

Pumps & Filters



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 **Stübbe®**
Partner for Solutions

We make products for three different industrial sectors

Chemical industry



The chemical industry places the highest demands on equipment. Safety and reliability are the top priority and ASV products meet the highest quality standards.



The ASV standard chemical pumps ensure maximum operating safety and reliability. They are produced using corrosion and wear resistant plastics sourced from certified quality manufacturers. The materials used are high molecular polyethylene (PE), ultra-high molecular polyethylene (Hostalen GUR), polypropylene (PP) or polyvinylidene fluoride (PVDF).



Every ASV Stübbe pump is rigorously tested and supplied with a test and acceptance certificate.

Environmental technology



In water treatment as well as in flue gas cleaning, ASV Stübbe pumps have proven themselves in tough industrial environments. In addition to being an economically effective investment, their minimised operating costs and fail safe operation are prominent.

The extensive product range from Vlotho has an excellent reputation worldwide.



The correct selection of design, construction, material and rotational speed by our qualified engineers during the project planning phase guarantees the maximum long term reliability and operating safety at our customers' plants.

Surface technology



Worldwide, production equipment in the electronics and automotive industries, such as wet processing lines, electroplating systems and lacquering lines are equipped with ASV Stübbe pumps which match the application superbly. Whether it's sump pumps proven countless times, seal-less pumps for dangerous or readily crystallising fluids or highly abrasive resistant pump components of high density polyethylene, we can provide a bespoke solution tailored to your requirements.



ASV pumps are manufactured at production sites in Vlotho, Germany, and Shenzhen, China. Customer satisfaction and reliable product support can only be guaranteed by being close to our customers as well as having an extensive service network.



ASV Stübbe –
sets standards in performance & reliability



As an internationally active company,
ASV Stübbe produces and supplies valves,
pumps, measurement and control systems.



Modern production methods and highly
qualified employees ensure high-end quality
products.



ASV Shenzhen



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Filters and Accessories

Horizontal pumps | Centrifugal pumps with mechanical seals

Horizontal pumps

- used to convey aggressive fluids, such as acids and alkalines
- meet high requirements with regard to resistive properties of the components used



Thermoplastic centrifugal pump
Type series NM

Centrifugal pumps with sealed shaft

	NM	NMB	NMB-S	KHB	SAP	PB
Flow rate	up to 450 m³/h	up to 110 m³/h	up to 200 m³/h	up to 13 m³/h	up to 30 m³/h	up to 5.5 m³/h
Head	up to 100 m	up to 60 m	up to 60 m	up to 23 m	up to 30 m	up to 60 m
Materials limits of use	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C	PP up to 70 °C PVDF up to 80 °C PTFE up to 90 °C
Pressure socket nominal width	DN 32...DN 150	DN 32...DN 80	DN 32 ...DN 80	DN 15...DN 25	DN 20...DN 40	DN 20
Drive capacity	up to 150 kW	up to 7.5 kW	up to 15 kW	up to 1.5 kW	up to 4.0 kW	2.2 kW
Explosion protection (ATEX) ⚡	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6		Unit group II Unit category 2 temperature class T6

Standard chemical pump NM, NMB and NMB-S

The ASV standard chemical pumps NM, NMB and NMB-S made of thermoplastics are single-stage, single flow spiral casing pumps of horizontal design with axial suction socket and radial pressure socket according to DIN 24256 and ISO 2858.

Materials include high molecular polyethylene (PE), ultra-high molecular polyethylene (Hostalen GUR), polypropylene (PP) or polyvinylidene fluoride (PVDF). External forces are absorbed by the metal armoured of the casing.

All metal components not made of stainless steel are corrosion protected by multiple coating with a high-quality protection lacquer.

Mechanical seals

- The shaft is sealed by a single or double mechanical seal of various systems and makes.
- Glide surface combination: silicium carbide against silicium carbide (SiC/SiC) and others.
- O-rings and liner made of Viton (FPM) or Hypalon (CSM), metal components made of stainless steel (V4A) or Hastelloy as standard. Option: ECTFE (Halar) coated
- Circulation, lubrication, quench or sealing liquid depending on the individual application

Centrifugal pumps, type series KHB

The ASV centrifugal pump, type KHB rounds off the bottom line of the range of centrifugal pumps with seals. The thick walled, injection moulded pump casing of HD-PE, PP or PVDF guarantees safe and reliable use up to a fluid temperature of 110 °C (PVDF).

Single or double acting shaft seal, as required, combined with ASV buffer fluid or lubrication fluid systems securely seal off the pump to the outside. The KHB pump is designed and built for industrial and chemical applications

Self-priming thermoplastic pump, type series SAP

The SAP pump made of thermoplastic material is a horizontal centrifugal pump with integrated injector nozzle of a Venturi type. In this patented design, the pump is capable of self-priming up to a 7 m head (water) with the container filled.

Typically, conventional thermoplastic pumps are not self-priming unless equipped with a self-priming container.

Peripheral pump, type PB

The thermoplastic pump PB is a horizontal peripheral pump, equipped with a star impeller for high heads. The pressure is built up in accordance with the physical principle of pulse exchange.

Even at low flow rates of below 500 l/h, heads of up to 60 m can be achieved.

Thermoplastic centrifugal pump, type series NM



Technical data

Flow rate	up to 450 m³/h
Head	up to 100 m
Materials limits of use	PE-HD up to 60 °C
	PP up to 80 °C
	PVDF up to 110 °C
Pressure socket nominal width	DN 32...DN 150
Drive capacity	up to 150 kW
Explosion protection (ATEX)	Unit group II
	Unit category 2 temperature class T6



- Design:**
- Horizontal, single-stage, non self-priming chemical pump according to DIN 24256, EN 22858, ISO 2858 with single flow spiral casing of modular concept

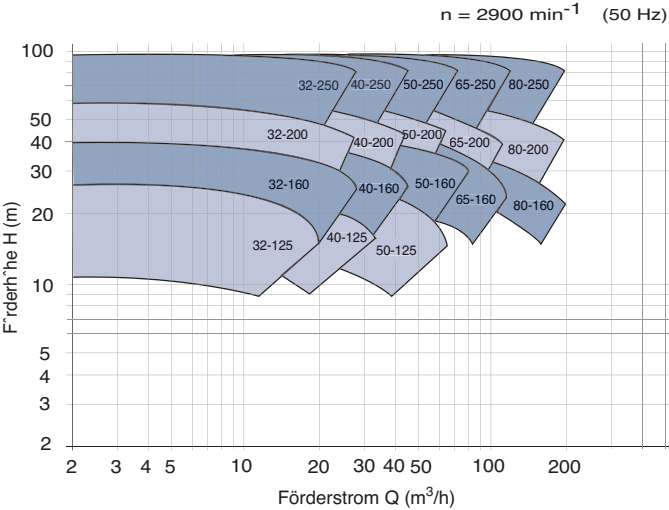
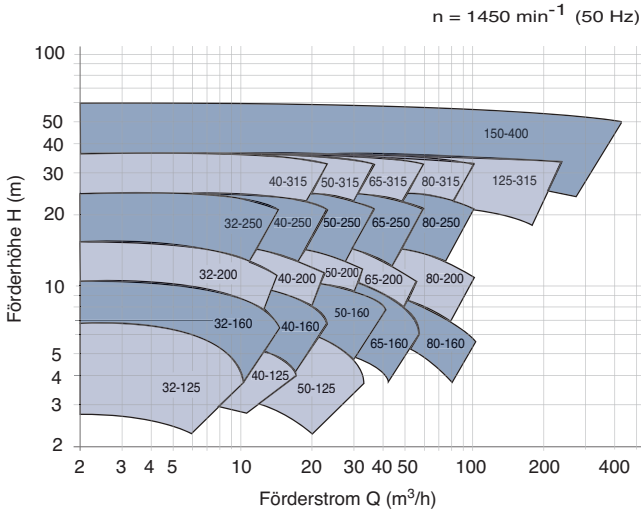
Sizes:
32 – 125 to 150 – 400

- Technical design:**
- Axial suction socket and radial pressure socket
 - Closed or half-open radial impeller
 - Axial thrust compensation by relief bores
 - Impeller mounting independent of the rotational direction
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a 2C paint coat

- Drive:**
- Three-phase motor up to 150 kW acc. to IEC
 - Bend resistant stainless steel shaft
 - Shaft protection sleeve of carbon or thermoplastic
 - Shaft bearing in an undivided bearing mounting with grease lubricated roller bearing
 - Option: oil lubricated shaft bearing

- Options/Accessories:**
- ASV pump monitor
 - Container for self-priming (non self-priming as standard)
 - Steel base plate according to DIN 24259
 - Housing drainage
 - Option: circulation
 - Smooth starting unit

Characteristic curves diagram NM



Thermoplastic centrifugal pump, type series NMB



Technical data

Flow rate	up to 110 m³/h
Head	up to 60 m
Materials limits of use	PE-HD up to 60 °C
	PP up to 80 °C
	PVDF up to 110 °C
Pressure socket nominal width	DN 32...DN 80
Drive capacity	up to 7.5 kW
Explosion protection (ATEX)	Unit group II
	Unit category 2 temperature class T6



- Design:**
- Horizontal, single-stage, non self-priming chemical pump according to DIN 24256, EN 22858, ISO 2858 with single flow spiral casing of modular concept
 - Compact design

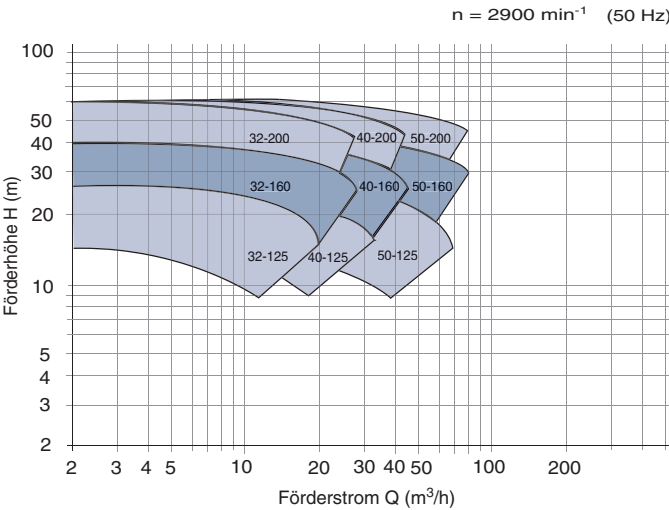
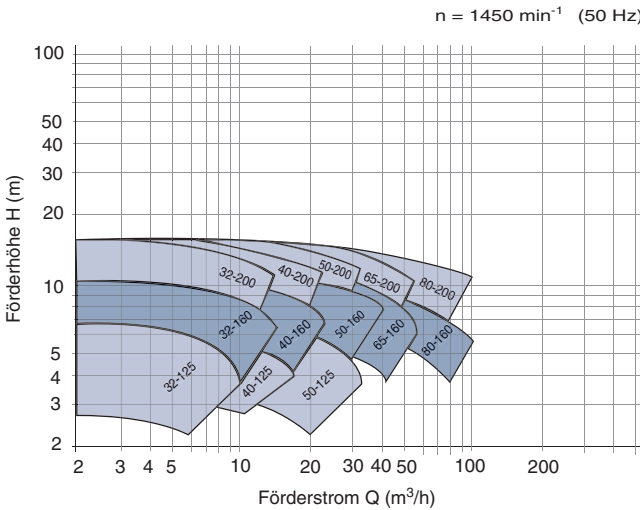
Sizes:
32 – 125 to 80 – 200

- Technical design:**
- Pump head directly flanged to the motor by means of a wafer flange fitting
 - Axial suction socket and radial pressure socket
 - Closed or half-open radial impeller
 - Axial thrust compensation by relief bores
 - Impeller mounting independent of the rotational direction
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a 2C paint coat

- Drive:**
- Three-phase motor up to 7.5 kW acc. to IEC
 - Extended stainless steel shaft to accommodate the pump impeller
 - Shaft protection sleeve of carbon or thermoplastic
 - Fast pump installation into the pipeline system, alignment of pump and motor not required

- Options/Accessories:**
- ASV pump monitor
 - Container for self-priming (non self-priming as standard)
 - Housing drainage
 - Option: circulation
 - Smooth starting unit

Characteristic curves diagram NMB



Thermoplastic centrifugal pump, type series NMB-S



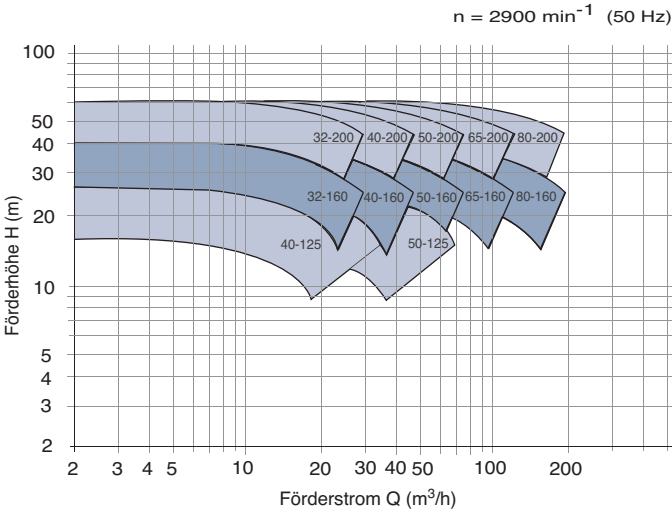
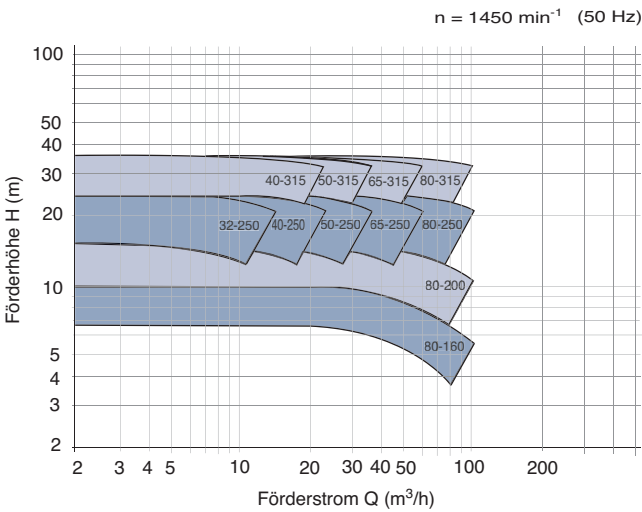
Technical data

Flow rate	up to 200 m³/h
Head	up to 60 m
Materials limits of use	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C
Pressure socket nominal width	DN 32 ...DN 80
Drive capacity	up to 15 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6



- Design:**
- Horizontal, single-stage, non self-priming chemical pump according to DIN 24256, EN 22858, ISO 2858 with single flow spiral casing of modular concept
 - Compact design
- Sizes:**
32 – 125 to 80 – 315
- Technical design:**
- Pump head directly flanged to the motor by means of a wafer flange fitting
 - Axial suction socket and radial pressure socket
 - Closed or half-open radial impeller
 - Axial thrust compensation by relief bores
 - Impeller mounting independent of the rotational direction
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a zC paint coat
- Drive:**
- Three-phase motor up to 15 kW acc. to IEC
 - Torque transmission via additional plug-type shaft running in bearings
 - Shaft protection sleeve of carbon or thermoplastic
- Accessories:**
- ASV pump monitor
 - Container for self-priming (non self-priming as standard)
 - Housing drainage
 - Option: circulation
 - Smooth starting unit

Characteristic curves diagram NMB-S



Thermoplastic centrifugal pump, type series KHB



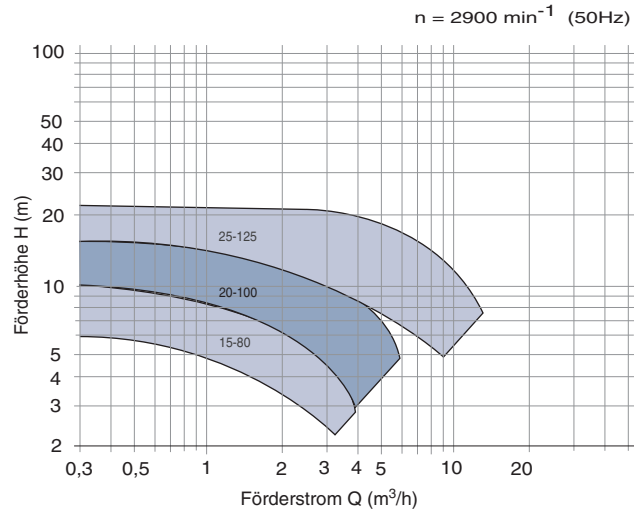
Technical data

Flow rate	up to 13 m³/h
Head	up to 23 m
Materials limits of use	PE-HD up to 60 °C PP up to 80 °C PVDF up to 110 °C
Pressure socket nominal width	DN 15...DN 25
Drive capacity	up to 1.5 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6



- Design:**
- Horizontal, single-stage, non self-priming close coupled pump with single-flow, injection moulded spiral casing in compact design
- Sizes:**
15 – 80 to 25 – 125
- Technical design:**
- Pump head directly flanged to the motor by means of a drive lantern
 - Housing and impeller made of HD-PE, PP or PVDF
 - Stainless steel screws (1.4301)
 - Axial suction socket and tangential pressure connection
 - Closed or half-open impeller
 - Impeller mounting independent of the rotational direction, with fluid-tight encapsulation
 - Mechanical seal, single or double acting
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a zC paint coat
- Drive:**
- Three-phase motor in 2 sizes acc. to IEC
 - Extended stainless steel shaft to accommodate the pump impeller
 - Shaft protection sleeve of thermoplastic or carbon
- Accessories:**
- ASV pump monitor
 - Container for self-priming (non self-priming as standard)
 - Option: circulation

Characteristic curves diagram KHB



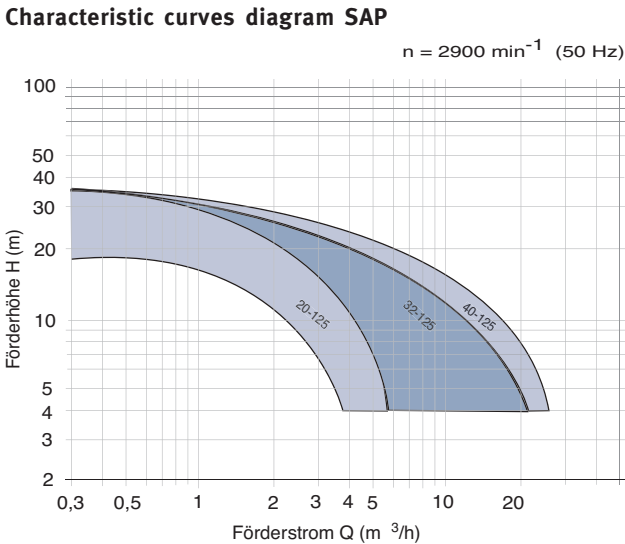
Thermoplastic pump, type series SAP



Technical data	
Flow rate	up to 30 m³/h
Head	up to 30 m
Materials limits of use	PE-HD up to 60 °C
	PP up to 80 °C
	PVDF up to 110 °C
Pressure socket nominal width	DN 20...DN 40
Drive capacity	up to 5,5 kW

- Design:**
Self-priming, single stage horizontal centrifugal pump with patented valve technology (EP 06 45.541.A1) and integrated modular nozzle system
- Sizes:**
20 – 125 to 40 – 125
- Technical design:**
- Pump head directly flanged to the motor by means of a drive lantern
 - Housing and impeller made of HD-PE, PP or PVDF
 - SAP 20 – 125 and SAP 25 – 125 with threaded socket acc. to DIN 8063
 - SAP 32 – 125 and SAP 40 – 125 with flange connection acc. to DIN 2501
 - Closed impeller
 - Impeller mounting independent of the rotational direction, with fluid-tight encapsulation
 - Mechanical seal, single or double acting
 - Valve technology in accordance with the Venturi principle for self-priming once the pump housing is filled
 - Max. suction height: 7 m WC
 - Max. fluid viscosity: 160 mPas (cP)
 - Filling and draining connection with threaded plug
 - Housing with connection for buffer or lubrication fluid
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a 2C paint coat
- Drive:**
- Three-phase motor 1.1 kW to 5.5 kW acc. to IEC
 - Extended stainless steel shaft to accommodate the pump impeller
 - Thermoplastic shaft protection sleeve

- Accessories:**
- ASV pump monitor

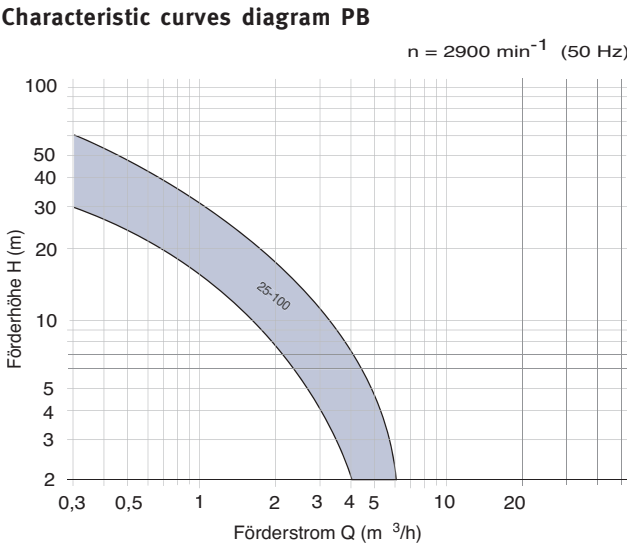


Peripheral pump, type PB



Technical data	
Flow rate	up to 5,5 m³/h
Head	up to 60 m
Materials limits of use	PP up to 70 °C
	PVDF up to 90 °C
	PTFE up to 90 °C
Pressure socket nominal width	DN 20
Drive capacity	2.2 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6

- Design:**
single-stage, horizontal thermoplastic peripheral pump of modular design
- Size:**
25 – 100
- Technical design:**
- Pump head directly flanged to the motor by means of a drive lantern
 - PP or PVDF housing
 - PTFE impeller
 - Stainless steel screws (1.4301)
 - Pressure and suction socket with flange connection act. to DIN 2501 or, as an alternative, with threaded socket acc. to DIN 8063
 - Impeller as a hydraulically balanced star impeller
 - Pressure build-up by pulse exchange for high heads
 - Max. fluid viscosity: 160 mPas (cP)
 - Impeller mounting independent of the rotational direction, with fluid-tight encapsulation
 - Mechanical seal, single or double acting
 - Corrosion protection by a 2C paint coat
- Drive:**
- Three-phase motor 1.1 kW or 2.2 kW
 - Extended stainless steel shaft to accommodate the pump impeller
 - Thermoplastic shaft protection sleeve
- Accessories:**
- ASV pump monitor






Horizontal magnetically driven centrifugal pumps
Horizontal magnetically driven centrifugal pumps are pumps without seals. Power transmission from the motor drive to the pump impeller is contactless through a magnetic coupling.

The coupling halves are separated by a hermetically sealed thermoplastic rear cover. The magnetic rear cover prevents power dissipation by eddy currents. This results in a number of system inherent advantages:

- Safe delivery of acids, alkalines and saline solutions free of solid particles. Hermetically sealed pumps are especially used for the delivery of fluids presenting an odour nuisance, toxic, heavily crystallising or dangerous media. Contamination of the environment or hazards to personnel are eliminated.
- Magnetically driven pumps do not suffer fluid leakages as loss of valuable fluids is excluded by the design.
- Magnetically driven pumps are equipped with a hermetically sealed encapsulation and come without shaft seals. No maintenance requirement when used for the delivery of heavily crystallising fluids.

Magnetically driven pumps

	ASV-MAX	MAMB	KMB	SMB
Flow rate	up to 50 m³/h	up to 105 m³/h	up to 14m³/h	up to 7.3 m³/h
Head	up to 35 m	up to 54 m	up to 23 m	up to 12.3 m
Materials limits of use	PP-GF up to 90 °C ETFE-CF up to 110 °C	PVDF up to 80 °C ETFE up to 90 °C	PP up to 70 °C PVDF up to 90 °C	PP-GF up to 80 °C PVDF up to 80 °C
Pressure socket nominal width	DN 40...DN 50	DN 32...DN 65	DN 15...DN 25	DN 20
Drive capacity	4.0 kW	up to 18.5 kW	up to 1.5 kW	up to 0.25 kW
Explosion protection (ATEX) 	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6	

Dry-running capable magnetically driven centrifugal pump ASV-MAX
In addition to the usual advantages of a seal-less, magnet-coupled pump, the ASV-MAX type series distinguishes itself by its short-duration dry-running capability. The patented sliding bearing of HD carbon/ceramic is not suitable for continuous dry-running operation but running for a short time without fluid will not cause any damage.

The ASV-MAX is equipped with flange connections permitting convenient replacement and can also accept flange connections from other manufacturers. Cost and time intensive modifications of the connecting pipework is not required and production down time in the event of a problem are reduced.

The new optimised hydraulic system for an exceptionally high degree of efficiency is another contribution towards cutting operating costs.

Magnetically driven pump
Type series MAMB



Thermoplastic lined magnetically driven centrifugal pump MAMB
With full metal encapsulation of the internal thermoplastic spiral casing, the MAMB centrifugal pump reaches an exceptionally high resistance at operating temperatures up to 90 °C. PVDF or ETFE lining is available.

Combining the resistance properties of metal and the chemical resistance of thermoplastic guarantees high operating safety and reliability.

Small magnetically driven centrifugal pumps KMB and SMB
The models KMB and SMB are sealless, horizontal and non self-priming close coupled pumps.

Due to their design, these leakage-free pumps avoid environmental damage when delivering hazardous substances (ChemG) and ground water endangering fluids (WHG).



Magnetically driven pump
Type series ASV-MAX

Magnetically driven centrifugal pump, type series ASV-MAX



Technical data

Flow rate	up to 50 m³/h
Head	up to 35 m
Materials limits of use	PP-GF up to 90 °C ETFE-CF up to 110 °C
Pressure socket nominal width	DN 40...DN 50
Drive capacity	4.0 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6

Design:
Horizontal, hermetially sealed centrifugal pump with magnetic coupling, dry-running capable

Sizes:
40x40 – 440 – 0.37 to 65x50 – 655 – 4.0

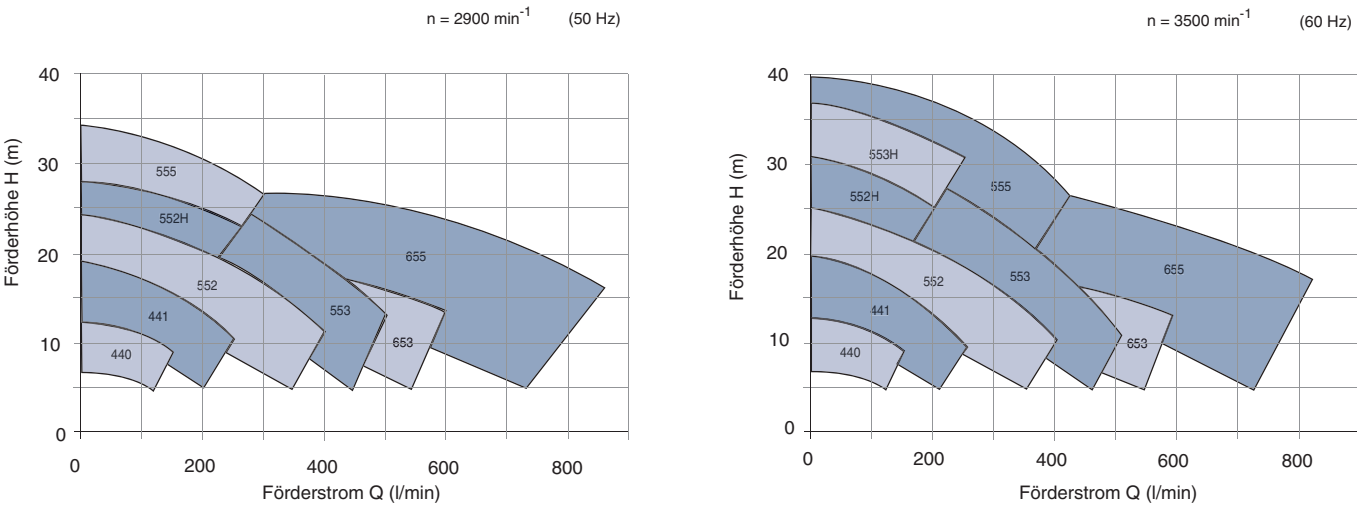
- Technical design:**
- Threaded flanges with slots
 - Parts coming into contact with the fluid made of PP-GF or ETFE-CF
 - The impeller runs in ceramic bearings with radial and axial guidance through the pump axis
 - Ceramic axial bearing, SiC
 - Sliding bearing made of SiC or HD carbon
 - Closed radial impeller
 - Power transmission through a central rotary coupling with overload protection
 - Magnets with a high energy density
 - Encapsulation of the internal magnet mounting in diffusion tight design
 - Stationary, non-magnetic rear cover made of PP-GF or ETFE-CF to avoid the loss of eddy current
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a 2C protection paint coat

Drive:

- Three-phase motor, from 0.37 kW to 4.0 kW

- Options/Accessories:**
- ASV pump monitor
 - Self-priming container for self-priming up to a suction height of 4 m
 - Smooth starting unit

Characteristic curves diagram ASV-MAX



Magnetically driven centrifugal pump, type series MAMB



Technical data

Flow rate	up to 105 m³/h
Head	up to 54 m
Materials limits of use	PVDF up to 80 °C ETFE up to 90 °C
Pressure socket nominal width	DN 32...DN 65
Drive capacity	up to 18.5 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6

Design:
Horizontal, hermetially sealed centrifugal pump, power transmission through magnetic coupling

Sizes:
50x32 – 200 to 80x65 – 160

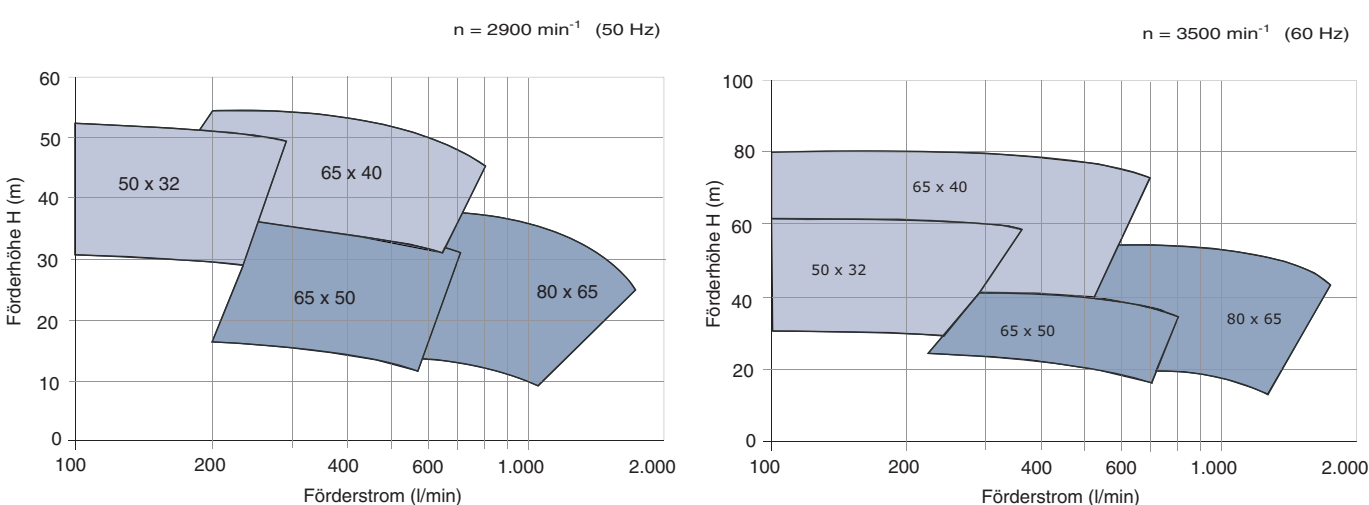
- Technical design:**
- Suction and pressure socket acc. to EN 22 858, ISO 2858
 - Thermoplastic lined cast steel spiral casing
 - Parts coming into contact with the fluid made of PVDF or ETFE.
 - Impeller shaft: ceramic or SSiC
 - Bearings in the following material combinations: SSiC x SSiC
 - Closed radial impeller
 - Power transmission through a central rotary coupling with overload protection
 - Magnets with a high energy density
 - Encapsulation of the internal magnet mounting in diffusion tight design
 - Stationary, non-magnetic rear cover to avoid the loss of eddy current
 - Max. fluid viscosity: 160 mPas (cP)
 - Corrosion protection by a 2C protection paint coat

Drive:

- Three-phase motor, from 5.5 kW to 18.5 kW

- Options/Accessories:**
- ASV pump monitor
 - Self-priming container for self-priming
 - Smooth starting unit

Characteristic curves diagram MAMB



Small magnetically driven centrifugal pump KMB

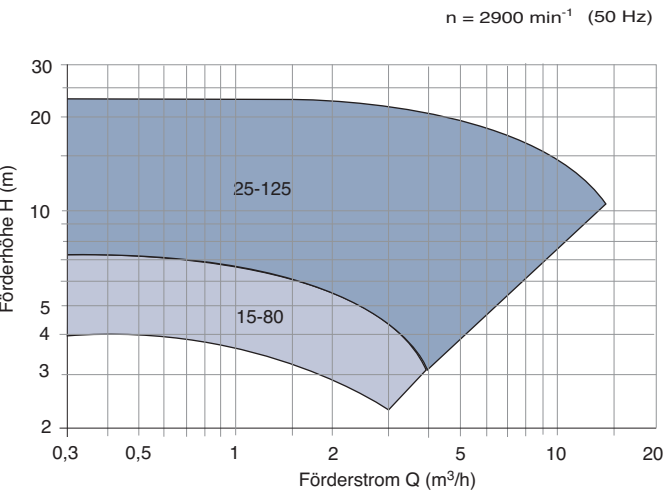


Technical data

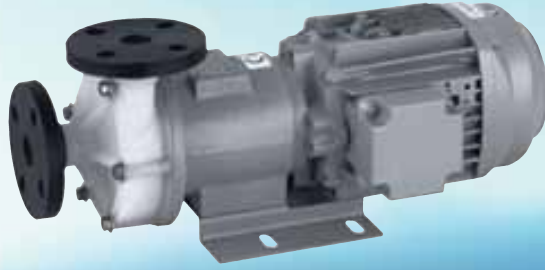
Flow rate	up to 14 m³/h
Head	up to 23 m
Materials limits of use	PP up to 70 °C PVDF up to 90 °C
Pressure socket nominal width	DN 25
Drive capacity	up to 1.5 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6

- Design:**
Horizontal, hermetically sealed centrifugal pump in modular design with magnetic coupling
- Sizes:**
15-80 and 25-125
- Technical design:**
- Housing: PP or PVDF
 - Impeller: PP or PVDF
 - Magnets: Magnets with a high energy density, internal solenoid mounting with diffusion-tight encapsulation
 - Fluid lubricated sliding bearings: SiC ceramic, size 15-80 also carbon
 - O-rings: CSM, FPM, size 25-125 also PTFE
 - Max. fluid viscosity: 160 mPas (cP)
- Drive:**
Three-phase motor, 0.12 kW or 1.5 kW, IP 55
Corrosion protection by a 2C protection paint coat
- Options/Accessories:**
- ASV pump monitor
 - Self-priming container for self-priming
 - Smooth starting unit

Characteristic curves diagram KMB



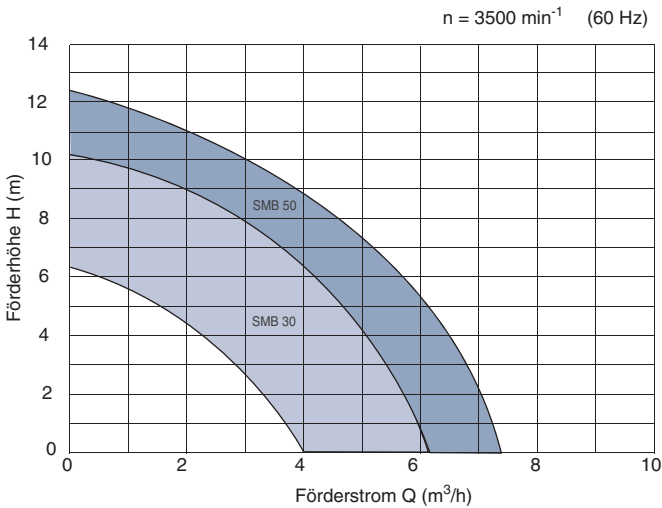
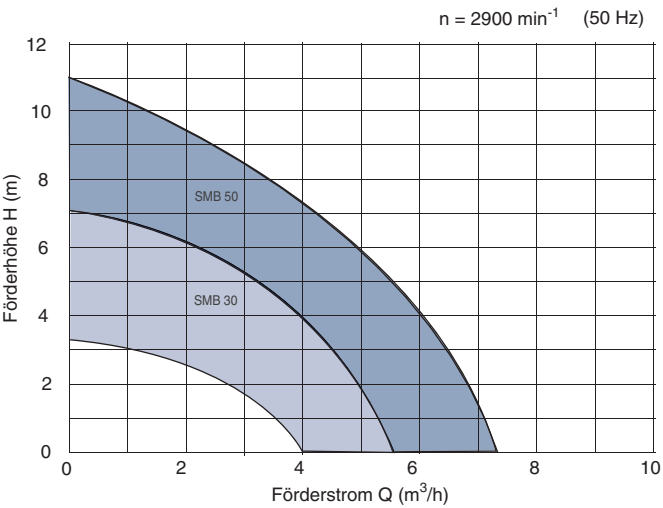
Small magnetically driven centrifugal pump SMB



Technical data

Flow rate	up to 7.3 m³/h
Head	up to 12.3 m
Materials limits of use	PP-GF up to 80 °C PVDF up to 80 °C
Pressure socket nominal width	DN 20
Drive capacity	up to 0.25 kW

- Design:**
Horizontal, hermetically sealed centrifugal pump in modular design with magnetic coupling
- Sizes:**
SMB 30 and SMB 50
- Technical design:**
- Housing: PP-GF or PVDF
 - Impeller: PP-GF or PVDF
 - Rear cover: PP-GF or PVDF
 - Magnets: Solenoids with a high energy density, internal solenoid mounting with diffusion-tight encapsulation
 - Max. fluid viscosity: 160 mPas (cP)
- Bearing:**
- Silicium carbide
 - Aluminium oxide 995
 - Rulon
- Drive:**
- Three-phase motor, 0.18 kW or 0.25 kW, IP 55
 - Corrosion protection by a 2C protection paint coat
- Options/Accessories:**
- ASV pump monitor
 - Self-priming container for self-priming



Horizontal pumps | Eccentric pumps

ASV Eccentric pumps

The ASV eccentric pump series F and L made of thermoplastic are dry-running capable, self-priming (positive) displacement pumps of horizontal design, also suitable for higher viscosity fluids.


Eccentric pumps are superior to conventional thermoplastic centrifugal pumps that, in general, are not self-priming.

PVC-U, PP, HD-PE or PVDF are used as housing materials. Depending on the individual application and the material resistance, CR, NBR, CSM, EPDM or FPM can be chosen as liner material.



Eccentric pump, type F

Eccentric pumps

	F	L
Delivery volume	up to 1.8 m³/h	up to 5.2 m³/h
Head	up to 25 m	up to 25 m
Materials limits of use	PE-HD up to 60 °C PP up to 80 °C PVDF up to 100 °C PTFE up to 100 °C	PE-HD up to 60 °C PP up to 80 °C PVDF up to 100 °C PTFE up to 100 °C
Pressure socket nominal width	DN 14...DN 24	DN 14...DN 38
Drive capacity	up to 0.37 kW	up to 1.1 kW
Explosion protection (ATEX) 	Unit group II Unit category 2 temperature class T6	Unit group II Unit category 2 temperature class T6

Design features and operating principle

The eccentric pump is a rotating displacement pump. The thermoplastic pump housing accommodates the liner which is pinched between the housing and cover plate or the motor lantern or bearing block for fluid tightness; the liner ridge separates the suction compartment from the pressure compartment.

The rotor running in an eccentric bearing rotates in roller bearings on a cam at the central drive shaft. The surface between the rotor and liner has an oil film. It is separated from the large roller bearings by a simple mechanical seal.

The motor equipment allows the use of two optional frequency changers:

- Type series F and L – at constant rotational speed (frequency converter)
- Type series FF and LF – with variable rotational speed

Flow rates controlled according to the requirement guarantee low energy consumption and optimum efficiencies; as such, they contribute to control of operating costs.

The rotational speed can be manually set at the potentiometer or fully automatically controlled in the PID control circuit via scaled signal (0...10 V, 4 ...20 mA, etc.). Guide values established by means of sensors include fluid properties, such as, for instance, pH value, electrical conductivity, temperature, etc. Furthermore, the rotational speed can be controlled by measuring values, such as flow rate, pressure, suction height, etc. This allows the operating point to be adapted to the current requirements.

ASV eccentric pumps deliver:

- alkaline or acidic fluids
- solvents, paints and adhesives
- water in a wide range of purities
- waste water, precipitants, flocculents,
- chemicals and pharmaceuticals
- electroplating baths and baths in the photo and film industry
- various fluids in the paper, textile and leather industries

Further fields of application include the electrical / electronics industries and environmental technologies.

Our pump specialists would be pleased to answer your questions with regard to application, chemical resistance and continuous operation.

Eccentric pump F/FF

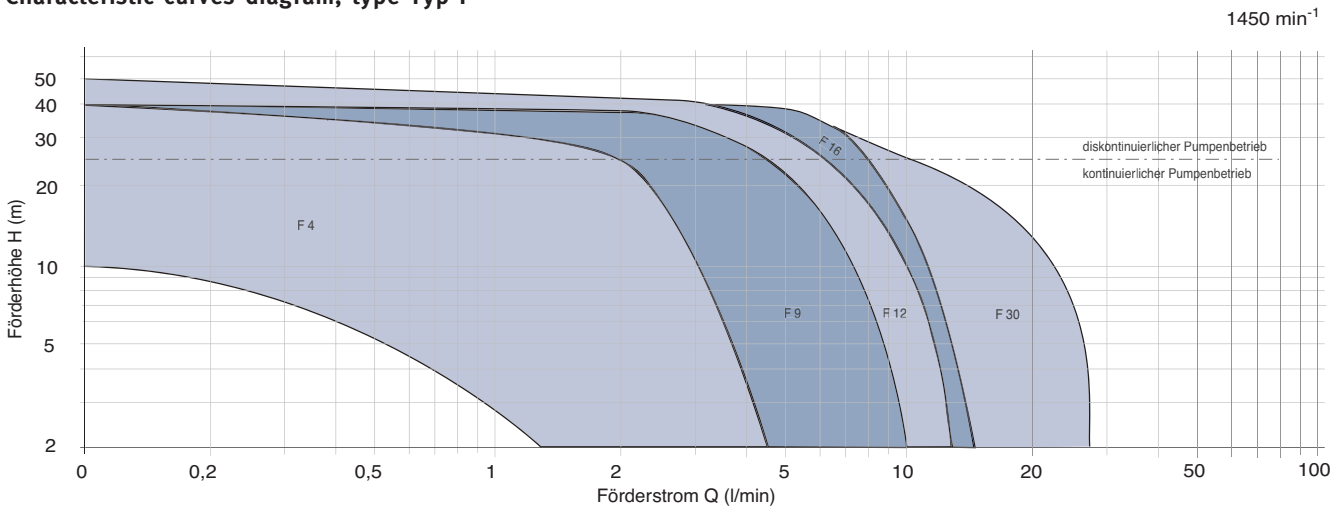


Technical data	
Delivery volume	up to 1.8 m³/h
Head	up to 25 m
Materials limits of use	PE-HD up to 60 °C
	PP up to 80 °C
	PVDF up to 100 °C
	PTFE up to 100 °C
Pressure socket nominal width	DN 14...DN 24
Drive capacity	up to 0.37 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6



- Design:**
The ASV eccentric thermoplastic pump series F/FF are dry running capable, self-priming displacement pumps of horizontal design.
- Sizes:**
F4, F9, F12, F16, F30
- Technical design:**
- Thermoplastic pump housing with liner directly flanged to the motor
 - Stainless steel screws (1.4301)
 - Connections for industrial hoses
 - Mechanical seal
 - Max. suction height: 5m WC
 - suitable for higher viscous fluids up to max. 1000 mPas (cP)
 - Drive with a 2C corrosion protection coat
- Drive:**
- 1 phase or three-phase motor, directly flanged
 - Stainless steel shaft (1.4301)
- Accessories:**
- ASV pump monitor
 - Vibration and pulsation damper
 - Suction basket
 - Frequency control

Characteristic curves diagram, type Typ F



Eccentric pump L/LL

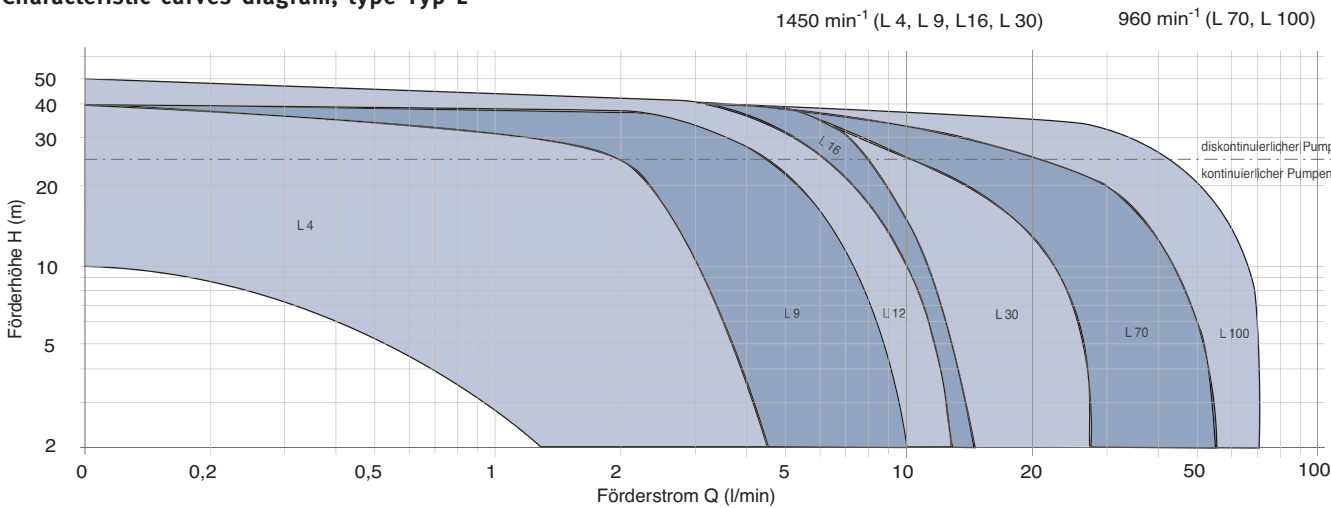


Technical data	
Delivery volume	up to 5.2 m³/h
Head	up to 25 m
Materials limits of use	PE-HD up to 60 °C
	PP up to 80 °C
	PVDF up to 100 °C
	PTFE up to 100 °C
Pressure socket nominal width	DN 14...DN 38
Drive capacity	up to 1.1 kW
Explosion protection (ATEX)	Unit group II Unit category 2 temperature class T6



- Design:**
The ASV eccentric thermoplastic pump series L/LL are dry running capable, self-priming displacement pumps of horizontal design.
- Sizes:**
L4, L9, L12, L16, L30, L70, L100
- Technical design:**
- Thermoplastic pump housing with liner
 - Stainless steel screws (1.4301)
 - Connections for industrial hoses
 - Mechanical seal
 - Max. suction height: 5m WC
 - suitable for higher viscous fluids up to max. 1000 mPas (cP)
 - Drive with a 2C corrosion protection coat
- Drive:**
- Single phase or three-phase motor on base plate with drive motor, elastic coupling and contact protection acc. to EN294/DIN 31001
 - Stainless steel shaft (1.4301)
- Accessories:**
- ASV pump monitor
 - Vibration and pulsation damper
 - Suction basket
 - Frequency control

Characteristic curves diagram, type Typ L



Vertical pumps | sump pumps



Sump pump ETLB

Sump pumps

ASV sump pumps are single or multi-stage vertical thermoplastic chemical centrifugal pumps configured according to the modular design principle. In their standard version, the sealless ASV thermoplastic sump pumps are designed for use in open or closed pressureless containers or pits/trenches.

Compact close coupled sump pumps as single or multi-stage and magnetically coupled model series complement our range to solve every application task. Special designs, such as with titanium shafts and titanium labyrinth seals can be built at the customer's request.

Each pump unit is subjected to a test run according to DIN 1944 and supplied with a certificate as per DIN 50 049, if requested.

Sump pumps

	ET	ETL	ETLB	ETLB-X	ETMB
Delivery volume	up to 120 m³/h	up to 80 m³/h	up to 104 m³/h	up to 32 m³/h	up to 25 m³/h
Head	up to 55 m	up to 36 m	up to 36 m	up to 42 m	up to 26 m
Immersion depth	up to 2,000 mm	up to 750 mm	up to 795 mm	up to 475 mm	up to 475 mm
Materials limits of use	PP up to 90 °C PVDF up to 110 °C	PP up to 90 °C PVDF up to 110 °C	PP up to 70 °C PVDF up to 90 °C	PP up to 70 °C PVDF up to 90 °C	PP up to 70 °C PVDF up to 90 °C
Pressure socket nominal width	DN 15...DN 80	DN 20...DN 80	DN 15...DN 80	DN 25...32	DN 25...DN 40
Drive capacity	up to 15 kW	up to 11 kW	up to 7.5 kW	up to 5.5 kW	up to 4.0 kW

ASV Thermoplastic sump pump ET

The ASV sump pumps running in bearings are single-stage vertical thermoplastic chemical centrifugal pumps strictly built in accordance with the modular design principle.

The immersion depths of the ASV sump pumps ET range from 500 to 2,000 mm in 250 mm increments.

ASV Thermoplastic sump pump ETL

The sump pumps of the ETL series are also suitable for vertical use in pressure-less containers, open basins or in pump pits. The shaft bearings do not come into contact with the fluid, the ETL pumps feature dry-running safety, wear resistance and exceptional running smoothness.

ASV Thermoplastic close coupled sump pump ETLB

The ETLB series is designed as a cost efficient close coupled sump pump. By the thousands, it is used worldwide, for example, in PCB production plants, flat screen and solar panel production. Also this series is absolutely dry running safe.

Heavily crystallising fluids require special equipment with titanium shafts and titanium labyrinth seals.

ASV Thermoplastic close coupled sump pump ETLB-X

This multi-stage ETLB-X version is designed for heads up to 42 m.

ASV Thermoplastic close coupled sump pump ETMB

The magnetically coupled ETMB series is built to deliver heavily degassing or crystallising, toxic and explosive fluids. The ETMB is also available as a dry running capable version.

Tailor-made solutions and accessories

Sump pumps frequently have to be adapted to geometrical and hydraulic plant conditions. Upon customer request, mounting plates, fastening holes and pressure pipe branches can be designed to meet the requirements of the individual installation situation.

Suction extensions up to 2,000 mm guarantee complete container discharge. Where coarse solid particles are encountered, strainers ensure fault-free operation of the sump pumps. In restricted space situations, e.g. in basins, the pump is externally placed at the self-priming container.

When one of the limit values is reached, the pumps are reliably controlled by the level control system.

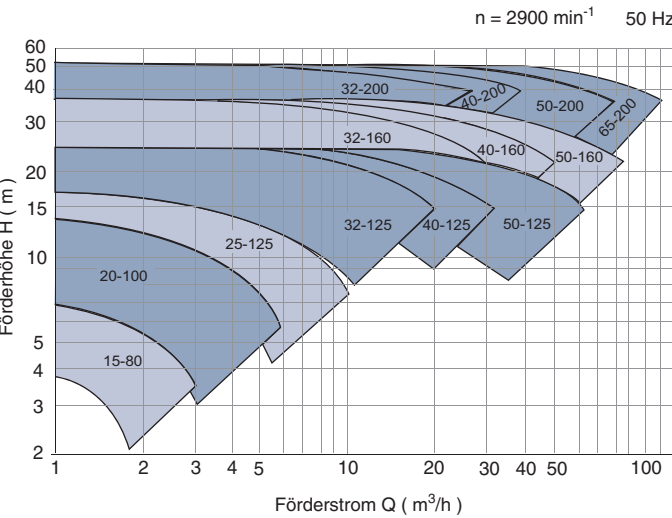
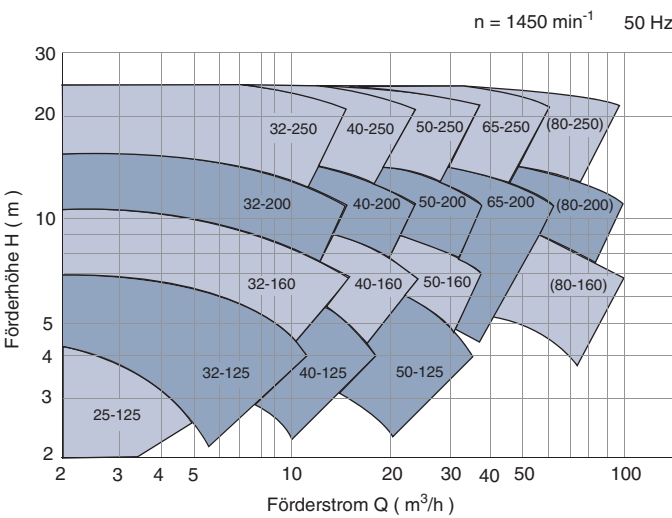
ASV Thermoplastic sump pumps, type series ET



- Design:**
Vertical single-stage sump pump running in bearings
- Sizes:**
ET 15-80 to ET 80-250
- Technical design:**
- Immersion depths between 500 and 2000 mm in 250 mm increments
 - Materials: PP, PVDF
 - Pump shaft running in double bearings to increase stability
 - Triple bearings as from an immersion depth of 1,500 mm
 - Integrated pressure relief of the sliding bearings to protect from solid matter
 - Standard gliding material combination: Teflon/carbon/graphite (PTFE/C/CSb) against SiC
 - Alternative: SiC/SiC or SiC/C dry running capable
 - Axial thrust relief by vanes on the back
 - Pump shaft encapsulated in a thick-walled shaft protection sleeve.
 - Pump impeller fitted independent of the rotational direction
 - Corrosion protection by a 2C protection paint coat
- Drive:**
- Three-phase motor, from 0.25 kW to 15 kW
 - Drive unit encapsulation to protect against aggressive surrounding atmosphere
 - Motor bearing relief by an electric coupling
- Options/Accessories:**
- ASV pump monitor
 - external bearing lubrication
 - dry running capable sliding bearings
 - single acting mechanical seal
 - Dry run protection device
 - Suction basket / suction extension

Technical data	
Delivery volume	up to 120 m³/h
Head	up to 55 m
Materials limits of use	up to 2,000 mm
	PP up to 90 °C
	PVDF up to 110 °C
Pressure socket nominal width	DN 15...DN 80
Drive capacity	up to 15 kW

Characteristic curves diagram ET



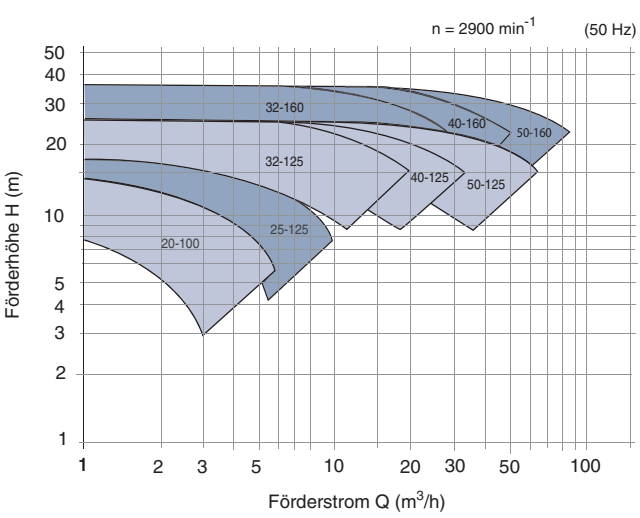
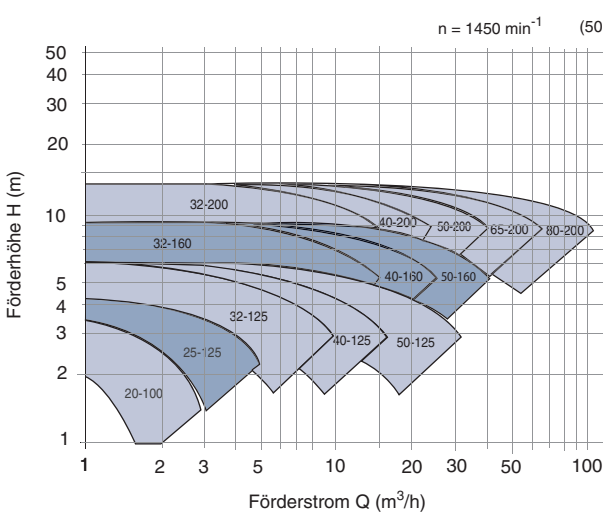
ASV Thermoplastic sump pumps, type series ETL



- Design:**
Vertical single-stage sump pump, dry running safe
- Sizes:**
ETL 20-100 to ETL 80-200
- Technical design:**
- Immersion depth: 500 mm and 750 mm
 - Materials: PP, PVDF
 - Thermoplastic spiral casing flanged to the immersion tube with stainless steel or PVDF screws
 - Closed impeller, fastened independent on the rotational direction.
 - Stainless steel shaft separated from the fluid by a thick-walled thermoplastic protection tube
 - Shaft lead-through at the mounting plate protected from fluid vapours by means of V-ring/SiC disc
 - Radial and axial forces are absorbed by sealed roller bearings
 - Corrosion protection by a 2C protection paint coat
- Drive:**
- Three-phase motor, from 0.25 kW to 11 kW
 - Drive unit encapsulation to protect against aggressive surrounding atmosphere
- Options/Accessories:**
- ASV pump monitor
 - Suction basket
 - Suction extension

Technical data	
Delivery volume	up to 80 m³/h
Head	up to 36 m
Materials limits of use	up to 750 mm
	PP up to 90 °C
	PVDF up to 110 °C
Pressure socket nominal width	DN 20...DN 80
Drive capacity	up to 11 kW

Characteristic curves diagram ETL



ASV Thermoplastic close coupled sump pumps, type series ETLB



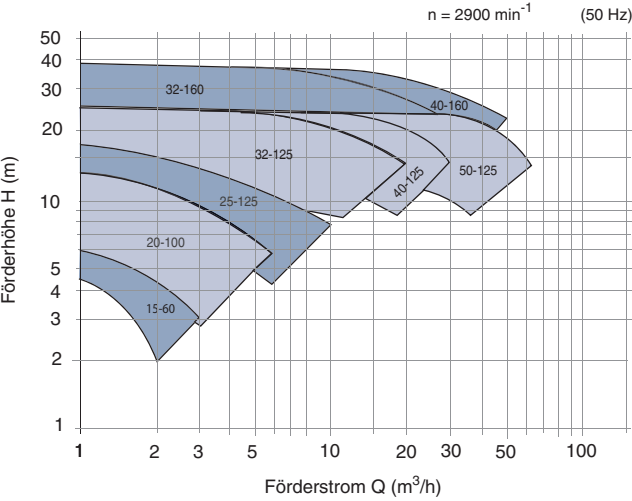
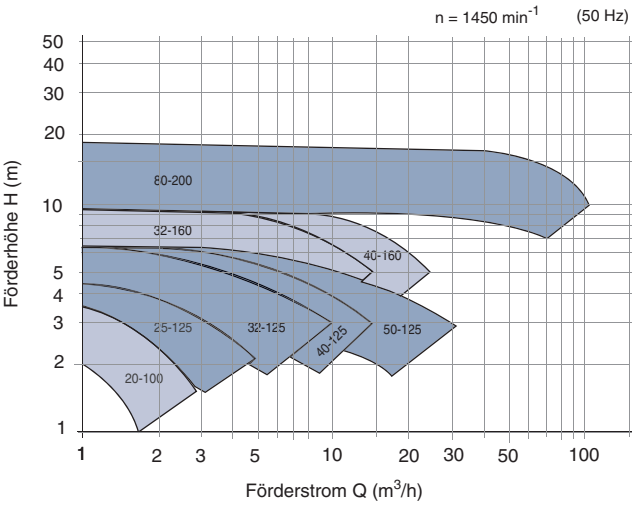
- Design:**
Vertical single-stage sump pump, dry running safe
- Sizes:**
ETLB 15-60 to ETL 80-200
- Technical design:**
- Immersion depth: 275 mm, 475 mm and 775 mm
 - Materials: PP, PVDF
 - screwless thermoplastic spiral casing
 - Closed impeller, fastened on the motor shaft independent of the rotational direction
 - Stainless steel shaft separated from the fluid by a thick-walled thermoplastic protection tube
 - Shaft lead-through at the mounting plate with lip seals to protect against fluid vapours
 - Radial and axial forces are absorbed by reinforced motor bearings
 - Corrosion protection by a 2C protection paint coat
- Drive:**
- Three-phase motor, 0.18 kW to 7.5 kW, IP 55

- Options/Accessories:**
- Titanium drive shaft and labyrinth seal
 - Suction extension
 - Suction strainer

Technical data

Delivery volume	up to 104 m³/h
Head	up to 36 m
Materials limits of use	PP up to 70 °C PVDF up to 90 °C
Pressure socket nominal width	DN 32 to DN 80

Characteristic curves diagram ETLB



ASV Thermoplastic close coupled sump pumps, type series ETLB-X

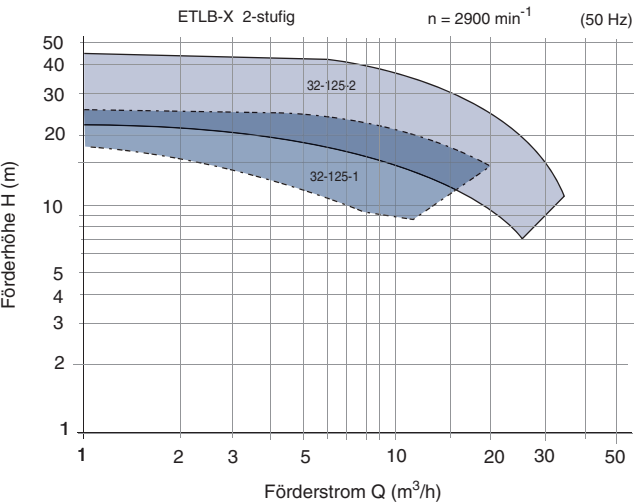
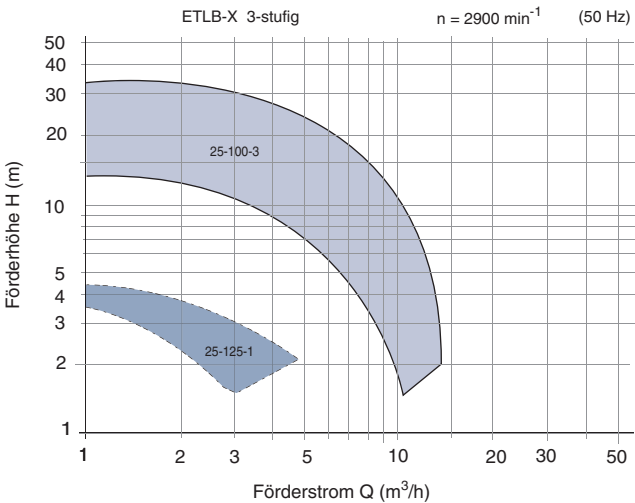


- Design:**
Vertical multi-stage sump pump, dry running capable
- Sizes:**
3 stage: ETLB 25-100-3
2 stage: ETLB 32-125-2
- Technical design:**
- Immersion depth: 275 mm and 475 mm
 - Materials: PP, PVDF
 - Screwless thermoplastic spiral casing
 - Closed impeller, fastened on the motor shaft independent of the rotational direction
 - Stainless steel shaft separated from the fluid by a thick-walled thermoplastic protection tube
 - Shaft lead-through at the mounting plate with lip seals to protect against fluid vapours
 - Radial and axial forces are absorbed by reinforced motor bearings
 - Corrosion protection by a 2C protection paint coat
- Drive:**
- Three-phase motor, 1.5 kW to 5.5 kW, IP 55
 - Drive unit encapsulation to protect against aggressive surrounding air
- Options/Accessories:**
- Dry run protection device
 - Suction basket
 - Suction extension

Technical data

Delivery volume	up to 32 m³/h
Head	up to 42 m
Materials limits of use	PP up to 70 °C
	PVDF up to 90 °C
Pressure socket nominal width	DN 25 / DN 32

Characteristic curves diagram ETLB-X



ASV Thermoplastic close coupled sump pumps, magnetically coupled, type series ETMB

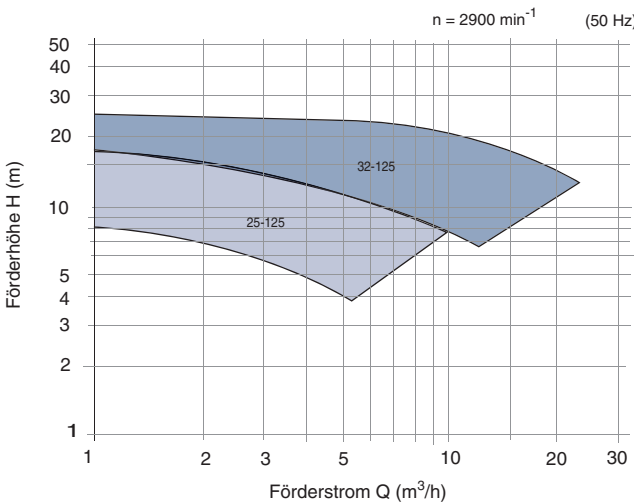
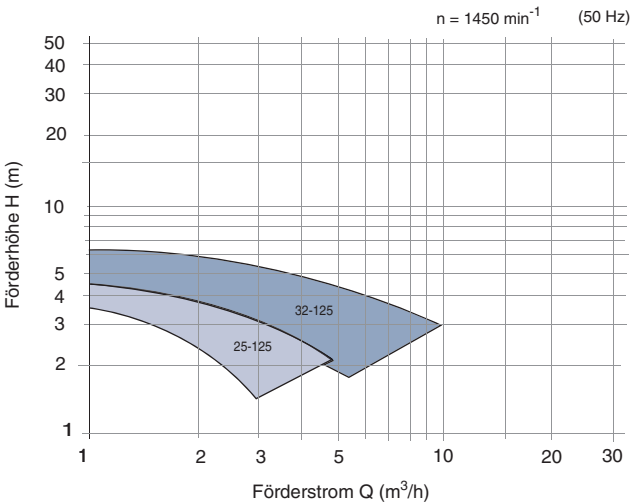


- Design:**
Vertical, hermetically sealed single-stage sump pump, power transmission through magnetic coupling, dry running safe
- Sizes:**
ETMB 25-125 to ETMB 32-125
- Technical design:**
- Immersion depth: 275 mm, 475 mm
 - Materials: PP, PVDF
 - Thermoplastic spiral casing flanged to the immersion tube with stainless steel or PVDF screws
 - Pump compartment hermetically encapsulated by the rear cover
 - Closed impeller with impeller magnet, fastened independent of the rotational direction
 - Pump impeller running in a SiC ceramic sliding bearing
 - Radial and axial forces are absorbed by reinforced motor bearings
 - Corrosion protection by a 2C protection paint coat
- Drive:**
- Three-phase motor, 0.37 kW to 4.0 kW, IP 55
- Options/Accessories:**
- Dry run protection device
 - Suction basket
 - Smooth starting unit

Technical data

Delivery volume	up to 25 m³/h
Head	up to 26 m
Materials limits of use	PP up to 70 °C
	PVDF up to 90 °C
Pressure socket nominal width	DN 25 / DN 32

Characteristic curves diagram ETMB



Filters and filter stations

Thermoplastic filter units are employed in the chemical industry, electroplating and photo industry as well as in many more fields to filter industrial fluids. Special emphasis is placed on the operating safety of all filter units as well as on the operating convenience; for instance, a special design ensures that the individual delivery pump assigned switches off automatically prior to opening the filter cover of units equipped with multiple filter cartridges and that, as such, the filter unit can only be opened when depressurised. The version as a quick release filter permits fast access to the filter elements through special opening mechanisms whenever the filter cartridge has to be replaced.



Filters

	Filters
Number of cartridges:	1...15
Cartridge length:	10" ... 30"
Filter mesh:	5µ...100µ
Flow quantity:	up to 65 m³/h
Materials limits of use:	PP up to 50 °C
Nominal connection width:	DN 15 ...DN 50

- Structure**
- Compact design
 - High safety standard (cover safety)
 - Stainless steel reinforced n parts
 - PP housing
 - EPDM or FPM O-rings
 - Automatic aeration and venting
 - Diaphragm pressure gauge guard and pressure gauges

- Options**
- ON/OFF switch in the housing incl. motor protection switch
 - Dry running protection to safeguard the pump
 - Bag filter upon request

Cartridges
As standard, washed cartridge material filter elements made of polypropylene are used in the ASV filter units and stations. This permits filtration of almost all neutral and aggressive fluids. Filter elements of different materials and/or design are also available.

These standard filter elements can be used in meshes from 0.5 to 400 µm.



Pump accessories



Pump monitors



Accessories

	Pump monitors
Setting range	0.2...10 bar
Pump motor capacity	up to 18.5 kW
Type of protection	IP 65
Materials limits of use	PVC up to 60 °C PP up to 80 °C PVDF up to 110 °C
Nominal connection width	DN 20

	Buffer fluid system
Volume	200 and 700 l
Buffer fluid pump	0.55 kW
Head	80 m
Operating temperature	up to 40 °C
Materials limits of use	PP up to 40 °C
Nominal connection width	DN 20 ... DN 32

ASV pump monitor
ASV buffer fluid monitoring system

The use of a pump monitor enhances the fault free operation of the pump system; costly operating interruptions are reduced. System protection against the effect of operating pressures prevents damage to the pump and its mechanical seal.

Buffer fluid monitoring system
For pumps with double-acting mechanical seals

Dry run protection device
The dry running protection prevents damage to the pump, especially to its mechanical seal. In the event of a pressure drop or interrupted flow, a pressure switch switches off the pump automatically. At very low delivery pressures (e.g. pumping between containers), the corresponding counter-pressure of at least 0.2 bar or 0.5 bar on the pressure side has to be ensured by a suitable throttle.

Dry running protection with min. and max. pressure monitoring
This pressure switch combination has to be installed to protect the pressure pipework system and its components as well as the pumps. Undue pressure increase in the pipework system is prevented by the pump switching off instantly once the individually permissible and set pressure value is exceeded.



Mobile
buffer fluid system

Buffer fluid monitoring system
To maintain their function, double-acting mechanical seals require a buffer fluid; the buffer pressure must be 1.5 - 2 bar above the maximum pressure reached at the mechanical seal of the pump. Damage to the mechanical seal resulting from a lack of buffer fluid or from insufficient buffer pressure is avoided by the ASV buffer pressure monitoring system, causing the pump to automatically switch off when the diaphragm pressure switch is set to the individually required buffer pressure.