



PRODUCT OVERVIEW

CHEMICAL RESISTANT PUMPS FOR
CORROSIVE AND HAZARDOUS MEDIA

WE LOVE ...

FINDING THE BEST SOLUTION FOR YOU

Why isn't it enough for us to produce first-class pumps? Because we're not satisfied until they're perfectly integrated into your operational processes and therefore working even more efficiently. And we want our partners in the specialist trade to benefit from this optimal performance too.

PUTTING OUR HEADS TOGETHER FOR YOU

Why do we always put our heart and soul into our work? Because that's how you get the best from us every time: top quality, perfectly tailored concepts, and impressive service.

MAKING THINGS POSSIBLE

Why isn't the word "impossible" in our vocabulary? Because we're happy to come to your rescue. And because your success is always our top priority.

...

HELPING TO MAKE SURE EVERYTHING RUNS SMOOTHLY FOR YOU



...

BEING YOUR
PERSONAL POINT OF
CONTACT:

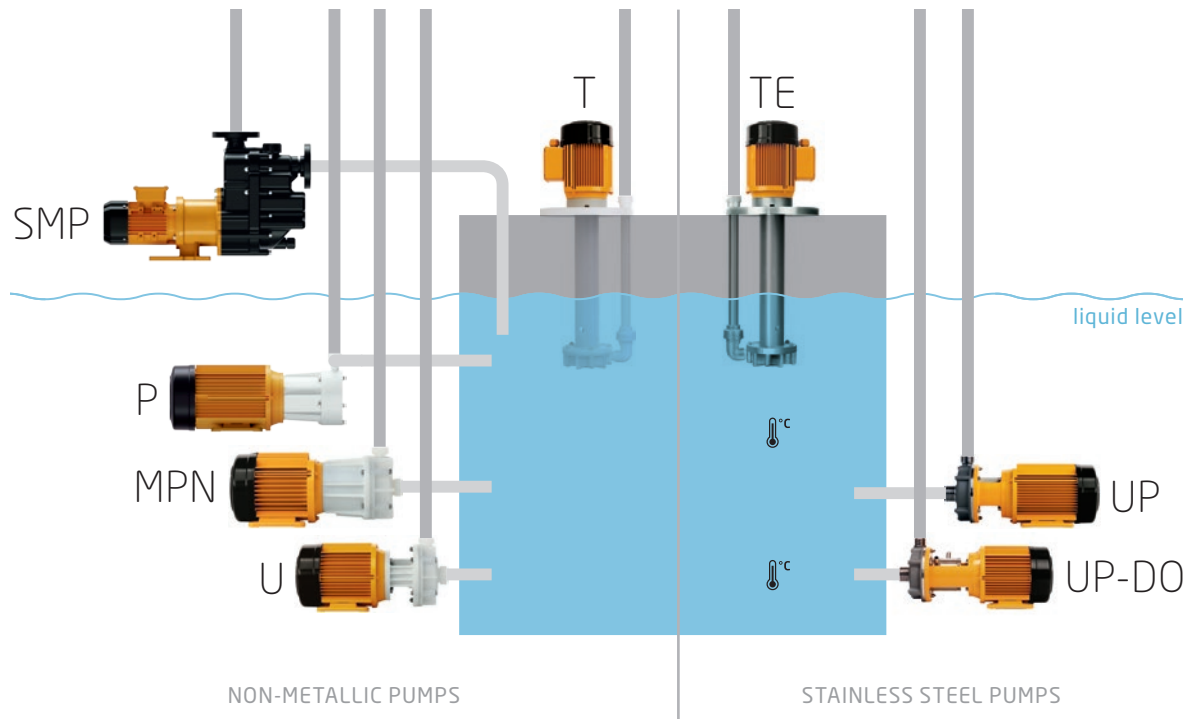
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PRODUCT OVERVIEW

Chemical resistant pumps for corrosive and hazardous media

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Series	Type	Material	T _{max}	Q _{max}	H _{max}
MPN	Hermetically sealed, magnetic drive, nonmetallic centrifugal pumps	PP PVDF	+80°C +95°C	35 m³/h	32 m
U	Non-metallic centrifugal pumps, single mechanically sealed	PVDF	+95°C	32 m³/h	40 m
SMP	Selfpriming, magnetic drive centrifugal pumps	PP	+80°C	23 m³/h	24 m
P	Normal priming, magnetic drive turbine pumps	PVDF PP	+60°C	4,5 m³/h	40 m
UP	Stainless steel centrifugal pumps, single mechanically sealed	stainless steel	+150°C	28 m³/h	39 m
UP-DO	Stainless steel centrifugal pumps, double mechanically sealed	stainless steel	+150°C	28 m³/h	39 m
T	Vertical non-metallic centrifugal pumps, sealless, dry run safe	PP PVDF	+80°C +95°C	29 m³/h	26 m
TE	Vertical stainless steel centrifugal pumps, sealless, dry run safe	stainless steel	150°C	31 m³/h	24 m

MPN

Normal priming, magnetic drive centrifugal pumps



Housing and impeller materials: PVDF, PP
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Bushing materials: PTFE-GF, Al₂O₃-ceramics, SiC (silicon carbide), graphite carbon

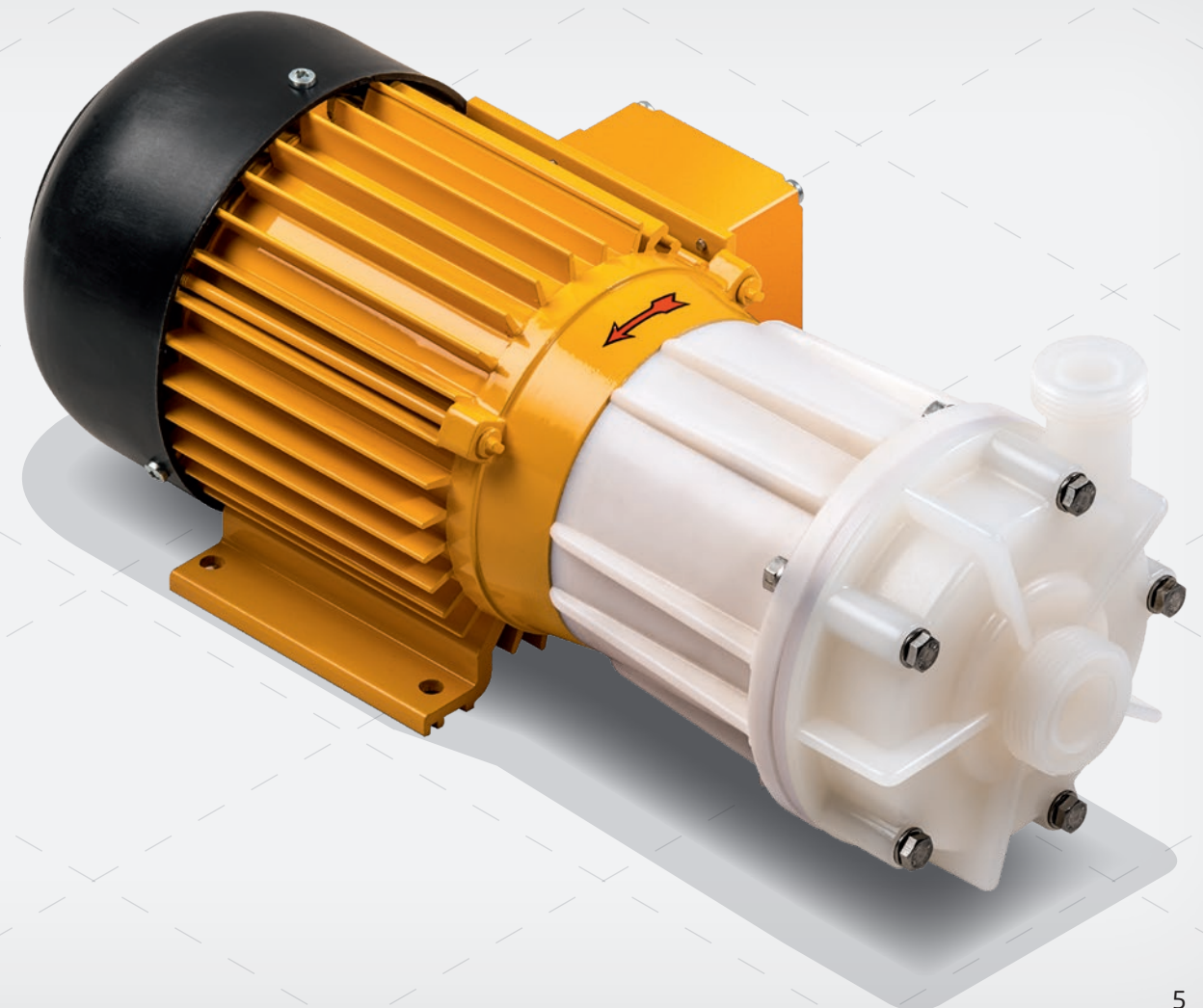
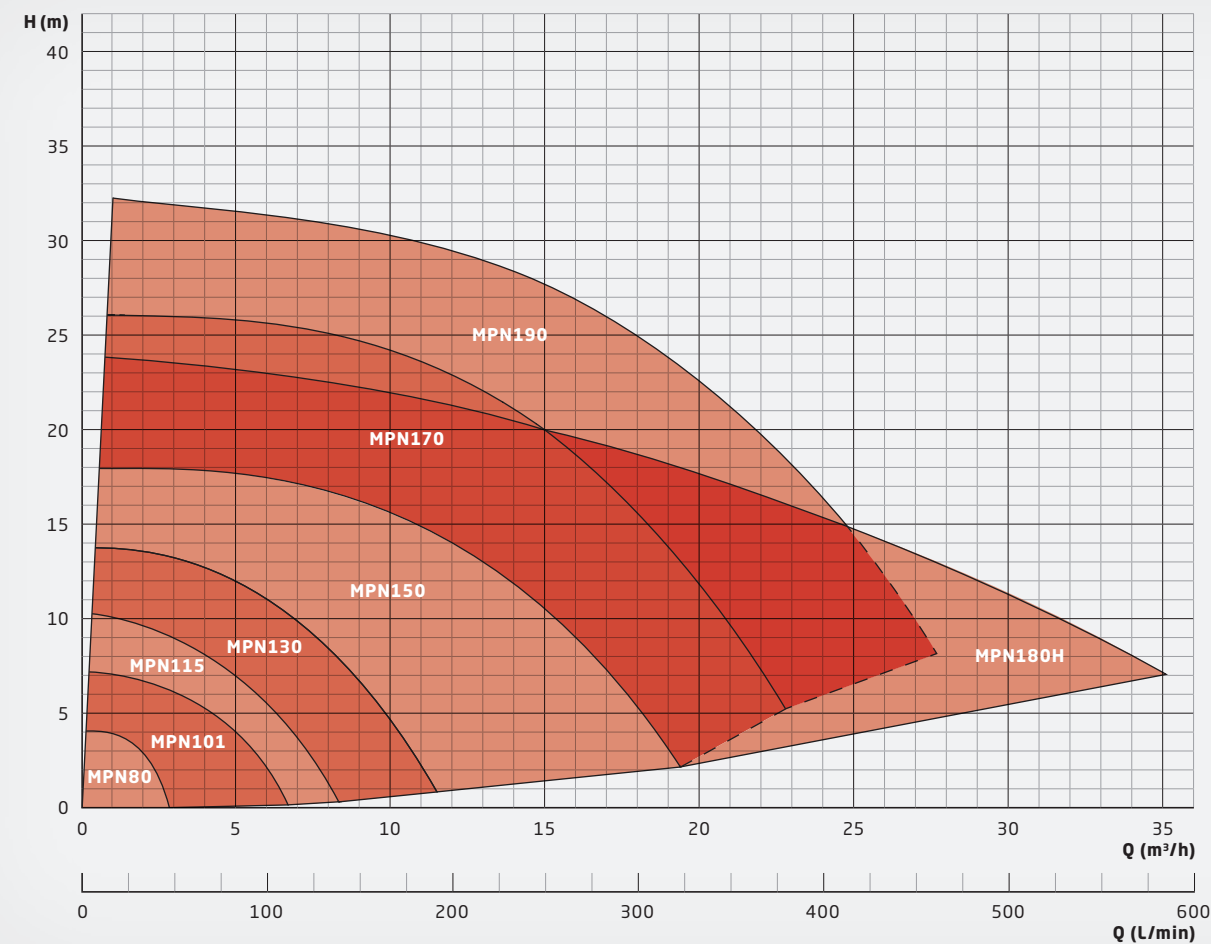
The MPN series is one of the most proven plastic magnetic drive pumps in the industry. Having been continuously improved over the decades, there are some ten thousand MPN pumps in use worldwide. The MPN series features a contact- and abrasion-free magnetic drive system, so that no mechanical seal is required to seal the pump.

Advantages:

- + Hermetically sealed and absolutely leak-free (no mechanical seal)
- + Particularly suited for toxic, environmentally harmful and corrosive media
- + Runs in partial dry run conditions due to large diameter slide bearings

Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas; the maximum allowed temperature is 95°C. All sizes are also available in ATEX-certified versions under the name MPN-EX for ATEX zones 1 and 2.

PERFORMANCE CHART



U

Centrifugal pumps with single mechanical seal



Housing and impeller material: PVDF
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Mechanical seal materials: SiC (silicon carbide), graphite carbon, PTFE-GF, Al₂O₃-ceramics
Metal parts: Stainless steel ANSI 316Ti (1.4571), Hastelloy® C4

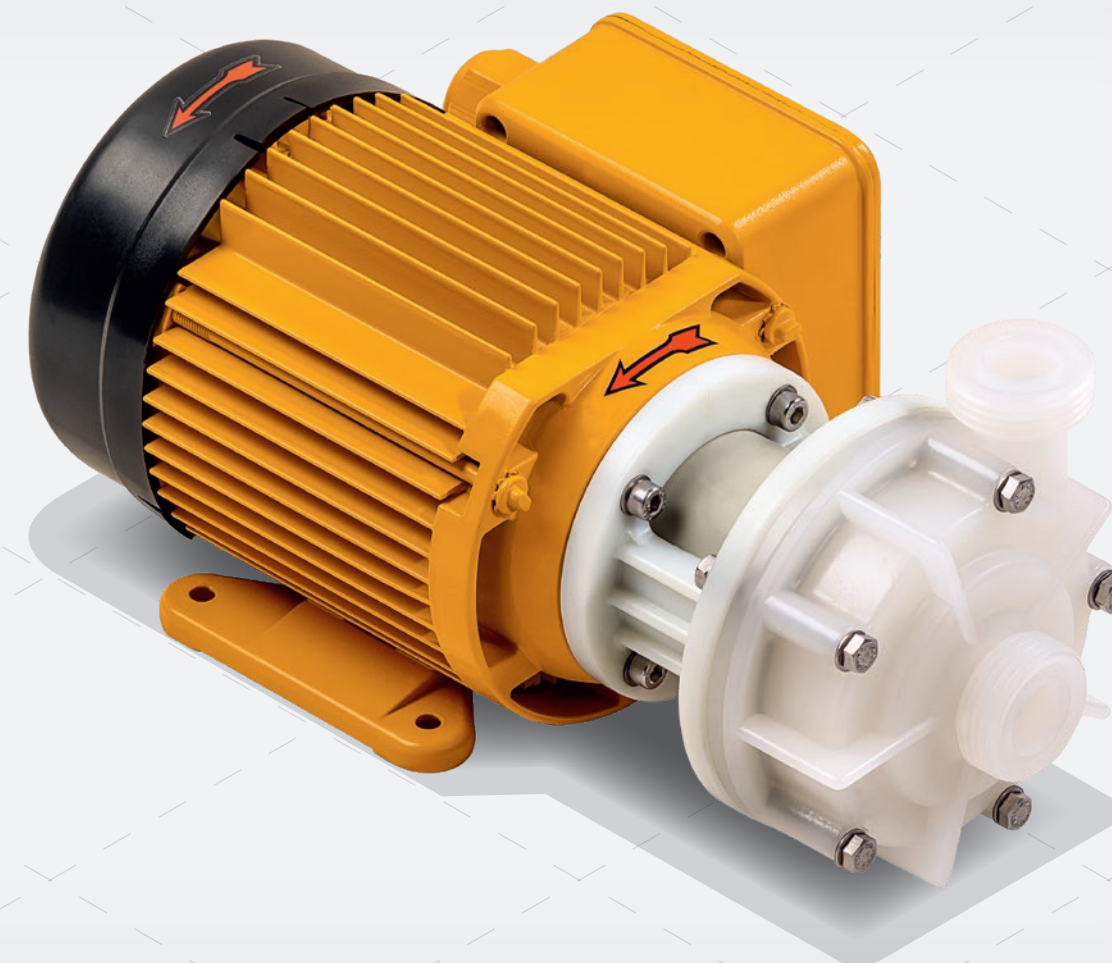
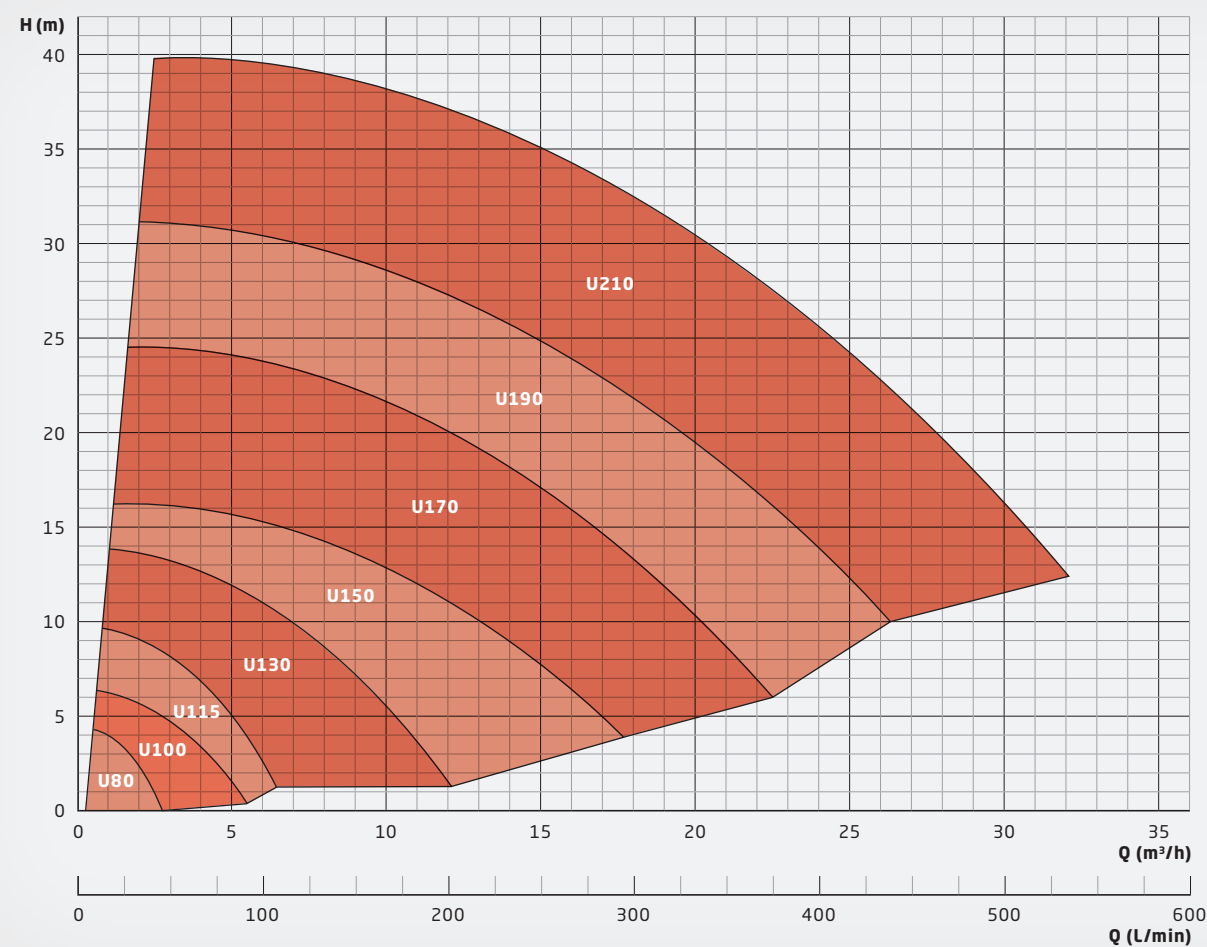
The U series is the SCHMITT entry model to cope with corrosive media. The impeller is directly mounted on the motor shaft extension. The pump is sealed with a single mechanical seal that is cooled and lubricated by the fluid. The mechanical seal is available in different versions, featuring various elastomer and seal face materials and an optional PVDF shaft sleeve.

Advantages:

- + Economic and robust alternative to magnetic drive pumps
- + Pumping of magnetic particles possible
- + Compact close-coupled design
- + Suited for corrosive media

Different versions and materials available allow for a perfect match to many operating conditions. Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas, the maximum allowed temperature is 95°C. All sizes are also available in ATEX-certified versions under the name U-EX for ATEX zone 2.

PERFORMANCE CHART



SMP

Selfpriming, magnetic drive centrifugal pumps



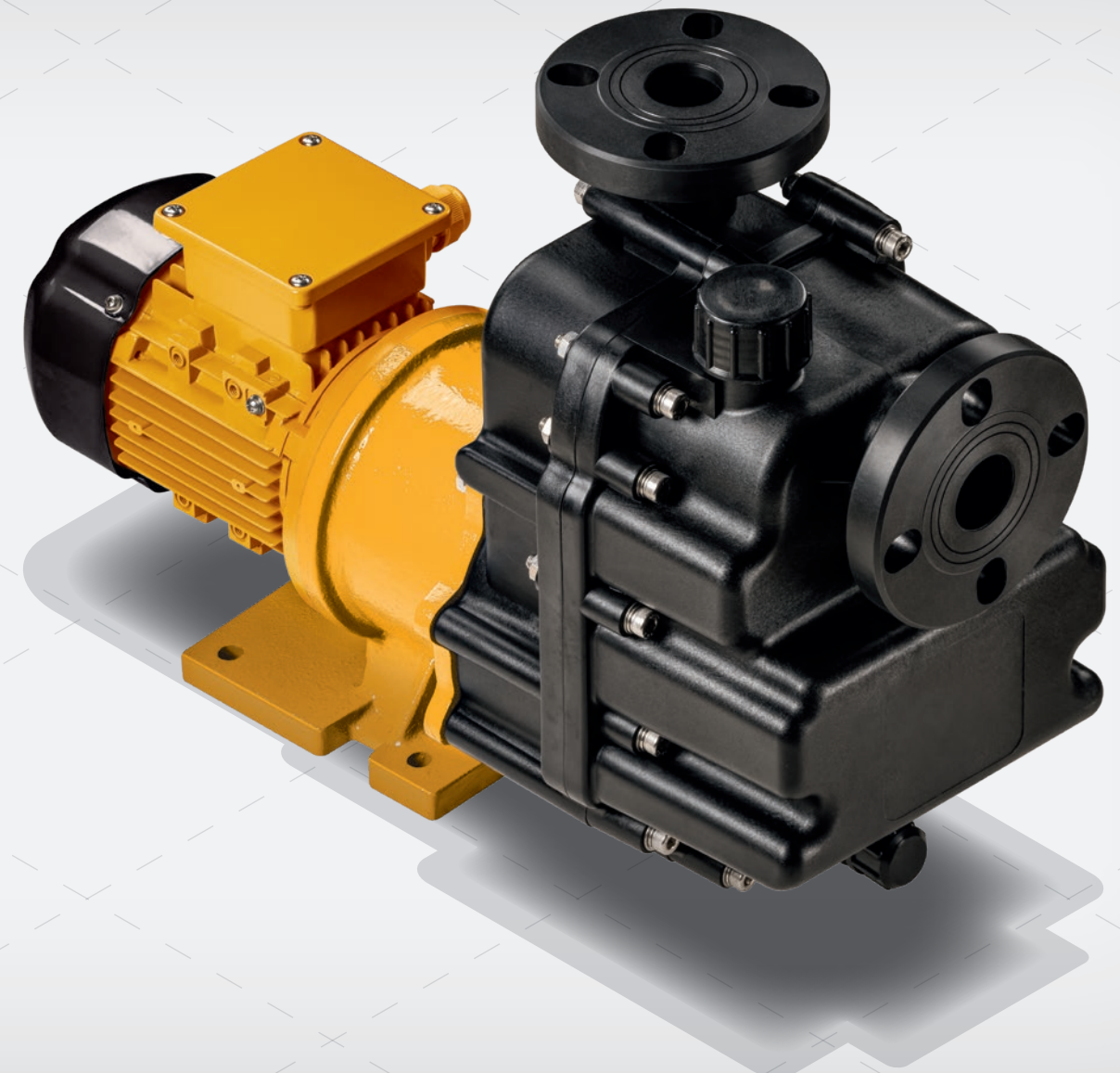
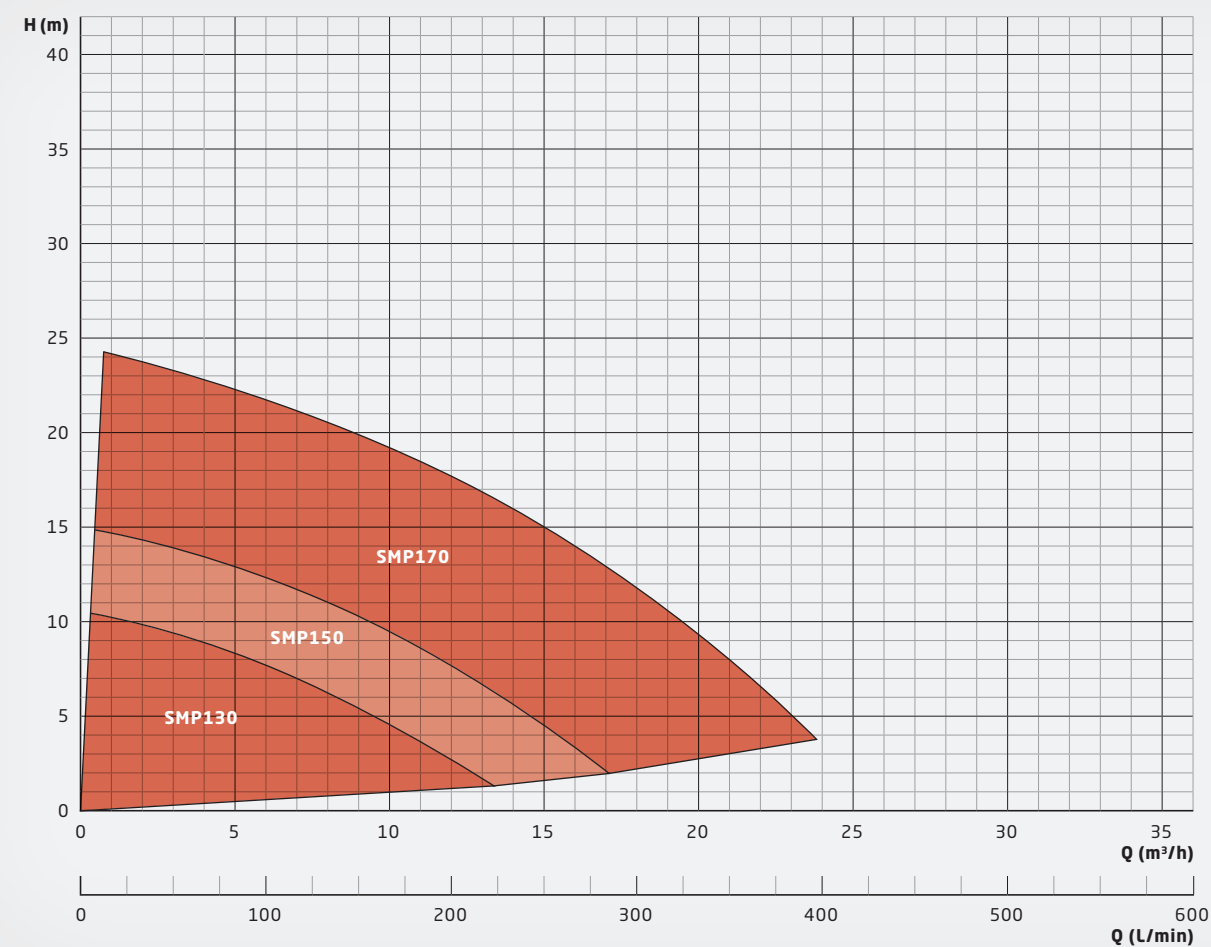
Housing and impeller materials: PP
Elastomers: EPDM, FKM (e.g. Viton®)
Bushing materials: Graphite carbon/ Al_2O_3

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 SMP series features a contact- and abrasion-free magnetic drive system, so that no mechanical seal is required to seal the pump.

Advantages:

- + Suction heights up to 7 m (depending on the size)
- + Hermetically sealed and absolutely leak-free (no mechanical seal)
- + Particularly suited for toxic, environmentally harmful and corrosive media

PERFORMANCE CHART



P

Normal priming, magnetic drive turbine pumps



Housing and impeller materials: PVDF, PP
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Bushing materials: PTFE-GF, Al₂O₃-ceramics, SiC (silicon carbide)

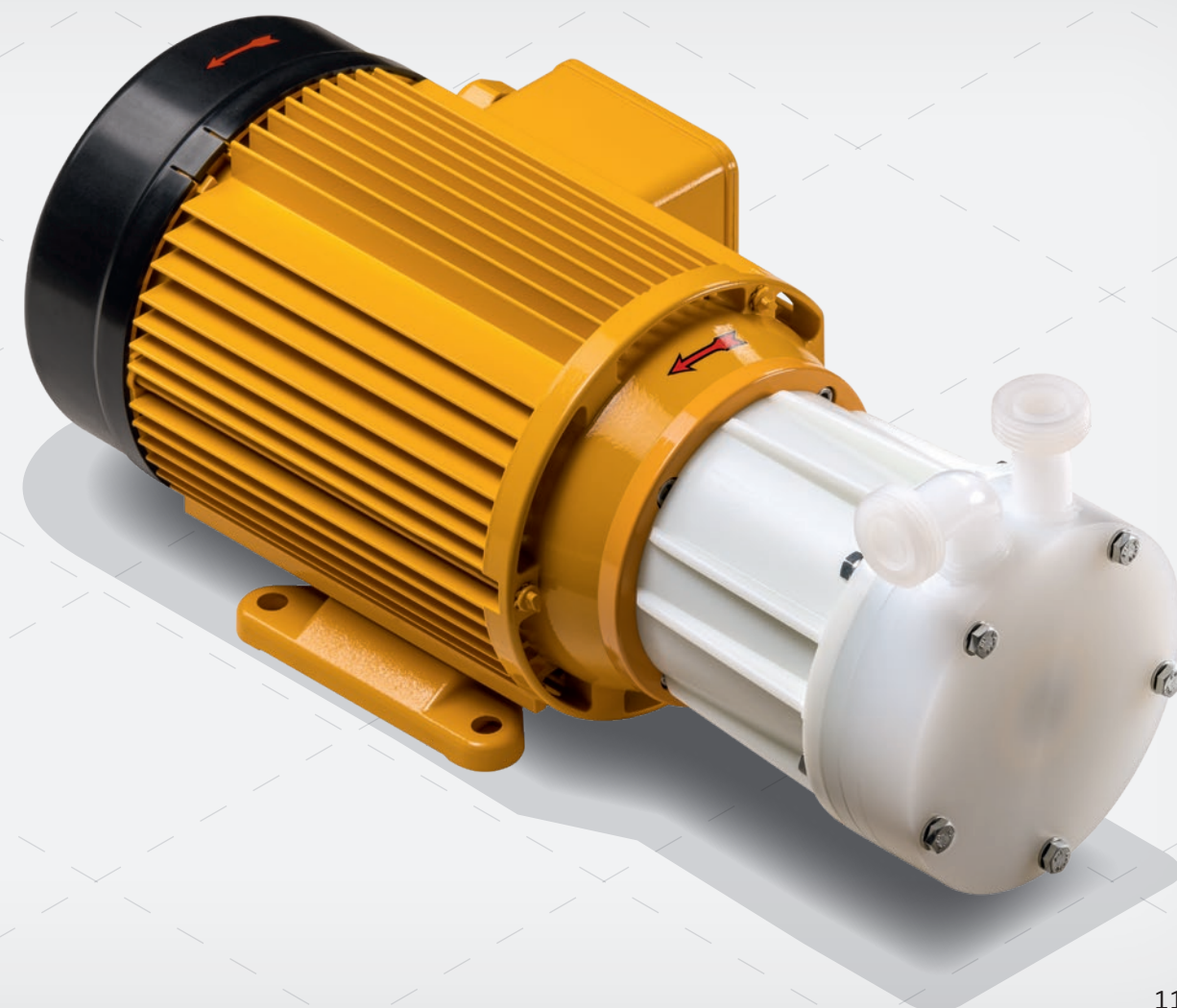
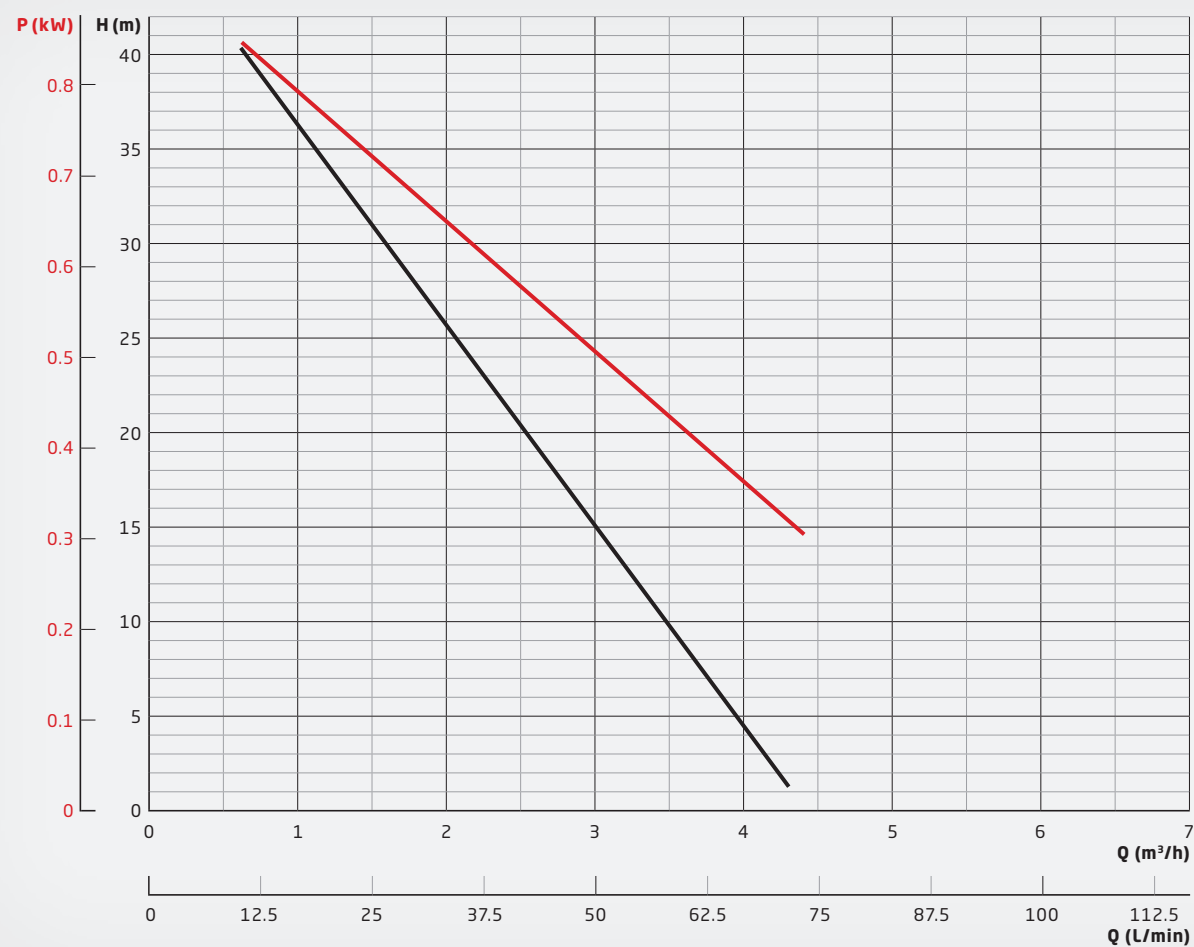
The P Pump Series is designed according to the peripheral impeller principle. The special impeller and housing geometry enables high pressures. The P series features a contact- and abrasion-free magnetic drive system, so that no mechanical seal is required to seal the pump.

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.

PUMP CURVE / POWER CONSUMPTION P 140



UP/UP-DO

Stainless steel centrifugal pumps with single or double mechanical seal



Housing and impeller material: Stainless steel ANSI 316Ti (1.4571)
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Mechanical seal materials: SiC (silicon carbide), graphite carbon, PTFE-GF, Al₂O₃-ceramics
Metal parts: Stainless steel ANSI 316Ti (1.4571)

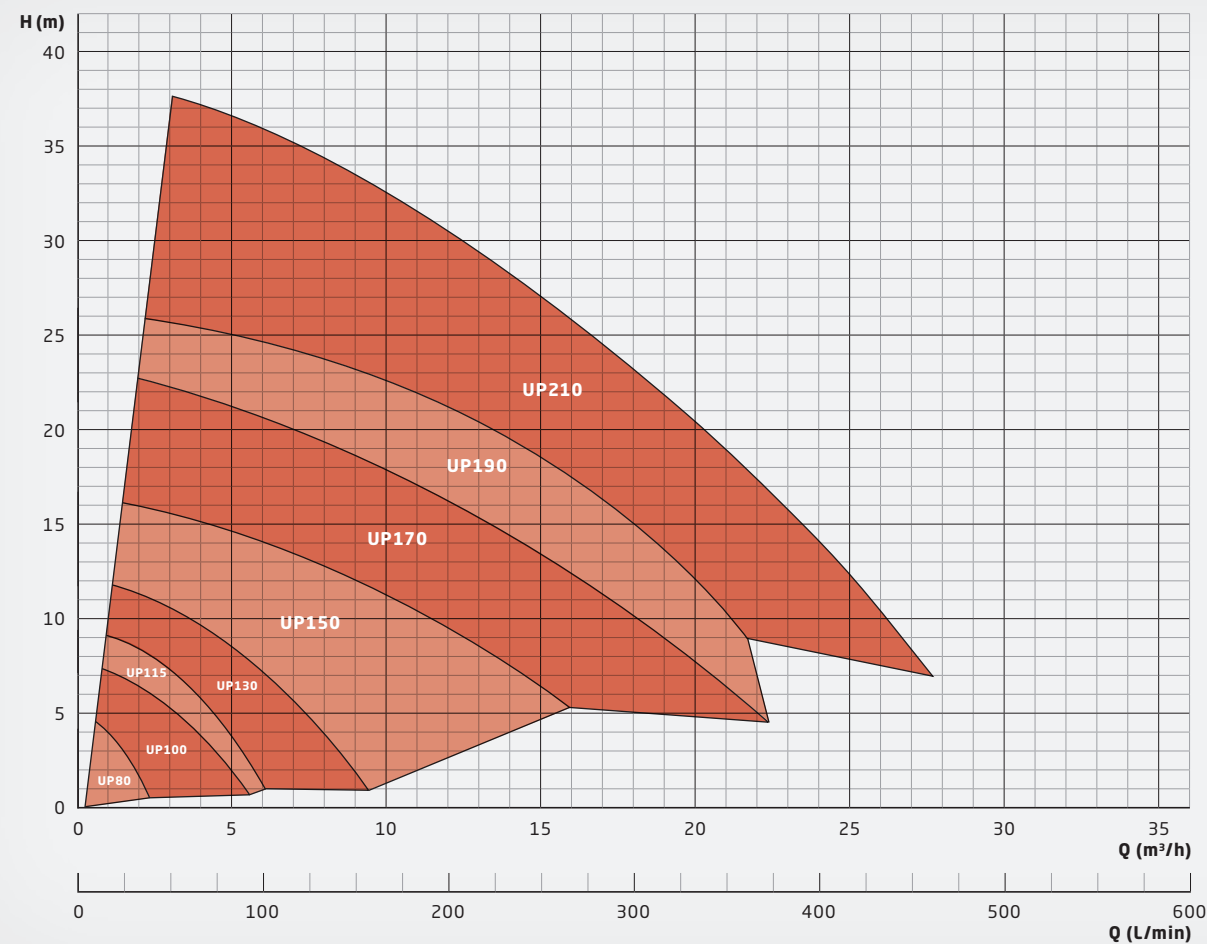
The UP series is for those applications in which a non-metallic pump cannot be used or is not desired, e.g. for temperatures up to 150°C. The impeller is directly mounted on the motor shaft extension. The pump is sealed with a single or double (UP-DO) mechanical seal that is cooled and lubricated by the fluid. For the UP-DO, a separate barrier fluid system is required.

Advantages:

- + Robust housing parts with high wall thickness
- + Compact close-coupled design
- + Easy installation
- + Suitable for high temperatures
- + UP-DO: Dry run safe in connection with a barrier fluid system
- + UP-DO: No leakage of toxic or environmentally hazardous liquids
- + UP-DO: Meets the requirements of TA Luft

Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas, the maximum allowed temperature is 150°C. All sizes are also available in ATEX-certified versions under the name UP-EX for ATEX zones 1 and 2.

PERFORMANCE CHART



UP-DO

Stainless steel centrifugal pumps, double mechanically sealed



Housing and impeller material: Stainless steel ANSI 316Ti (1.4571)
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Mechanical seal materials: SiC (silicon carbide), graphite carbon, PTFE-GF, Al₂O₃-ceramics
Metal parts: Stainless steel ANSI 316Ti (1.4571)

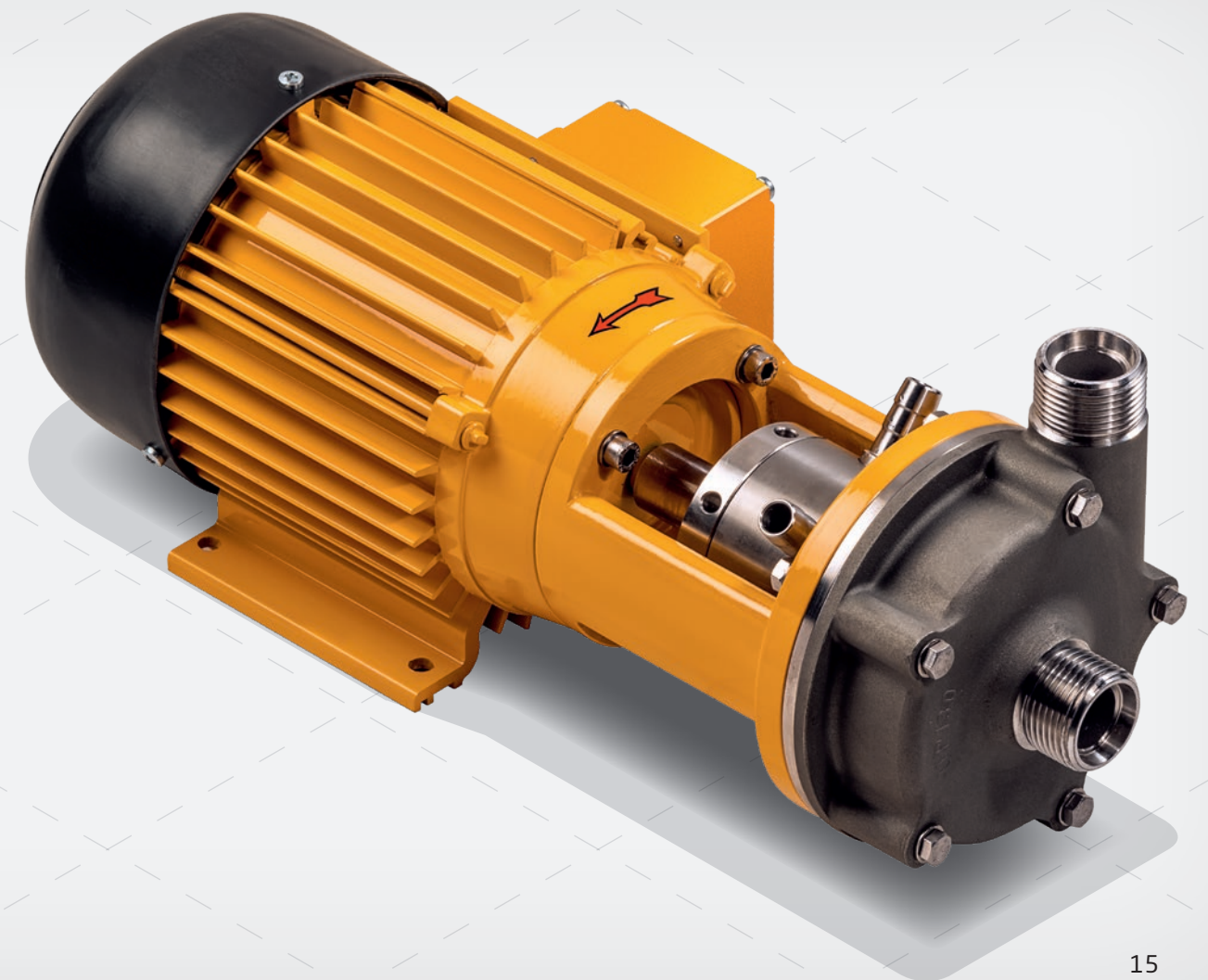
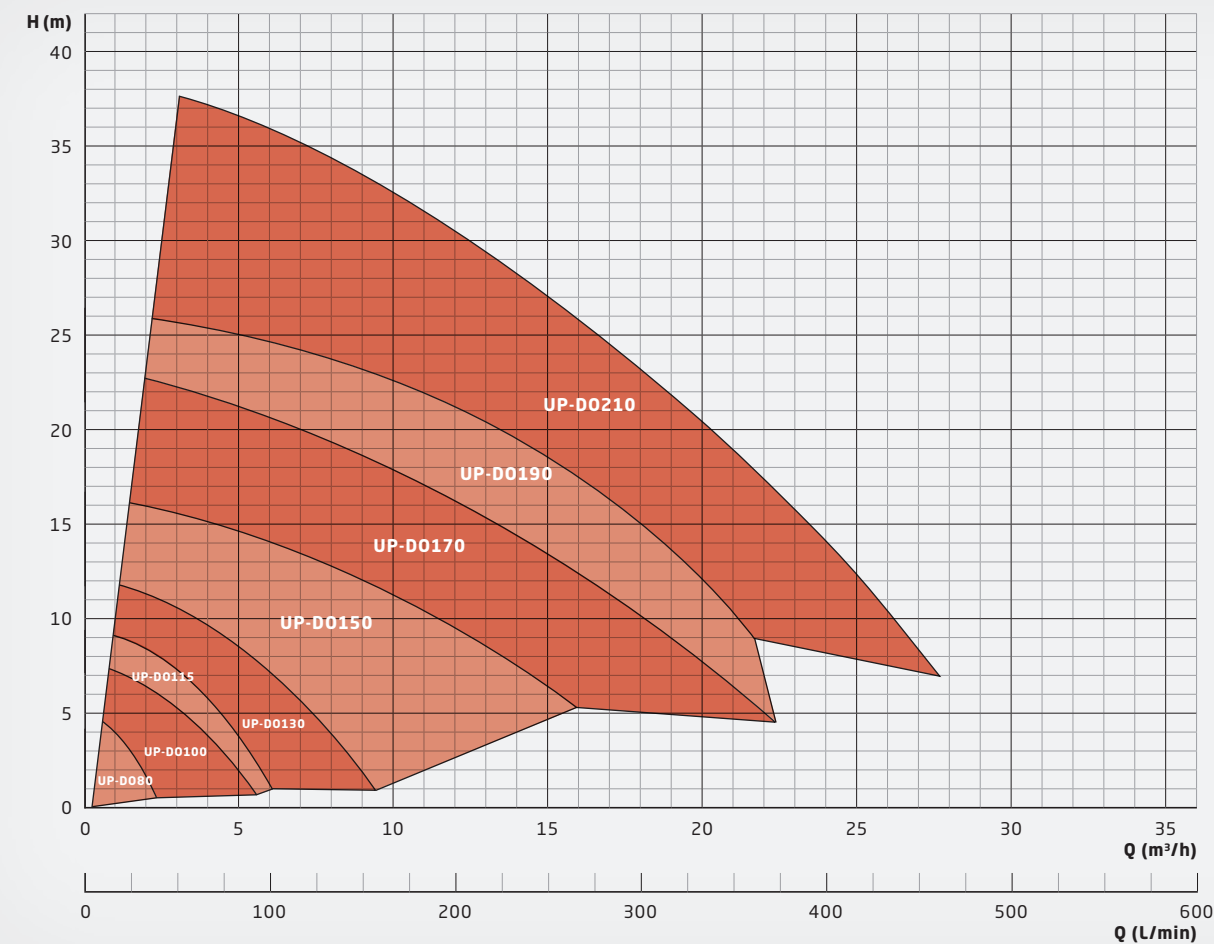
The UP-DO series is for those applications where a non-metallic hermetically sealed pump is required for temperatures up to 150°C. A double mechanical seal in back-to-back configuration seals the pumps and prevents harmful media from entering the atmosphere. The double seal is cooled and lubricated by a barrier fluid, for which a separate seal support system is required. Seals and elastomers are available in many materials.

Advantages:

- + Dry run safe when using a pressurized seal support system
- + No evaporation of harmful media into the atmosphere
- + Suited for high temperatures
- + Meets the requirements of the German TA Luft air pollution control regulation

Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas, the maximum allowed temperature is 150°C.

PERFORMANCE CHART



T

Vertical non-metallic centrifugal pumps, sealless, dry run safe



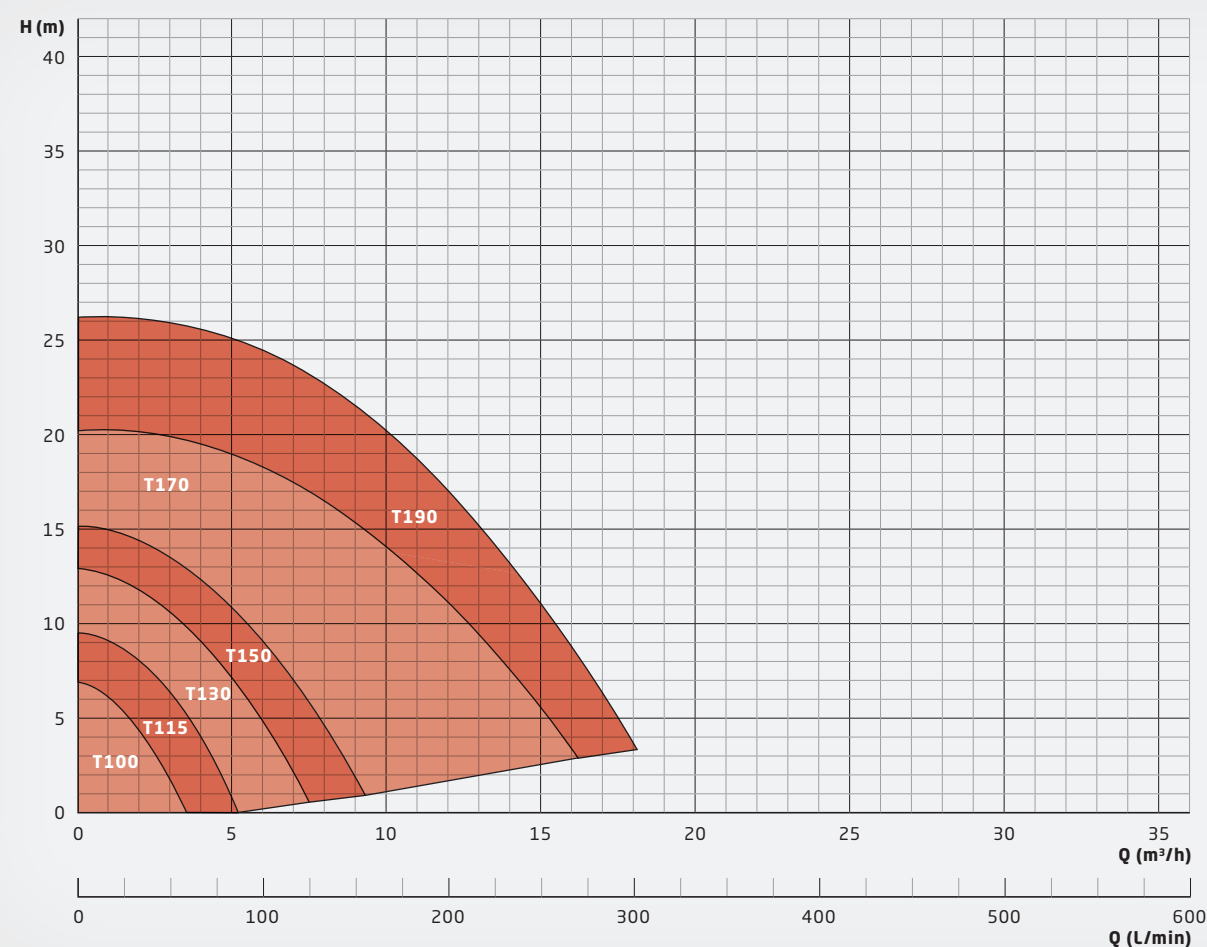
Housing and impeller materials: PP, PVDF
Elastomers: EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)

The T series features a vertical shaft extension that directly drives the impeller. The rotating shaft runs completely contact- and abrasion-free inside the housing ("cantilever" design). This design concept eliminates the need for shaft seals and additional bearings. Optionally, the T series can be ordered with a shaft seal as a vapour barrier.

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 seals

PERFORMANCE CHART



Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas; the maximum allowed temperature is 95°C depending on the design.



TE

Vertical sealless stainless steel centrifugal pumps, dry run safe



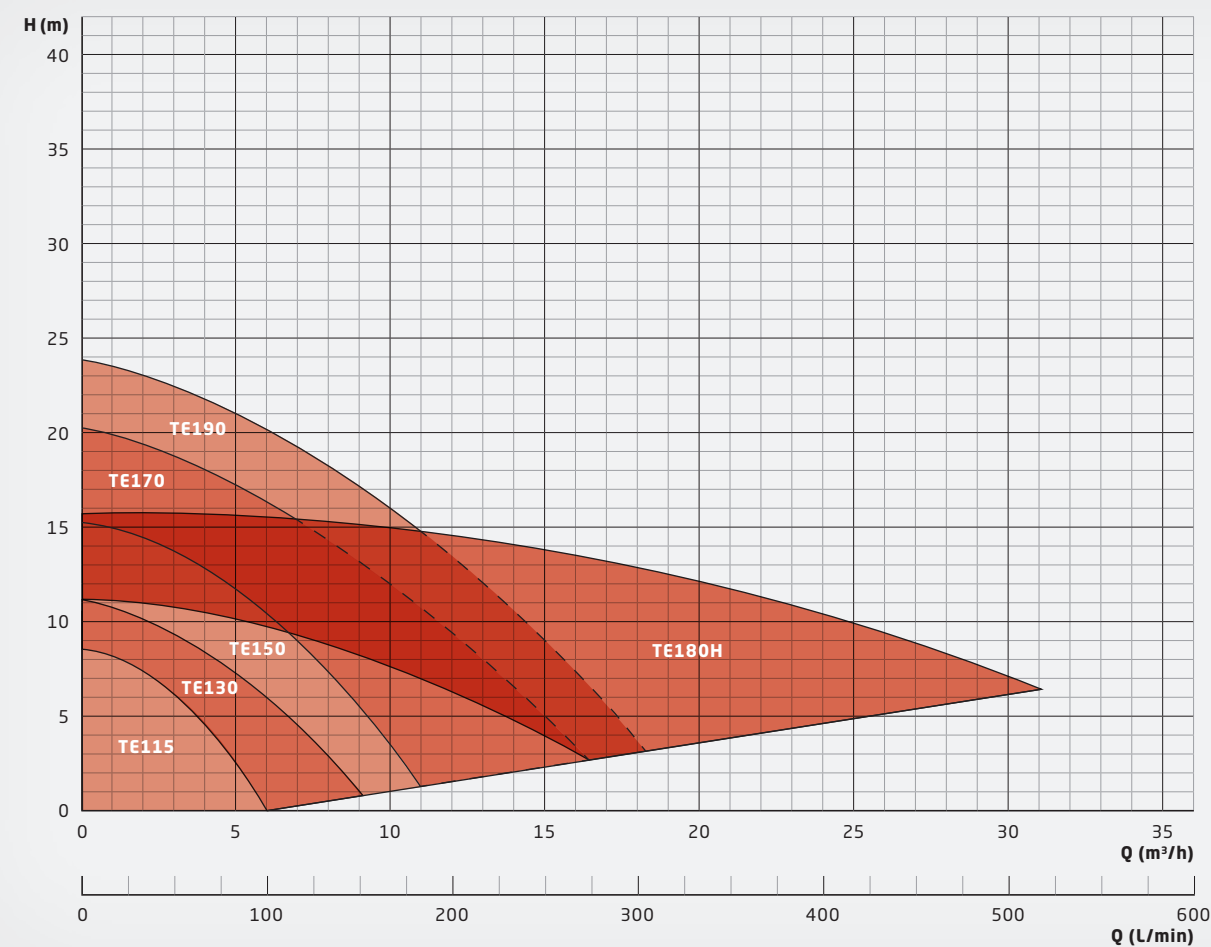
Housing and impeller material: Stainless steel ANSI 316Ti (1.4571)
Elastomers: PTFE

The TE series is for those applications, in which a non-metallic pump cannot be used or is not desired, e.g. for temperatures up to 150°C. It features a massive vertical shaft extension that directly drives the impeller. The rotating shaft runs completely contact- and abrasion-free inside the housing ("cantilever" design). This design concept eliminates the need for shaft seals and additional bearings. Optionally, the TE series can be ordered with a shaft seal as a vapour barrier.

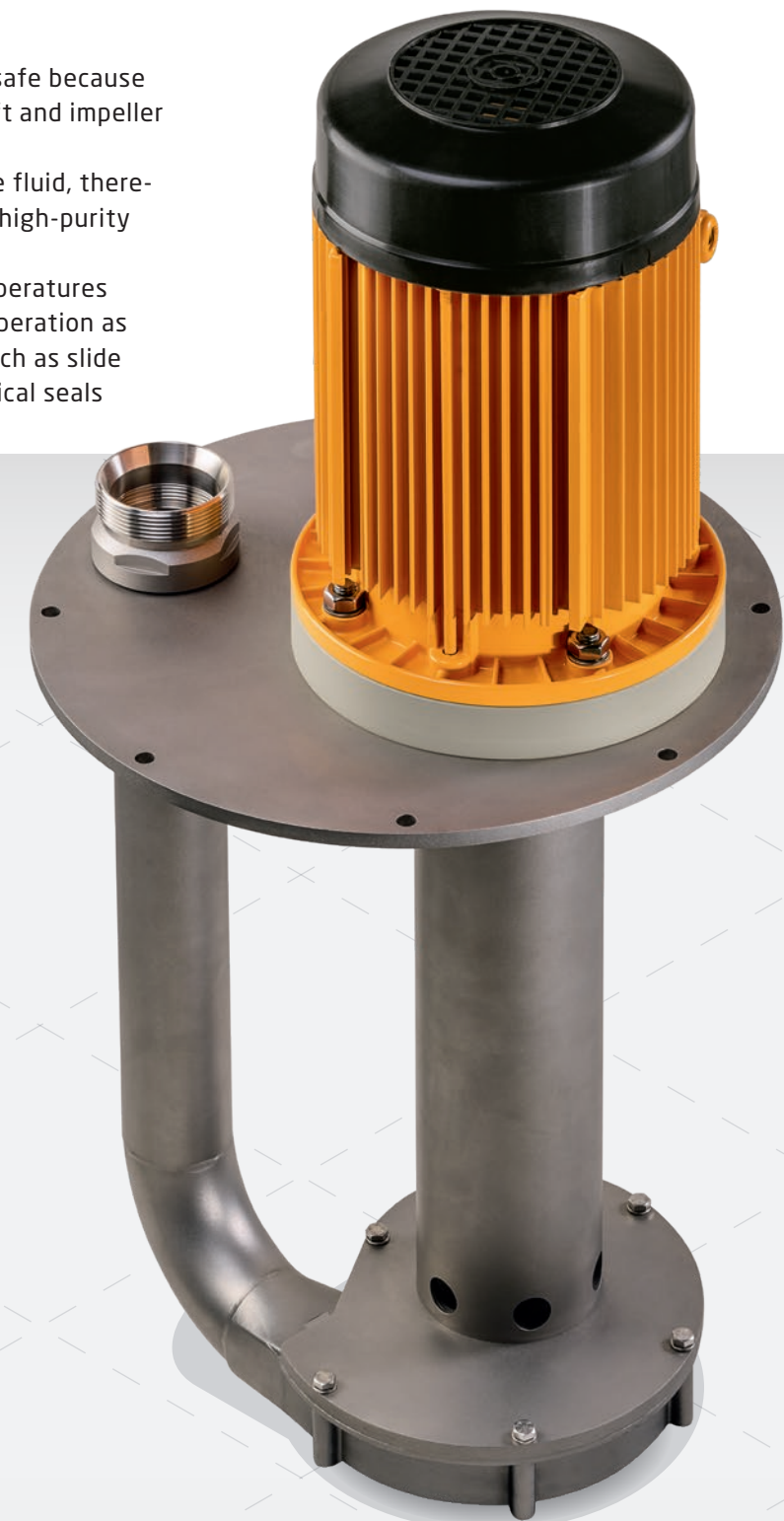
Advantages:

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

PERFORMANCE CHART



Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas, the maximum allowed temperature is 150°C.



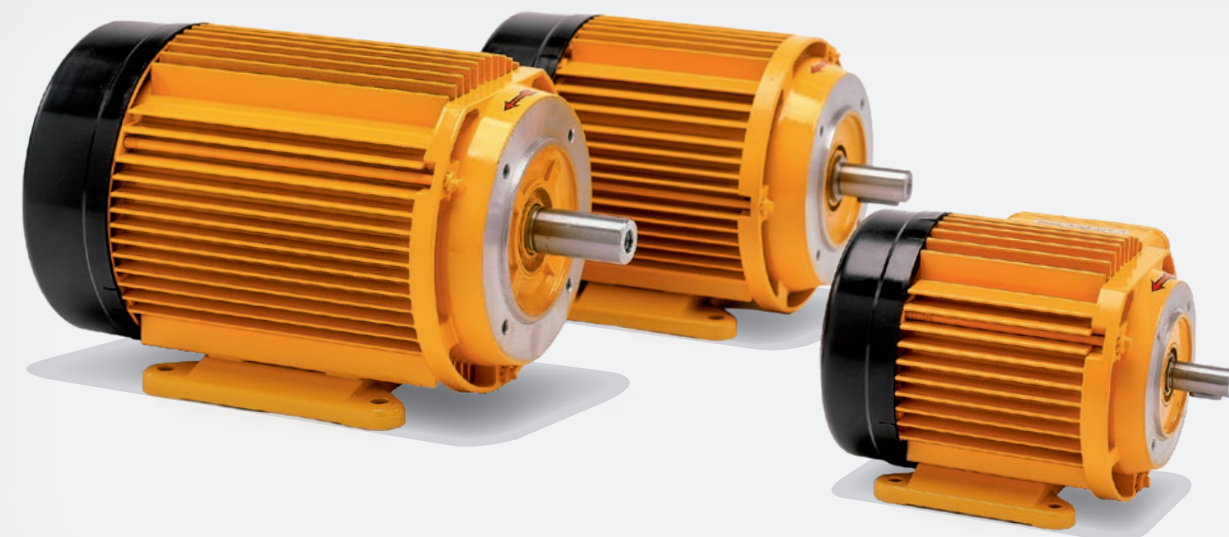
MOTORS

As a standard, SCHMITT pumps are equipped with three-phase asynchronous motors: 230/400 V (3 phase), 50/60 Hz, IP55, IE3 from 0.75 kW.

The following are also available

- Single-phase asynchronous motors 115 V or 230 V (up to 1.1 kW)
- With PTC resistors to be used in inverter operations
- Integrated inverter drive
- Multi-range and customised voltages
- Special frequencies
- Atex versions
- UL, CSA, NEMA, CCC certified versions
- Direct current motors (DC or BLDC)

Other versions are available on request.



FITTINGS

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





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