close-coupled centrifugal pump
- Single & Dual component & cartridge seals & system options
- Enclosed single piece impeller design
- Distanced Muff/split coupling with standard IEC & NEMA motors
- Top pull-out dismantling
- DIN & ANSI flange drilling options

## OPERATING LIMITS

Capacity	up to 2,271 m <sup>3</sup> /h	Pressure	up to 19 bar
Head	up to 122 m	Temperature	- 45 °C to 150 °C

# IRP

ISO 2858 / EN 733 / DN 25255 End Suction Industrial Centrifugal Pump (OH1)



## CHARACTERISTICS AND DESIGN FEATURES

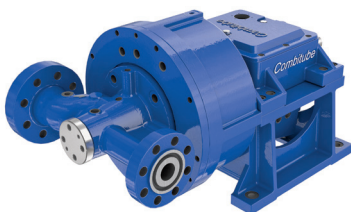
- Single stage, radially split, overhung centrifugal pump
- Enclosed impeller
- Long & Close-coupled options
- DIN & ANSI flange drilling options
- High efficiency to "Eco-design 2009/125/EC no 547/2012(MEI)

## OPERATING LIMITS

Capacity	up to 681 m <sup>3</sup> /h	Pressure	up to 10 bar
Head	up to 130 m	Temperature	-20 to 140 °C

# COMBITUBE

Single stage, pitot tube pump for low flow, high head applications



## CHARACTERISTICS AND DESIGN FEATURES

- Single stage horizontal in-line
- Designed for low flow vs high pressure performance
- Liquid cooling bearing bracket options
- Pulsation free flow
- Closed valve stability
- Low NPSH (r)

## OPERATING LIMITS

Capacity	up to 80 m <sup>3</sup> /h	Pressure	up to 160 bar
Head	up to 1,480 m	Temperature	-60 to 200 °C

# SWP

## End Suction industrial Self-Priming Centrifugal Pump (OH1)



### CHARACTERISTICS AND DESIGN FEATURES

- Self-priming from 8.2 m
- 80 mm solids handling
- Heavy Duty 2-vane non-clog open impeller
- Diesel & Electric motor drive options
- Easy cleaning and access to the impeller chamber
- Simple maintenance

### OPERATING LIMITS

Capacity	up to 1,476 m <sup>3</sup> /h	Solids Diameter	up to 7.62 cm
Head	up to 42 m	Temperature	-20 to 70°C

# PS

## End Suction Industrial Centrifugal Stock Pump (OH1)



### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung centrifugal pump
- 6% (paper) stock solids content handling
- Semi-open impeller
- Adjustable front wear-plate
- DIN & ANSI flange drilling options
- Various materials for pumping erosive & corrosive media

### OPERATING LIMITS

Capacity	up to 1,817 m <sup>3</sup> /h	Pressure	up to bar
Head	up to 91 m	Temperature	-20 to 144 °C

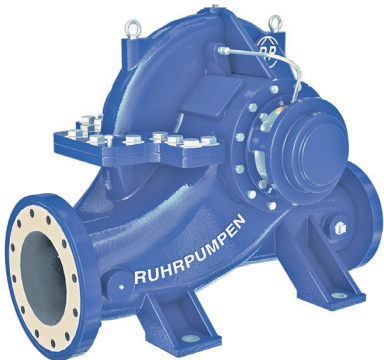


# **WATER & WASTE PUMPS**

**RUHR<sup>H2O</sup>**

# HSC / HSD / HSL / HSR / ZW

## Horizontal Split Casing Double Suction Pump (BB1)



### CHARACTERISTICS AND DESIGN FEATURES

- High efficiency and double suction impeller
- Component or Cartridge, Mechanical seals or packed gland sealing
- Simple rotor removal for seal & bearing access
- Vertical mounting options
- Corrosion resistant material options (Ductile cast iron with Stainless steel impeller as standard)
- DIN & ANSI flange drilling options

### OPERATING LIMITS

Capacity	up to 31,800 m <sup>3</sup> /h	Pressure	up to 20 bar
Head	up to 673 m	Temperature	-60 to 150 °C

# SHD / ESK / SK / SKO / SKV / ST / STV

## End Suction Industrial Centrifugal Solids Handling Non-clog Pump (OH1)



### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung centrifugal pump
- From 38 mm to 152 mm solids content handling
- Free-flow non-clog impeller
- Adjustable front wear-plate options
- Vertical mounting options
- Various materials for pumping erosive & corrosive media

### OPERATING LIMITS

Capacity	up to 8,000 m <sup>3</sup> /h	Pressure	up to 10 bar
Head	up to 116 m	Temperature	-60 to 80 °C

# SD / SDV

## End Suction Industrial Centrifugal Mixed-Flow Pump (OH3)



### CHARACTERISTICS AND DESIGN FEATURES

- High flowrate single stage, radially split centrifugal pump
- Mixed flow design for high flow vs low head characteristics
- Semi-axial enclosed impeller
- Vertical & horizontal mounting options
- Small solids handling capabilities
- Robust bearing design

### OPERATING LIMITS

Capacity	up to 14,000 m <sup>3</sup> /h	Pressure	up to 4.4 bar
Head	up to 45 m	Temperature	-20 to 80°C



# NE

## Submersible Non-clog Centrifugal Grey & Wastewater Pump with oil-filled motor



### CHARACTERISTICS AND DESIGN FEATURES

- Up to 80 mm solids handling, free-flow, non-clog impeller
- Water collection chambers with humidity sensors
- Highly efficient hydraulic design
- Oil-filled cast iron motor for integrated lubrication & cooling
- Dual mechanical seal options
- Robust water tight design

### OPERATING LIMITS

Capacity	up to 522 m <sup>3</sup> /h	Pressure	up to 4.8 bar
Head	up to 53 m	Temperature	up to 70°C

# SHS

## Submersible Non-Clog Centrifugal Grey & Wastewater Pump with dry-running motor



### CHARACTERISTICS AND DESIGN FEATURES

- Up to 80 mm Solids handling, free-flow, non-clog impeller
- Water collection chambers with humidity sensors
- Highly efficient hydraulic design
- Dry-running motor
- Grease lubricated bearings
- Adaptable & modular discharge elbows
- Robust water tight design

### OPERATING LIMITS

Capacity	up to 1,600 m <sup>3</sup> /h	Pressure	up to 10.3 bar
Head	up to 73 m	Temperature	up to 120 °C



# VERTICAL PUMPS



# VTP

## Multistage Vertical Turbine suspended bowl Pump (VS1)



### CHARACTERISTICS AND DESIGN FEATURES

- Multi-stage vertical turbine centrifugal pumps with diffuser type bowl
- Rigid shaft design with low deflection
- Cartridge mechanical seal options
- Collet mounted, or keyed, impeller mounting options
- Highly efficient hydraulic design
- Up to 30 stages to efficiently match application requirement
- Modular design with Canned (VS6) options
- Various materials for pumping erosive & corrosive media
- API 610 options

### OPERATING LIMITS

Capacity	up to 13,636 m <sup>3</sup> /h	Pressure	up to 74 bar
Head	up to 762 m	Temperature	up to 121°C

# VSP / VSP-CHEM

## Single stage Vertical Sump Pump (VS4)



### CHARACTERISTICS AND DESIGN FEATURES

- Up to 6m length and 100 mm dia. solids handling
- ISO or ANSI volute & impeller hydraulic options
- Semi-open & closed non-clog impeller options
- Modular with the CPO & CRP chemical pump range
- Open shaft, packed gland, dry-running singe, or dual mechanical sealing
- Ground pump-shaft quality
- Free-flow filtered lubrication options
- Highly efficient hydraulic design
- Various materials for pumping erosive & corrosive media
- API 610 options

### OPERATING LIMITS

Capacity	up to 1,200 m <sup>3</sup> /h	Pressure	up to 40 bar
Head	up to 130 m	Temperature	up to 200°C



# **HIGH PRESSURE PUMPS**

# VSS

## Vertical Multi-stage Industrial Centrifugal In-Line Pump



### CHARACTERISTICS AND DESIGN FEATURES

- Close-coupled pump with up to 36 stages
- Balanced cartridge mechanical seal
- Closed impeller
- Cast iron and stainless steel wetted options
- Up to DN 100 suction & discharge sizes
- Highly efficiency hydraulic design
- Single phase 240v options
- ATEX options

### OPERATING LIMITS

Capacity	up to 120 m <sup>3</sup> /h	Pressure	up to 30 bar
Head	up to 300 m	Temperature	up to 120°C

# GP

## Horizontal, Multi-stage, Ring-Section Type, Centrifugal Pump (BB4)



### CHARACTERISTICS AND DESIGN FEATURES

- Balanced drum or disk options
- Enclosed impeller
- A&B series of impeller for optimized application fit
- High efficiency design
- Low NPSH (type IS) first stage impeller
- Interstage take-off options
- Cold start possibilities-multiple bearing configuration options
- Heavy duty construction

### OPERATING LIMITS

Capacity	up to 900 m <sup>3</sup> /h	Pressure	up to 416 bar
Head	up to 4,000 m	Temperature	up to 205°C

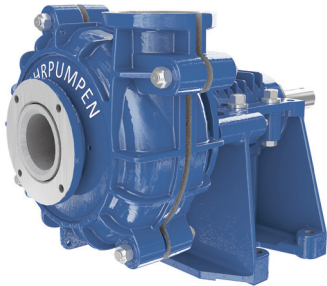


# QUARRYING PUMPS



# MPP

## End Suction Industrial Mining Centrifugal Pump (OH1)




### CHARACTERISTICS AND DESIGN FEATURES

- Single stage, radially split, overhung, heavy duty slurry pump
- Solids handling
- Hard metal & treated internal casing liner
- Adjustable wear plate
- Oversized shaft & bearings
- Free-flow closed impeller
- Flushed, grease-packed, or mechanical sealing options
- Dry running capability options with expeller
- Vertical mounting options
- Various materials for pumping erosive & corrosive media
- Highly modular design

### OPERATING LIMITS

Capacity	up to 4,500 m <sup>3</sup> /h	Pressure	up to 20 bar
Head	up to 70 m	Discharge size	25 to 450 mm



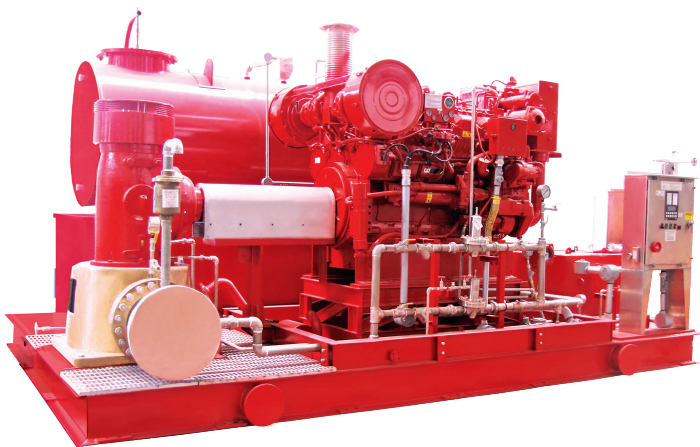
# **FIRE PUMPS AND SYSTEMS**





# FIRE PUMPS AND SYSTEMS

Our fire protection pumping solutions can be found all around the world in a variety of industrial, commercial and residential applications. We are able to supply single pumping units or complete pre-packaged fire systems (with or without enclosure), always tailored and built to the requirements of the customer, ensuring that they meet international and local safety regulations.



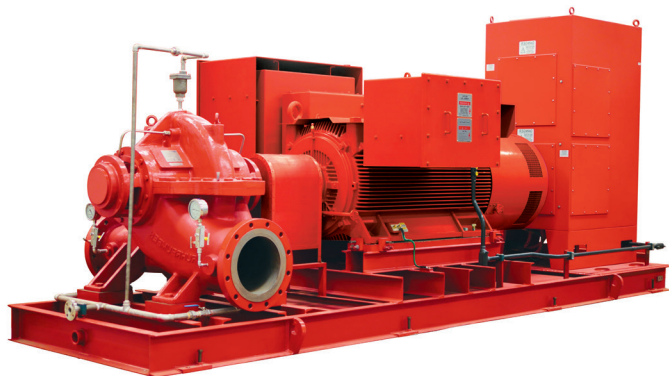
## CHARACTERISTICS

All pre-packaged systems accommodate any of the RP fire pump models with drivers, control systems and pipework on a common base for a plug-and-play installation.

- Available with electric motor or diesel engine
- ETL/C-ETL third party listing components
- UL listed and FM approved components
- NFPA 20 full compliance
- NFPA 850 compliant
- Wide range of construction materials available. Metallurgies available for sea/brackish water application and harsh environments.

## BENEFITS

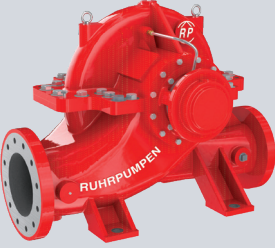
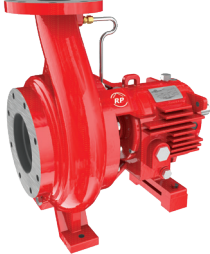


- Single source responsibility for complete system
- System is completely wired and factory tested
- Delivered on site in a single shipment, ready for installation
- Engineered to customer requirements
- International distribution and start-up capabilities
- ABS certification for offshore platform fire pump packages and fire skid units



## APPLICATIONS

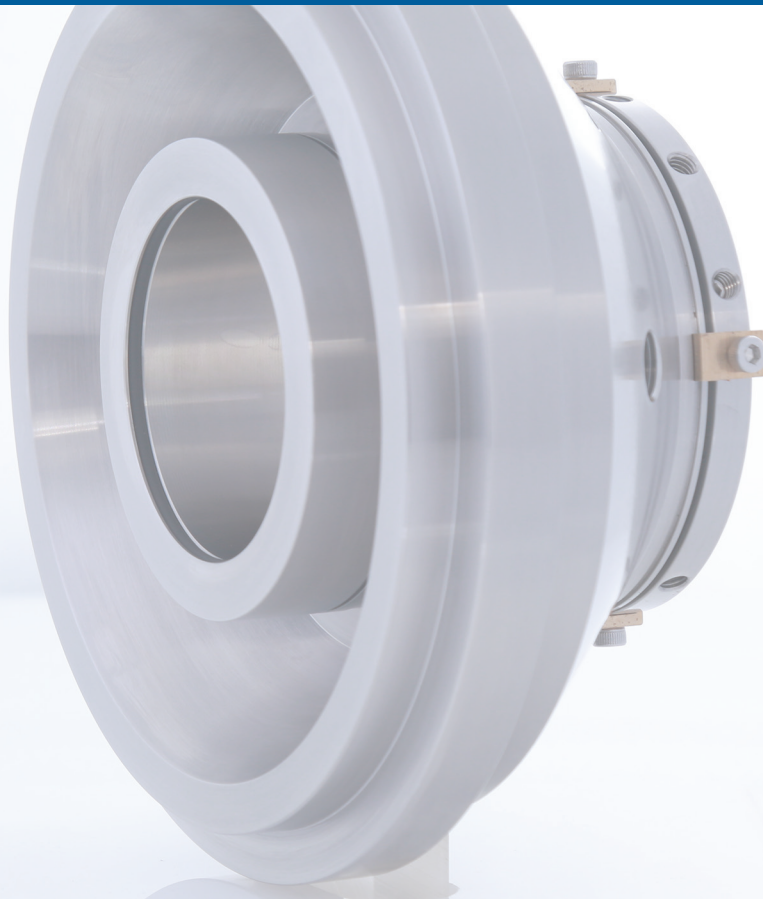
- Commercial, municipal and residential high-rise buildings
- Large industrial premises and storage warehouses
- Offshore and remote facilities
- Airports
- Commercial centers
- Power stations
- Marine

# Ruhrpumpen fire pumps: the heart of your fire protection system

			
<p><b>Split case fire pumps</b></p>	<p><b>End suction fire pumps</b></p>	<p><b>Vertical turbine fire pump</b></p>	<p><b>In-line fire pump</b></p>
<p><b>Horizontal, single and two stage, split case centrifugal pumps</b></p>	<p><b>Horizontal, single stage, end suction centrifugal pumps</b></p>	<p><b>Vertical, single and multi-stage, turbine pumps</b></p>	<p><b>Vertical in-line centrifugal pumps</b></p>
<p><b>Characteristics</b></p> <ul style="list-style-type: none"> <li>■ Flows from 150 to 5000 GPM</li> <li>■ Pressures from 40 to 355 + PSI</li> <li>■ Electric or Diesel driven</li> <li>■ UL-448 listed</li> <li>■ FM-1311 approved</li> <li>■ NFPA-20 design</li> <li>■ Factory tested</li> </ul>	<p><b>Characteristics</b></p> <ul style="list-style-type: none"> <li>■ Flows from 150 to 1,500 GPM</li> <li>■ Pressures from 40 to 250 + PSI</li> <li>■ Electric or Diesel driven</li> <li>■ UL-448 listed</li> <li>■ FM-1319 approved</li> <li>■ NFPA-20 design</li> <li>■ Factory tested</li> <li>■ EN12845 options</li> </ul>	<p><b>Characteristics</b></p> <ul style="list-style-type: none"> <li>■ Flows from 250 to 5000 GPM</li> <li>■ Pressures from 40 to 519 + PSI</li> <li>■ No priming</li> <li>■ Adaptability to water level</li> <li>■ Electric or Diesel driven</li> <li>■ UL-448 listed</li> <li>■ FM-1312 approved</li> <li>■ NFPA-20 design</li> <li>■ Factory tested</li> </ul>	<p><b>Characteristics</b></p> <ul style="list-style-type: none"> <li>■ Flows from 150 to 1000 GPM</li> <li>■ Only available with electric drive</li> <li>■ Pending UL Listing and FM Approval</li> <li>■ NFPA-20 design</li> <li>■ Factory tested</li> </ul>
<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>■ Ease of installation and maintenance</li> <li>■ Wide range of applications</li> <li>■ Construction materials for seawater service are available</li> </ul>	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>■ Space-saving and simplified maintenance with back pull-out design without disturbing pipe work</li> </ul>	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>■ UL listed and FM approved pump for suction lift conditions</li> <li>■ Minimal maintenance</li> <li>■ Can be used where city water is not available and ponds or lakes are the only water supply</li> <li>■ Construction materials for seawater service are available</li> </ul>	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>■ Top pull-out design simplifies maintenance</li> <li>■ Compact, space-saving design</li> </ul>



# MECHANICAL SEALS



# PSKI & PDKI

Component Single & Dual Chemical & Industrial Seals acc. DIN 24960



## CHARACTERISTICS AND DESIGN FEATURES

- Rubber Bellows Seals: Balanced: P= 16 bar / T = -40 to 180 °C
- Encapsulated Multiple Spring Pusher Seals: Balanced: P= 25 Bar  
T= - 50 to 220 °C
- Encapsulated Wavy Spring Pusher Seals: Balanced: P= 80 bar  
T= -50 to 220 °C
- Metal Bellows Pusher seals: Balanced: P= 25 bar / T= -40 to 400 °C
- Pinned and Unpinned static seal faces
- EN12756 Materials of Construction
- Parallel & Stepped shaft options
- Solids handling & Extreme Temperature Options
- ATEX Categories II2G and II3G

# CSCI & CDCI

Cartridge Single & Dual Chemical & Industrial Seals



## CHARACTERISTICS AND DESIGN FEATURES

- Cartridge construction for simplicity: P= 25 bar / T= -40 to 220 °C
- Encapsulated Multiple springs: Balanced
- Single & Dual Seal options: Back-to-Back, Face-to-Face, and Tandem
- Quench, Vent, Flush and Throttle-Bush Options
- Pumping Ring Options for enhanced flow through seal system
- EN12756 Materials of Construction & 3.1 Certification options according EN10204
- Solids handling, Material, and Extreme Temperature Options
- Replacement OEM Pump seals & Upgrades
- ATEX Categories II2G and II3G

# CSCI & CDCI

Cartridge Single & Dual Converter Chemical & Industrial Seals

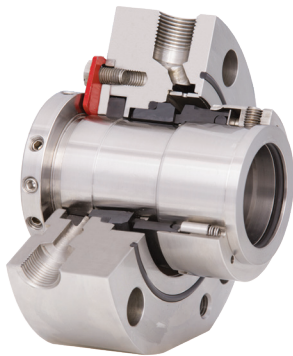


## CHARACTERISTICS AND DESIGN FEATURES

- Simple conversion of Gland Packing to an environmentally balanced Cartridge mechanical sealed.
- Encapsulated Multiple springs: Balanced: P= 20 bar / T= -40 °C to 220 °C
- Designed to be fitted to DIN24960/ISO3069 standard Stuffing Box.
- Quench and Flush Options
- EN12756 Materials of Construction & 3.1 Certification options according EN10204
- Solids handling and Material Options
- Narrow Bore for Gland Packing chambers
- ATEX Categories II2G and II3G

# CSCA & CDCA

Cartridge Single & Dual Seal acc. API 682 / ISO 21049



## CHARACTERISTICS AND DESIGN FEATURES

- Cartridge construction for simplicity: P= 25 bar. T= -40 to 260 °C
- API 682 Categories available: 1, 2, or 3
- API 682 Type: A, B, or C
- API 682 Arrangements: 1, 2 or 3.
- Single & Dual Seal options: Back-to-Back, Face-to-Face, and Tandem
- Quench, Vent, Flush and Throttle-Bush Options
- Pumping Ring Options for enhanced flow through seal system
- EN12756 Materials of Construction & 3.1 Certification options according EN10204
- Solids handling, Material, and Extreme Temperature Options
- ATEX Categories II2G and II3G

# SSCM, SSCL, & SSCU

Split Single Chemical, Pharmaceutical & Industrial Seals for Pumps

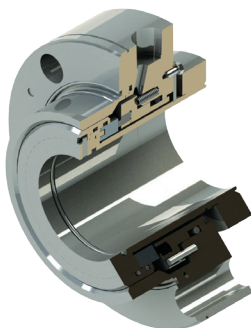


## CHARACTERISTICS AND DESIGN FEATURES

- Semi-Cartridge & Component constructions for ease of maintenance: FV<P = 25 bar / T= -120 to 500 °C
- Pumps, Compressors, Fans and Gearboxes...
- Mixer seals for Glass Lined Vessels to FDA | DIN28136 T3, DIN 28137 T2 (Flanged), & DIN 28159
- Mixer seals for Steel Vessels to FDA | DIN28141/U154
- Mixer seals for Steel Vessels to FDA | DIN28136 T2 (with STEPPED shaft), DIN28141 (Flanged), and DIN 28154
- 3.1 Material Certification options according EN10204
- Shaft Diameters up to 300mm
- Vent & Flush Options
- Dry running & Shut-down options
- ATEX Categories II2G and II3G

# ENGINEERED SEALS

Cartridge Single & Dual API & Chemical Seals



## CHARACTERISTICS AND DESIGN FEATURES

- For Demanding Applications: FV: P = 150 bar / - 50 °C to 500 °C
- Cartridge, Component, Split, Dry-Gas, options to Industrial, API, and Glass-Lined Mixer applications.
- Extreme temperature, Solids Handling, and shaft deflection possibilities
- Bespoke spring options for rotating and static faces
- Single & Dual Seal face configurations and bonding: Back-to-Back, Face-to-Face, Tandem...
- Dry Running, Quench, Vent, Flush, Throttle-Bush, and Pumping Ring Options
- Specific Engineering Design Standards, Sanitary Norms, Directives, and ATEX
- Endless Materials of Construction possibilities with 3.1 Certification options according EN10204
- Specific dimensions to suit New, OEM Replacement, and Upgrades
- Solids handling & Extreme Temperature Options

# THERMOSYPHON SYSTEMS

Stainless Steel support for Industrial, Chemical, and API applications



## CHARACTERISTICS AND DESIGN FEATURES

- Circulation in accordance with API 682 / ISO 21049: Plan 52 & Plan 53A
- 9 litre Stainless Steel standard Modular construction with ancillaries. P<40bar. -60oC<T>+200oC
- Thermosyphon effect with stand and Sight Level Glass
- Pressurised or Atmospheric for Barrier fluid lubrication, cooling, Dry-Running, and leakage compensation
- PED 2014/68/EU, ASME VIII, Div. 1,
- Integrated cooling coil and Plan 53B standard options
- Modular Ancillaries: Flow, Level, & Temperature monitoring. Pressure control valve (PCV), Hand Refill Pump, Circulating Pump...
- 3.1 Material Certification options according EN10204

# DRY GAS SEALS

PSGI, PDGI, CSGI, CDGI, CSGL, CDGL, CSGU, CDGU, CSGM, & CDGM



## CHARACTERISTICS AND DESIGN FEATURES

- Non-Contaminating Component & Cartridge Gas Lubricated: P= 25 bar / T= -20 °C to 170 °C
- Simple low-friction operation that do not need complex components for heat dissipation
- Encapsulated Multiple springs
- Balanced for use with Stepped or parallel shafts
- V or U Face Grooves that contact only during slow/no rotation
- API682 Containment
- Dual Seals & Support systems for liquids containing solids
- Carbon and SiC Seal Face Options. Various EN12756 Materials of Construction.
- Mixer seals for Glass Lined Vessels to FDA | DIN28136 T3, DIN 28137 T2 (Flanged), & DIN 28159
- Mixer seals for Steel Vessels to FDA | DIN28141/U154 (with PARALLEL shaft)
- Mixer seals for Steel Vessels to FDA | DIN28136 T2 (with STEPPED shaft), DIN28141 (Flanged), and DIN 28154
- Compressor, Mixer, Pump, Fan, Blower, and Turbine Upgrades
- ATEX Categories II2G and II3G

# YOUR PROCESS PARTNER

## We understand your application

- 70 years of pump processing experience
- Application specialists available for support

## Ecological Foot-printing is important to us

- Investment being made to reduce waste
- CO<sub>2</sub> Impact aligned to offers

## Operational Excellence

- Continual process improvements
- Best in class products

## Continued Product Development & R&D

- In-house R&D efforts for your Industry
- Vertically integrated skills and competence

## Training

- Our tailored courses can be matched to the experience levels and needs of our customers in their specialized fields












## +75 years creating the pumping technology that moves our world

Ruhrpumpen is an innovative and efficient pump technology company that offers highly-engineered and standard pumping solutions for the oil & gas, power generation, industrial, water and chemical markets. We offer a broad range of centrifugal and reciprocating pumps that meet and exceed the requirements of the most demanding quality specifications and industry standards such as API, ANSI, UL, FM, ISO and Hydraulic Institute.



### Ruhrpumpen Plants

-  ARGENTINA, Buenos Aires
-  BRAZIL, Rio de Janeiro
-  CHINA, Changzhou
-  EGYPT, Suez
-  GERMANY, Witten
-  INDIA, Chennai
-  MEXICO, Monterrey
-  UK, Lancing
-  USA, Tulsa

-  Manufacturing plant & service center
-  Service center