



SELF-PRIMING
CENTRIFUGAL
PUMPS



FROSTER
PROSESSPUMPER OG ENGINEERING



**VICTOR
PUMPS**





SELF-PRIMING CENTRIFUGAL PUMPS



IMPORTANT:

The technology of “Victor Pumps” is constantly evolving thanks to new technical and design solutions.
We therefore reserve us the right to make changes at any time without notice.

Some pump pictures may contain optional equipment.

Victor Pumps: "Well done!"

*We meet all the requirements,
even in the most
difficult applications.*



surface mounted for easy access



entrained air/abrasives/corrosives



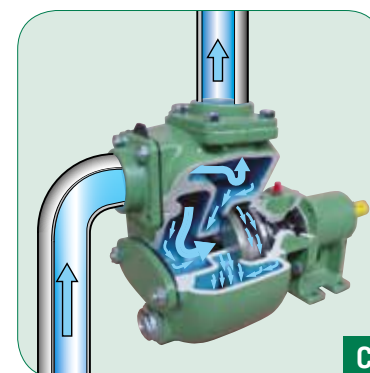
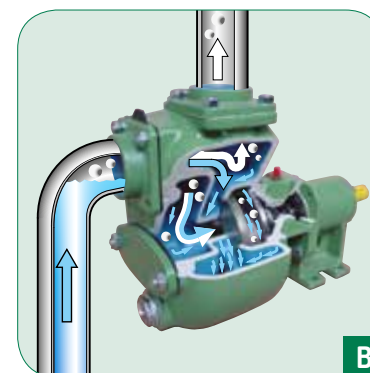
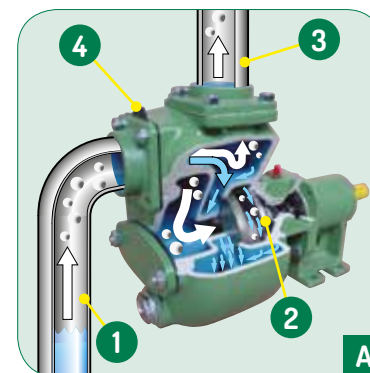
self-priming up to 8 m



also for viscous liquids



Operating principle and limits of use



The S series pumps are centrifugal and self-priming. The impeller with open blades allows a wide passage of solids. With this kind of pump you can handle wastewater also with corrosive and viscous liquids containing solids in suspension, abrasive powders, even if there are air bubbles.

One of the advantages of this type of pump is indeed that it doesn't need to be immersed in the liquid. The maximum suction height is given by the physical conditions of the pumped liquid and can reach up to 8 m.

Since the pump is normally placed dry above or aside the liquid, the suction line contains air.

The self-priming pump will evacuate all the air. The vacuum, that is produced when the impeller rotates ②, draws the air ① into the pump where it is mixed with the liquid already contained in the pump casing. The air/liquid mixture is driven to the discharge side where the air is separated and expelled through the discharge port ③. The liquid falls back due to the higher gravity and is reused in the suction side through a small passage. When all the air has been evacuated from the suction line, the liquid is pumped, despite the air-charged. The high suction port keeps enough liquid inside the casing to allow re-priming any time. The non-return valve in the suction port ④ avoids a backflow of the liquid and reduces priming times.



The pumps are available with ATEX certifications to fulfill the EU regulation "Directive 2014/34/EU" that regulates the security of use for the equipment in potentially explosive atmospheres. We can supply ATEX certifications for the areas of Group II, categories 2GD (Zone 1) and 3GD (Zone 2) for the temperature classes T1/T2/T3 and T4.

By filling out a simple questionnaire, you can check the availability of the certificate for the specific request.

Further information is available on request.

Pumpable liquids

Acids	Lime milk	Water with sand or mud
Bentonite	Liquid fertilizer	Transformer oil
Biomass	Liquid manure	Vegetable oils
Cutting oil	Low viscosity oils	Washing water
Diesel	Mineral oils	Water with boron
Emulsions	Must	Water with solid residues
Flood drainage	Petrol	Whey from alcohol distillation
Fresh or brackish water	Rain water	
Industrial wastewater	Sea water	
Leachate	Sewage	
Light petroleum products	Soda and alkaline solutions	and many others...



Close coupled



S 80 G31T+F

Cast iron pump, with DN80 flanged ports and close coupled to the motor. Compact, competitively priced and easy to use. Typically for non-heavy applications and intermittent use.



S 41 K57BBDe+F+2A

Stainless steel pump, with DN40 flanged ports, with elastic coupling mounted in the bracket with the IEC standard B5 motor.



S 40 G312BBDe+F+B+2A

Cast iron pump with DN40 flanged ports, Bi-Block version with electric motor, on base plate. Easy to install, heavy duty and safe. For fixed stations and continuous use.





S 51 K301S0

Stainless steel pump with 2" threaded ports, coupled to hydraulic motor. Normally used on trucks and trailers.



S126 K312B+3A/XDe302

Stainless steel pump, with 4" counter flanges for pipe welding, flexible shaft coupling with guard and IEC standard B3 motor on baseplate. Traditional build, heavy duty for many applications.



Carrying frame



S 40 G31M+SG

Cast iron pump with 1 1/2" threaded ports, close coupled with 230 V single-phase motor; on/off switch, motor protection, and cable with Schuko plug. Mounted on a carrying frame: compact and transportable.

4-wheeled trolley for flat ground



S 66 K30BDe+TV+SX+3A

Stainless steel pump with 2" threaded ports, Bi-Block build with electric cable, on/off switch, with 4-wheeled trolley suitable for flat ground.



2-wheeled trolley



S 60 G31RZ+TEB

2" cast iron pump, close coupled to diesel engine, on 2-wheeled all terrain trolley with recoil and electric start with integrated battery on the frame.

2-wheeled trailer with tank



S150 G12ZH2+TSB

6" cast iron pump, close coupled to diesel engine, on trailer with tractor profile wheels, large capacity tank for heavy and continuous use. The lifting and towing hooks allow various types of handling.

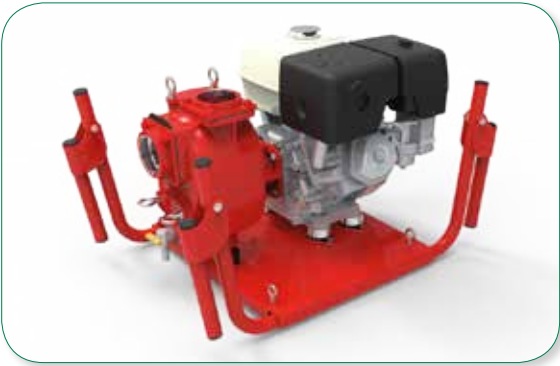
Base mounted with fuel tank on skid



S150 G12ZH+SKID

6" cast iron pump close coupled to diesel engine mounted on skid, designed to be sled or lifted by the hook.

Special versions



THE
LIGHTEST
PUMP IN ITS CLASS
55 KG

S 81 A30Q+G

3" aluminium pump, close coupled to gasoline engine; on a practical, easily transportable carrying frame. Designed to be used in emergency situation such as flooding.



S108 G31BBZH2+TVSB

4" cast iron pump, Bi-Block coupled to diesel engine; on 4-wheeled trailer for flat ground, can be moved manually, with a forklift or crane.



S201 G12BBZH4+BSB

8" cast iron pump, Bi-Block coupled to engine, fixed with anti-vibration mountings on base with large tank. Supplied with document box and battery cover. Solid and particularly recommended for heavy-duty applications.

Materials and construction variants

Versatility is one of the main characteristics of Victor Pumps. The same model of machine has been developed for different uses and applications in various sectors.



Depending upon the application and the pumped product, the S pumps are available in cast iron, ductile cast iron, stainless steel, bronze or aluminium. Furthermore, hybrid versions are available with different material combinations to extend pump life. It is also possible to strengthen the pump with special materials to reduce component wear. For example, to suit highly abrasive particles. Many drives are also available including different electric motors, engines and even hydraulic motors. All of these options allow our pumps to suit many different applications for process plants, on board ships, for environmental protection, on construction sites, for civil emergencies and many other situations! Using extensive experience gained over many years, Victor Pumps is able to offer the very best solution for all of your fluid handling requirements!



S 81 B30T

3" close coupled pump to three-phase electric motor, made of bronze, highly recommended for sea water pumping.

Materials and construction variants

The possibility for customization of the pump units according to the specific applications and special requests is another plus that distinguishes Victor Pumps and led our customers, from all over the world, to relies on us over the years.



Mechanical seals and gasket sets can also be selected as needed. The most common seal is an elastomeric bellows, available in various materials including, for example, silicon carbide/ceramic, tungsten carbide/tungsten carbide or graphite. For the most complex applications, we also offer metal bellows seals or a magnetic drive. The rubber gaskets are selectable in NBR, FKM, EPDM, PTFE or Aflas®. Our technical department is always updated on new materials and their specific characteristics to offer you cutting-edge solutions.



S 46 K16TM

Stainless steel pump with 1 ½" threaded ports, magnetic drive shaft to eliminate any type of leakage of the pumped product. Recommended with dangerous liquids to protect the users and the environment.

Pump characteristics



Standard inlet and outlet ports are BSP (GAS) threaded (up to 4"), on request also NPT; the ports are screwed on the casing to easily disconnect the pipes.



Ports with counter flanges to weld from 6" up. They are connected to other parts of the system with a simple welding.



DIN or ANSI flanged ports
ON REQUEST: with through holes to facilitate the assembly and disassembly. Additional 1/4" threaded hole for vacuum gauge and pressure gauge.



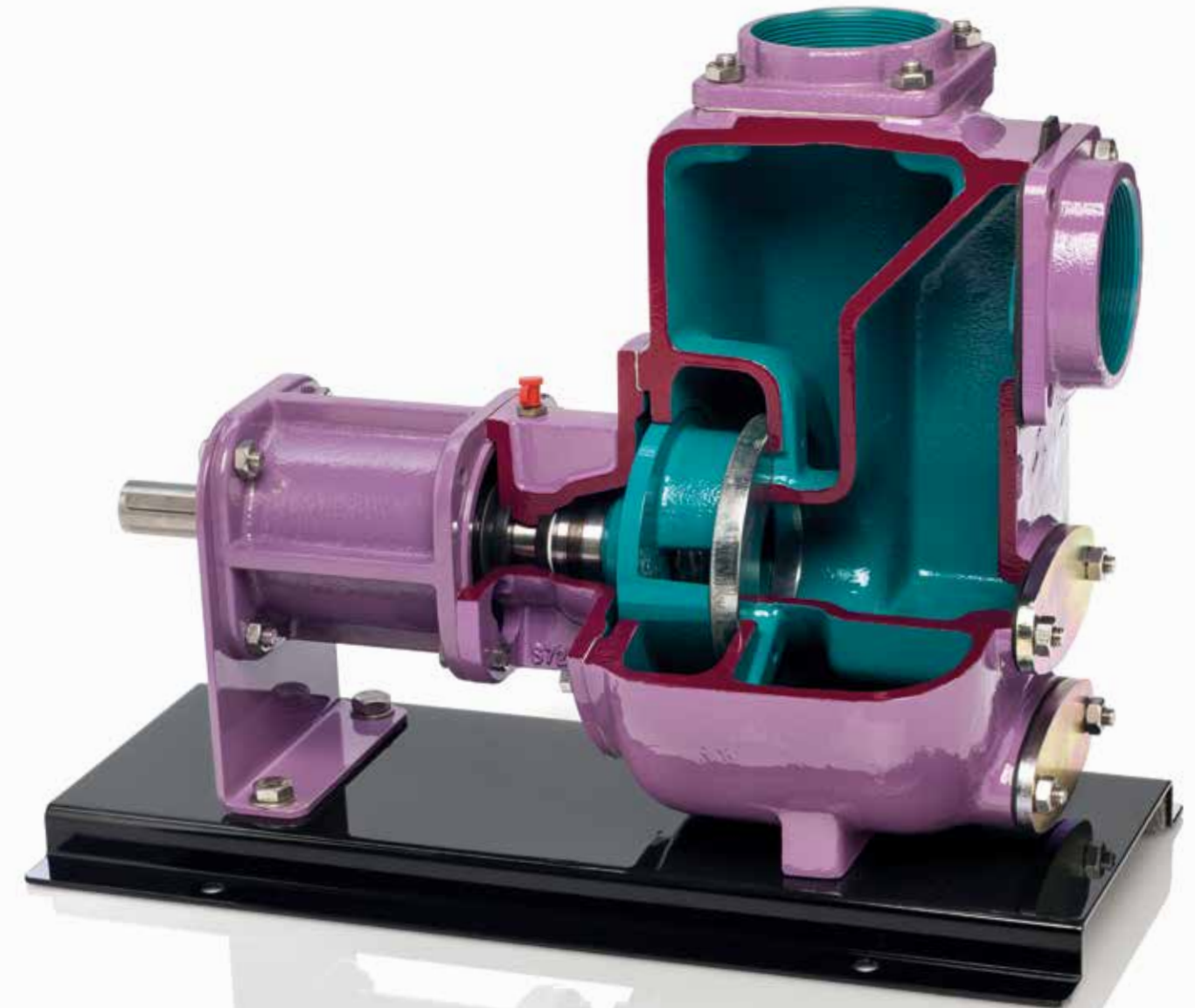
Wear plates of considerable thickness that are life-extension of the pump also in presence of abrasives. On request in anti-wear version.

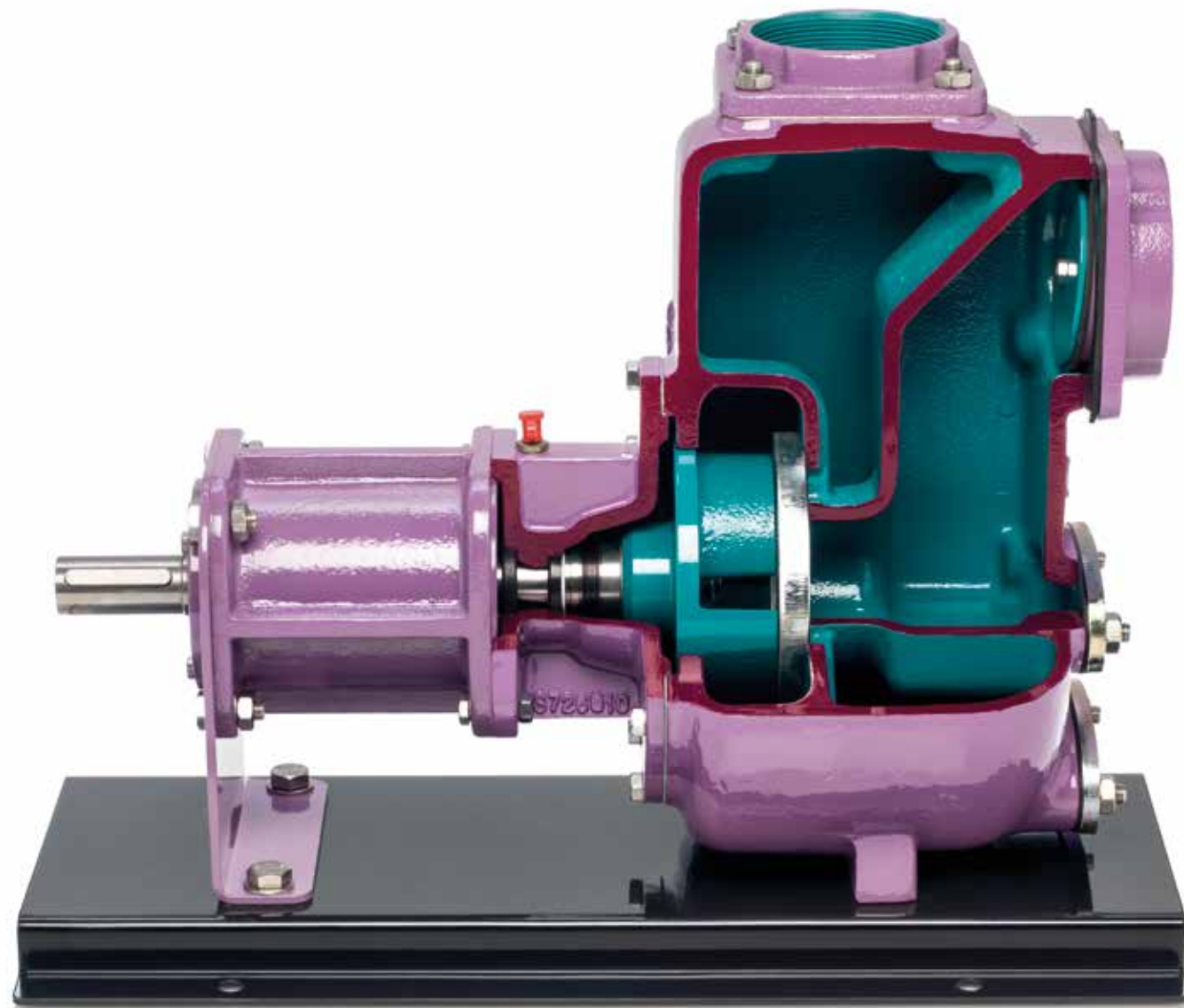


Impeller with open blades allows the passage of solids and abrasive products, thanks to its thick blades.



Impeller and wear plate with cutter device
ON REQUEST: to cut soft solids and filaments. Good to wash out the labels from bottles, or black water on ship or rinsing of vegetables.





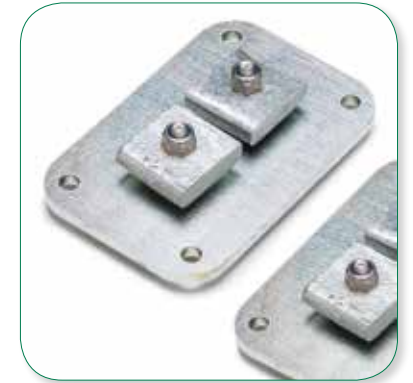
Pump characteristics



Priming cover
to fill the pump casing at the first start; enables the self-priming.



Inspection cover
to check the impeller and, if required, to clean the pump.



Zinc anodes
ON REQUEST:
mounted on the covers of the pump to protect the cast iron parts from sea water.



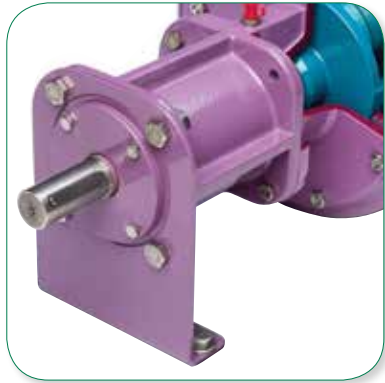
Non-return valve
prevents the reflux of liquid from the discharge line. Available in NBR, FKM, PTFE and EPDM.



Clean out cover
it is used to empty the casing, especially in the colder months, and prevent the water from freezing inside.



Discharge valve
ON REQUEST:
installed on the clean out cover, it is used to quickly empty the casing without the use of tools.



Pedestal

standard with maintenance free self-lubricating ball bearings. The shaft length and the construction materials are designed to withstand prolonged vibrations.



Mechanical seal

with stainless steel shaft sleeve and lubrication behind the seal to increase the dry running capabilities.



+ PS Automatic seal lubricator

ON REQUEST: automatic lubricator of the mechanical seal to prolong the dry-running capabilities or when working out of curve.



External flushing seal

ON REQUEST: to avoid the deposit of product on the surfaces of the seal and rear of the impeller.



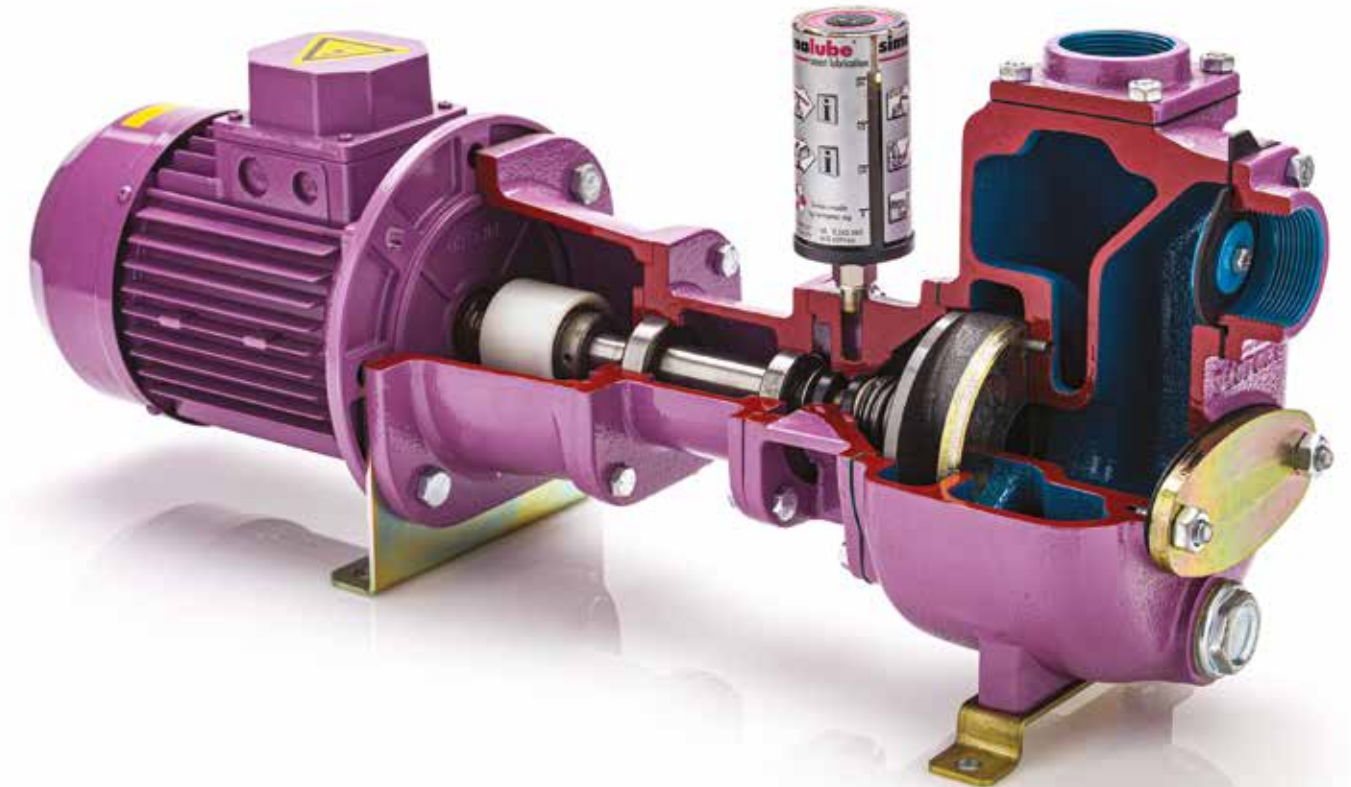
Metal bellow mechanical seal

ON REQUEST: for dirty solvents and other chemical products compatible with PTFE.



Magnetic coupling

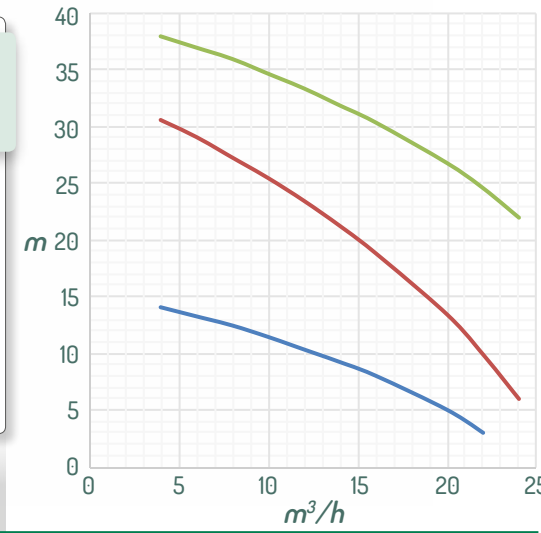
ON REQUEST: makes the pump tight and has only static gaskets. Recommended for dangerous liquids to protect the environment.



50 Hz Performance

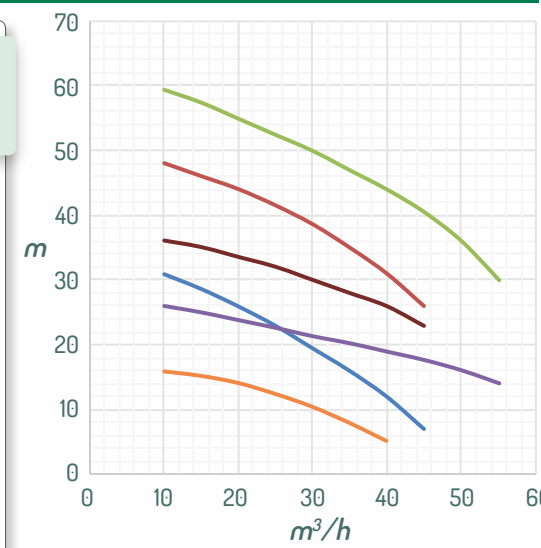
1½" - DN 40

Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S 45+70 S 46+70	***	*****	<85	12	4,0	2900
S 45 S 46+50	***	*****	<80	14x19 13	2,2 3,0	2900
S 40 S 41 S 42	*****	***	<75	20	1,1	2900



2" - DN 50

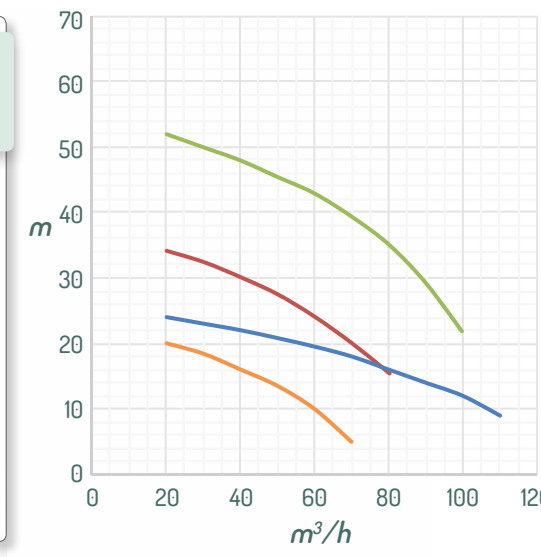
Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S 68 S 69	***	*****	>85	25	11	2900
S 68+40 S 69+40	*****	*****	<85	25	7,5	2900
S 63	**	*****	<85	22	7,5	2900
S 60+60 S 61+60	**	*****	<80	24	5,5	2900
S 60 S 61+50	*****	*****	<80	17	4	2900
S 67	*****	*****	<75	24	5,5	1450
S 65 S 66	*****	**	<70	25	2,2	1450
S 50 S 51	*****	***	<80	25	2,2	2900



50 Hz Performance

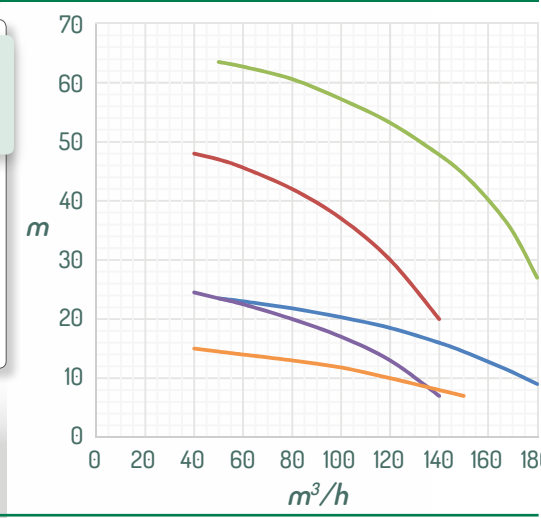
3" - DN80

Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S 88	***	*****	>85	35	15	2900
S 83	***	*****	>85	27	7,5	2900
S 91	*****	*****	<85	37	7,5	1450
S 80+60 S 81+60 S 82+60	***	*****	<85	32	5,5	2900
S 80 S 81 S 82+50	*****	***	<85	32	4	2900
S85	*****	**	<75	40	4	1450



4" - DN 100

Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S126	***	*****	>85	42	30	2900
S108(210)	**	*****	>85	35	18,5	2900
S121	*****	*****	<80	45	11	1450
S100	***	**	>85	37	11	2900
S105	*****	**	<75	45	5,5	1450



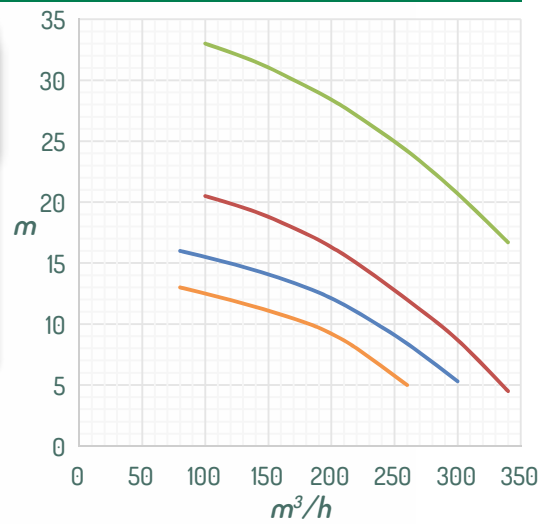
Heavy duty / Self-priming: * = SUFFICIENT / ** = DISCRETE / *** = GOOD / **** = VERY GOOD / ***** = EXCELLENT

The data shown refer to standard pumps. For more information contact our sales offices.

50 Hz Performance

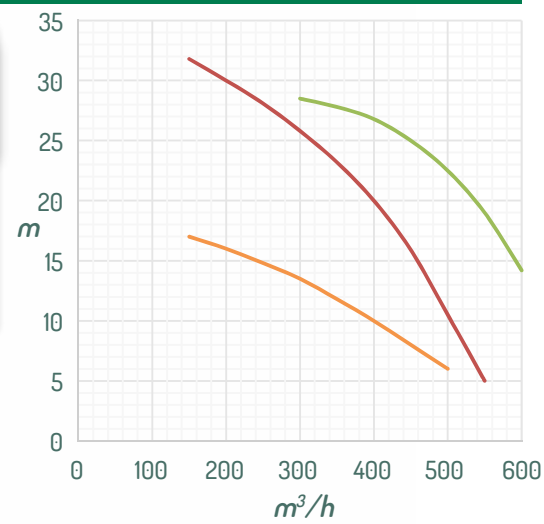
6" - DN 150

Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S180	★★★	★★★★★	>85	40	30	1450
S161	★★★★	★★★★	<85	54	18,5	1450
S163	★★★★★	★★★★	<85	54	18,5	1450
S170	★★★★★	★★★★	<75	54	11	960
S150	★★★★	★★★	<85	72x50	11	1450



8" - DN 200

Model	Heavy duty	Self-priming	Noise dB(A)	Passage of solids mm	400 V, 50 Hz motor	
					kW	rpm
S230+50	★★	★★★★★	>85	72	55	1450
S230+40	★★★	★★★★★	>85	54	45	1450
S201+50	★★★★	★★★★	<85	57	22	1450
S220+50	★★★★★	★★★	<80	76	18,5	960



Heavy duty / Self-priming: ★ = SUFFICIENT / ★★ = DISCRETE / ★★★ = GOOD / ★★★★ = VERY GOOD / ★★★★★ = EXCELLENT

The data shown refer to standard pumps. For more information contact our sales offices.





FORHANDLER I NORGE

Froster AS - Sandviksveien 30, 5036 Bergen - Norge
Tlf: +47 55 36 58 55 • post@froster.no • www.froster.no



12 USEFUL QUESTIONS FOR THE OFFER REQUEST

- Flow
- Pressure
- Type of liquid
- Viscosity of the liquid
- Use of the pump
- Type of plant
- Suction height
- Liquid temperature
- Operating hours per day
- Voltage (V)
- Frequency (Hz)
- Experiences on the pump used previously

VICTOR PUMPEN GmbH


Dieselstraße 7
D-85551 Kirchheim bei München
Tel. +49 89 9048660
Fax +49 89 9043447
Mail: germany@victorpumps.com

VICTOR PUMPS srl


Viale Svezia 2
I-35020 Ponte San Nicolò (Padova)
Tel. +39 049 8961266
Fax +39 049 8961255
Mail: italy@victorpumps.com

