

Product Overview

Chemically Resistant Pumps
for Maximum Process Reliability



Reinventing
flow.

flow. **Reinventing**



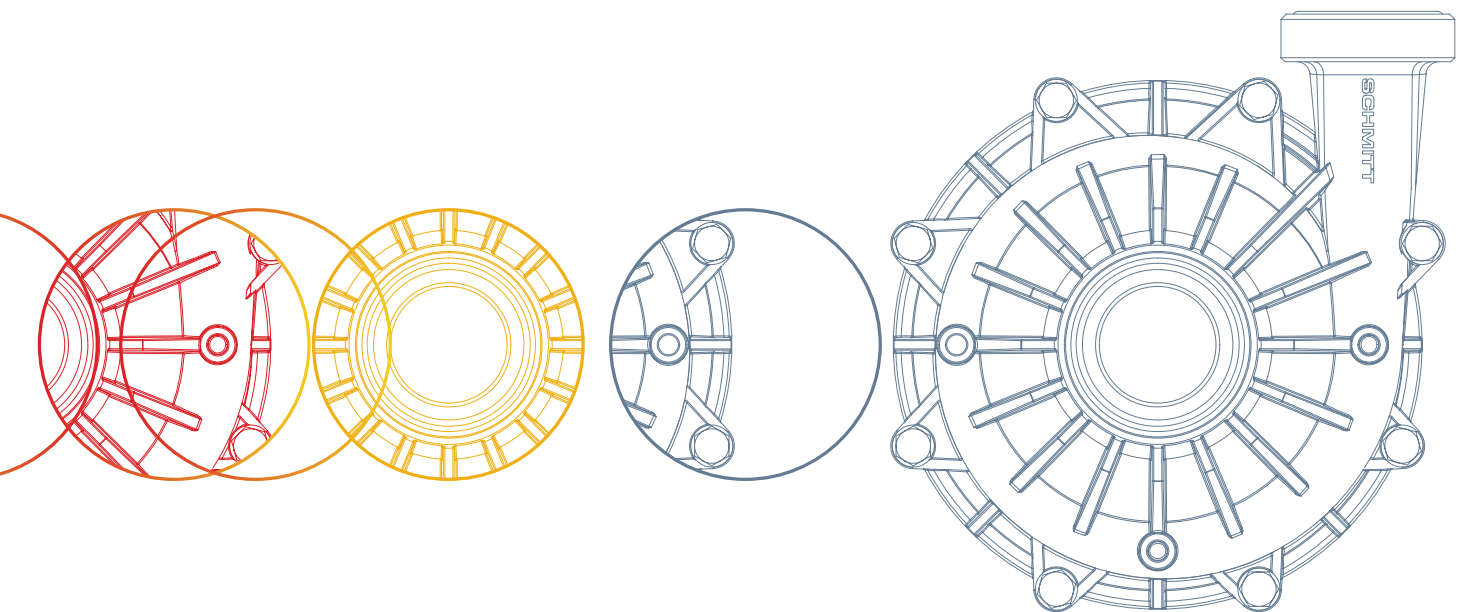


Reinventing flow.

Schmitt Kreiselpumpen has been developing and building chemical resistant pumps since 1964. The reputation of our pumps is as legendary as that of our company – in short: “Once a Schmitt, always a Schmitt.”

Downtime is not an option for us – neither in a system where a Schmitt is installed, nor when it comes to the further development of our pumps.

Our goal is simple yet demanding:
We reinvent what a pump can do. Since 1964.

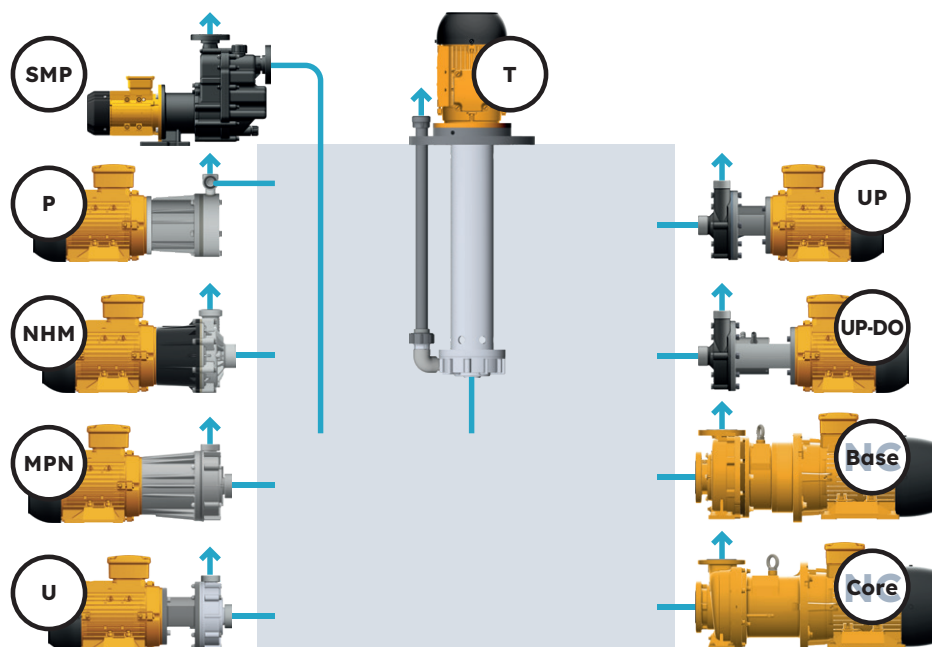


Product Range

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Product Overview

Chemical Resistant Pumps for Corrosive and Hazardous Media



Series	Design	Material	T _{max}	Q _{max}	H _{max}
NHM	Hermetically sealed magnetic drive plastic centrifugal pumps	PP PVDF	80 °C 95 °C	42 m³/h	27 m
MPN	Hermetically sealed magnetic drive plastic centrifugal pumps	PP PVDF	80 °C 95 °C	35 m³/h	32 m
U	Plastic centrifugal pumps with single mechanical seal	PVDF	95 °C	32 m³/h	40 m
SMP	Self-priming magnetic drive plastic centrifugal pumps	PP	60 °C	23 m³/h	24 m
P	Normal-priming magnetic drive plastic turbine pumps	PVDF PP	60 °C	4,5 m³/h	40 m
UP	Stainless steel centrifugal pumps with single mechanical seal	Stainless steel	150 °C	28 m³/h	39 m
UP-DO	Stainless steel centrifugal pumps with double mechanical seal	Stainless steel	150 °C	28 m³/h	39 m
T	Vertical plastic centrifugal pumps, sealless, dry run safe	PP PVDF	80 °C 95 °C	18 m³/h	26 m
NEOChem Base	ETFE-lined standardized chemical process pumps with magnetic drive	ETFE-CF	95 °C	108 m³/h	76 m
NEOChem Core	PFA-lined standardized chemical process pumps with magnetic drive	PFA	150 °C	180 m³/h	88 m

Normal-Priming Centrifugal Pumps

Made of PVDF or PP with Magnetic Coupling

Housing and impeller materials

PVDF, PP

Elastomers

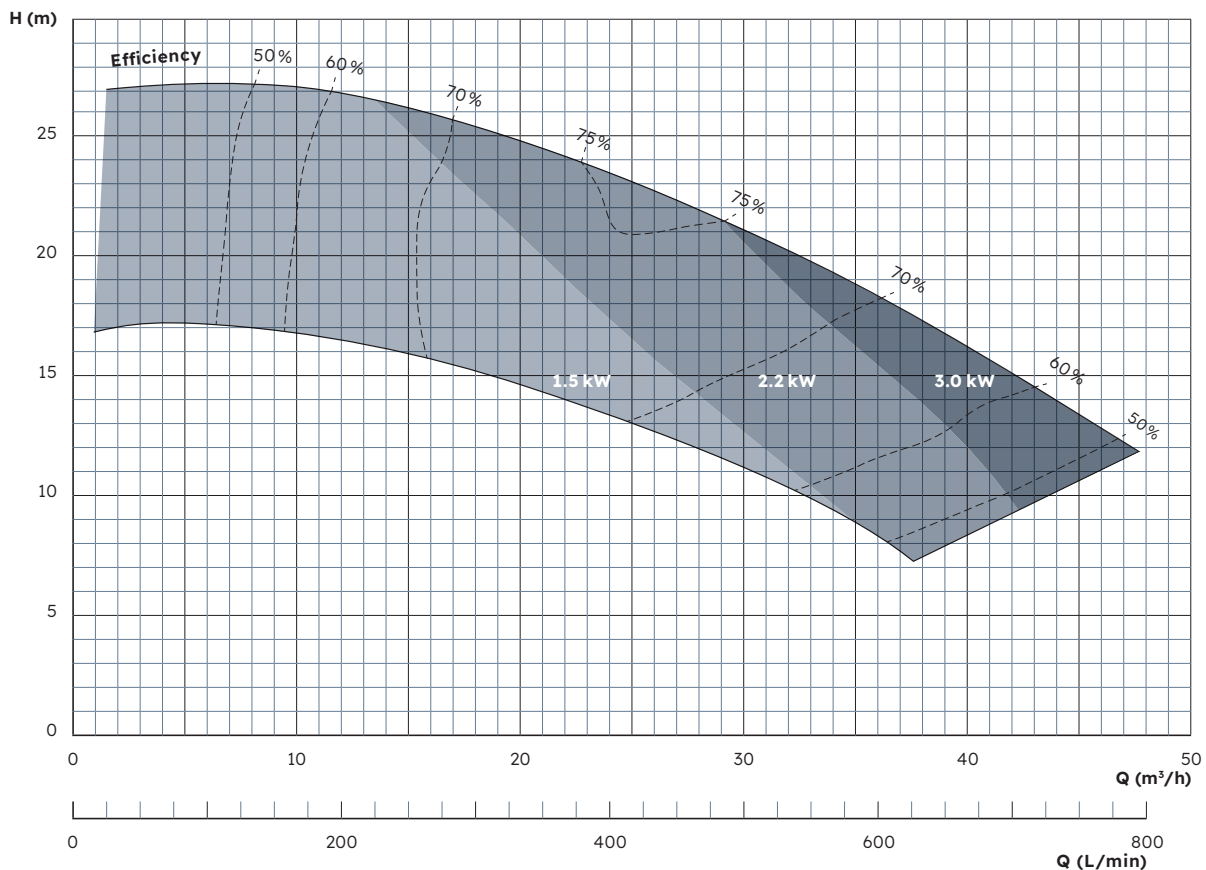
EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Bearing material pairing

SiC / SiC

The NHM achieves efficiency rates of up to 76 % thanks to its optimized hydraulic design, setting new standards for energy efficiency in its class. Manufactured from individually selectable, chemical-resistant high-performance materials, the NHM delivers exceptional performance combined with outstanding durability.

Performance Overview



Normal-Priming Centrifugal Pumps

Made of PVDF or PP with Magnetic Coupling

Advantages

- + Best-in-class efficiency and outstanding energy performance
- + Wear-resistant and maintenance-free design thanks to the unique bearing system with slide-axis technology
- + Hermetically sealed, contact-free magnetic drive – eliminating the need for a mechanical seal

All sizes are available in ATEX-certified versions for use in ATEX Zones 1 and 2. Available with threaded or flanged connections, as well as optional drain and vent ports.

Up to 76 % efficiency

Advanced Schmitt hydraulic design.

Maximum energy savings

Depending on the operating point, energy consumption can be reduced by up to 50 % compared to the previous generation



MPN

Normal-Priming Centrifugal Pumps

Made of PVDF or PP with Magnetic Coupling

Housing and impeller materials

PVDF, PP

Elastomers

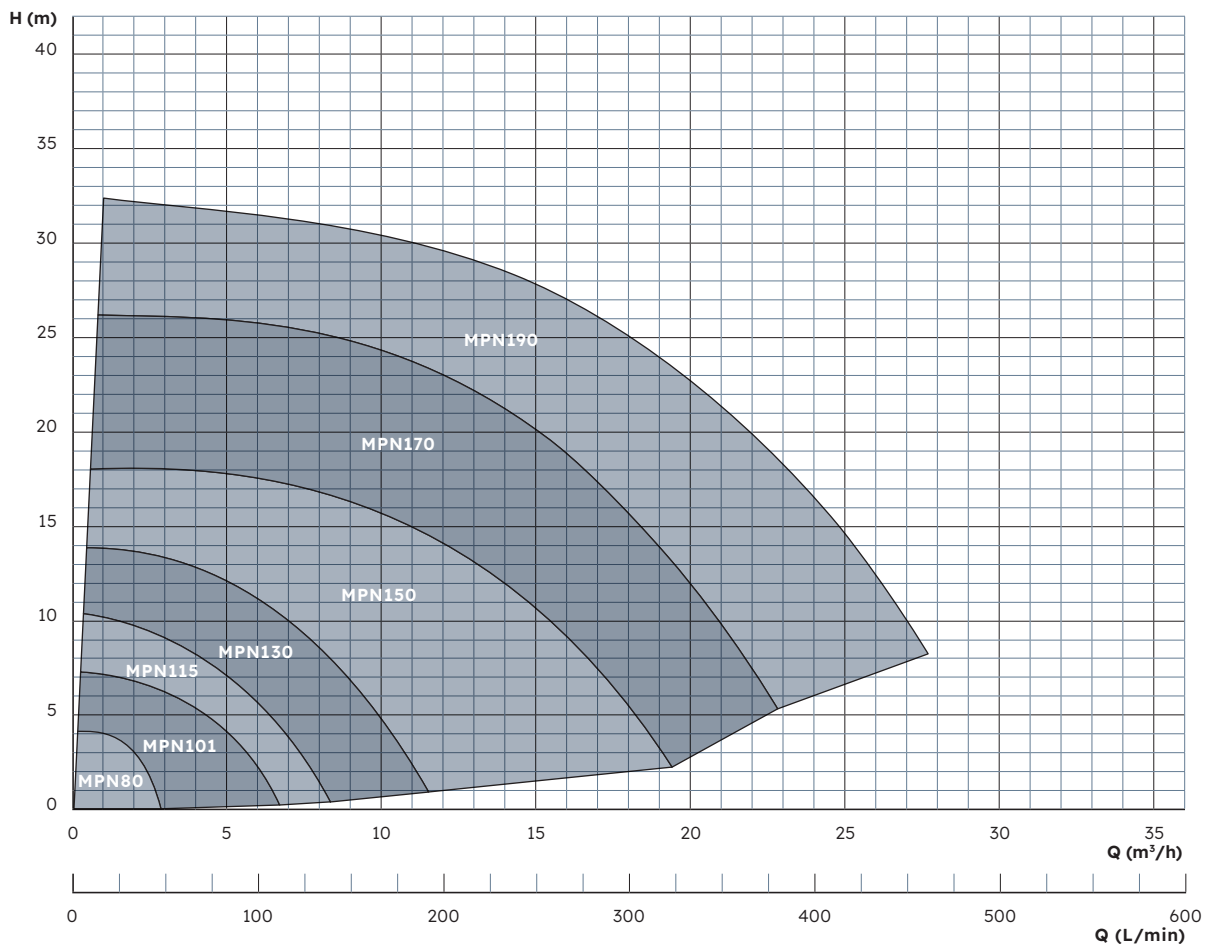
EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Bearing material pairings

SiC / SiC, PTFE-GF / Al₂O₃ ceramic

The MPN series is one of the most established thermoplastic magnetic drive pump ranges in the industry. Continuously refined over decades of operation, more than 10,000 MPN pumps are in service worldwide. The MPN series features a contact-free, abrasion-free magnetic drive system, eliminating the need for a mechanical seal.

Performance Overview



Normal-Priming Centrifugal Pumps
Made of PVDF or PP with Magnetic Coupling

Advantages

- + Hermetically sealed design, eliminating the need for a mechanical seal
- + Particularly suitable for toxic, environmentally hazardous, and corrosive media
- + Capable of intermittent dry running thanks to large-diameter plain bearings

The pump can handle solids up to 3 mm in size and concentrations of up to 10 % by volume.
Maximum viscosity: 150 mPa·s. Maximum permissible temperature: 95 °C.

All sizes are also available in ATEX-certified versions (MPN-EX) for ATEX Zones 1 and 2.

Built to Run

More than 10,000 MPN pumps are in operation worldwide – and keep running.

Proven. Preferred. Better.

For 50 years, the MPN has stood for reliability and efficiency. For 50 years, we have continuously refined and improved it.





Normal-Priming Centrifugal Pumps

Made of PVDF with Single Mechanical Seal

Housing and impeller materials

PVDF

Elastomers

EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Seal face material pairings

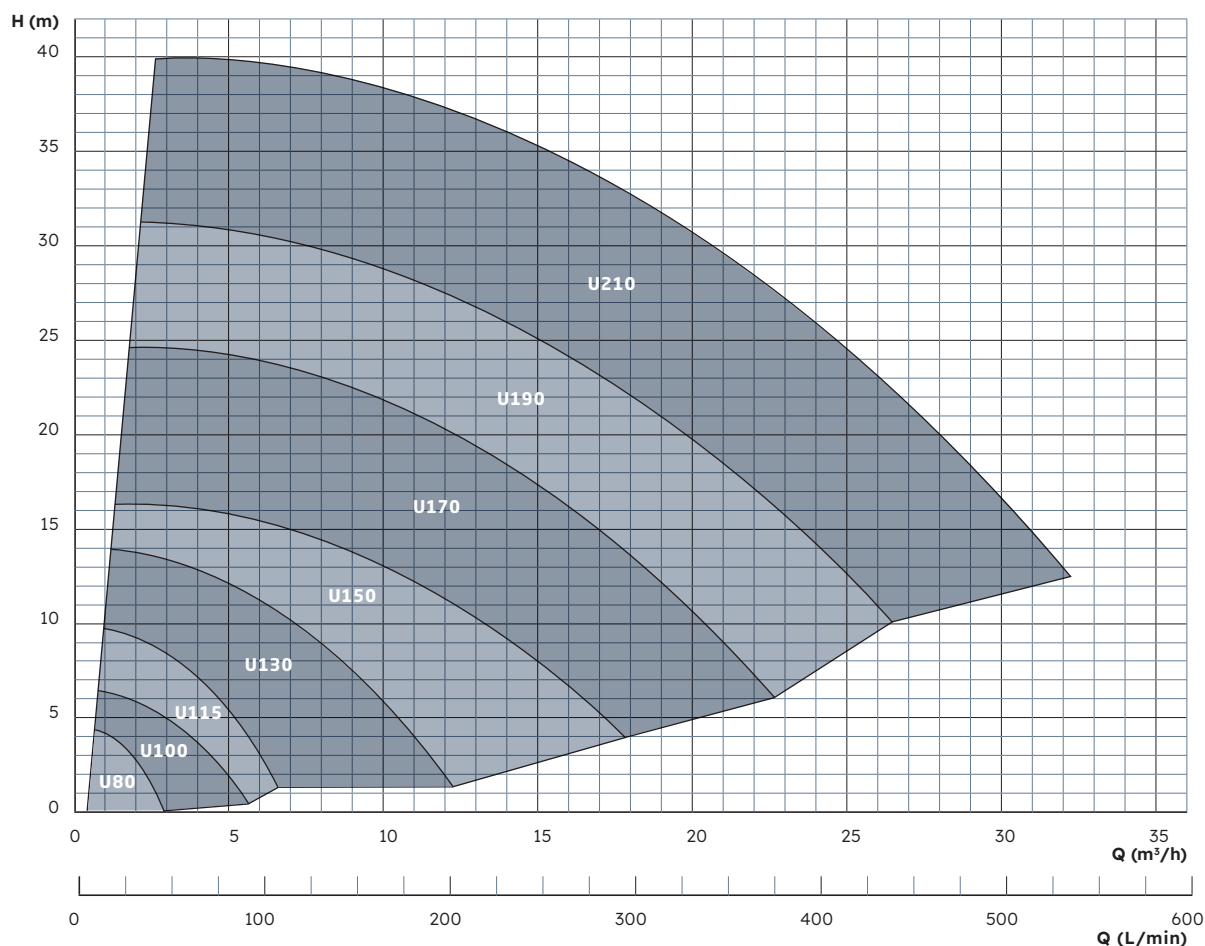
SiC / SiC, Carbon / SiC, Carbon / Al_2O_3 ceramic

Wetted metal parts

Stainless steel 1.4571 (AISI 316Ti), Hastelloy® C-4

The U series is Schmitt's entry-level pump range for handling corrosive media. The impeller is directly mounted on the extended motor shaft. The pump is equipped with a single mechanical seal, lubricated and cooled by the pumped fluid. The seal is available in various configurations, with different elastomer and seal face materials, as well as an optional PVDF shaft sleeve.

Performance Overview



Normal-Priming Centrifugal Pumps
Made of PVDF with Single Mechanical Seal

Advantages

- + Economical and robust alternative to magnetic drive pumps
- + Suitable for pumping media containing magnetic particles
- + Compact close-coupled design
- + Designed for corrosive media

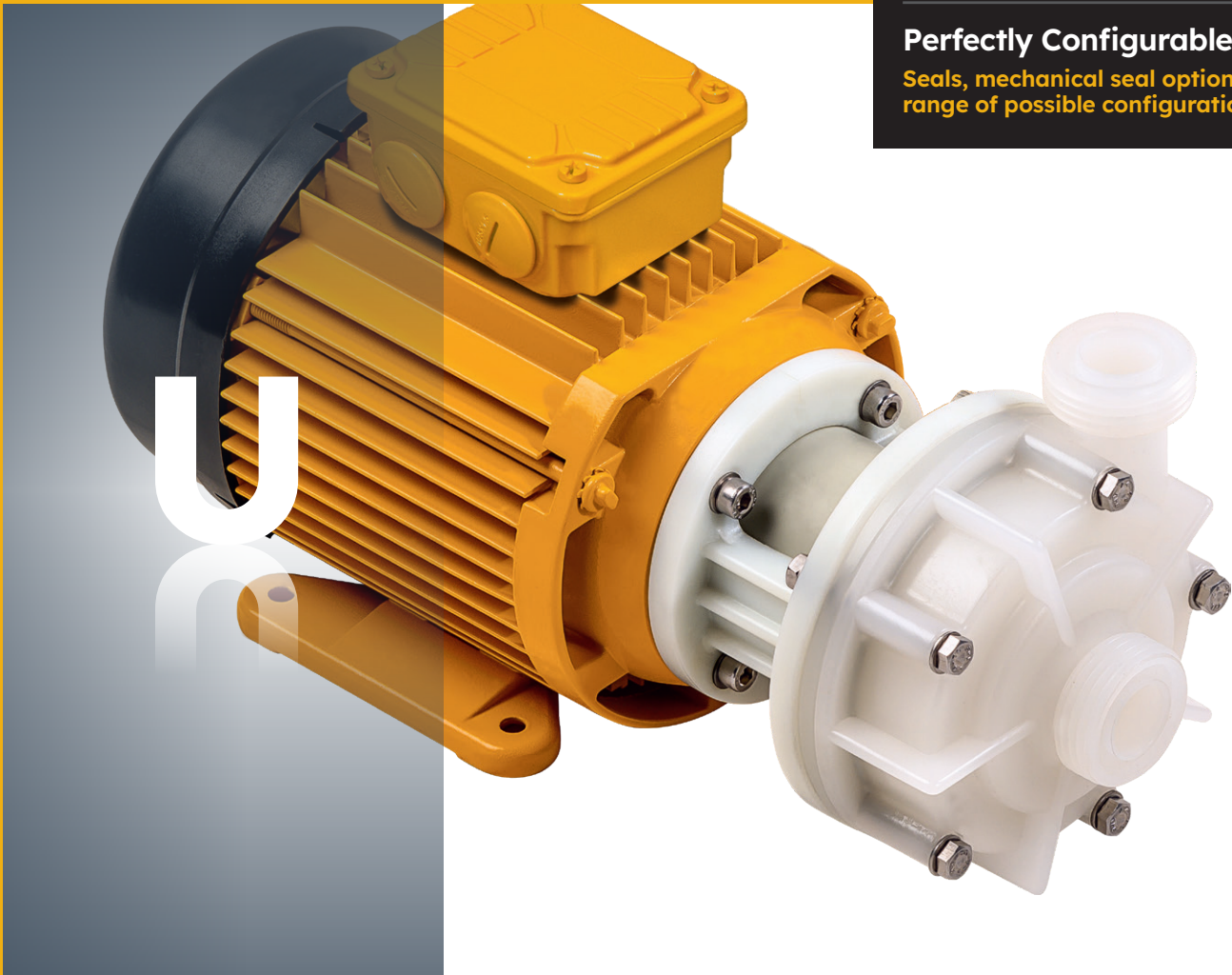
The U series is a true all-rounder, engineered for a broad spectrum of applications. Multiple design variants and material options allow precise adaptation to a wide range of operating conditions. The pump can handle solids up to 3 mm in size and concentrations of up to 10 % by volume. Maximum viscosity: 150 mPa·s. Maximum permissible temperature: 95 °C. All sizes are also available in ATEX-certified versions (U-EX) for use in ATEX Zone 2.

All-Round Talent

Proven long service life. Low upfront investment.

Perfectly Configurable

Seals, mechanical seal options, sizes – the range of possible configurations = U: unlimited.



Self-priming Centrifugal Pumps

Made of PP with Magnetic Coupling

Housing and impeller materials

PP

Elastomers

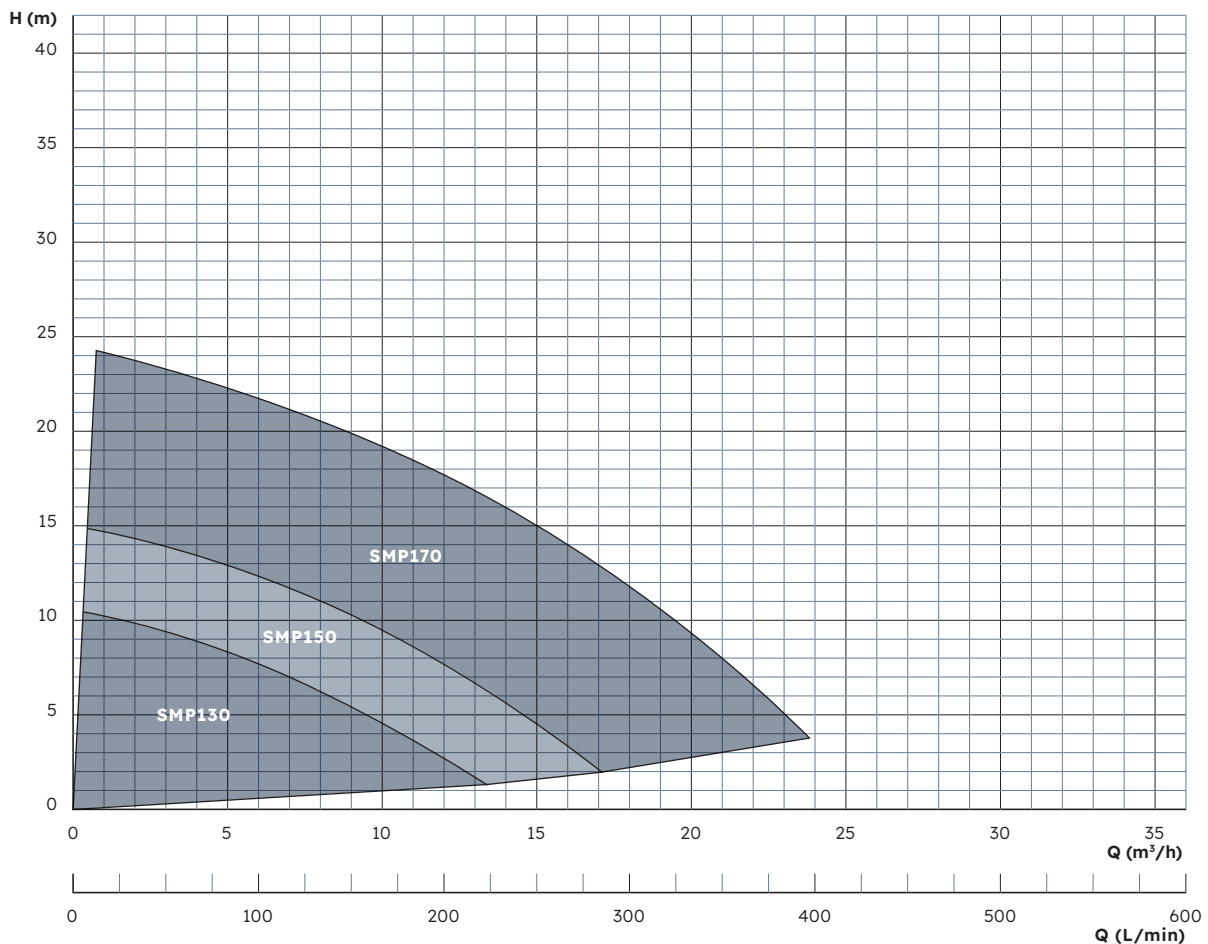
EPDM, FKM (e.g. Viton®)

Bearing material pairing

Carbon / Al₂O₃ ceramic

The SMP series is specially designed for self-priming operation. It is particularly suitable if the pump has to draw from a lower container and the suction line is filled with air. The motor power is transmitted contact-free and abrasion-free with a magnetic coupling through a closed containment shell to the pump impeller.

Performance Overview

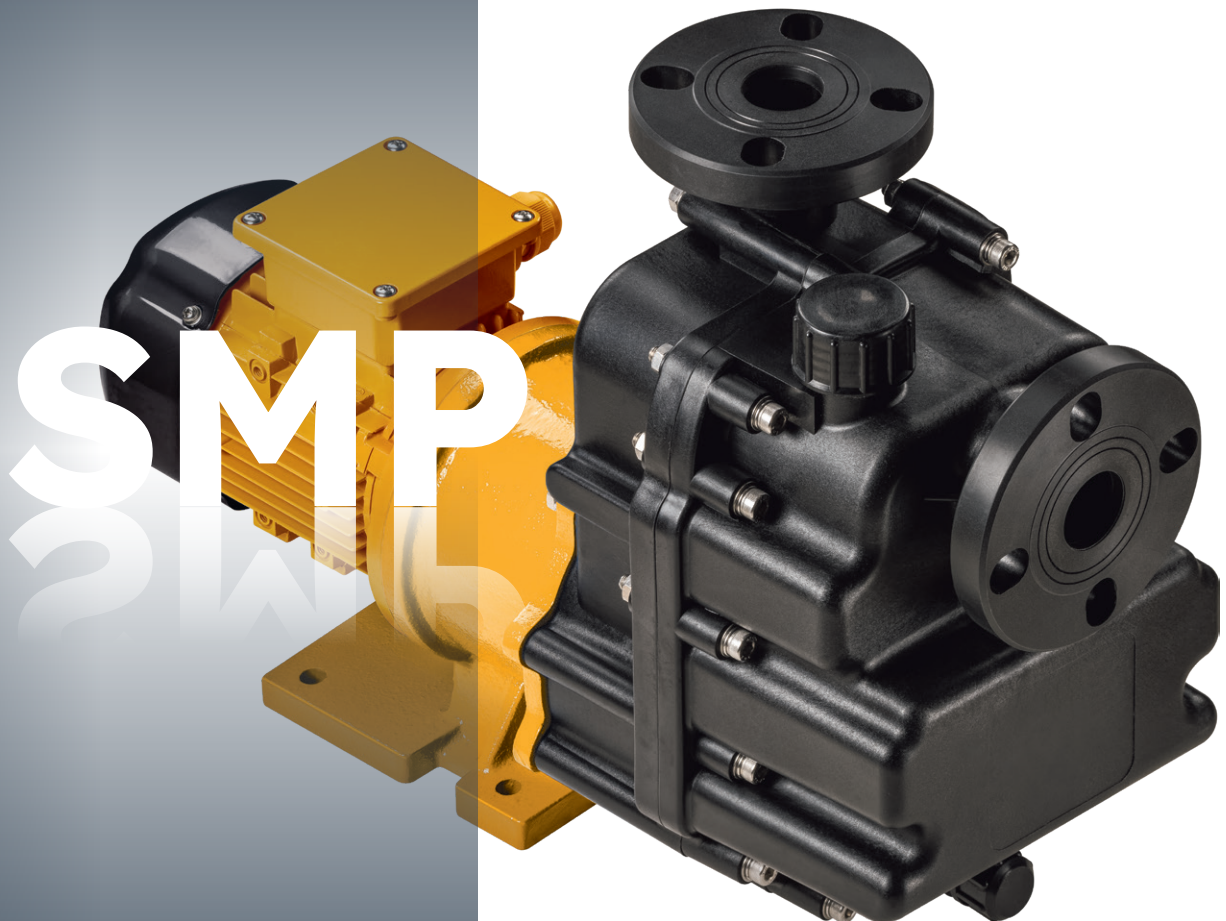


Advantages

- + Suction lift up to 7 m (depending on pump size)
- + Hermetically sealed and absolutely leak-free, since no shaft seal is required
- + Particularly suited for use with toxic, environmentally hazardous, and aggressive media

Liquid Level? Irrelevant.

Automatic self-priming up to 7 m suction lift.



Normal-Priming Turbine Pumps

Made of PVDF or PP with Magnetic Coupling

Housing and impeller materials

PVDF, PP

Elastomers

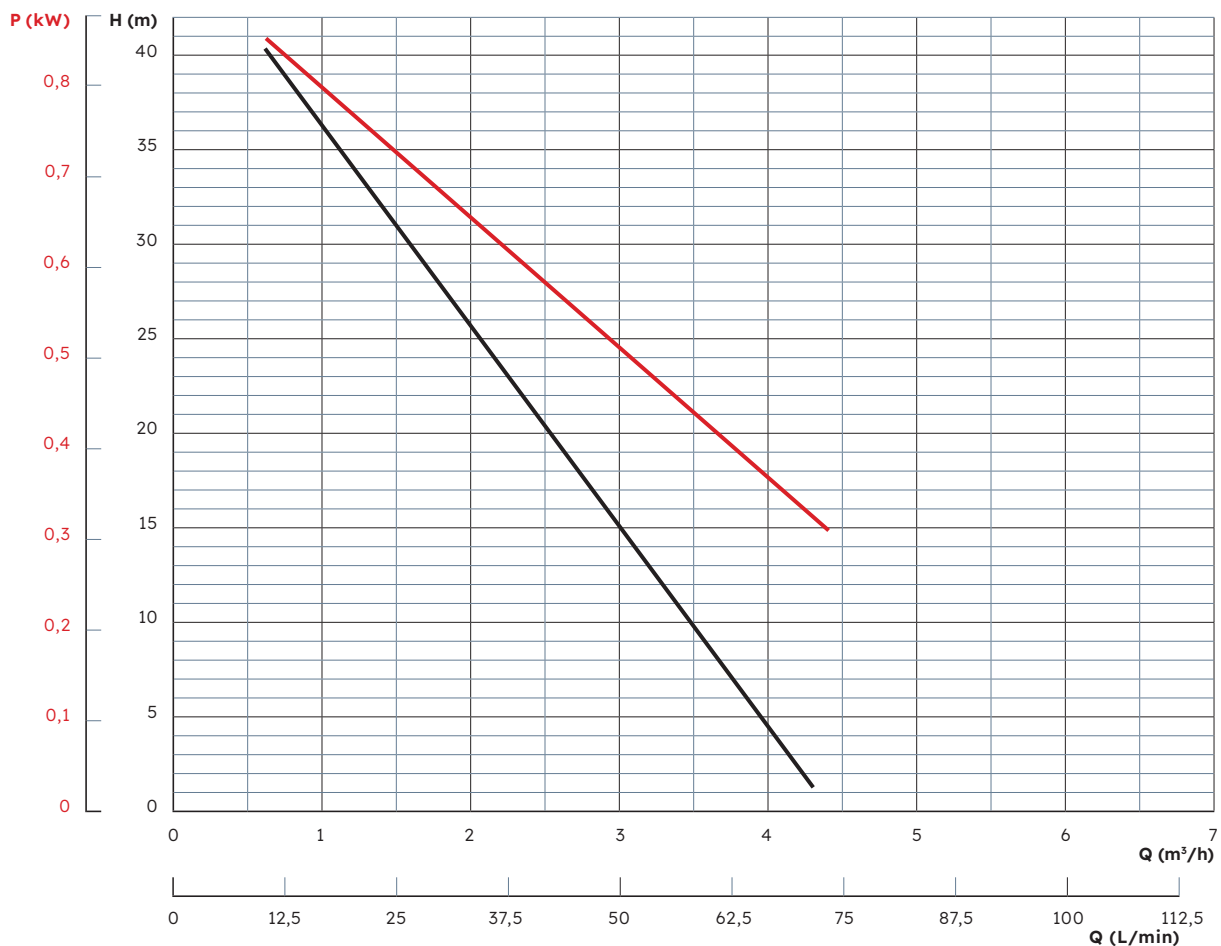
EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Bearing material pairings

SiC / SiC, PTFE-GF / Al₂O₃ ceramic

The P series is designed based on the peripheral turbine principle. Its specialized impeller and casing geometry enable the generation of high discharge pressures. Torque is transmitted contact-free and abrasion-free via a magnetic coupling through the hermetically sealed containment shell to the impeller, eliminating the need for a mechanical seal.

Pump Curve/Power Consumption p 140



Normal-Priming Turbine Pumps

Made of PVDF or PP with Magnetic Coupling

Advantages

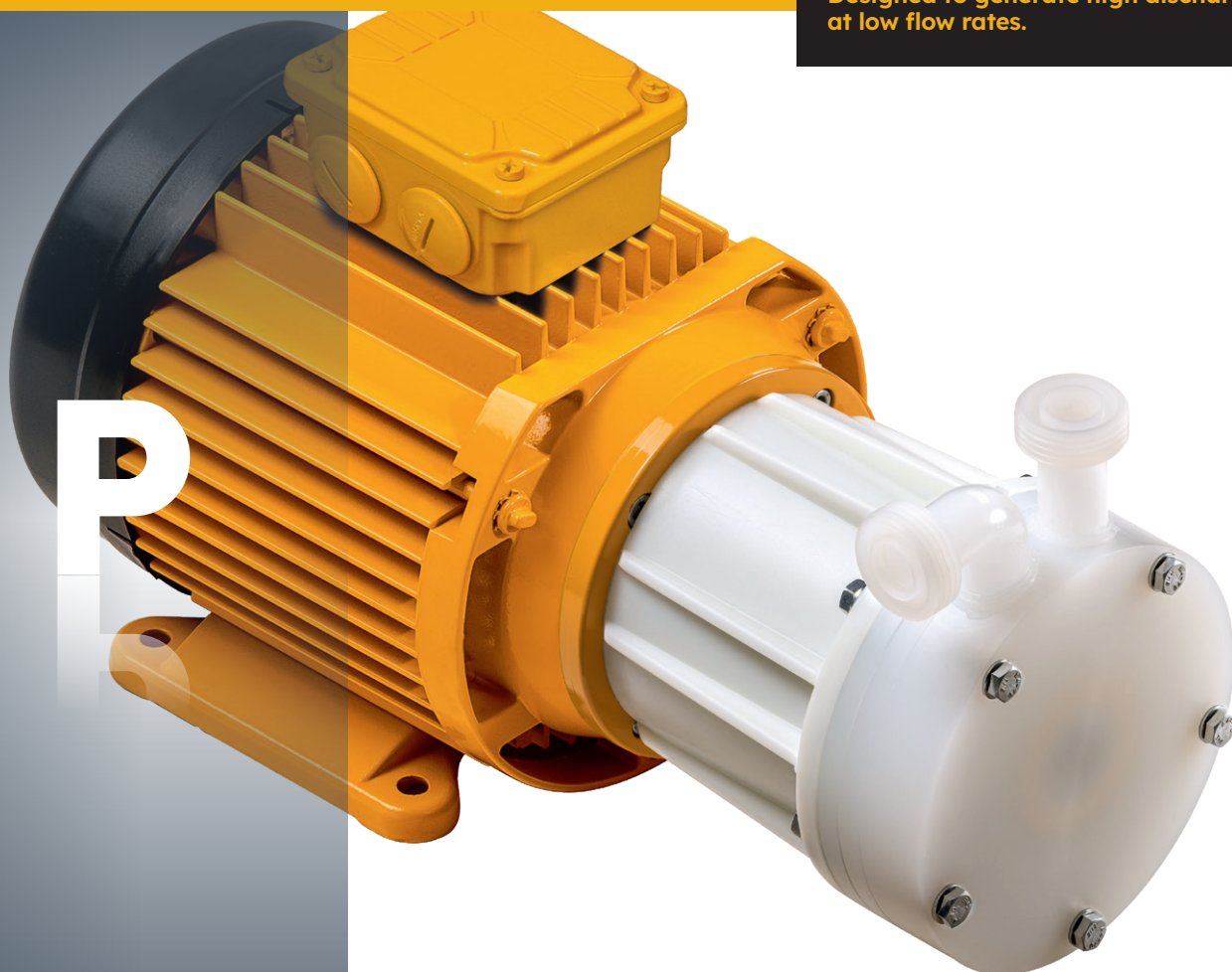
- + Very precise pump control due to linear pump curve
- + Hermetically sealed and absolutely leak-free (no mechanical seal)
- + Particularly suited for toxic, environmentally harmful and corrosive media
- + Very suitable for pumping low-boiling liquids

The maximum allowed temperature is 60 °C. All sizes are also available in ATEX-certified versions under the name P-EX for ATEX Zone 2.

Built for Pressure

Designed to generate high discharge pressures at low flow rates.

P



NEOCHEM BASE

Standardized Chemical Pumps

ETFE-lined, with magnetic coupling according to ISO 2858 and ISO 15783 standards

Housing and impeller materials

ETFE-CF

Elastomers

EPDM, FKM (z. B. Viton®), PTFE+FKM

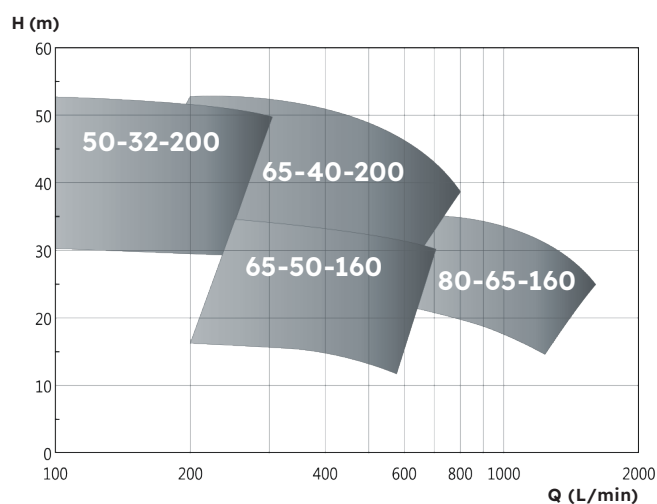
Bearing materials

Carbon, PTFE-CF, SSiC

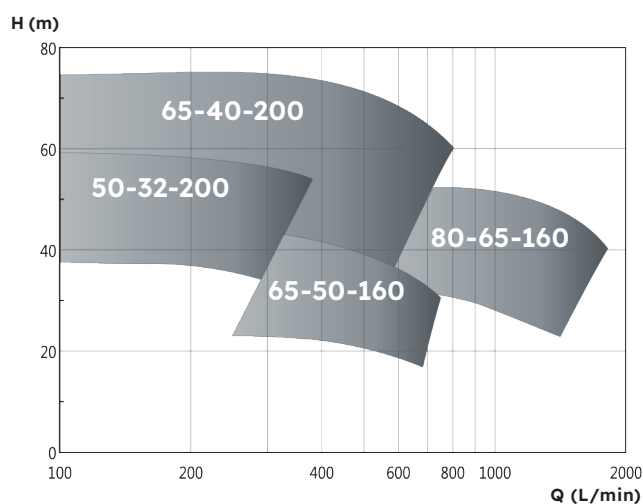
The NEOChem Base is a modern, chemically resistant plastic magnetic pump for demanding industrial applications. It combines a seal-less magnetic coupling with a high-strength armored outer construction and ETFE carbon-fiber lining, providing excellent corrosion resistance and robustness even under harsh operating conditions. Additional features such as a Back-Pull-Out design and flow-through bearing cooling system ensure reduced maintenance cycles and high availability.

Performance Overview

50 Hz



60 Hz



Advantages

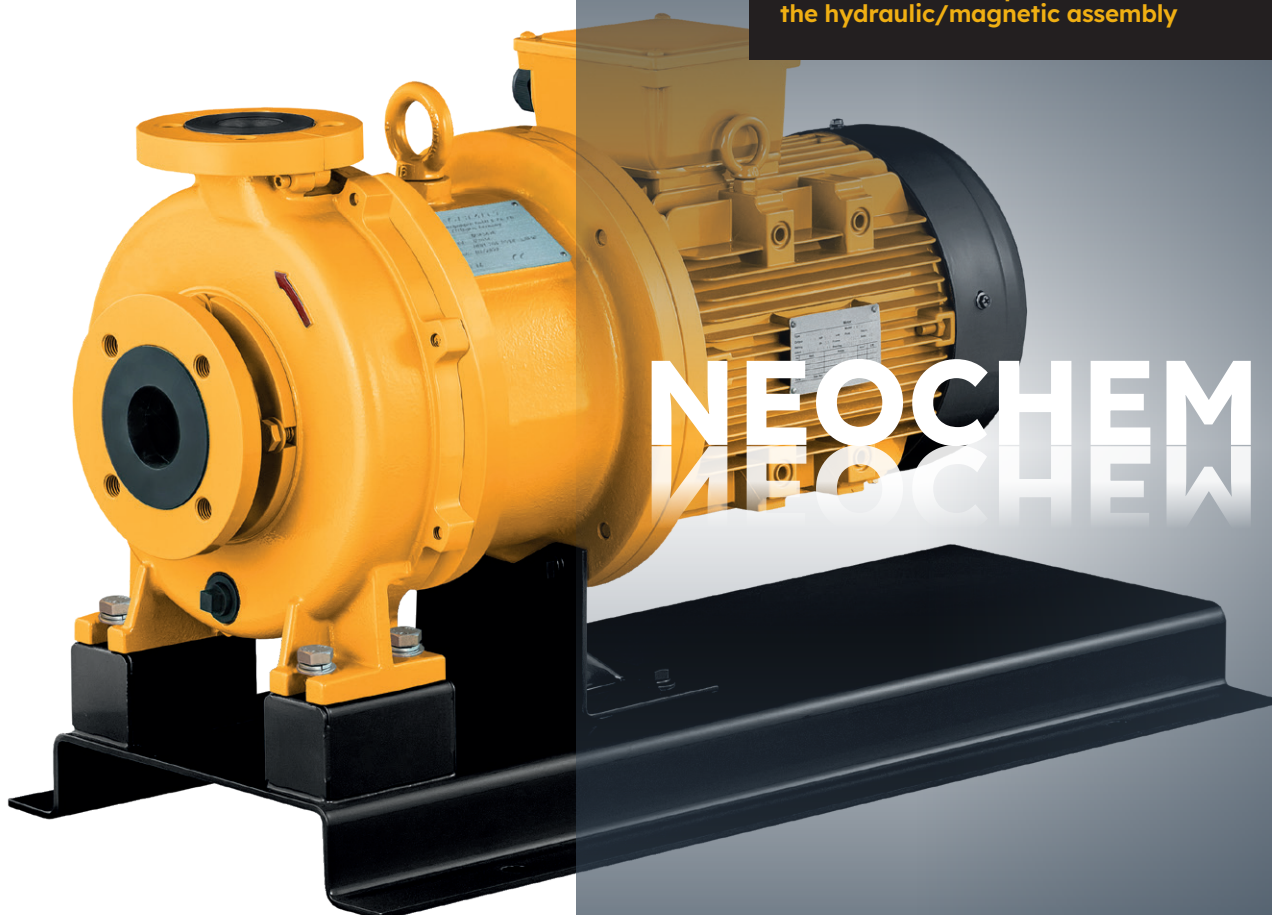
- + Hermetically sealed and completely leak-free – sealless magnetic coupling (no mechanical seal), ensuring no leakage risk and maximum operational safety for expensive or environmentally hazardous media.
- + Ideal for toxic, aggressive, and high-purity media: The ETFE lining combined with a robust armored outer shell provides outstanding corrosion protection and prevents contamination.
- + Back-pull-out design – fast service and replacement of the hydraulic/magnetic assembly without removing the piping, enabling minimal downtime.

High-Strength Outer Construction

Excellent corrosion resistance and robustness

Back-Pull-Out

Fast service and replacement of the hydraulic/magnetic assembly



Heavy-Duty Standardized Chemical Pumps

PFA-lined, with magnetic coupling according to ISO 2858 standard

Housing and impeller materials

PFA

Elastomers

EPDM, FKM (e.g. Viton®), PTFE+FKM

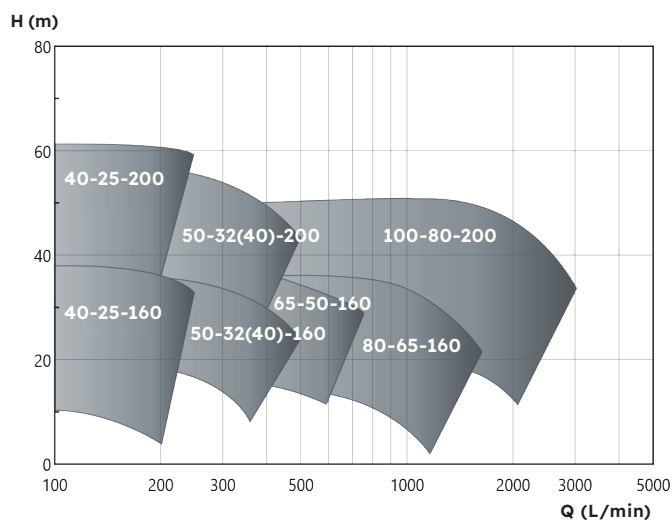
Bearing materials

Carbon, PTFE-CF, SSiC

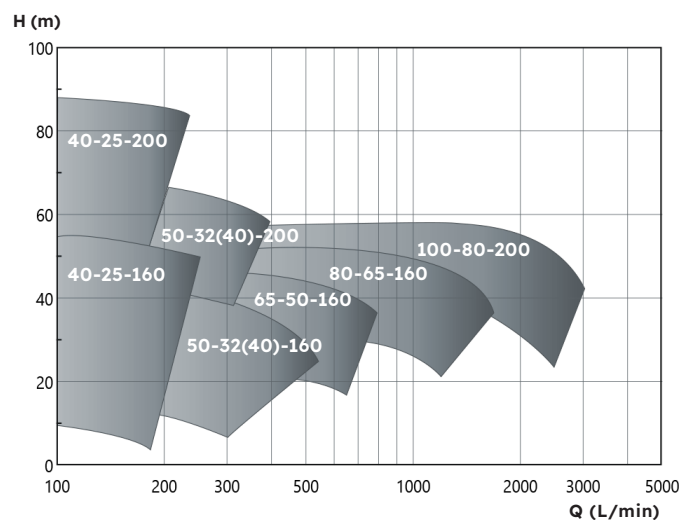
The NEOChem Core is a modern, chemically resistant plastic magnetic pump for demanding industrial applications. It combines a sealless magnetic drive with a high-strength armored outer construction and PFA lining, offering high corrosion resistance and robustness even under harsh operating conditions. Additional features such as a Back-Pull-Out maintenance design and a flow-through bearing cooling system ensure reduced maintenance cycles and high availability

Performance Overview

50 Hz



60 Hz



Heavy-Duty Standardized Chemical Pumps

PFA-lined with Magnetic Coupling

Advantages

- + Hermetically sealed and completely leak-free – sealless magnetic coupling (no mechanical seal), ensuring no leakage risk and maximum operational safety for expensive or environmentally hazardous media.
- + Ideal for toxic, aggressive, and high-purity media: The PFA lining combined with a robust armored outer shell provides outstanding corrosion protection and prevents contamination.
- + Back-pull-out design – fast service and replacement of the hydraulic/magnetic assembly without removing the piping, enabling minimal downtime.
- + Suitable for high process temperatures up to +150 °C

High-Strength Outer Construction

Excellent corrosion resistance and robustness

Back-Pull-Out

Fast service and replacement of the hydraulic/magnetic assembly



Normal-Priming Centrifugal Pumps

Made of Stainless Steel with Single Mechanical Seal

Housing and impeller materials

Stainless steel 1.4571 (AISI 316Ti)

Elastomers

EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Seal face material pairings

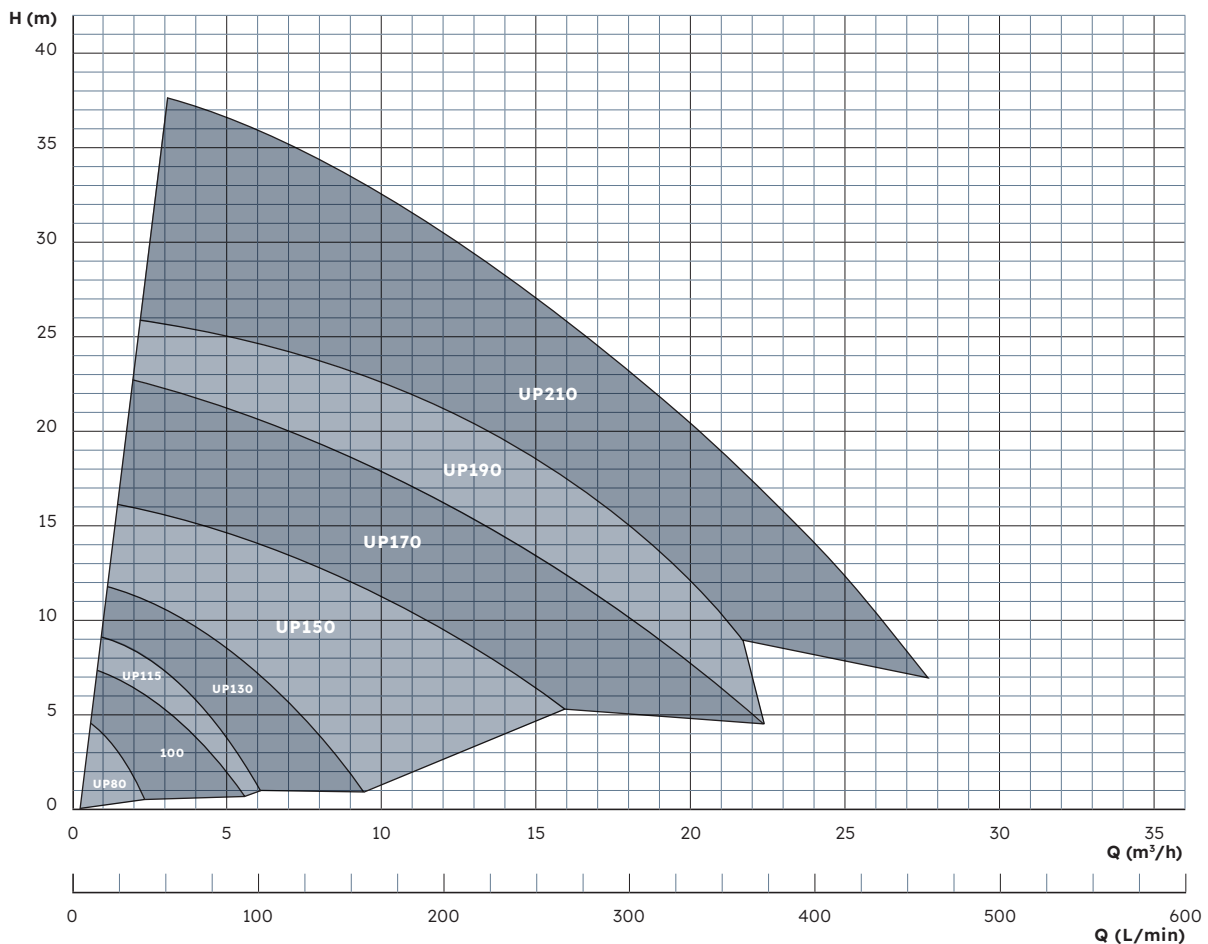
SiC / SiC, Carbon / SiC, Carbon / Al₂O₃ ceramic

Wetted metal parts

Stainless steel 1.4571 (AISI 316Ti)

The UP series is the counterpart to the U series for applications where the use of a plastic pump is not feasible, for example due to elevated temperature requirements of up to 150 °C. The pump is equipped with a single mechanical seal lubricated and cooled by the pumped medium. Seal faces and elastomers are available in various material options. The spring is made of Hastelloy® C-4.

Performance Overview



Normal-Priming Centrifugal Pumps
Made of Stainless Steel with Single Mechanical Seal

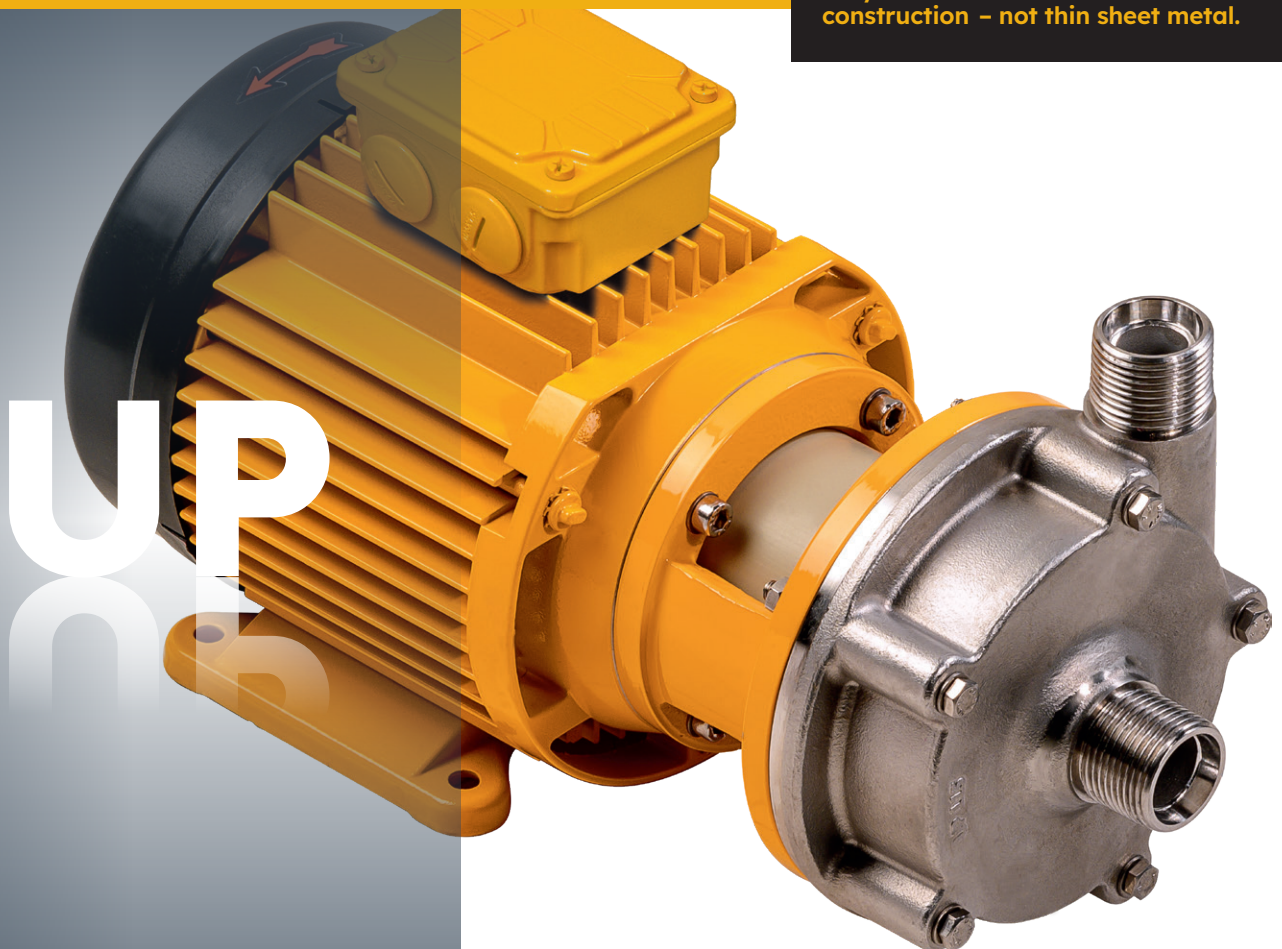
Advantages

- + Robust and durable design featuring thick-walled, solid stainless steel components
- + Compact close-coupled design
- + Easy installation
- + Suitable for high-temperature applications

The pump can handle solids up to 3 mm in particle size at concentrations of up to 10 % by volume. Viscosity may be up to 150 mPa·s. The maximum permissible medium temperature is 150 °C, depending on the version. All sizes are also available in ATEX-certified versions (UP-EX) for use in ATEX Zones 1 and 2.

Thrives on Heat

Stays reliable at 150 °C. Solid cast construction – not thin sheet metal.



UP-DO

Normal-Priming Centrifugal Pumps

Made of Stainless Steel with Double Mechanical Seal

Housing and impeller materials

Stainless steel 1.4571 (AISI 316Ti)

Elastomers

EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

Seal face material pairings

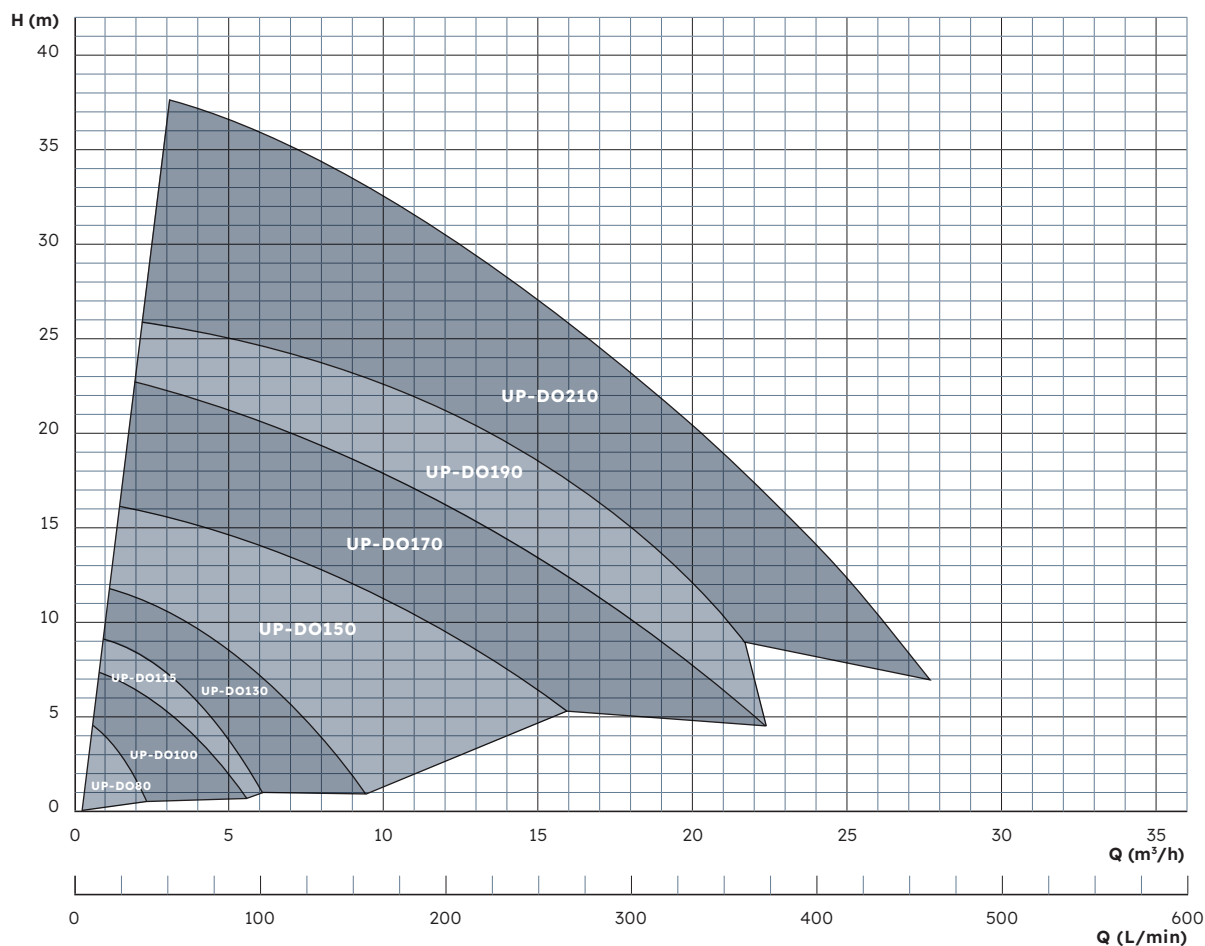
SiC / SiC, Carbon / SiC, Carbon / Al_2O_3 ceramic

Wetted metal parts

Stainless steel 1.4571 (AISI 316Ti)

The UP-DO series is designed with a solid drive shaft that transmits motor power directly to the pump impeller. Sealing is ensured by a double mechanical seal in back-to-back configuration. The mechanical seal is cooled and lubricated by a barrier fluid supplied by a separate seal supply system. Seal faces and elastomers are available in various material options.

Performance Overview



Normal-Priming Centrifugal Pumps
Made of Stainless Steel with Double Mechanical Seal

Advantages

- + Dry run safe when using a pressurized seal support system
- + No leakage of toxic or environmentally hazardous liquids
- + Suited for high temperatures
- + Meets the requirements of the German TA Luft air pollution control regulation

The pump can handle solids up to 3 mm in particle size at concentrations of up to 10 % by volume. Viscosity may be up to 150 mPa·s. The maximum permissible medium temperature is 150 °C, depending on the version.

Thrives on Heat

Stays reliable at 150 °C. Solid cast construction – not thin sheet metal.

Dry-run safe

Mechanical seal cooled and lubricated by a separate system.





Sealless Vertical Centrifugal Pumps

Made of PVDF or PP, Dry-Run Safe

Housing and impeller materials

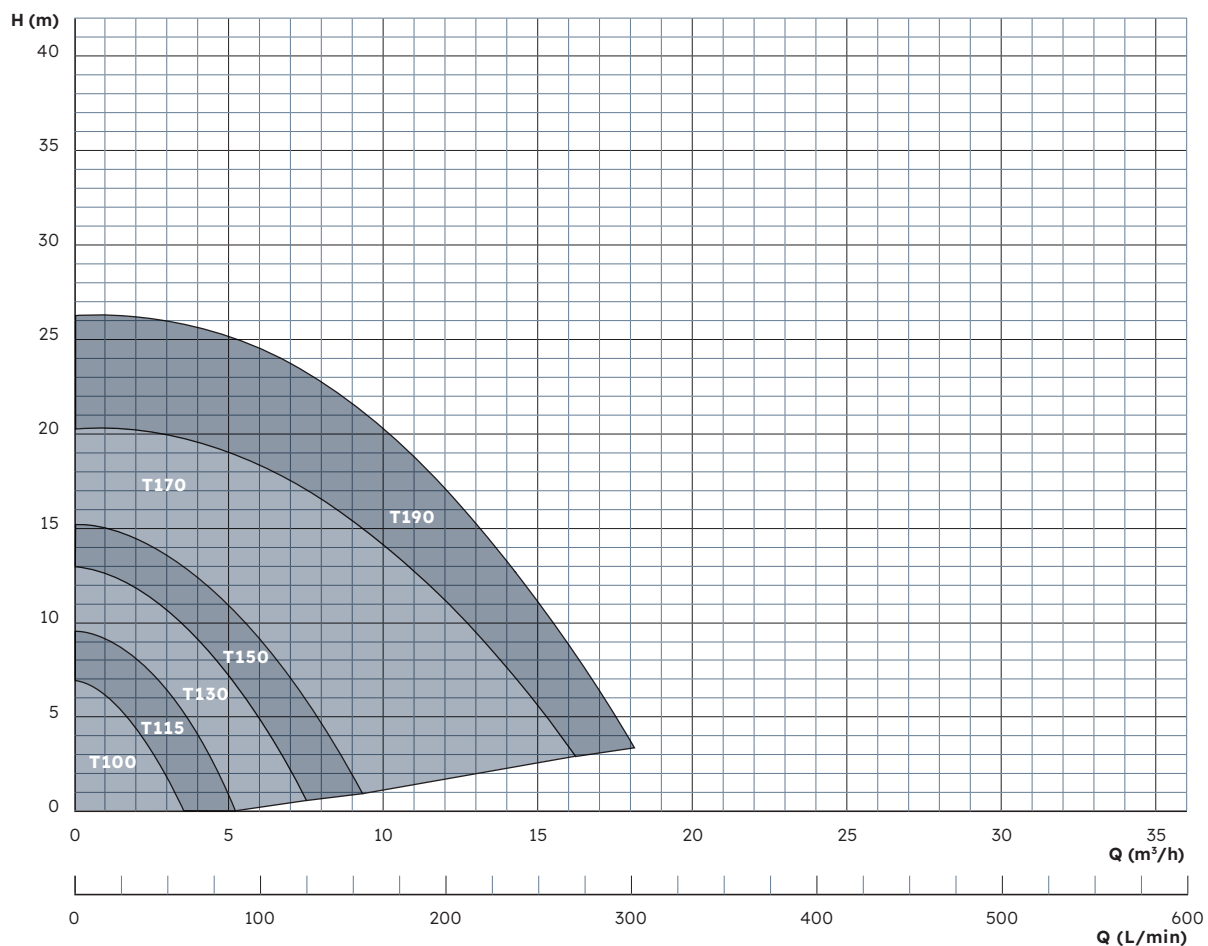
PVDF, PP

Elastomers

EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

The T series transmits motor power vertically to the pump impeller via an extended shaft. The shaft operates without intermediate bearings in accordance with the cantilever design principle. This concept eliminates the need for additional bearings and, in its standard configuration, does not require a shaft seal. Optionally, the T series can be equipped with a shaft seal acting as a vapor barrier. Immersion depths of up to 800 mm are available. Additional suction pipe extensions up to 2 m are possible, depending on pump size.

Performance Overview



Sealless Vertical Centrifugal Pumps

Made of PVDF or PP, Dry-Run Safe

Advantages

- + Absolutely dry run safe because of contact-free shaft and impeller rotation
- + No abrasion into the fluid, therefore well suited for high-purity applications
- + Maintenance-free operation as no wearing parts such as slide bearings or mechanical seal

The pump can handle solids up to 3 mm in particle size at concentrations of up to 10 % by volume. Viscosity may be up to 150 mPa·s. The maximum permissible medium temperature is 95 °C, depending on the version.



High Purity

No wear particles are introduced into the pumped medium.

Low Maintenance

Maintenance-free due to sealless design.

Motors | Accessories

As a standard, Schmitt pumps are equipped with three-phase asynchronous motors: Δ 230/Y400 V, 3-ph @ 50 Hz; Y460 V, 3-ph @ 60 Hz; IP55, Class F, with PTC.

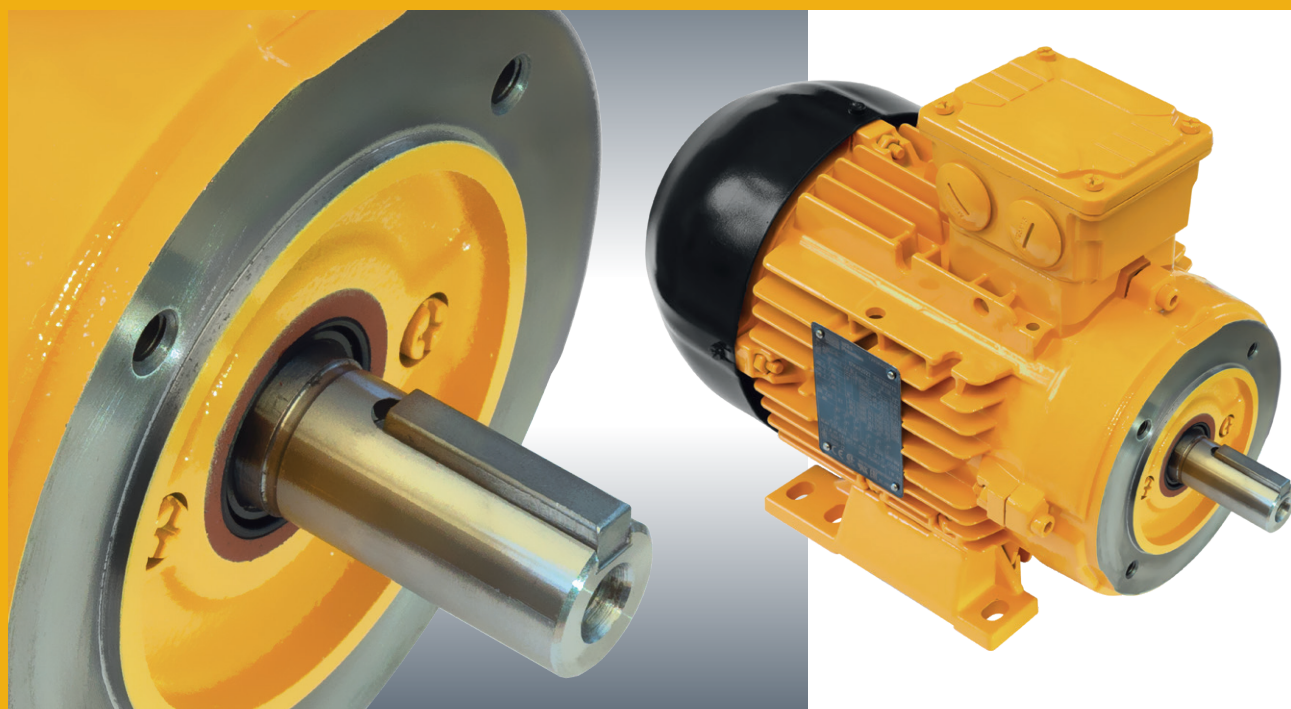
The following are also available:

- + Special voltages and frequencies
- + Three-phase motors with integrated frequency converter
- + ATEX-certified motors with flameproof enclosure and temperature rating T4
- + Four-pole motors with 1450 rpm @ 50 Hz / 1650 rpm @ 60 Hz
- + UL- and CSA-certified motors
- + Special types of protection, e.g., IP65
- + Special insulation classes, e.g., tropical insulation
- + Multi-voltage, e.g., Δ 220-290/Y380-500 V @ 50 Hz; Δ 220-332/Y380-575 V @ 60 Hz
- + Direct-current motors (DC or BLDC)

Other versions are available on request.

Schmitt offers an extensive range of fittings to facilitate the installation of the pump into your system:

- + Flange adaptors
- + Hose connectors
- + Welding connectors for stainless steel pipes
- + Reducers
- + NPT threaded adaptors
- + Inlet strainers for vertical pumps
- + Extension pipes for vertical pumps



Schmitt

Schmitt Kreispumpen is a pioneer in the development and manufacture of chemically resistant pumps. In 1965, we built our first plastic centrifugal pump.

- + High level of vertical integration, including in-house CNC machining, injection molding and prototyping
- + Inventory-oriented production strategy with comprehensive in-house stock
- + 1,200 m² of production space
- + Certified according to ISO 9001
- + More than 5,000 active customers worldwide
- + Very short delivery times
- + Overnight shipment of spare parts

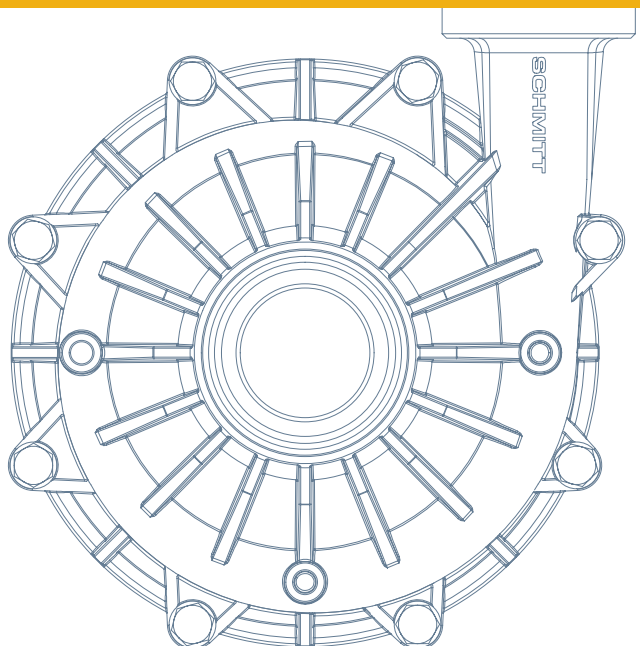
For more information about Schmitt Kreispumpen, our products, and our distribution network, please visit:

schmitt-pumpen.de

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Reinventing
flow.
Since 1964





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