



# PUMPS

PUMPS | VALVES | INSTRUMENTATION

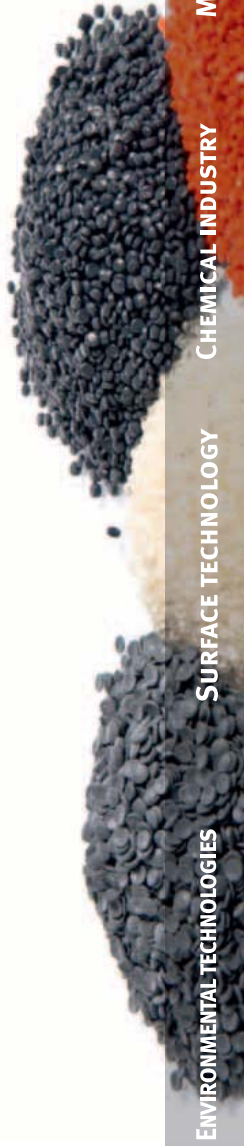


## STANDARDS IN PERFECTION AND SAFETY

ASV Stübbe is an international manufacturer of pumps, valves, instrumentation and control systems made of thermoplastics.

As a system supplier, we offer a wide range of high-quality solutions for the handling of aggressive, corrosive and water polluting substances.

Our products can be found in many demanding industries



### ENVIRONMENTAL TECHNOLOGIES

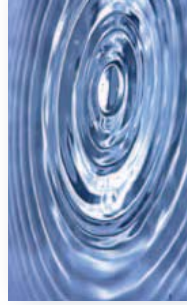
### SURFACE TECHNOLOGY

### CHEMICAL INDUSTRY

### METALLURGY

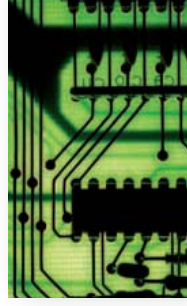
With more than 50 years of experience we have the necessary expertise for the design of pumps and tubing systems with regard to chemical resistance considerations.

The benchmark for our success is customers' satisfaction. Our permanent objective is to provide our customers with the most economical solution combined with a maximum of reliability.



#### Quality and efficiency

- Sea water desalination
- Wastewater treatment
- Exhaust air scrubbers
- Biogas treatment
- Ultra-pure water
- Process water
- Manufacturing of bio fuels
- ...



#### Competence and innovation

- PCB manufacture
- Solar cell manufacturing
- Electroplating
- Glass finishing
- Coating lines
- ...



#### Perfection and safety

- Chemical plant manufacturing
- Acid production
- Fertilizer production
- Chlor-alkali electrolysis
- ...



#### Reliability and resistance

- Ore extraction
- Copper electrolysis
- Acid regeneration
- Nickel electrolysis
- Steel pickling
- ...



### ▲ Pumps

ASY Stübbe produces pumps for the safe transport of aggressive and corrosive liquids of up to 400m<sup>3</sup>/h. Our range includes horizontal as well as vertical pumps from highly corrosion and wear resistant materials.

### ▲ Valves

Our wide range of valves offers solutions for almost any application. Next to our extensive standard range also customised solutions can be realised for your specific process requirements.



### ▲ Instrumentation

Our systems for filling level, pressure and flow control are of robust design and suitable for fast and efficient systems integration. We manufacture corrosion resistant instrumentation technology for tank and plant builders.



## PUMPS

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## CENTRIFUGAL PUMPS

Typ	NM	NMB	SHB	SHM
Pressure connection	DN 32 - DN 150	DN 32 - DN 80	DN 15 - DN 50	DN 20 - DN 80
Material	PE, PP, PVDF	PE, PP, PVDF	PP, PVDF	PP, PVDF
$h_{max}$ [m]	100	55	40	43
$Q_{max}$ [m³/h]	530	110	125	78
Motor [kW]	110	75	11	75

Depending on the required operating point and medium, the pumps are configured with an optimum combination of different drive concepts and adapted hydraulics.

In addition to providing the optimum technical solution, ASV Stübbe offers a modern modular system and a high degree of vertical integration with short delivery times and optimum availability throughout the entire spectrum of pumps, valves and instrumentation.

The pump is a key component for ensuring that processes function reliably. As a result of decades of experience, ASV Stübbe is also able to supply solutions for extreme operating conditions. Operational safety and reliability are our top priorities. In times of rising energy costs, efficiency is a further important key factor, so ASV Stübbe not only focuses on the pump drive, but on the overall package. ASV offers its customers state-of-the-art electrical drives and hydraulics optimised by means of flow simulation software.

### Horizontal pumps

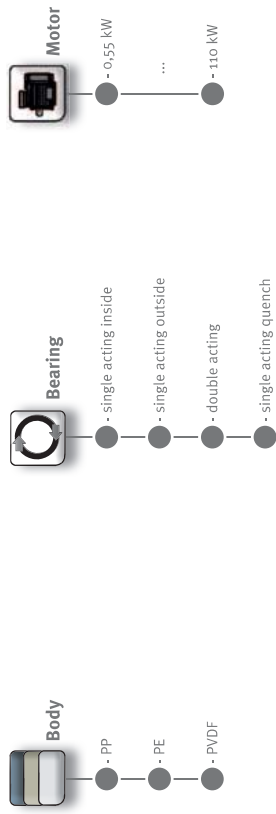
Horizontal, mechanically sealed centrifugal pumps are widely used for the safe transport and circulation of aggressive, corrosive acids and lyes and many other hazardous liquids.

### Sliding bearings

Sliding bearings are responsible for the seal between the rotating pump shaft and the pump housing. The dynamic seal consists of a spring loaded sliding ring and a counter ring. Sliding bearings for chemical applications are made from very special materials and have to be carefully selected with regard to the used fluid.



## CENTRIFUGAL PUMP NM



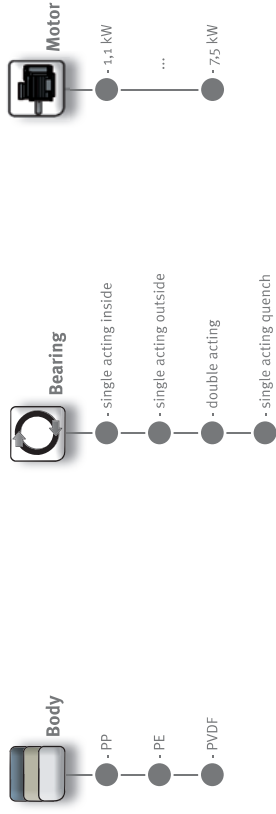
### Centrifugal pump NM

Standard chemical pumps from Series NM meet the installation dimension specifications according to DN 24256 ans ISO 2558. The robust hydraulic parts is made of high-grade plastic reinforced by an additional metal frames. Pumps from the NM series are available as hydraulic with coupling or as complete units including standard motor and base plate. Because of the wide performance spectrum of the NM range these pumps can be found in virtually all areas where aggressive or corrosive liquids are being handled.

h<sub>max</sub>: 100 m  
Q<sub>max</sub>: 530 m<sup>3</sup>/h



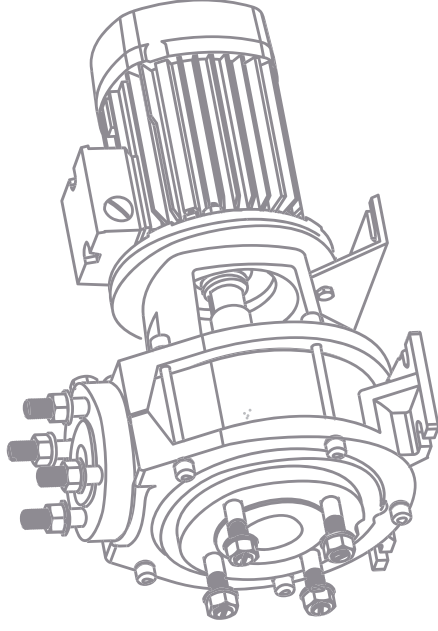
## CENTRIFUGAL PUMP NMB



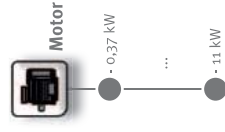
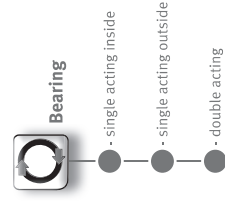
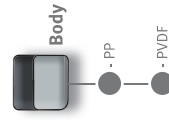
### Centrifugal pump NMB

The compact NMB block pumps are based on the hydraulics from the NM series. In this version, however, the motor is directly flanged to the housing and has no further bearing or coupling elements. The economic design principle covers the performance range from 1.1 - 7.5 kW. Just like the NM series the hydraulic part can be equipped with a variety of sliding bearing combinations, quench systems or buffer fluid connections.

h<sub>max</sub>: 55 m  
Q<sub>max</sub>: 110 m<sup>3</sup>/h



## CENTRIFUGAL PUMP SHB



### Centrifugal pump SHB

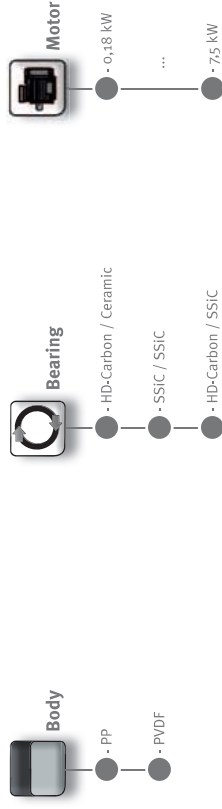
The SHB is a mechanically sealed horizontal centrifugal pump. The standard motor is connected to the pump shaft by a coupling. SHB centrifugal pumps can be supplied with the same scope of sliding bearings, quench systems and buffer fluid connections like the ASV standard chemical and block pumps.

SHB centrifugal pumps are an economic alternative to standard chemical pumps whenever aggressive and corrosive fluids need to be transported but no chemical standard installation connections are required.

h<sub>max</sub>: 40 m  
Q<sub>max</sub>: 125 m<sup>3</sup>/h



## MAGNETIC COUPLED CENTRIFUGAL PUMP SHM



### Magnetic coupled centrifugal pump SHM

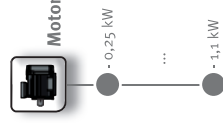
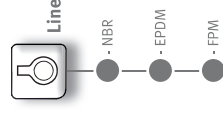
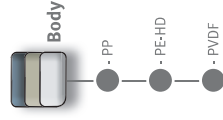
In contrast to sliding bearing sealed pumps SHM magnetic coupled pumps have an hermetically sealed hydraulic system and are dry run capable. Because of this they can easily be integrated into almost any aggressive or corrosive application. They require less chemical resistance considerations compared to mechanically sealed systems and are capable to withstand interruptions of the fluid flow without problems. ASV Stübbe magnetic coupled pumps contain especially powerful magnet systems which are designed for use with up to 7,5 KW motors. The low vibration hydraulic is available in a full PVDF-version and is therefore suitable for high purity applications in surface technology or glass etching processes in the photovoltaic industry.

h<sub>max</sub>: 43 m  
: 78 m<sup>3</sup>/h



## ECCENTRIC PUMP L/F

Typ	Typ F	Typ L
Pressure connection	DN 14 - DN 19	DN 14 - DN 38
Material	<div style="display: flex; gap: 5px;"> <div style="background-color: black; color: white; padding: 2px;">PE</div> <div style="background-color: #808080; padding: 2px;">PP</div> <div style="background-color: #c0c0c0; padding: 2px;">PVDF</div> </div>	<div style="display: flex; gap: 5px;"> <div style="background-color: black; color: white; padding: 2px;">PE</div> <div style="background-color: #808080; padding: 2px;">PP</div> <div style="background-color: #c0c0c0; padding: 2px;">PVDF</div> </div>
$h_{max}$ [m]	25	25
$Q_{max}$ [m <sup>3</sup> /h]	1,8	4,8
Motor [kW]	0,37	1,1

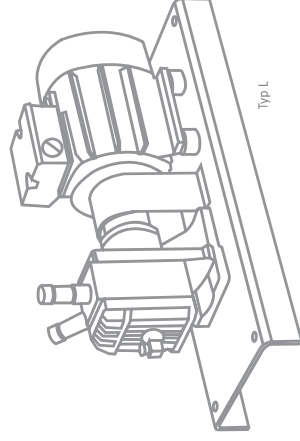


### ASV-Eccentric pumps

Eccentric pumps are dry-run capable, self-priming displacement pumps. They are specifically suitable for frequency regulation or mobile applications. By design they require only little maintenance and are available in two different versions.

Type F pumps are flanged directly to the motor, whereas type L pumps have a coupling and come on a base plate. Both types come with hose nozzels for a flexible connection to the pipeline systems.

Eccentric pumps are displacement pumps. The fluid is pumped by an eccentric moving the fluid between a thick rubber liner and the pump housing. Eccentric pumps are dry run capable, free of cavitation and self-priming. Based on their special design with high-grade rubber liners and robust plastic housings they are multi-purpose pumps even for difficult, aggressive fluids with high viscosities or particle contents.





## SUMP PUMPS

Typ	ET	ETL	ETLB
Pressure connection	DN 15 - DN 80	DN 20 - DN 80	DN 15 - DN 80
Material	<input type="checkbox"/> PVDF <input type="checkbox"/> PP	<input type="checkbox"/> PVDF <input type="checkbox"/> PP	<input type="checkbox"/> PVDF <input type="checkbox"/> PP
$h_{max}$ [m]	56	65	42
$Q_{max}$ [m <sup>3</sup> /h]	120	240	100
Motor [kW]	22	45	75

Sump pumps are intended for use in open or not pressurised containers or in pump sumps. Because of their special way of installation the unlike horizontal pumps do not require mechanical shaft seals. In the presence of aggressive gases in the tanks an external seal is being achieved by the use of labyrinth seal systems. Such are available in various materials up to titanium options.

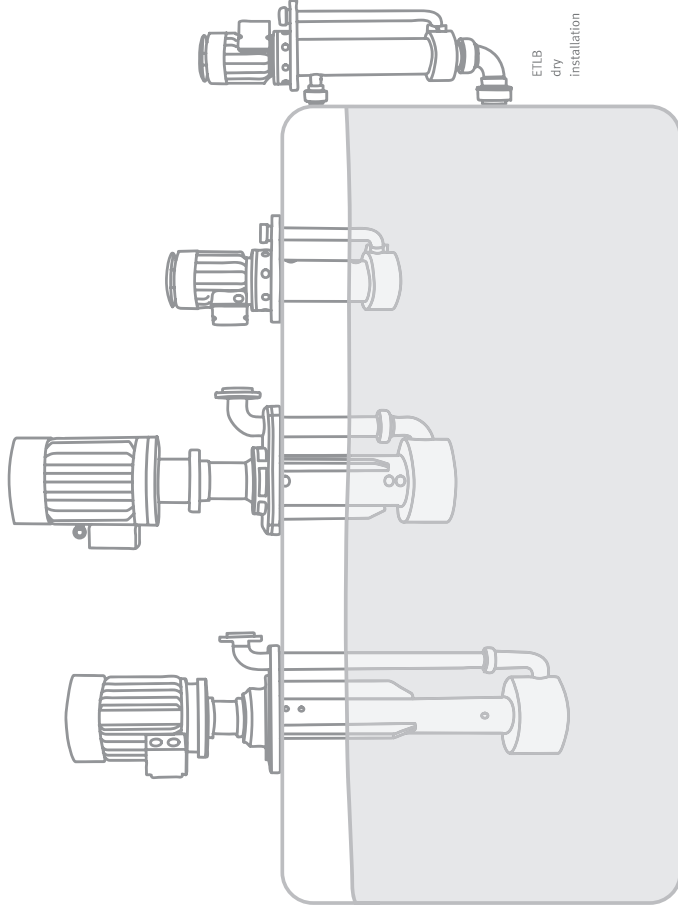
Every pump is being tested acc. to DIN 1944 and can be supplied with an certificate acc. to DIN 50049.

### Customised solutions and accessories

Sump pumps often have to match specific installation situations. Mounting plates, fixing holes and pressure port connections therefore can be customised according to individual

requirements. Suction tube extensions up to 2000 mm allow the complete evacuation of tanks. Suction strainers safeguard the trouble-free operation even in case of bigger objects in the fluids.

In case of a lack of space inside the container the ETLB series can also be dry mounted. In this case the pump is mounted on the outside of the tank.



### ET

- Fluid-wetted shaft bearing
- Submersion depth up to 2.000 mm
- Dry-run capable bearing combinations available

### ETL

- Powerful external bearing outside the tank
- For Motors up to 45 kW
- Submersion depth up to 750 mm
- Dry-run safe

### ETLB

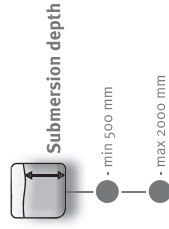
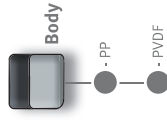
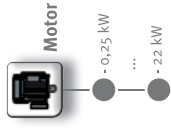
- Design with long motor shafts without bearings
- Submersion depth up to 750 mm
- Dry-run safe

## SUMP PUMP ET

### Plastic sump pumps ET

The ET sump pumps with wetted bearing design are built to a fully modular system. This series is a jack-of-all-trades used in all areas of the chemical industry because of its high flexibility. It can be supplied in a wide range of designs and in many material combinations, with all types of mounting plates and connection ports and with standard motors of up to 22 kW. Because of the wetted shaft bearing submersion depths of 2.000 mm can be supplied.

**hmax: 56 m**  
**Qmax: 120 m<sup>3</sup>/h**



- Suction tube  
max 2000 mm



## SUMP PUMP ETL

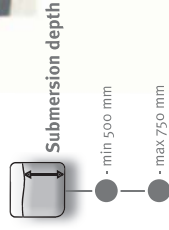
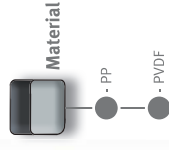
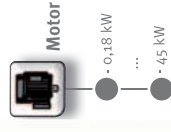
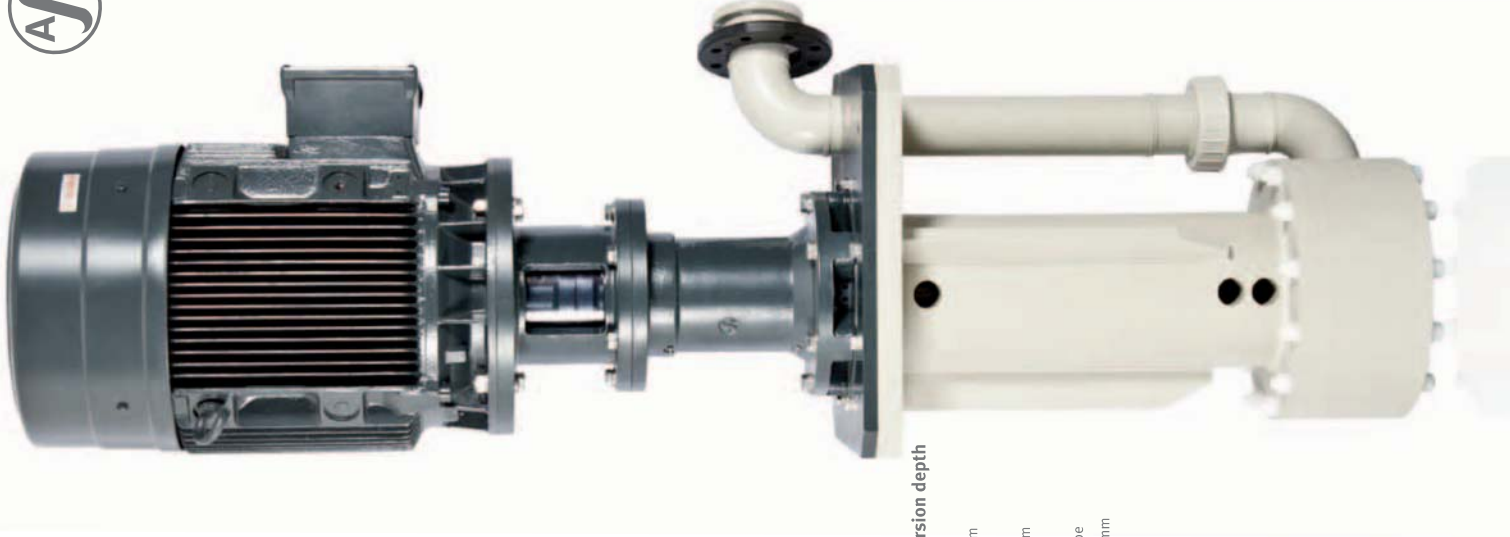
### Plastic sump pump ETL

The robust shaft bearing of the ETL type series pumps is installed on top of the mounting plate.

The bearing position outside the fluid makes the pump dry run safe. The strong design allows the mounting of up to 45 kW motors and is available for submersion depths of up to 750 mm.

Because of their wide performance spectrum and the high possible flow rates these pumps are often used in heavy duty industrial applications in metal extraction processes or chemical applications.

**hmax: 65 m**  
**Qmax: 240 m³/h**



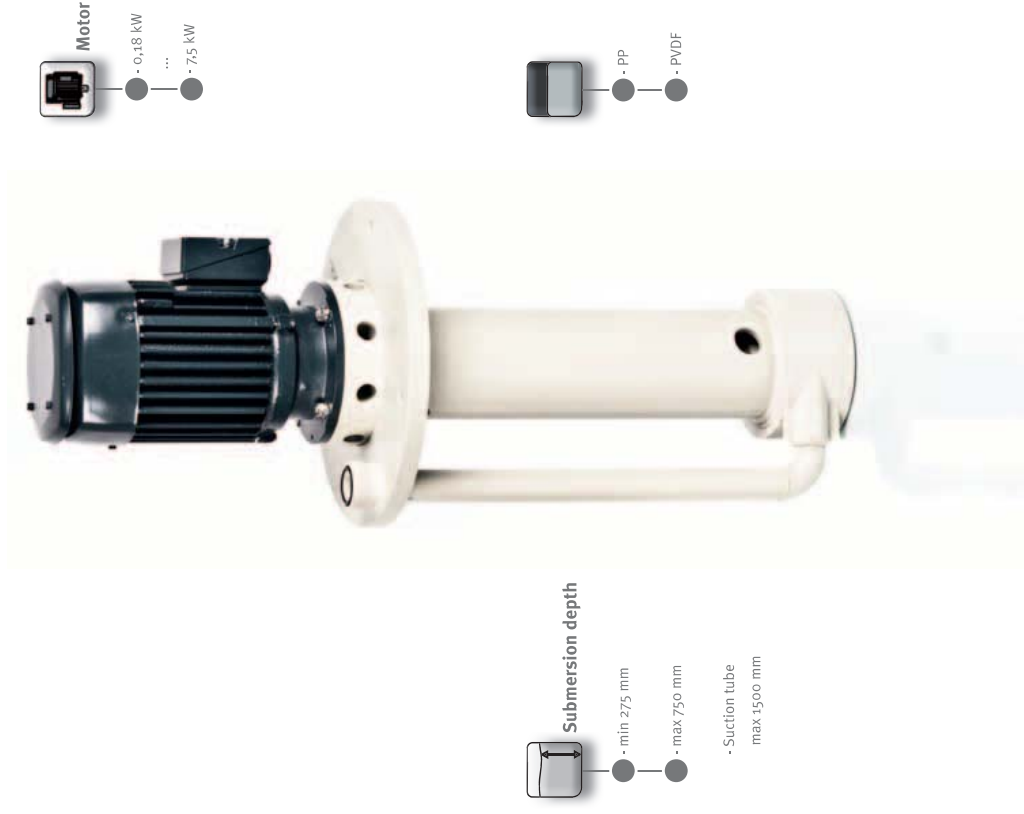
• Suction tube  
max 1500 mm

## SUMP PUMP ETLB

### Plastic block pump ETLB

The ETLB series is designed as a block sump pump. Motor and shaft are one integral unit and because of this the pump does not require any additional bearings. The therefore also dry-run safe design makes it an extremely robust solution and allows submersion depths of up to 750 mm. Because of the straightforward structure it is also very economic and being used in applications from gas scrubbers in the environmental industry to surface treatment plants in the solar cell production.

**hmax: 42 m**  
**Qmax: 100 m<sup>3</sup>/h**



## PUMP GUARDS

By the use of pump guards an uninterrupted operation of installations can be safeguarded. Costly production breakdowns can be avoided. Protective systems against unsuitable operation pressures prevent damages of the pump or the sliding bearings. Depending on the application various solutions from simple pressure switches to integrated sensors are available.



### Dry-run protection

To protect the expensive pumps from dry-run related damage there are many options. In the most simple case a pressure switch directly deactivates the pump in case of a pressure drop or when fluid supply is failing. ASV is offering a range of suitable switch types for min/max control, which can be premounted on pressure gauge guards to effectively protect them from aggressive chemical fluids.



### Pressure and temperature sensor PTM

ASV Stübbe's PTM is an intelligent sensor unit for monitoring pressure and temperature ranges. The chip inside the sensor can process pressures from 0 - 10 bar and temperatures from 0 - 70°C. It is ideal as a pump guard or for filter monitoring. Programming and optical output of the data from the PTM happens by means of an optional plug-in display.

The user can choose from various signal output interfaces. For connecting to a PLC or the direct control of a system component a current output version 0/4...20 mA is available for constant feedback. Optionally the unit can be supplied with a relay module. This offers four freely programmable relays which allow a variety of logics based on parameters like pressure, temperature, time-delays, hysteresis/window operation.



## MOTOR AND DESIGN



An intelligent usage of electrical drives offers an enormous potential for energy savings. According to latest international surveys about 10% of the available electricity worldwide is being consumed by pumps. To realize this potential for energy efficiency the European Commission has as part of the EUP guide line passed the following legislation towards energy efficient AC standard motors and electrical drives:

- As of June 2011 inside the EU only AC standard motors with a size of 0.75 to 375 kW meeting the IE2 regulations may be put into circulation.
- As of 2015 all standard motors bigger than 7.5 kW have to meet the specifications of the IE3 standard or must be further to the IE2 standard requirements be equipped with rev regulators.
- As of 2017 the IE3 regulation also applies to 0.75 to 7.5 kW electric motors.

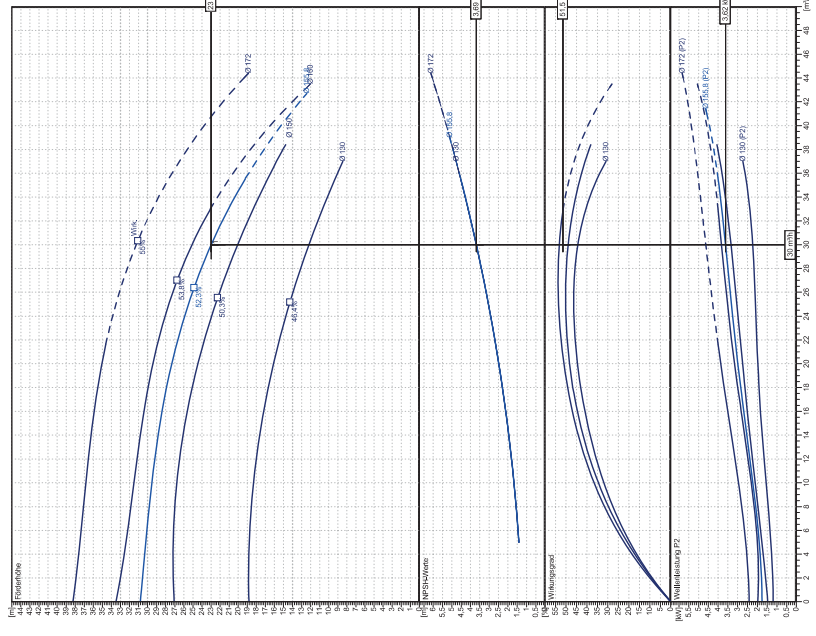
All listed pumps are fitted with motors according to IE 2 standard.

**Optimum efficiency**  
Reduced energy cost and overall cost evaluations - perfect results can only be achieved by a precise matching of the operational features of the pump and the pipework.

Further to the utilization for energy efficient motors ASV Stübbe puts a focus on the optimization of the mechanical part of the pump in order to achieve best possible efficiency ratings.

IT based optimization tools allow the modification of the impellers to reach the best operational features of the pump. Further to that all pumps are put to a 100% test to verify the practical performance of the design features. And of course all ASV-motors can be equipped with rev regulators.

Integrated modular systems and a high vertical integration allow short lead times and the best possible availability.



Hydraulic pump design with operational performance, NPSH-value, efficiency and shaft power rating

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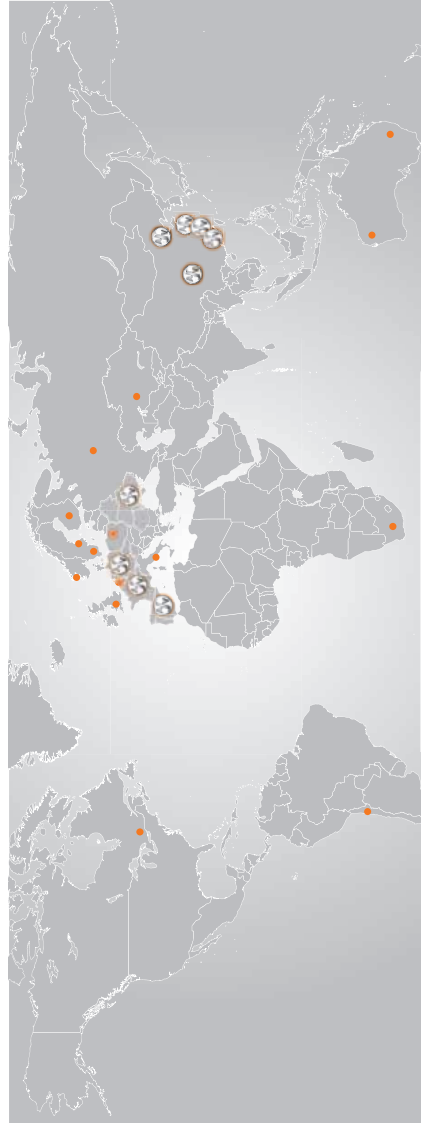
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## QUALITY MANAGEMENT AND SERVICE

▶ Reliability and chemical resistance



Service to us means 360° support for our customers. From the selection of the proper materials through to after sales service - use our expertise and experience to minimise your cost and effort and maximise your market impact.

In-process inspections and quality control of components guarantee high quality final products.

Quality, perfection and reliability are the guiding principles of our company. After all, our products are used for the safe handling of water polluting and hazardous substances and have to reliably resist the most aggressive media.

Materials and products are permanently inspected in demanding quality tests in our own company laboratory.



Quality management system certified according to DIN EN ISO 9001:2008





