



**HERBORNER
PUMPENTECHNIK**

herborner. S

SELF-PRIMING PURE WATER PUMP



The coated, close-coupled centrifugal pump:
Powerful, reliable and fast

www.herborner-pumps.com





herborner.S

Transport of pure water via quick self-priming with high pump pressure

With its self-priming function, the maintenance-free herborner.S guarantees particularly safe and reliable transport of media.

All surfaces that come in contact with the pumped medium are sealed and protected. Sealing is achieved with a special HPC coating applied using a special method.

The technical features of the herborner.S are its fast self-priming function, the high pumping pressure and the particularly high delivery heads.

The pure water pump can be applied wherever particular operational safety needs to be guaranteed, for example, in maritime technology, offshore firefighting, industrial areas and waterworks.

Our powerful herborner.S pumps have an impressively large suction volume in a short suction time. The pumps' self-priming function is guaranteed once the pump casing is filled up. The integrated non-return flap valve prevents discharging of the pump casing.

The herborner.S is ideal for irregular usage that must nevertheless still be reliable to pump clean or purified medium as well as salt water, without the pump hydraulics corroding.



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with base frame



Features

The fast suction of medium makes the desired pumping pressure quickly available when needed via the suction-side cover. In combination with the HPC coating of components, the energy efficiency of the **herborner.S** is highly optimal bringing about distinct energy savings.

General data

- Media temperature range from -5 to +60°C, higher temperatures on request
- Ambient temperature range from -5 to +40°C
- Pumped medium free of H₂S, up to 1000 mg/l of chloride ions
- Certificate of performance according to DIN EN ISO 9906, Class 2
Density of the pumped medium up to max. 1050 kg/m³

In case of deviating application conditions, the output is corrected in accordance with customer-specific requirements.

Optimised for servicing and maintenance

All of the components were developed for optimum servicing and maintenance and put together intelligently. This means that work is significantly reduced for the required pump usage. When needed, easy maintenance and replacement of components guarantee swift operational readiness.

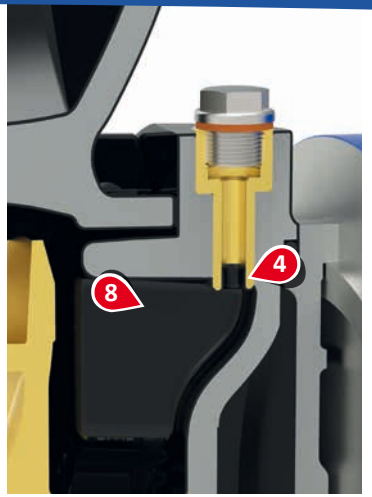
Start-up safety

No more seizing up! With its innovative components which are finished with a special HPC coating, the pump ensures smooth commissioning - even after a long period of downtime.



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Many innovative features:



1 Coating

Corrosion protection and protection against aggressive media by HPC-coating all relevant parts at risk from corrosion and in contact with the medium. Corrosion damage to the pump or system components is thereby prevented.

2 Impeller protector

Special impeller protector made of highly durable plastic protects the impeller from seizing up due to corrosion (after standstill periods) and ensures that the pump runs quietly.

The version with a particularly small gap achieves high efficiency.

3 Mechanical seal protector

The seat of the mechanical seal is fully protected against corrosion. This prevents corrosion cavities forming in the intermediate casing in the area of the O-ring seat of the mechanical seal. Improving corrosion stability leads to reduced life cycle costs.

4 X-Lock-System

With the X-Lock-System, it is possible to achieve 100% coating of the internal threads in cast parts in order to avoid corrosion in the threads.

5 Service and maintenance

Only stainless steel screwed connections are used, allowing trouble-free maintenance of components for years.

6 Seal-Guard-System (optional)

Normally, a mechanical seal is defective after a few seconds of dry running. The innovative and maintenance-free Seal-Guard-System has a reserve medium supply for such cases that compensates for insufficient lubrication for a much longer period of time. Thus, the primary mechanical seal is effectively protected against dry running.

7 Impellers

Dynamically balanced, closed multi-channel impellers make sure running is vibrationless and contribute to the long service life of the pump. All the impellers can reach every duty point within the set of performance curves by adjusting the diameter.

8 By-pass channel

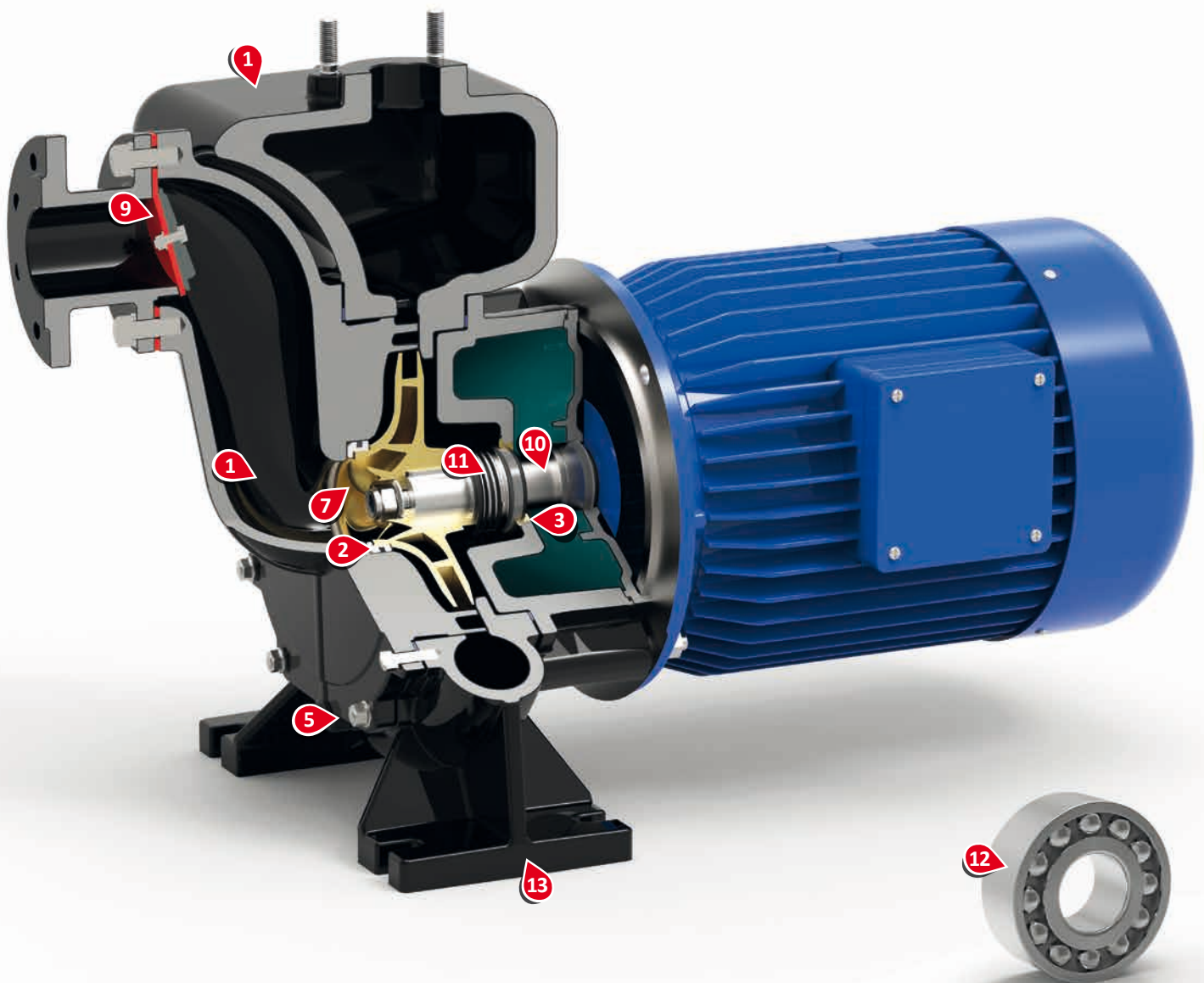
The mechanical seal is flushed optimally by the pumped medium through this channel. This gives the sliding surfaces the required lubricating and cooling medium thereby extending the service life of the mechanical seal.

9 Non-return flap valve

The non-return flap valve with sealing element reliably safeguards the retention of the medium in the pump casing and thus the self-priming function when restarting the pump.

10 Motor shaft

The rigid motor shaft made from high-alloy stainless steel ensures minimal deflection. In this way, seal leaks can be minimised and the service life of the motor shaft increased.



11 Shaft sealing

A wear-resistant mechanical seal that is adapted to the respective operating conditions is used. All motors are equipped with a special seal for splash-proofing on the pump side.

12 Fortified bearings as standard

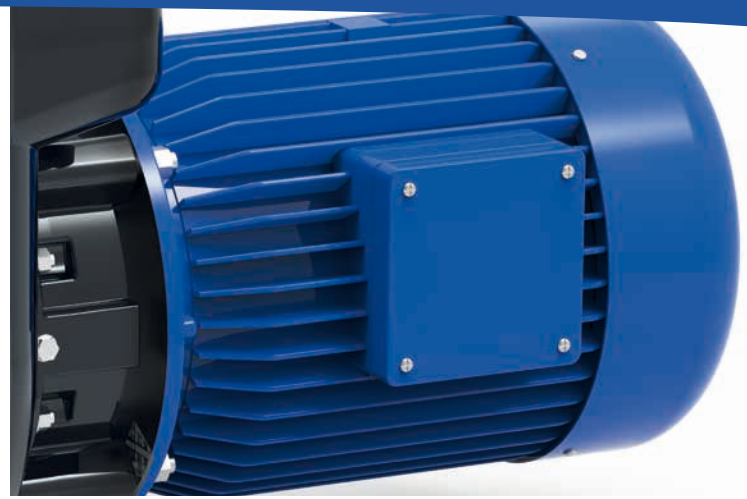
An extended service life is achieved through liberally dimensioned shafts and fortified bearings. The motors are equipped with relubrication units (if required).

13 Construction

The robust and stable type of construction of Herborner pumps has been consistently continued for the **herborner.S** series. The dynamic process design for easy disassembling of the interchangeable module is also an integral element.

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The coated, self-priming, close-coupled centrifugal pump
The herborner.S comes with a high efficiency IE2/ IE3 motor as standard. All the high quality features of this series ensure reliable commissioning when needed.



Motor

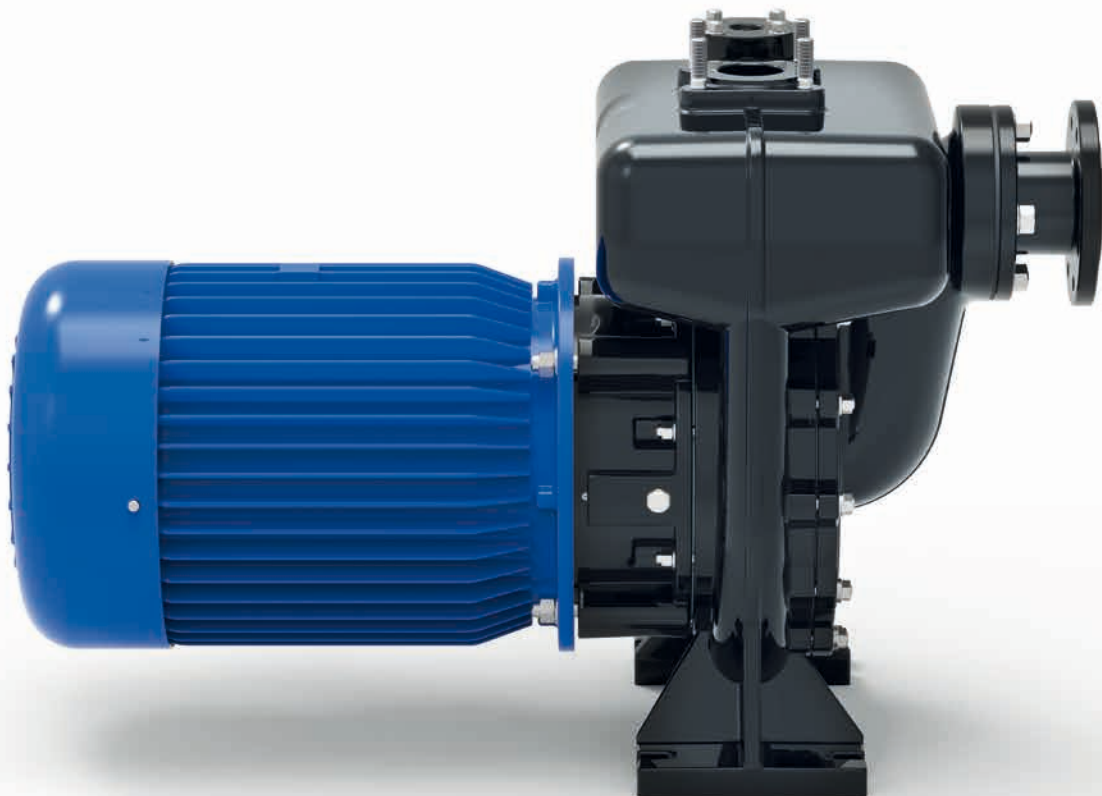
A surface-cooled three-phase motor with squirrel-cage is used and corresponds to efficiency class IE2/ IE3.

Design	IM B5
Protection type	IP55
Speed	1500 (1800) rpm 3000 (3600) rpm
Frequency	50 (60) Hz
Connection ≤ 2.2 (2.6) kW	230 Δ /400 \blacktriangleleft (460 \blacktriangleleft) V
Connection ≥ 3.0 (3.6) kW	400 Δ /690 \blacktriangleleft (460 Δ) V
Insulation class EN 60034-1	F (155°C)

Classification of electric motors

In 2011, a new efficiency definition (IEC code) came into effect to which three-phase asynchronous motors must conform.

The new standards are applied globally in order to be able to give a uniform assessment of motors. Since the middle of 2011, standard motors (high efficiency) have had to conform to at least IE2 unless they are considered to be an exception, such as submersible motors. Since 2015, motors with a power of 7.5 kW or higher will have to meet IE3 (premium efficiency) or be operated as IE2 motors with a converter.



Original part accessories

Accessory parts for ideal use:

Seal-Guard-System

The Seal-Guard-System prevents dry running of the mechanical seal by means of a reserve medium supply.

As soon as the primary mechanical seal in a pump is not in contact with the medium (a situation which subsequently would result in dry running), the reserve medium supply compensates for this insufficient lubrication. The medium supply is introduced into the pump back wall and is sealed on the drive side against the motor by means of a further secondary mechanical seal. You can also see from this tank if the primary mechanical seal is leaking. This system is maintenance-free with the exception of a possible topping up of the reserve medium supply.

Through dry running protection for the primary mechanical seal by means of medium supply costs can be saved and therefore the life cycle costs lowered.



Frequency converter

Frequency converters are used for the electronic regulation of motor speed which saves a significant quantity of energy. They also extend the service life of the system and reduce repair and maintenance costs.

Their main advantage is the adaptability of the operating point to system requirements through pump speed regulation. This produces considerable improvements in energy levels, especially if the pump runs for extended periods of time.

Frequency converters for direct installation (**herborner.S**: up to 26.4 kW) and for installation in wall or switch cabinets (all ratings).



Long-Life-Set

The Long-Life-Set consists of a grease gun with high-performance grease. By ensuring the relubrication of motor bearings, the service life of the bearings is noticeably increased and therefore the life cycle costs of the pump are significantly improved.





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Special solutions

The customisation of special pumps is one of our performance features.

Our decades of experience in development and our on-site foundry form the basis of our ability to adapt to the requirements of individual projects. The technology needed for perpetual innovation provides our customers with the clear advantage of optimised solutions especially tailored to each unique project.

Special configurations

- Different voltage and/or mains frequency
- Different insulation class
- Elevated ambient temperature
- Higher protection type
- Enhanced tropical and moisture protection
- Special materials
- Special paint finish for all uncoated components
- Explosion-proof version (ATEX)
- Customer-specific solutions
- Permanent magnet motor (PM)



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Consultation and service

We are here for you - competent and personal.

The last decades have seen our company establish itself worldwide with our client base stretching across the entire globe.

Your contacts in our company are highly qualified employees who use their professional knowledge and technical skills to find tailor-made solutions for your requirements. We also have globally active sales and service teams.

Consultation and sales

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Service and maintenance

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Further information on
the **herborner.S** can be found at
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