

## COMPANY PROFILE AND PORTFOLIO



## 1910

Foundation of DICKOW in Gablonz (registration in the commercial register)

## 1920

After the First World War, the company relocated from the CSSR to Görlitz

## 1930

The founder Karl Dickow dies. His three sons, Carl, Walter and Wilhelm, took over the management of the company, which now has 50 employees.



Carl Dickow

## 1945

The company was expropriated, most of the machinery was removed, except for a small portion which had been saved by relocating it once again.

## 1946

Carl Dickow started reconstruction and pump manufacture with some of his former employees and the relocated equipment from Görlitz. He died in November of that year

## 1948

After the currency reform, Wilhelm Dickow acquires the company premises on Siemensstrasse and extended the pump production

## from 1910

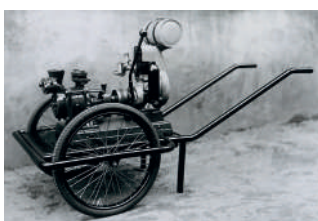
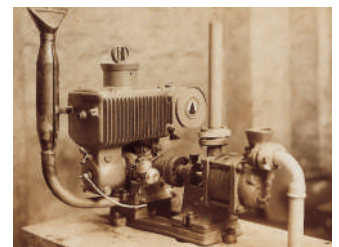
heating systems and water pipes

## from 1925

automatically, patented cattle drinking pools and self-priming, patented centrifugal pumps

## from 1946

after relocation the production range had to be built up completely new again



## from 1930

extensive expansion of the production range through:

- volute casing pumps
- multistage horizontal centrifugal pumps
- metal bellows mechanical seals





### 1959

Wilhelm Dickow died with the business being carried on by his wife Anneliese. Supported by the general manager and the operating manager, the company succeeds the upswing

### 1968

Ulrich Dickow took over executive management. The responsibility for manufacture was under the control of Andreas Dickow, Ing. Harry Schommer was in charge of Engineering, Development, and Sales management.

### 1994

Quality management system certified acc. to ISO 9001 for the first time.

### 2003

After the death of Ulrich Dickow and Andreas Dickow, Michaela Dickow is the new CEO.

### 2014

Building of a new hall with integrated automated storage system for extension of pump production and assembly.

### 2017

Change of legal form to GmbH & Co. KG and transfer of management to Dipl.-Kfm. Jörg Bornemann.

### 2021

The ownership of the company was transferred to the Astrid-Dickow-Foundation.



Wolfgang Schmitz and Alexander Hammer

### 2025

Dr.-Ing. Wolfgang Schmitz and Alexander Hammer become managing directors

### from 1968

first chemical standard pumps

### from 1981

process pumps acc. to API 610

### 1983

delivery of the first chemical standard- and side channel pumps with magnet coupling

### from 1985

launch of magnetic coupling for all kinds of pumps

### 1996

patent for „mag-safe“

### from 2000

process pumps acc. to API 685

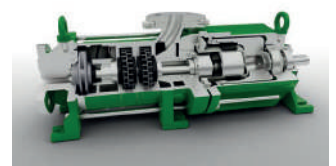
### from 2004

process pumps acc. to API 610 with mechanical seals acc. to API 682



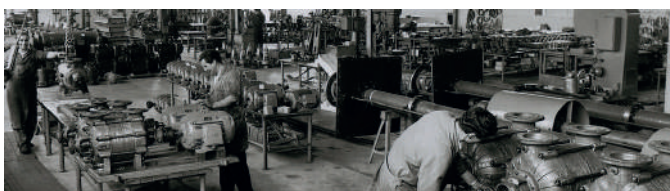
### 2015

launch "shell-safe" and "double-safe"

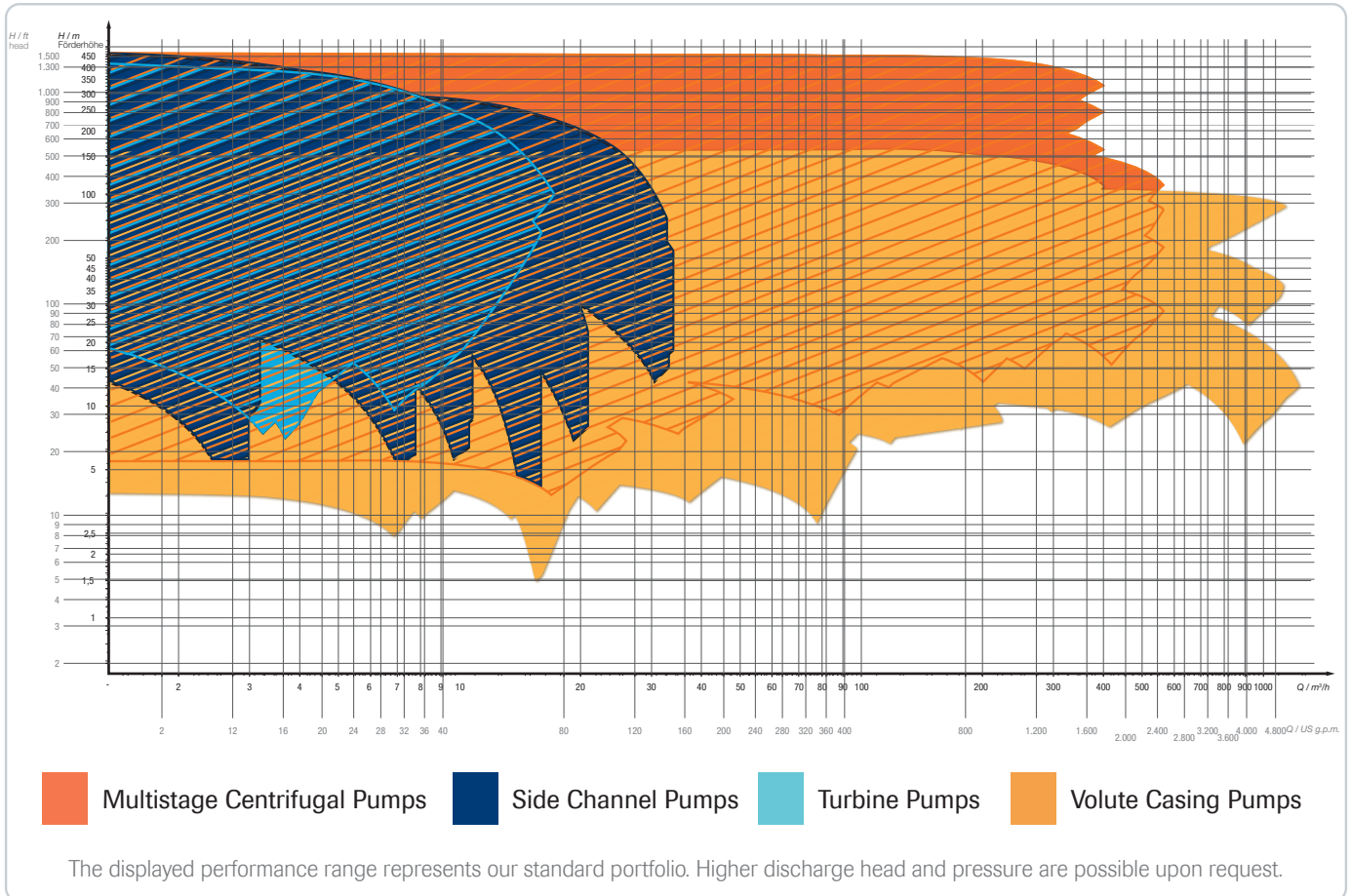


### 2024

launch peripheral pump Type TPM



## PERFORMANCE RANGE



Almost the whole portfolio is available with magnetic coupling or as a mechanical seal version, as well as different designs, flange positions and types of installation. The performance range of our gear pumps (see page 18), which are particularly suitable for high-viscosity fluids, are not shown. The performance range of the multistage centrifugal-, side channel-, peripheral and volute casing

pumps are overlapping. In addition to capacity and differential pressure, there are also other factors that are important in selecting the right technology and therefore the most suitable pump for your application. Higher capacities and differential pressure are available on request.

**Our experts will be pleased to assist.**

# APPLICATIONS

Our pumps are used in many applications.



Oil & Gas



Chemistry



Offshore



Marine



Aviation



Industrial heating systems /  
Heat transfer



Tank farms



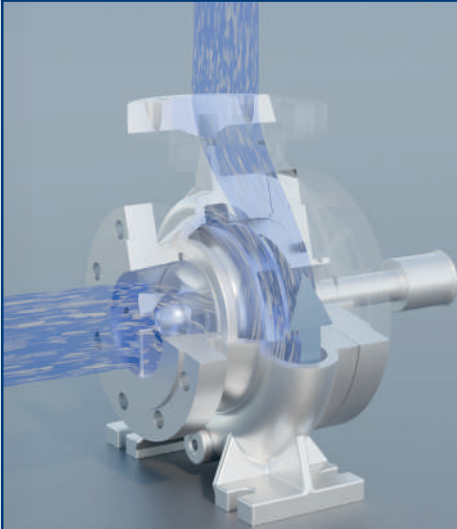
Renewable energy /  
Environmental technology



Petrochemistry

## PUMP TECHNOLOGIES

### VOLUTE CASING PUMPS



**characteristics:**

- high efficiency, pulsation-free conveying, wide range of materials
- simple design, high flexibility, wide range of applications
- vertical or horizontal installation or as submersible pump
- various (hermetic) sealing systems
- complete drainage of the pump possible

**liquids:**

low-viscosity fluids, all kinds of fuels, acids, brines, hydrocarbons, solvents, heating and cooling media, hot and cooling water, condensate, liquefied gases

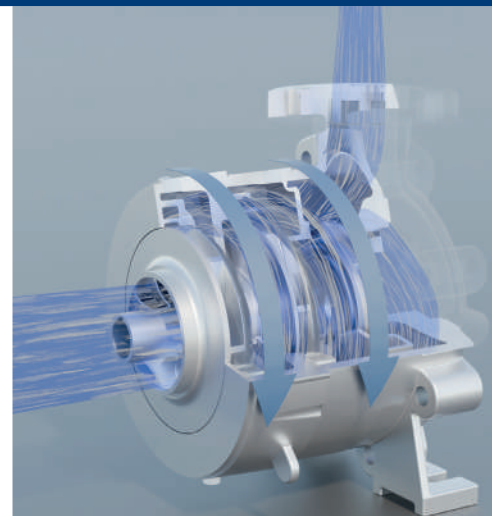
### MULTISTAGE CENTRIFUGAL PUMPS

**characteristics:**

- high total discharge head
- single or multi-stage pumps with shaft sealing or magnetic coupling in horizontal installation or submersible pump
- flexible flange position, optional self-priming version with integrated side channel stage
- high efficiency, pulsation free conveying

**liquids:**

low-viscosity liquids, all kinds of fuels, acids, brines, hydrocarbons, solvents, heating and cooling media, hot and cooling water, condensate, liquefied gases



## PUMP TECHNOLOGIES

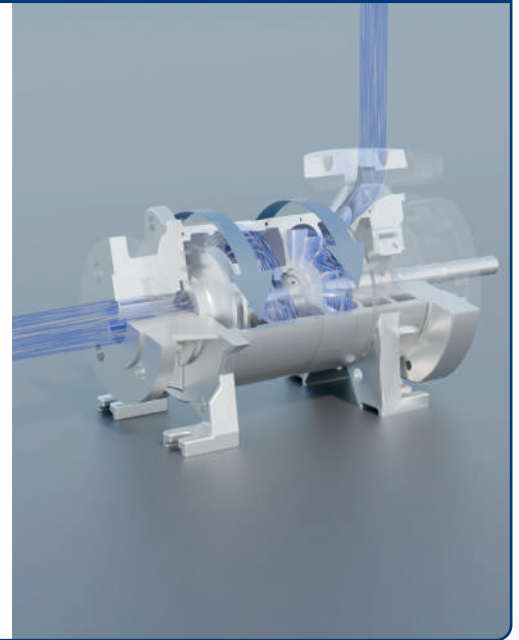
### SIDE CHANNEL/PERIPHERAL PUMPS

**characteristics:**

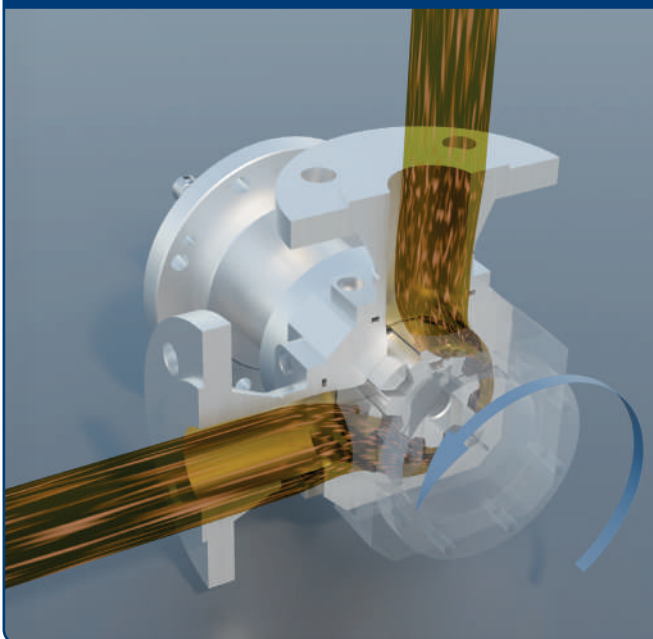
- particularly suitable for low flow - high head applications
- low NPSH requirements, liquids with a high gas content conveyable
- sensitive to abrasive components in liquids

**liquids:**

Clean and low-viscosity liquids without solids content, fluids close to the vapor pressure (fuels, industrial refrigerants, propellants, volatile chemicals, aromatic compounds and solvents, hydrocarbons, water, acids, brines, liquified gas, heat transfer media)



### GEAR PUMPS

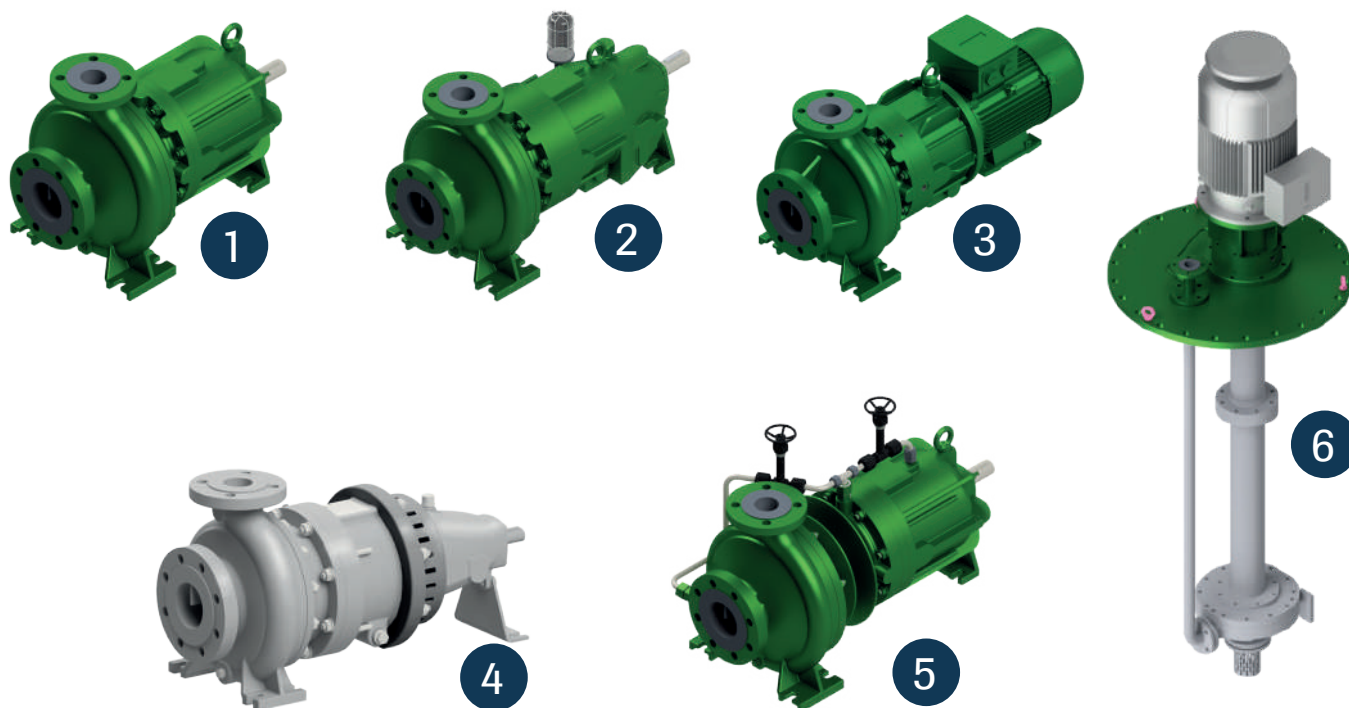


**characteristics:**

- for liquids of high viscosity
- only available with magnet coupling
- sensitive to solids and abrasive components
- metering and conveying toxic, explosive and generally environmentally harmful liquids

**liquids:**

polymers, asphalt, adhesives, resins, alcohols, additives, bitumen, tar, wax, acids and bases, esters, glycerin, isocyanates, monomers, oils and phenols



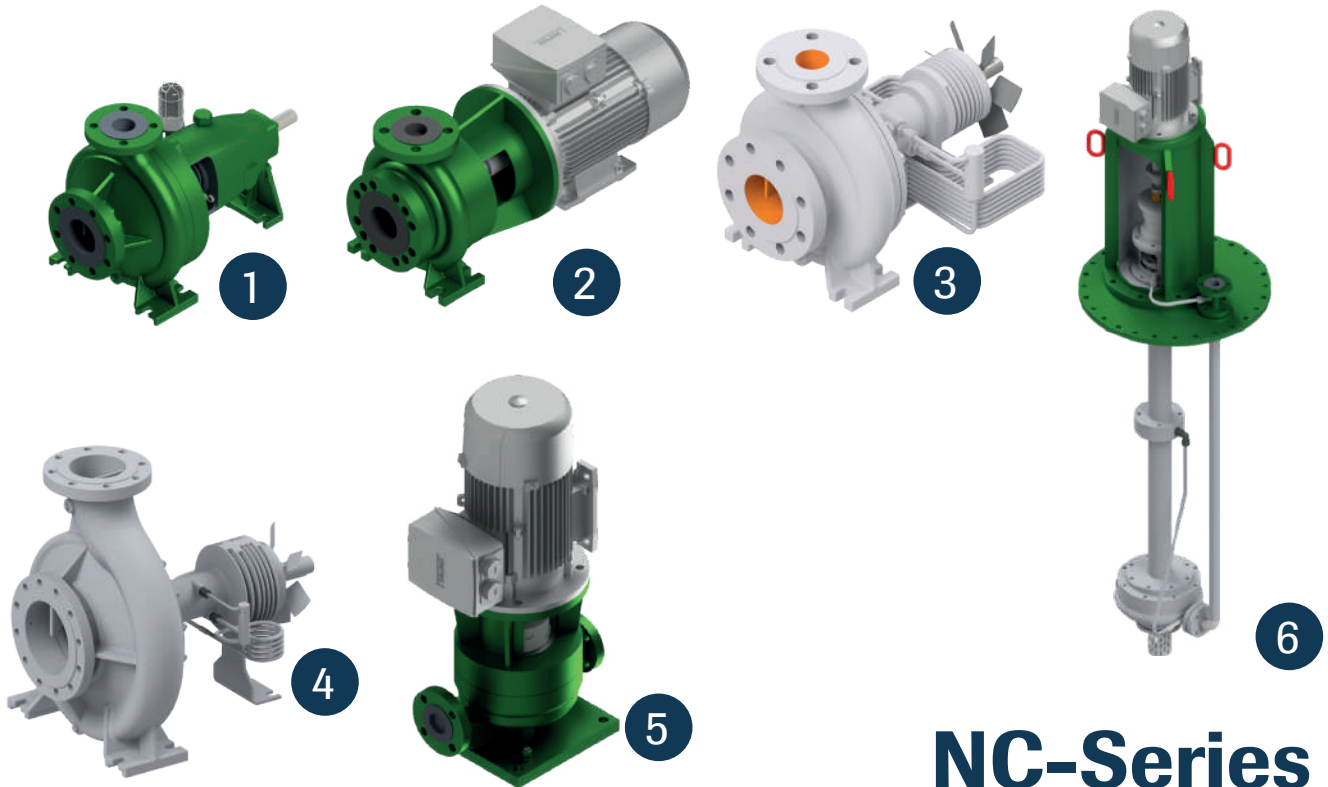
## NM-Series

Chemical Standard Pump acc. to ISO

( $Q_{\max}$  1400 m<sup>3</sup>/h / 6160 gpm,  $H_{\max}$  250 m / 820 ft)

Type	Description	Temperature	Standard
1 NML	Chemical standard pump	200° C / 392° F	ISO 2858
2 NMR	Chemical standard pump with reinforced, oil lubricated bearing bracket	300° C / 572° F	
3 NMB	Chemical standard pump in block design	200° C / 392° F	
4 NMX	Heat transfer pump with oil lubricated bearing bracket, self-venting	450° C / 840° F	
5 NMWR	Heat transfer pump with oil lubricated bearing bracket, two chamber system, not self-venting	450° C / 840° F	
6 NMT	Submersible pump (by default ≤6 m submersible length)	200° C / 392° F	ISO 15783

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



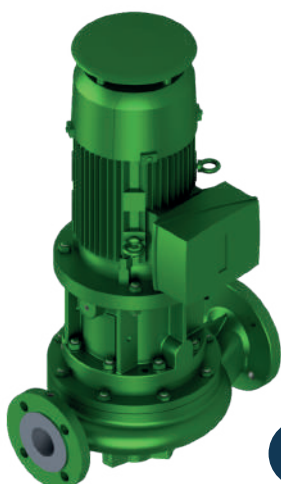
## NC-Series

**Chemical Standard Pump** acc. to ISO

( $Q_{\max}$  1400 m<sup>3</sup>/h / 6160 gpm,  $H_{\max}$  250 m / 820 ft)

	Type	Description	Temperature	Standard
1	NCL	Chemical standard pump	250° C / 480° F	
2	NCB	Chemical standard pump in block design	200° C / 392° F	
3	NHX	Hot water pump with patented cooling and degassing system	220° C / 428° F	ISO 2858
4	NCX	Heat transfer pump with patented cooling and degassing system	350° C / 660° F	
5	NCV	Inline pump, vertically assembled	180° C / 356° F	
6	NCT	Submersible pump (by default ≤6 m submersible length)	200° C / 392° F	ISO 5199

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



1



2

## KM-Series

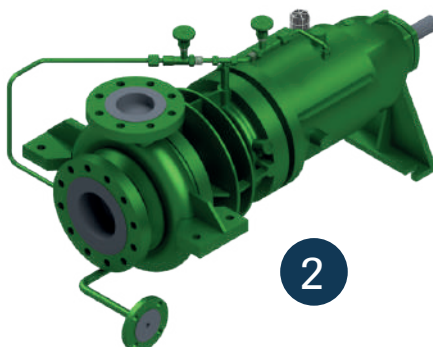
small **Chemical Standard Pump** acc. to ISO  
( $Q_{\max}$  100 m<sup>3</sup>/h / 440 gpm,  $H_{\max}$  80 m / 262 ft)

Type	Description	Temperature	Standard
1 KMV	Inline pump, vertical installation	180° C / 356° F	ISO 15783
2 KMB	Chemical standard pump in block design		

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



1



2

## PM-Series

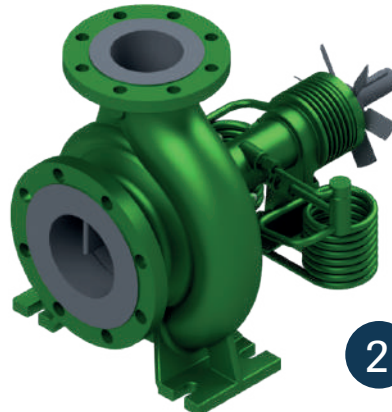
**Chemical Standard Pump** acc. to API 685  
( $Q_{\max}$  1400 m<sup>3</sup>/h / 6160 gpm,  $H_{\max}$  250 m / 820 ft)

Type	Description	Temperature	Standard
1 PRM	Process pump	300° C / 572° F	API 685 OH2
2 PRMW	Heat transfer pump with oil lubricated bearing bracket, two-chamber system, not self-venting	450° C / 840° F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



1



2

## NK-Series

**Chemical Standard Pump** acc. to DIN EN 733 $(Q_{\max} 500 \text{ m}^3/\text{h} / 2200 \text{ gpm}, H_{\max} 140 \text{ m} / 460 \text{ ft})$ 

	Type	Description	Temperature	Standard
1	NKL	Standard pump, light design	180° C / 360 °F	EN 733 / ISO 5199
2	NKX	Heat transfer pump with patented cooling and degassing system	350° C / 670 °F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



1



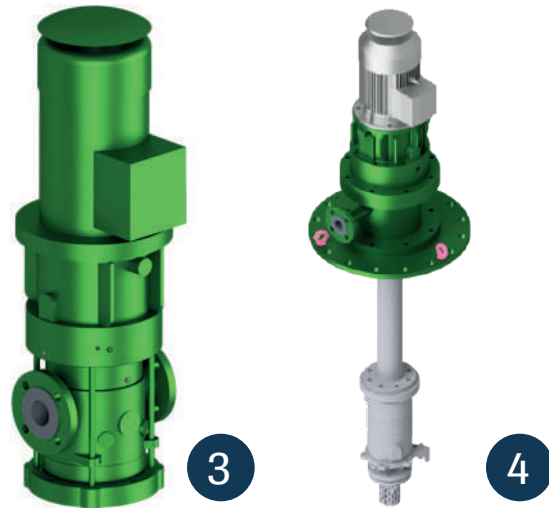
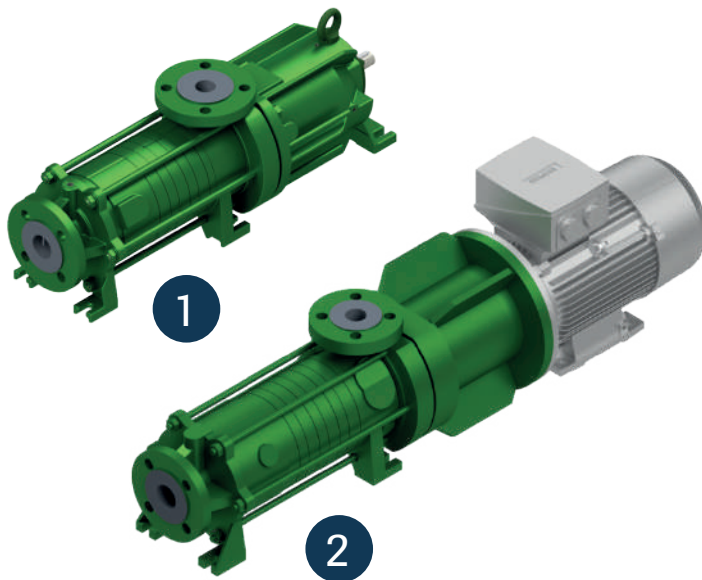
2

## NCR-Series

**Volute Casing Pumps** acc. to API 610 $(Q_{\max} 1400 \text{ m}^3/\text{h} / 6160 \text{ gpm}, H_{\max} 250 \text{ m} / 820 \text{ ft})$ 

	Type	Description	Temperature	Standard
1	NCR	Process pump	250° C / 500 °F	API 610
2	NCTR	Submersible pump (by default $\leq 6 \text{ m}$ submersible length), design acc. to VS4	200° C / 390 °F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



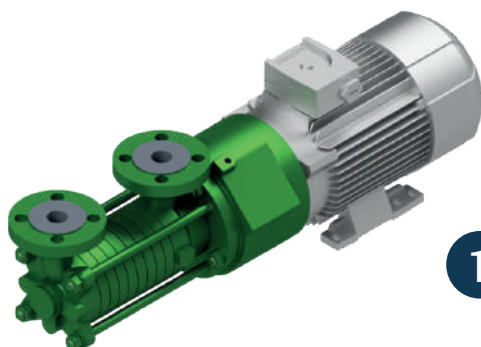
## SM-Series

Side Channel Pumps acc. to DIN EN

( $Q_{max}$  32 m<sup>3</sup>/h / 140 gpm,  $H_{max}$  600 m/1969 ft)

Type	Description	Temperature	Standard
1 SCM	Single or multi-stage self-priming, horizontal side channel pump	180° C / 356° F	DIN EN 734
2 SCMB	Single or multi-stage self-priming horizontal side channel pump in block design		
3 SMV	Single stage self-priming vertical side channel pump	120° C / 248° F	ISO 15783
4 SCMT	Submersible, single or multi-stage, self-priming side channel pump	180° C / 356° F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



## Type WPM

horizontal, single- or multistage **Side Channel Pump**

( $Q_{max}$  2,4 m<sup>3</sup>/h / 10,5 gpm  $H_{max}$  260 m/853 ft)

Type	Description	Temperature	Standard
1 WPM	Compact side channel pump for low capacity with high head	150° C / 302° F	ISO 15783

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



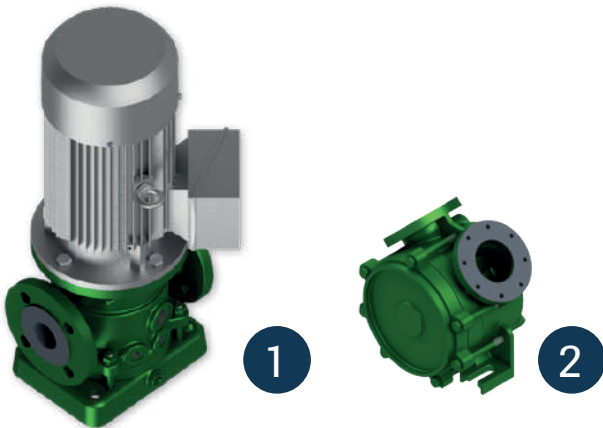
## Type SC

**Side Channel Pump** acc. to DIN EN

( $Q_{max}$  32 m<sup>3</sup>/h / 140 gpm,  $H_{max}$  600 m / 1969 ft)

	Type	Description	Temperature	Standard
1	SC	Single or multi-stage self-priming, horizontal side channel pump	180° C / 356° F	DIN EN 734

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



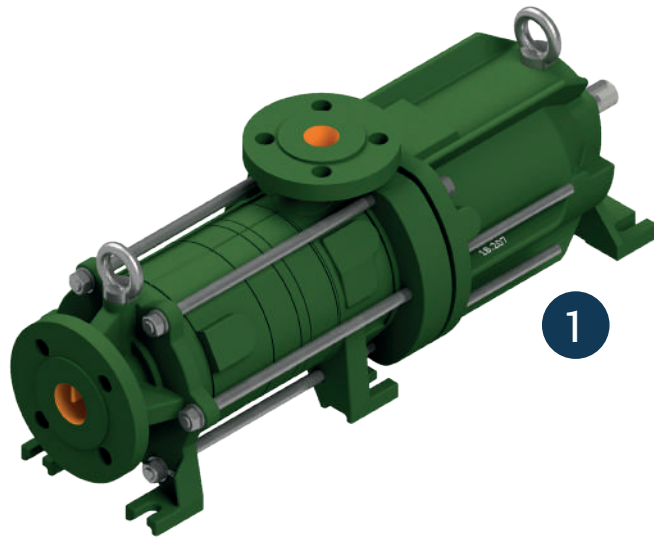
## WP-Series

**Side Channel Pumps** with mechanical seal

( $Q_{max}$  55 m<sup>3</sup>/h / 242 gpm,  $H_{max}$  110 m / 361 ft)

	Type	Description	Temperature	Standard
1	WPV	Single stage self-priming, vertical inline pump	100° C / 212° F	ISO 5199
2	WPC 831T	Tank vehicle pump, single stage, self-priming and very compact design		

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



## Type TPM

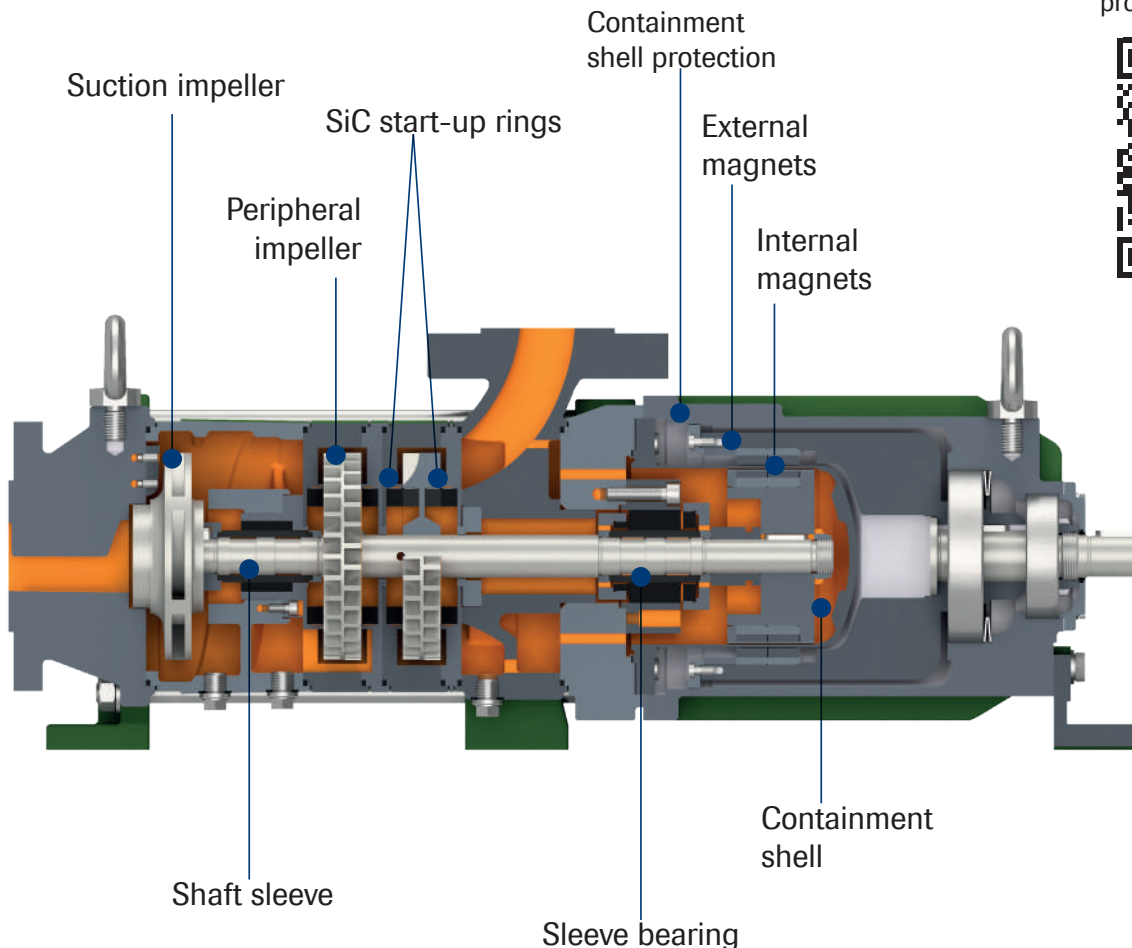
Single- or multistage **turbine pump**

( $Q_{max}$  17 m<sup>3</sup>/h / 75 gpm,  $H_{max}$  400 m / 1312 ft)

Type	Description	Temperature	Standard
1 TPM	turbine pump with suction impeller	180° C / 356° F	ISO 15783
TPMR	turbine pump with suction impeller for high temperature applications	300° C / 572° F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.

product video (YouTube)





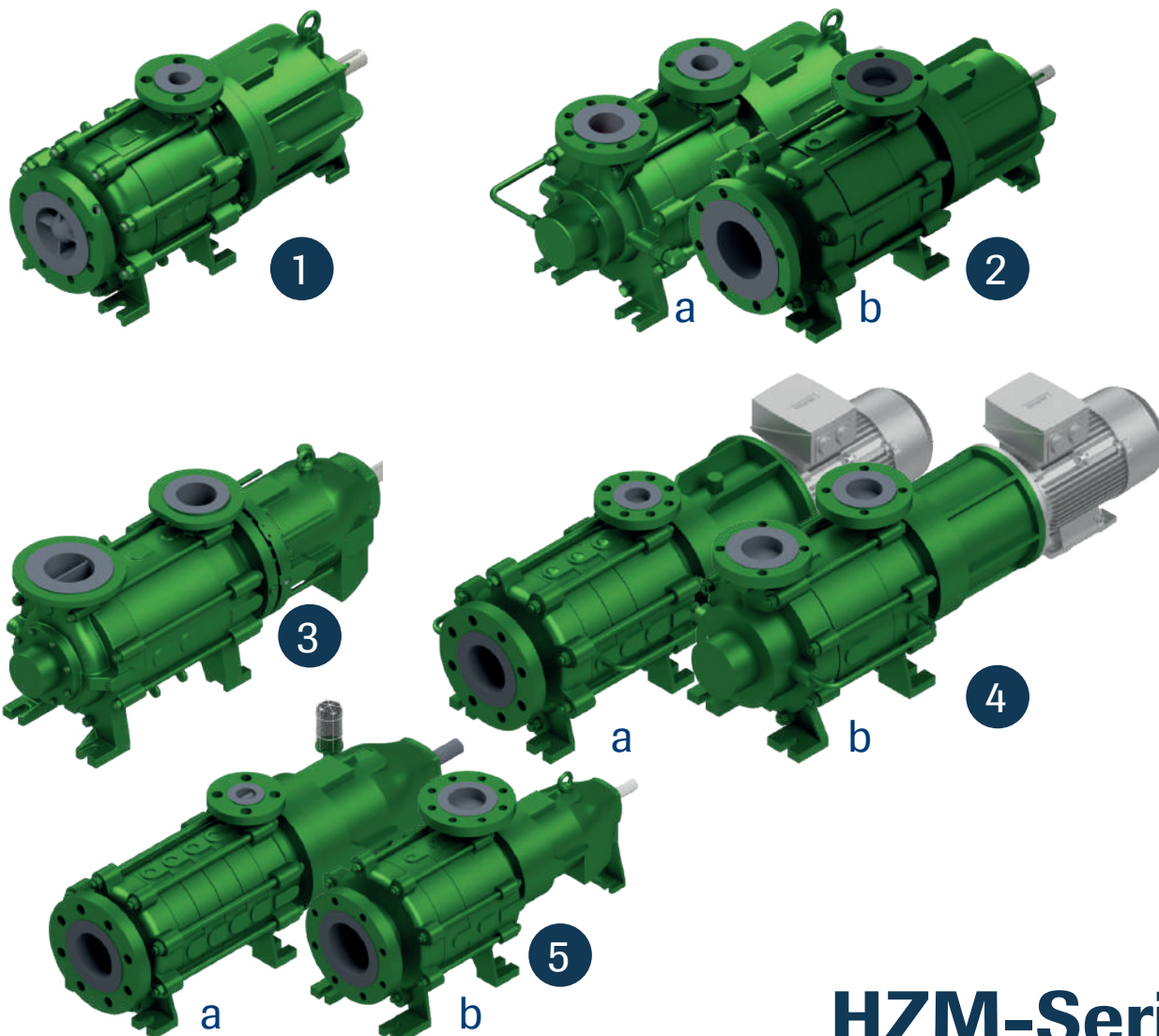
The magnetic coupled peripheral pump **TPM**, also referred to as turbine pump, belongs to the family of centrifugal pumps.

Their structure and operating method is similar to that of a side channel pump. The TPM is able to generate high discharge pressures, even at comparatively low flow rates. It is featured by low NPSH requirements, ideal for applications with limited suction head. Speed-regulated, the TPM can be optimally adjusted to the operating point. Peripheral pumps offer a high tolerance to gas percentages of the fluid, so that continuous operation

is even possible in case of gas release or temporary air inlet. To prevent the impellers from seizing under difficult operating conditions, these Dickow pumps are equipped with SiC start-up rings on both sides. Metal contact between the rotating and stationary components is therefore excluded. The hermetically sealed design makes it particularly suitable for pumping toxic, explosive and generally environmentally harmful fluids.

## Applications

- Oil & Gas
- Chemistry & Petrochemistry
- Offshore
- Ship technology & Marine
- Refueling equipment & Aviation
- Tank storage & Tank farms
- Heat transfer media
- Renewable energy & Environmental engineering



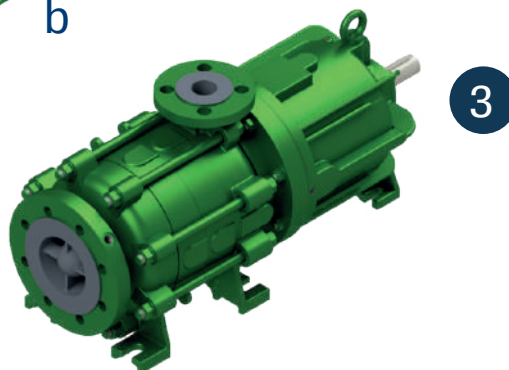
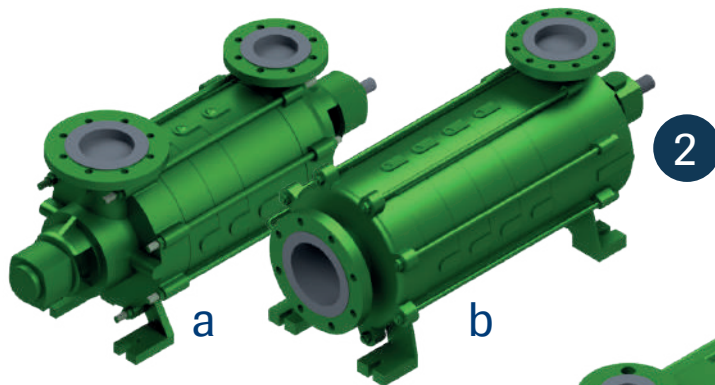
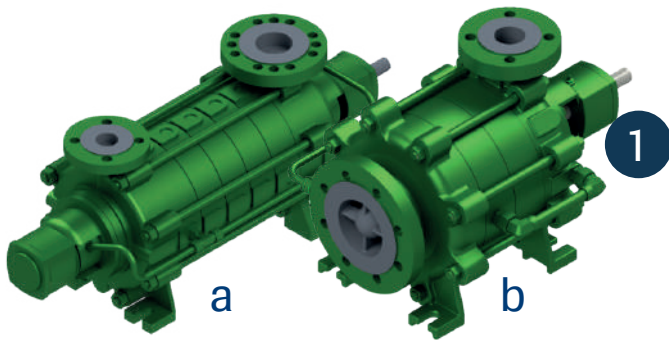
## HZM-Series

Multistage Pumps acc. to ISO or API

( $Q_{max}$  600 m<sup>3</sup>/h / 2640 gpm,  $H_{max}$  500 m / 1640 ft)

Type	Description	Temperature	Norm
1 HZMA	Single or multistage, horizontal centrifugal pump	200° C / 392° F	ISO 15783
2 HZSM/ HZSMA	Single or multistage, horizontal centrifugal pump with venting stage (a), optional with axial inlet (b)	100° C / 212° F	
3 HZSMR	Single or multistage, horizontal centrifugal pump with venting stage, oil lubricated bearing bracket		
4 HZMAB/ HZSMB	Single or multistage, horizontal centrifugal pump in block design (a), optional with venting stage (b)	a: 200° C / 392° F b: 100° C / 212° F	
5 HZMAR/ HZSMAR	Single or multistage, horizontal centrifugal pump acc. to API 685 (a), optional with venting stage and axial inlet (b)	100° C / 212° F	

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.



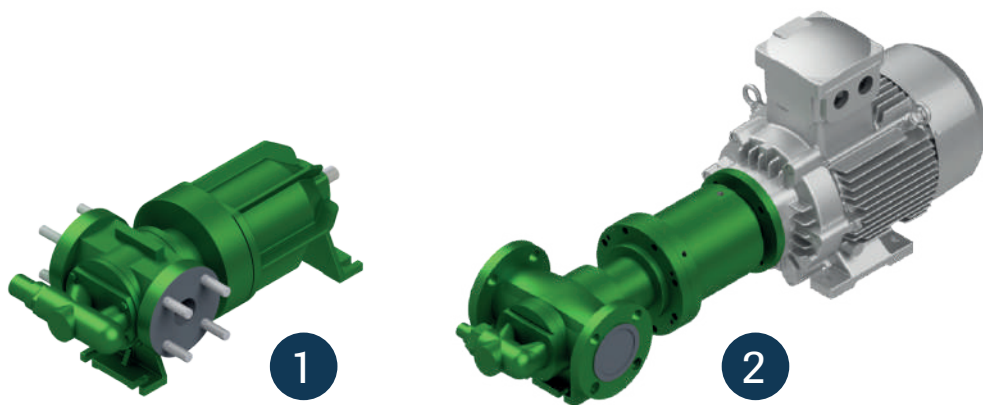
## HZ-Series

Multistage Pumps acc. to ISO or API

( $Q_{max}$  600 m<sup>3</sup>/h / 2640 gpm,  $H_{max}$  500 m / 1640 ft)

	Type	Description	Temperatur	Norm
1	HZ/ HZA	Single or multistage, horizontal centrifugal pump, flexible flange position (a), optional with axial inlet (b)	200° C / 392° F	ISO 5199
2	HZS/ HZSA	Single or multistage, horizontal centrifugal pump with venting stage (a), optional with axial inlet (b)	100° C / 212° F	
3	HZAR	Single or multistage, horizontal centrifugal pump acc. to API 610, design BB4		API 610 BB4
4	HZV	single or multi-stage submersible centrifugal pump, optional: NATO design, Cat. 1 version, barrel-casing design, API 610 VS1 or VS6	200° C / 392° F	API 610 VS1/VS6 ISO 5199

These pumps are part of our standard portfolio. Higher flow rates and discharge heads are possible on request.

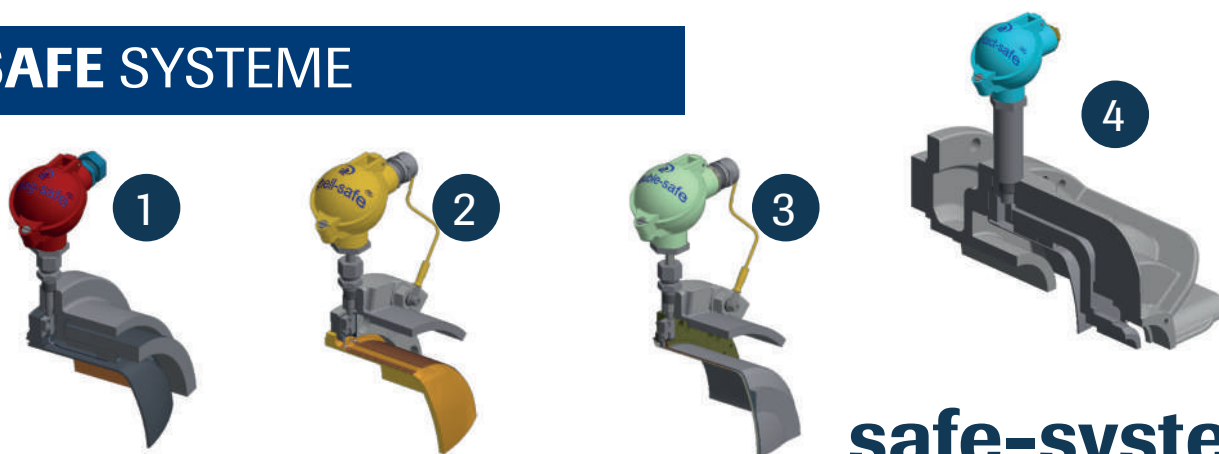


## GM-Series

Gear Pumps with magnetic coupling

	Type	Description	Q max	Pressure	Temperature	Viscosity
1	GML	Internal gear pump	40 m <sup>3</sup> /h / 176 gpm	12 bar / 174 psi	250° C / 480° F	15000 mPas
2	GMB	Internal gear pump in block design				

## SAFE SYSTEME



## safe-systeme

Safety devices for pumps with magnetic coupling

	Type	Monitoring	protects against the consequences of:
1	mag-safe	Temperature rise on containment shell	<ul style="list-style-type: none"> <li>▪ Dry run (due to exceeding boiling point)</li> <li>▪ Overheating of magnetic coupling</li> <li>▪ Containment shell failure</li> </ul>
2	shell-safe	Detects the breakage of non-metallic containment shells	<ul style="list-style-type: none"> <li>▪ Uncontrolled product leakage and secondary damage</li> </ul>
3	double-safe	Detects the breakage (of the inner or outer shell) of a double-walled containment shell	<ul style="list-style-type: none"> <li>▪ Product leakage</li> </ul>
4	contact-safe	Damage to the roller bearing	<ul style="list-style-type: none"> <li>▪ Containment shell break</li> <li>▪ Product leakage</li> </ul>

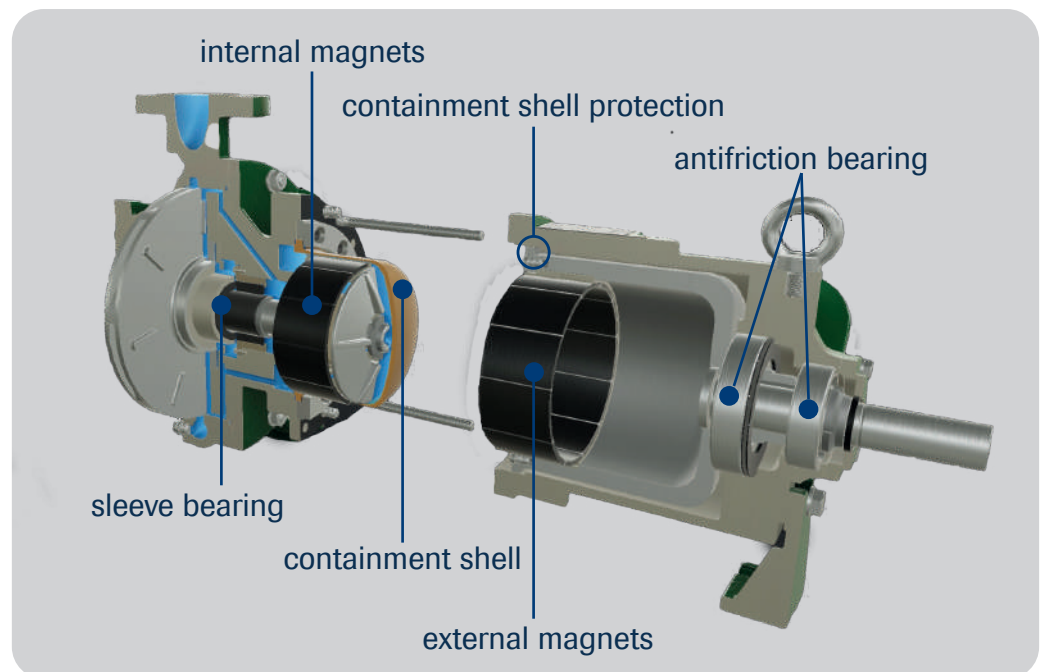
**Magnetic couplings** are used wherever leakages are not permitted, i.e. when pumping toxic, explosive and generally environmentally harmful fluids for which shaft sealing with mechanical seals is not sufficient. **Outer magnets**, arranged on the drive shaft, magnetically drive the **inner magnets** by acting through the stationary installed containment shell. The external and internal magnets are friction-locked by their magnetic field lines, run synchronously with each other and transmit the torque to the impeller. Depending on the application, the **containment shell** is made of different materials such as stainless steel, hastelloy, zirconium oxide, titanium or PEEK.

## Containment shell protection

The gaps between the external driving magnets, the bearing bracket and the containment shell are dimensioned to prevent the driving magnets from start-up, even if the antifriction bearing is deflected. Due to the splitting of the shaft in two, a bearing for the pump shaft is necessary. This is carried out in product-contacted, wear-resistant **sleeve bearings**. The thrust load of the closed impellers is hydraulically balanced by wear rings,

relief wells, back vanes and/or auxiliary impellers. Impeller and pump shaft are floating.

Pumps with magnetic couplings are maintenance-free and have a much longer service life than conventional pumps with mechanical seals. There is no need for double mechanical seal systems with complex sealing pressure systems or receiver tanks.



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