



brainpower your pumps!



**COOLANT PUMPS
MAIN CATALOG 2019**



<p>Recommendations to choose Coolant Pumps Technical Information: Electrical, Mechanical and Hydraulic Features Control / Regulation</p>		
<p>Immersion Pumps Stainless Steel Immersion Pumps TB TA TE STE STA TVG TVA</p>	<p>Semi-open impellers Standard coolant pumps 6 ... 1300 GPM 6 ... 300 Feet</p>	
<p>Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System TL TAL STL SAL</p>	<p>Axial/semi-open impellers Inflated fluids / slurping 10 ... 660 GPM 6 ... 300 Feet</p>	
<p>Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System TGL SGL SZG</p>	<p>Axial/semi-open impellers Aerated grinding oils and coolants / slurping 12 ... 640 GPM 15 ... 300 Feet</p>	
<p>Suction Immersion Pumps TAS STS</p>	<p>Axial/semi-open impellers Vacuum filter 12 ... 550 GPM 6 ... 200 Feet</p>	
<p>Horizontal End-Suction Pumps SBA SBA-V SBG SBG-V SBM</p>	<p>Axial/semi-open impellers Coolant Lubricants / cutting oils, increased chip load 6 ... 600 GPM 15 ... 200 Feet</p>	
<p>Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System SFL SBF</p>	<p>Axial/semi-open impellers Aerated coolants / slurping, heavy chip loads 12 ... 650 GPM 6 ... 150 Feet</p>	 Chip
<p>Cutter Pumps with cutting units SFC SXC SPC SBC</p>	<p>Axial/semi-open impellers Large chips 12 ... 375 GPM 12 ... 160 Feet</p>	 Chip
<p>Free-Flow Immersion Pumps SFT</p>	<p>Semi-open impellers Large chips 25 ... 750 GPM 6 ... 100 Feet</p>	 Chip
<p>Immersion Pumps TS</p>	<p>Peripheral impellers High pressure in compact units 2.5 ... 20 GPM 15 ... 290 Feet</p>	
<p>Immersion Pumps Pressure Boosting Pumps (S)TC (S)TH FH</p>	<p>Closed impellers High pressure / no long chips 2.5 ... 170 GPM 30 ... 810 Feet</p>	
<p>Immersion Pumps in Plastics KTF</p>	<p>Semi-open impellers Industrial water circuits 2.5 ... 110 GPM 6 ... 145 Feet</p>	
<p>Miniature Centrifugal Pumps Suction Pumps KC SB</p>	<p>Open/peripheral impellers Suctioning / circulating 2.5 ... 16 GPM 6 ... 175 Feet</p>	
<p>Miniature Centrifugal Pumps Immersion Pumps BMK TB-M</p>	<p>Peripheral/semi-open impellers Maintaining temperatures 2 ... 27 GPM 6 ... 240 Feet</p>	
<p>High Pressure Immersion Pumps BFS TFS FFS</p>	<p>Screw spindles High pressure 1 ... 232 GPM 145 ... 2175 PSI</p>	
<p>Terms and Conditions Questionnaire</p>		

Recommendations to choose Coolant Pumps










Series	Application											Medium							Pollution			Amount of air in the fluid			Performance		
	boring	sawing	milling	turning	grinding	eroding	circulating	tempering	cooling	washing	emulsions	coolants/lubricants	grinding oils	thermal oils	dielectric	industrial water	de-ionized water	lees / solvents	coarse	medium	few	normal	increased	extreme	lifting	washing	pressuring
TA40 ... 80 / TB16 ... 100	●	●	●	●	●	○	●				●	●	●	○	○		○		●	●	●	●			●	●	●
TA160 ... 600	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
TA/STA200 ... STA430	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
TE/STE141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
STA212 ... 433	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
TA/STA301 ... 306	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
STA401 ... 407	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
STA601 ... 608	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
STA630 ... 1130	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
STA901 ... 904	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
STA1001 ... 4500	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○		○		●	●	●	●			●	●	●
TVA900							●		●	●	●				●	●	●					●			●	●	
TVG400 ... 1000							●		●	●					●	●	●					●			●	●	
TL50 / TAL/SAL200 ...430	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●	●		●	●	●
TL/STL141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
TAL/SAL301 ... 608	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
SAL630 ... 2500	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
TGL/SGL331 ... 2200	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
SZG701 ... 1002	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●	●		●	●	●
TAS301 ... 601	●	●	●	●	●	○	●				●	●	●	●	○		○		●	●	●	●			●	●	●
STS1001... 2000	●	●	●	●	●	○	●				●	●	●	●	○		○		●	●	●	●			●	●	●
SBA141S ... 2002S (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●		○		●	●	●	●			●	●	●
SBG501S ... 1700S (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●		○		●	●	●	●	●		●	●	●
SBM140S ... 450S	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○		●	●	●	●			●	●	●
SFL550 ... 2350	●	●	●	●	●	○	●		○	○	●	●	○	○	○		○		●	●	●	●	●		●	●	
SBF125S ... 1850S	●	●	●	●	●	○	●		○	○	●	●	○	○			○		●	●	●	●			●	●	
SFC820 ... 2320	●	●	●	●	●	○	●		○	○	●	●	○	○			○		●	●	●	●	●		●	●	
SXC2824S	●	●	●	●							●	●	○	○					●	●	●	●	●		●	●	
SPC820S	●	●	●	●							●	●	○	○					●	●	●	●			●	●	
SBC820S ... 1820S	●	●	●	●	●	○	●		○	○	○	○	○	○			○		●	●	●	●	●		●	●	●
SFT450 ... 1400	●	●	●	●	●	○	●		○	○	●	●	●	●	○		○		●	●		●			●	●	
SFT1554-C ... 3554	●	●	●	●	●	○	●		○	○	●	●	●	●	○		○		●	●		●			●	●	
TS12 ... 24	●	●	●	●	●	○	●	○	○	○	●	●	●	●	○	○	○				●	●			●	●	
(S)TC25 ... 160	●	●	●	●	○	○	●	○	○		●	●	●	●	○	○		○		●	●	●			●	●	
(S)TH2 ... 17	●	●	●	●	○	○	●	○	○	○	●	●	●	●	○	○		○		●	●	●			●	●	
FH2 ... 17	●	●	●	●	○	○		○	○	○	●	●	●	●	○	○		○		●	●	●			●	●	
(S)TC260 ... 460	●	●	●	●	○	○	●	○	○	○	●	●	●	●	○	○		○		●	●	●			●	●	
KTF61 ... 303						○	●	○	●		●	○	○		○	○						●	●		●	●	●
KC60S	○	○	○	○		○	●	○	○	○		●	○	○	○	○	○					●	●			●	●
SB20S ... 60S	●	●	●	●	○	○	●	○	○	○	●	●	○	○	○	○	○		○			●	●			●	●
BMK3 ... BMK4						○	●	●	○	○	●	○	○	●	○	○	○					●	●			●	●
BFS1 ... TFS6	●	●	●	●	○						●	●	●	○								●	●			●	●

● usable

○ please ask before making a selection

Hydraulic modular system

Our modular design system allows us to precisely focus on and respond to the multitude of applications within the machine tool industry. Customized pump hydraulics can be used to perfectly adapt to different kinds of machined materials, different coolants such as water soluble coolant or oil, high percentages of air or chips and your specific system configuration.

	Vertical design	Horizontal design
	<p>STA Standard centrifugal pump</p> <ul style="list-style-type: none"> Pressure is generated by either a single or multiple impellers For water-soluble coolant or oil without air-entrainment 	<p>SBA Horizontal end-suction pump</p> <ul style="list-style-type: none"> Pressure is generated by either a single or multiple impellers For water-soluble coolant or oil without air-entrainment
	<p>SAL Quick suctioning immersion pump</p> <ul style="list-style-type: none"> Centrifugal pump with de-aeration and quick suctioning feature For water-soluble coolant with air-entrainment 	<p>SBA Horizontal end-suction pump</p> <ul style="list-style-type: none"> Centrifugal pump with axial impeller For water-soluble coolant with air-entrainment
	<p>SGL Quick suctioning immersion pump</p> <ul style="list-style-type: none"> Centrifugal pump with de-aeration and quick suctioning feature For oil with high air-entrainment 	<p>SBG Horizontal end-suction pump</p> <ul style="list-style-type: none"> Centrifugal pump with axial impeller For oil with high air-entrainment
	<p>SZG Quick suctioning immersion pump</p> <ul style="list-style-type: none"> Centrifugal pump for multi-phase fluids For oil with very high air-entrainment 	<p>SBZ Horizontal end-suction pump</p> <ul style="list-style-type: none"> Centrifugal pump for multi-phase fluids For oil with very high air-entrainment
	<p>SFL Lifting pump</p> <ul style="list-style-type: none"> Centrifugal pump with de-aeration and quick suctioning feature For water-soluble coolant or oil with increased chip load 	<p>SBF Horizontal end-suction lifting pump</p> <ul style="list-style-type: none"> Centrifugal pump with axial impeller For water-soluble coolant or oil with increased chip load
	<p>STS Suction immersion pump</p> <ul style="list-style-type: none"> Centrifugal pump with axial impeller For vacuum filter, e.g. on wedge wire for vacuums from -5 ... -7 PSI (-0.3 ... -0.5 bar) 	
	<p>Optional agitator</p> <ul style="list-style-type: none"> The SFL and the SGL series can be equipped or retrofitted with agitators. The agitator is used to break up chip bundles or grinding wool matts. 	

Electrical Features

CE Motors acc. to EN 60034-1

Grade of protection	IP55
Type of insulation	F
Number of poles	2
Efficiencies	EN 60034-30, IE3 ≥ 1 HP (0.75 kW)

60 Hz	230 V $\Upsilon\Upsilon$ 460 V Υ	460 V Υ	460 V Δ
up to 8.4 HP (6.3 kW)	Standard	●	●
9.2 – 20.1 HP (6.9 – 15 kW)	Standard	–	Standard
25 HP and higher (22 kW)	–	–	Standard

In accordance with DIN EN 60034-1, **Zone A**, and permanent operation, the voltage tolerance is $\pm 5\%$ and the frequency tolerance is $\pm 2\%$.

Available as a special design, e.g.:

	200 V	200 V 220 V	200 V – 220 V 400 V	380 V	400 V	415 V	440 V	480 V	500 V	575 V	200 V $\Upsilon\Upsilon$ 400 V Υ	230 V $\Upsilon\Upsilon$ 460 V Υ
50 Hz	●	–	–	●	●	●	–	–	●	–	●	–
60 Hz	–	●	●	●	●	–	●	●	–	●	–	●

● available – not available

Other voltages upon request.

Pole changing motors are nonstandard motors.

For operation at 60 Hz, as well as the choice of the corresponding motor winding, the manufacturer will also adapt the hydraulics, e. g. with smaller impellers or dummy stages.

For special demands, versions for use with a standardized voltage 50 Hz and 60 Hz (Transformer usage) are possible after consulting with the company, For example: 3 x 400 V, $\pm 5\%$, 50 – 60 Hz.

Motors 8 HP (6 kW) and larger

Motors wired for Δ (Delta) connection.

The motor design allows Υ/Δ -starting, if required.

Screw-spindle pumps used for Υ/Δ -starting must be started without pressure.

Soft-starting devices can be used as an alternative to Υ/Δ -starting.

Motor cycle time

Motors less 4 HP (3 kW) ►
up to 200 times per hour.

Motors from 4 HP (3 kW) to 5.4 HP (4 kW) ►
up to 40 times per hour.

Motors from 6.7 HP (5 kW) to 12.1 HP (9 kW) ►
up to 20 times per hour.

Motors 14.7 HP (11 kW) and larger ►
up to 15 times per hour.

Higher on/off cycling frequencies are available upon request.

Electrical Features

International Regulations, Brinkmann motors



Approved by UL with „UL Recognized Component Mark“ for USA acc. to UL 1004-1 and for Canada acc. to CSA C22.2 No. 100-14 (UL-File E233349)



Brinkmann motors ranging from 2.3 kW (3.1 HP) to 13 kW (17.4 HP), 50 Hz, are available with the China Energy Label GB18613-2012, Grade 2 upon request.



CC311B

Compliance Certification number CC311B according to 10 C.F.R. §431 (NEMA PREMIUM EFFICIENCY)

Brinkmann Motors up to 20.1 HP (15 kW), 60 Hz, and up to max. 600 V are available with UL Recognized Component Mark approval as special designs.

Brinkmann motors ranging from 1 HP (0.86 kW) to 20.1 HP (15 kW, 60 Hz), are available with NEMA PREMIUM MG 1 upon request.

Brinkmann Motors Options		50 Hz					60 Hz								
		200 V	380 V	400 V	415 V	500 V	200 V 220 V	380 V	400V	440 V	460 V	230 V 460 V	480 V	230 V 480 V	575 V 600 V
UL/CSA		-	-	-	-	-	●	●	●	●	●	●	●	●	●
CEL (Grade 2) ≥ 2.3 kW		●	●	●	●	●	-	-	-	-	-	-	-	-	-
NEMA PREMIUM MG 1 ≥ 1 HP (≥ 0.86 kW)	Y 1 – 8.4 HP (0.86 – 6.3 kW)	-	-	-	-	-	●	●	●	●	●	●	●	●	●
	Δ 4.6 – 20.1 HP (3.45 – 15 kW)	-	-	-	-	-	-	●	●	●	●	-	●	-	●
	YY/Y 1 – 20.1 HP (0.86 – 15 kW)	-	-	-	-	-	-	-	○	-	-	●	-	●	-

● available - not available ○ upon request Additional country-specific approvals upon request.

International Regulations, Standard motors

Upon request. Depending on actual motor rating and sizing (Power / Motor efficiency class) deviations in pump and motor configurations are possible. An overview of pumps built with standard motors can be found on our website.

Current / Rated current

The current (I_{catalog}) stated at the name plates is used for the sizing of electronic components.

Motor < 0.75 kW: $I_{\text{max}} = I_{\text{catalog}}$

Motor ≥ 0.75 kW: $I_{\text{max}} = 1.05 \times I_{\text{catalog}}$

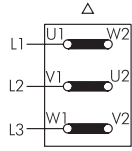
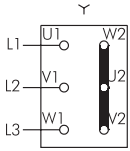
For extended voltage ranges we mention only the highest current value in our data sheets.

Electrical Features

Circuits

Y (Star Connection)
up to 8.4 HP
(6.3 kW)

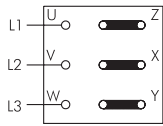
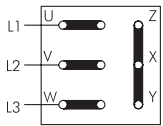
Δ (Delta Connection)
10 HP (7.5 kW)
and larger



Y 440 V – 480 V
60 Hz

Δ 440 V – 480 V
60 Hz

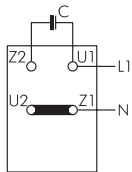
Voltage changing 1 : 2 Y / Y
e. g. 208 – 230 V / 460 V, 60 Hz



YY
Low Voltage

Y
High Voltage

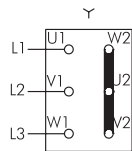
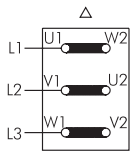
Connection to single-phase
e. g. 1 x 110 V, 60 Hz:



Voltage changing Δ / Y
e. g. 220 V – 240 V / 380 V – 420 V, 50 Hz

Δ (Delta Connection)

Y (Star Connection)



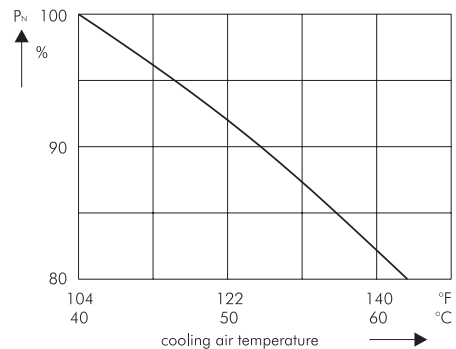
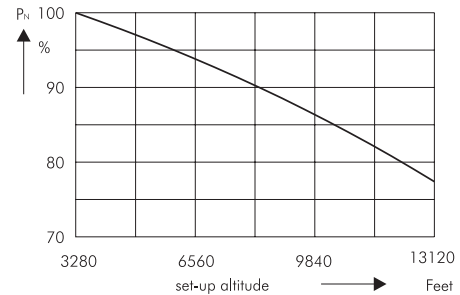
Δ 220 V – 240 V,
50 Hz

Y 380 V – 420 V,
50 Hz

Set-up altitude and coolant temperature

The specified power ratings (P_N) and operating values for the motors apply to operating mode S 1 according to EN 60034-1 (continuous operation) at a frequency of 60 Hz, rated voltage, a cooling air temperature (KT) of max. 104 °F (40 °C) and a set-up altitude of up to 3280 ft (1000 m) above sea level. The motors can also be used at a cooling air temperature above 104 °F (40 °C) up to max. 140 °F (60 °C) or set-up altitude above 3280 ft (1000 m) above sea level. In such cases the power rating must be reduced according to the diagrams, or an appropriately larger motor version or higher heat class has to be selected. However, a deviation from the specified data is necessary when the cooling air temperature is reduced according to table simultaneously at set-up altitudes higher than 3280 ft (1000 m) above sea level.

Set-up altitude feet	Maximum cooling air temperature for heat class F °F / °C
0 up to 3280	104 / 40
3280 up to 6560	86 / 30
6560 up to 9840	66 / 19
9540 up to 13120	48 / 9

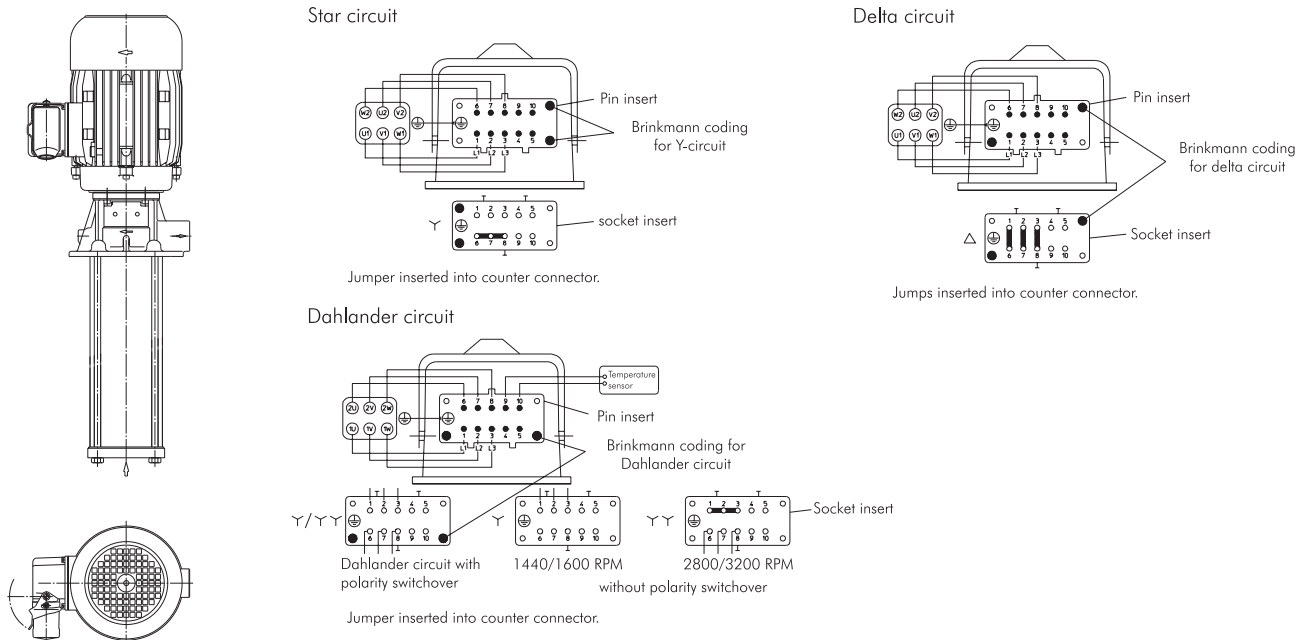


Noise Levels

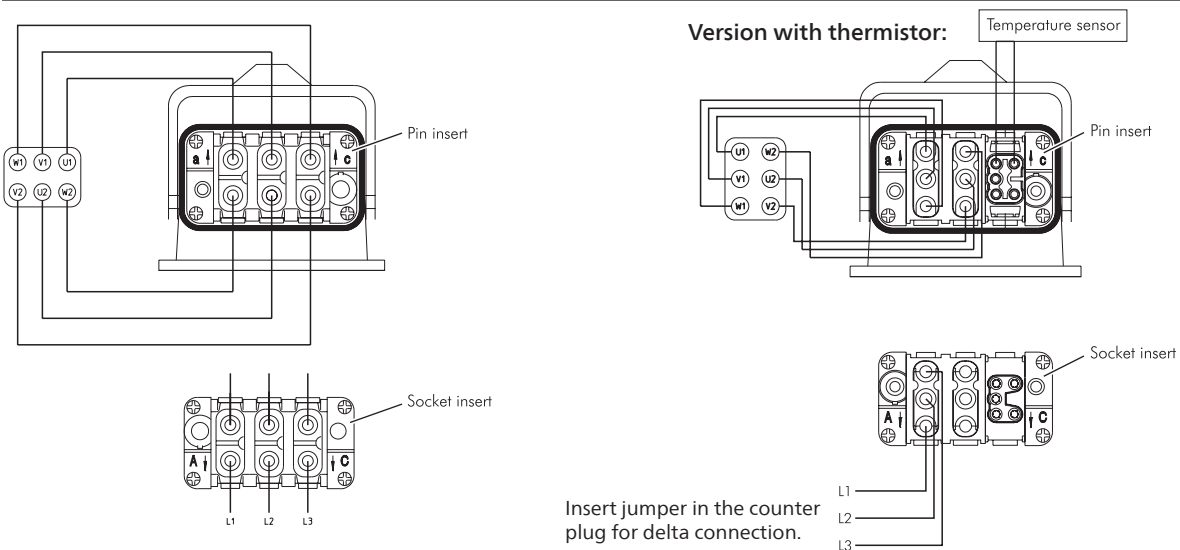
The noise levels stated in the catalog are valid for 60 Hz operation. For reduced noise levels special axial motor fan blades are available upon request.

Electrical Features

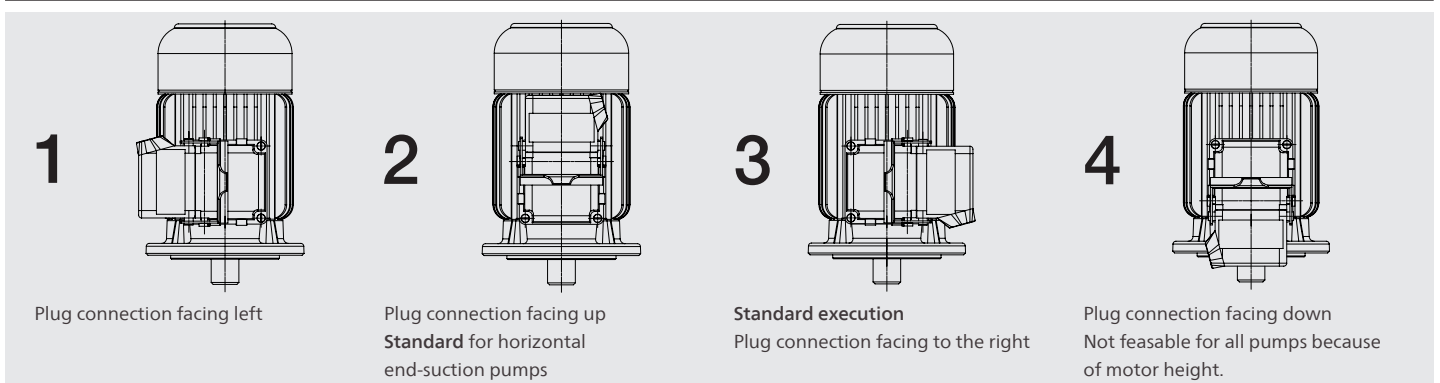
Pin assignment for HAN 10-pin connector for pumps with motors up to 7.4 HP (5.5 kW)



Assignment for HAN modular plug connector for pumps with motors from 8 HP to 17.4 HP (6 kW to 13 kW)



Positions for motor connection plug – View onto terminal board



Control / Regulation

Brinkmann coolant pumps with frequency converter 1.7 – 29.5 HP (1.3 – 22 kW)

Pumps with integrated frequency converter offer the optimum supplement to the existing product line for your application.

With the use of a frequency converter the Q/H curve which is typical for centrifugal pumps, is replaced by a performance curve array as shown in figure 1. This makes it possible to regulate the pump to various operating points within the performance curve array, allowing the pump to be optimally matched to your specific application.

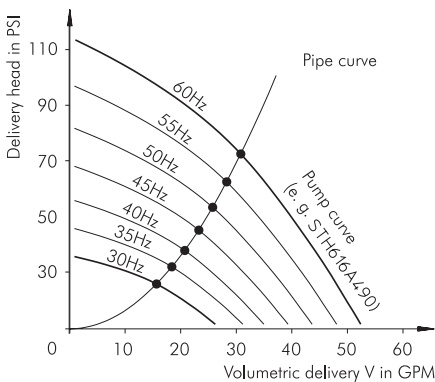


Fig. 1: Performance map

Pump Regulation

Regulation is an operation with which a physical value such as pressure is continuously measured and compared with a set value. In the event of deviation the regulation device (here a PI controller) provides for the desired adaptation.

With regulation a check is made whether a desired state is achieved or not. This allows a previously set pressure to be held constant within certain ranges in a process regardless of the flow quantities supplied.

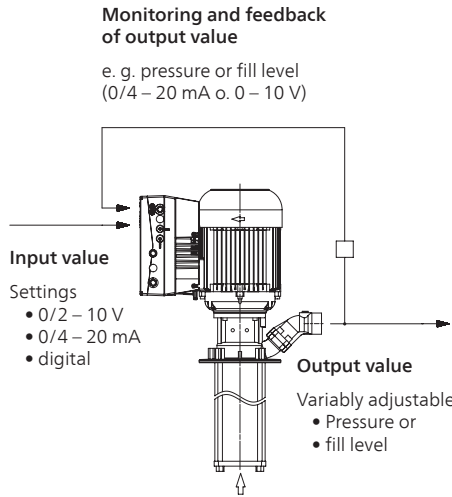


Fig. 2: Scheme of regulation

Pump control

Control is an operation in which a physical value such as pressure or flow rate is influenced by other values.

Within pump control we also speak of an open effective circuit, because the effect of the control is not monitored. Interferences occurring in the system cannot be compensated, because the output value has no effect on the input value.

Pumps with integrated frequency converter are always supplied preprogrammed by the manufacturer.

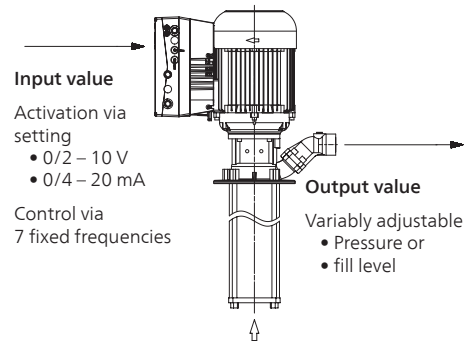


Fig. 4: Control scheme

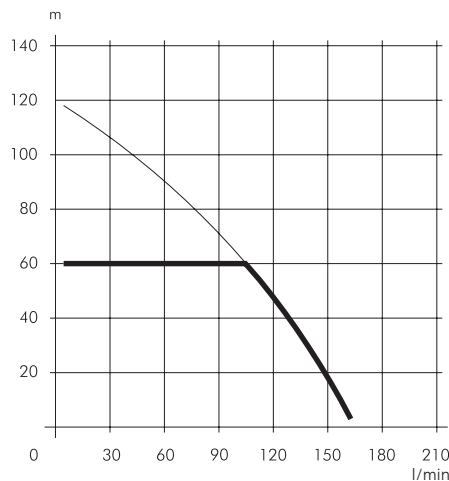


Fig. 3: Pressure regulation limited to max. 85 PSI (6 bar)

Control / Regulation

1. Pump control via analog signal

When the coolant pump is controlled by using a frequency converter, nearly an infinite number of pressures can be achieved, for example, for different tools.

Usually the layout of the pump is limited to the 60 Hz version. Operation at higher frequencies is possible for various pumps with power reserves after consulting with the company.

The frequency converter is then operated at the current limit. This means the motor is operated at the set motor current rating at its maximum. If the pump requires more motor power for the operating point, the frequency is reduced until the max. motor current is reached again.

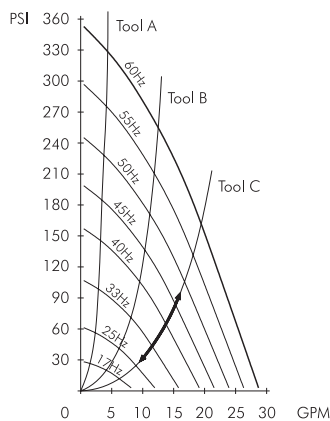


Fig. 5: Analog signal (infinite)

2. Pump control via fixed frequencies (max. 7)

An alternative to analog pump control is digital control of the frequency converter over 3 digital inputs. Here up to 7 different fixed frequencies can be set.

With fixed frequency control it is possible to realize different pressure stages with one tool.

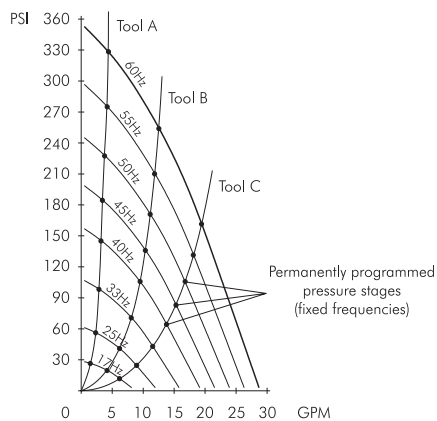


Fig. 6: Fixed frequencies

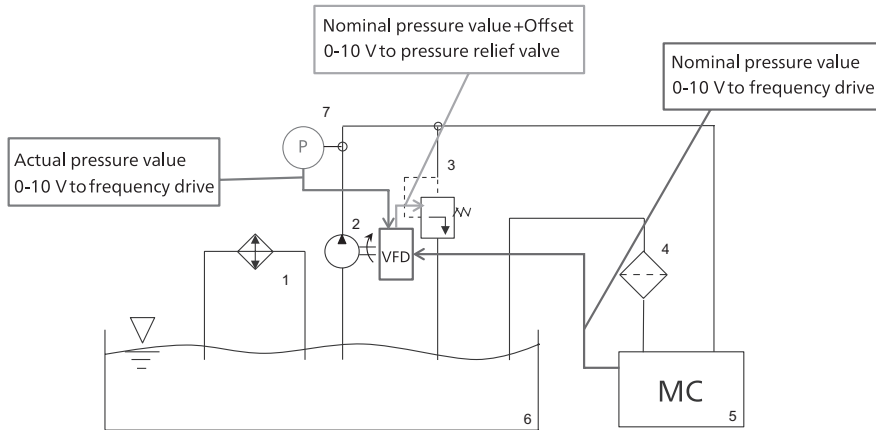
Control / Regulation

Brinkmann Pumps Offset Regulation for High Pressure Pumps

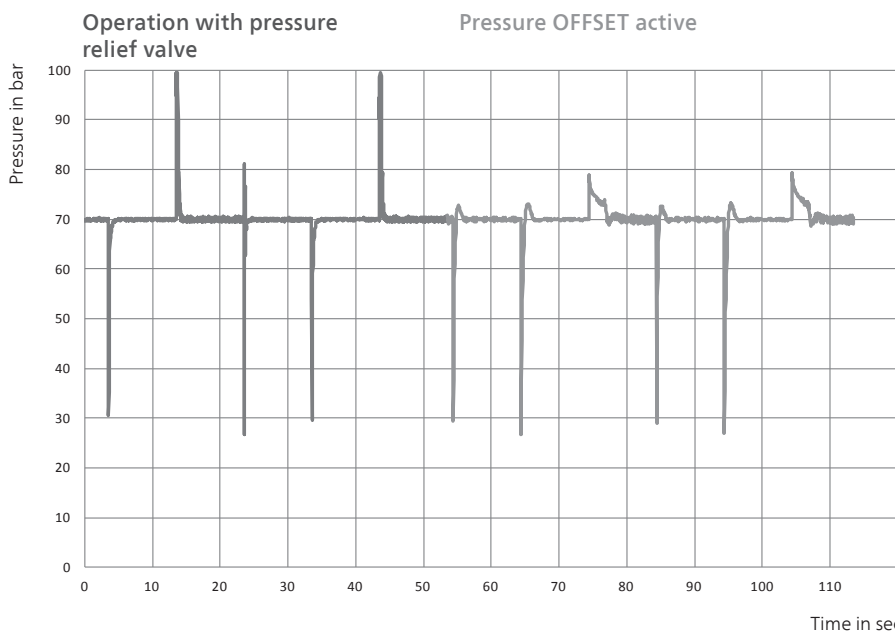
The target pressure is calculated by the VFD based on the working point and is not supplied by the machine tool. The intelligent control of the valves allows for minimizing potential pressure spikes.

PATENTED!

- 1 = Chiller
- 2 = Screw spindle pump with frequency drive (VFD)
- 3 = Pressure relief valves
- 4 = Filter
- 5 = Machine tool
- 6 = Coolant tank
- 7 = Pressure sensor



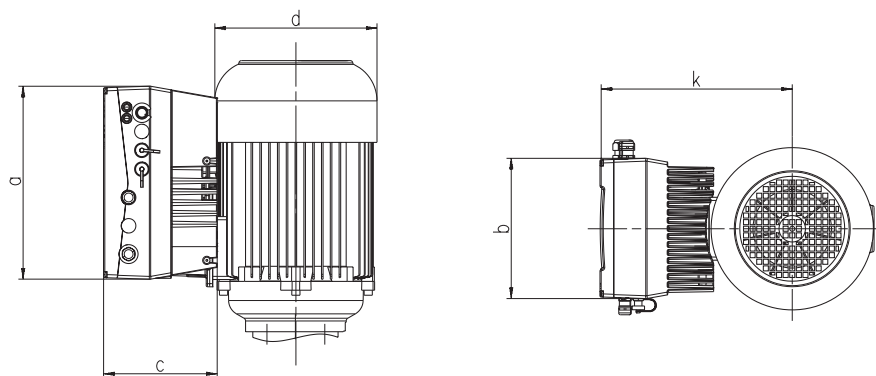
Minimizing pressure peaks during tool change



Control / Regulation

TECHNICAL DATA				
Frequency converter FKO (2.0 – 29.5 HP / 1.5 – 22 kW)				
Function	Specification			
Rated voltage	3 AC 380 V -10 % ... 480 V +10 %			
Rated frequency	50/60 Hz ± 6 %			
Output ranges	... 2.0 HP	3.0 – 5.4 HP	7.4 – 10 HP	15 – 29.5 HP
Housing size	A	B	C	D
Protective system	IP 65			IP 55
EMV approvals acc. to EN61800-3US	C2			
Temperature range	14 °F ... 122 °F			
Overload capability	1.5 times rated output current			
Protective functions	undervoltage, overvoltage, I ² t-restriction, short circuit, motor temperature, converter temperature, anti-tilt protection			
Output frequency range	according to layout at factory			
Digital inputs	4			
Fixed frequencies	7			
Digital outputs	2			
Analog inputs	2 analog inputs (0/2 – 10 V, 0/4 – 20 mA)			
Analog outputs	0 – 10 V (-I _{max} = 10 mA) or 0 – 20 mA (burden R = 500 Ω)			
Process control	PID			
Relay outputs	2 x NO contacts 250 V AC 2 A			
USB interface	USB on plug M12 (RS485/RS232)			
Manual control unit (optional)	MMI with cable			
BUS modules (optional)	PROFIBUS DP, CANopen, EtherCAT, PROFINET			
UL approval	yes			

Dimensions with Brinkmann motor



Motor power		housing size	a inch	b inch	c inch	d inch	k inch
kW	HP						
1.1	1.5	A	8.78	6.02	4.72	5.43	7.83
1.3 – 1.7	1.7 – 2.3	A	8.78	6.02	4.72	6.93	8.23
1.9 – 2.6	2.5 – 3.5	B	10.63	7.44	5,51	6.93	8.78
3.0 – 4.0	4.0 – 5.4	B	10.63	7.44	5,51	8.58	9.57
5.0 – 5.5	6.7 – 7.4	C	12.09	8.78	7.13	8.58	11.30
6.0 – 9.0	8.0 – 12.1	C	12.09	8.78	7.13	10.16	12.05
11.0 – 13.0	14.7 – 17.4	D	16.30	11.57	9.17	12.36	15.91

Hydraulic Features

BRINKMANN's program of coolant pumps offers appropriate design approaches for different applications.

Based upon the **centrifugal pump system**, we offer **immersion pumps with open, semi-open and closed impellers** for different coolants.

Patented quick suctioning pumps series **TL, SAL, SFL, SGL and SZG** are provided for **handling** of air entrained coolants.

Vortex pumps series **SFT** and lifting pumps series **SFL** are suitable for coolants with **heavy chip loads**.

Suction immersion pumps Series **TAS/STS** make it possible to connect to vacuum filters because of their single connection on the suction side (for instance, with a wedge wire).

Lifting pumps series **TAA** pump are for foam-sensitive cooling lubricants.

Immersion pumps series **(S)TC, (S)TH** for medium pressure get **optimal hydraulic efficiency** due to their **closed impellers**; simple pre-filtration is recommended.

High pressure in coolant systems is provided by **screw pumps using longwearing silicon carbide housings**. Please contact us to provide additional information about working conditions in your devices.

Please note that with all immersion pumps, the **highest fill level of coolant should stay a few inches below the mounting flange**. **The pump characteristics, shown in this catalog, apply to water at 68 °F (20° C) at 4.6 SSU (1 mm²/s)**. Higher viscosities need larger motors. Coolants with specific weight of less than 1 need less power and with more than 1 need more power.

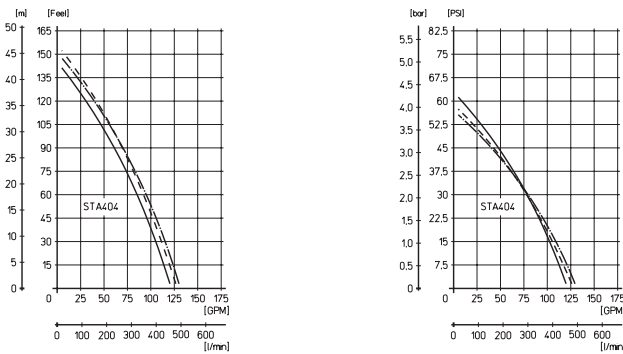
Centrifugal pump pressure is stated as delivery head in Feet, (m) and PSI.

The diagrams of immersion pump types **STA404**; with semi-open impellers, and **STC63S560**, with closed impellers, show the rates for coolants of different viscosities and different specific weights in ft (m) and PSI (bar) respectively.

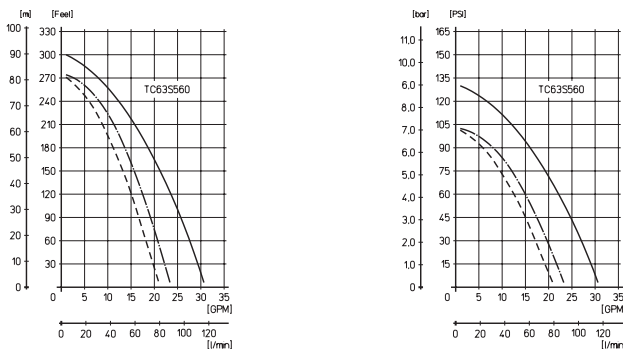
Noise levels refer to 60 Hz operation.

The viscogram shows examples of common oils. Upon request, oil curves for specific pumps can be provided.

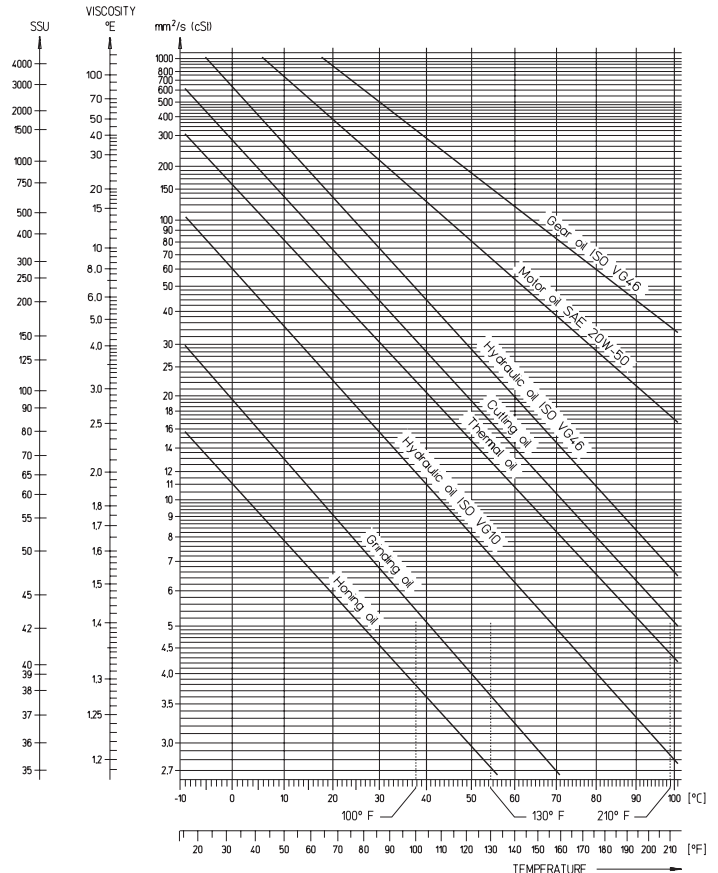
STA404 with semi-open impellers



(S)TC63 with closed impellers



Water ———
Oil - - - - 210 SSU spec. weight
Oil - - - - 415 SSU 0.87



Mechanical Features

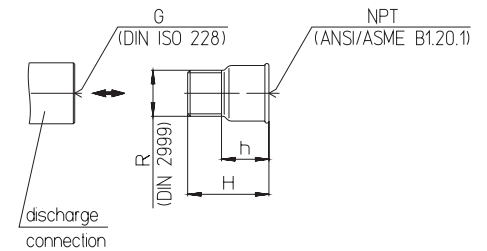
Terminal Box Position acc. to EN 12157

In accordance with EN 12157 the terminal box is positioned above the outlet on immersion and suction pumps: Position 1 is the standard design for immersion pumps, position 2 for end-suction pumps, and position 3 for miniature centrifugal pumps. If a non-standard position is required, please provide details when ordering.

Position	Motor overhead view	Motor overhead view
1		Terminal box opposite to discharge port. Standard set-up for immersion pumps.
2		Terminal box to the left of the discharge port. Standard set-up for suction pumps. For Horizontal End-Suction pumps please refer to page 35-01.
3		Terminal box on the discharge port side. Standard set-up for miniature centrifugal pumps.
4		Terminal box on the right of the discharge port.

Pipe / discharge connection

Pipe / discharge connection threads G are made according DIN ISO 228. Optional adaptors to threads NPT can be ordered at additional charge according to the following dimensions:



Discharge Inch	H Inch	h Inch
1/2	1.7	1.02
3/4	1.9	1.14
1	2.1	1.26
1 1/4	2.3	1.38
1 1/2	2.5	1.50
2	2.7	1.62
2 1/2	2.9	1.74

G (DIN ISO 228) parallel internal thread
 R (DIN 2999) tapered outside thread
 NPT (ANSI/ASME B1.20.1) tapered internal thread

Paintwork

Standard RAL 9005
 Upon request Other colors and unpainted or primed available upon request.

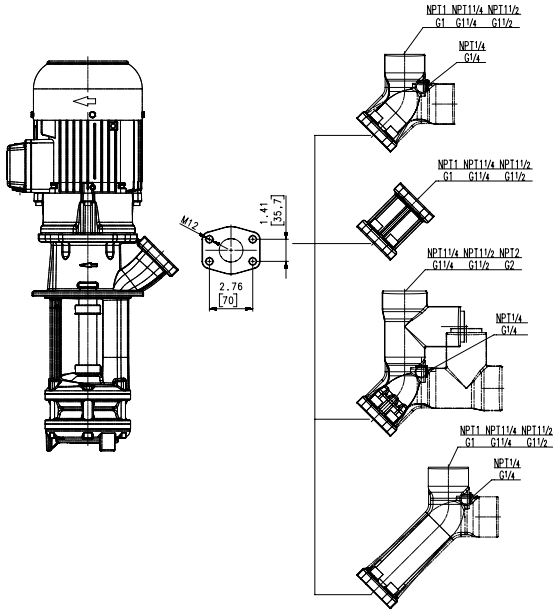
Mechanical Features

Brinkmann Pumps with SAE flanges or 45 degree flanges

Most Brinkmann pumps with motors larger than 0.67 HP (0.5 kW) are equipped with the user friendly SAE flange or 45 degree flange connection which allows for either vertical or horizontal pipe connection. Each SAE flange or 45 degree flange is equipped with an additional NPT 1/4 (G 1/4) pressure gauge connection.

For optimized chip transport and to avoid chip blockages inside the pumps, all flow is directed in long soft turns. All flanges are designed in a way that any cross section diameter changes down stream are always increasing never decreasing in order to prevent bottle necks inside the pump.

Small pump body (Ø 5.51 inch / Ø 140 mm)



SAE flange NPT 1, NPT 1¼, NPT 1½, NPT 2 (G 1, G 1¼, G 1½, G 2)

Standard as shown on data sheets. Fully interchangeable. Upon request also available for TC and TH pumps.

SAE Extension Port

This extension port is available upon request for all pumps which are featuring an SAE flange.

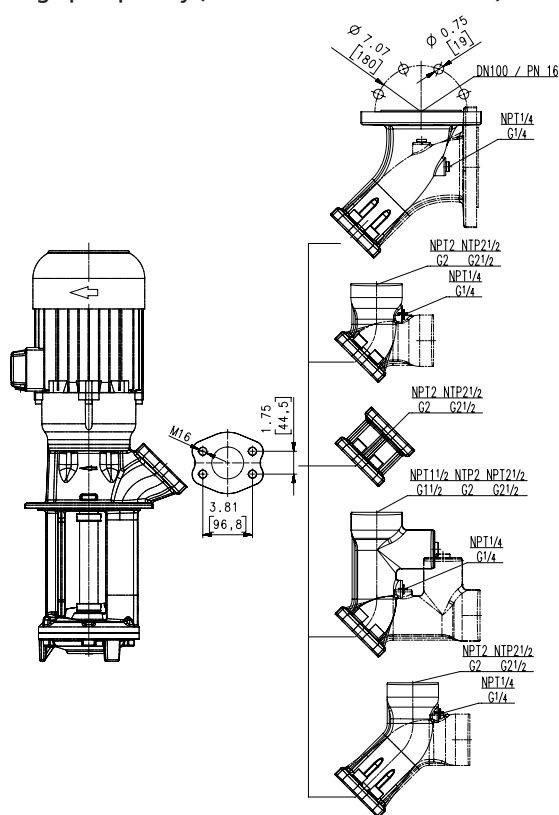
Regulating Valve for SAE flange NPT 1, NPT 1¼, NPT 1½, NPT 2 (G 1, G 1¼, G 1½, G 2)

This regulating valve allows to adjust the flow rate of the pump even during regular operation. This valve has no complete shut off function. An additional check valve is available upon request.

SAE flange NPT 1, NPT 1¼, NPT 1½, NPT 2 (G1, G1¼, G1½, G2)

Standard for Brinkmann motors larger than 15 HP (11 kW) and for standard motors (i.e. Siemens).

Large pump body (≥ Ø 7.87 inch / ≥ Ø 200 mm)



Flange DN100/PN16

This flange is available upon request for all pumps with larger pump body which are featuring a 45 degree flange.

45 degree flange NPT 2, NPT 2½ (G 2, G 2½)

Standard as shown on data sheets. NPT 2 (G 2) is available upon request instead of the NPT 2 ½ (G 2 ½) without surcharge.

Extension Port for 45 degree flange

This extension port is available upon request for all pumps which are featuring a 45 degree flange.

Regulating Valve for 45 degree flange NPT 1½, NPT 2, NPT 2½ (G 1½, G 2, G 2½)

This regulating valve allows to adjust the flow rate of the pump even during regular operation. This valve has no complete shut off function.

Extended 45 degree flange NPT 2, NPT 2½ (G2, G2½)

Standard for Brinkmann motors larger than 15 HP (11 kW) and for standard motors (i.e. Siemens).

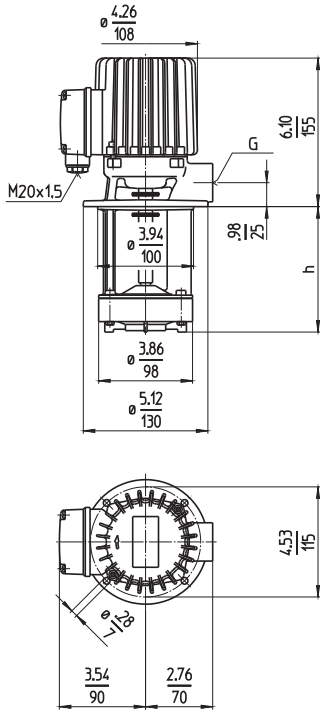
Immersion Pumps

TA40...80

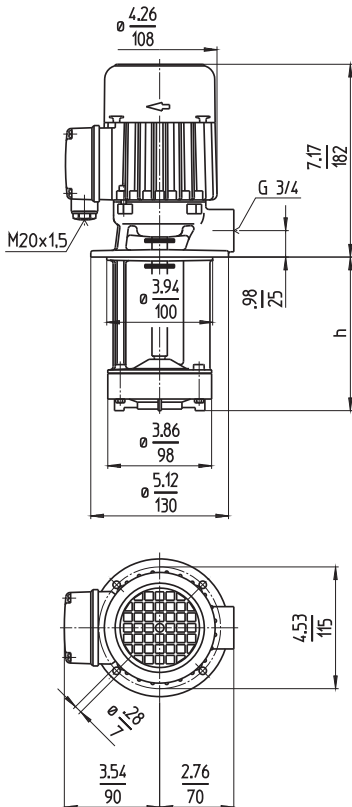
Semi-open impellers



TA40



TA80



Type	Flow at head	Depth of im- mersion		Thread	Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	h inch	h mm	G	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TA40S90	10/13	3.54	90	G 1/2	10.1	4.6	0.18	208-230	60	0.46	3250
	35/4						0.135	460	60	0.23	3250
	120	4.72	120		10.6	4.8					
	170	6.69	170		11.0	5.0					
	220	8.66	220		11.9	5.4					
TA40S90	270	10.63	270	G 3/4	13.0	5.9					
	350	13.78	350		14.3	6.5					
TA80S120	20/15	5.12	130	G 3/4	13.9	6.3	0.3	208-230	60	0.95	3200
	80/4						0.22	460	60	0.55	3200
	170	7.09	180		14.3	6.5					
	220	9.06	230		14.8	6.7					
	270	11.02	280		15.2	6.9					
TA80S120	350	14.17	360		15.9	7.2					

Dimensions in Inches /mm



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	POM
Impeller	POM
Shaft	steel
Optional:	
Cover	cast iron cast iron with thread
Impeller	brass cast iron
Noise level	
TA40	48 dBA
TA80	56 dBA

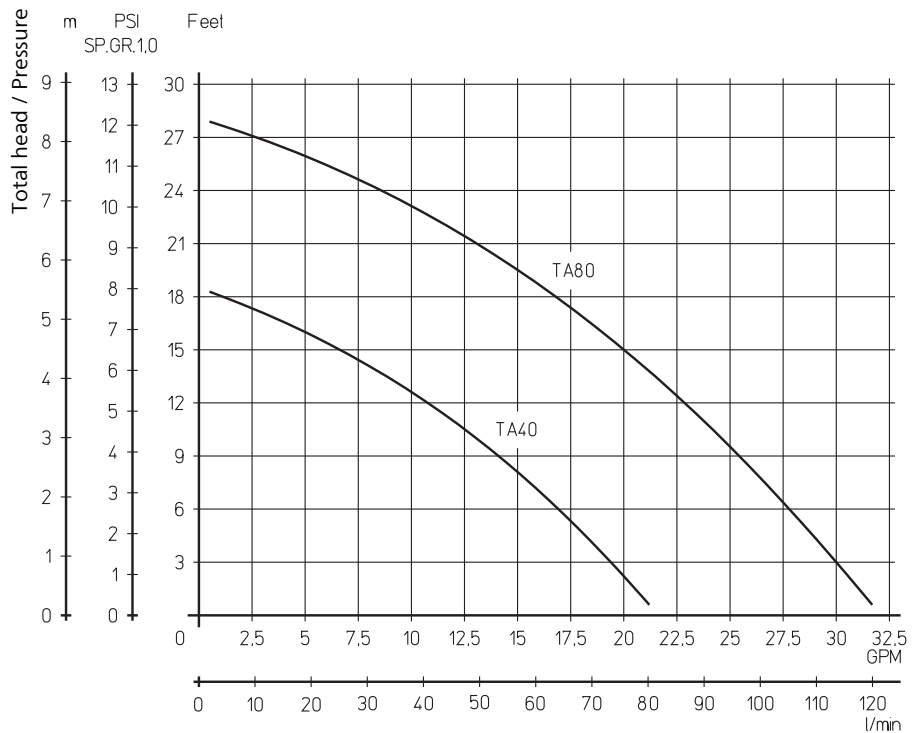


For position of terminal box, see mechanical features within the technical information section.

Standard for immersion pumps:
terminal box opposite to pump discharge = position 1.

Terminal box can be rotated in 90° increments.

On request G 3/4 can be supplied for TA40S90 to 220 mm depth of immersion.



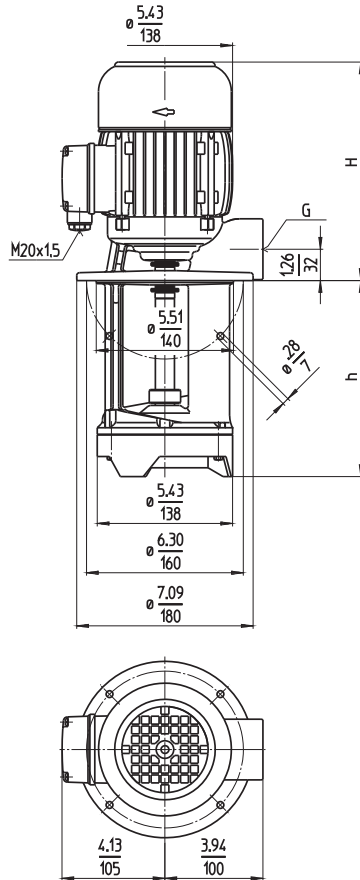
Immersion Pumps

TA160...600

Semi-open impellers



TA160, 250, 400 TA600



Dimensions in Inches / mm

Type	Flow at head	Height	Depth of im- mersion		Thread	Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	G	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TA160S200	68/6	8.8	7.87	200	G 1 ¼	27.6	12.5	0.67	208-230	60	2.5	3300
	255/2	223						0.5	460	60	1.4	3300
	270		10.63	270		29.8	13.5					
	350		13.78	350		32.0	14.5					
	440		17.32	440		35.3	16.0					
550		21.65	550		38.6	17.5						
TA250S200	90/6	8.8	7.87	200	G 1 ¼	27.6	12.5	0.85	208-230	60	3.0	3250
	345/2	223						0.63	460	60	1.5	3250
	270		10.63	270		29.8	13.5					
	350		13.78	350		32.0	14.5					
	440		17.32	440		35.3	16.0					
550		21.65	550		38.6	17.5						
TA400S200	105/6	10.4	7.87	200	G 1 ½	32.0	14.5	1.3	230	60	4	3450
	400/2	264						0.98	460	60	2	3450
	270		10.63	270		35.3	16.0					
	350		13.78	350		38.6	17.5					
	440		17.32	440		41.9	19.0					
550		21.65	550		45.2	20.5						
TA600S210	120/6	11.5	8.27	210	G 1 ½	37.5	17.0	1.7	230	60	4.8	3440
	460/2	291						1.27	460	60	2.4	3440
	280		11.02	280		40.8	18.5					
	360		14.17	360		43.0	19.5					
	450		17.72	450		46.3	21.0					
560		22.05	560		49.6	22.5						



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

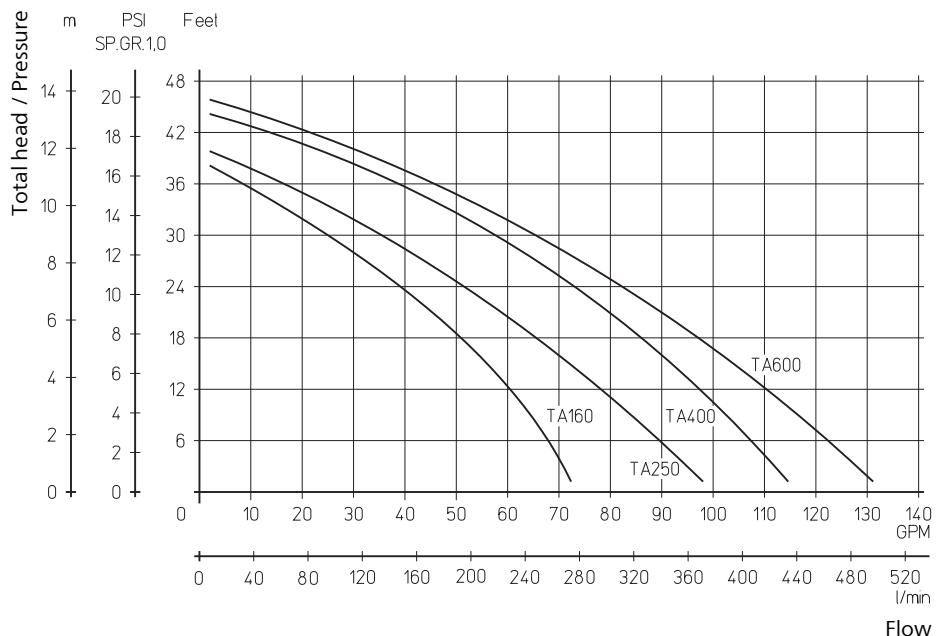
For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	POM
	cast iron (TA600)
Impeller	POM
	brass (TA600)
Shaft	steel
Optional:	
Cover	cast iron (TA160...TA400)
Suction cover	with threaded inlet
Impeller	brass (TA160...TA400)
	cast steel (TA160...TA600)
Noise level	
TA160...TA600	62 dBA

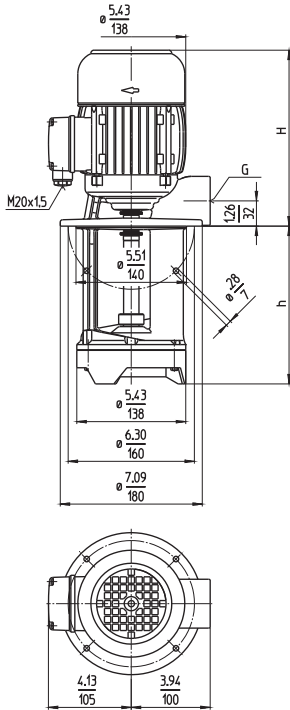


Immersion Pumps TA/STA200...430

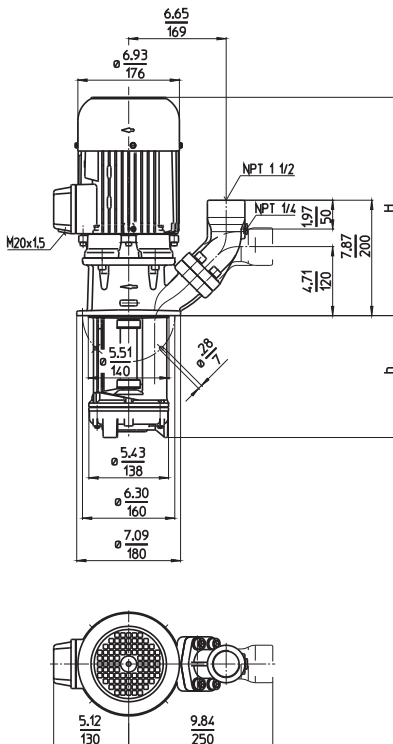


Semi-open impellers

TA200, 320



STA430



Type	Flow at head	Height	Depth of im- mersion	Thread	Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch h mm	G	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TA200S200	40/12 160/4	8.8 223	7.87 200	G 1 1/4	27.6	12.5	0.75 0.55	208-230 460	60 60	2.70 1.45	3250 3250
	270		10.63 270		29.8	13.5					
	350		13.78 350		32.0	14.5					
	440		17.32 440		35.3	16.0					
	550		21.65 550		38.6	17.5					
TA320S200	60/32 240/9	11.5 291	7.87 200	G 1 1/2	36.4	16.5	1.7 1.27	230 460	60 60	4.8 2.4	3440 3440
	270		10.63 270		38.6	17.5					
	350		13.78 350		40.8	18.5					
	440		17.32 440		45.2	20.5					
	550		21.65 550		47.4	21.5					
STA430S210	120/24 460/7	17.3 439	8.27 210		70.6	32	2.9 2.18	230 460	60 60	7.8 3.9	3500 3500
	280		11.02 280		72.8	33					
	360		14.17 360		75.0	34					
	450		17.72 450		77.2	35					
	560		22.05 560		79.4	36					

Dimensions in Inches /mm
Dimensions in Inches /mm



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **(SAE) flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



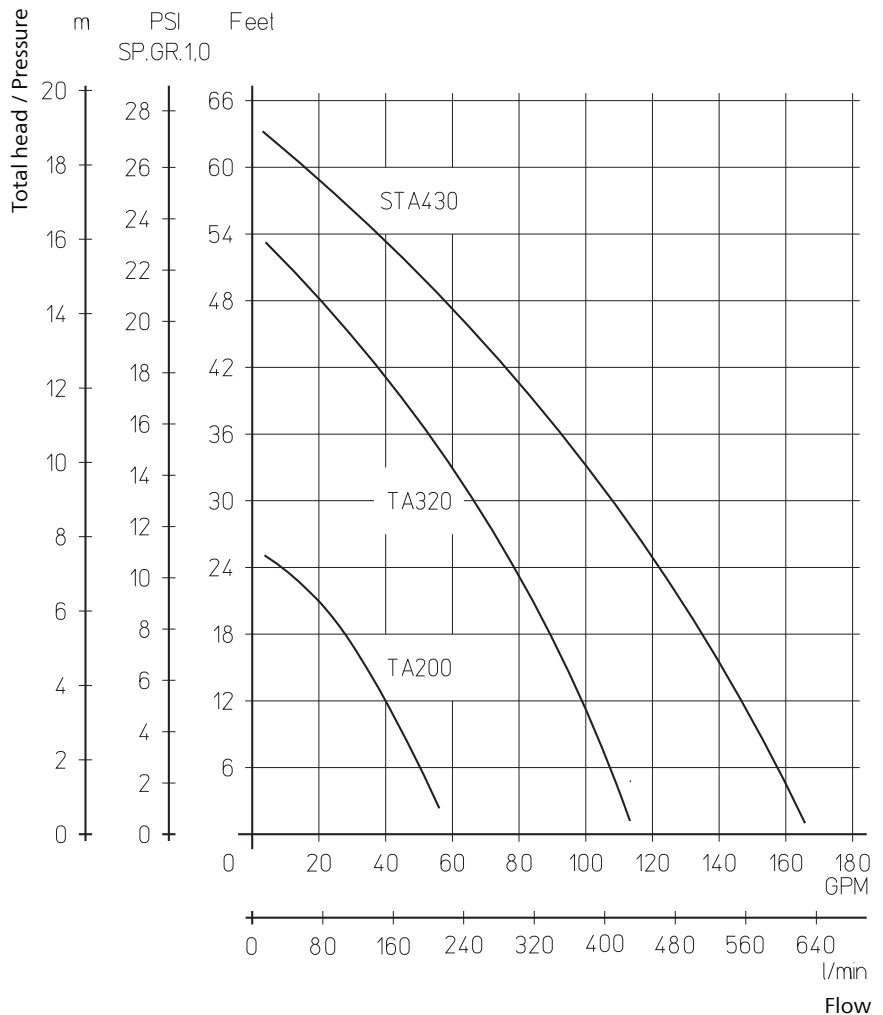
All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series TAL/SAL.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C) TA200
 - 30...175 °F (0...80 °C) TA320...STA430
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	POM cast iron (TA320...STA430)
Impeller	POM brass (TA320...STA430)
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impeller	cast steel brass (TA200)
Other materials	on request
Noise level	
TA200...TA320	62 dBA
STA430	66 dBA



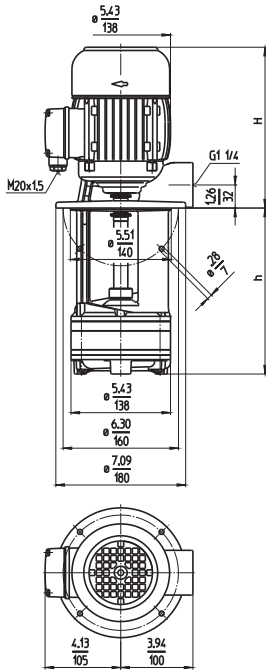
Immersion Pumps

TE/STE141...146

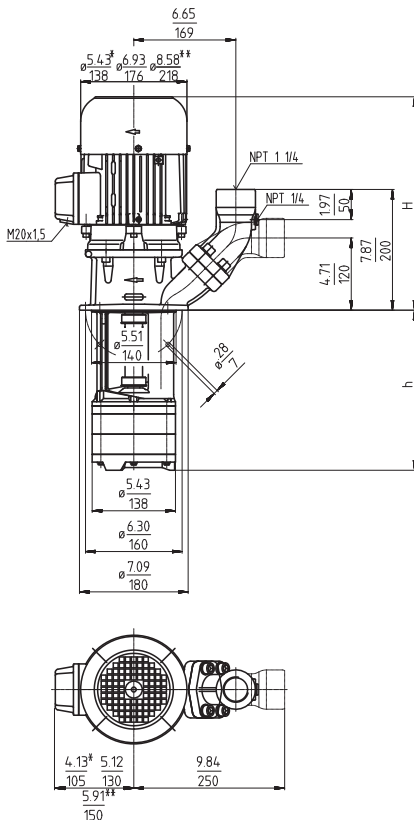
Semi-open impellers



TE141, 142



STE141...146



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Fre-	Current Speed	
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	HP kW	V	quency	AMPS	RPM
									Hz		
TE141S200	30/30	8.8	7.87	200	29.8	13.5	0.67	208-230	60	2.5	3300
	270		10.63	270	32.0	14.5	0.5	460	60	1.4	3300
	350		13.78	350	34.2	15.5					
	440		17.32	440	37.5	17.0					
	550		21.65	550	40.8	18.5					
TE142S150	30/60	11.5	5.91	150	36.4	16.5	1.7	230	60	4.8	3440
	230		9.06	230	39.7	18.0	1.27	460	60	2.4	3440
	300		11.81	300	40.8	18.5					
	380		14.96	380	43.0	19.5					
	470		18.50	470	46.3	21.0					
	580		22.83	580	50.7	23.0					
STE141S120	30/30	11.5	4.72	120	38.6	17.5	0.73	208-230	60	2.8	3300
	200		7.87	200	40.8	18.5	0.54	460	60	1.4	3300
	270		10.63	270	43.0	19.5					
	350		13.78	350	45.2	20.5					
	440		17.32	440	48.5	22.0					
STE142S150	30/60	14.2	5.91	150	47.4	21.5	1.7	230	60	4.8	3440
	230		9.06	230	50.7	23.0	1.27	460	60	2.4	3440
	300		11.81	300	51.8	23.5					
	380		14.96	380	54.0	24.5					
	470		18.50	470	57.3	26.0					
STE143S190	30/88	16.0	7.28	185	70.6	32	2.6	230	60	7.0	3480
	270		10.43	265	72.8	33	1.95	460	60	3.5	3480
	340		13.19	335	75.0	34					
	420		16.34	415	77.2	35					
	510		19.88	505	79.4	36					
STE144S220	30/115	17.3	8.66	220	79.4	36	3.4	230	60	8.8	3480
	300		11.81	300	81.6	37	2.55	460	60	4.4	3480
	370		14.57	370	83.8	38					
	450		17.72	450	86.0	39					
	540		21.26	540	90.4	41					
STE145S270	30/162	17.3	10.63	270	88.2	40	3.9	230	60	10.2	3480
	350		13.78	350	90.4	41	2.94	460	60	5.1	3480
	420		16.54	420	92.6	42					
	500		19.69	500	94.8	43					
	590		23.23	590	97.0	44					
STE146S300	30/195	18.8	12.01	305	114.7	52	6.1	230	60	15.8	3520
	380		15.16	385	116.9	53	4.55	460	60	7.9	3520
	450		17.91	455	119.1	54					
	530		21.06	535	121.3	55					

Dimensions in Inches / mm
 *) Dimensions STE141, 142
 **) Dimensions STE146



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STE pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series TL/STL.

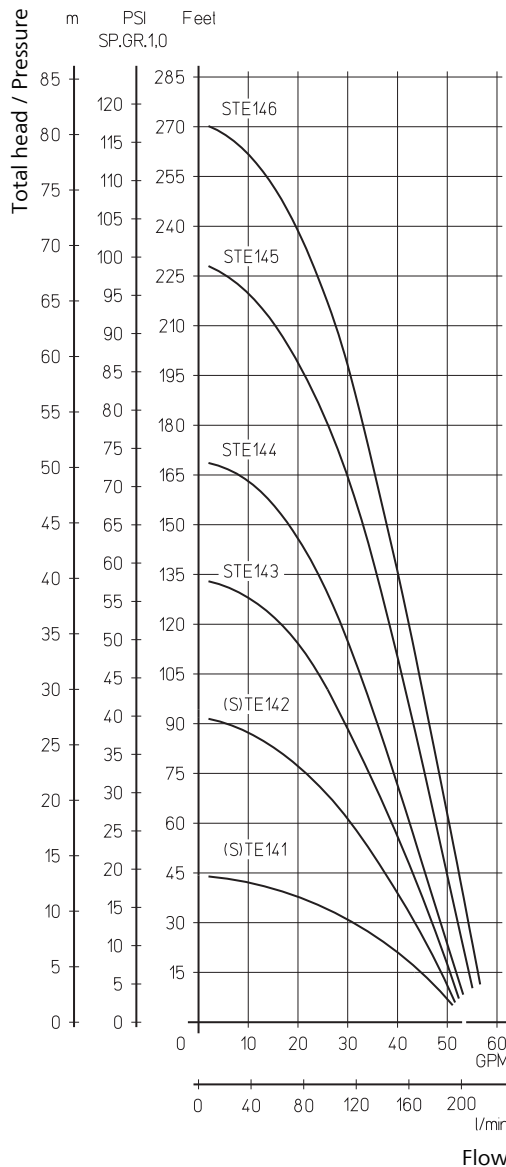


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	cast iron PPS (TE141)
Impellers	PPS
Shaft	steel
Optional:	
Cover	cast iron (TE141)
Suction cover	with threaded inlet
Impellers	brass cast steel on request
Other materials	
Noise level	
TE141...STE142	62 dBA
STE143...STE145	69 dBA
STE146	73 dBA



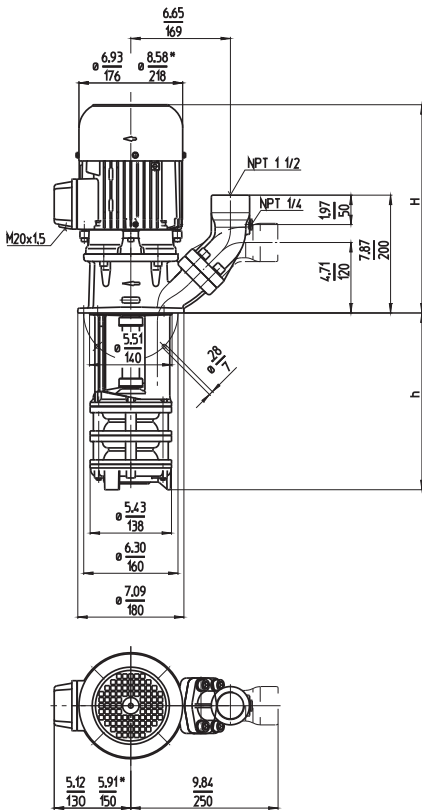
Immersion Pumps

STA212...433

Semi-open impellers



STA212...433



Dimensions in Inches / mm
*) Dimensions STA432, STA433

Type	Flow at head		Height		Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs	kg	AMPS	RPM					
STA212S170	40/69	15.0	6.69	170	68.4	31.0	2.3	230	60	6.2	3470		
		160/20	380				1.75	460	60	3.1	3470		
	250			9.84	250	71.7	32.5						
	320			12.60	320	73.9	33.5						
	400			15.75	400	76.1	34.5						
	490			19.29	490	78.3	35.5						
600			23.62	600	81.6	37.0							
STA213S220	40/102	17.3	8.66	220	88.2	40	3.4	230	60	8.8	3480		
		160/30	439				2.55	460	60	4.4	3480		
	300			11.81	300	90.4	41						
	370			14.57	370	92.6	42						
	450			17.72	450	94.8	43						
	540			21.26	540	97.0	44						
	650			25.59	650	101.4	46						
	850			33.46	850	114.7	52						
1000			39.37	1000	121.3	55							
STA322S170	60/70	17.3	6.69	170	81.6	37	2.9	230	60	7.8	3500		
		250/20	439				2.18	460	60	3.9	3500		
	250			9.84	250	83.8	38						
	320			12.60	320	86.0	39						
	400			15.75	400	88.2	40						
	490			19.29	490	92.6	42						
	600			23.62	600	94.8	43						
	800			31.50	800	110.2	50						
950			37.40	950	114.7	52							
STA323S220	60/105	17.3	8.66	220	90.4	41	3.9	230	60	10.2	3480		
		250/30	439				2.94	460	60	5.1	3480		
	300			11.81	300	92.6	42						
	370			14.57	370	94.8	43						
	450			17.72	450	97.0	44						
	540			21.26	540	99.2	45						
	650			25.59	650	103.6	47						
	850			33.46	850	116.9	53						
1000			39.37	1000	123.5	56							
STA432S200	100/72	18.8	7.68	195	110.2	50	5.1	230	60	12.8	3520		
		400/22	478				3.8	460	60	6.4	3520		
	280			10.83	275	112.5	51						
	350			13.58	345	114.7	52						
	430			16.73	425	116.9	53						
	520			20.28	515	121.3	55						
	630			24.61	625	123.5	56						
	830			32.48	825	136.7	62						
1000			39.17	995	141.1	64							
STA433S260	100/107	20.0	10.24	260	130.1	59	7.7	230	60	19.0	3520		
		400/32	508				5.75	460	60	9.5	3520		
	340			13.39	340	132.3	60						
	410			16.14	410	136.7	62						
	490			19.29	490	138.9	63						
	580			22.83	580	141.1	64						
	690			27.17	690	143.3	65						
	890			35.04	890	158.8	72						
1040			40.94	1040	163	74							



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

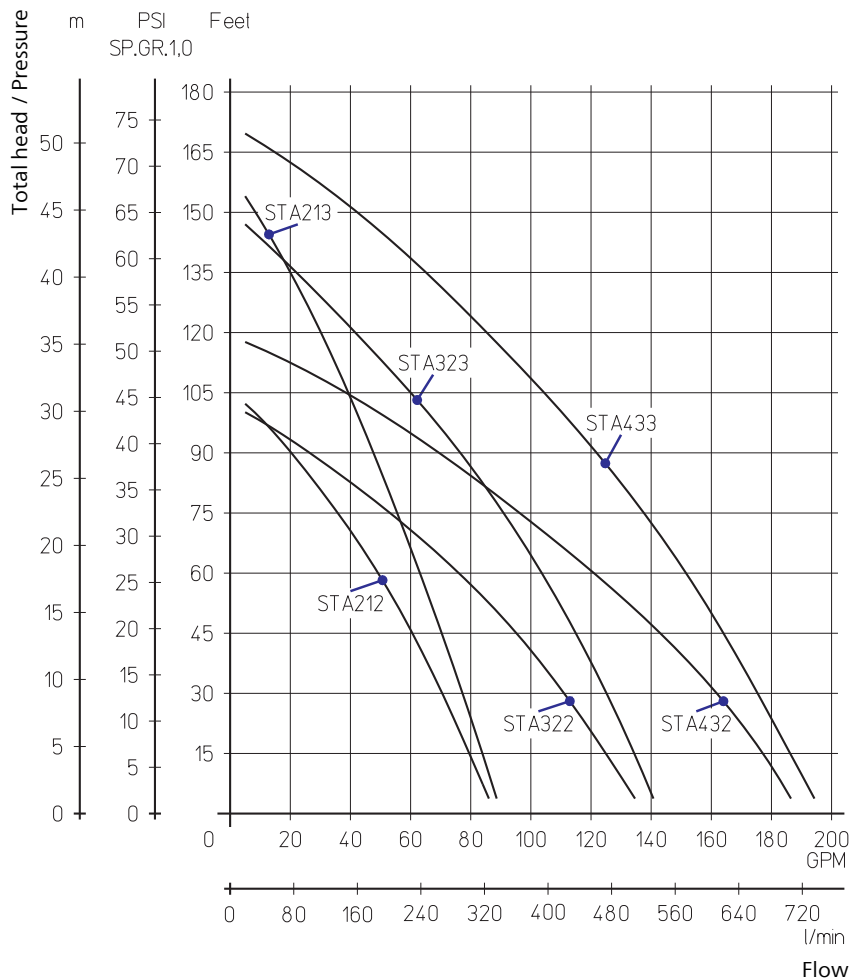
The STA pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impellers	cast steel
Other materials	on request
Noise level	
STA212...STA323	69 dBA
STA432...STA433	73 dBA

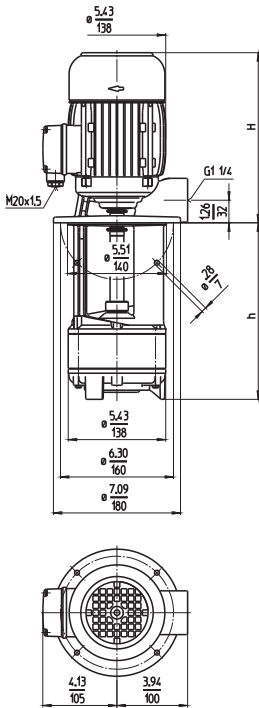


Immersion Pumps TA/STA301...306

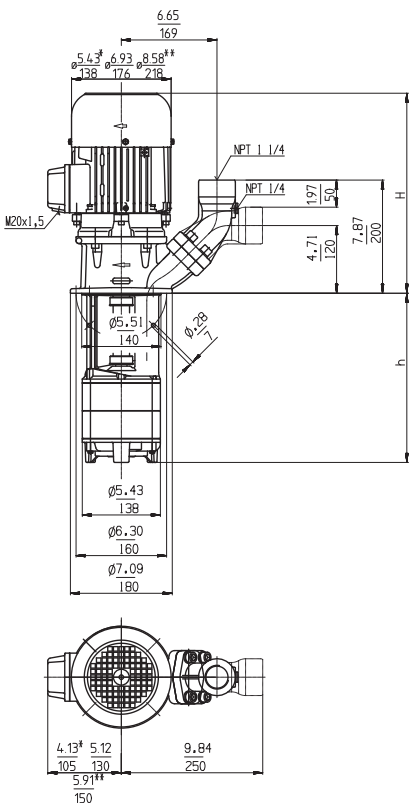


Semi-open impellers

TA302



STA301...306



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current Speed	
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TA302S170	40/46	11.5	6.69	170	39.7	18	1.7	230	60	4.8	3440
	250		9.84	250	41.9	19	1.27	460	60	2.4	3440
	320		12.60	320	44.1	20					
	400		15.75	400	46.3	21					
	490		19.29	490	48.5	22					
	600		23.62	600	52.9	24					
STA301S120	40/30	11.5	4.72	120	43.0	19.5	0.73	208-230	60	2.8	3300
	200		7.87	200	45.2	20.5	0.54	460	60	1.4	3300
	270		10.63	270	47.4	21.5					
	350		13.78	350	49.6	22.5					
	440		17.32	440	52.9	24.0					
	550		21.65	550	56.2	25.5					
STA302S170	40/46	14.2	6.69	170	57.3	26	1.7	230	60	4.8	3440
	250		9.84	250	59.5	27	1.27	460	60	2.4	3440
	320		12.60	320	61.7	28					
	400		15.75	400	63.9	29					
	490		19.29	490	68.4	31					
	600		23.62	600	72.8	33					
STA303S220	40/76	15.0	8.66	220	79.4	36	2.3	230	60	6.2	3470
	300		11.81	300	81.6	37	1.75	460	60	3.1	3470
	370		14.57	370	83.8	38					
	450		17.72	450	86.0	39					
	540		21.26	540	88.2	40					
	650		25.59	650	92.6	42					
STA304S270	40/105	17.3	10.63	270	99.2	45	2.9	230	60	7.8	3500
	350		13.78	350	101.4	46	2.18	460	60	3.9	3500
	420		16.54	420	103.6	47					
	500		19.69	500	108.0	49					
	590		23.23	590	110.2	50					
	700		27.56	700	114.7	52					
STA305S320	40/135	17.3	12.60	320	110.2	50	3.9	230	60	10.2	3480
	400		15.75	400	112.5	51	2.94	460	60	5.1	3480
	470		18.50	470	114.7	52					
	550		21.65	550	116.9	53					
	640		25.20	640	119.1	54					
	750		29.53	750	123.5	56					
STA306S370	40/165	18.8	14.57	370	138.9	63	5.1	230	60	12.8	3520
	450		17.72	450	141.1	64	3.8	460	60	6.4	3520
	520		20.47	520	143.3	65					
	600		23.62	600	145.5	66					
	690		27.17	690	147.7	67					
	800		31.50	800	152.1	69					
1000		39.37	1000	168	76						

Dimensions in Inches /mm
 *) Dimensions STA301, 302
 **) Dimensions STA306



Immersion Pumps


are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.


The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

 All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series TAL/SAL.

 All types are also available as suction immersion pumps with a connection to a vacuum filter on the suction side. See series STS.

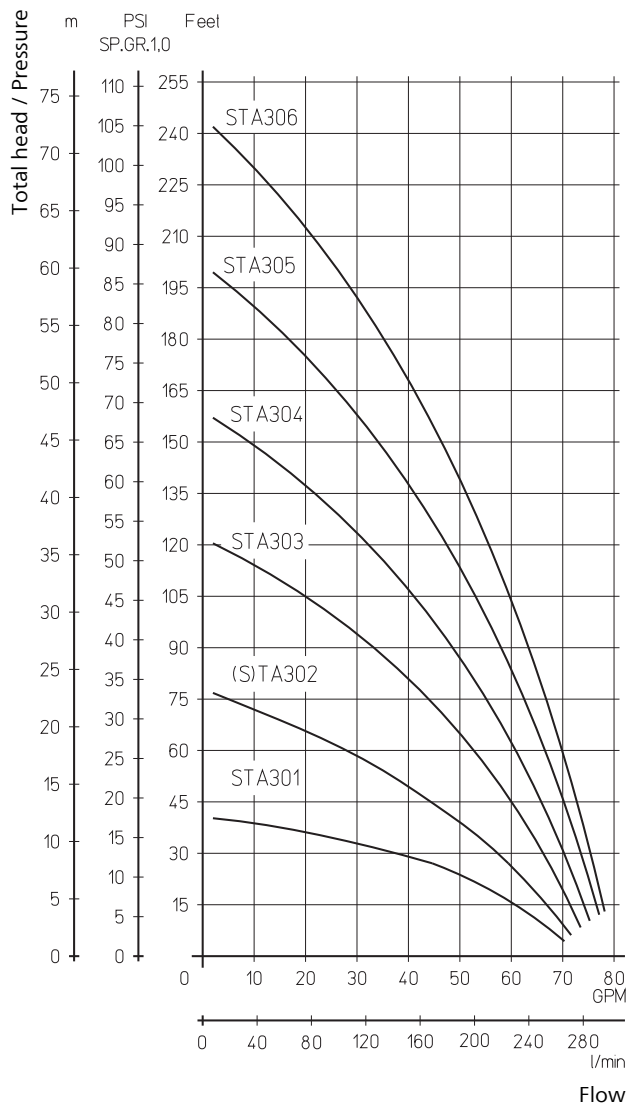


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C) TA302
 - 30...175 °F (0...80 °C) STA301...STA306
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron POM (TA302)
Impellers	brass POM (TA302) steel
Shaft	
Optional:	
Suction cover	with threaded inlet
Impeller	cast steel
Other materials	on request
Noise level	
TA302...STA302	62 dBA
STA303...STA305	69 dBA
STA306	73 dBA



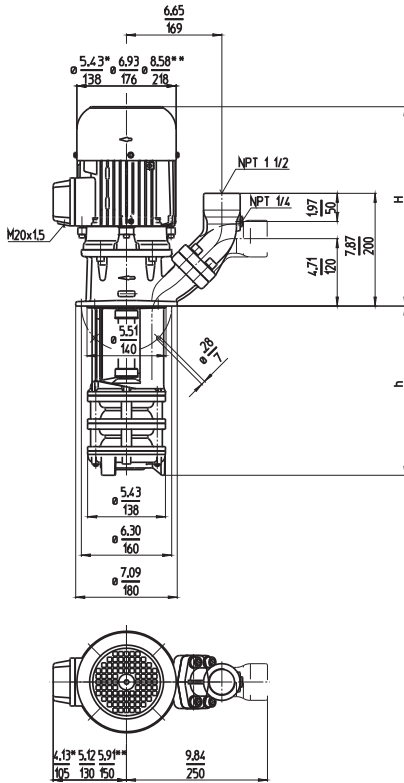
Immersion Pumps

STA401...407

Semi-open impellers



STA401...407



Dimensions in Inches / mm

*) Dimensions STA401

**) Dimensions STA405, 406, 407

Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
STA401S120	60/24	13.1	4.72	120	47.4	21.5	1.3	230	60	4	3450
	200		7.87	200	49.6	22.5	0.98	460	60	2	3450
	270		10.63	270	51.8	23.5					
	350		13.78	350	54.0	24.5					
	440		17.32	440	56.2	25.5					
	550		21.65	550	60.6	27.5					
	750		29.53	750	75.0	34.0					
900		35.43	900	79.4	36.0						
STA402S170	60/45	15.0	6.69	170	68.4	31.0	2	230	60	5.4	3500
	250		9.84	250	71.7	32.5	1.49	460	60	2.7	3500
	320		12.60	320	73.9	33.5					
	400		15.75	400	76.1	34.5					
	490		19.29	490	78.3	35.5					
	600		23.62	600	81.6	37.0					
	800		31.50	800	97.0	44.0					
950		37.40	950	101.4	46.0						
STA403S220	60/70	17.3	8.66	220	88.2	40	2.9	230	60	7.8	3500
	300		11.81	300	90.4	41	2.18	460	60	3.9	3500
	370		14.57	370	92.6	42					
	450		17.72	450	94.8	43					
	540		21.26	540	97.0	44					
	650		25.59	650	101.4	46					
	850		33.46	850	114.7	52					
1000		39.37	1000	121.3	55						
STA404S270	60/92	17.3	10.63	270	97.0	44	3.9	230	60	10.2	3480
	350		13.78	350	99.2	45	2.94	460	60	5.1	3480
	420		16.54	420	101.4	46					
	500		19.69	500	105.8	48					
	590		23.23	590	108.0	49					
	700		27.56	700	112.5	51					
	900		35.43	900	125.7	57					
1050		41.34	1050	130.1	59						
STA405S320	60/120	18.8	12.60	320	125.7	57	5.1	230	60	12.8	3520
	400		15.75	400	127.9	58	3.8	460	60	6.4	3520
	470		18.50	470	130.1	59					
	550		21.65	550	132.3	60					
	640		25.20	640	134.5	61					
	750		29.53	750	141.1	64					
	950		37.40	950	154.4	70					
1100		43.31	1100	158.8	72						
STA406S370	60/145	18.8	14.57	370	130.1	59	6.1	230	60	15.8	3520
	450		17.72	450	134.5	61	4.55	460	60	7.9	3520
	520		20.47	520	136.7	62					
	600		23.62	600	138.9	63					
	690		27.17	690	141.1	64					
	800		31.50	800	145.5	66					
	1000		39.37	1000	161.0	73					
STA407S420	60/170	20.0	16.54	420	156.6	71	7.7	230	60	19.0	3520
	500		19.69	500	158.8	72	5.75	460	60	9.5	3520
	570		22.44	570	161.0	73					
	650		25.59	650	165	75					
	740		29.13	740	168	76					
	850		33.46	850	172	78					



Immersion Pumps


are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.


The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

 All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

 All types are also available as suction immersion pumps with a connection to a vacuum filter on the suction side. See series STS.

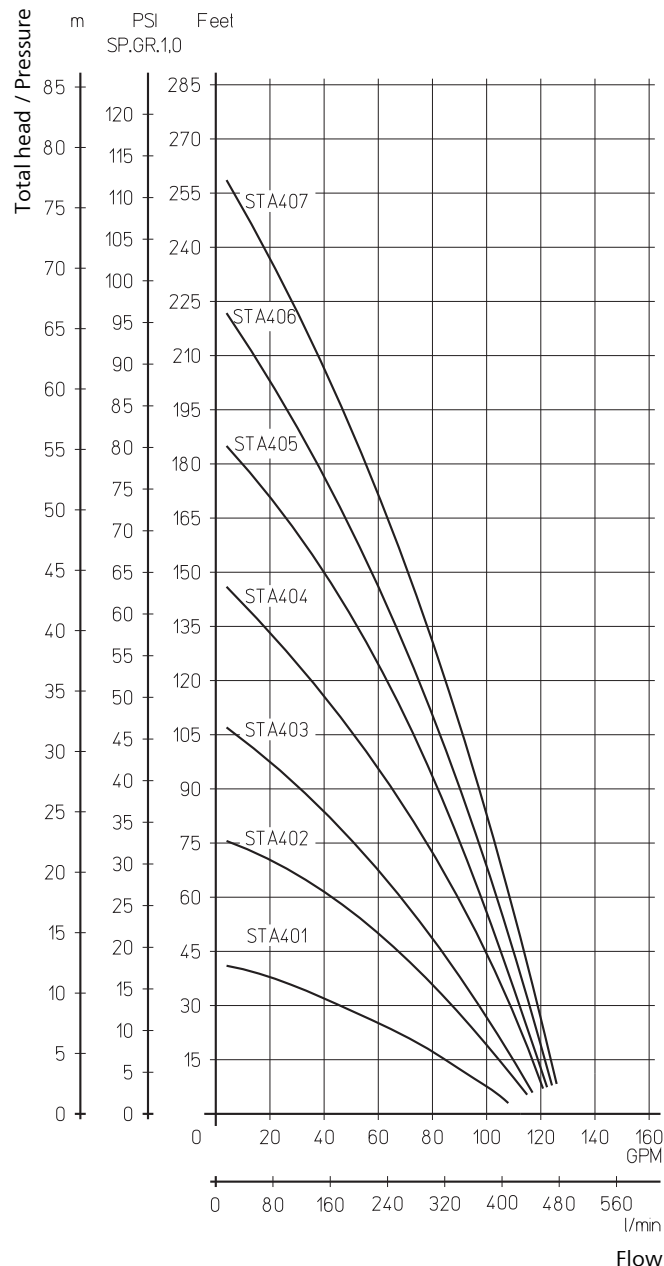


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impellers	cast steel
Noise level	
STA401	65 dBA
STA402...STA404	69 dBA
STA405...STA407	73 dBA



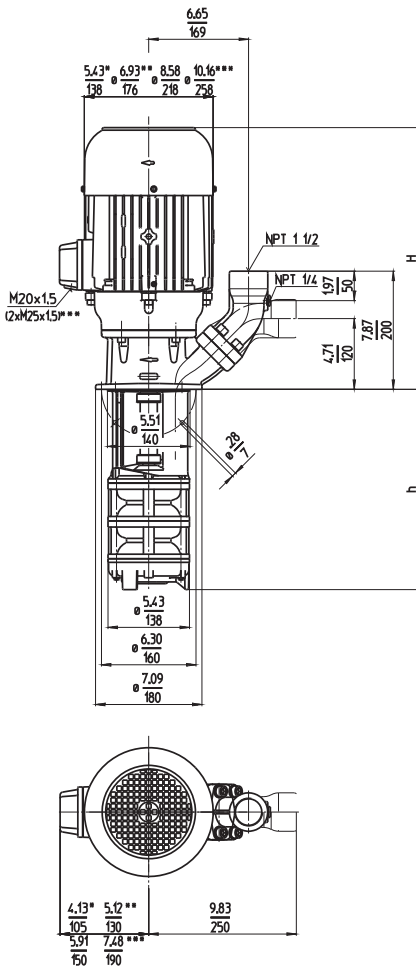
Immersion Pumps

STA601...608

Semi-open impellers



STA601...608



Dimensions in Inches / mm

- *) Dimensions STA601
- **) Dimensions STA602
- ***) Dimensions STA607, 608

Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	AMPS	RPM					
STA601S130	100/18	14.2	5.12	130	50.7	23	1.7	230	60	4.8	3440		
210			8.27	210	52.9	24	1.27	460	60	2.4	3440		
280			11.02	280	55.1	25							
360			14.17	360	57.3	26							
450			17.72	450	59.5	27							
560			22.05	560	63.9	29							
760			29.92	760	77.2	35							
910			35.83	910	79.4	36							
STA602S200	100/44	17.3	7.68	195	86.0	39	3.4	230	60	8.8	3480		
280			10.83	275	88.2	40	2.55	460	60	4.4	3480		
350			13.58	345	90.4	41							
430			16.73	425	92.6	42							
520			20.28	515	97.0	44							
630			24.61	625	101.4	46							
830			32.48	825	116.9	53							
980			38.39	975	119.1	54							
STA603S260	100/60	18.8	10.24	260	116.9	53	5.1	230	60	12.8	3520		
340			13.39	340	119.1	54	3.8	460	60	6.4	3520		
410			16.14	410	121.3	55							
490			19.29	490	123.5	56							
580			22.83	580	127.9	58							
690			27.17	690	130.1	59							
890			35.04	890	145.5	66							
1040			40.94	1040	149.9	68							
STA604S330	100/88	20.0	12.80	325	136.7	62	7.7	230	60	19.0	3520		
410			15.94	405	138.9	63	5.75	460	60	9.5	3520		
480			18.70	475	143.3	65							
560			21.85	555	145.5	66							
650			25.39	645	147.7	67							
760			29.72	755	149.9	68							
960			37.60	955	165	75							
1110			43.50	1105	170	77							
STA605S390	100/110	20.0	15.35	390	143.3	65	8.4	230	60	20.8	3510		
470			18.50	470	145.5	66	6.3	460	60	10.4	3510		
540			21.26	540	147.7	67							
620			24.41	620	149.9	68							
710			27.95	710	154.4	70							
820			32.28	820	158.8	72							
1020			40.16	1020	172	78							
STA607S520	100/170	23.1	20.47	520	225	102	11.5	230	60	27.8	3550		
600			23.62	600	227	103	8.6	460	60	13.9	3550		
670			26.38	670	229	104							
750			29.53	750	234	106							
840			33.07	840	236	107							
950			37.40	950	240	109							
STA608S580	100/215	23.1	22.83	580	247	112	13.8	230	60	31.6	3550		
660			25.98	660	249	113	10.3	460	60	15.8	3550		
730			28.74	730	251	114							
810			31.89	810	254	115							
900			35.43	900	256	116							
1010			39.76	1010	262	119							



Immersion Pumps


are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.


The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

 All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

 All types are also available as suction immersion pumps with a connection to a vacuum filter on the suction side. See series STS.

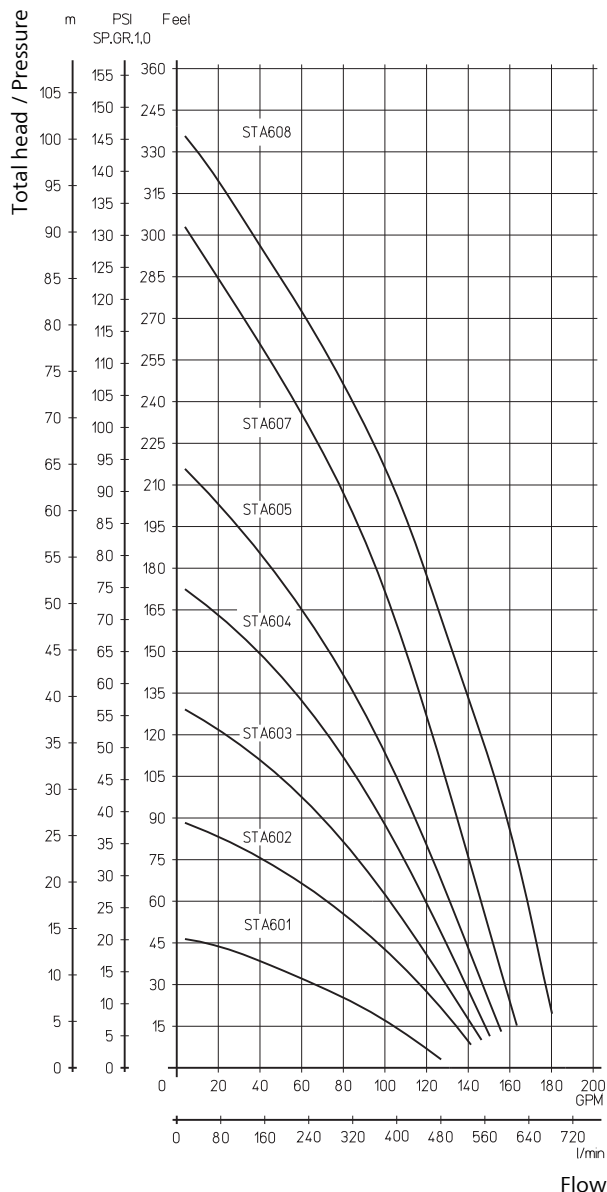


Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...200 SSU (...45 mm²/s)
Pumping temperature
30...175 °F (0...80 °C)
higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impellers	cast steel
Noise level	
STA601	66 dBA
STA602	69 dBA
STA603...STA605	73 dBA
STA607...STA608	77 dBA



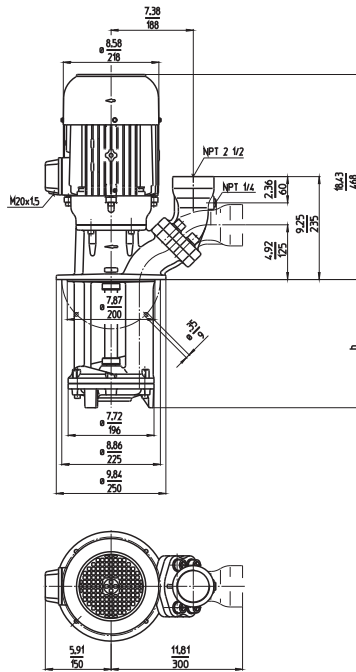
Immersion Pumps

STA630...1130

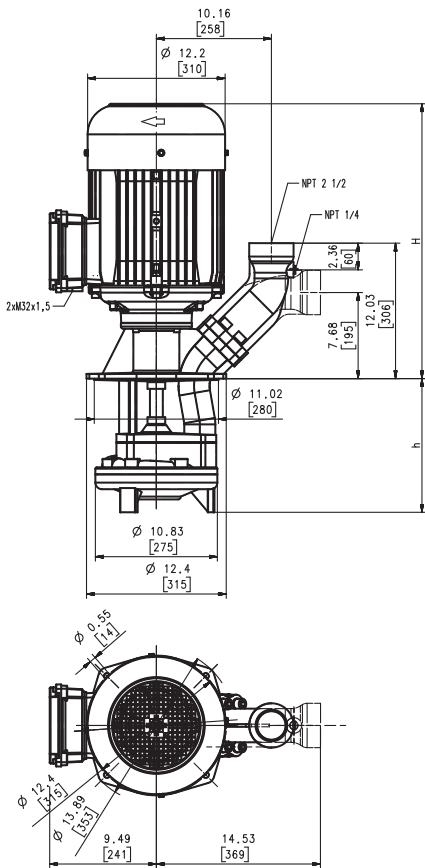
Semi-open impellers



STA630, 830



STA1130



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
STA630S200	175/60	21.0	7.87	200	147.7	67	7.7	230	60	19.0	3520
	600/20	533					5.75	460	60	9.5	3520
	300		11.81	300	154.4	70					
	430		16.93	430	163	74					
	550		21.65	550	174	79					
	750		29.53	750	196	89					
980		38.58	980	212	96						
STA830S210	200/72	21.0	8.27	210	152.1	69	7.7	230	60	19.0	3520
	800/22	533					5.75	460	60	9.5	3520
	310		12.20	310	158.8	72					
	440		17.32	440	168	76					
	560		22.05	560	179	81					
	760		29.92	760	201	91					
990		38.98	990	216	98						
1110		43.70	1110	223	101						
STA1130S300	400/75	24.4	11.81	300	324	147	16.9	230	60	39.2	3560
	1400/24	620					12.6	460	60	19.6	3560
	430		16.93	430	329	149					
	550		21.65	550	344	156					
	800		31.50	800	381	173					
1050		41.34	1050	388	176						

Discharge port with NPT 2 inches available upon request
Dimensions in Inches / mm



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



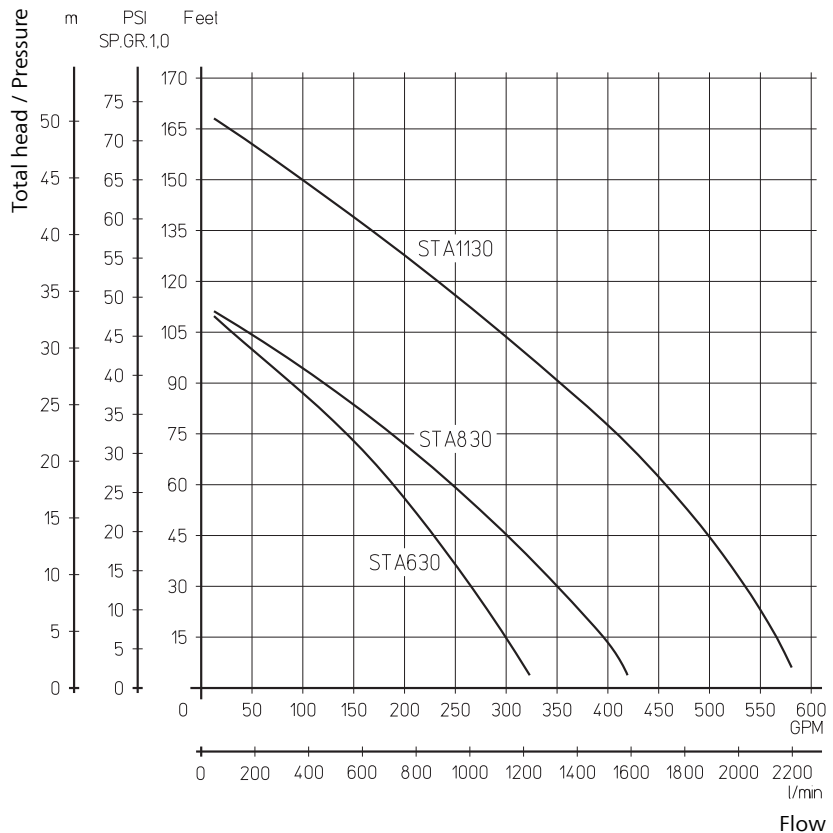
All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Other materials	on request
Noise level	
STA630	73 dBA
STA830	74 dBA
STA1130	80 dBA
Optional: Low noise version (-3 to -5 dBA)	



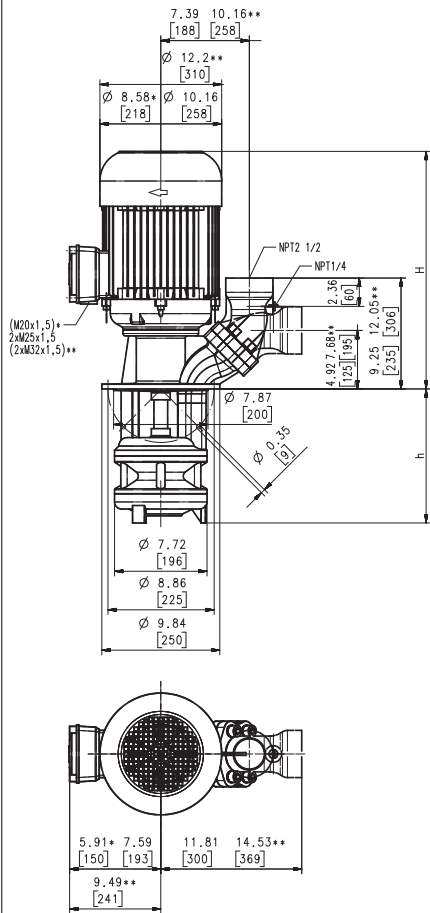
Immersion Pumps

STA901...904

Semi-open impellers



STA901, 902 STA903...904



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions STA901

***) Dimensions STA904

Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
STA901S200	175/42	19.8	7.87	200	134.5	61	5.1	230	60	12.8	3520
	700/11	503					3.8	460	60	6.4	3520
	300		11.81	300	143.3	65					
	430		16.93	430	149.9	68					
	550		21.65	550	158.8	72					
	750		29.53	750	187	85					
STA902S270	175/95	22.6	10.63	270	216	98	9.2	230	60	21.2	3550
	700/28	574					6.9	460	60	10.6	3550
	370		14.57	370	225	102					
	500		19.69	500	232	105					
	620		24.41	620	238	108					
	820		32.28	820	267	121					
STA903S340	175/145	24.1	13.39	340	262	119	13.8	230	60	31.6	3550
	700/42	612					10.3	460	60	15.8	3550
	440		17.32	440	269	122					
	570		22.44	570	278	126					
	690		27.17	690	287	130					
	890		35.04	890	315	143					
STA904S410	175/190	24.4	16.14	410	331	150	16.9	230	60	39.2	3560
	700/55	620					12.6	460	60	19.6	3560
	510		20.08	510	337	153					
	640		25.20	640	346	157					
	760		29.92	760	355	161					
	960		37.80	960	388	176					
1190		46.85	1190	397	180						



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

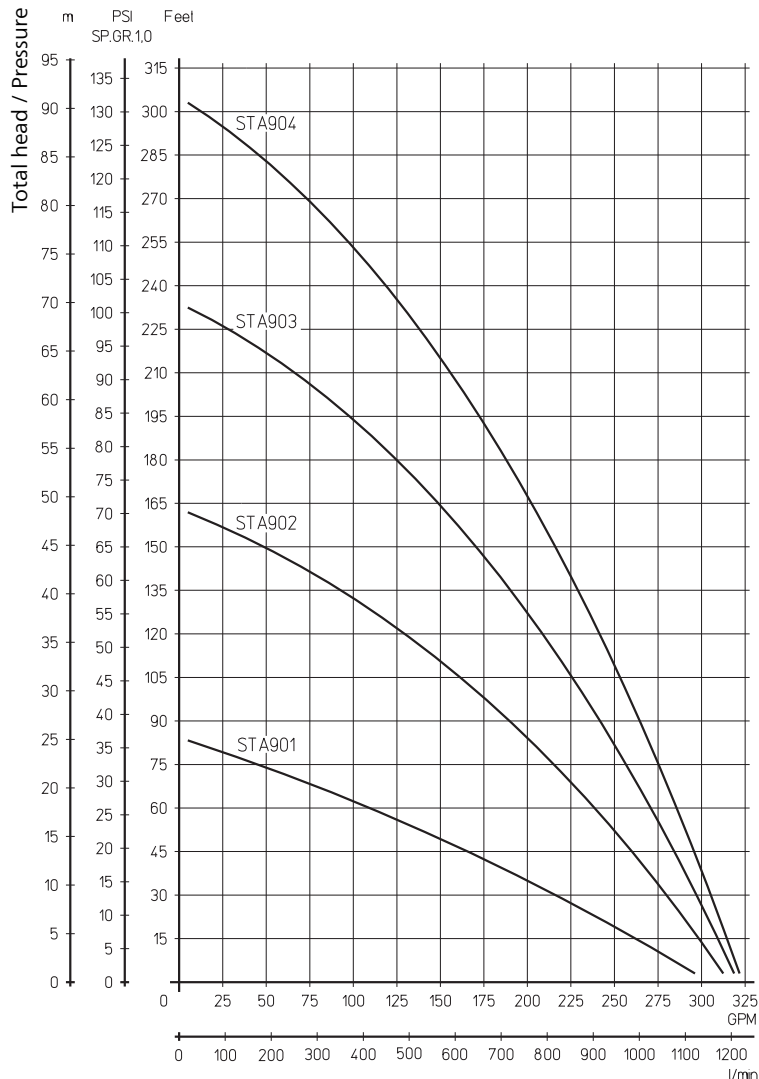


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

- Pump body cast iron
- Cover cast iron
- Impellers cast steel
- Shaft steel
- Optional:
 - Suction cover with threaded inlet
 - Other materials on request
- Noise level
 - STA901 74 dBA
 - STA902...STA903 78 dBA
 - STA904 79 dBA



Immersion Pumps

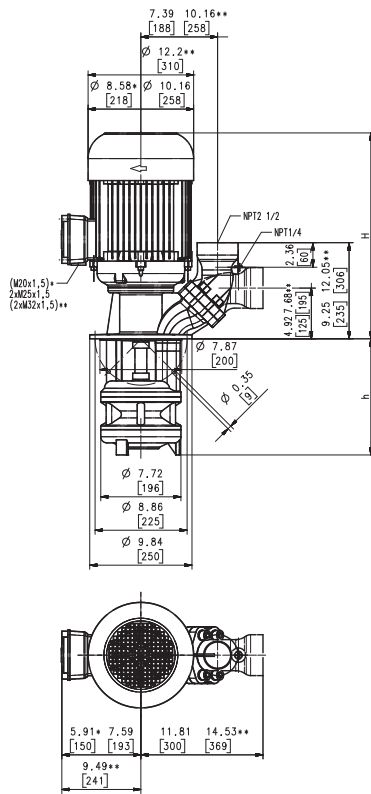
STA1001...1006

Semi-open impellers

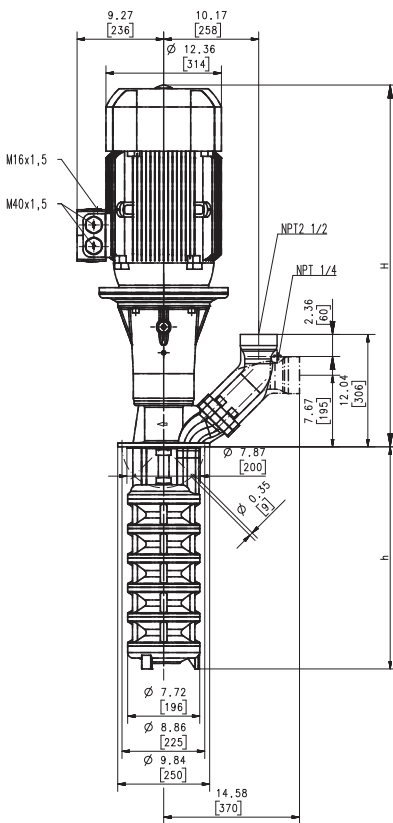


60 Hz

STA1001...1004



STA1006



Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
STA1001S210	200/40	19.8	8.27	210	134.5	61	5.1	230	60	12.8	3520
	800/11	503					3.8	460	60	6.4	3520
	310		12.20	310	141.1	64					
	440		17.32	440	152.1	69					
	560		22.05	560	161.0	73					
	760		29.92	760	187	85					
STA1002S290	200/75	22.6	11.42	290	218	99	9.2	230	60	21.2	3550
	800/22	574					6.9	460	60	10.6	3550
	390		15.35	390	225	102					
	520		20.47	520	234	106					
	640		25.20	640	243	110					
	840		33.07	840	269	122					
STA1003S370	200/115	24.1	14.57	370	267	121	13.8	230	60	31.6	3550
	800/33	612					10.3	460	60	15.8	3550
	470		18.50	470	273	124					
	600		23.62	600	282	128					
	720		28.35	720	291	132					
	920		36.22	920	320	145					
STA1004S450	200/165	24.4	17.72	450	337	153	20.1	230	60	48.2	3560
	800/47	620					15.0	460	60	24.1	3560
	550		21.65	550	346	157					
	680		26.77	680	353	160					
	800		31.50	800	359	163					
	1000		39.37	1000	386	175					
STA1006S610	200/265	38.3	24.02	610	445	202	25	230	60	28	3560
	800/76	974					18.5	460	60	28	3560
	710		27.95	710	454	206					
	840		33.07	840	465	211					
	960		37.80	960	474	215					

Dimensions in Inches /mm
 *) Dimensions STA1001
 **) Dimensions STA1004
 Discharge port with NPT 2 inches available upon request.



Immersion Pumps


are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.


The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

 All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

 All types are also available as suction immersion pumps with a connection to a vacuum filter on the suction side. See series STS.

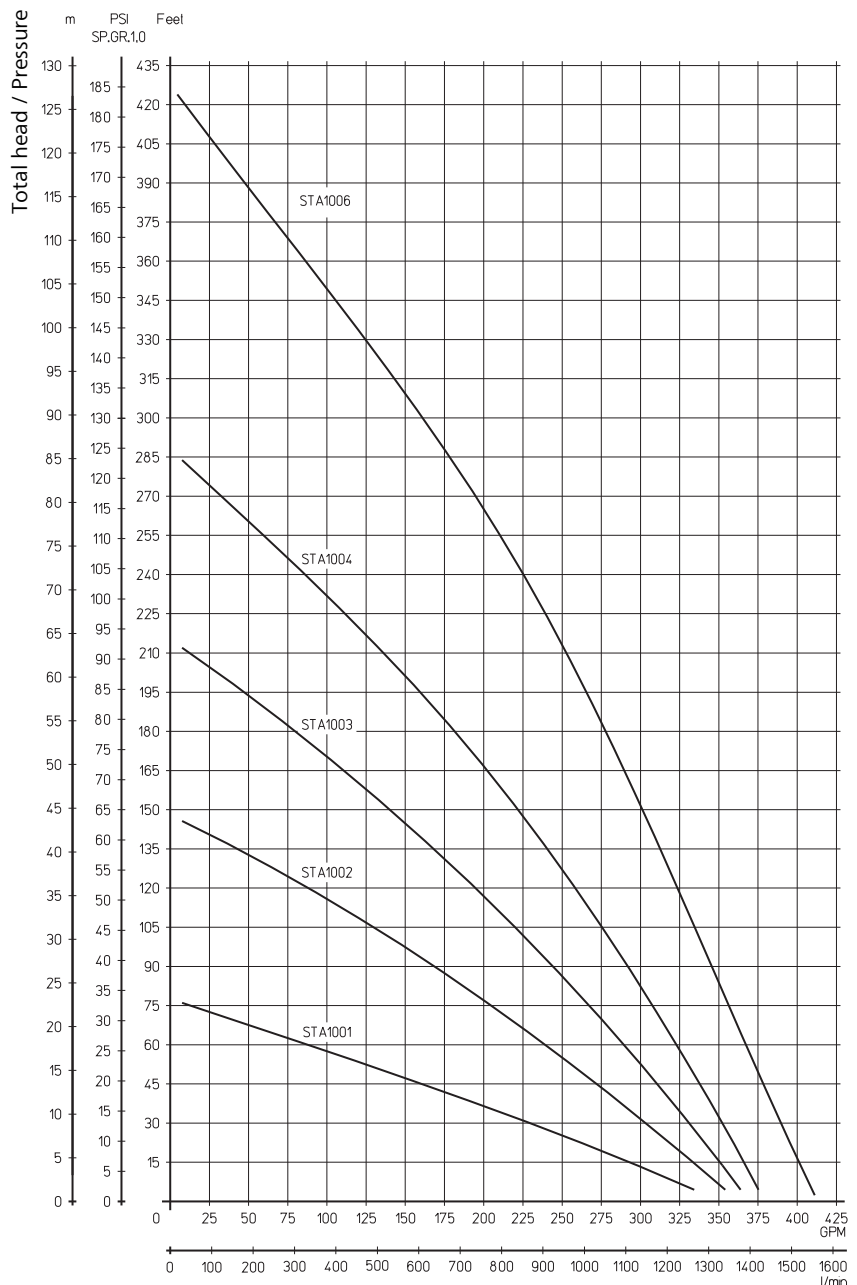


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impellers	cast steel
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Other materials	on request
Noise level	
STA1001	73 dBA
STA1002...STA1003	76 dBA
STA1004	79 dBA
STA1006	80 dBA
Optional: Low noise version (-3 to -5 dBA)	



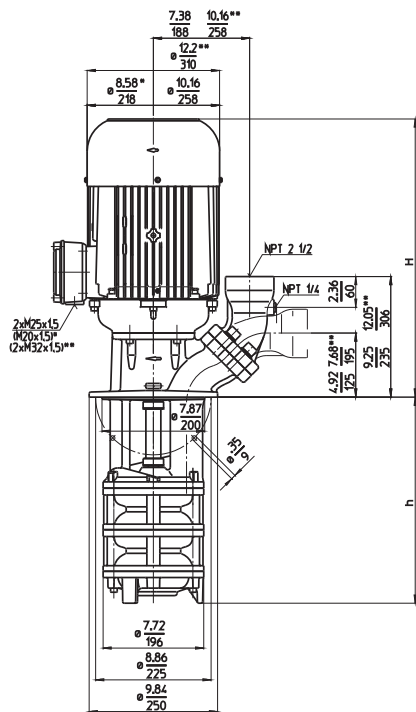
Immersion Pumps

STA1301...1303

Semi-open impellers



STA1301, 1302 STA1303



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions STA1301

**) Dimensions STA1303

Type	Flow at head		Height		Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs kg	HP kW	AMPS	RPM					
STA1301S210	250/42	21.0	8.27	210	149.9	68	7.7	230	60	19.0	3520		
	900/12	533					5.75	460	60	9.5	3520		
	310		12.20	310	156.6	71							
	440		17.32	440	165	75							
	560		22.05	560	176	80							
	760		29.92	760	198	90							
990		38.98	990	214	97								
1110		43.70	1110	220	100								
STA1302S290	250/90	24.1	11.42	290	238	108	11.5	230	60	27.8	3550		
	900/28	612					8.6	460	60	13.9	3550		
	390		15.35	390	243	110							
	520		20.47	520	249	113							
	640		25.20	640	260	118							
	840		33.07	840	287	130							
1070		42.13	1070	302	137								
STA1303S370	250/137	24.4	14.57	370	315	143	16.9	230	60	39.2	3560		
	900/42	620					12.6	460	60	19.6	3560		
	470		18.50	470	322	146							
	600		23.62	600	333	151							
	720		28.35	720	342	155							
	920		36.22	920	368	167							
1150		45.28	1150	384	174								



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



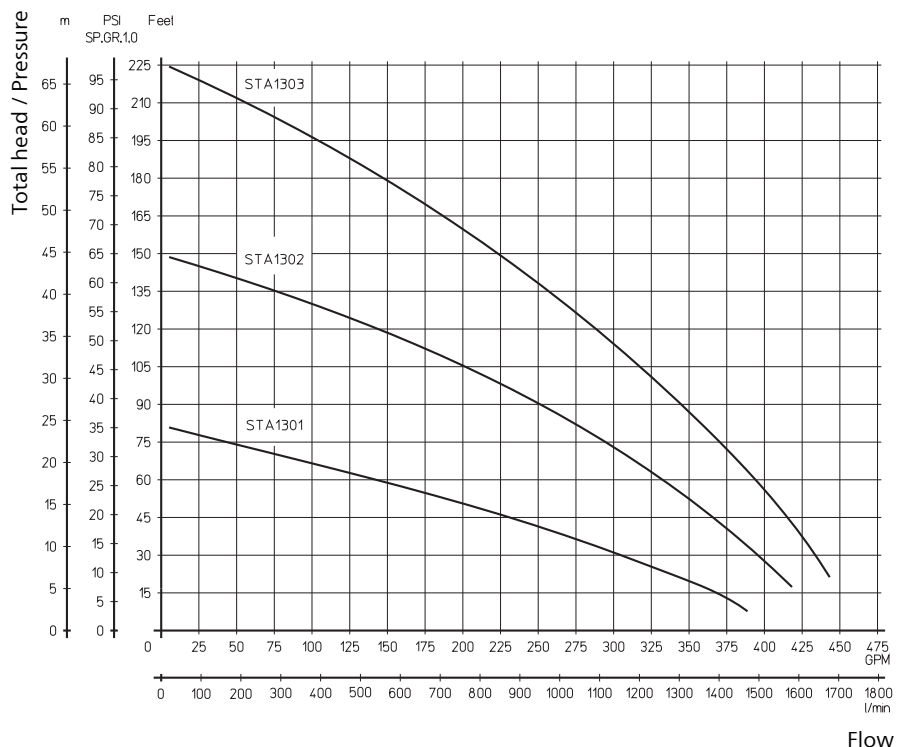
All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron
Impellers	cast steel
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Other materials	on request
Noise level	
STA1301	73 dBA
STA1302	78 dBA
STA1303	79 dBA



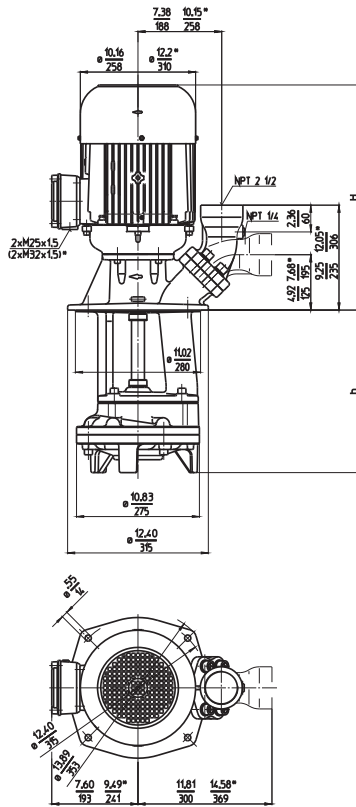
Immersion Pumps

STA1600...2500

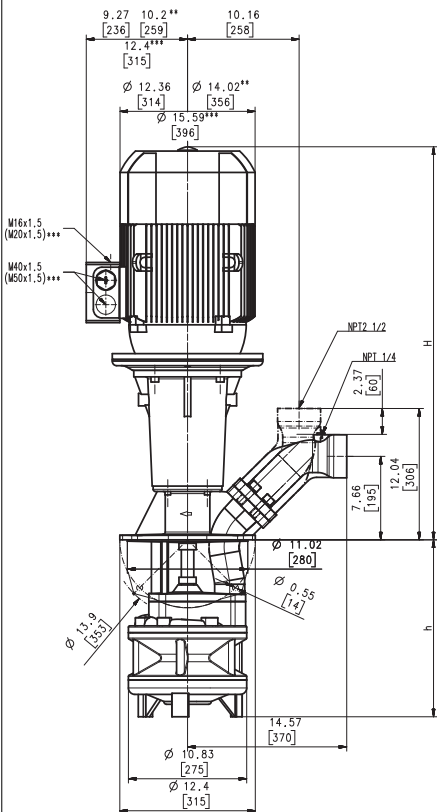
Semi-open impellers



STA1600...2000



STA1602...2500



Type	Flow at head	Height	Depth of immersion	Weight		Power HP kW	Voltage 3~ V	Frequency Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch h mm	Lbs kg	kg				AMPS	RPM
STA1600S300	350/58	24.1	11.81	300	293	13.8	230	60	31.6	3550
	1300/17	612				10.3	460	60	15.8	3550
	430			16.93	430	298				
	550			21.65	550	313				
	800			31.50	800	351				
1050			41.34	1050	373					
STA2000S300	400/75	24.4	11.81	300	346	16.9	230	60	39.2	3560
	1600/22	620				12.6	460	60	19.6	3560
	430			16.93	430	351				
	550			21.65	550	366				
	800			31.50	800	404				
1050			41.34	1050	410					
STA1602S410	350/118	38.3	16.14	410	505	25	460	60	28	3560
	1300/37	974				18.5				
	540			21.26	540	518				
	660			25.98	660	527				
	910			35.83	910	542				
1160			45.67	1160	551					
STA2002S410	400/152	40.6	16.14	410	549	40	460	60	47	3560
	1600/44	1032				30.0				
	540			21.26	540	562				
	660			25.98	660	571				
	910			35.83	910	587				
1160			45.67	1160	595					
STA2500S330	500/105	39.7	12.99	330	441	30	460	60	34	3560
	2000/28	1009				22.0				
	460			18.11	460	452				
	580			22.83	580	463				
	830			32.68	830	501				
1080			42.52	1080	507					

Dimensions in Inches / mm
Discharge port with NPT 2 inches available upon request.

*) Dimensions STA2000
**) Dimensions STA2500
***) Dimensions STA2002



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

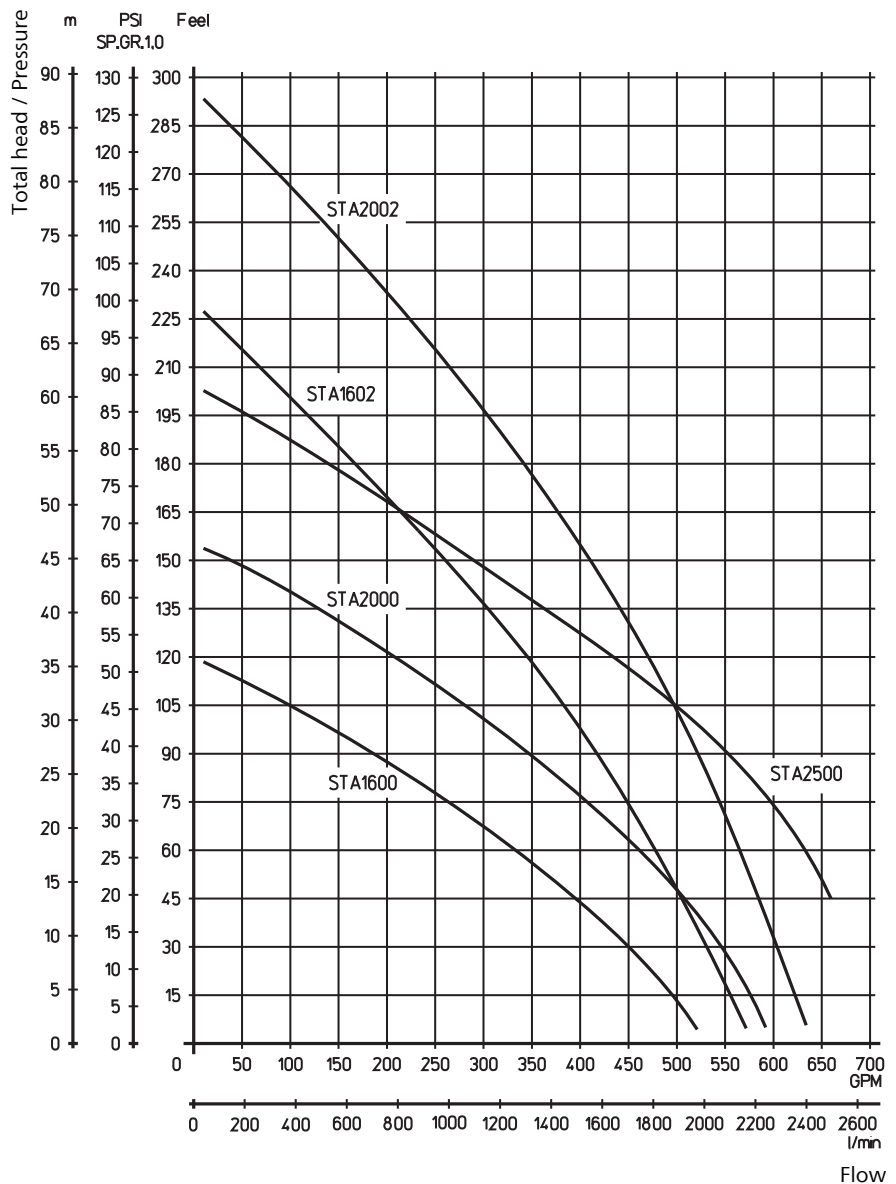


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Optional:	
Other materials	on request
Noise level	
STA1600	78 dBA
STA2000	79 dBA
STA1602...STA2500	82 dBA
Optional: Low noise version (-3 to -5 dBA)	

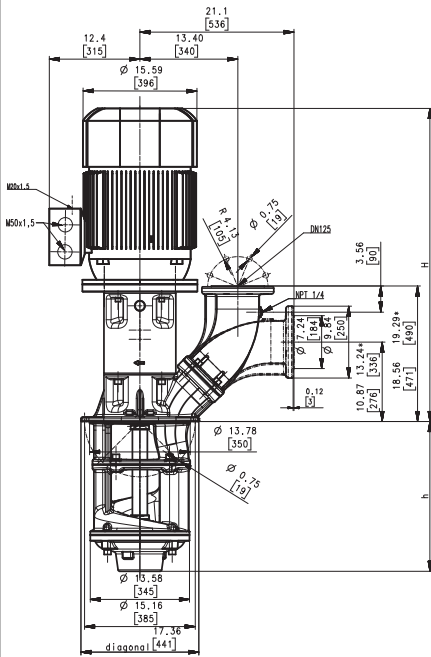


Immersion Pumps STA3600...4500

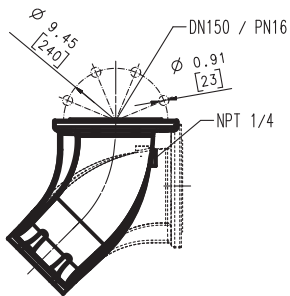
Semi-open impellers



STA3600...4500



6" Flange DN150/ PN16



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
STA3600S520	900/60 3400/20	42.9 1090	20.51	521	730	331	40 30.0	460	60	47	3560
720			28.39	721	763	346					
920			36.26	921	796	361					
1270			50.04	1271	939	426					
STA4500S520	1200/85 4400/27	43.9 1115	20.51	521	944	428	50 37.0	460	60	57	3560
720			28.39	721	977	443					
920			36.26	921	1010	458					
1270			50.04	1271	1153	523					

Dimensions in Inches / mm
*) Dimensions for flange DN150 / PN16
This flange is available upon request



Immersion Pumps

are centrifugal pumps with the impeller fitted on the driving shaft extension. They are mounted on top of the container, the pump extension being immersed in the coolant.

The maximum coolant level must stay a few inches below the mounting flange.

The delivery capacities shown in the tables apply to water at 4.6 SSU (1 mm²/s) and 68°F (20°C).

For the delivery of oils, the values will decrease due to higher viscosities which result in an increased pipe resistance.

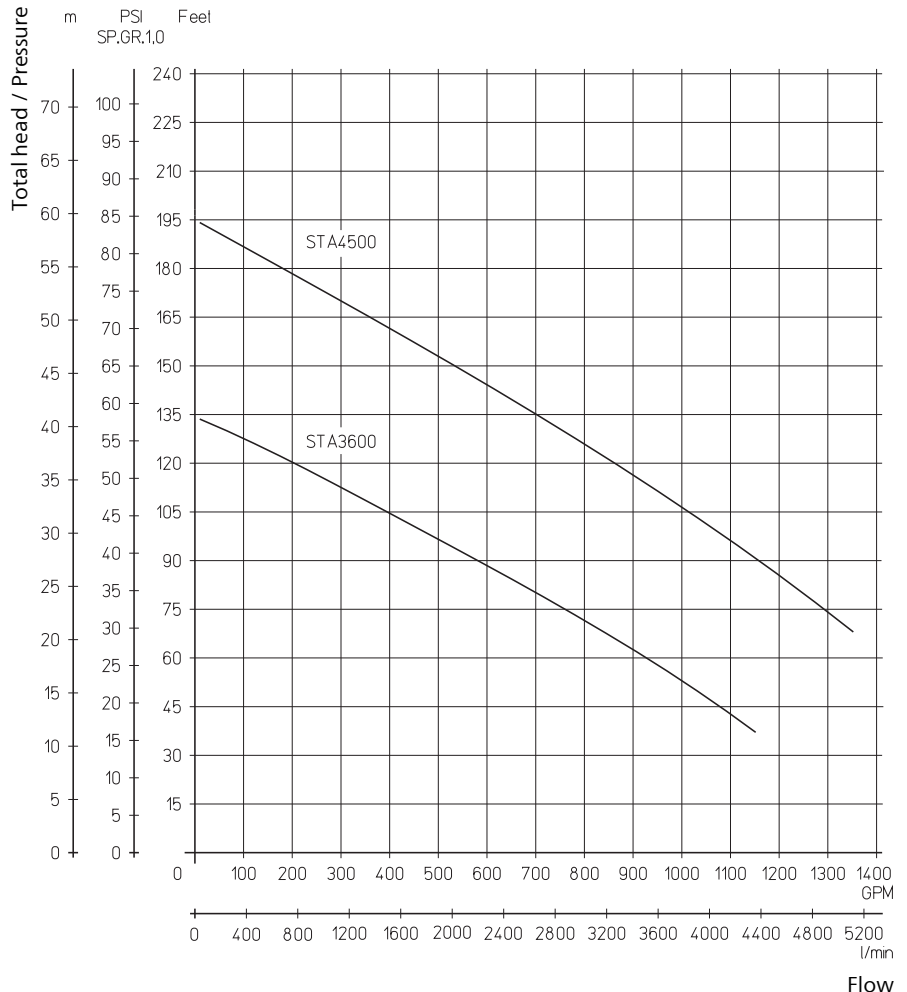
The STA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Other materials	on request
Noise level	
STA3600...STA4500	88 dBA
Optional: Low noise version (-3 to -5 dBA)	



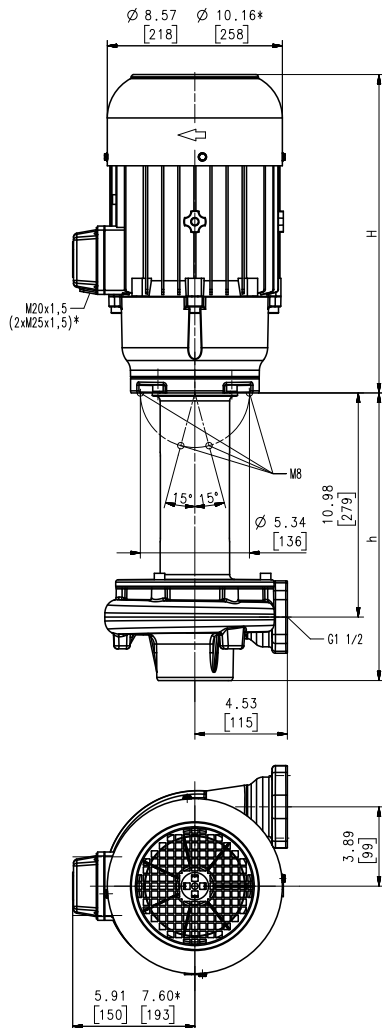
Stainless Steel Immersion Pumps

TVG900...1000



Closed impellers

TVG900...1000



*) Dimensions for TVG1000

Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TVG900S360	125/118	16.8	14.09	358	152.1	69	7.7	230	60	19.0	3520
	500/35	426					5.75	460	60	9.5	3520
	580		22.76	578	165	75					
	880		30.63	778	194	88					
1100		43.23	1098	207	94						
TVG1000S360	150/138	18.4	14.09	358	201	91	10	230	60	23.0	3545
	600/40	468					7.48	460	60	11.5	3545
	580		22.76	578	214	97					
	880		34.57	878	240	109					
1100		43.23	1098	254	115						



Stainless Steel Immersion Pumps

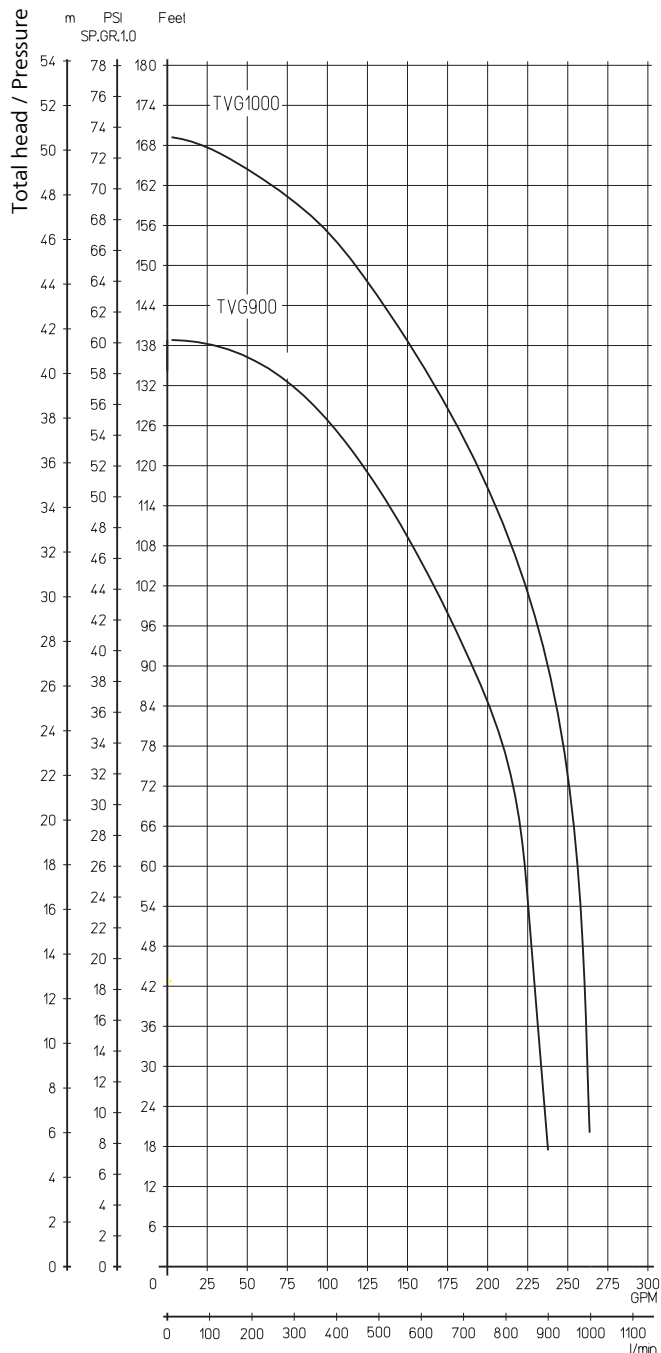
are centrifugal pumps of compact design with the impeller mounted directly onto the extended motor shaft. The **TVG pump** series maximizes hydraulic efficiencies with its **closed impeller** design. These pump series are both particularly well suited for industrial washing applications of metal parts. Complete pump and plate assemblies, including discharge pipe and mounting plate are available upon request.

Applications

- Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 lees / solvents
 de-ionized water
 Kinematic viscosity
 ...90 SSU (...20 mm²/s)
 Pumping temperature
 30...194 °F (0...90 °C)

Construction

Pump body	CrNi-steel
Cover	CrNi-steel
Impeller	CrNi-steel
Shaft	CrNi-steel
Noise level	
TVG900	74 dBA
TVG1000	77 dBA



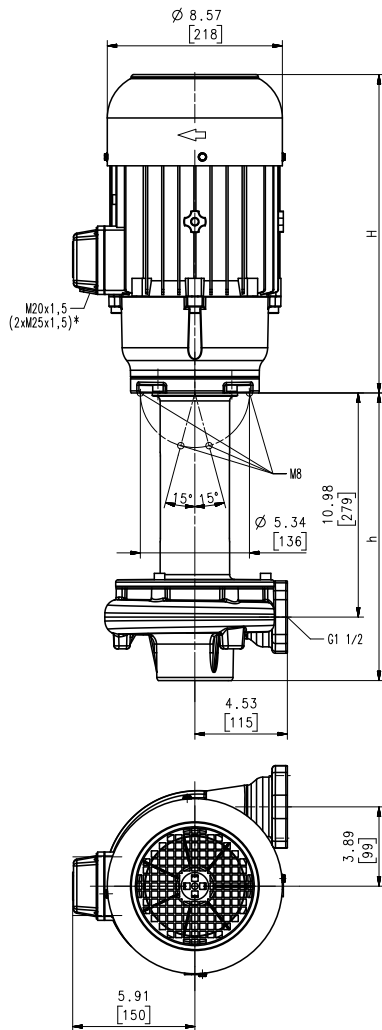
Stainless Steel Immersion Pumps

TVA900

60 Hz

Semi-open impellers

TVA900



Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TVA900S360	125/112	16.8	14.09	358	152.1	69	7.7	230	60	19.0	3520
	500/32	426					5.75	460	60	9.5	3520
580			22.76	578	165	75					
880			34.57	878	194	88					
1100			43.23	1098	207	94					



Stainless Steel Immersion Pumps

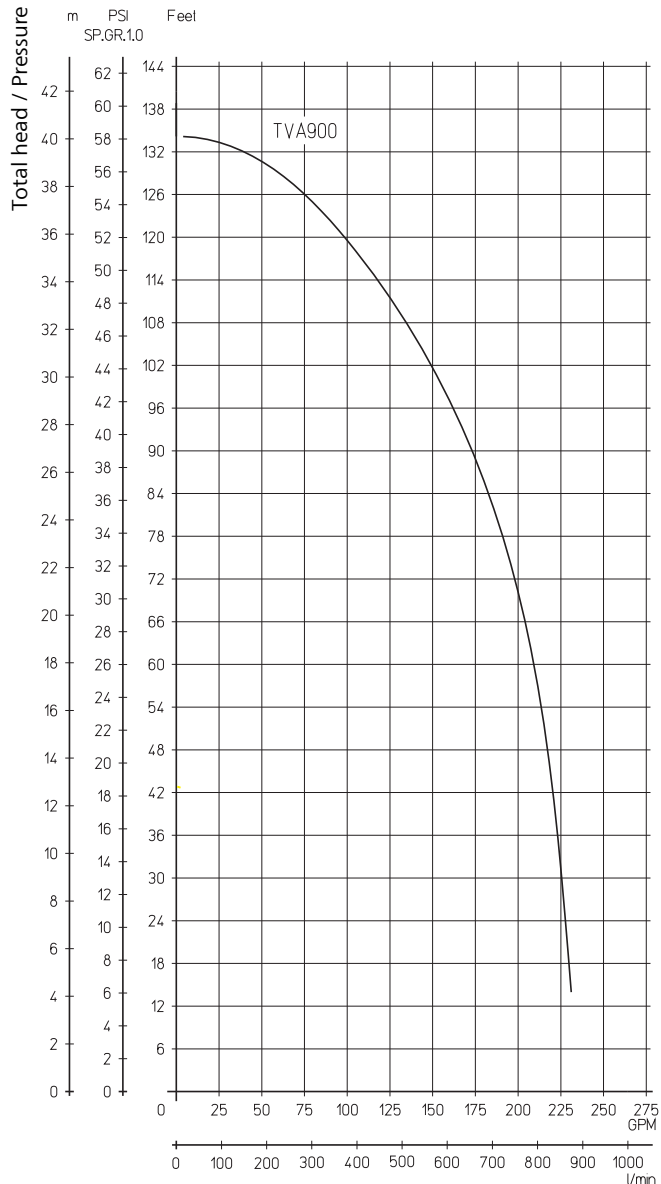
are centrifugal pumps of compact design with a **semi-open impeller** mounted directly onto the extended motor shaft. The TVA pump series achieves **very good hydraulic efficiencies** while being well suited for handling small metal chips and fines. This makes this pump series the perfect choice for industrial washing applications of metal parts. Complete pump and plate assemblies, including discharge pipe and mounting plate are available upon request.

Applications

- Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 lees / solvents
 de-ionized water
- Kinematic viscosity
 ...90 SSU (...20 mm²/s)
- Pumping temperature
 30...194 °F (0...90 °C)
- Max. chip to coolant ratio by weight:
 0.03 %

Construction

Pump body	CrNi-steel
Cover	CrNi-steel
Impeller	CrNi-steel
Shaft	CrNi-steel
Noise level TVA900	74 dBA



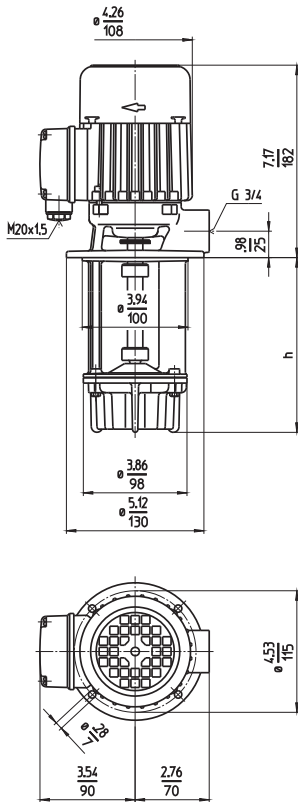
Quick Suctioning Immersion Pumps

TL50

Axial/semi-open impellers



TL50



Dimensions in Inches / mm

Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs	kg	AMPS	RPM					
TL50S110	13/12 40/4	7.2 182	4.72	120	13.2	6.0	0.3 0.22	208-230 460	60 60	0.95 0.55	3200 3200		
140			5.71	145	14.1	6.4							
190			7.68	195	14.6	6.6							
240			9.65	245	15.4	7.0							
290			11.61	295	16.1	7.3							
370			14.76	375	17.6	8.0							



Quick Suctioning Immersion Pumps

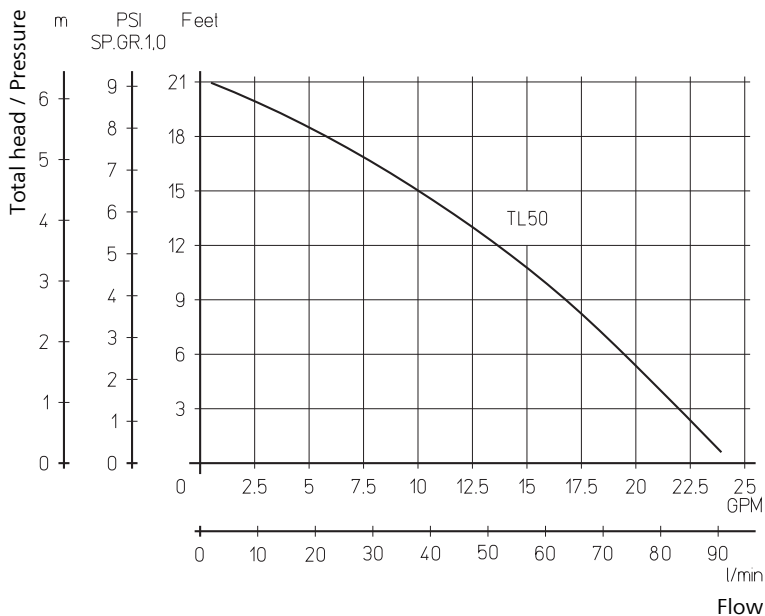
equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



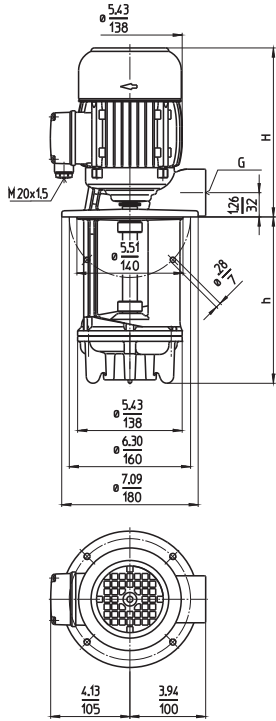
Quick Suctioning Immersion Pumps

TAL/SAL200...430

Axial/semi-open impellers

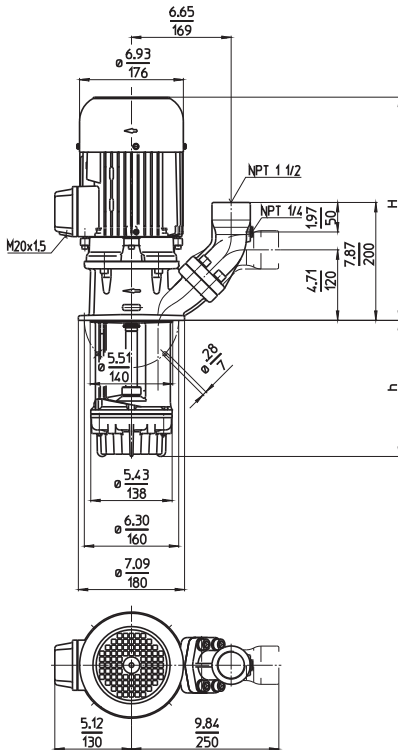


TAL200, TAL320



Type	Flow at head	Height	Depth of im- mersion		Thread	Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	G	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TAL200S140	60/10	8.8	5.51	140	G 1 ¼	29.8	13.5	0.75	208-230	60	2.70	3250
	300/2	223						0.55	460	60	1.45	3250
	220		8.66	220		30.9	14.0					
	290		11.42	290		33.1	15.0					
	370		14.57	370		35.3	16.0					
	460		18.11	460		37.5	17.0					
TAL320S140	70/24	11.5	5.51	140	G 1 ½	37.5	17.0	1.7	230	60	4.8	3440
	400/2	291						1.27	460	60	2.4	3440
	220		8.66	220		38.6	17.5					
	290		11.42	290		40.8	18.5					
	370		14.57	370		43.0	19.5					
	460		18.11	460		46.3	21.0					
SAL430S150	120/24	17.3	5.91	150		71.7	32.5	2.9	230	60	7.8	3500
	460/7	439						2.18	460	60	3.9	3500
	230		9.06	230		73.9	33.5					
	300		11.81	300		76.1	34.5					
	380		14.96	380								
	470		18.50	470		78.3	35.5					
580		22.83	580		80.5	36.5						

SAL430



Dimensions in Inches / mm



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

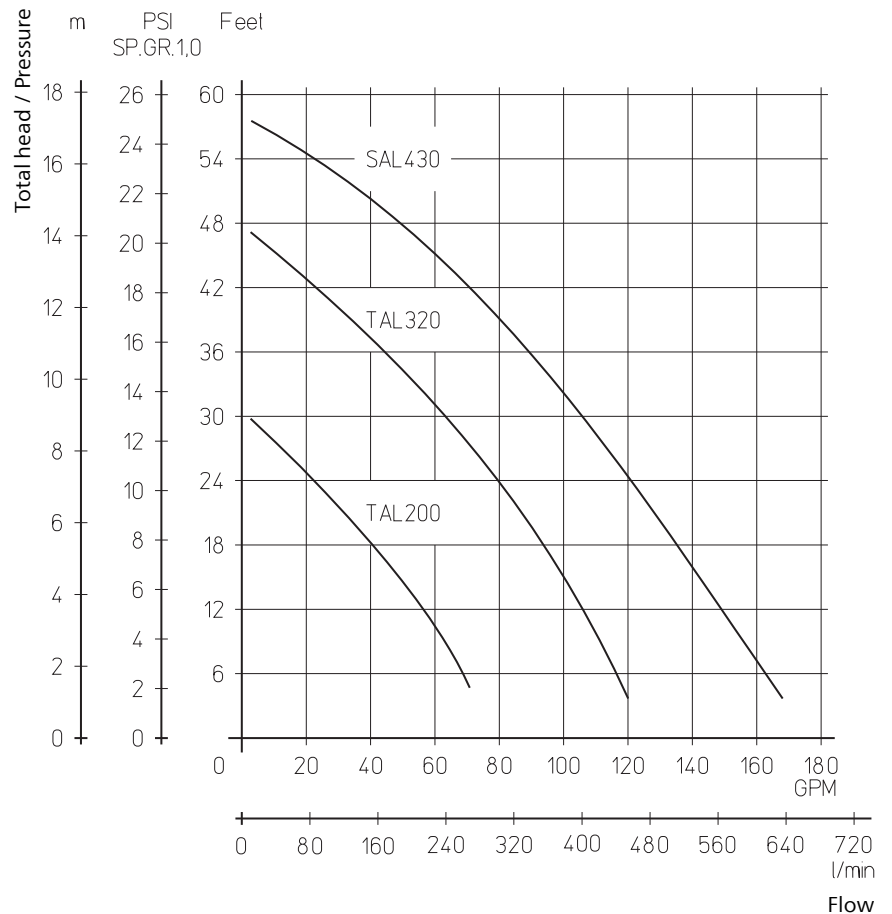
The STA pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



Quick Suctioning Immersion Pumps

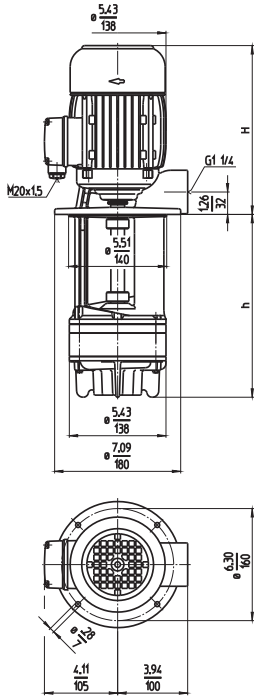


TL/STL141...146

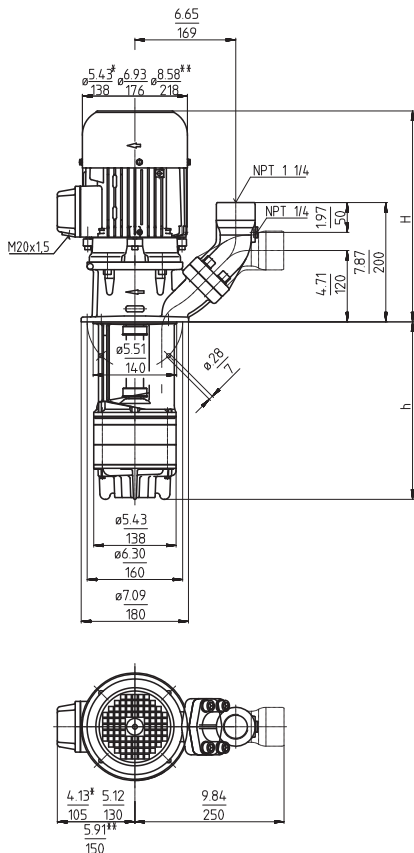
Axial/semi-open impellers



TL141, 142



STL141...146



Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet	H inch	H inch	h mm	Lbs	kg	AMPS	RPM					
TL141S150	30/28	8.8	5.91	150	30.9	14.0	0.75	208-230	60	2.70	3250		
230			9.06	230	32.0	14.5	0.55	460	60	1.45	3250		
300			11.81	300	35.3	16.0							
380			14.96	380	36.4	16.5							
470			18.50	470	39.7	18.0							
580			22.83	580	41.9	19.0							
TL142S180	30/58	11.5	7.09	180	41.9	19.0	1.7	230	60	4.8	3440		
260			10.24	260	43.0	19.5	1.27	460	60	2.4	3440		
330			12.99	330	46.3	21.0							
410			16.14	410	48.5	22.0							
500			19.69	500	52.9	24.0							
610			24.02	610	55.1	25.0							
STL141S150	30/28	11.5	5.91	150	46.3	21.0	0.73	208-230	60	2.8	3300		
230			9.06	230	47.4	21.5	0.54	460	60	1.4	3300		
300			11.81	300	49.6	22.5							
380			14.96	380	50.7	23.0							
470			18.50	470	54.0	24.5							
580			22.83	580	57.3	26.0							
STL142S180	30/58	14.2	7.09	180	55.1	25	1.7	230	60	4.8	3440		
260			10.24	260	57.3	26	1.27	460	60	2.4	3440		
330			12.99	330	59.5	27							
410			16.14	410	63.9	29							
500			19.69	500	66.2	30							
610			24.02	610	70.6	32							
STL143S220	30/88	16.0	8.46	215	79.4	36	2.6	230	60	7.0	3480		
300			11.61	295	81.6	37	1.95	460	60	3.5	3480		
370			14.37	365	83.8	38							
450			17.52	445	86.0	39							
540			21.06	535	88.2	40							
650			25.39	645	90.4	41							
STL144S250	30/118	17.3	9.84	250	90.4	41	3.4	230	60	8.8	3480		
330			12.99	330	92.6	42	2.55	460	60	4.4	3480		
400			15.75	400	94.8	43							
480			18.90	480	97.0	44							
570			22.44	570	101.4	46							
680			26.77	680	103.6	47							
STL145S300	30/148	17.3	11.81	300	101.4	46	3.9	230	60	10.2	3480		
380			14.96	380	103.6	47	2.94	460	60	5.1	3480		
450			17.72	450	105.8	48							
530			20.87	530	108.0	49							
620			24.41	620	110.2	50							
730			28.74	730	114.7	52							
STL146S330	30/180	18.8	13.19	335	125.7	57	5.1	230	60	12.8	3520		
410			16.34	415	127.9	58	3.8	460	60	6.4	3520		
480			19.09	485	132.3	60							
560			22.24	565	134.5	61							

Dimensions in Inches / mm
 *) Dimensions for STL141, 142
 **) Dimensions for STL146



Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

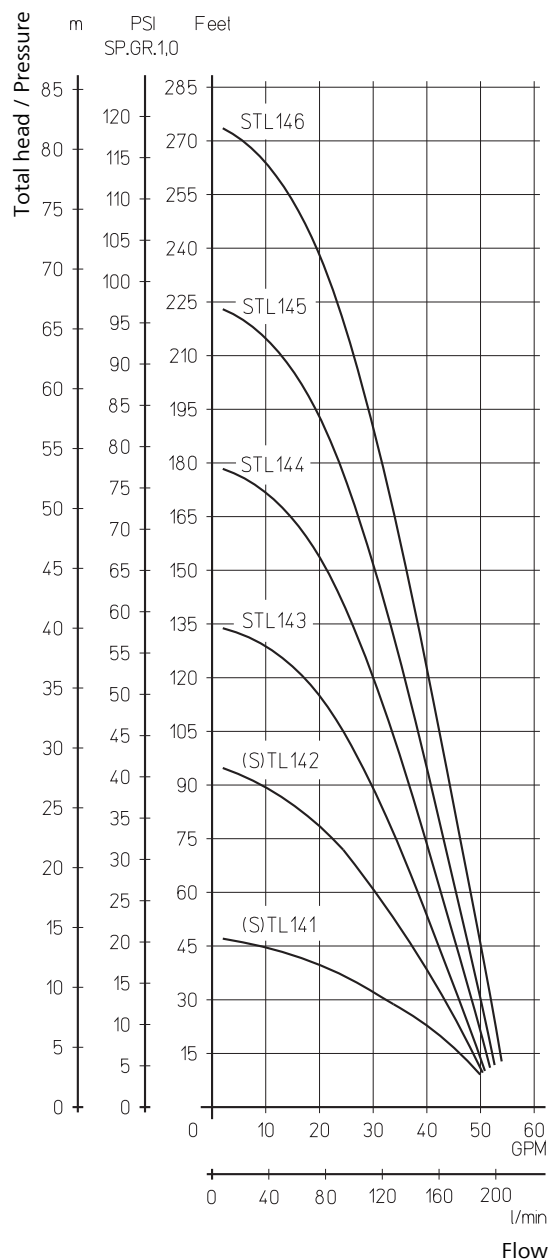
The STL pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



Quick Suctioning Immersion Pumps

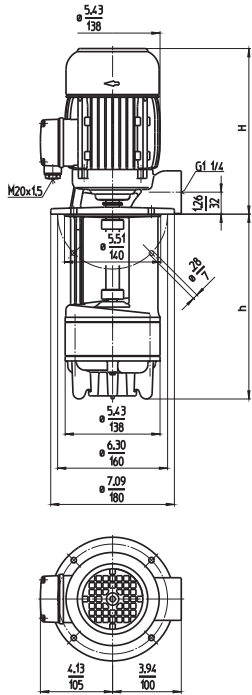


TAL/SAL301...306

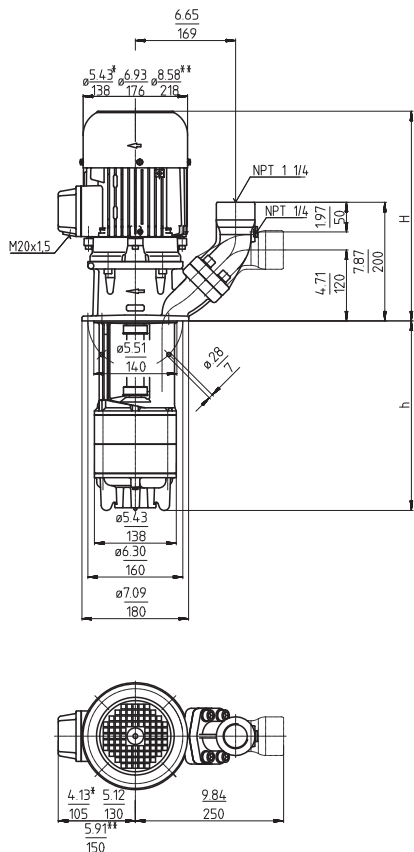


Axial/semi-open impellers

TAL302



SAL301...306



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current Speed	
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
TAL302S190	40/43	11.5	7.48	190	45.2	20.5	1.7	230	60	4.8	3440
	270		10.63	270	46.3	21.0	1.27	460	60	2.4	3440
	340		13.39	340	47.4	21.5					
	420		16.54	420	49.6	22.5					
	510		20.08	510	52.9	24.0					
	620		24.41	620	56.2	25.5					
SAL301S140	40/28	11.5	5.51	140	44.1	20	0.73	208-230	60	2.8	3300
	220		8.66	220	46.3	21	0.54	460	60	1.4	3300
	290		11.42	290	48.5	22					
	370		14.57	370	50.7	23					
	460		18.11	460	55.1	25					
	570		22.44	570	63.9	29					
SAL302S190	40/43	14.2	7.48	190	58.4	26.5	1.7	230	60	4.8	3440
	270		10.63	270	60.6	27.5	1.27	460	60	2.4	3440
	340		13.39	340	62.8	28.5					
	420		16.54	420	66.2	30.0					
	510		20.08	510	69.5	31.5					
	620				73.9	33.5					
SAL303S240	40/80	15.0	9.45	240	81.6	37	2.3	230	60	6.2	3470
	320		12.60	320	83.8	38	1.75	460	60	3.1	3470
	390		15.35	390	86.0	39					
	470		18.50	470	88.2	40					
	560		22.05	560	90.4	41					
	670		26.38	670	94.8	43					
	870		34.25	870	108.0	49					
	1020		40.16	1020	112.5	51					
SAL304S290	40/108	17.3	11.42	290	101.4	46	2.9	230	60	7.8	3500
	370		14.57	370	103.6	47	2.18	460	60	3.9	3500
	440		17.32	440	105.8	48					
	520		20.47	520	110.2	50					
	610		24.02	610	112.5	51					
	720		28.35	720	116.9	53					
	920		36.22	920	130.1	59					
	1070		42.13	1070	134.5	61					
SAL305S340	40/140	17.3	13.39	340	112.5	51	3.9	230	60	10.2	3480
	420		16.54	420	114.7	52	2.94	460	60	5.1	3480
	490		19.29	490	116.9	53					
	570		22.44	570	119.1	54					
	660		25.98	660	121.3	55					
	770		30.31	770	125.7	57					
	970		38.19	970	141.1	64					
	1120		44.09	1120	145.5	66					
SAL306S390	40/170	18.8	15.35	390	141.1	64	5.1	230	60	12.8	3520
	470		18.50	470	143.3	65	3.8	460	60	6.4	3520
	540		21.26	540	145.5	66					
	620		24.41	620	147.7	67					
	710		27.95	710	149.9	68					
	820		32.28	820	154.4	70					
1020		40.16	1020	170	77						

Dimensions in Inches / mm
 *) Dimensions SAL301, 302
 **) Dimensions SAL306



Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

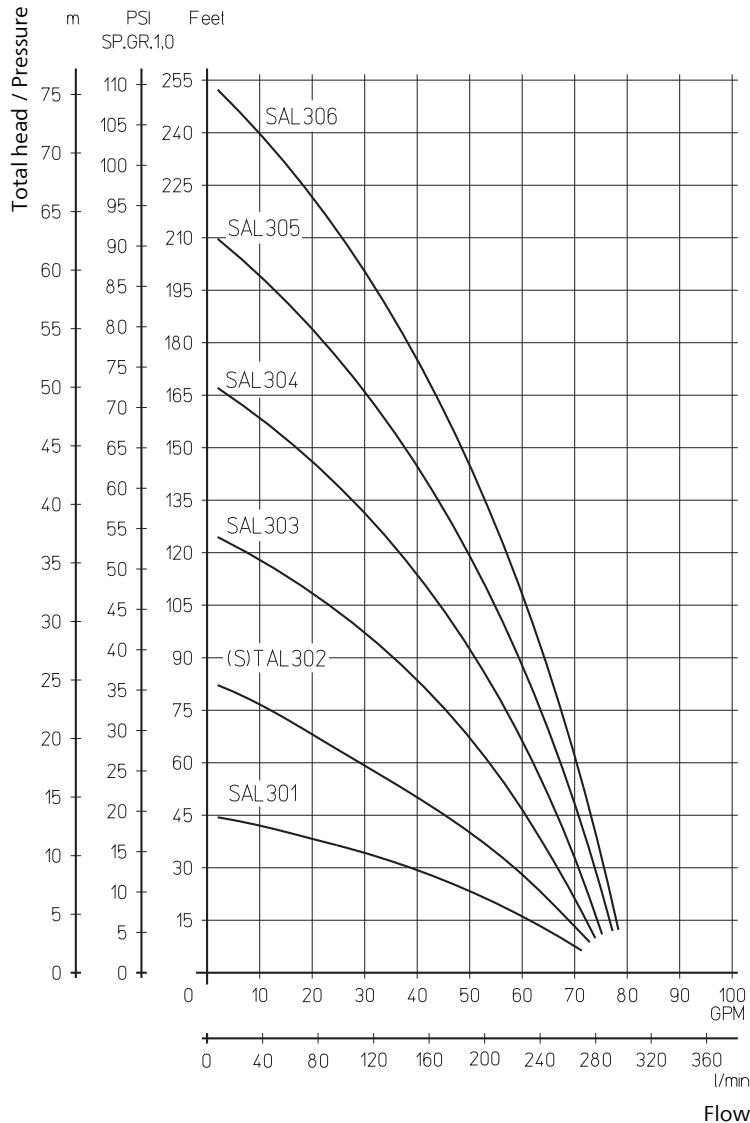
The SAL pumps are equipped with the user-friendly 45 degree **(SAE) flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



Quick Suctioning Immersion Pumps

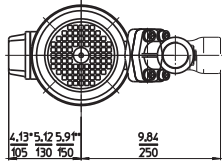
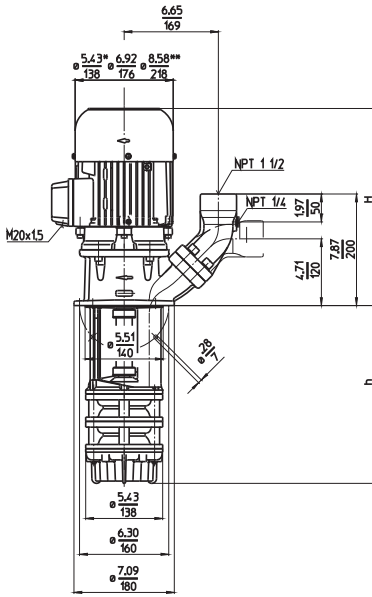


SAL401...407



Axial/semi-open impellers

SAL401...407



Dimensions in Inches / mm

*) Dimensions SAL401

**) Dimensions SAL405, 406, 407

Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet	H inch	H inch	h mm	Lbs	kg	AMPS	RPM					
SAL401S140	60/30	13.1	5.51	140	48.5	22	1.3	230	60	4	3450		
220			8.66	220	50.7	23	0.98	460	60	2	3450		
290			11.42	290	52.9	24							
370			14.57	370	55.1	25							
460			18.11	460	59.5	27							
570			22.44	570	61.7	28							
770			30.31	770	77.2	35							
920			36.22	920	81.6	37							
SAL402S190	60/45	15.0	7.48	190	70.6	32	2	230	60	5.4	3500		
270			10.63	270	72.8	33	1.49	460	60	2.7	3500		
340			13.39	340	75.0	34							
420			16.54	420	77.2	35							
510			20.08	510	81.6	37							
620			24.41	620	83.8	38							
820			32.28	820	99.2	45							
970			38.19	970	103.6	47							
SAL403S240	60/68	17.3	9.45	240	90.4	41	2.9	230	60	7.8	3500		
320			12.60	320	92.6	42	2.18	460	60	3.9	3500		
390			15.35	390	94.8	43							
470			18.50	470	97.0	44							
560			22.05	560	99.2	45							
670			26.38	670	103.6	47							
870			34.25	870	116.9	53							
1020			40.16	1020	123.5	56							
SAL404S290	60/98	17.3	11.42	290	99.2	45	3.9	230	60	10.2	3480		
370			14.57	370	101.4	46	2.94	460	60	5.1	3480		
440			17.32	440	103.6	47							
520			20.47	520	108.0	49							
610			24.02	610	110.2	50							
720			28.35	720	114.7	52							
920			36.22	920	127.9	58							
1070			42.13	1070	132.3	60							
SAL405S340	60/120	18.8	13.39	340	127.9	58	5.1	230	60	12.8	3520		
420			16.54	420	130.1	59	3.8	460	60	6.4	3520		
490			19.29	490	132.3	60							
570			22.44	570	134.5	61							
660			25.98	660	136.7	62							
770			30.31	770	143.3	65							
970			38.19	970	156.6	71							
1120			44.09	1120	161.0	73							
SAL406S390	60/148	18.8	15.35	390	132.3	60	6.1	230	60	15.8	3520		
470			18.50	470	136.7	62	4.55	460	60	7.9	3520		
540			21.26	540	138.9	63							
620			24.41	620	141.1	64							
710			27.95	710	143.3	65							
820			32.28	820	147.7	67							
1020			40.16	1020	163	74							
SAL407S440	60/175	20.0	17.32	440	158.8	72	7.7	230	60	19.0	3520		
520			20.47	520	161.0	73	5.75	460	60	9.5	3520		
590			23.23	590	163	74							
670			26.38	670	168	76							
760			29.92	760	170	77							
870			34.25	870	174	79							



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

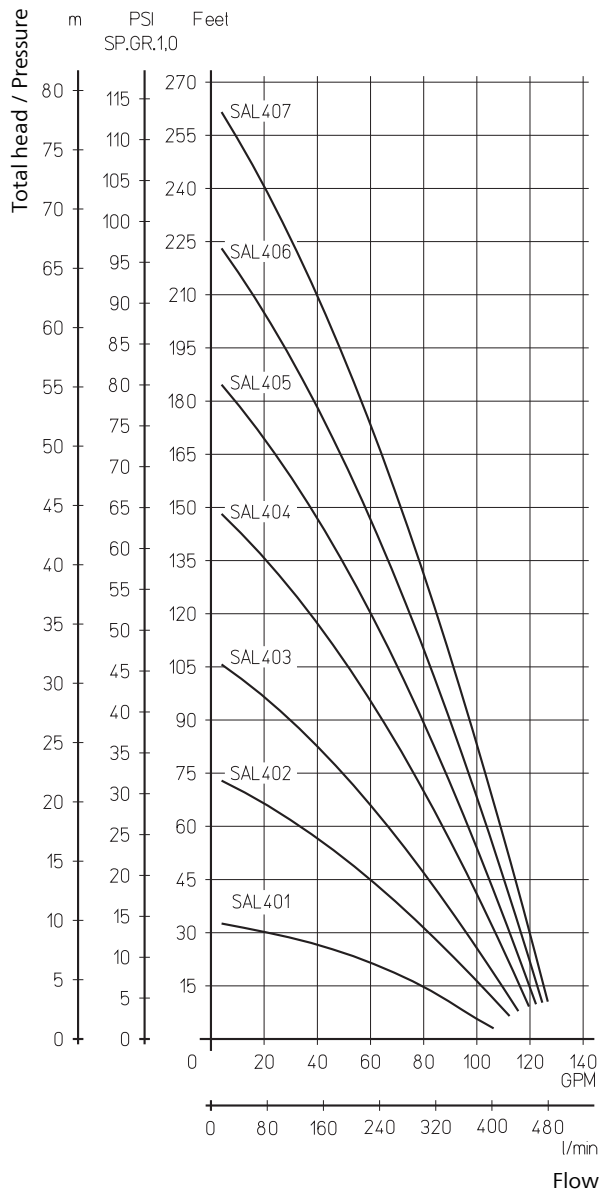
The SAL pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



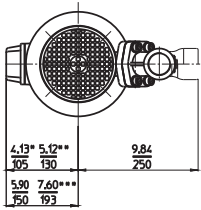
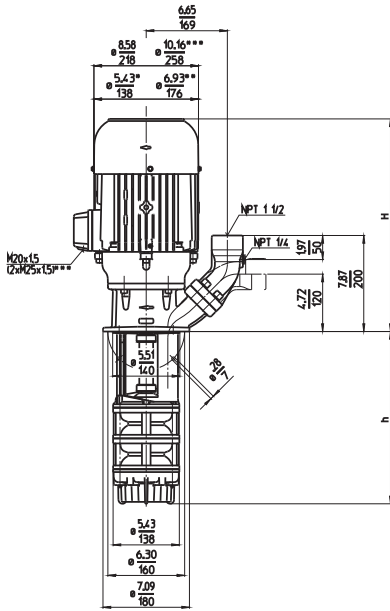
Quick Suctioning Immersion Pumps

SAL601...608

Axial/semi-open impellers



SAL601...608



Dimensions in Inches / mm

- *) Dimensions SAL601
- ***) Dimensions SAL602
- ****) Dimensions SAL607, 608

Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet	H inch	h inch	h mm	Lbs	kg	AMPS	RPM					
SAL601S150	100/14	14.2	5.91	150	51.8	23.5	1.7	230	60	4.8	3440		
	230		9.06	230	54.0	24.5	1.27	460	60	2.4	3440		
	300		11.81	300	56.2	25.5							
	380		14.96	380	59.5	27.0							
	470		18.50	470	61.7	28.0							
	580		22.83	580	66.2	30.0							
	780		30.71	780	79.4	36.0							
930		36.61	930	83.8	38.0								
SAL602S220	100/40	17.3	8.46	215	88.2	40	3.4	230	60	8.8	3480		
	300		11.61	295	90.4	41	2.55	460	60	4.4	3480		
	370		14.37	365	92.6	42							
	450		17.52	445	94.8	43							
	540		21.06	535	99.2	45							
	650		25.39	645	103.6	47							
	850		33.27	845	119.1	54							
1000		39.17	995	121.3	55								
SAL603S280	100/60	18.8	11.02	280	119.1	54	5.1	230	60	12.8	3520		
	360		14.17	360	121.3	55	3.8	460	60	6.4	3520		
	430		16.93	430	123.5	56							
	510		20.08	510	125.7	57							
	600		23.62	600	130.1	59							
	710		27.95	710	134.5	61							
	910		35.83	910	147.7	67							
1060		41.73	1060	152.1	69								
SAL604S350	100/90	20.0	13.58	345	138.9	63	7.7	230	60	19.0	3520		
	430		16.73	425	141.1	64	5.75	460	60	9.5	3520		
	500		19.49	495	143.3	65							
	580		22.64	575	147.7	67							
	670		26.18	665	149.9	68							
	780		30.71	780	152.1	69							
	980		38.39	975	168	76							
1130		44.29	1125	172	78								
SAL605S410	100/110	20.0	16.14	410	145.5	66	8.4	230	60	20.8	3510		
	490		19.29	490	147.7	67	6.3	460	60	10.4	3510		
	560		22.05	560	149.9	68							
	640		25.20	640	152.1	69							
	730		28.74	730	156.6	71							
	840		33.07	840	161.0	73							
	1040		40.94	1040	174	79							
SAL607S540	100/165	23.1	21.26	540	227	103	11.5	230	60	27.8	3550		
	620		24.41	620	229	104	8.6	460	60	13.9	3550		
	690		27.17	690	232	105							
	770		30.31	770	234	106							
	860		33.86	860	238	108							
	970		38.19	970	240	109							
SAL608S600	100/205	23.1	23.62	600	249	113	13.8	230	60	31.6	3550		
	680		26.77	680	251	114	10.3	460	60	15.8	3550		
	750		29.53	750	254	115							
	830		32.68	830	256	116							
	920		36.22	920	258	117							
	1030		40.55	1030	265	120							



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SAL pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

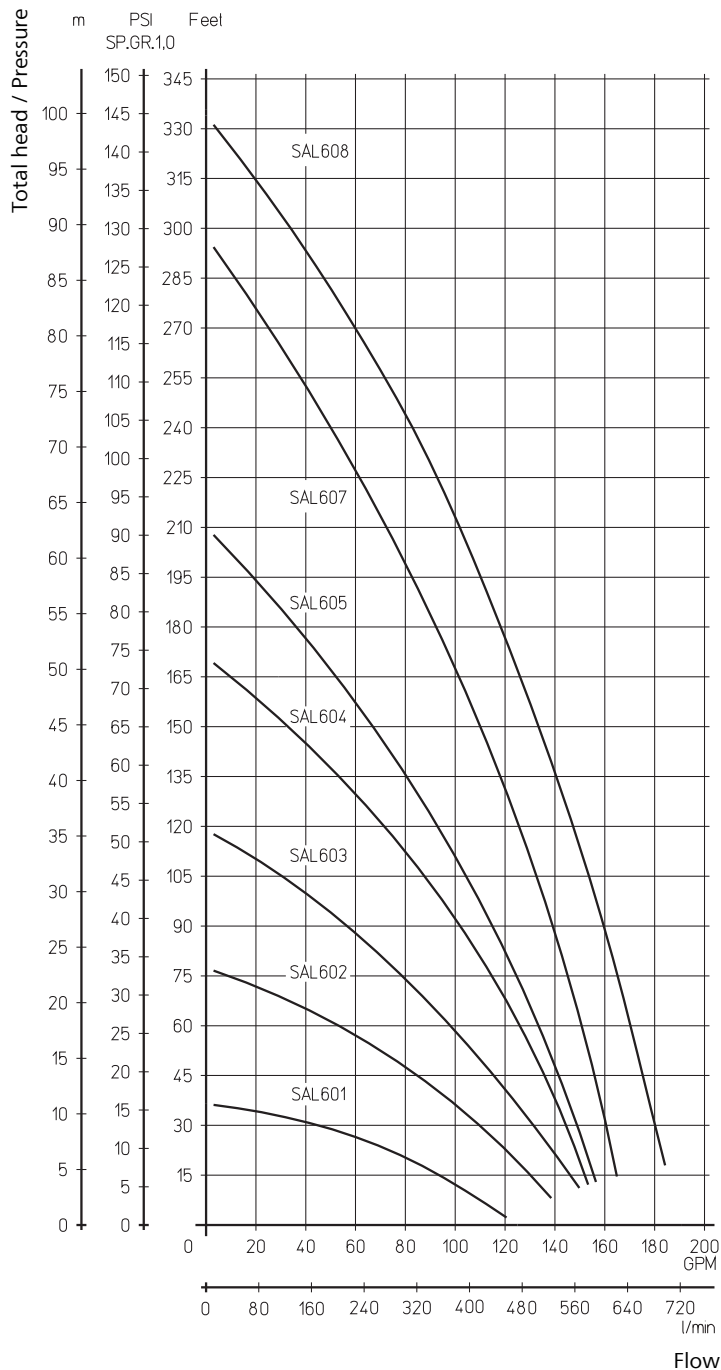


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
Shaft	steel
Optional: Impeller radial	cast steel



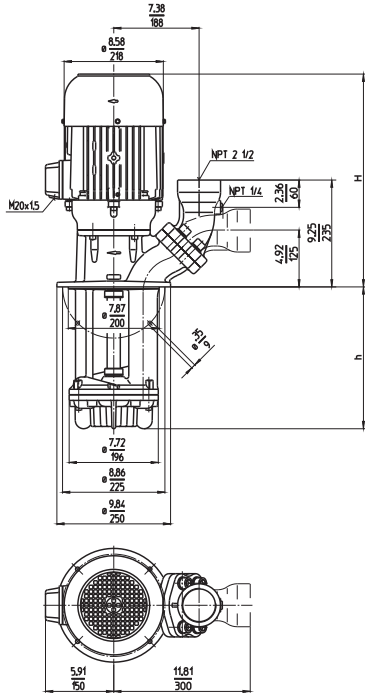
Quick Suctioning Immersion Pumps

SAL630...1130

Axial/semi-open impellers

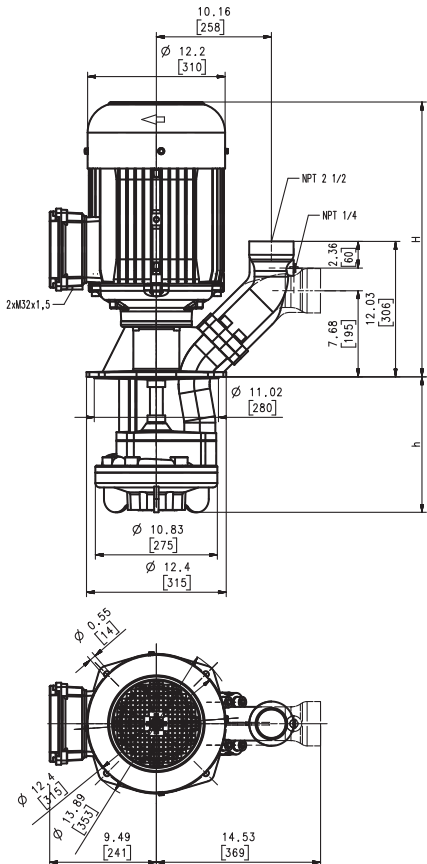


SAL630, 830



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SAL630S220	150/75	21.0	8.66	220	149.9	68	7.7	230	60	19.0	3520
	600/22	533					5.75	460	60	9.5	3520
	320		12.60	320	156.6	71					
	450		17.72	450	165	75					
	570		22.44	570	176	80					
	770		30.31	770	198	90					
1000		39.37	1000	214	97						
SAL830S230	200/72	21.0	9.06	230	154.4	70	7.7	230	60	19.0	3520
	800/22	533					5.75	460	60	9.5	3520
	330		12.99	330	161.0	73					
	460		18.11	460	170	77					
	580		22.83	580	181	82					
	780		30.71	780	203	92					
1010		39.76	1010	218	99						
1130		18.4	44.49	1130	225	102					
SAL1130S310	400/75	24.4	12.20	310	326	148	16.9	230	60	39.2	3560
	1400/24	620					12.6	460	60	19.6	3560
	440		17.32	440	331	150					
	560		22.05	560	346	157					
	810		31.89	810	384	174					
1060		41.73	1060	390	177						

SAL1130



Discharge port with NPT 2 inches available upon request.
Dimensions in Inches / mm



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

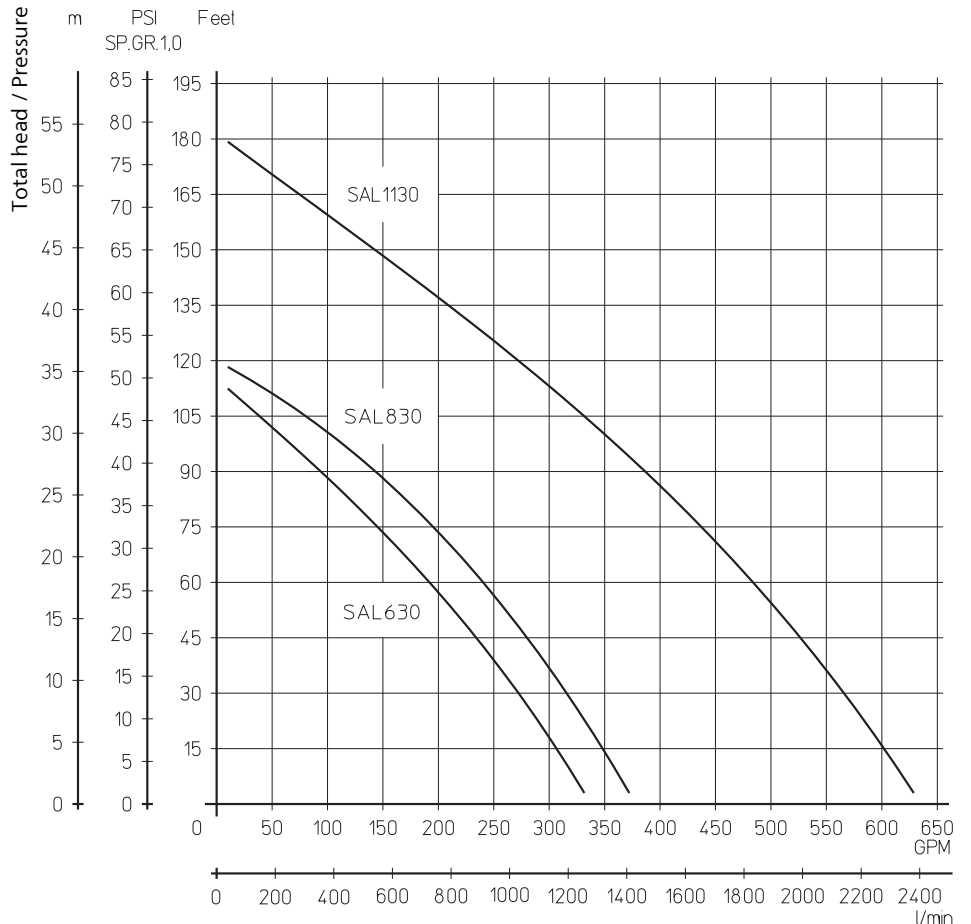
The SAL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

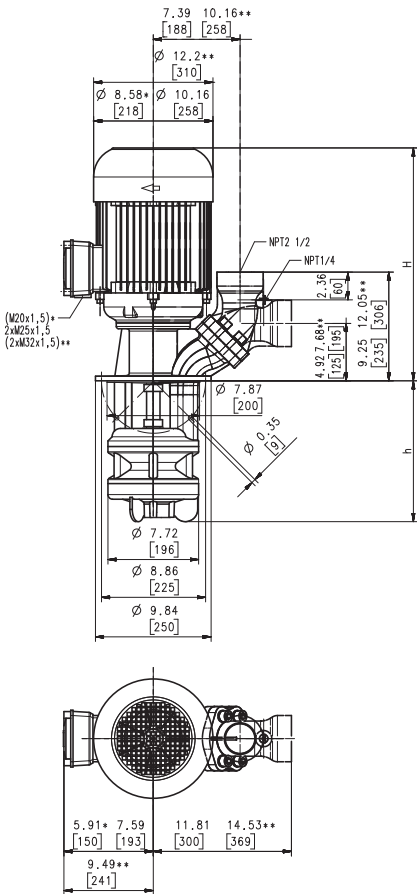


SAL901...904



Axial/semi-open impellers

SAL901, 902 SAL903, 904



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SAL901

***) Dimensions SAL904

Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SAL901S220	175/43	19.8	8.66	220	136.7	62	5.1	230	60	12.8	3520
		700/12	503				3.8	460	60	6.4	3520
	320		12.60	320	145.5	66					
	450		17.72	450	152.1	69					
	570		22.44	570	161.0	73					
	770		30.31	770	190	86					
	1000		39.37	1000	203	92					
1120		44.09	1120	214	97						
SAL902S290	175/92	22.6	11.42	290	218	99	9.2	230	60	21.2	3550
		700/26	574				6.9	460	60	10.6	3550
	390		15.35	390	227	103					
	520		20.47	520	234	106					
	640		25.20	640	240	109					
	840		33.07	840	269	122					
	1070		42.13	1070	282	128					
1190		46.85	1190	295	134						
SAL903S360	175/135	24.1	14.17	360	267	121	13.8	230	60	31.6	3550
		700/37	612				10.3	460	60	15.8	3550
	460		18.11	460	273	124					
	590		23.23	590	280	127					
	710		27.95	710	289	131					
	910		35.83	910	318	144					
	1140		44.88	1140	331	150					
SAL904S430	175/180	24.4	16.93	430	333	151	16.9	230	60	39.2	3560
		700/52	620				12.6	460	60	19.6	3560
	530		20.87	530	340	154					
	660		25.98	660	351	159					
	780		30.71	780	357	162					
	980		38.58	980	390	177					
	1210		47.64	1210	399	181					



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

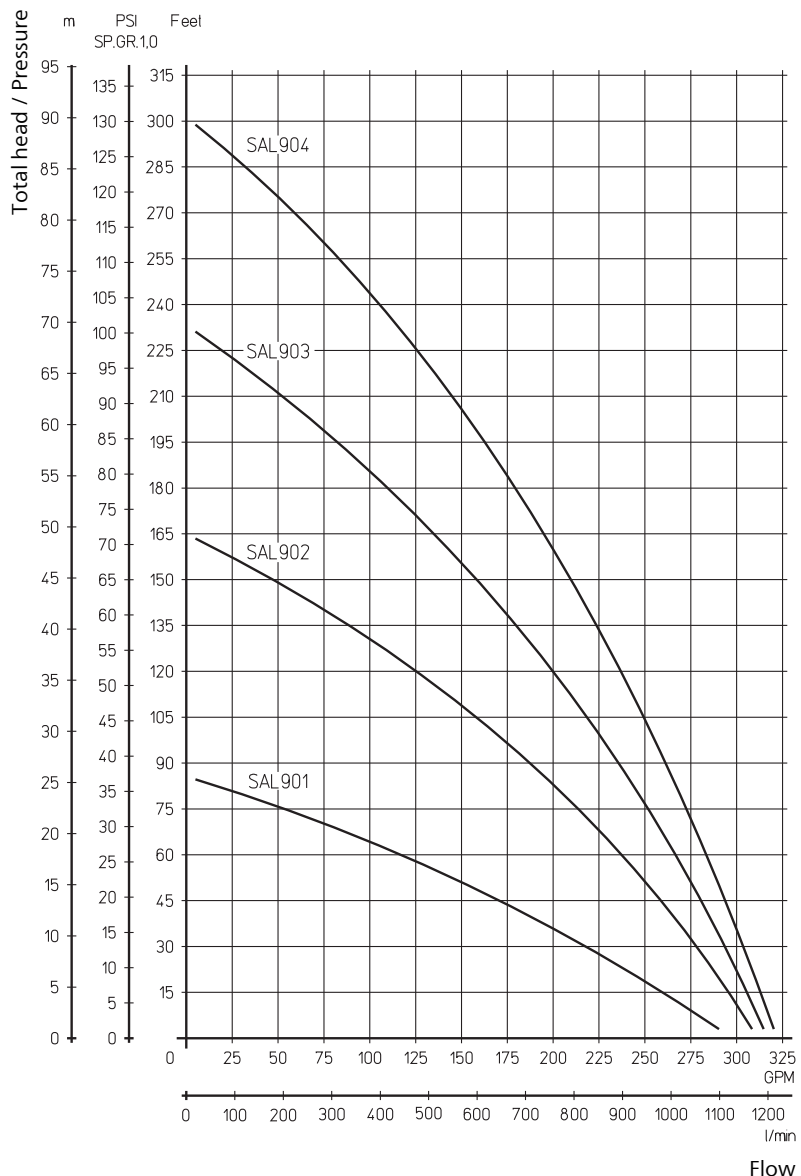
The SAL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

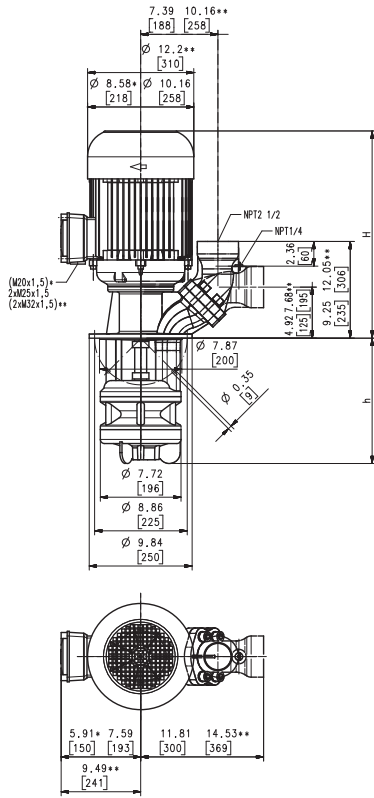


SAL1001...1006

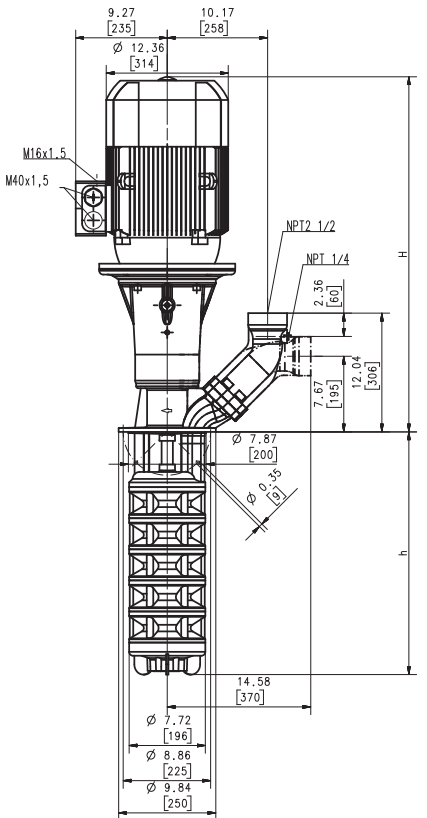


Axial/semi-open impellers

SAL1001...1004



SAL1006



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage 3~	Frequency	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SAL1001S230	200/38	19.8	9.06	230	141.1	64	5.1	230	60	12.8	3520
		800/10	503				3.8	460	60	6.4	3520
	330		12.99	330	147.7	67					
	460		18.11	460	154.4	70					
	580		22.83	580	163	74					
	780		30.71	780	190	86					
SAL1002S310	200/74	22.6	12.20	310	220	100	9.2	230	60	21.2	3550
		800/21	574				6.9	460	60	10.6	3550
	410		16.14	410	227	103					
	540		21.26	540	236	107					
	660		25.98	660	245	111					
	860		33.86	860	271	123					
SAL1003S390	200/115	24.1	15.35	390	269	122	13.8	230	60	31.6	3550
		800/32	612				10.3	460	60	15.8	3550
	490		19.29	490	276	125					
	620		24.41	620	284	129					
	740		29.13	740	293	133					
	940		37.01	940	322	146					
SAL1004S470	200/160	24.4	18.50	470	340	154	20.1	230	60	48.2	3560
		800/45	620				15.0	460	60	24.1	3560
	570		22.44	570	348	158					
	700		27.56	700	353	160					
	820		32.28	820	362	164					
	1020		40.16	1020	388	176					
SAL1006S630	200/265	38.3	24.80	630	448	203	25	460	60	28	3560
		800/76	974				18.5				
	730		28.74	730	456	207					
	860		33.86	860	465	211					
	980		38.58	980	474	215					

Dimensions in Inches / mm
 *) Dimensions SAL1001
 **) Dimensions SAL1004
 Discharge port with NPT 2 inches available upon request.



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SAL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

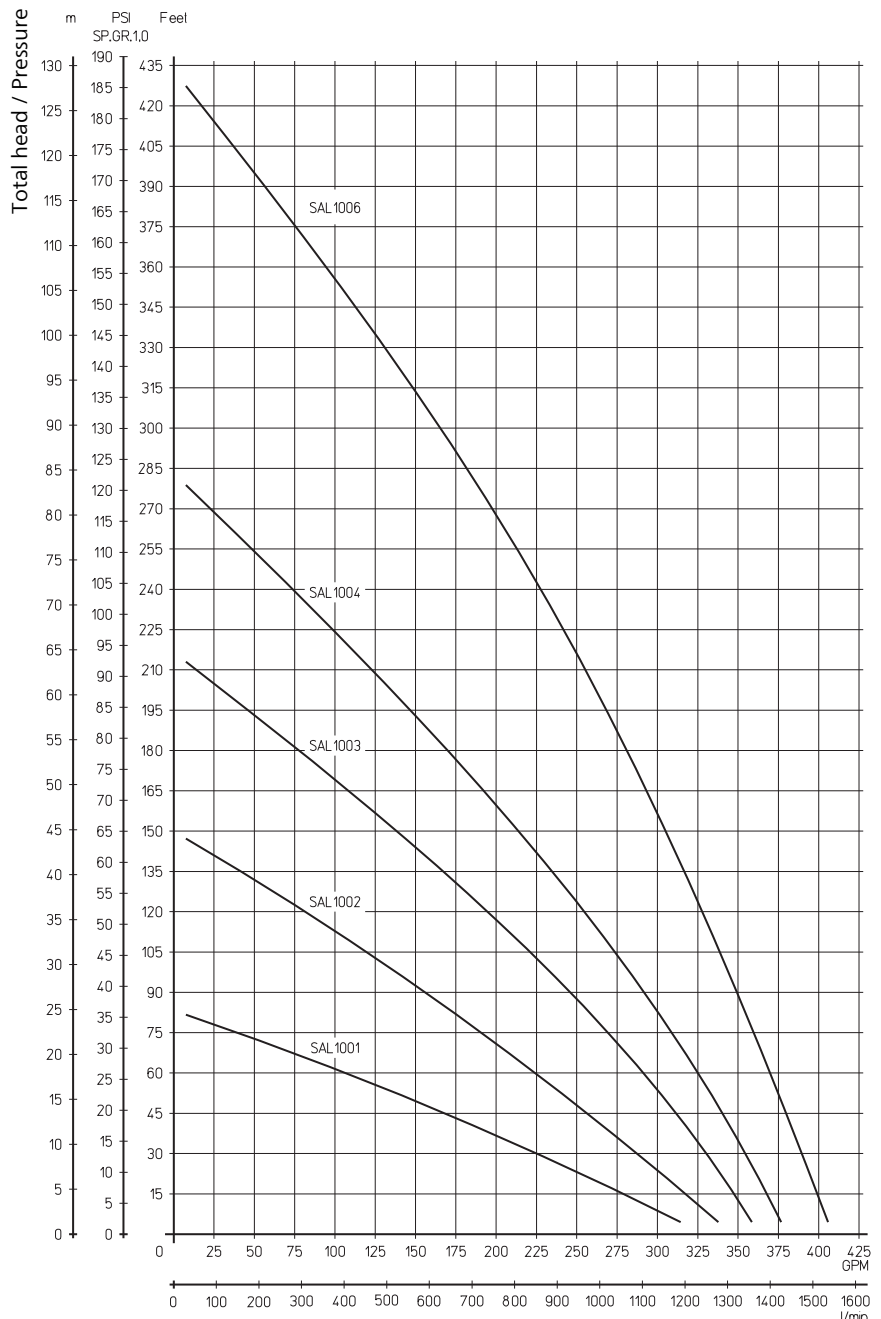


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



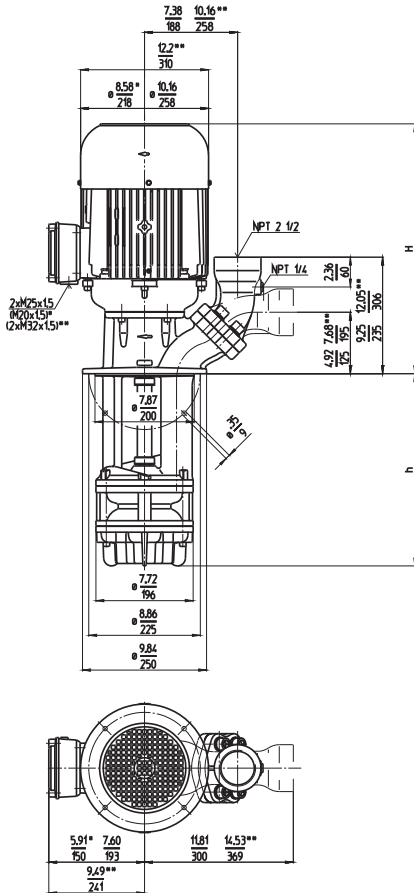
Quick Suctioning Immersion Pumps

SAL1301...1303

Axial/semi-open impellers



SAL1301, 1302 SAL1303



Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SAL1301S230	250/32	21.0	9.06	230	152.1	69	7.7	230	60	19.0	3520
	900/11	533					5.75	460	60	9.5	3520
	330		12.99	330	158.8	72					
	460		18.11	460	168	76					
	580		22.83	580	179	81					
	780		30.71	780	201	91					
	1010		39.76	1010	216	98					
1130		44.49	1130	223	101						
SAL1302S310	250/82	24.1	12.20	310	238	108	11.5	230	60	27.8	3550
	900/26	612					8.6	460	60	13.9	3550
	410		16.14	410	243	110					
	540		21.26	540	249	113					
	660		25.98	660	260	118					
	860		33.86	860	287	130					
	1090		42.91	1090	304	138					
SAL1303S390	250/130	24.4	15.35	390	315	143	16.9	230	60	39.2	3560
	900/40	620					12.6	460	60	19.6	3560
	490		19.29	490	324	147					
	620		24.41	620	333	151					
	740		29.13	740	342	155					
	940		37.01	940	368	167					
	1170		46.06	1170	384	174					

Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SAL1301

**) Dimensions SAL1303



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

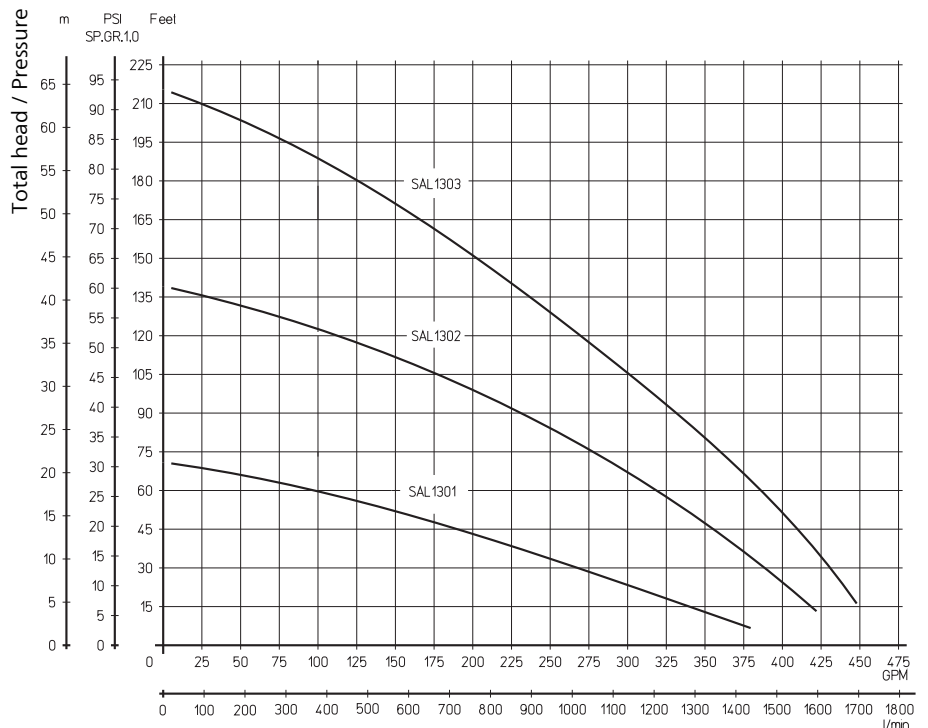
The SAL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



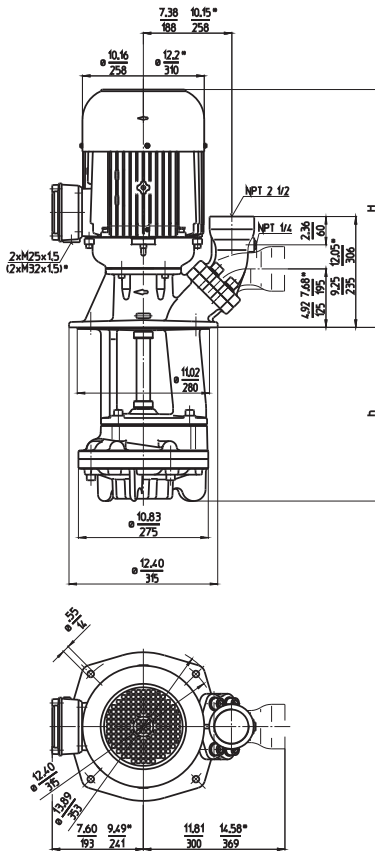
Quick Suctioning Immersion Pumps

SAL1600...2500

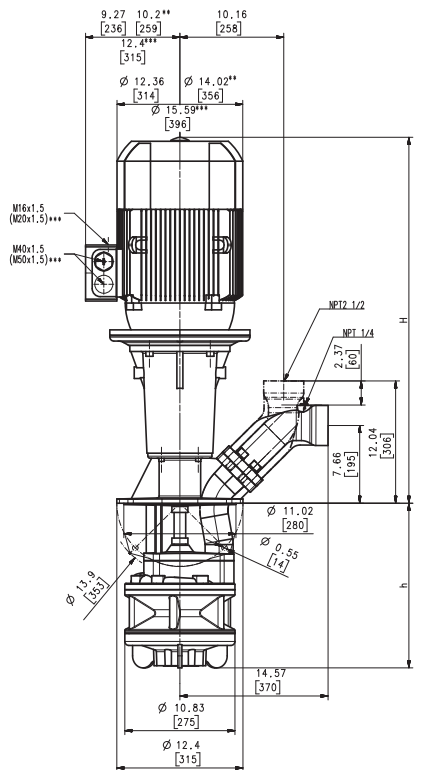
Axial/semi-open impellers



SAL1600...2000



SAL1602...2500



Type	Flow at head	Height	Depth of immersion		Weight		Power	Voltage	Frequency	Current Speed	
	GPM / Feet l/min / m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SAL1600S310	350/55	24.1	12.20	310	295	134	13.8	230	60	31.6	3550
	1300/17	612					10.3	460	60	15.8	3550
	440		17.32	440	300	136					
	560		22.05	560	315	143					
	810		31.89	810	353	160					
1060		41.73	1060	375	170						
SAL2000S310	400/75	24.4	12.20	310	348	158	16.9	230	60	39.2	3560
	1600/21	620					12.6	460	60	19.6	3560
	440		17.32	440	353	160					
	560		22.05	560	368	167					
	810		31.89	810	406	184					
1060		41.73	1060	419	190						
SAL1602S420	350/118	38.3	16.54	420	507	230	25	460	60	28	3560
	1300/36	974					18.5				
	550		21.65	550	520	236					
	670		26.38	670	529	240					
	920		36.22	920	545	247					
1170		46.06	1170	553	251						
SAL2002S420	400/158	40.6	16.54	420	551	250	40	460	60	47	3560
	1600/45	1032					30.0				
	550		21.65	550	564	256					
	670		26.38	670	573	260					
	920		36.22	920	589	267					
1170		46.06	1170	598	271						
SAL2500S340	500/105	39.7	13.39	340	443	201	30	460	60	34	3560
	2000/30	1009					22.0				
	470		18.50	470	454	206					
	590		23.23	590	465	211					
	840		33.07	840	503	228					
1090		42.91	1090	509	231						

Dimensions in Inches / mm
Discharge port with NPT 2 inches available upon request.

- *) Dimensions SAL2000
- **) Dimensions SAL2500
- ***) Dimensions SAL2002



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely air entrained fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

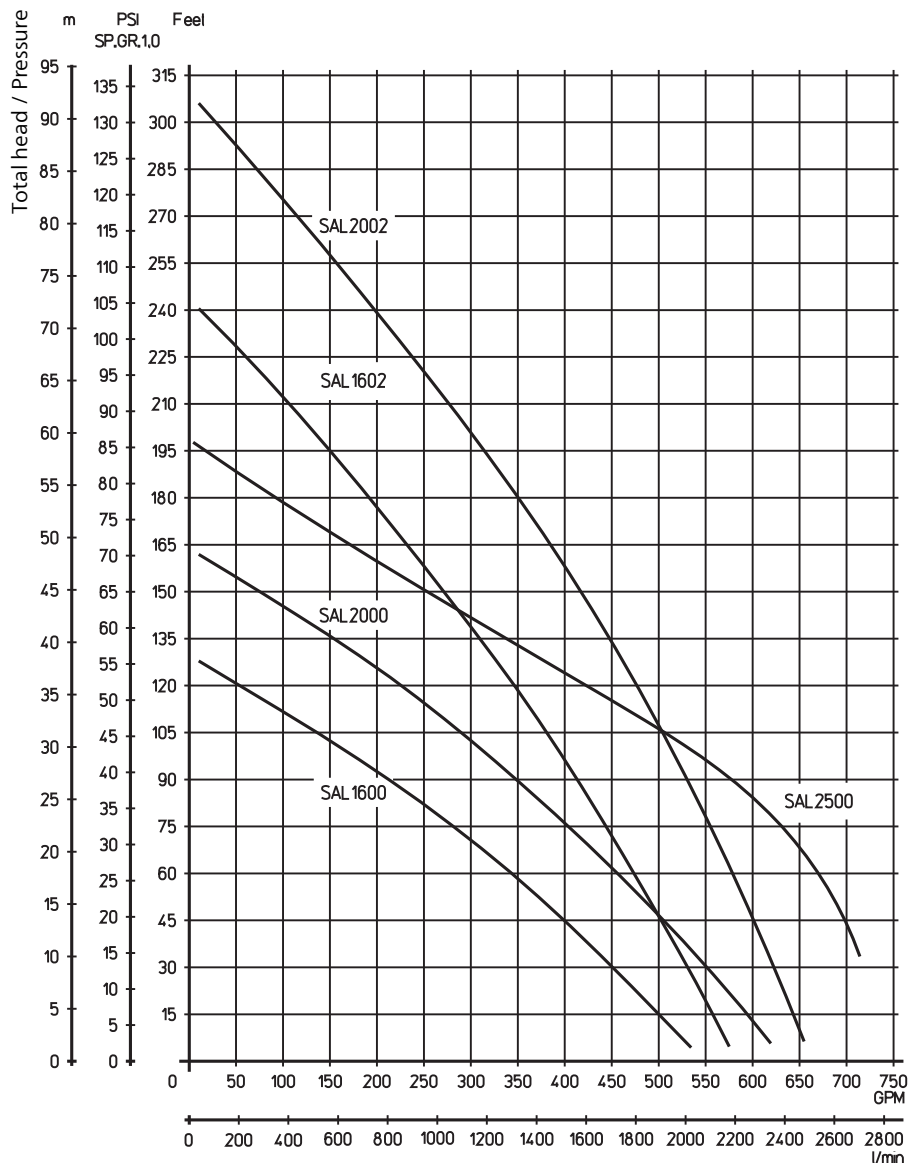
The SAL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

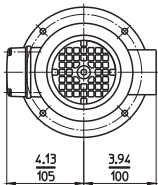
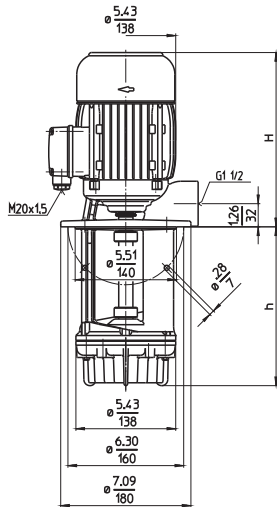
TGL/SGL331...333

Axial/semi-open impellers

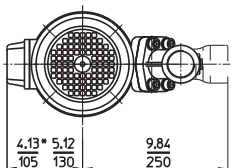
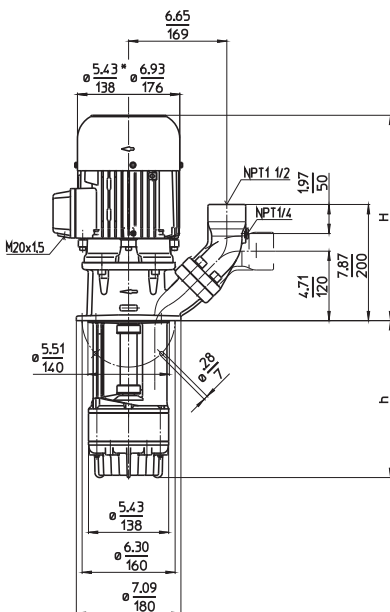


60 Hz

TGL331



SGL331...333



Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs kg	h inch mm	Lbs kg	AMPS				RPM	
TGL331S140	50/25	10.4	5.51	140	35.3	16.0	1.3	230	60	4	3450		
	200/8	264					0.98	460	60	2	3450		
	220		8.66	220	37.5	17.0							
	290		11.42	290	38.6	17.5							
	370		14.57	370	40.8	18.5							
	460		18.11	460	44.1	20.0							
570		22.44	570	46.3	21.0								
SGL331S140	50/25	13.1	5.51	140	48.5	22	1.3	230	60	4	3450		
	200/8	334					0.98	460	60	2	3450		
	220		8.66	220	50.7	23							
	290		11.42	290	52.9	24							
	370		14.57	370	55.1	25							
	460		18.11	460	59.5	27							
	570		22.44	570	61.7	28							
	770		30.31	770	77.2	35							
	920		36.22	920	81.6	37							
	SGL332S190	50/50	16.0	7.48	190	75.0	34	2.6	230	60	7.0	3480	
200/15		406					1.95	460	60	3.5	3480		
270			10.63	270	77.2	35							
340			13.39	340	79.4	36							
420			16.54	420	81.6	37							
510			20.87	530	83.8	38							
620			24.41	620	88.2	40							
820			32.28	820	103.6	47							
970			38.19	970	108.0	49							
SGL333S240		50/75	17.3	9.45	240	88.2	40	3.4	230	60	8.8	3480	
	200/22	439					2.55	460	60	4.4	3480		
	320		12.60	320	90.4	41							
	390		15.35	390	92.6	42							
	470		18.50	470	94.8	43							
	560		22.05	560	99.2	45							
	670		26.38	670	103.6	47							
	870		34.25	870	116.9	53							
	1020		40.16	1020	121.3	55							

Dimensions in Inches / mm
 Dimensions in Inches / mm
 *) Dimensions SGL331



Quick Suctioning Immersion Pumps

of series TGL/SGL are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (grinding oils) as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

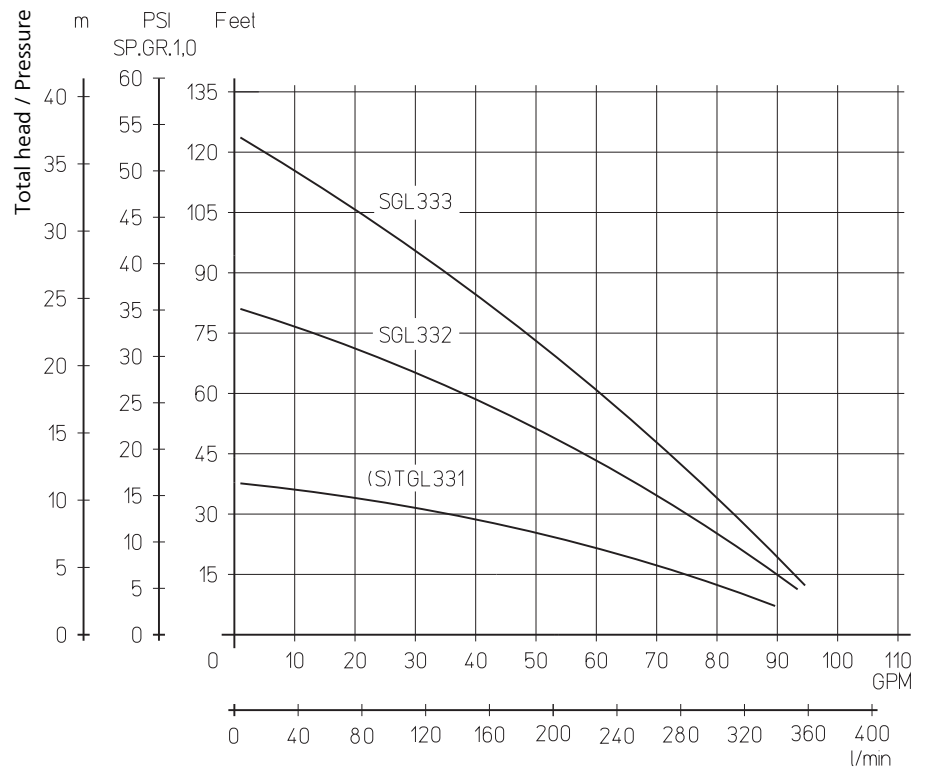
The SGL pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

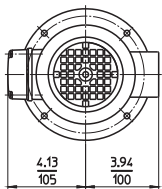
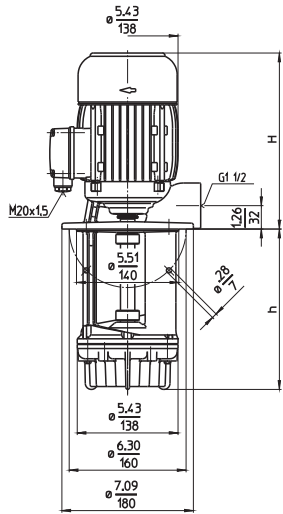
TGL/SGL501...503

Axial/semi-open impellers

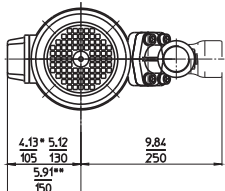
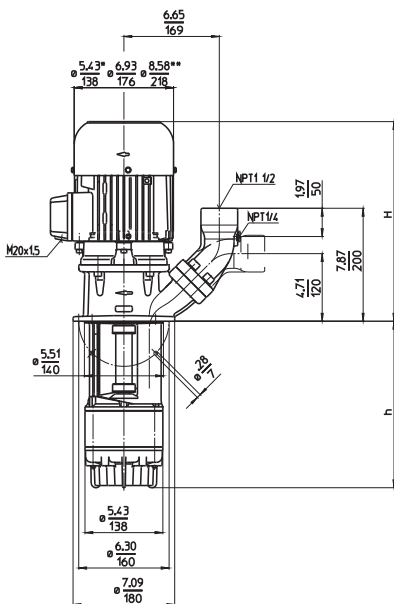


60 Hz

TGL501



SGL501...503



Type	Flow at head		Height		Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed		
	GPM l/min	Feet /m	H inch mm	h inch mm	h inch mm	Lbs kg	HP kW	V				Hz	AMPS	RPM
TGL501S150	60/22	240/7	11.5	291	5.91	150	37.5	17.0	1.7	230	60	4.8	3440	
	230				9.06	230	40.8	18.5			60	2.4	3440	
	300				11.81	300	43.0	19.5						
	380				14.96	380	45.2	20.5						
	470				18.50	470	47.4	21.5						
	580				22.83	580	49.6	22.5						
SGL501S150	60/22	240/7	14.2	361	5.91	150	51.8	23.5	1.7	230	60	4.8	3440	
	230				9.06	230	54.0	24.5	1.27	460	60	2.4	3440	
	300				11.81	300	56.2	25.5						
	380				14.96	380	59.5	27.0						
	470				18.50	470	61.7	28.0						
	580				22.83	580	66.2	30.0						
	780				30.71	780	79.4	36.0						
	930				36.61	930	83.8	38.0						
	SGL502S220	60/55	240/16	17.3	439	8.46	215	88.2	40	3.4	230	60	8.8	3480
		300				11.61	295	90.4	41	2.55	460	60	4.4	3480
370					14.37	365	92.6	42						
450					17.52	445	94.8	43						
540					21.06	535	99.2	45						
650					25.39	645	103.6	47						
850					33.27	845	119.1	54						
1000					39.17	995	121.3	55						
SGL503S280		60/85	240/24	18.8	478	11.02	280	119.1	54	5.1	230	60	12.8	3520
		360				14.17	360	121.3	55	3.8	460	60	6.4	3520
	430				16.93	430	123.5	56						
	510				20.08	510	125.7	57						
	600				23.62	600	130.1	59						
	710				27.95	710	134.5	61						
	910				35.83	910	147.7	67						
	1060				41.73	1060	152.1	69						

Dimensions in Inches / mm
 *) Dimensions SGL501
 *) Dimensions SGL503



Quick Suctioning Immersion Pumps

of series TGL/SGL are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (grinding oils) as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

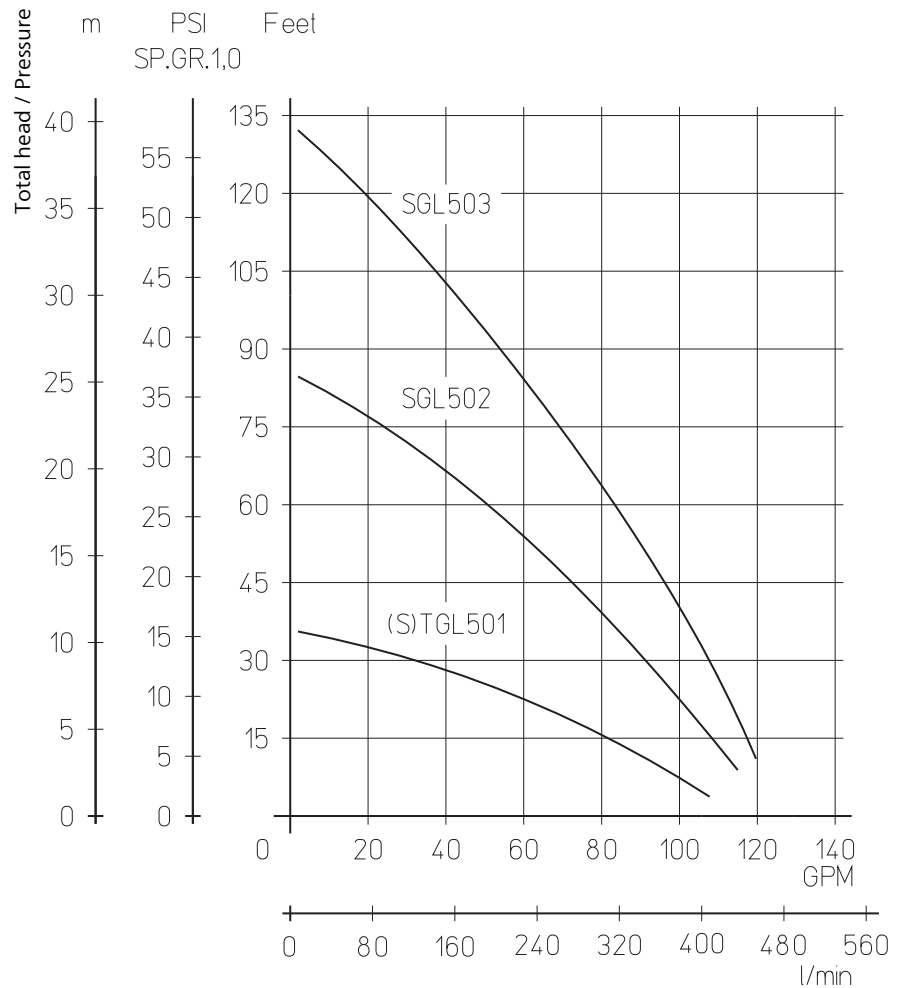
The SGL pumps are equipped with the user-friendly 45 degree (SAE) flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

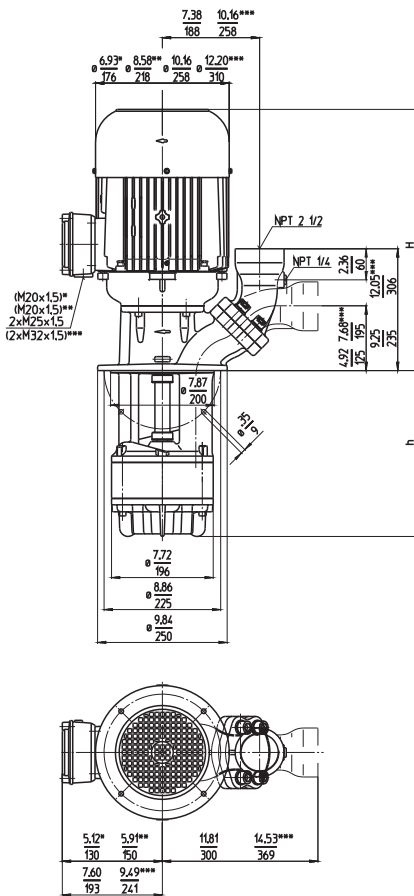


SGL801...804



Axial/semi-open impellers

SGL801, 802 SGL803, 804



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

- *) Dimensions SGL801
- **) Dimensions SGL802
- ***) Dimensions SGL804

Type	Flow at head		Height	Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch	h inch	h mm	Lbs	kg	AMPS				RPM	
SGL801S220	150/40	18.3	8.66	220	112.5	51	3.9	230	60	10.2	3480	
	600/10	464					2.94	460	60	5.1	3480	
	320		12.60	320	119.1	54						
	450		17.72	450	127.9	58						
	570		22.44	570	136.7	62						
	770		30.31	770	163	74						
1000		39.37	1000	179	81							
SGL802S290	150/75	21.0	11.42	290	168	76	8.4	230	60	20.8	3510	
	600/22	533					6.3	460	60	10.4	3510	
	390		15.35	390	176	80						
	520		20.47	520	183	83						
	640		25.20	640	190	86						
	840		33.07	840	218	99						
1070		42.13	1070	232	105							
SGL803S360	150/105	24.1	14.17	360	267	121	13.8	230	60	31.6	3550	
	600/30	612					10.3	460	60	15.8	3550	
	460		18.11	460	273	124						
	590		23.23	590	280	127						
	710		27.95	710	289	131						
	910		35.83	910	318	144						
SGL804S430	150/140	24.4	16.93	430	333	151	20.1	230	60	48.2	3560	
	600/40	620					15.0	460	60	24.1	3560	
	530		20.87	530	340	154						
	660		25.98	660	351	159						
	780		30.71	780	357	162						
	980		38.58	980	390	177						

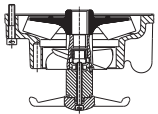


Quick Suctioning Immersion Pumps

of **series SGL** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (grinding oils) as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SGL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



The pump SGL801 is available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips or birds nests.

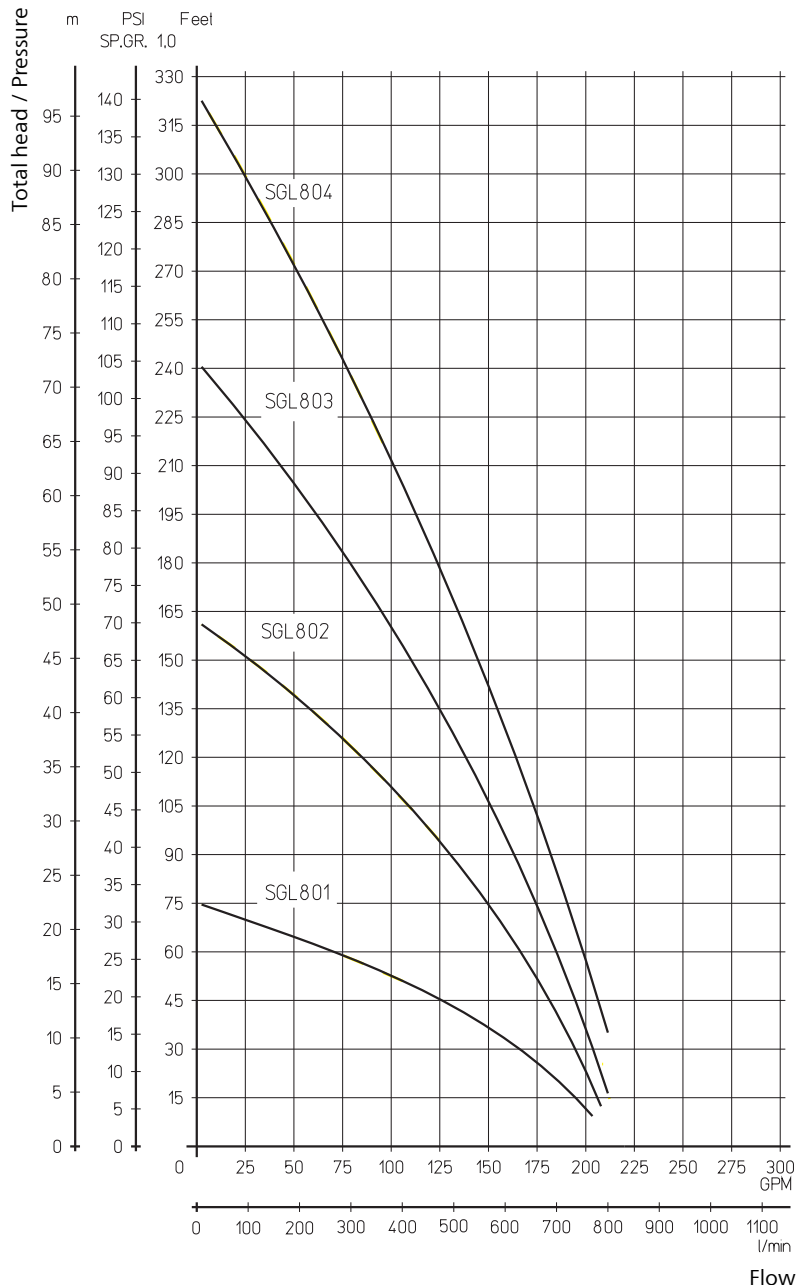


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

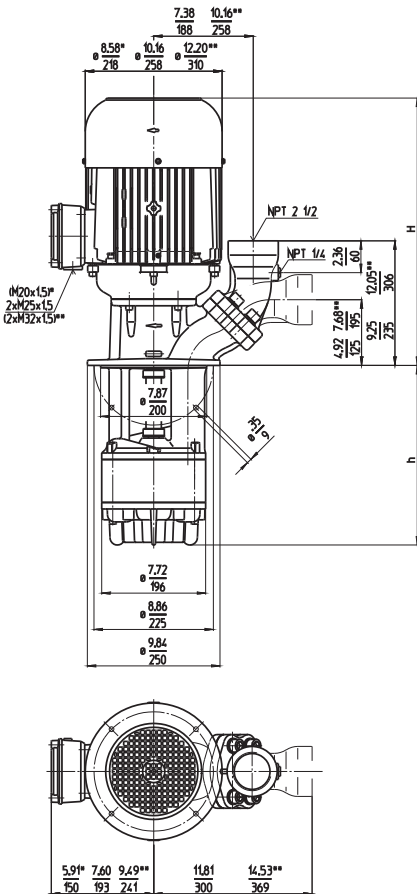


SGL1101...1103

Axial/semi-open impellers



SGL1101, 1102 SGL1103



Type	Flow at head	Height	Depth of im- mersion		Weight		Power 3~ HP kW	Voltage V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
SGL1101S230	250/32	21.0	9.06	230	152.1	69	7.7	230	60	19.0	3520
	950/10	533					5.75	460	60	9.5	3520
	330		12.99	330	158.8	72					
	460		18.11	460	168	76					
	580		22.83	580	179	81					
	780		30.71	780	201	91					
1010		39.76	1010	216	98						
SGL1102S310	250/65	24.1	12.20	310	238	108	13.8	230	60	31.6	3550
	950/19	612					10.3	460	60	15.8	3550
	410		16.14	410	243	110					
	540		21.26	540	249	113					
	660		25.98	660	260	118					
	860		33.86	860	287	130					
1090		42.91	1090	304	138						
SGL1103S390	250/90	24.4	15.35	390	315	143	20.1	230	60	48.2	3560
	950/27	620					15.0	460	60	24.1	3560
	490		19.29	490	324	147					
	620		24.41	620	333	151					
	740		29.13	740	342	155					
	940		37.01	940	368	167					

Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SGL1101

***) Dimensions SGL1103

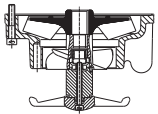


Quick Suctioning Immersion Pumps

of **series SGL** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (grinding oils) as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SGL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



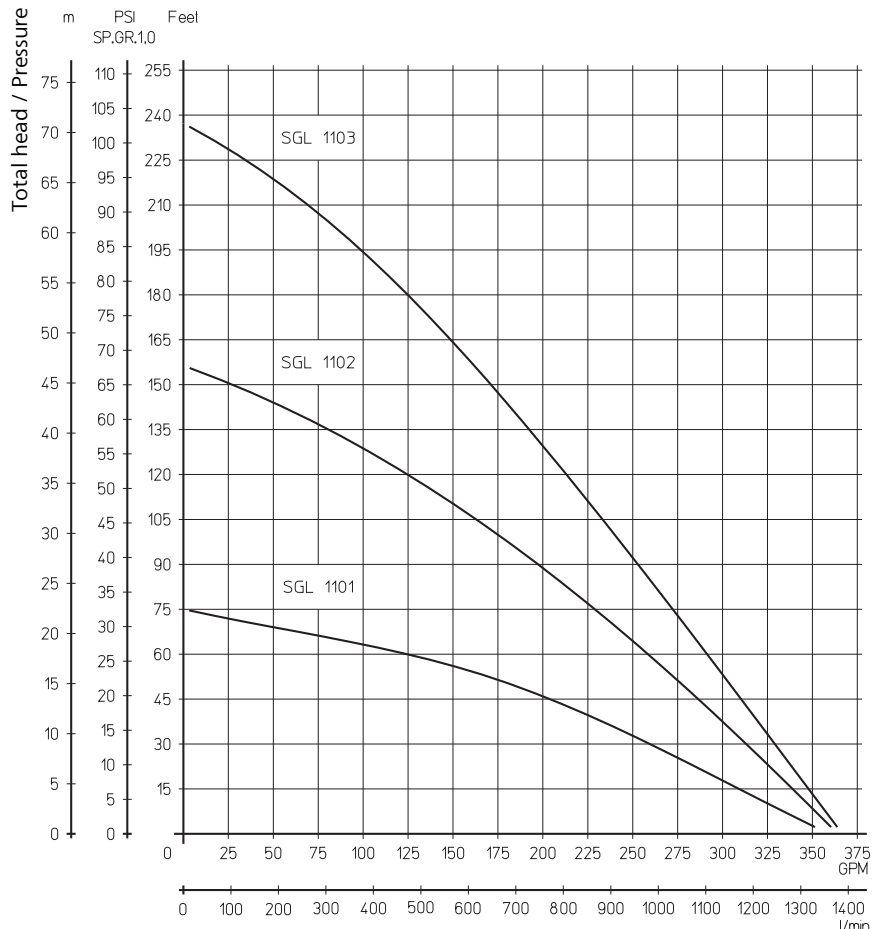
The pump SGL1101 is available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips or birds nests.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



Quick Suctioning Immersion Pumps

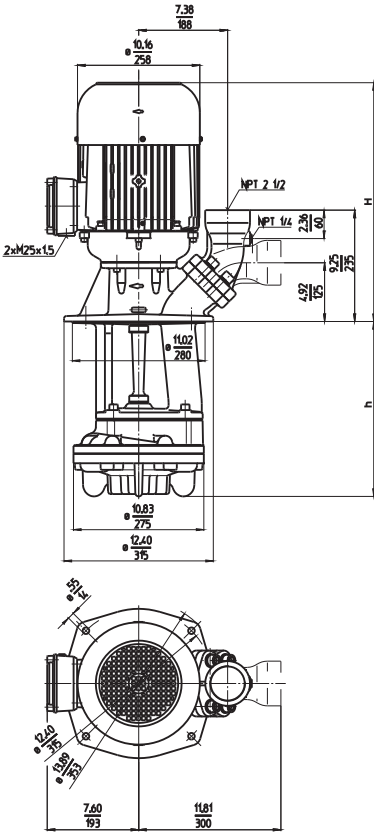


SGL1400...2200

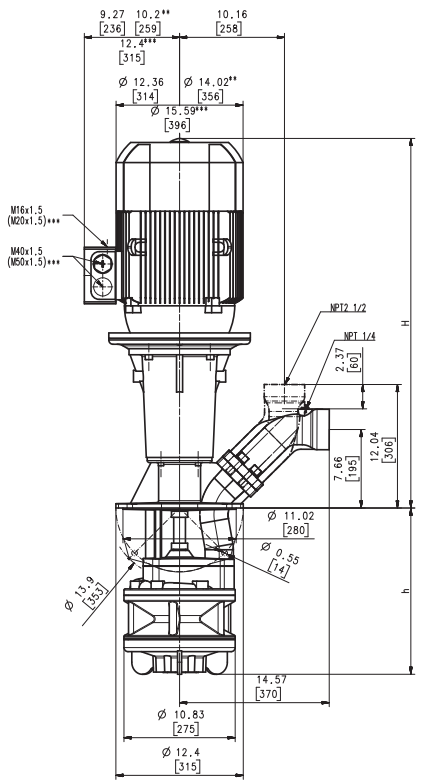


Axial/semi-open impellers

SGL1400



SGL1700...2200



Type	Flow at head	Height	Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Frequency Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
SGL1400S310	300/65	24.1	12.20	310	295	134	13.8	230	60	31.6	3550
	1200/18	612					10.3	460	60	15.8	3550
	440		17.32	440	300	136					
	560		22.05	560	315	143					
	810		31.89	810	353	160					
1060		41.73	1060	375	170						
SGL1700S310	350/75	24.4	12.20	310	348	158	20.1	230	60	48.2	3560
	1500/19	620					15.0	460	60	24.1	3560
	440		17.32	440	353	160					
	560		22.05	560	368	167					
	810		31.89	810	406	184					
1060		41.73	1060	419	190						
SGL1402S420	300/130	38.3	16.54	420	507	230	25	460	60	28	3560
	1200/35	974					18.5				
	550		21.65	550	520	236					
	670		26.38	670	529	240					
	920		36.22	920	545	247					
1170		46.06	1170	553	251						
SGL1702S420	350/170	40.6	16.54	420	551	250	40	460	60	47	3560
	1500/45	1032					30.0				
	550		21.65	550	564	256					
	670		26.38	670	573	260					
	920		36.22	920	589	267					
1170		46.06	1170	598	271						
SGL2200S340	450/90	39.7	13.39	340	443	201	30	460	60	34	3560
	1800/26	1009					22.0				
	470		18.50	470	454	206					
	590		23.23	590	465	211					
	840		33.07	840	503	228					
1090		42.91	1090	509	231						

Dimensions in Inches / mm
Discharge port with NPT 2 inches available upon request.

*) Dimensions SGL2200
**) Dimensions SGL1702

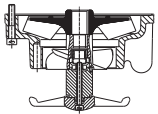


Quick Suctioning Immersion Pumps

of **series SGL** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (grinding oils) as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SGL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



The pumps SGL1400 and SGL2200 are available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips or birds nests.

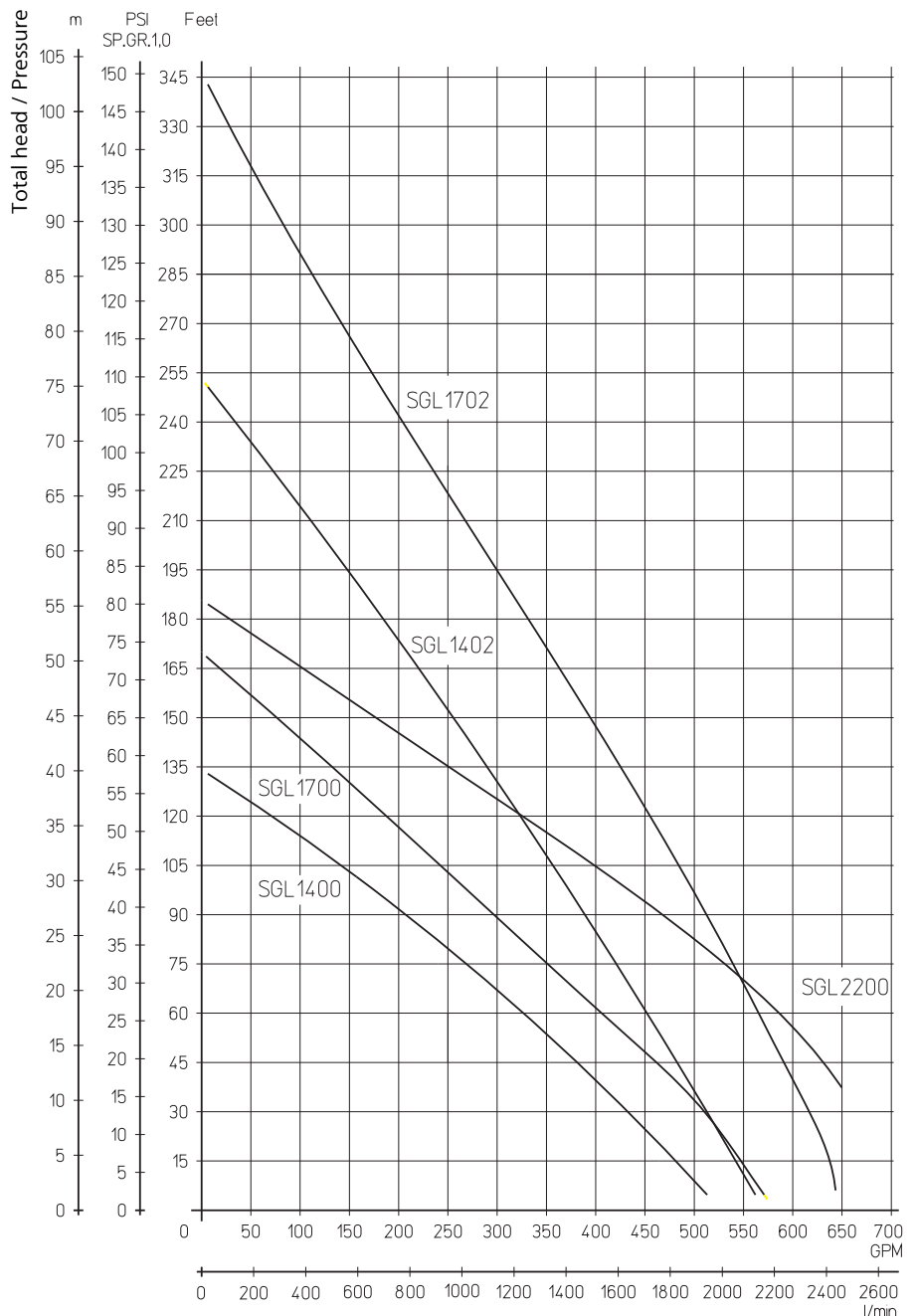


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

- | | |
|-----------------|------------|
| Pump body | cast iron |
| Cover | cast iron |
| Impeller axial | cast steel |
| Impeller radial | cast steel |
| Shaft | steel |



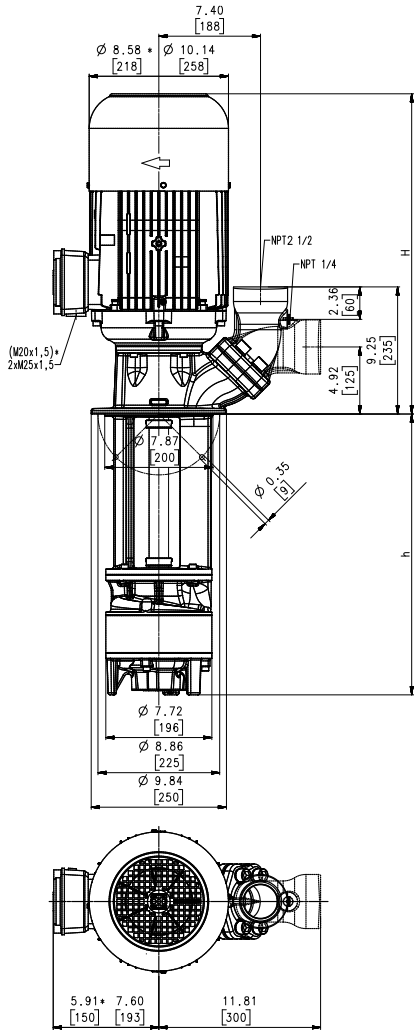
Quick Suctioning Immersion Pumps

SZG701...1002

Axial/open impellers



SZG701...1002



*) Dimensions for SZG701, 1001, 1101

Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
SZG701S220	75/54	19.8	8.66	220	145.5	66	5.1	230	60	12.8	3520
	300/15	503					3.8	460	60	6.4	3520
	320		12.60	320	152.1	69					
	450		17.72	450	161.0	73					
	570		22.44	570	170	77					
	770		30.31	770	196	89					
1000		39.37	1000	209	95						
SZG1001S220	125/52	21.0	8.66	220	161.0	73	7.7	230	60	19.0	3520
	500/15	533					5.75	460	60	9.5	3520
	320		12.60	320	168	76					
	450		17.72	450	176	80					
	570		22.44	570	185	84					
	770		30.31	770	212	96					
1000		39.37	1000	225	102						
SZG1101S220	100/70	21.0	8.50	216	158.8	72	7.7	230	60	19.0	3520
	400/21	533					5.75	460	60	9.5	3520
	320		12.44	316	165	75					
	450		17.56	446	174	79					
	570		22.28	566	183	83					
	770		30.16	766	209	95					
1000		39.21	996	223	101						
SZG702S290	75/107	24.1	11.42	290	247	112	11.5	230	60	27.8	3550
	300/31	612					8.6	460	60	13.9	3550
	390		15.35	390	256	116					
	520		20.47	520	262	119					
	640		25.20	640	269	122					
	840		33.07	840	311	141					
1070		42.13	1070	324	147						
SZG1002S290	125/104	24.1	11.42	290	262	119	13.8	230	60	31.6	3550
	500/30	612					10.3	460	60	15.8	3550
	390		15.35	390	269	122					
	520		20.47	520	278	126					
	640		25.20	640	287	130					
	840		33.07	840	313	142					
1070		42.13	1070	329	149						



Quick Suctioning Immersion Pumps

of **series SZG** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **fluids** (grinding oils) **with very high air entrainment** as they occur in high-speed grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

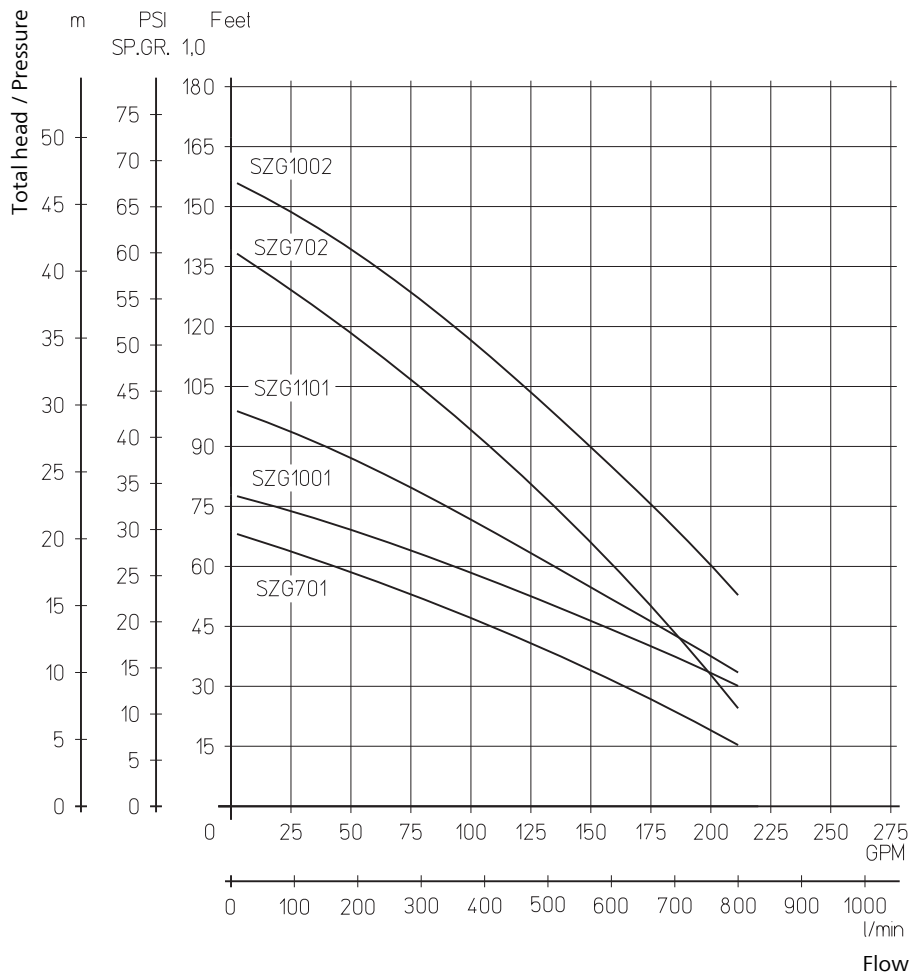
The SZG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - grinding oils
 - cooling/cutting oils
 - coolants
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel



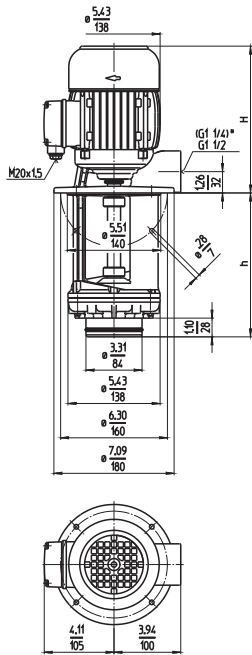
Suction Immersion Pumps

TAS/STS301...2000

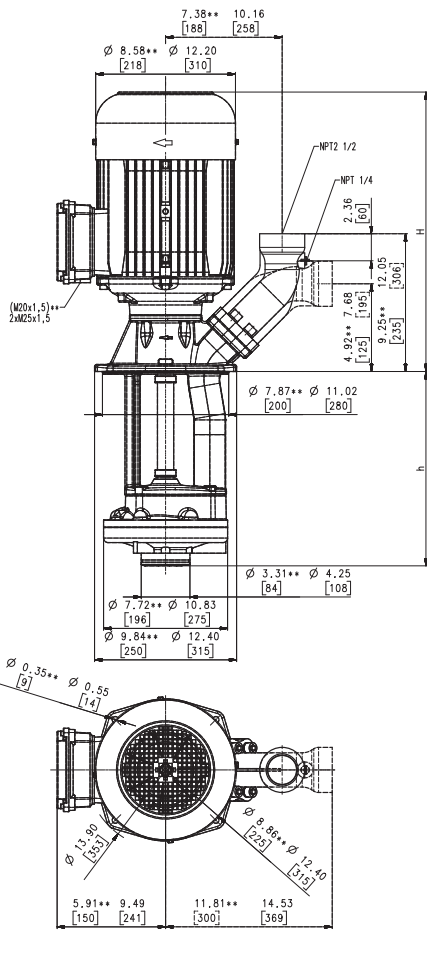
Axial/semi-open impellers



TAS301...601



STS1001, 2000



Type	Flow at head	Height	Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
TAS301S140	50/12	8.8	5.35	136	29.8	13.5	0.75	208-230	60	2.70	3250
	200/3	223					0.55	460	60	1.45	3250
	220		8.50	216	30.9	14.0					
	290		11.26	286	32.0	14.5					
	370		14.41	366	33.1	15.0					
TAS401S140	75/16	10.4	5.35	136	32.0	14.5	1.3	230	60	4	3450
	250/5	264					0.98	460	60	2	3450
	220		8.50	216	34.2	15.5					
	290		11.26	286	36.4	16.5					
	370		14.41	366	38.6	17.5					
TAS601S150	100/18	11.5	5.67	144	38.6	17.5	1.7	230	60	4.8	3440
	400/4	291					1.27	460	60	2.4	3440
	230		8.82	224	39.7	18.0					
	300		11.57	294	41.9	19.0					
	380		14.72	374	44.1	20.0					
STS1001S230	175/45	19.8	8.50	216	143.3	65	5.1	230	60	12.8	3520
	600/14	503					3.8	460	60	6.4	3520
	330		12.44	316	147.7	67					
	460		17.56	446	154.4	70					
	580		22.28	566	163	74					
STS2000S310	400/75	24.4	11.81	300	348	158	16.9	230	60	39.2	3560
	1600/21	620					12.6	460	60	19.6	3560
	440		16.93	430	353	160					
	560		21.65	550	368	167					
	810		31.50	800	406	184					
1060		41.34	1050	419	190						

Dimensions in Inches / mm
 *) Dimensions TAS301
 Discharge port with NPT 2 inches available upon request.
 **) Dimensions STS1001



Suction Immersion Pumps

series TAS/STS make it possible to **connect to vacuum filters** through their simple connection on the suction side (for instance, with a slot screen).

Suction immersion pumps without seals are positioned in the area of unfiltered coolant in the vessel.

With their robust design, they allow operating pressures of -5 PSI to -7 PSI (-0.3 bar to -0.5 bar) on the suction side.

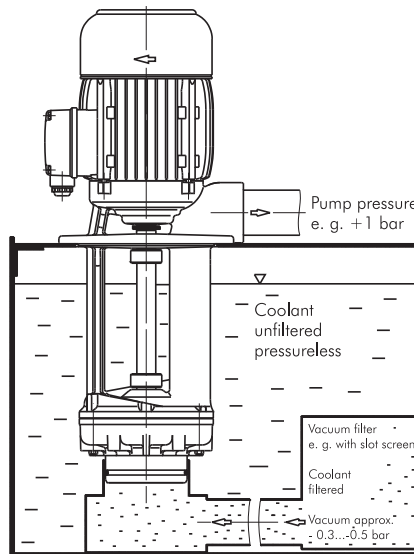
The STS pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



All types specified are also available as multistage, too – see series TA/STA.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

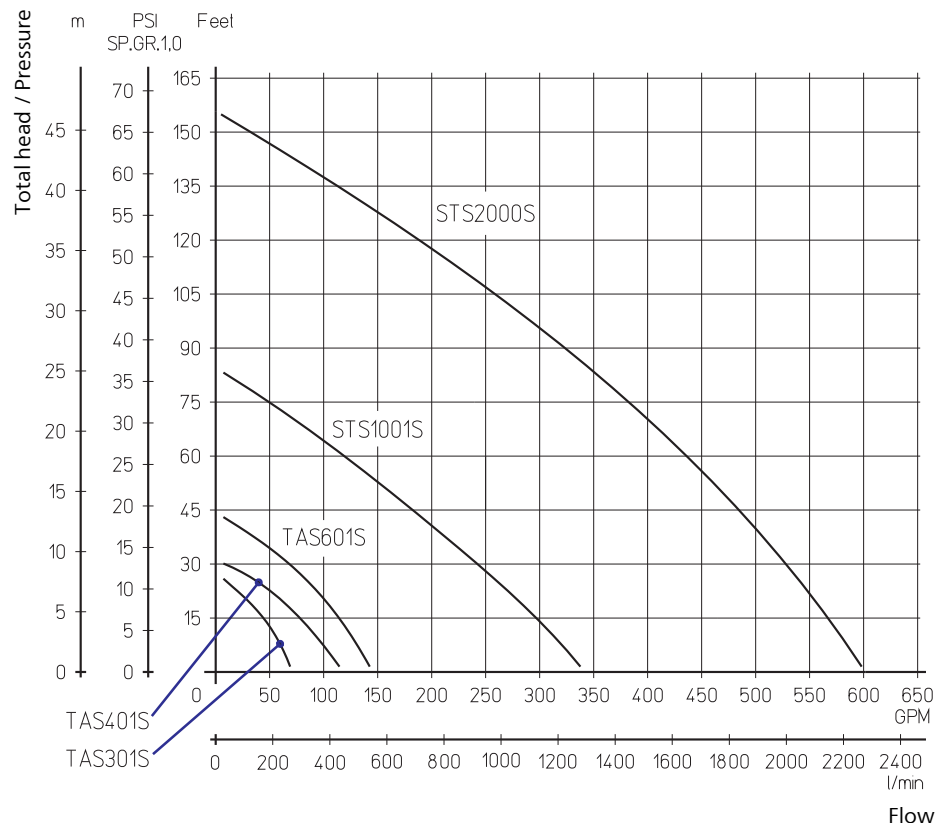


Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
	cast steel (STS1001...STS2000)
Shaft	steel
Optional:	
Impeller radial	cast steel (TAS301...TAS601)
Noise level	
TAS301...TAS601	62 dBA
STS1001	73 dBA
STS2000	79 dBA

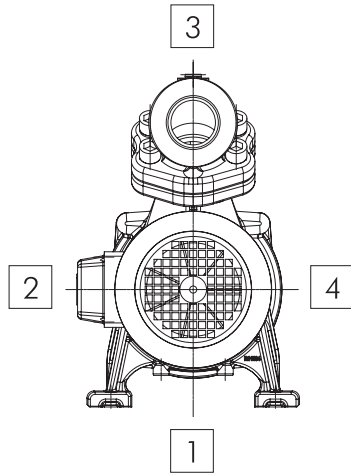
Suction connection

Intake cover with O-Ring	cast iron
2.9 x 0.16 Inch (78 x 4 mm)	Viton®
STA/STS301...1001	
4.02 x 0.16 Inch (102 x 4 mm)	
STS2000	
for Connecting pipe, inside	
Ø 3.39...3.42 Inch (86.0...86.8 mm)	
STA/STS301...1001	
-Ø 4.33...4.36 Inch (110.0...110.8 mm)	
STS2000	



Mechanical Features

Horizontal End-Suction Pumps – Terminal box and foot location

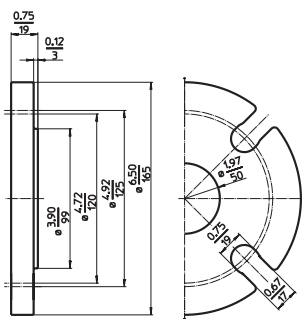


Location	Series SBA, SBG and SBF	
	Terminal box location	Foot location
1	–	Standard
2	Standard	●
3	□	–
4	●	●

- available
- available upon request
- not available

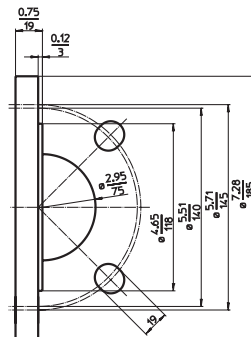
Attention:
Terminal box location and foot location cannot be facing in the same direction!

Horizontal End-Suction Pumps – Suction port



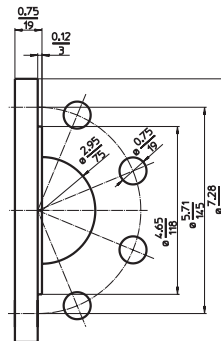
DN50, 4 hole flange connection
size 140

DN50, 4 hole flange connection,
is equivalent to ASME B16.1-
2005 Class 25 Flange NPS 2 and
JIS B 2239:2004 10K A50

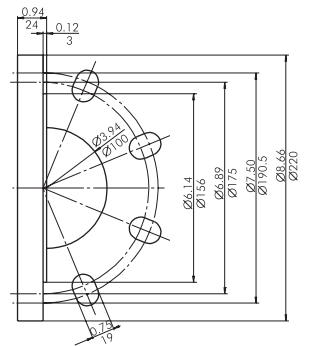


DN65, 4 hole flange connection
sizes 400, 550, 600
sizes 650, 850, 1150, 800, 900,
1300

DN65, 4 hole flange connection,
is equivalent to ASME B16.1-
2005 Class 25 Flange NPS 2 1/2
and JIS B 2239:2004 10K A65

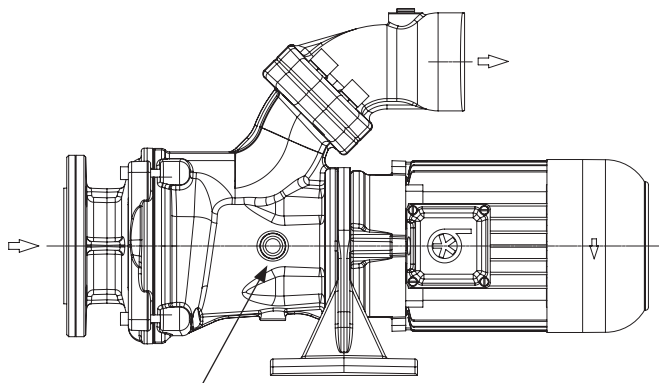


DN65, 8 hole flange connection
sizes 850, 1150, 1100, 1300
Available upon request



DN100, 8 hole flange connection
sizes 1350, 1550, 1850
sizes 1600, 1700, 2000

Dry-running Version (-GD)



Monitoring window for models
with second mechanical seal (-GD)

A second mechanical seal is available for unlimited dry-running. By utilizing an additional oil reservoir, continuous lubrication of the mechanical seal can be assured, which in turn allows dry-running of the pump.

The oil level within the reservoir can be monitored through an integrated monitoring window.

Horizontal End-Suction Pumps

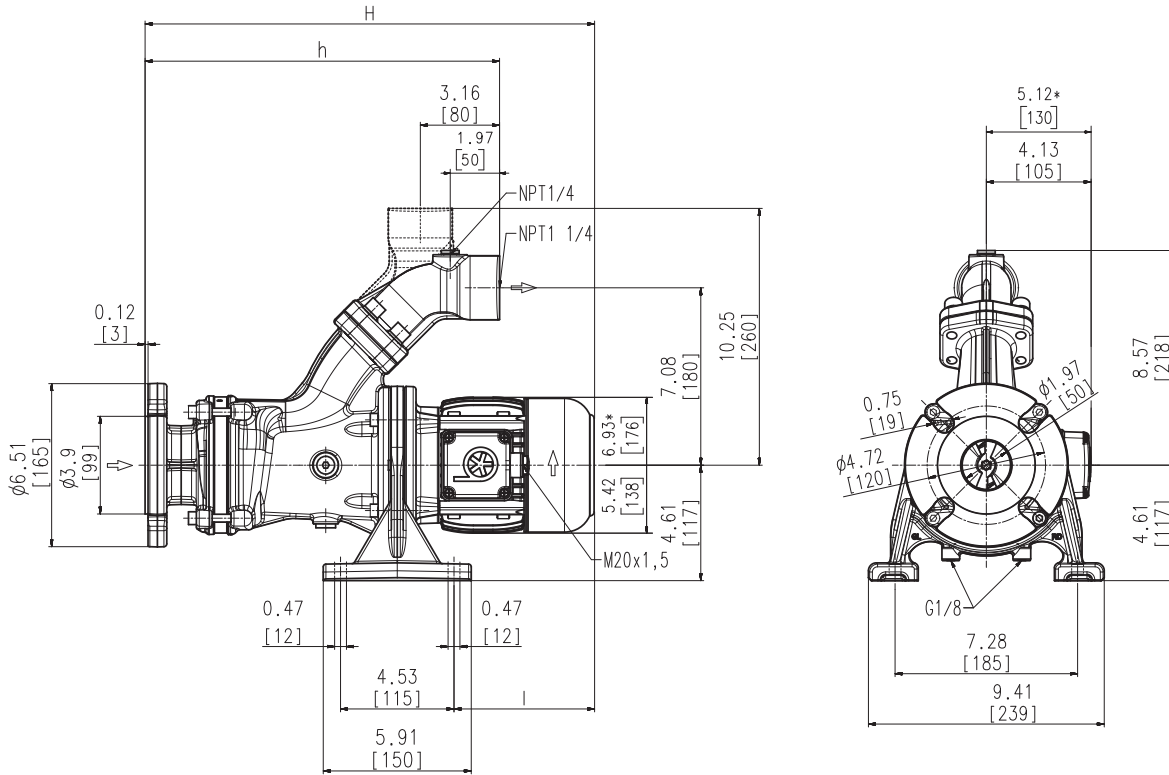


SBA141S...143S

60 Hz

Axial/semi-open impellers

SBA141S...143S



Dimensions in Inches / mm
*) Dimensions SBA143S

Type	Flow at head	Dimensions				Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SBA141S	25/32	18.0	456	14.1	359	5.6	143	58.4	26.5	0.73	208-230	60	2.8	3300
	100/9									0.54	460	60	1.4	3300
SBA142S	25/53	22.6	575	16.1	410	8.3	211	70.6	32	1.7	230	60	4.8	3440
	100/14									1.27	460	60	2.4	3440
SBA143S	25/83	25.7	653	17.5	444	10.1	256	92.6	42	2.6	230	60	7.0	3480
	100/21									1.95	460	60	3.5	3480



Horizontal End-Suction Pumps

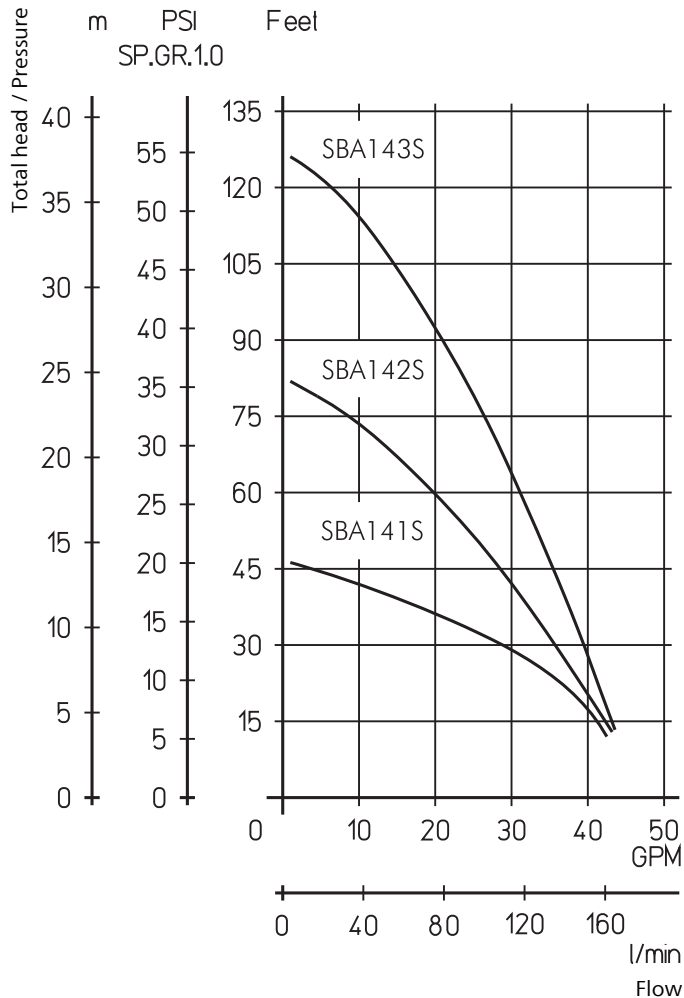
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly **SAE flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA141S...SBA142S	67 dBA
SBA143S	71 dBA



Horizontal End-Suction Pumps

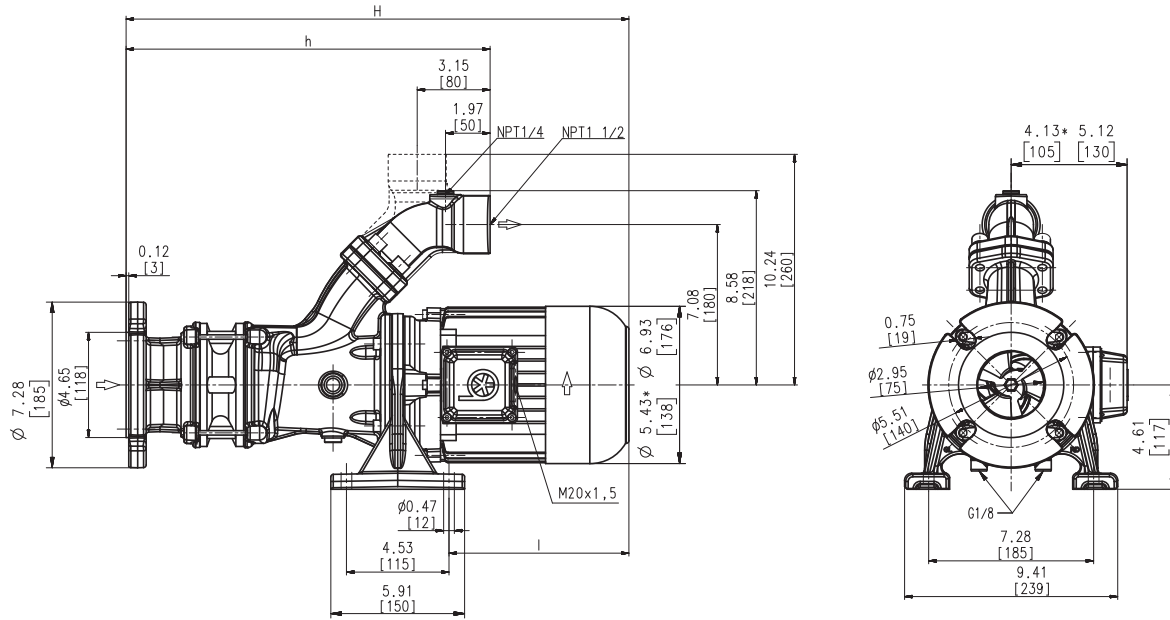
SBA401S...403S

Axial/semi-open impellers



60 Hz

SBA401S...403S



Dimensions in Inches / mm
*) Dimensions SBA401S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA401S	60/25	19.6	497	14.2	360	7.2	184	68.4	31	1.4	230	60	4.2	3440
	240/7									1.06	460	60	2.1	3440
SBA402S	60/47	23.3	592	16.1	409	9.1	230	86.0	39	2.3	230	60	6.2	3470
	240/14									1.75	460	60	3.1	3470
SBA403S	60/70	27.6	700	18.0	458	11.4	289	103.6	47	3.4	230	60	8.8	3480
	240/21									2.55	460	60	4.4	3480



Horizontal End-Suction Pumps

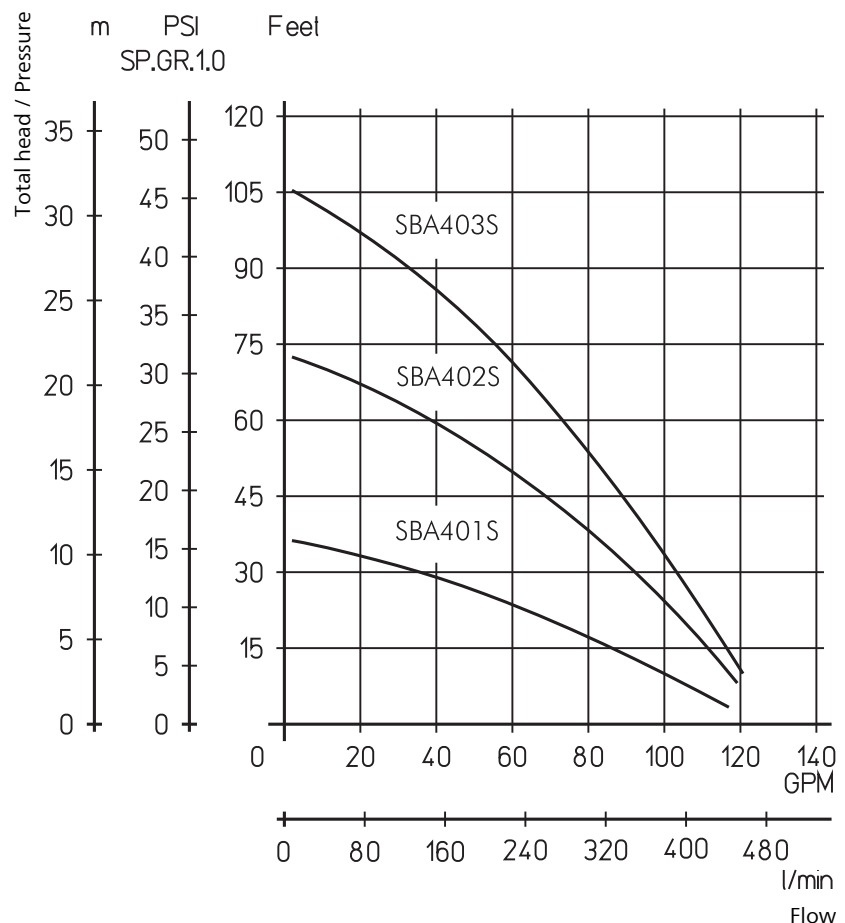
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly **SAE flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA401S	62 dBA
SBA402S...SBA403S	69 dBA



Horizontal End-Suction Pumps

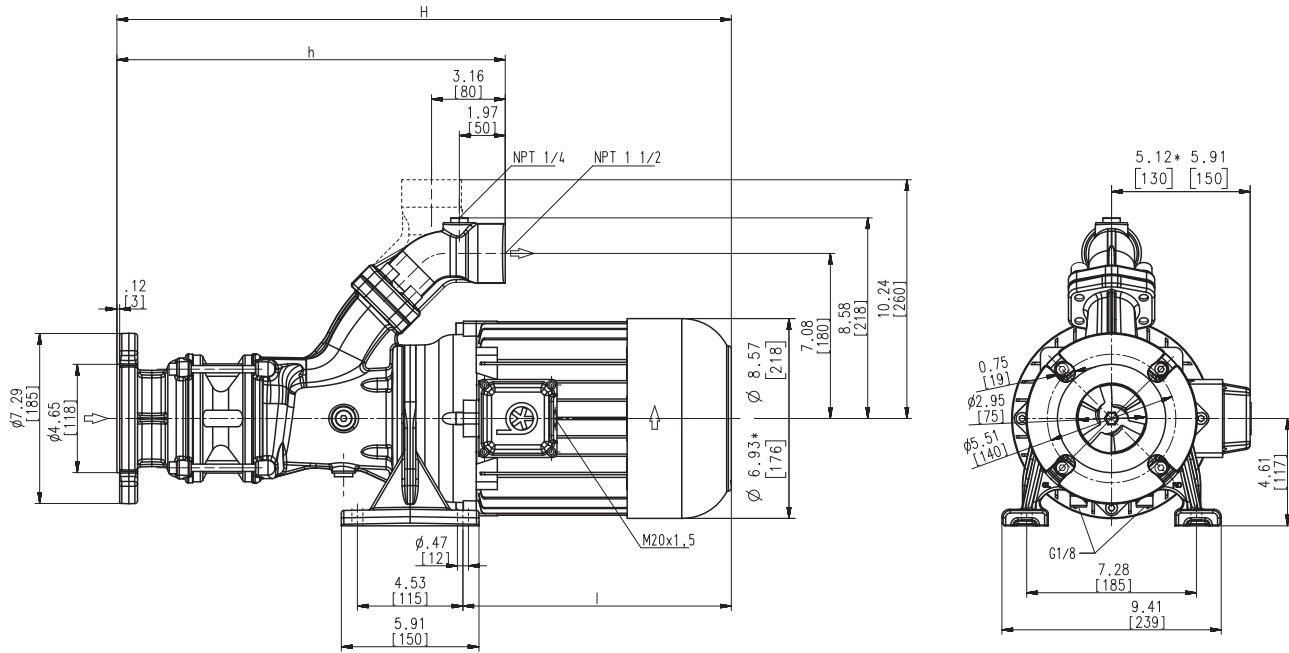
SBA430S...433S

Axial/semi-open impellers



60 Hz

SBA430S...433S



Dimensions in Inches / mm
*) Dimensions SBA430S

Type	Flow at head	Dimensions		Length		Weight		Power HP kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA430S	100/38	22.4	569	14.1	359	10.1	256	88.2	40	2.6	230	60	7.0	3480
	400/11									1.95	460	60	3.5	3480
SBA432S	100/82	27.8	705	16.7	423	12.9	328	127.9	58	5.1	230	60	12.8	3520
	400/24									3.8	460	60	6.4	3520
SBA433S	100/118	30.3	769	19.2	487	14.1	358	134.5	61	7.7	230	60	19.0	3520
	400/34									5.75	460	60	9.5	3520



Horizontal End-Suction Pumps

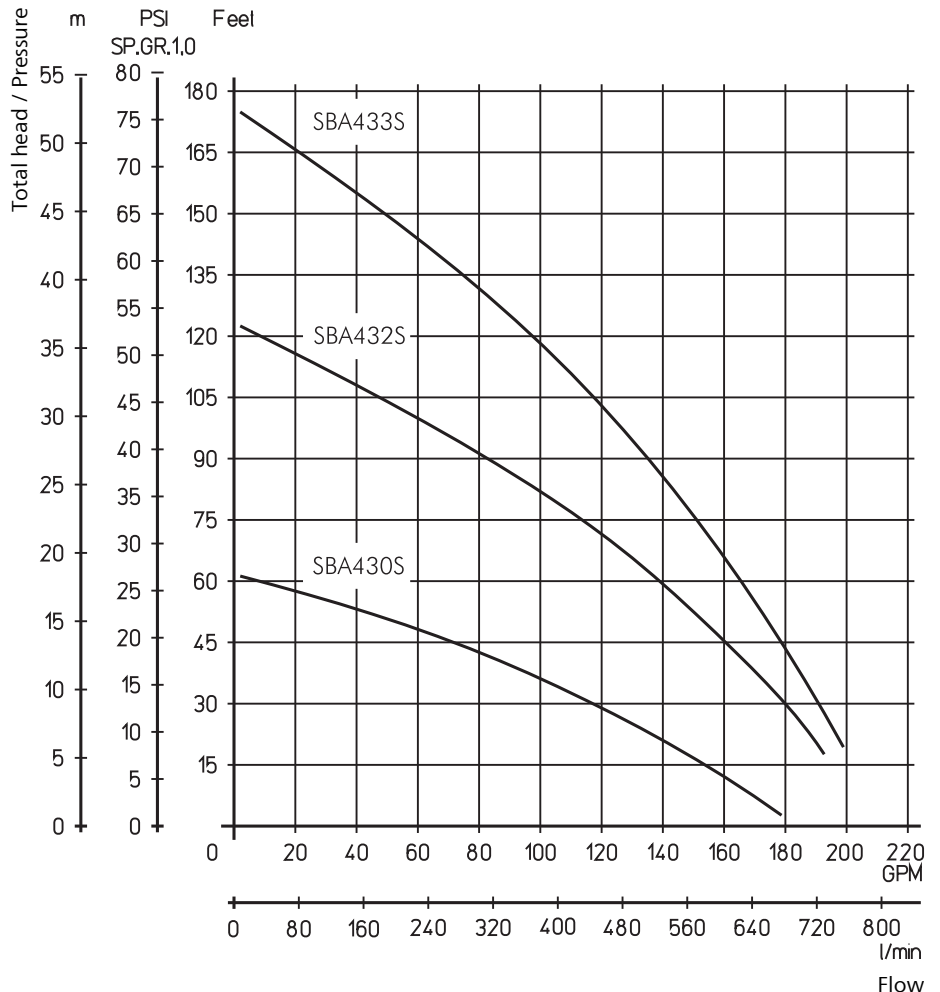
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly **SAE flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA430S	66 dBA
SBA432S...SBA433S	73 dBA



Horizontal End-Suction Pumps

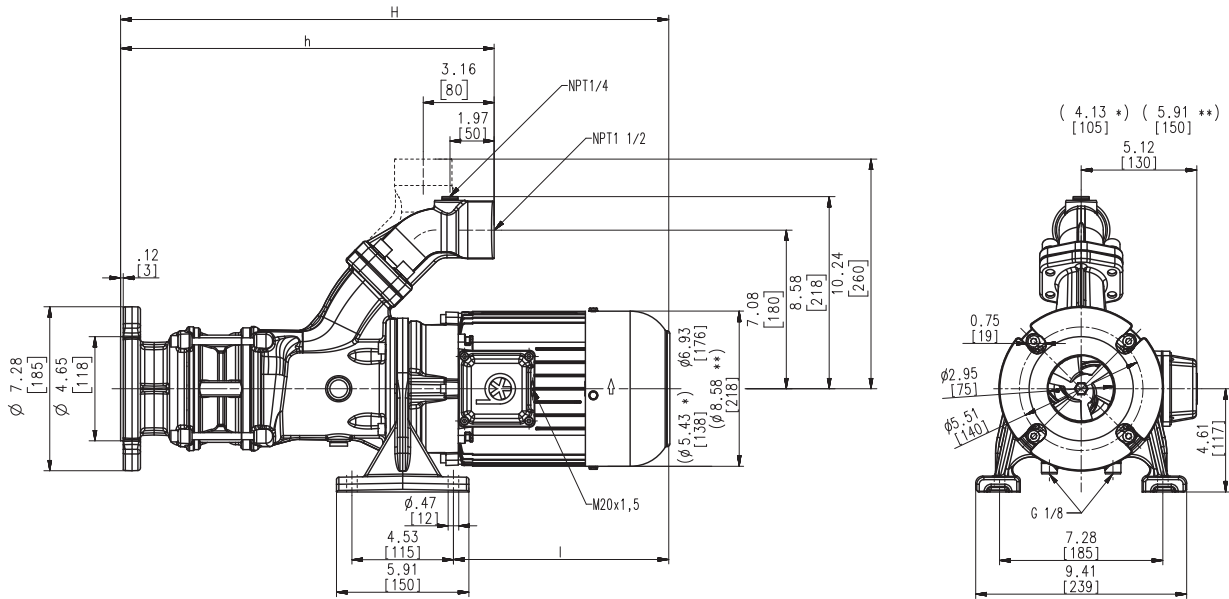
SBA601S...604S

Axial/semi-open impellers



60 Hz

SBA601S...604S



Dimensions in Inches / mm

*) Dimensions SBA601S

**) Dimensions SBA603S, 604S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA601S	110/18	20.6	524	14.2	360	8.3	211	70.6	32	1.7	230	60	4.8	3440
	440/5									1.27	460	60	2.4	3440
SBA602S	110/46	26.2	666	16.7	424	11.4	289	101.4	46	3.4	230	60	8.8	3480
	440/13									2.55	460	60	4.4	3480
SBA603S	110/76	30.3	769	19.2	488	12.9	328	134.5	61	5.1	230	60	12.8	3520
	440/21									3.8	460	60	6.4	3520
SBA604S	110/90	34.0	863	21.7	552	14.1	358	154.4	70	7.7	230	60	19.0	3520
	440/25									5.75	460	60	9.5	3520



Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly **SAE flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

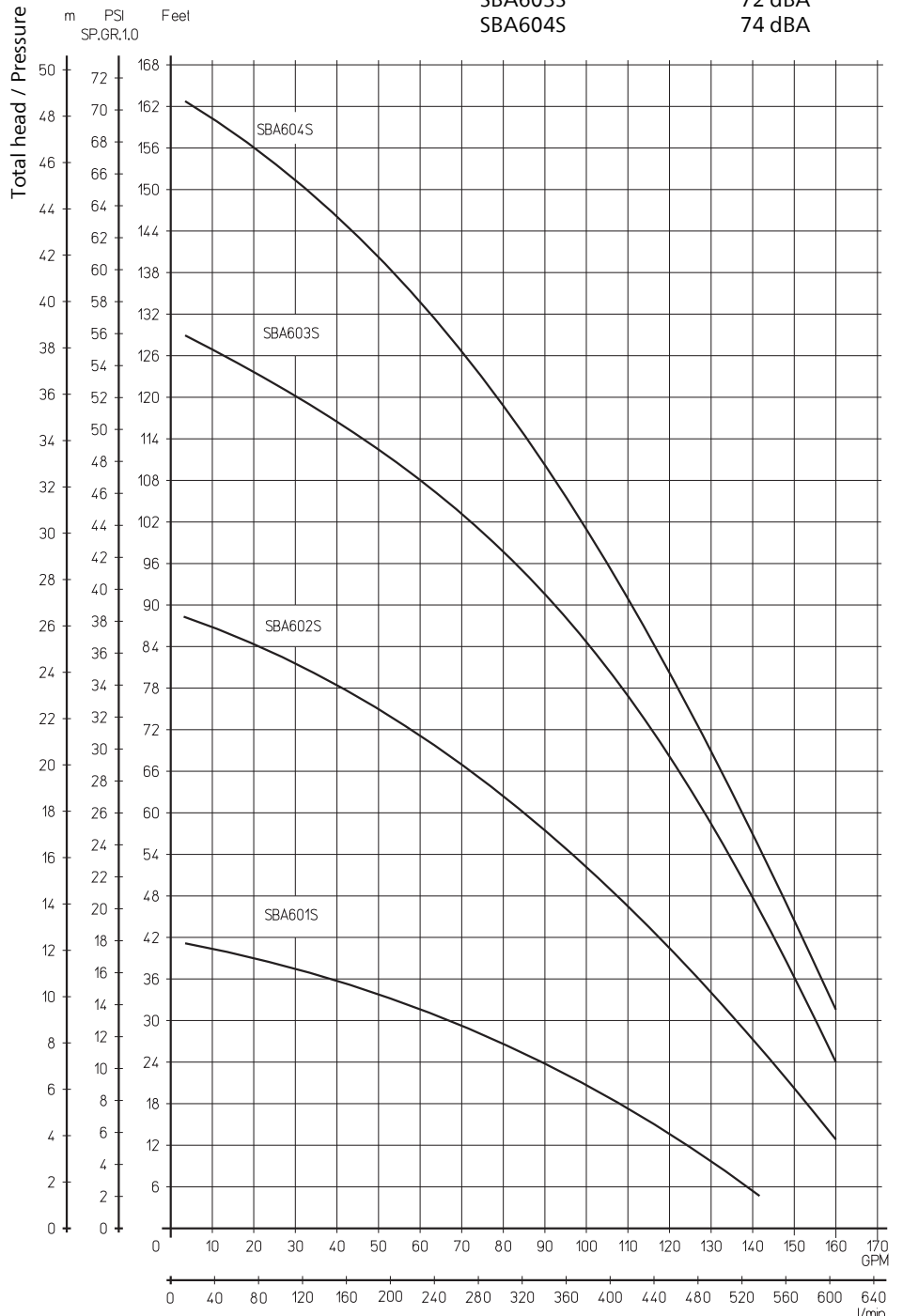


Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA601S	65 dBA
SBA602S	69 dBA
SBA603S	72 dBA
SBA604S	74 dBA



Horizontal End-Suction Pumps

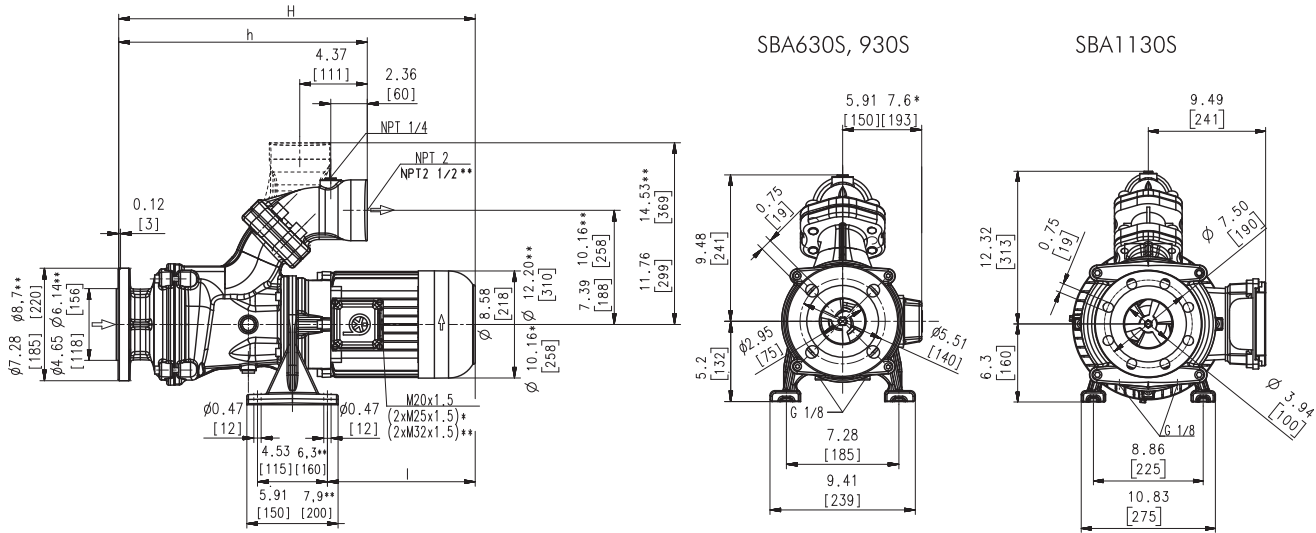
SBA630S...1130S

Axial/semi-open impellers



60 Hz

SBA630S...1130S



Dimensions in Inches / mm

*) Dimensions SBA930S

***) Dimensions SBA1130S

Type	Flow at head	Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA630S	200/60	27.6	701	16.1	408	14.1	358	145.5	66	7.7	230	60	19.0	3520
	800/16									5.75	460	60	9.5	3520
SBA930S	250/65	29.4	746	16.2	412	15.7	399	158.8	72	10	230	60	23.0	3545
	1000/18									7.48	460	60	11.5	3545
SBA1130S	450/75	31.6	802	19.5	495	16.6	422	291	132	16.9	230	60	39.2	3560
	1700/24									12.6	460	60	19.6	3560



Horizontal End-Suction Pumps

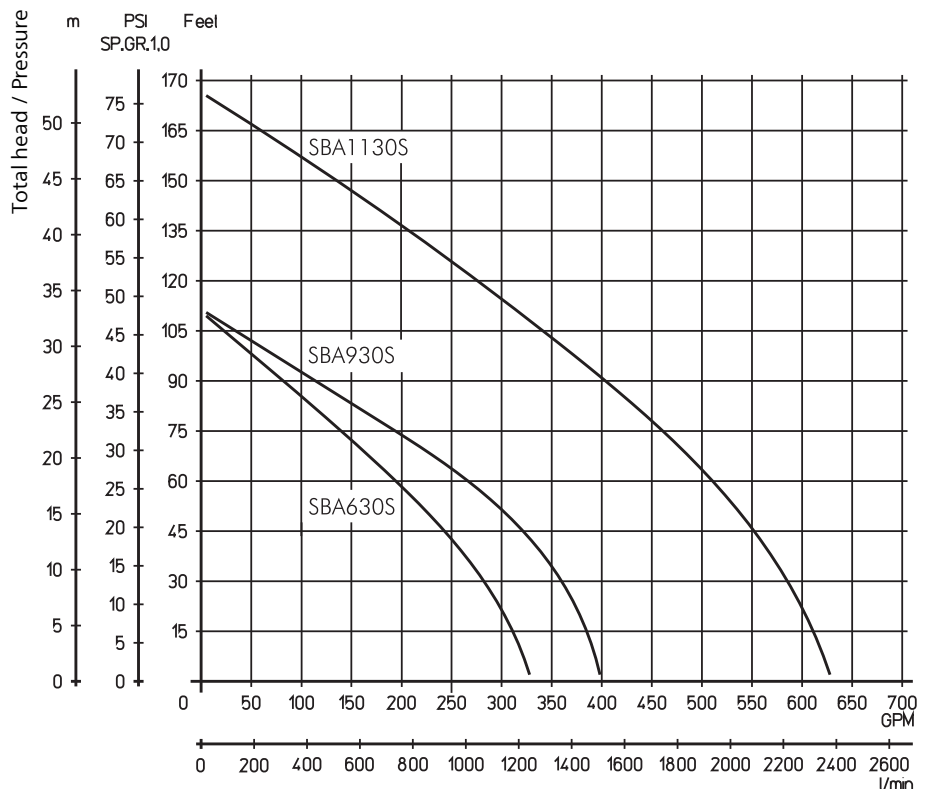
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA630S	73 dBA
SBA930S	75 dBA
SBA1130S	80 dBA
Optional: Low noise version (-3 to -5 dBA)	



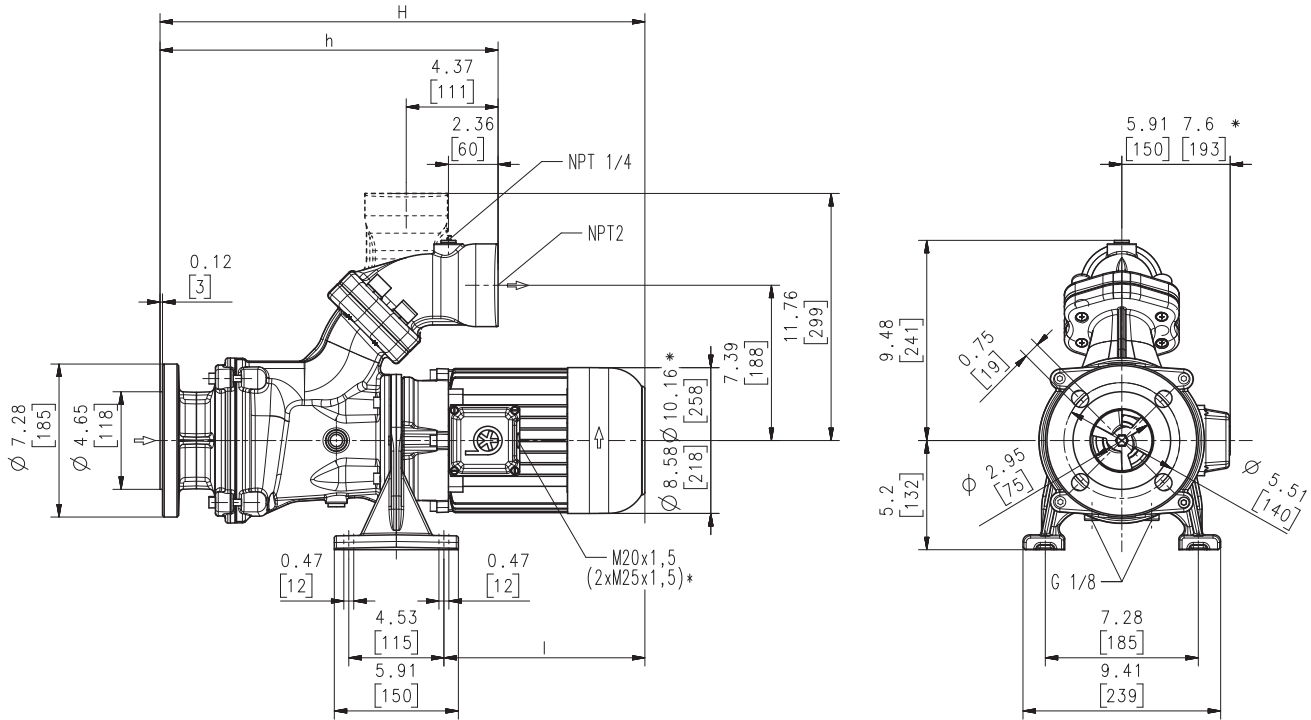
Horizontal End-Suction Pumps

SBA901S...903S

Axial/semi-open impellers



SBA901S...903S



Dimensions in Inches / mm; *) Dimensions SBA902S, 903S

Type	Flow at head	Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
	GPM /Feet l/min /m	H inch H mm	h inch h mm	l Inch l mm	Lbs kg									
SBA901S	175/46	26.4	671	16.1	409	12.9	328	145.5	66	5.1	230	60	12.8	3520
	700/14									3.8	460	60	6.4	3520
SBA902S	175/95	32.0	812	18.9	479	15.7	399	227	103	9.2	230	60	21.2	3550
	700/28									6.9	460	60	10.6	3550
SBA903S	175/140	36.2	919	21.6	548	17.2	437	273	124	13.8	230	60	31.6	3550
	700/42									10.3	460	60	15.8	3550



Horizontal End-Suction Pumps

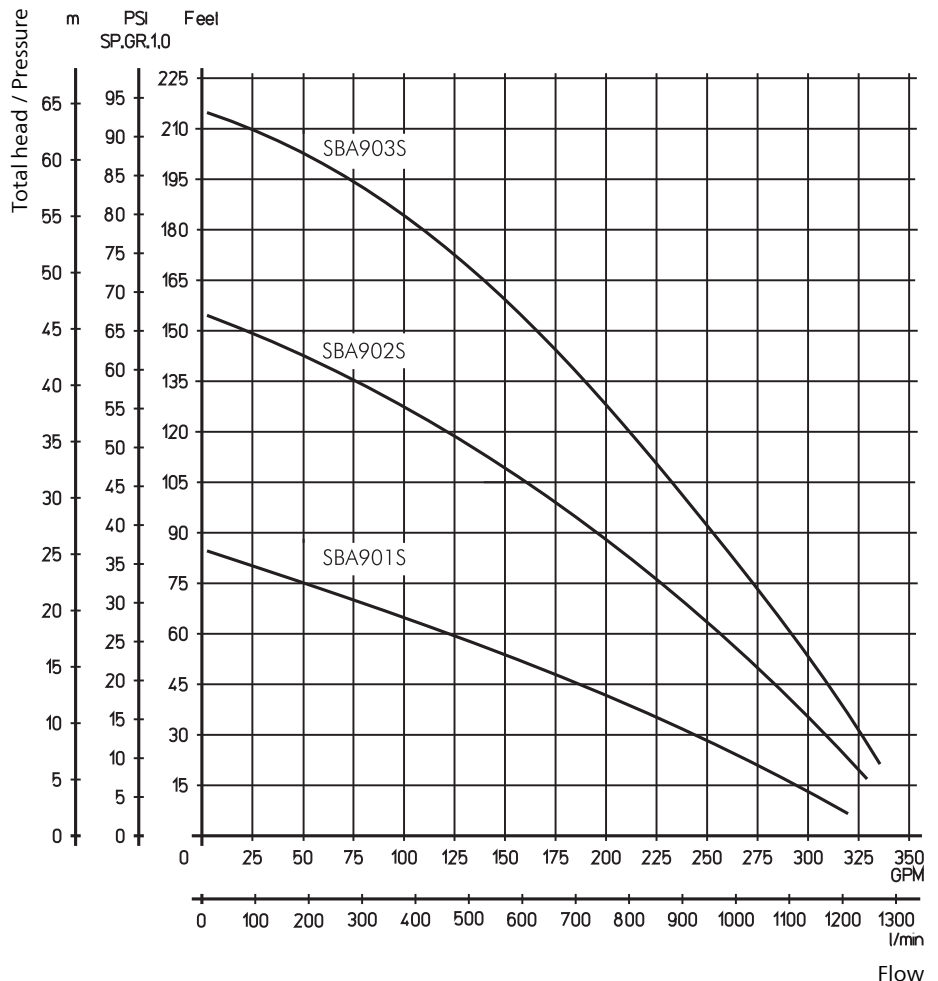
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA901S	73 dBA
SBA902S...SBA903S	78 dBA



Horizontal End-Suction Pumps

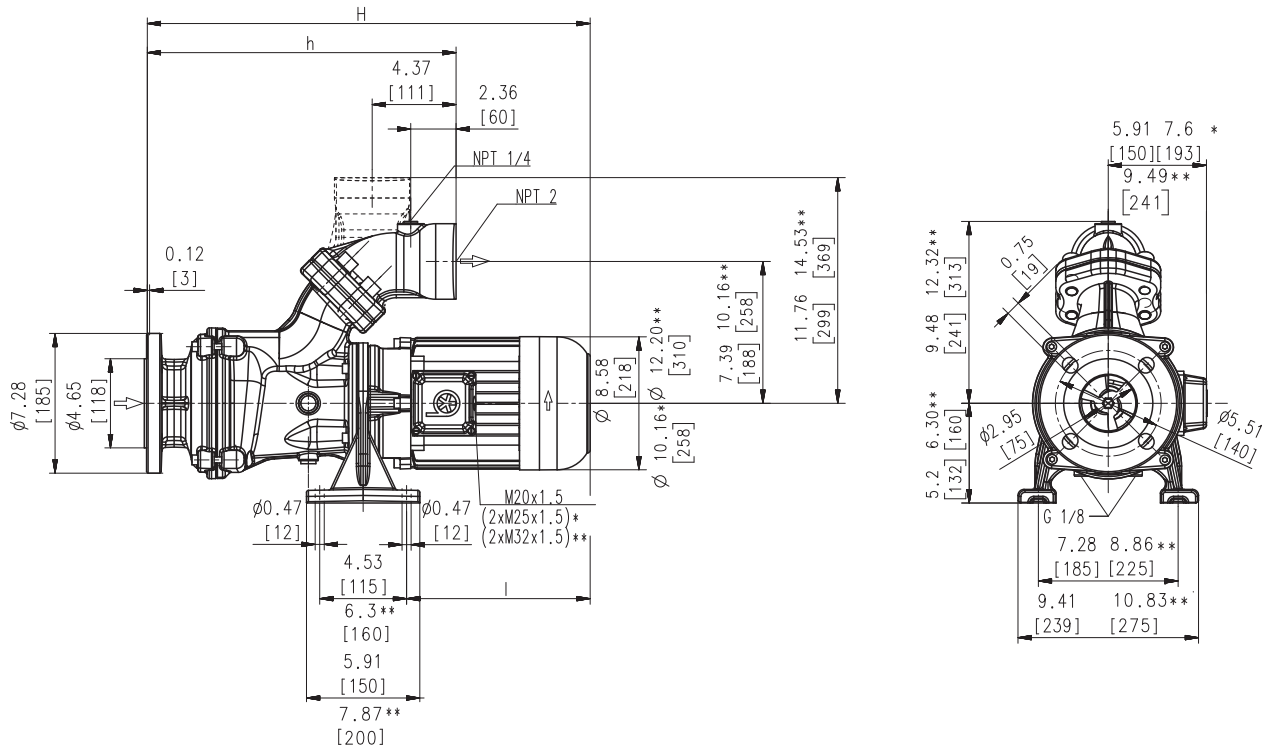
SBA1301S...1303S

Axial/semi-open impellers



60 Hz

SBA1301S...1303S



Dimensions in Inches / mm,
 *) Dimensions SBA1302S
 **) Dimensions SBA1303S

Type	Flow at head	Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA1301S	225/44	27.8	705	16.3	413	14.1	358	161.0	73	7.7	230	60	19.0	3520
	900/12									5.75	460	60	9.5	3520
SBA1302S	225/90	34.0	863	19.4	492	17.2	437	258	117	11.5	230	60	27.8	3550
	900/25									8.6	460	60	13.9	3550
SBA1303S	225/135	37.4	951	25.3	643	16.6	422	313	142	16.9	230	60	39.2	3560
	900/39									12.6	460	60	19.6	3560



Horizontal End-Suction Pumps

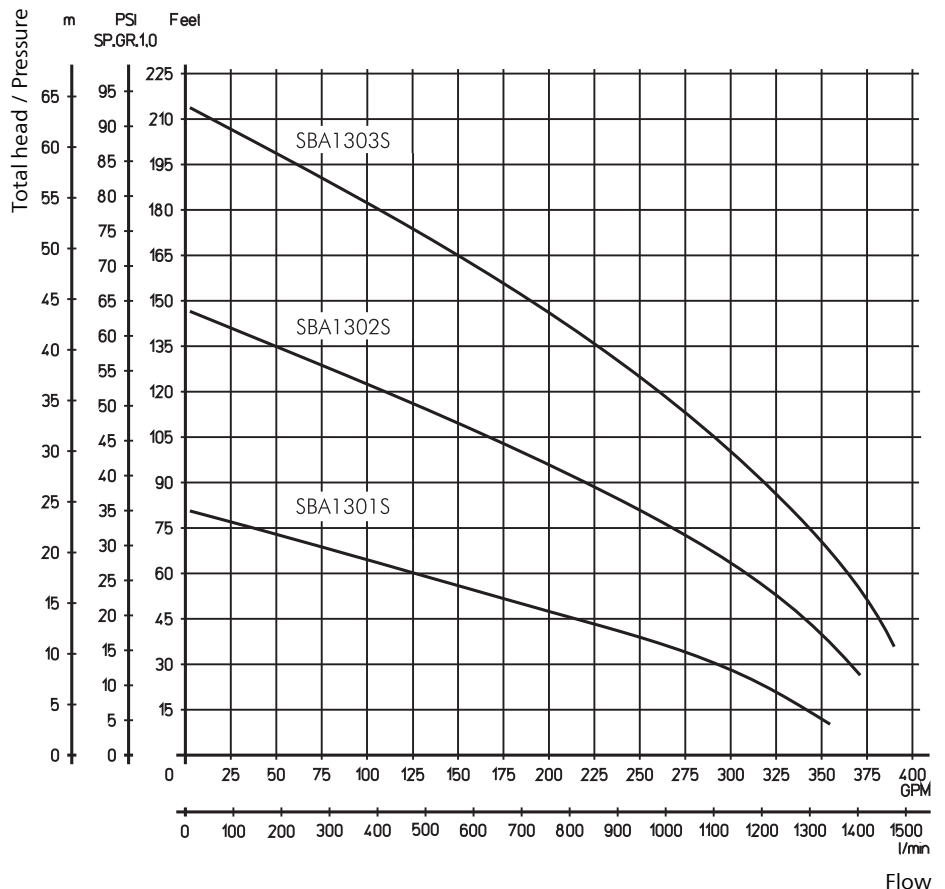
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Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA1301S	73 dBA
SBA1302S	78 dBA
SBA1303S	79 dBA



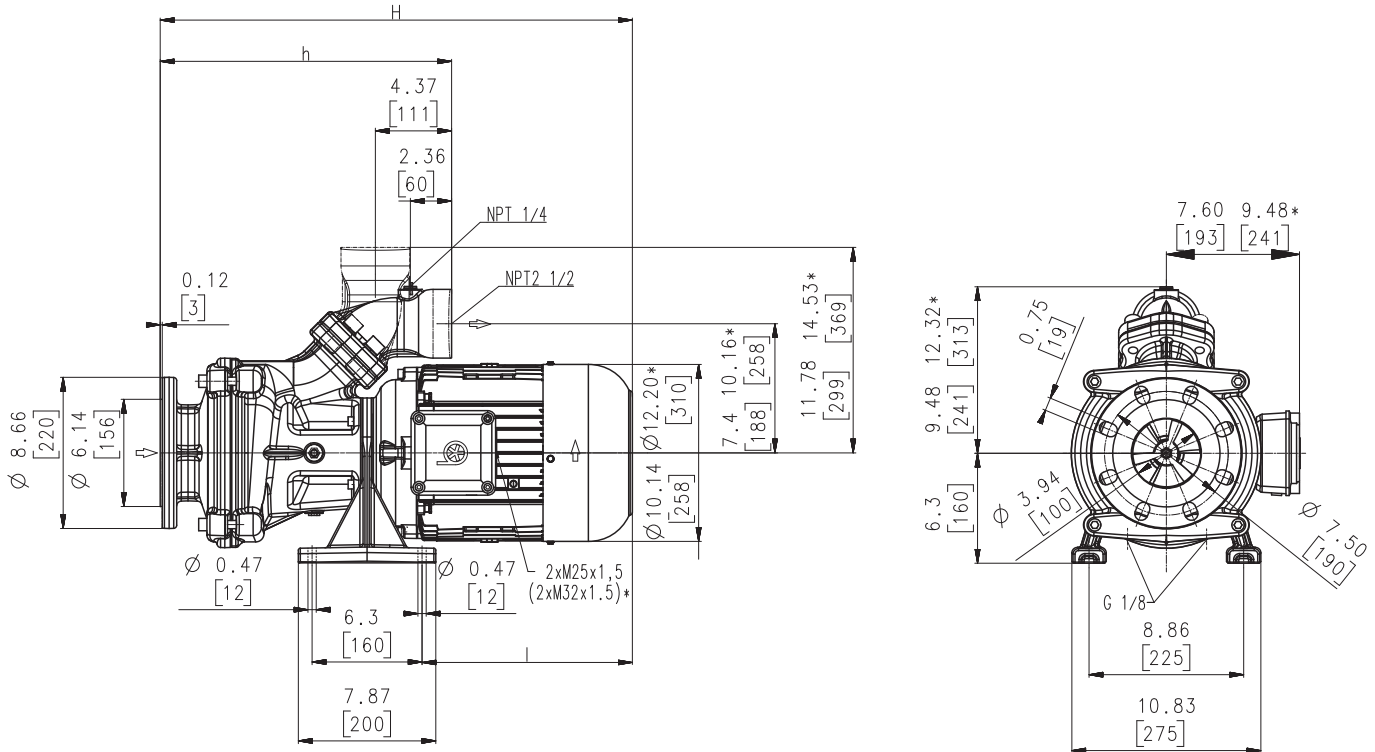
Horizontal End-Suction Pumps

SBA1600S...2000S

Axial/semi-open impellers



SBA1600S...2000S



Dimensions in Inches / mm
 *) Dimensions SBA2000S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBA1600S	350/60	31.2	793	16.7	424	16.3	414	265	120	13.8	230	60	31.6	3550
	1400/17									10.3	460	60	15.8	3550
SBA2000S	400/70	31.6	802	19.5	495	16.6	422	324	147	16.9	230	60	39.2	3560
	1600/20									12.6	460	60	19.6	3560



Horizontal End-Suction Pumps

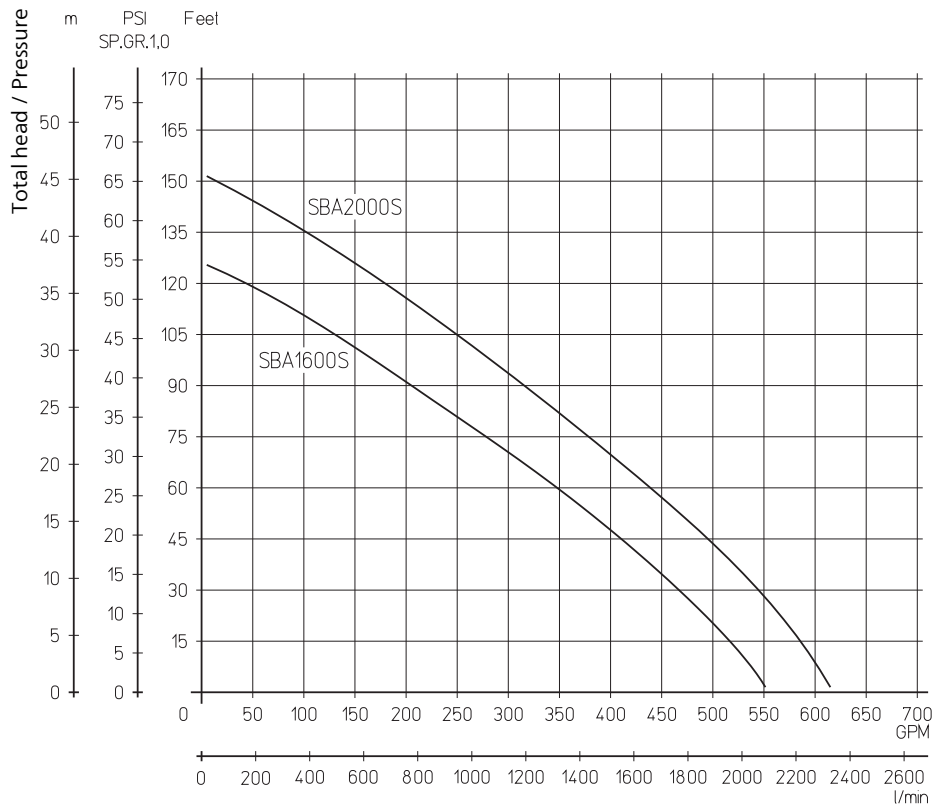
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant** fluids, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**. The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA1600S	78 dBA
SBA2000S	79 dBA



Vertical End Suction Pumps

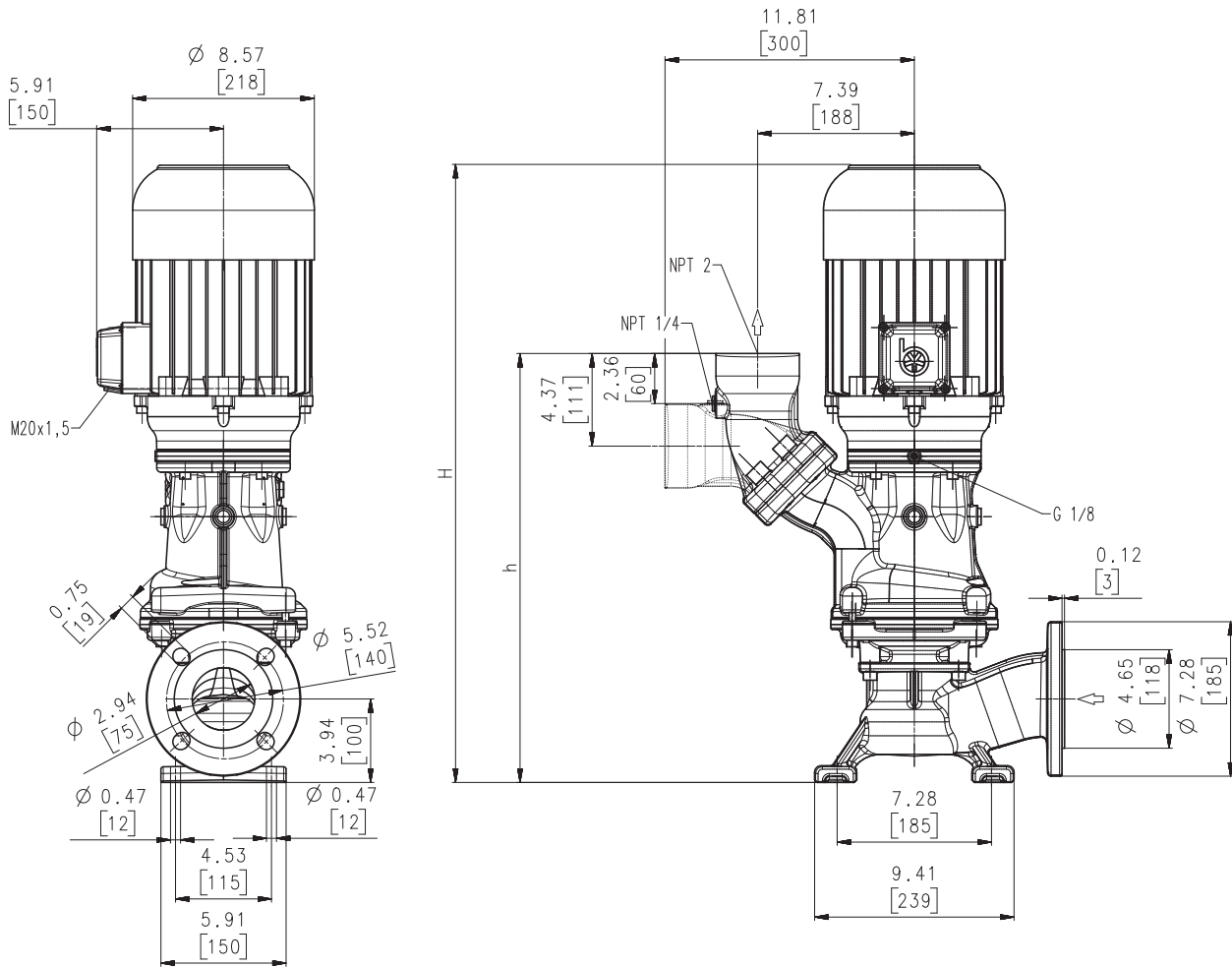
SBA901S...1301S-V

Axial/semi-open impellers



60 Hz

SBA901S...1301S-V



Dimensions in Inches / mm

Type	Flow at head		Dimensions				Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	Lbs	kg						
SBA901S-V	200/34	30.6	776	20.2	514	154.4	70	5.1	230	60	12.8	3520	
	600/12							3.8	460	60	6.4	3520	
SBA1301S-V	250/40	31.7	806	20.3	515	170	77	7.7	230	60	19.0	3520	
	900/12							5.75	460	60	9.5	3520	



Vertical End Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with double mechanical seal. This pump series is designed for vertical installations next to a tank and for pumping **air entrained coolant fluids**, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**.

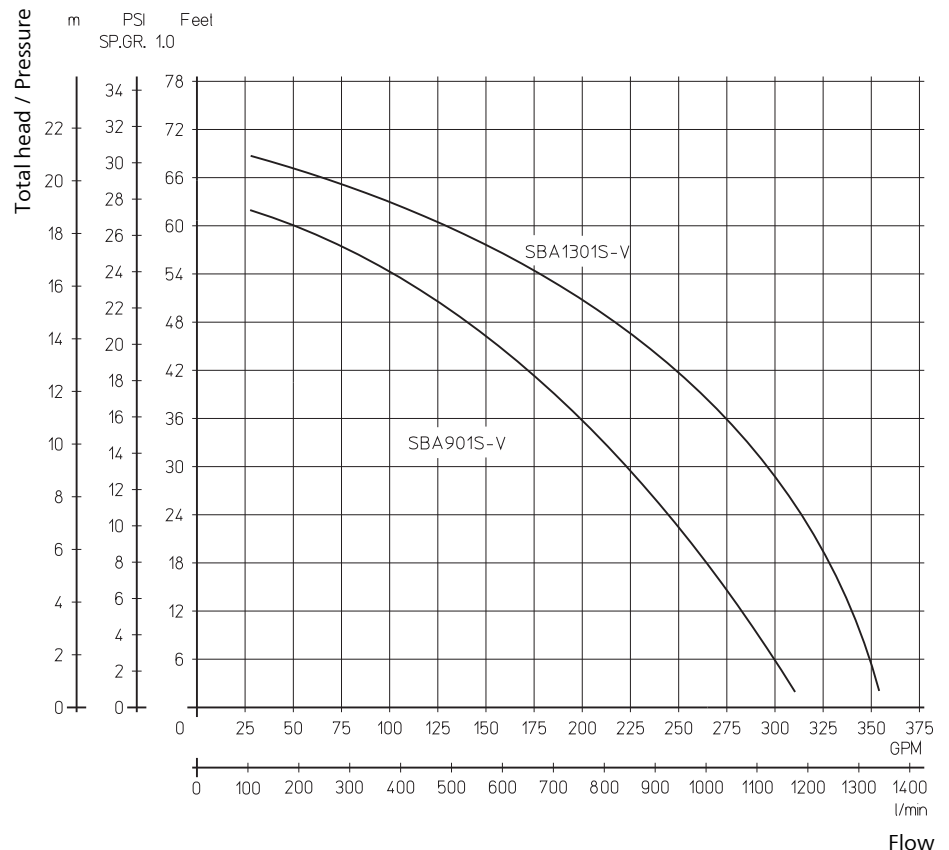
The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA901S-V...SBA1301S-V	74 dBA



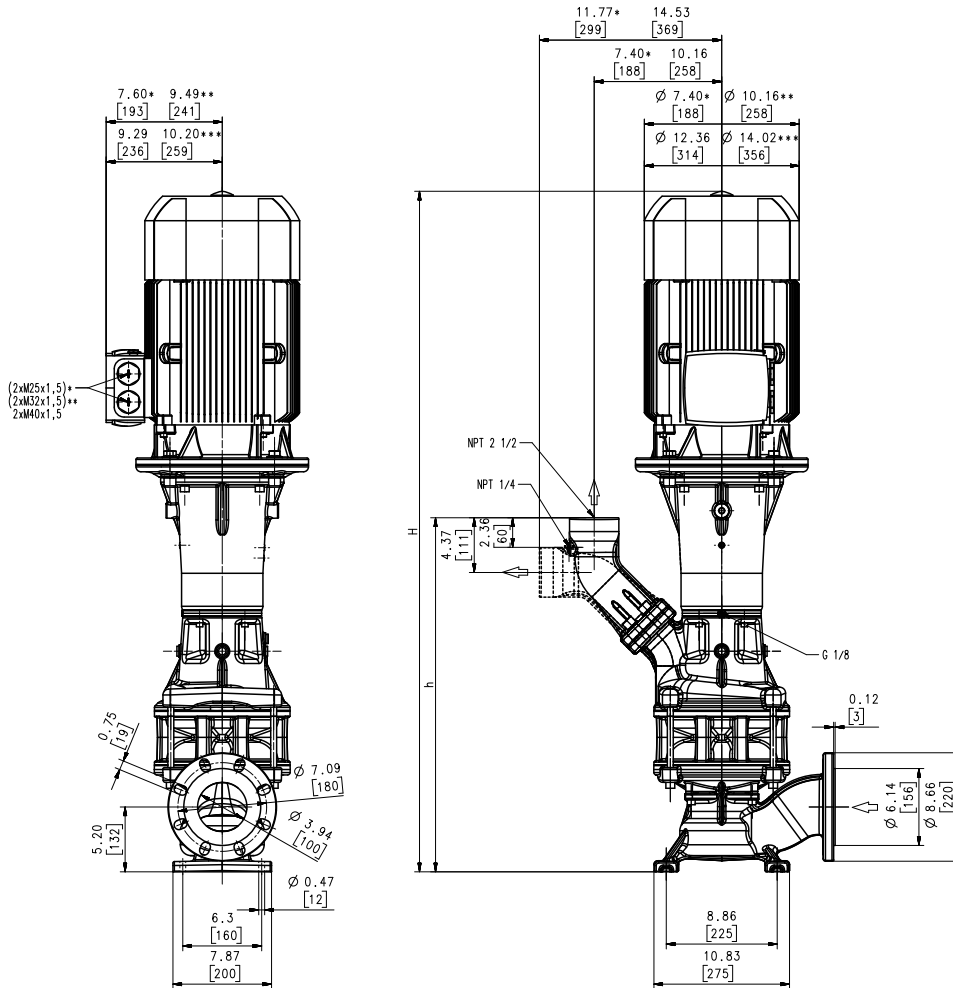
Vertical End Suction Pumps

SBA1600S...2002S-V

Axial/semi-open impellers



SBA1600S...2002S-V



Dimensions in Inches / mm
 *) Dimensions SBA1600S-V
 **) Dimensions SBA2000S-V
 ***) Dimensions SBA2002S-V

Type	Flow at head	Dimensions				Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SBA1600S-V	350/54	35.7	907	21.2	538	291	132	13.8	230	60	31.6	3550
	1400/15							10.3	460	60	15.8	3550
SBA2000S-V	450/60	36.1	916	24.0	609	351	159	16.9	230	60	39.2	3560
	1600/21							12.6	460	60	19.6	3560
SBA1602S-V	350/120	54.4	1381	28.3	719	503	228	29	460	60	32	3555
	1400/34							21.3				
SBA2002S-V	450/120	56.5	1435	28.3	719	553	251	34	460	60	37.5	3550
	1600/41							25.3				



Vertical End Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with double mechanical seal. This pump series is designed for vertical installations next to a tank and for pumping **air entrained coolant fluids**, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**.

The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

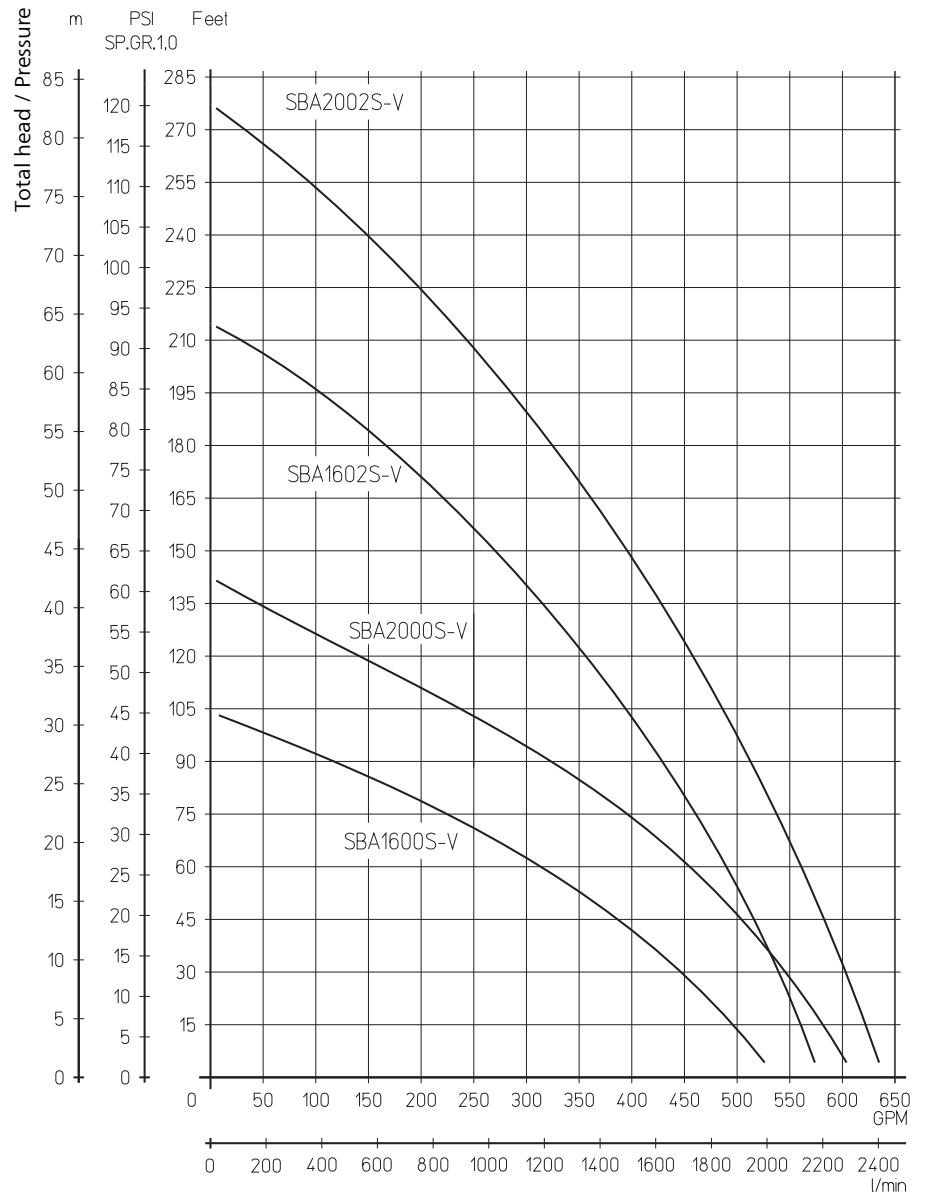


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA1600S-V...SBA2000S-V	76 dBA
SBA1602S-V...SBA2002S-V	79 dBA



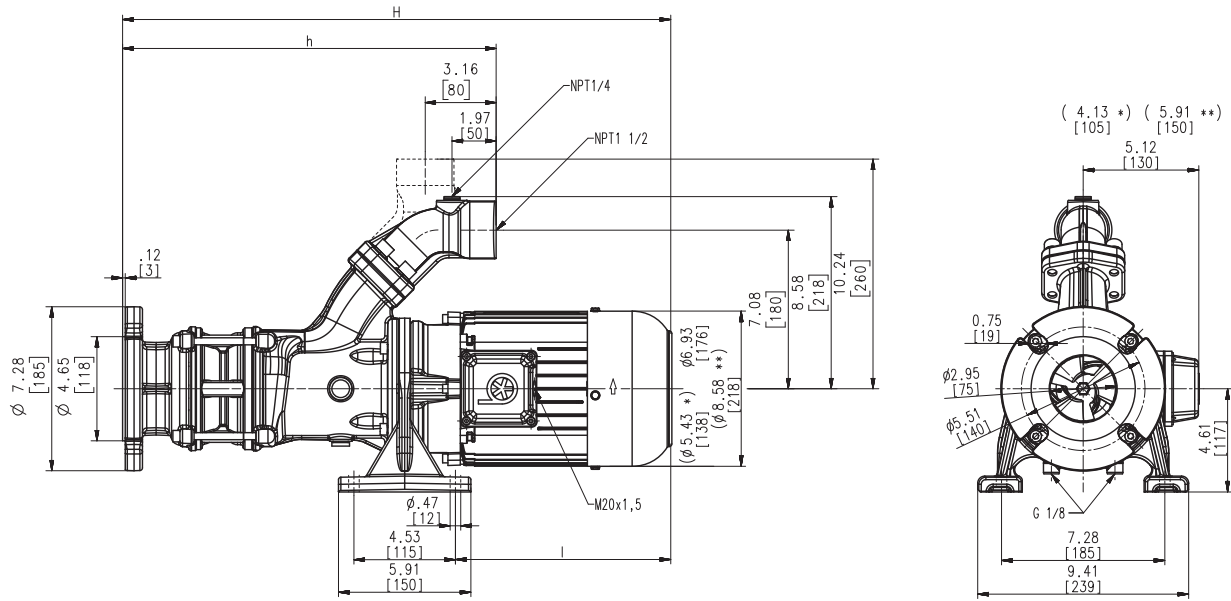
Horizontal End-Suction Pumps

SBG501S...503S

Axial/semi-open impellers



SBG501S...503S



Dimensions in Inches / mm
 *) Dimensions SBG501S
 **) Dimensions SBG503S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBG501S	60/30	20.6	524	14.2	360	8.3	211	68.4	31	1.7	230	60	4.8	3440
	240/9									1.27	460	60	2.4	3440
SBG502S	60/62	26.2	666	16.7	424	11.4	289	101.4	46	3.4	230	60	8.8	3480
	240/18									2.55	460	60	4.4	3480
SBG503S	60/90	30.3	769	19.2	488	12.9	328	132.3	60	5.1	230	60	12.8	3520
	240/25									3.8	460	60	6.4	3520



Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**. The SBG pumps are equipped with the user-friendly **SAE flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

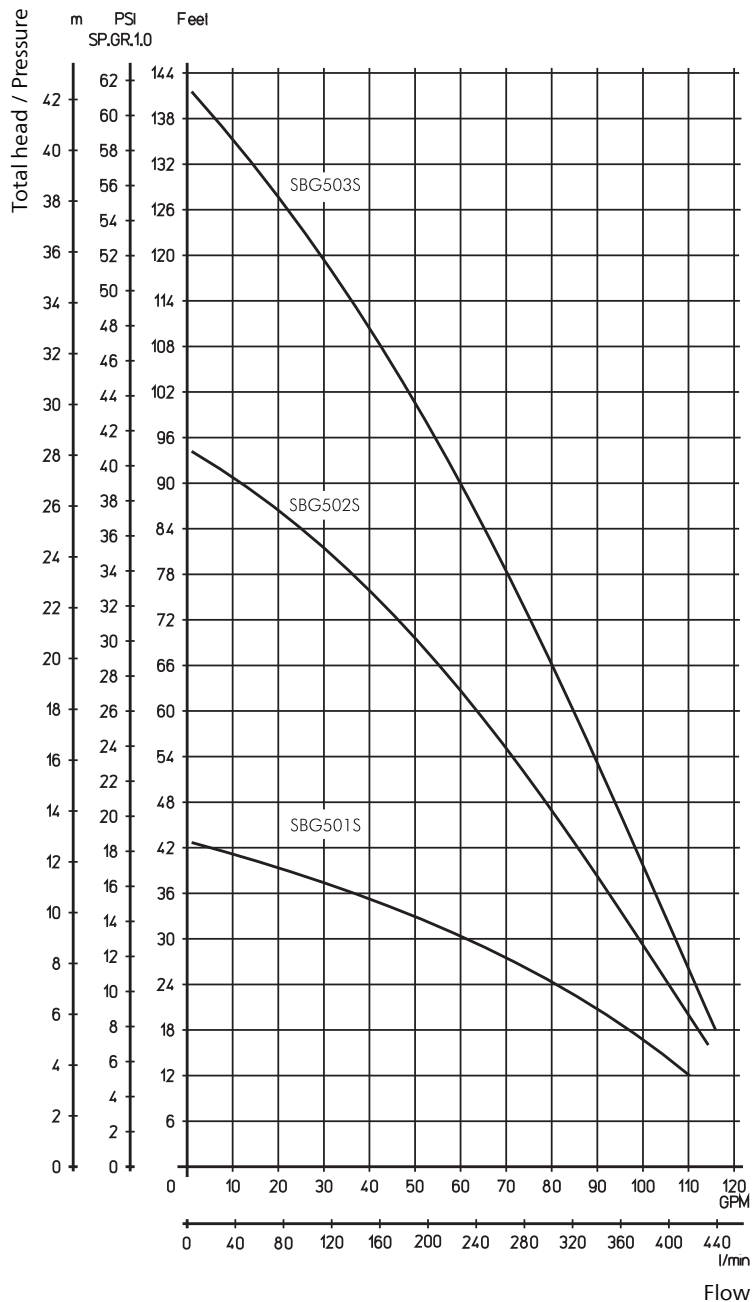


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG501S	70 dBA
SBG502S	73 dBA
SBG503S	75 dBA



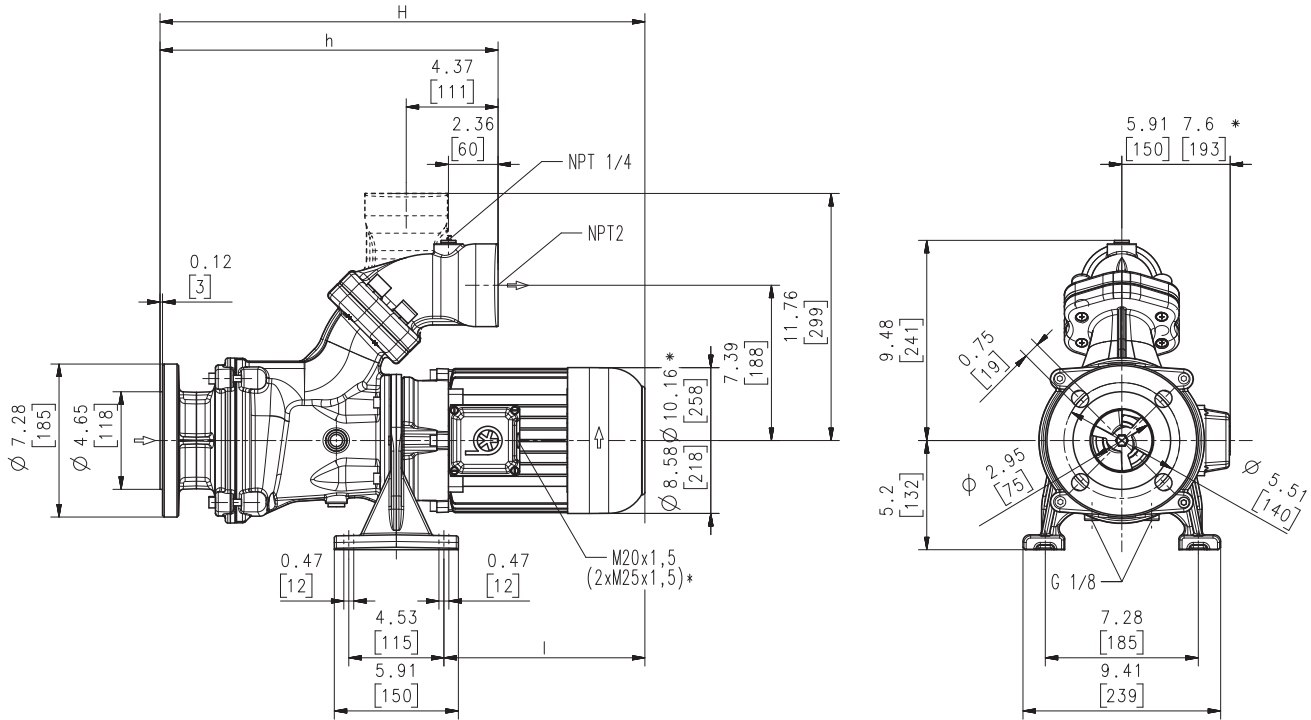
Horizontal End-Suction Pumps

SBG801S...803S

Axial/semi-open impellers



SBG801S...803S



Dimensions in Inches / mm; *) Dimensions SBG802S, 803S

Type	Flow at head	Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
	GPM /Feet l/min /m	H inch H mm	h inch h mm	l Inch l mm	Lbs kg									
SBG801S	150/46	26.4	671	16.1	409	12.9	328	145.5	66	5.1	230	60	12.8	3520
	600/14									3.8	460	60	6.4	3520
SBG802S	150/92	32.0	812	18.9	479	15.7	399	227	103	9.2	230	60	21.2	3550
	600/26									6.9	460	60	10.6	3550
SBG803S	150/112	36.2	919	21.6	548	17.2	437	273	124	13.8	230	60	31.6	3550
	600/31									10.3	460	60	15.8	3550



Horizontal End-Suction Pumps

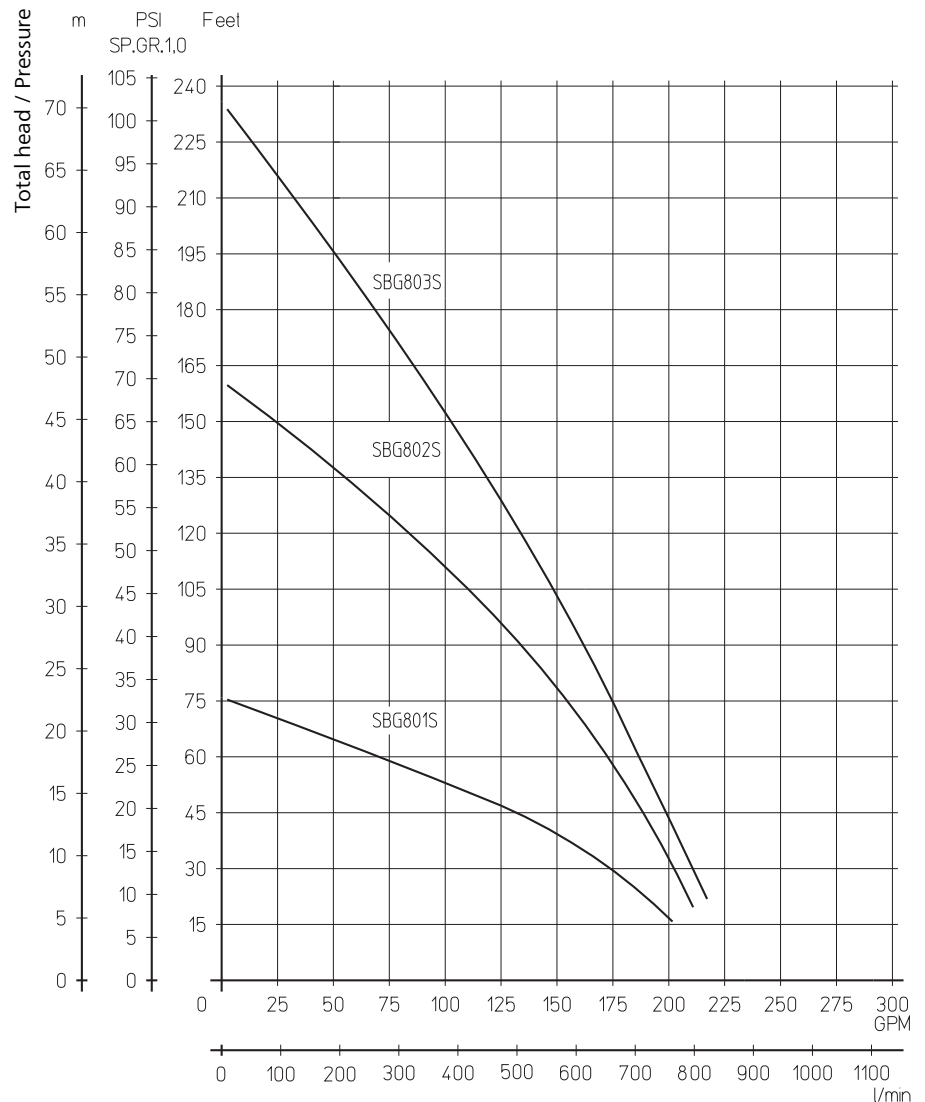
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**. The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG801S	75 dBA
SBG802S	76 dBA
SBG803S	79 dBA



Horizontal End-Suction Pumps

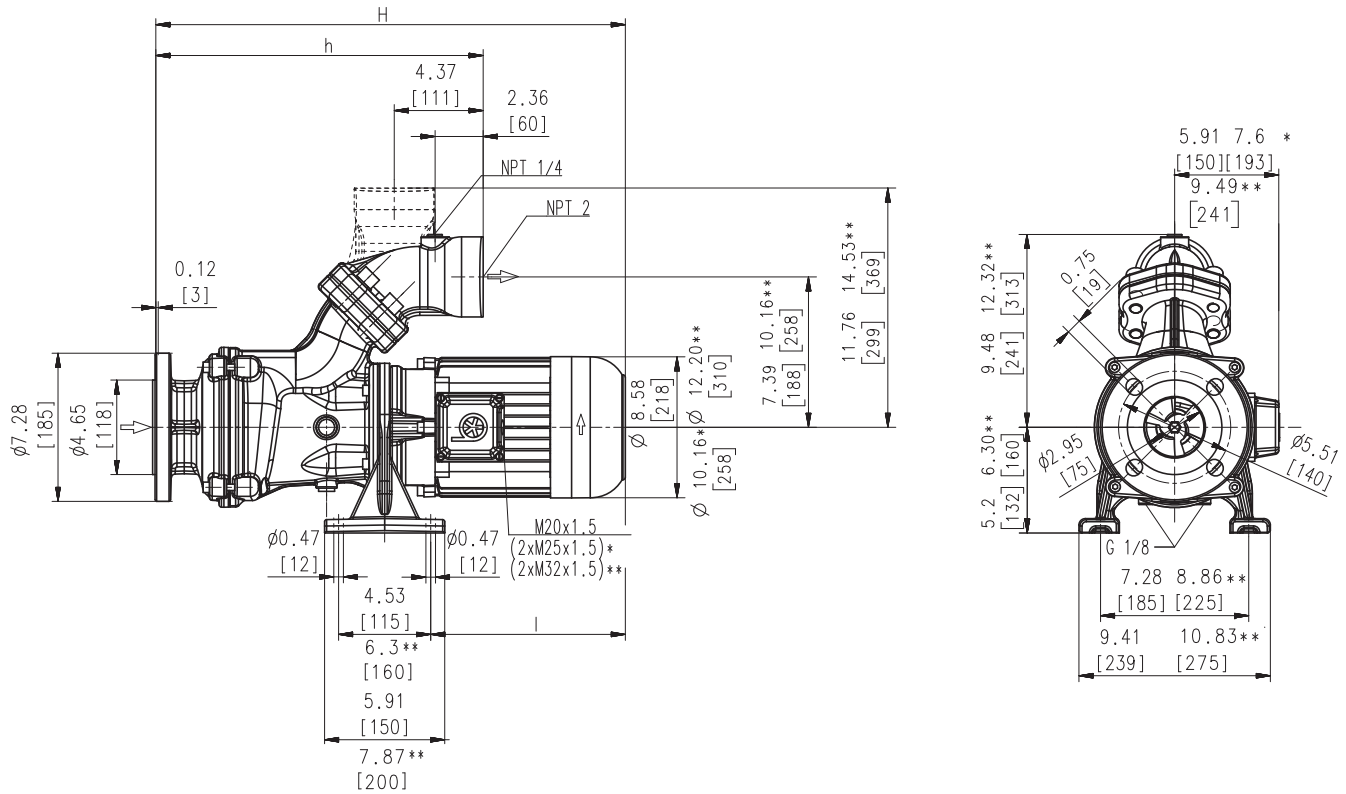
SBG1101S...1103S

Axial/semi-open impellers



60 Hz

SBG1101S...1103S



Dimensions in Inches / mm

*) Dimensions SBG1102S

**) Dimensions SBG1103S

Type	Flow at head GPM /Feet l/min /m	Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM		
		H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBG1101S	225/40 850/12	27.8	705	16.3	413	14.1	358	161.0	73	7.7	230	60	19.0	3520
				10.16**	12.20**	7.39	10.16**	11.76	14.53**	258	310	188	258	299
SBG1102S	225/76 850/24	34.0	863	19.4	492	17.2	437	258	117	13.8	230	60	31.6	3550
				10.3	460	60	15.8	3550						
SBG1103S	225/105 850/32	37.4	951	25.3	643	16.6	422	313	142	20.1	230	60	48.2	3560
				15.0	460	60	24.1	3560						



Horizontal End-Suction Pumps

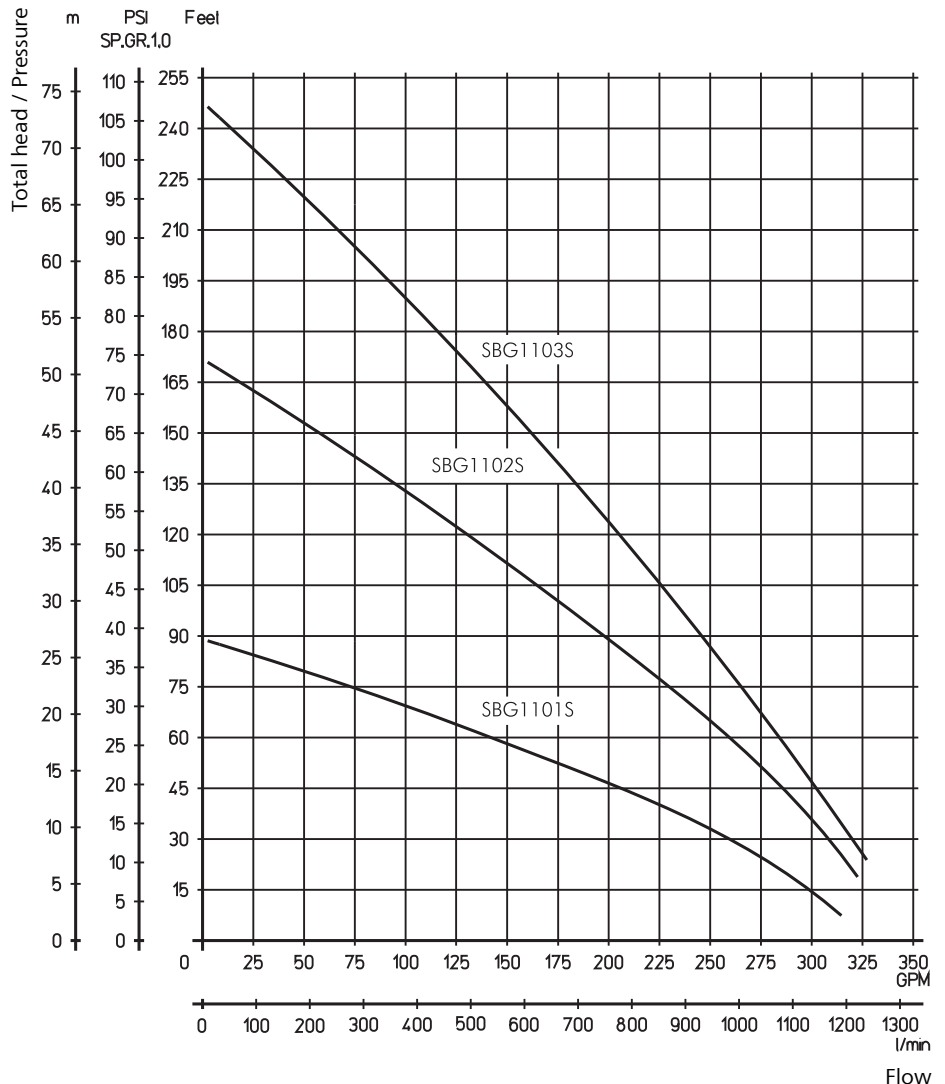
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**. The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG1101S	76 dBA
SBG1102S...1103S	79 dBA



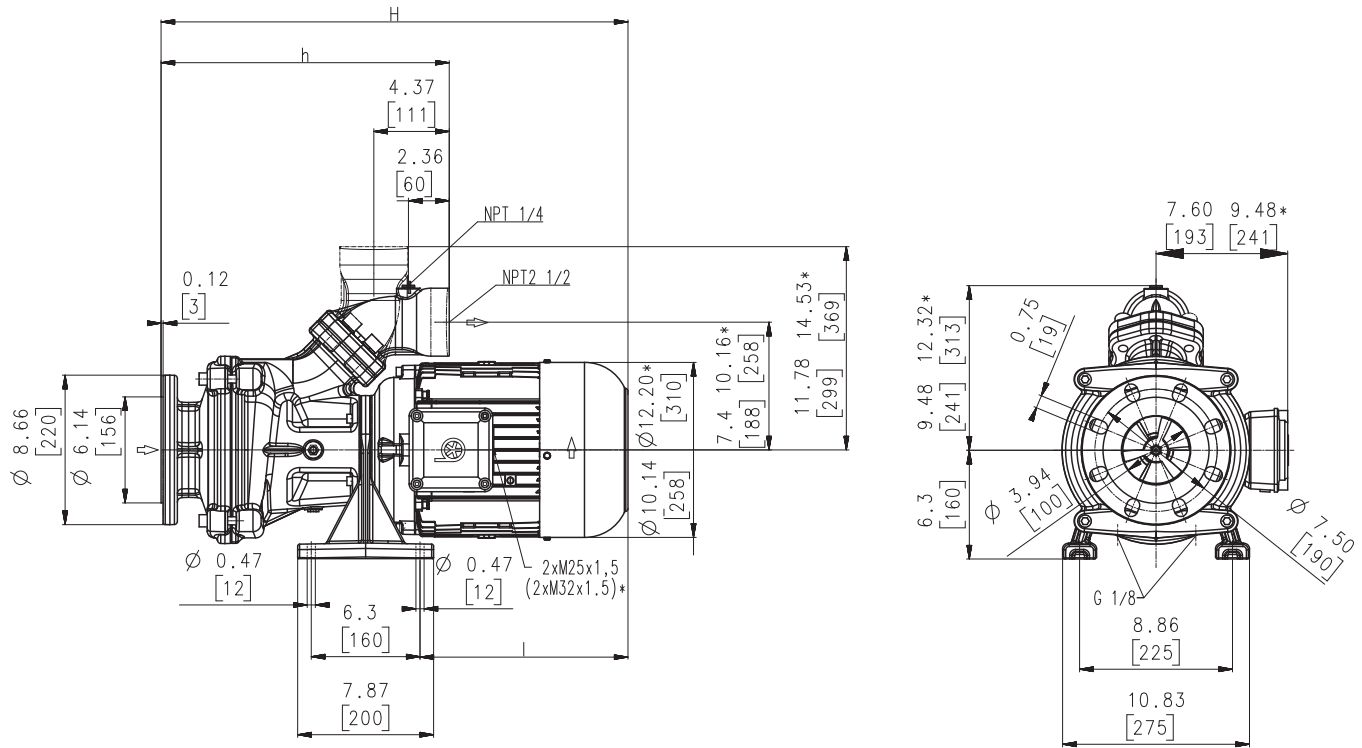
Horizontal End-Suction Pumps

SBG1400S...1700S

Axial/semi-open impellers



SBG1400S...1700S



Dimensions in Inches / mm
*) Dimensions SBG1700S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBG1400S	300/60	31.2	793	16.7	424	16.3	414	265	120	13.8	230	60	31.6	3550
	1200/17									10.3	460	60	15.8	3550
SBG1700S	400/60	31.6	802	19.5	495	16.6	422	324	147	20.1	230	60	48.2	3560
	1600/17									15.0	460	60	24.1	3560



Horizontal End-Suction Pumps

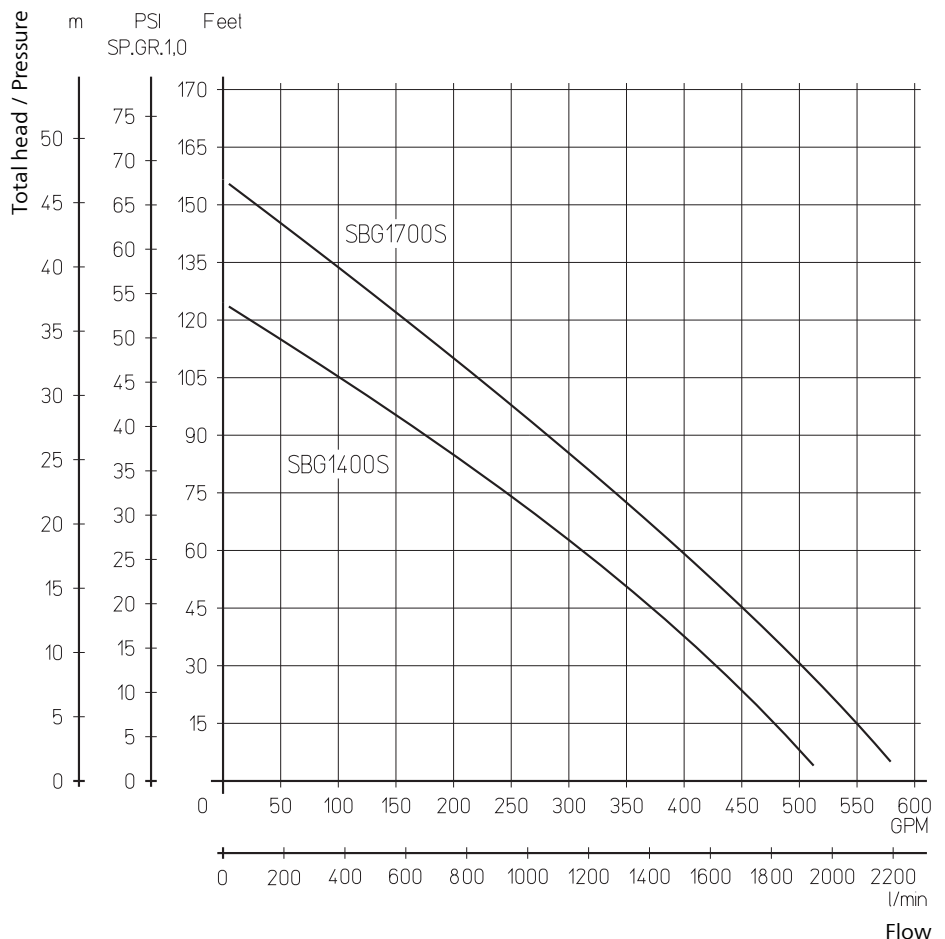
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**. The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG1400S	78 dBA
SBG1700S	79 dBA



Vertical End Suction Pumps

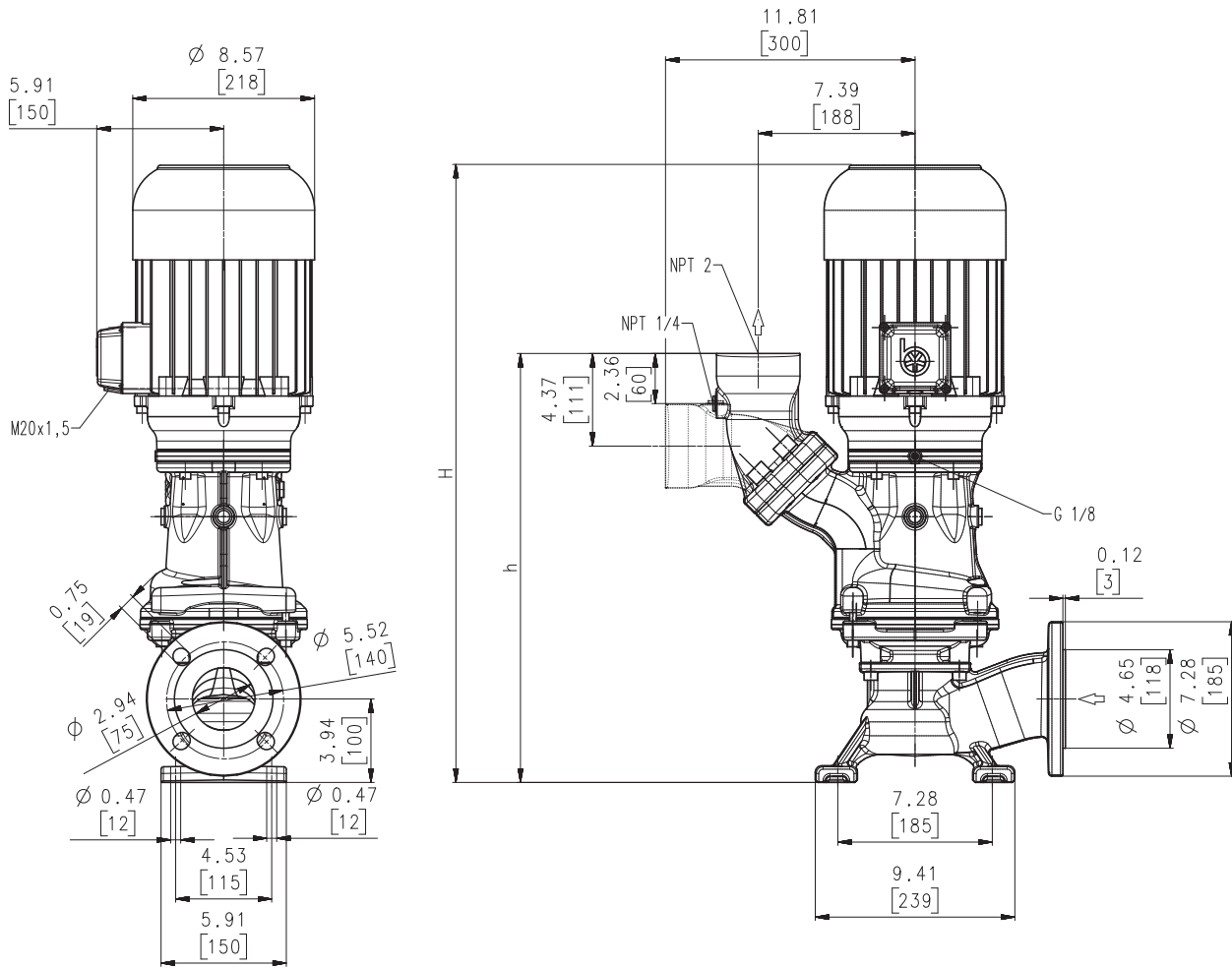
SBG801S...1101S-V

Axial/semi-open impellers



60 Hz

SBG801S...SBG1101S-V



Dimensions in Inches / mm

Type	Flow at head		Dimensions				Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch H mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM		
SBG801S-V	175/32	30.3 769	20.0	507	154.4	70	5.1	230	60	12.8	3520		
	600/11						3.8	460	60	6.4	3520		
SBG1101S-V	225/36	31.2 792	20.2	514	170	77	7.7	230	60	19.0	3520		
	800/12						5.75	460	60	9.5	3520		



Vertical End Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with double mechanical seal. This pump series is designed for vertical installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**.

The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

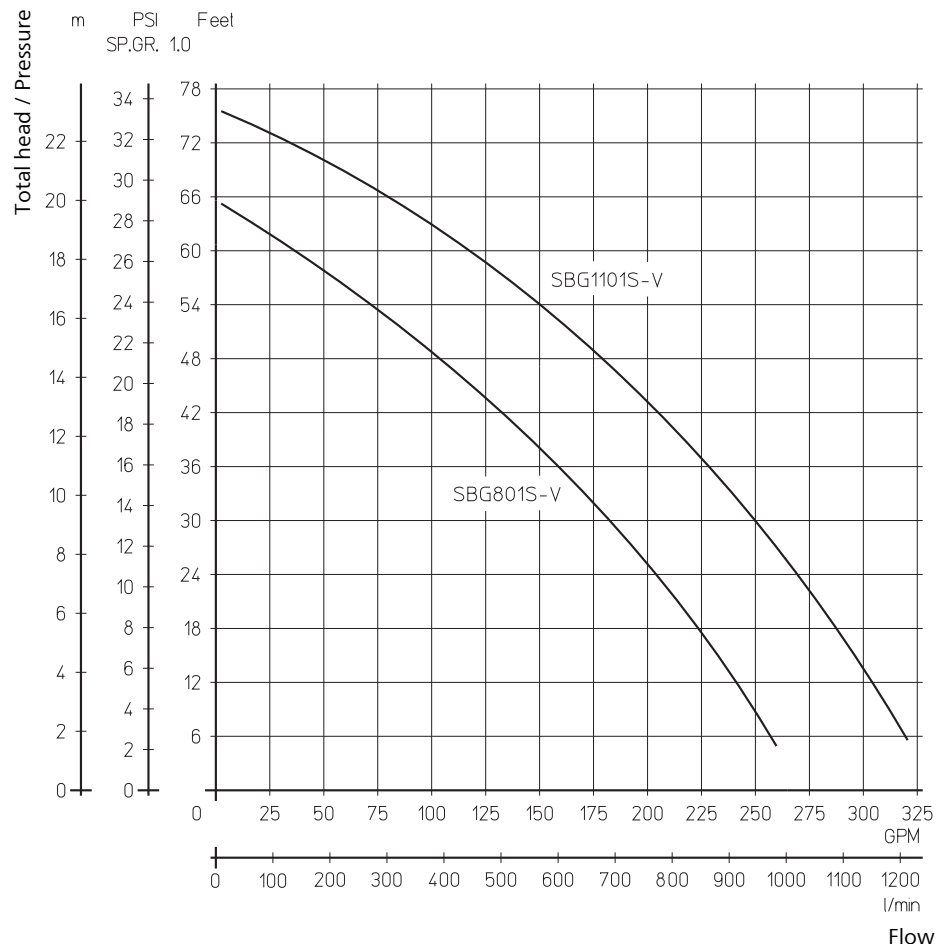
All types specified are also available as multistage pumps e.g. SBG802S-V, SBG1103S-V.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level SBG801S-V...SBG1101S-V	74 dBA



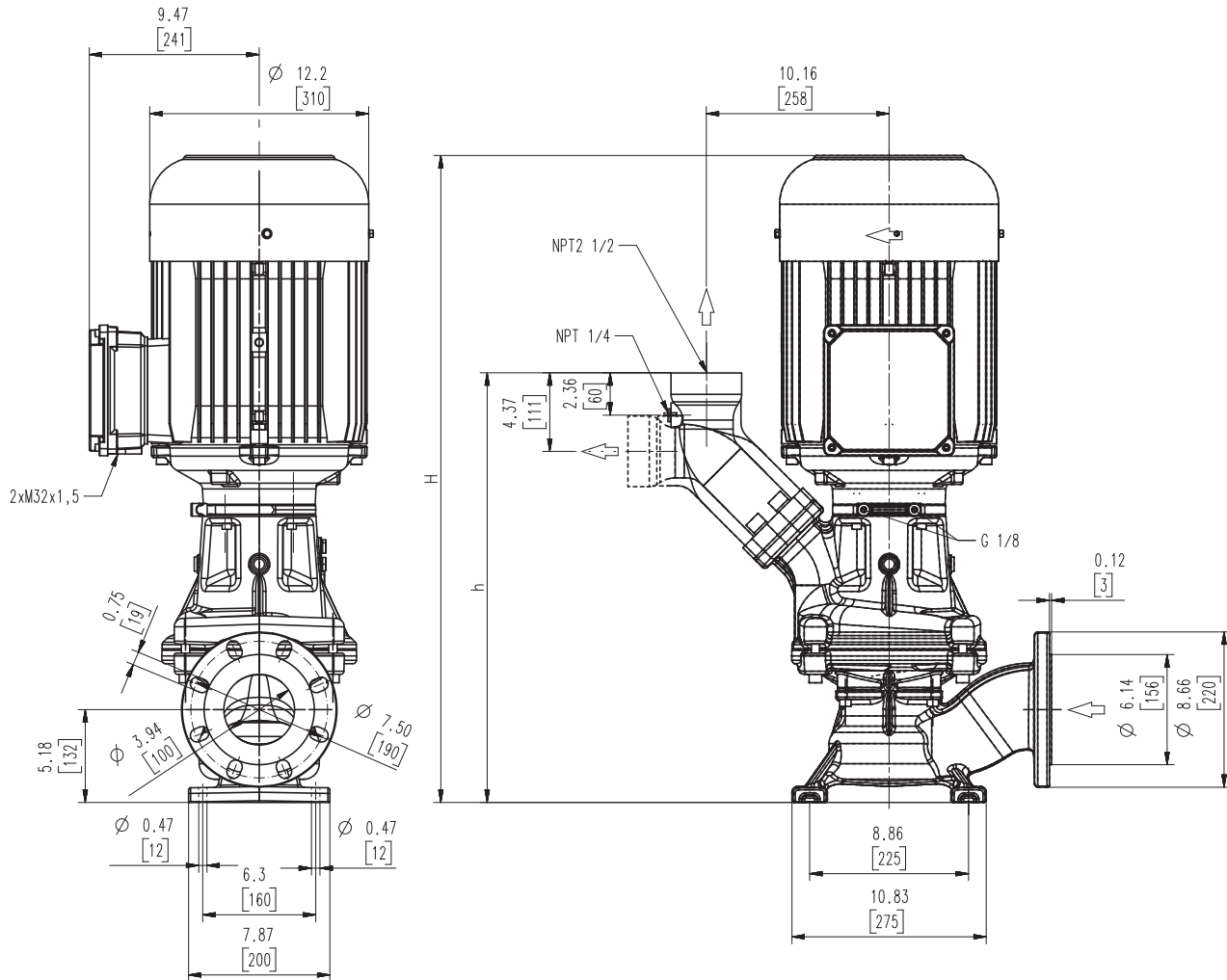
Vertical End Suction Pumps

SBG1700S-V

Axial/semi-open impellers



SBG1700S-V



Dimensions in Inches / mm

Type	Flow at head	Dimensions		Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	HP kW	3~ V	quen- cy Hz	AMPS	RPM
SBG1700S-V	350/45	36.1	916	24.0	609	20.1	230	60	48.2	3560
	1300/15					15.0	460	60	24.1	3560



Vertical End Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with double mechanical seal. This pump series is designed for vertical installations next to a tank and for pumping **highly air entrained coolant and cutting oils**, as they occur in **high speed grinding applications**.

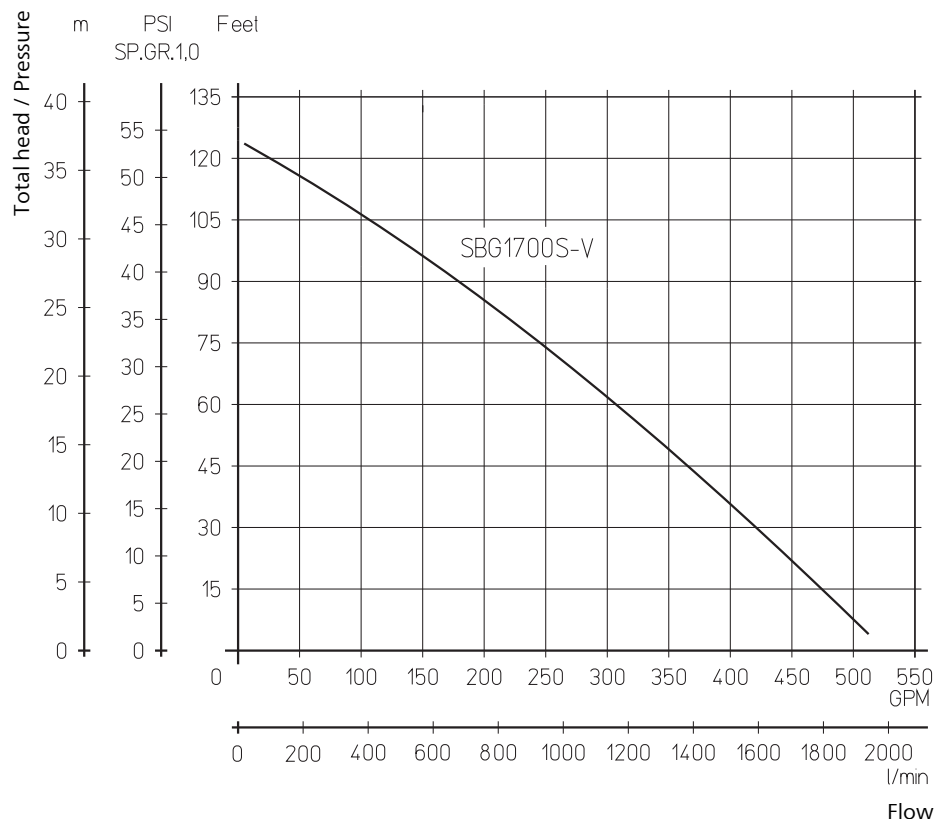
The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level SBG1700S-V	79 dBA



Horizontal End-Suction Pumps

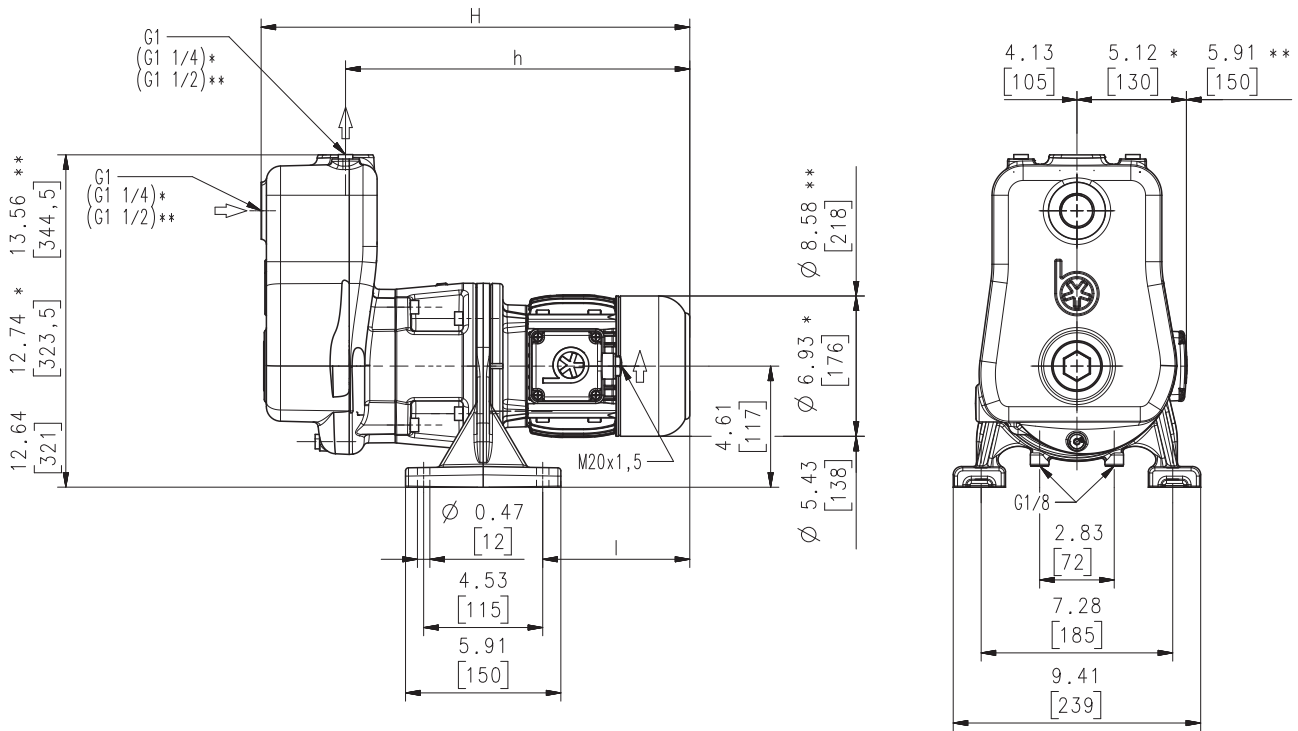
SBM140S...450S

Semi-open impellers



60 Hz

SBM140S...450S



Dimensions in Inches / mm
 *) Dimensions SBM315S
 **) Dimensions SBM450S

Type	Flow at head	Dimensions		Length		Weight		Power	Voltage 3~	Fre- quen- cy	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm						Lbs	kg
SBM140S	40/36	18.1	461	14.8	375	7.2	184	63.9	29	1.4	230	60	4.2	3440
	120/12									1.06	460	60	2.1	3440
SBM315S	60/47	21.3	542	17.5	444	10.1	256	101.4	46	2.6	230	60	7.0	3480
	240/14									1.95	460	60	3.5	3480
SBM450S	80/72	24.6	625	20.3	515	12.9	328	121.3	55	5.1	230	60	12.8	3520
	270/24									3.8	460	60	6.4	3520



Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft.

These pumps are **self-priming after initial filling.**

All pumps are equipped with a single mechanical seal.

SBM Pumps are mounted **next to or on top** of the tank and they are suitable for pumping **air entrained coolant fluids**, such as **water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications.**

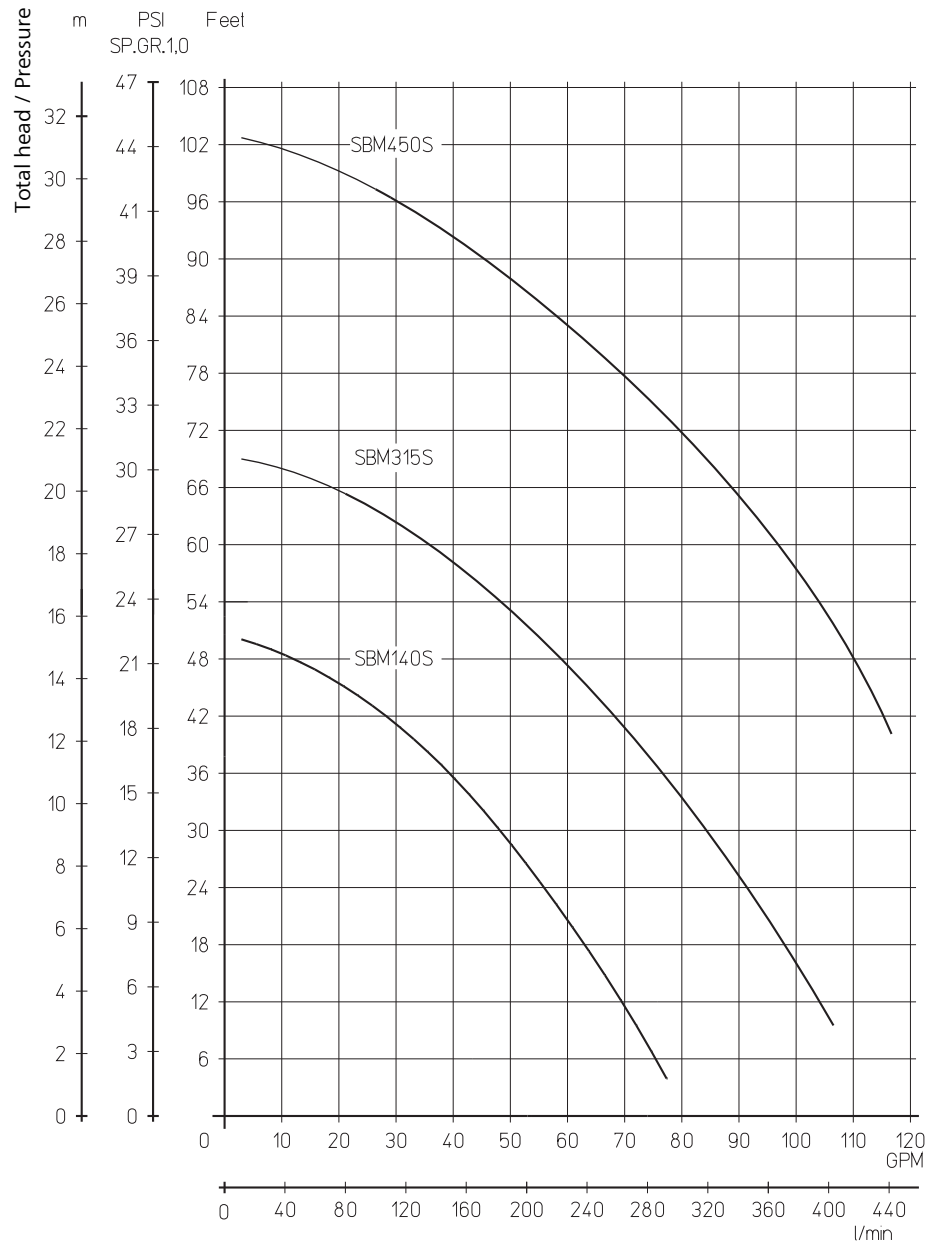
For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)
- Suction height
 - 5 m

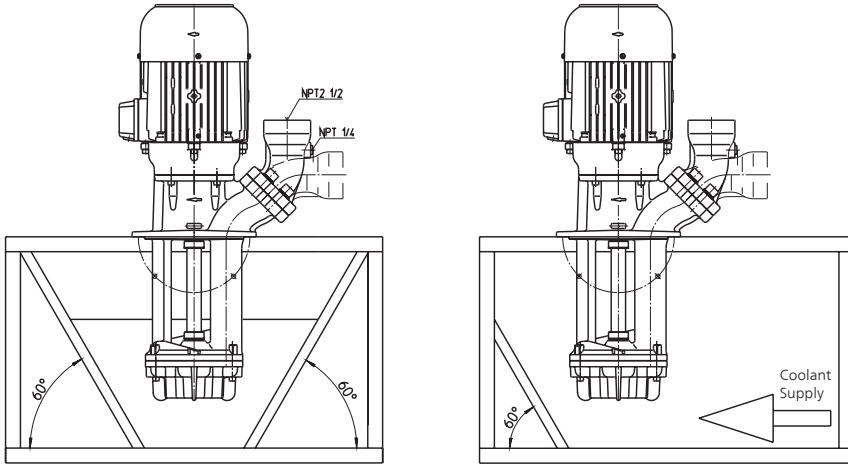
Construction

Cover	cast iron
Impeller	cast steel
Shaft	steel
Mechanical seal	SiC



Lifting pump versions SFL | SBF

Lifting Pumps SFL



The SFL pump series represents an innovative lift pump concept which has found many pumpback applications world wide. The SFL pumps series can be customized through various options and upgrades.

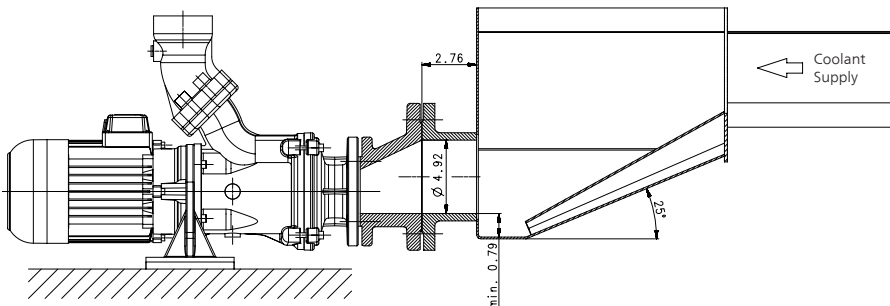
Properly planned system and tank design allow for the possibility to use the **SFL** and **SFC Cutter pumps** interchangeably within the same tank in order to ensure maximum flexibility with respect to being able to react to changing machining materials or different chip geometries.

	Impeller material	Inlet cover material	Slurping mode	Chip handling capabilities	Max. chip to coolant ratio by weight
SFL...Standard	cast steel	special cast iron	yes	colored metal, aluminum, cast iron	1%
SFL...CM1	CrMo	special cast iron	yes	steel, medium alloyed steel	1%
SFL...CM3	CrMo	CrMo	yes	forged materials high alloyed steels hardened steels	1%
SFL...CM4	CrMo	CrMo	yes	forged materials high alloyed steels hardened steels	1%

Type	Chip diameter	Chip length
	Inch / mm	Inch / mm
SFL650	0.3 / 8	0.6 / 15
SFL850	0.4 / 10	0.8 / 20
SFL1150	0.6 / 15	1.18 / 30
SFL1350	0.6 / 15	1.18 / 30
SFL1550	0.6 / 15	1.18 / 30
SFL1850	0.6 / 15	1.18 / 30
SFL2350	1.0 / 25	1.97 / 50

We gladly support you regarding any questions on pump regulation and control. A „saw-tooth operation“ with two different pump speeds might just be the perfect solution for you.

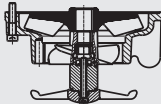
Lifting Pumps SBF



SBF pumps are comparable to SFL pumps from a technical standpoint. These pumps can be mounted directly to the machine and are available upon request with upgraded materials of construction which allow for unlimited dry-running (double mechanical seal).

Properly planned system and tank design allow for the possibility to use **SBF** and **SBC cutter pumps** interchangeably within the same tank by only adding an adapter flange.

Option:

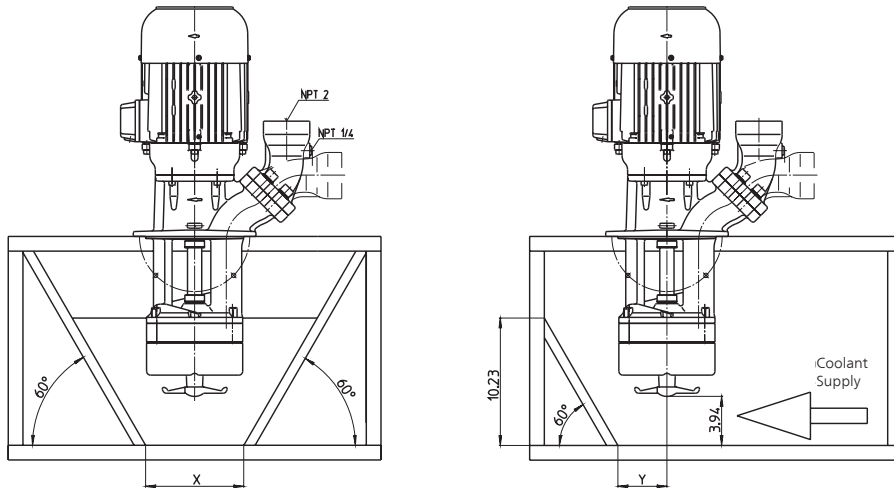


SFL and SBF pumps are also available with an additional agitator at the pump suction. The agitator can either be supplied directly with the pump assembly or is available as a separate component for installation in the field at a later date.

All information stated above is only intended as a general guide line for your system layout. Prior to placing your order please consult with our highly skilled sales force regarding your specific application in order to ensure proper pump selection.

Lifting pump versions SFC | SBC

Cutter Pumps SFC



Pumps of the SFC series have the following unique characteristics:

- Oversized motor to transfer additional cutting forces via the driving shaft if necessary
- Axial impeller which has been optimized for the cutting process
- Dry running capability
- Adjustable gap between both cutting blades for preventive maintenance (due to stiff motor bearing and shaft design)
- Maintenance free and shock absorbing bearing bushing

Type	X Inch / mm	Y Inch / mm
SFC820 SFC1120	7.87 / 200	3.94 / 100
SFC1520 SFC1820 SFC2320	10.83 / 275	5.5 / 140

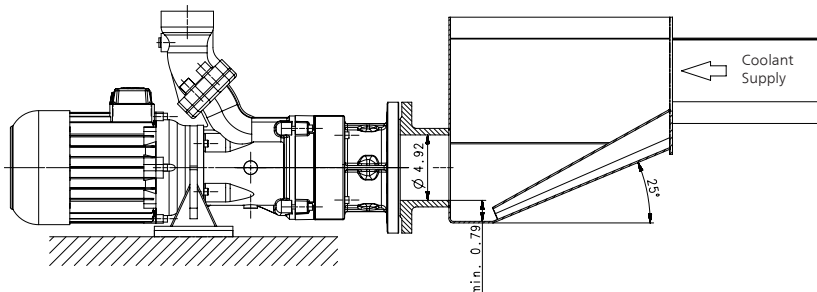
The cutter pumps of the series SFC are suited for cutting aluminum chips or similar materials and for pumping these materials along with the coolant fluid. An agitator located at the pump suction helps to break up and separate any large bundles of chips or bird nests which reach the pump suction. The hardened cutting unit (>60HRC) is cutting chips and the semi-open impeller with its large clearances allows to pump the particles along with the coolant fluid from the machine back to the filter. The SFC pumps are capable of handling chip to coolant ratios of up to 1.5% by weight. The cutter pump is equipped with a maintenance free shock absorbing bushing which has outstanding dry running capabilities.

Instead of cycling the pumps, the SFC pumps should be run continuously in order to prevent chips from entering the back plane of the impeller.

The agitator must be located 4 inches (100 mm) above the tank bottom in order to prevent unwanted objects, such as broken tools or indexing plates, from entering the pump suction.

The walls of the tank around the pump should be sloped at a 60 degree angle to avoid chips from collecting at the tank bottom. The coolant supply should be aimed directly at the pump to ensure that all contamination, including chip bundles, reach the pump suction (please refer to the above tank design as a guide line for your tank layout).

Cutter Pumps SBC



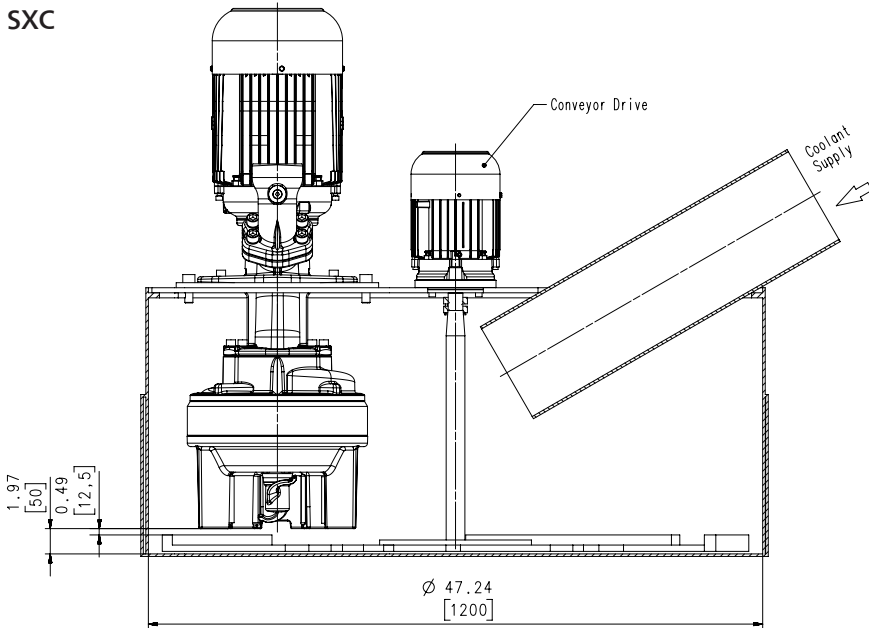
SBC pumps are comparable to SFC pumps from a technical standpoint. When directly mounted to the tank or to the machine tool preventive actions must be taken in order to avoid unwanted foreign objects, such as broken tooling pieces, from reaching the pump suction.

All information stated above is only intended as a general guide line for your system layout. Prior to placing your order please consult with our highly skilled sales force regarding your specific application in order to ensure proper pump selection.

Lifting pump versions SXC | SPC

Cutter Pumps SXC | SXC-R | SXC-H

SXC



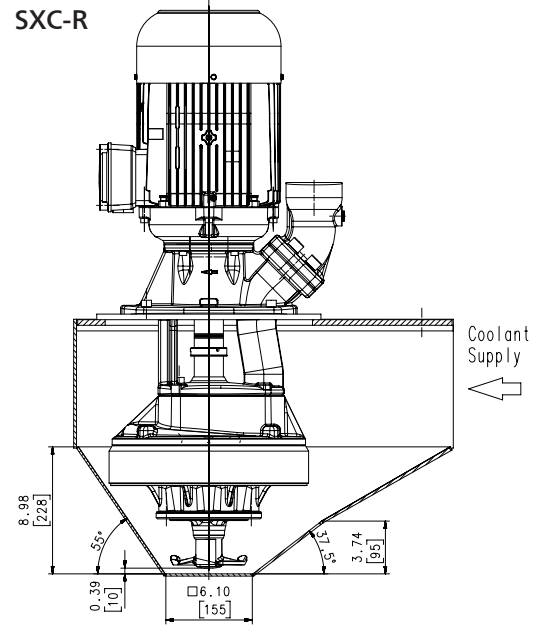
The cutter pumps of the series SXC are designed to handle low alloyed steels, machining steel (SXC-H) and cast iron / aluminum combinations (SXC). Chips can also be in the shape of birds nests or chip bundles.

The chips must be supplied to the suction

inlet of the pump, which are then picked up by the agitator broken up if necessary, and then cut and delivered by the pump.

In the case of brittle chips, such as cast iron rings, the SXC-R pump, which has an agitator that is capable of picking up the chips of the tank bottom, is to be applied.

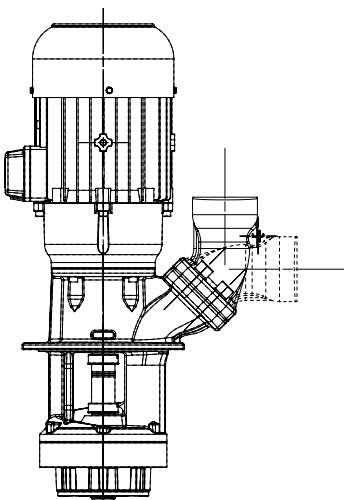
SXC-R



Proper tank design which ensures that all chips get to the pump suction is critical for all pump types.

Due to the complexity of this application we recommend to consult with our technical application specialists in order to ensure the proper pump selection.

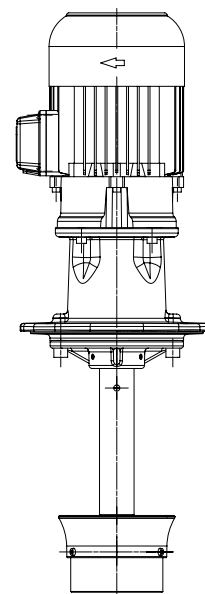
Cutter Pumps SPC



The cutter pumps of the series SPC are designed to handle and reliably cut long, stringy plastic chips.

Because of the higher number of cutting blades which results in an increased cutting frequency all chips are being consistently cut in small pieces.

Mixer IMX

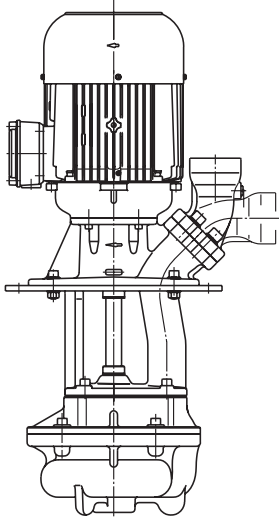


The IMX mixer is used to maintain a constant circulation of the fluid within the tank in order to prevent settling out of any sedimentation. Another popular application field for the mixer is to skim off and destroy any grinding wool and swarf mats that are accumulating on the coolant surface.

All information stated above is only intended as a general guide line for your system layout. Prior to placing your order please consult with our highly skilled sales force regarding your specific application in order to ensure proper pump selection.

Lifting pump versions SFT

Vortex Pumps SFT



Vortex pumps are traditional lift pumps with a recessed impeller that allows for a sphere passage of up to 50 mm. In order to ensure stable operating conditions the impeller must be fully flooded, and the pump must lift the fluid at least 10–25 inch (3–8 m) above the pump discharge.

	Impeller material	Inlet cover material	Shaft bushing	Max. chip to coolant ratio by weight	sphere size passage Inch / mm	Chip handling capabilities
SFT450 SFT710 SFT1100	Cast steel	Special cast iron	SIC/SIC	1.5%	1.97 / 50	colored metal aluminum cast iron steel alloyed steel hardened steel forged steel
SFT1300 SFT1350 SFT1400 SFT2254 SFT3054 SFT3554	Cast steel	Special cast iron	Cartridge	1.5%	1.77 / 45	
SFT1554-C	Cast steel	Special cast iron	Cartridge	1.5%	1.57 / 40	

All information stated above is only intended as a general guide line for your system layout. Prior to placing your order please consult with our highly skilled sales force regarding your specific application in order to ensure proper pump selection.

Quick Suctioning Immersion Pumps

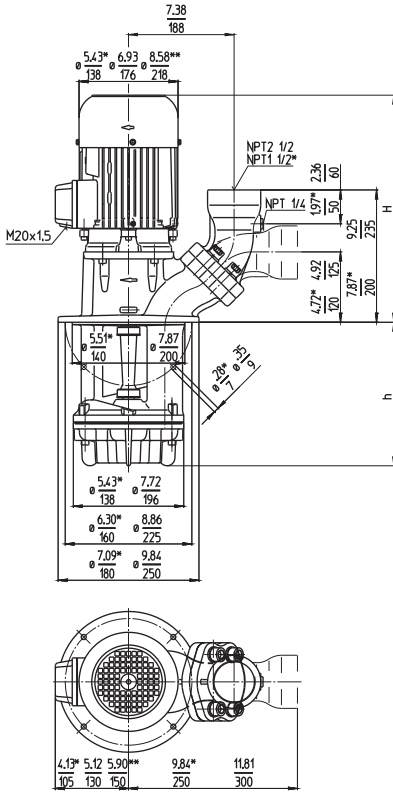


SFL550...2350

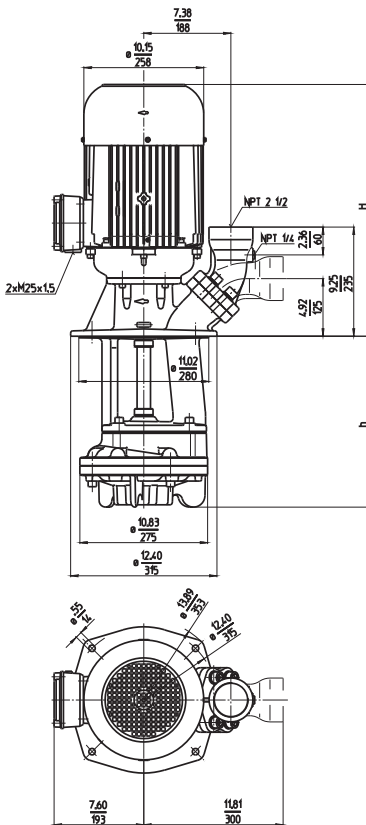
Axial/semi-open impellers



SFL550...1150



SFL1550...2350



Type	Flow at head	Height	Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
SFL550S150	50/18	10.4	5.91	150	50.7	23	1.4	230	60	4.2	3440
	200/5	264					1.06	460	60	2.1	3440
	230		9.06	230	52.9	24					
	300		11.81	300	55.1	25					
	380		14.96	380	59.5	27					
	470		18.50	470	61.7	28					
SFL650S220	100/30	18.3	8.66	220	112.5	51	3.4	230	60	8.8	3480
	400/9	464					2.55	460	60	4.4	3480
	320		12.60	320	119.1	54					
	450		17.72	450	125.7	57					
	570		22.44	570	136.7	62					
	770		30.31	770	161.0	73					
SFL850S230	125/42	18.3	9.06	230	114.7	52	3.9	230	60	10.2	3480
	500/13	464					2.94	460	60	5.1	3480
	330		12.99	330	121.3	55					
	460		18.11	460	127.9	58					
	580		22.83	580	143.3	65					
	780		30.71	780	165	75					
SFL1150S230	150/52	19.8	9.06	230	136.7	62	6.1	230	60	15.8	3520
	600/16	503					4.55	460	60	7.9	3520
	330		12.99	330	145.5	66					
	460		18.11	460	161.0	73					
	580		22.83	580	168	76					
	780		30.71	780	187	85					
SFL1550S310	230/58	24.1	12.20	310	280	127	11.5	230	60	27.8	3550
	900/17	612					8.6	460	60	13.9	3550
	440		17.32	440	291	132					
	560		22.05	560	298	135					
	810		31.89	810	340	154					
	1060		41.73	1060	359	163					
SFL1850S310	300/68	24.1	12.20	310	295	134	13.8	230	60	31.6	3550
	1150/20	612					10.3	460	60	15.8	3550
	440		17.32	440	304	138					
	560		22.05	560	313	142					
	810		31.89	810	355	161					
	1060		41.73	1060	373	169					
SFL2350S340	350/113	38.3	13.39	340	432	196	25	460	60	28	3560
	1400/32	974					18.5				
	470		18.50	470	443	201					
	590		23.23	590	456	207					
	840		33.07	840	490	222					
	1090		42.91	1090	509	231					

Dimensions in Inches / mm
 *) Dimensions SFL550
 **) Dimensions SFL1150
 Discharge port with NPT 2 inches available upon request.
 Dimensions SFL2350 above the flange as with SGL1402

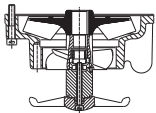


Quick Suctioning Immersion Pumps

of series SFL equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (emulsions) **with heavy chip loads** as they occur in heavy cutting when turning, milling or grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SFL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



These pumps are available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips.



Applications

Types of fluid

- coolants
- cooling/cutting oils

Max. chip to coolant ratio by weight: 1.0 %

Chip material:

- Aluminium, steel, coloured steels

Kinematic viscosity

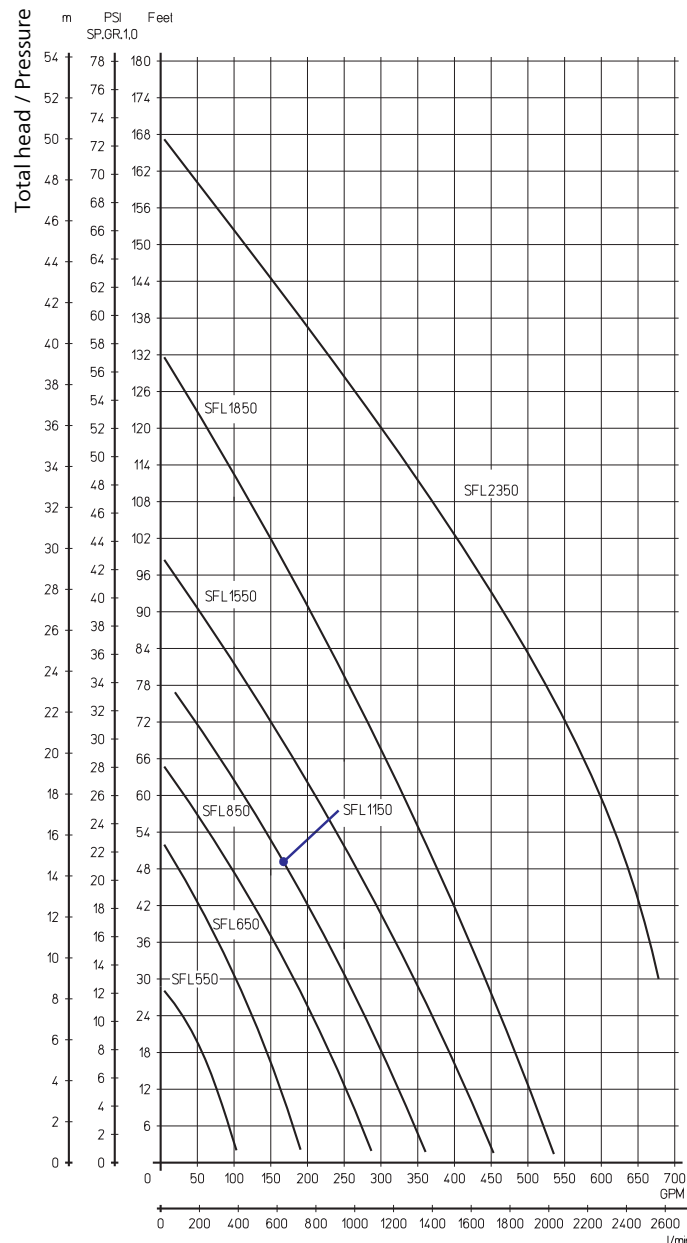
- ...200 SSU (...45 mm²/s)

Pumping temperature

- 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Optional:	
Pump unit	with wear resistant wetted parts
Execution CM1	
Impeller radial	CrMo-steel
Execution CM3	
Cover	CrMo-steel
Impeller axial	CrMo-steel
Impeller radial	CrMo-steel



Flow

Quick Suctioning Immersion Pumps

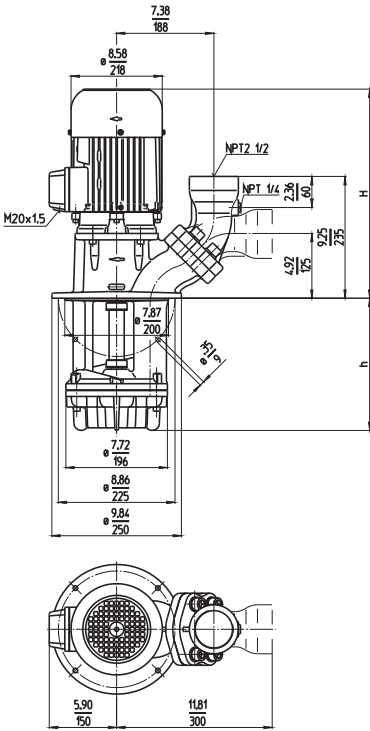


SFL860...2060

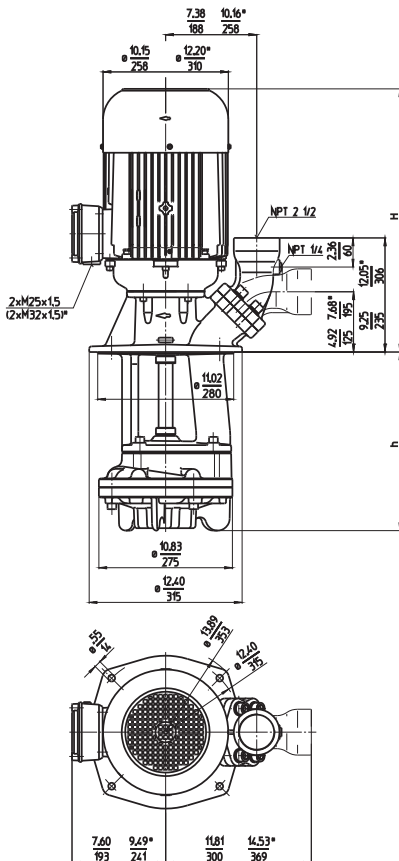


Axial/semi-open impellers

SFL860



SFL1360...2060



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
SFL860S230	150/60	19.8	9.06	230	141.1	64	6.1	230	60	15.8	3520
	600/17	503					4.55	460	60	7.9	3520
	330		12.99	330	147.7	67					
	460		18.11	460	154.4	70					
	580		22.83	580	170	77					
	780		30.71	780	192	87					
1010		39.76	1010	198	90						
SFL1360S310	200/72	22.6	12.20	310	258	117	10	230	60	23.0	3545
	800/21	574					7.48	460	60	11.5	3545
	440		17.32	440	267	121					
	560		22.05	560	282	128					
	810		31.89	810	318	144					
1060		41.73	1060	337	153						
SFL1860S310	300/77	24.4	12.20	310	320	145	16.9	230	60	39.2	3560
	1200/22	620					12.6	460	60	19.6	3560
	440		17.32	440	326	148					
	560		22.05	560	331	150					
	810		31.89	810	370	168					
1060		41.73	1060	379	172						
SFL2060S310	400/76	38.3	12.20	310	410	186	25	460	60	28	3560
	1500/23	974					18.5				
	440		17.32	440	421	191					
	560		22.05	560	434	197					
	810		31.89	810	467	212					
1060		41.73	1060	487	221						

Dimensions in Inches / mm
 Discharge port with NPT 2 inches available upon request
 *) Dimensions SFL1860
 Dimensions SFL2060 above the flange as with SGL1402

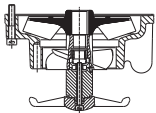


Quick Suctioning Immersion Pumps

of series SFL equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely air entrained fluids** (emulsions) **with heavy chip loads** as they occur in heavy cutting when turning, milling or grinding.

The quick suctioning immersion pumps reach stable working conditions as soon as the liquid level reaches the suction inlet.

The SFL pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.



These pumps are available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips.

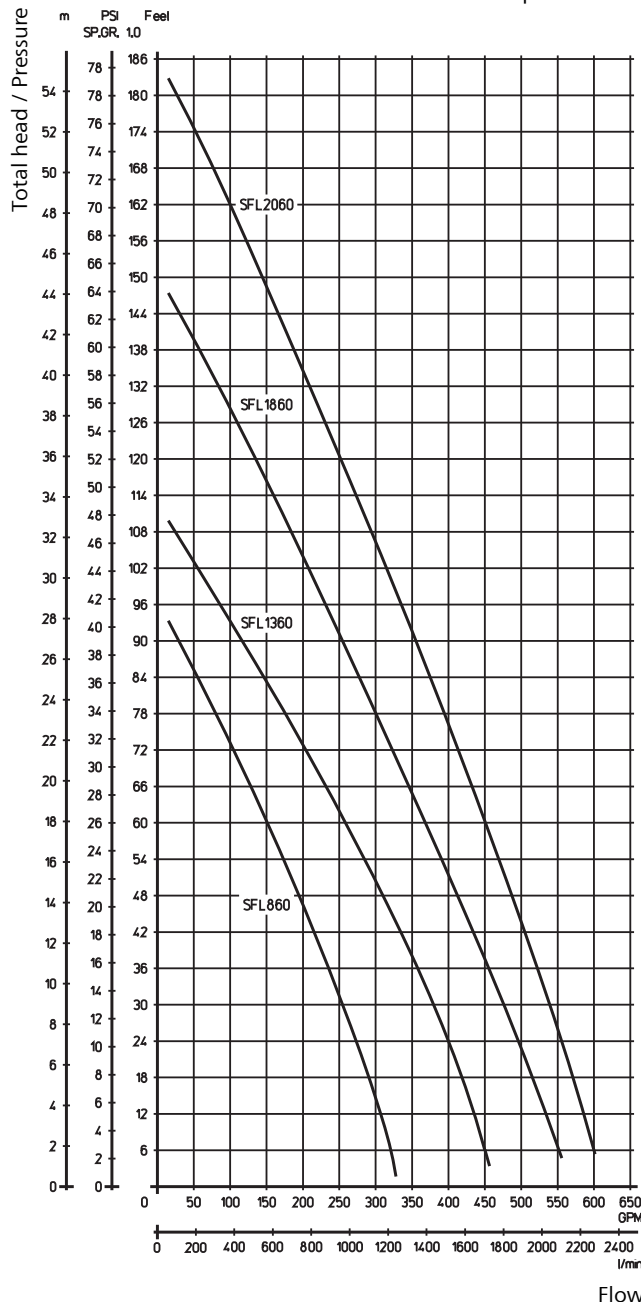


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.0 %
- Chip material: Aluminium, steel, coloured steels
- Kinematic viscosity ...200 SSU (...45 mm²/s)
- Pumping temperature 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Optional:	
Pump unit	with wear resistant wetted parts
Execution CM1	
Impeller radial	CrMo-steel
Execution CM3	
Cover	CrMo-steel
Impeller axial	CrMo-steel
Impeller radial	CrMo-steel



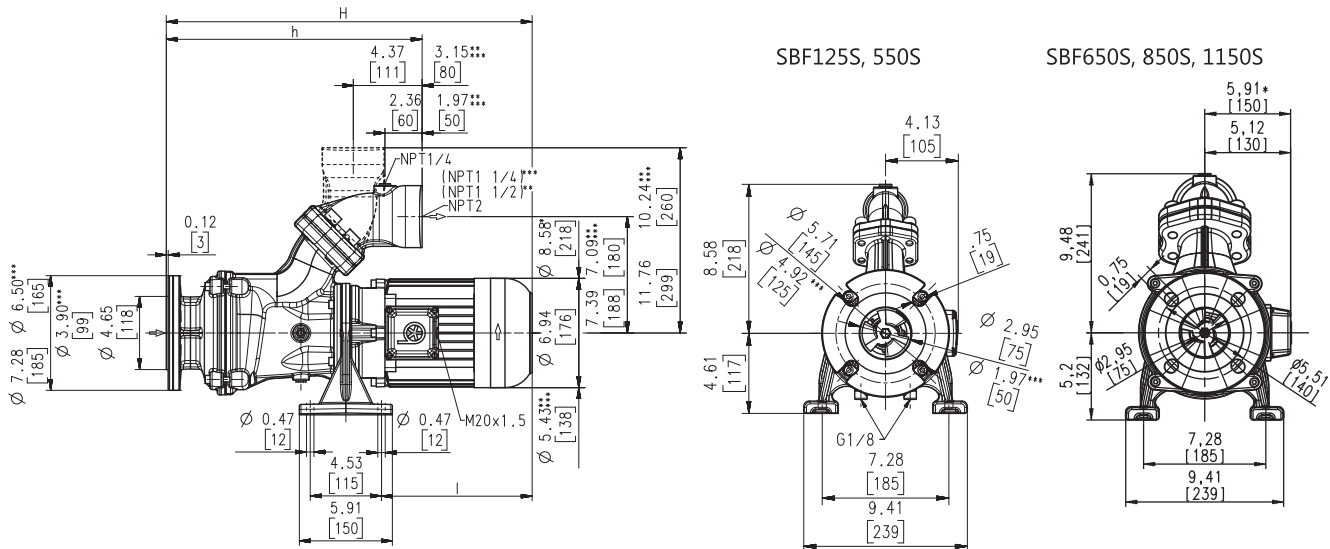
Horizontal End-Suction Pumps

SBF125S...1150S

Axial/semi-open impellers



SBF125S...1150S



Dimensions in Inches / mm; *) Dimensions SBF850S, 1150S
 **) Dimensions SBF550S
 ***) Dimensions SBF125S

Type	Flow at head		Dimensions		Length		Weight		Power	Voltage	Frequency	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm	Lbs	kg	3~ V		AMPS	RPM
SBF125S	25/18 80/5.5	18.0	456	14.2	360	5.6	143	59.5	27	0.73	208-230	60	3300
				1.97***)	50	11.76	299	11.76	299	11.76	299	0.54	460
SBF550S	75/12 250/5	20.6	524	14.2	360	8.3	211	66.2	30	1.7	230	60	3440
				1.97***)	50	11.76	299	11.76	299	11.76	299	1.27	460
SBF650S	100/36 400/10	24.9	632	16.1	409	11.4	289	121.3	55	3.4	230	60	3480
				1.97***)	50	11.76	299	11.76	299	11.76	299	2.55	460
SBF850S	125/42 500/12	26.6	675	16.3	413	12.9	328	147.7	67	5.1	230	60	3520
				1.97***)	50	11.76	299	11.76	299	11.76	299	3.8	460
SBF1150S	150/47 600/13	26.6	675	16.3	413	12.9	328	158.8	72	6.1	230	60	3520
				1.97***)	50	11.76	299	11.76	299	11.76	299	4.55	460



Horizontal End-Suction Pumps

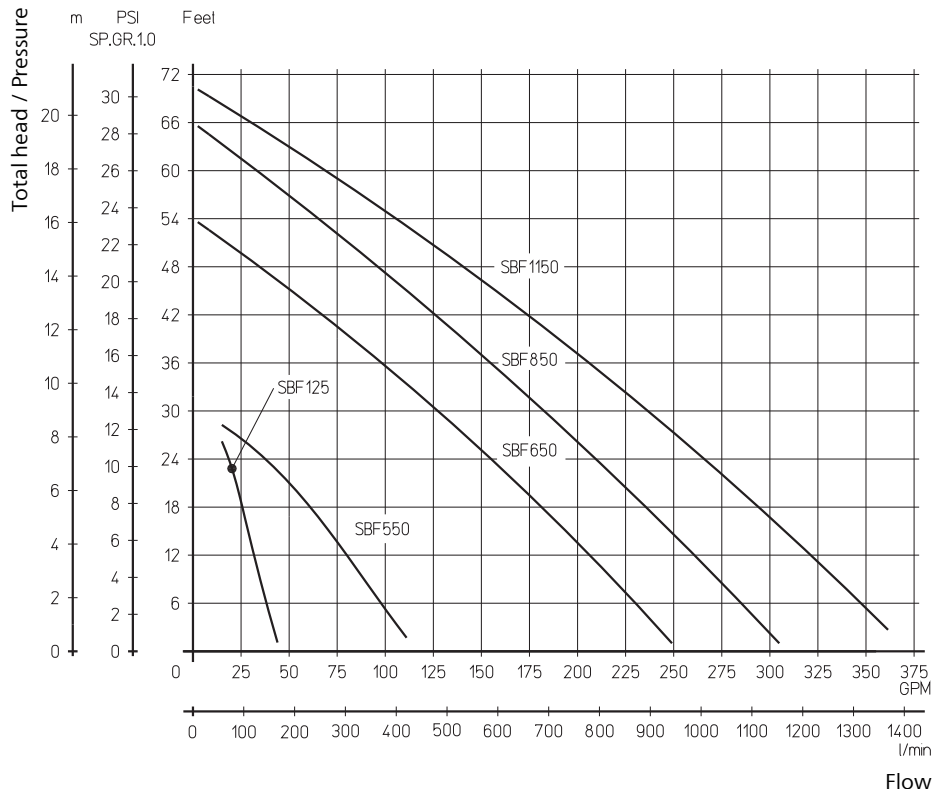
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **air entrained coolant fluids**, such as **water-soluble coolants (emulsions)**, as they occur in **high speed machining applications, such as turning and milling**. The SBF* pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. *) SBF550S with SAE flange. For more information see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.0 % depending on the specific chip type
- Chip material: Aluminium, steel, coloured steels, cast iron
- Kinematic viscosity ...200 SSU (...45 mm²/s)
- Pumping temperature 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBF125S	64 dBA
SBF550S	65 dBA
SBF650S	69 dBA
SBF850S...SBF1150S	74 dBA



Horizontal End-Suction Pumps

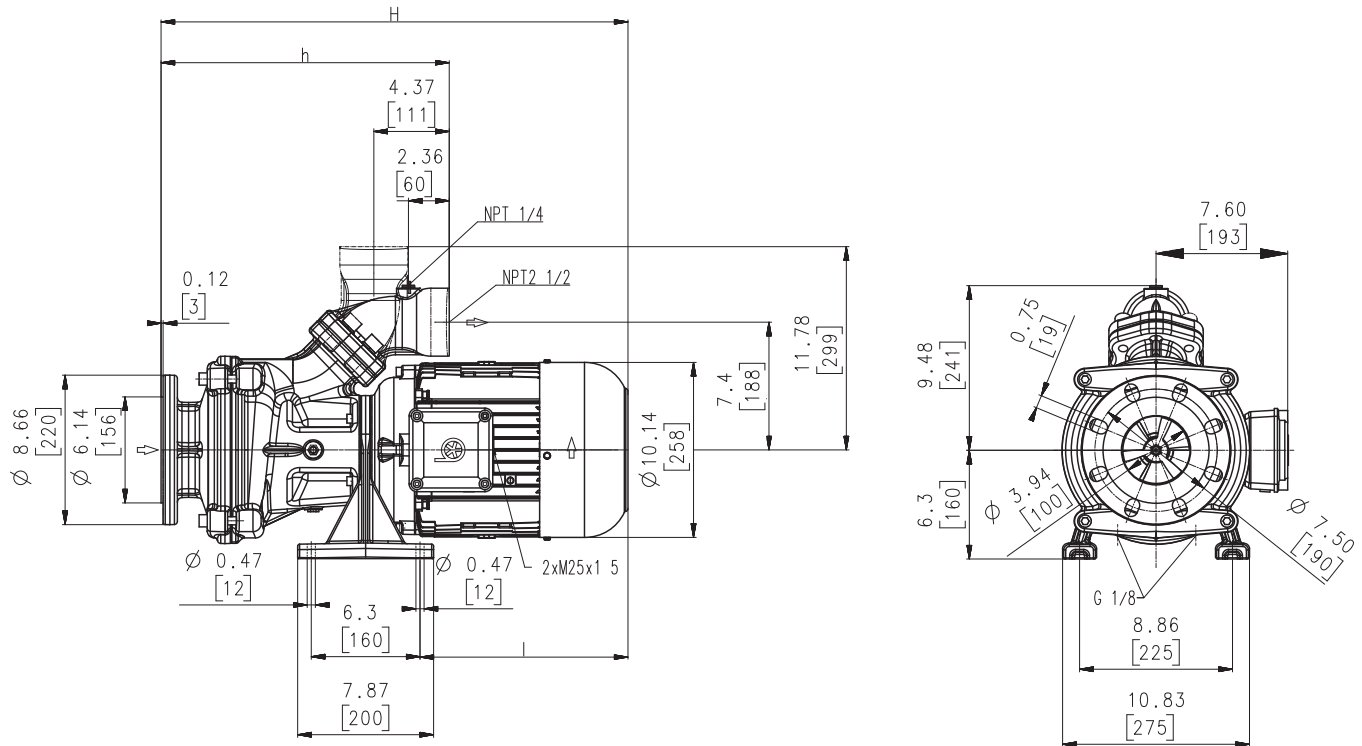


SBF1350S...1850S



Axial/semi-open impellers

SBF1350S...1850S



Dimensions in Inches / mm
*) Dimensions SBF1350S

Type	Flow at head		Dimensions		Length		Weight		Power	Voltage	Fre-	Current	Speed	
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm	Lbs	kg	3~ V	quency Hz	AMPS	RPM	
SBF1350S	150/46 600/15	28.2	716	16.7	424	13.2	335	190	86	8.4	230	60	20.8	3510
										6.3	460	60	10.4	3510
SBF1550S	200/70 800/21	31.2	793	16.7	424	16.3	414	249	113	11.5	230	60	27.8	3550
										8.6	460	60	13.9	3550
SBF1850S	250/85 1200/23	33.2	843	16.7	424	16.3	414	262	119	13.8	230	60	31.6	3550
										10.3	460	60	15.8	3550



Horizontal End-Suction Pumps

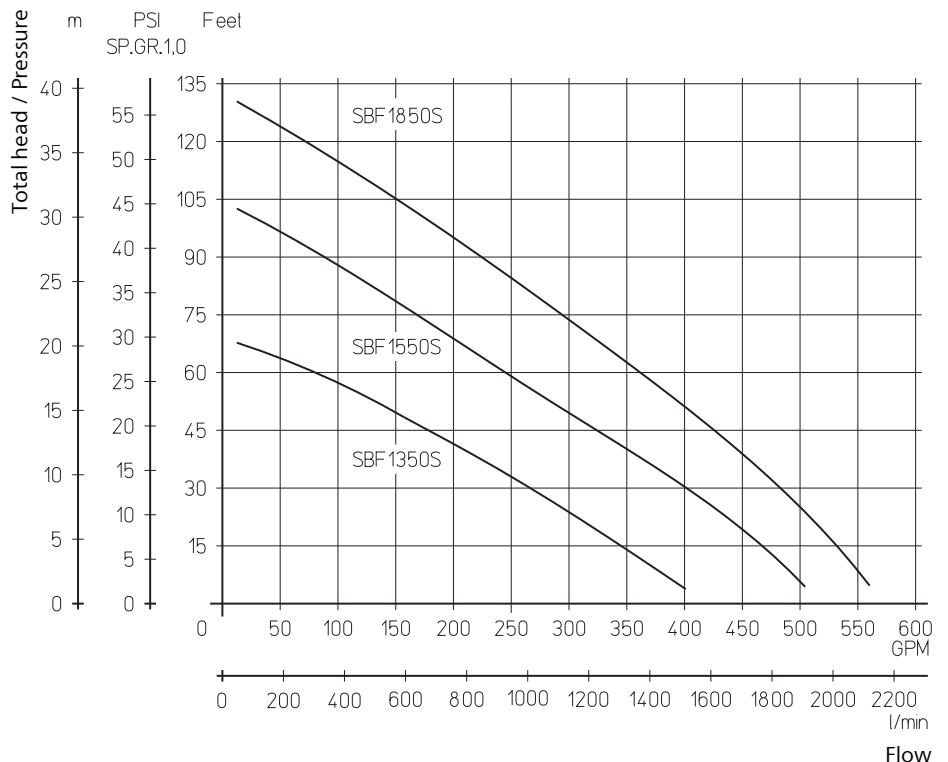
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **highly air entrained coolant fluids, such as water-soluble coolants (emulsions), as they occur in high speed machining applications, such as turning and milling.** The SBF pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 1.0 % depending on the specific chip type
 Chip material:
 Aluminium, steel, coloured steels, cast iron
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBF1350S	76 dBA
SBF1550S...SBF1850S	78 dBA

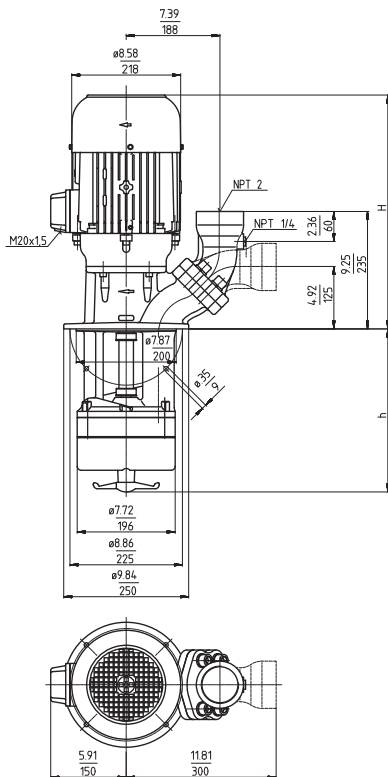


Cutter Pumps SFC820...2320

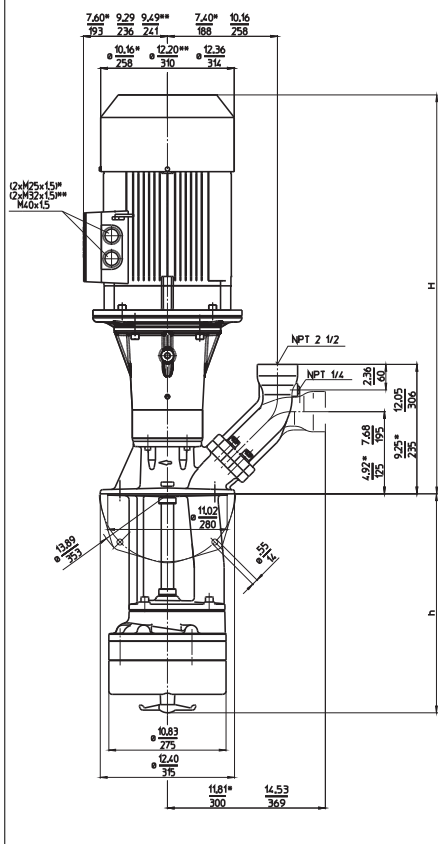
Axial/semi-open impellers



SFC820...1120



SFC1520...2320



Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Frequency Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	H inch mm	h inch h mm	Lbs kg	Lbs kg	AMPS	RPM					
SFC820S290	125/30	19.8	11.50	292	161.0	73	6.1	230	60	15.8	3520		
	400/10	503					4.55	460	60	7.9	3520		
	390		15.43	392	168	76							
	520		20.55	522	172	78							
640		25.28	642	179	81								
SFC1120S290	150/36	21.0	11.50	292	172	78	8.4	230	60	20.8	3510		
	500/12	533					6.3	460	60	10.4	3510		
	390		15.43	392	179	81							
	520		20.55	522	187	85							
640		25.28	642	194	88								
SFC1520S370	200/56	24.1	14.65	372	318	144	11.5	230	60	27.8	3550		
	700/18	612					8.6	460	60	13.9	3550		
	500		19.76	502	329	149							
620		24.49	622	337	153								
SFC1820S370	250/68	24.4	14.65	372	381	173	16.9	230	60	39.2	3560		
	850/23	620					12.6	460	60	19.6	3560		
	500		19.76	502	388	176							
620		24.49	622	397	180								
SFC2320S400	250/106	38.3	15.75	400	492	223	25	460	60	28	3560		
	900/32	974					18.5						
	530		20.87	530	501	227							
650		25.59	650	514	233								

Dimensions in Inches / mm
 *) Dimensions SFC1820S
 Discharge port with NPT 2 inches available upon request.
 *) Dimensions SFC1520S
 **) Dimensions SFC1820S



Cutter Pumps

The cutter pumps of the series SFC are suited for cutting aluminium chips or similar materials and for pumping these materials along with the coolant fluid. An agitator located at the pump suction helps to break up and separate any large bundles of chips or birds nests which reach the pump suction.

The hardened cutting unit (> 60HRC) is cutting chips and the semi-open impeller with its large clearances allows to pump the particles along with the coolant fluid from the machine back to the filter. The SFC pumps are capable of handling chip to coolant ratios of up to 1.5% by weight.

The SFC pumps are equipped with the user-friendly 45 degree flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

For more information see mechanical features within the technical information section.

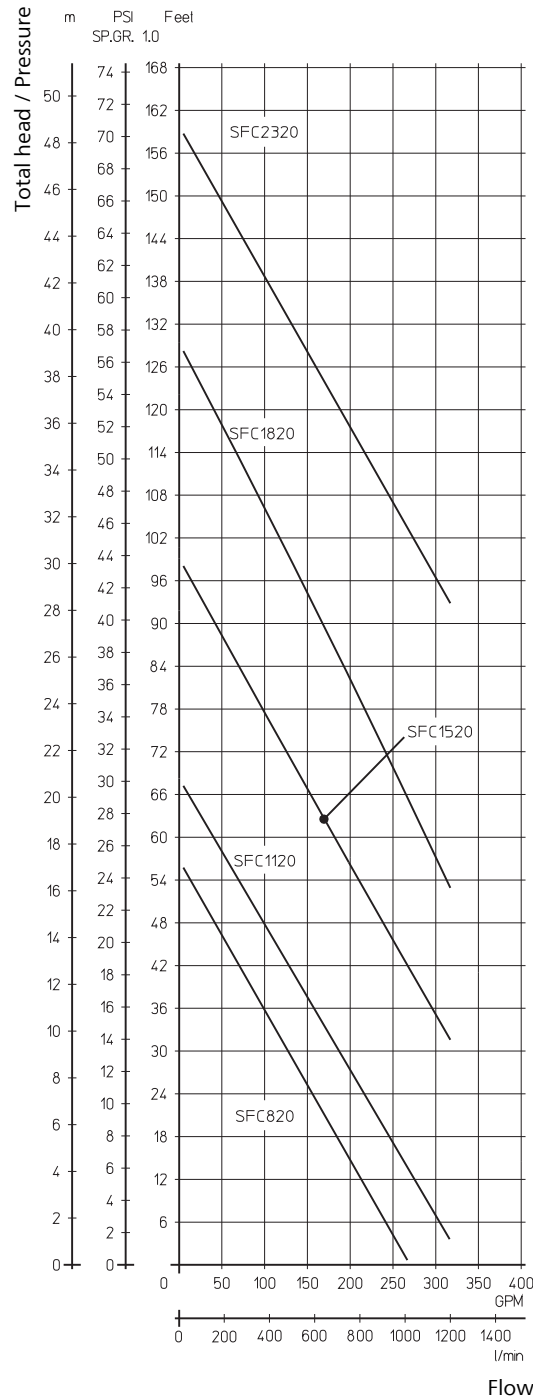


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils on request
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium
- Kinematic viscosity ...200 SSU (...45 mm²/s)
- Pumping temperature 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller radial	cast steel
Cutting unit	Hardened (>60 HRC)
Agitator	Highly ductile steel
Shaft	steel



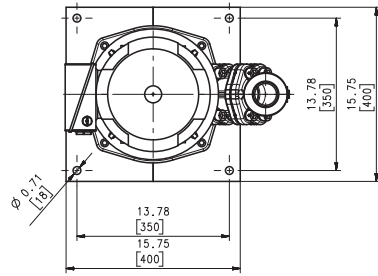
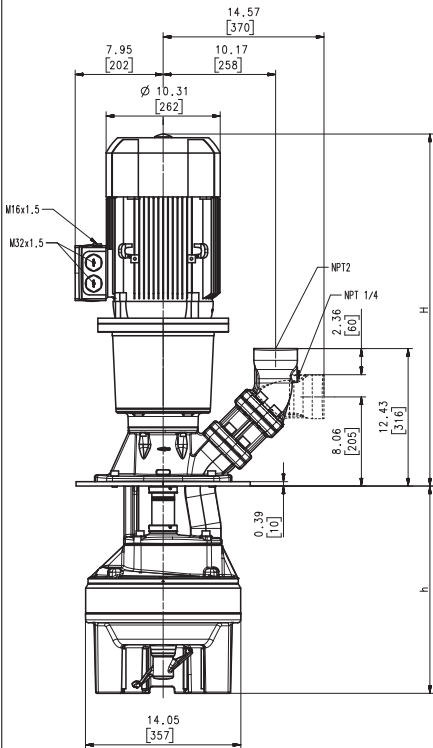
Cutter Pumps

SXC2824S

Axial/semi-open impellers



SXC2824S



Dimensions in Inches / mm

Type	Flow at head		Height	Depth of immersion		Weight		Power (4-pole) 3~	Voltage	Frequency	Current Speed	
	GPM /Feet	l/min /m	H inch	h inch	h mm	Lbs	kg				HP kW	V
SXC2824S480	200/45		31.9	18.74	476	428	194	10	460	60	12.4	1770
	750/14		809									
				23.86	606	432	196					
				28.58	726	439	199					



Cutter Pumps

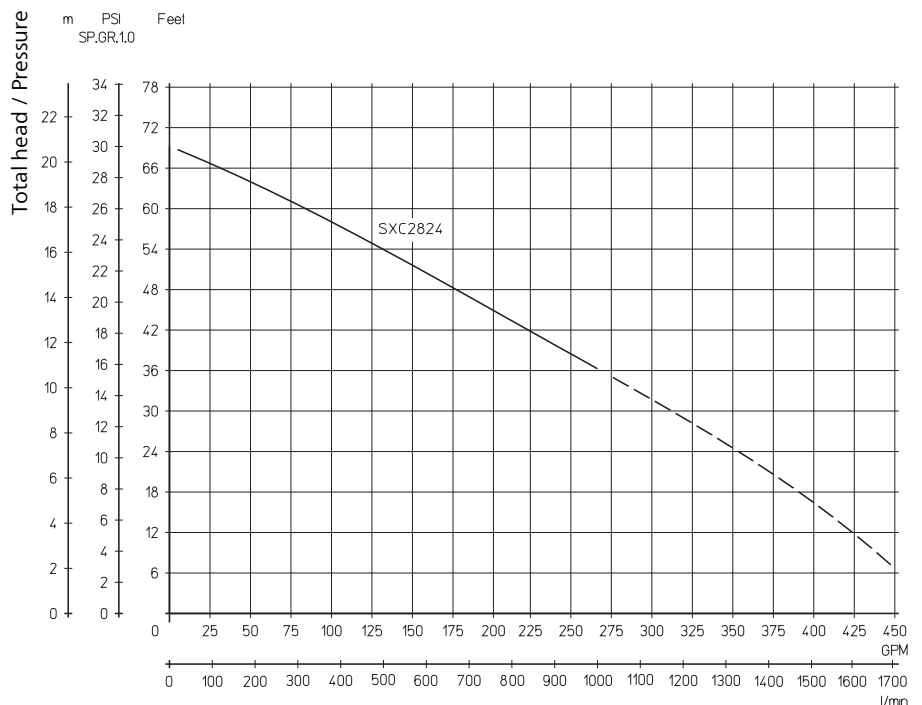
The cutter pumps of the series SXC are designed to handle low alloyed steels, machining steel and cast iron / aluminum combinations. Chips can also be in the shape of birds nests or chip bundles, and must be supplied to the suction inlet of the pump. The chips are picked up by the agitator, broken up if necessary, cut, and then delivered by the pump. The SXC pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge. For more information see lifting pumps features SXC/SPC within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils on request
 Max. chip to coolant ratio by weight:
 0.5 %
 Chip material:
 Low alloyed steel, machining steel,
 cast iron/aluminum combinations
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller radial	cast steel
Cutting unit	coated (> 60 HRC)
Shaft	steel



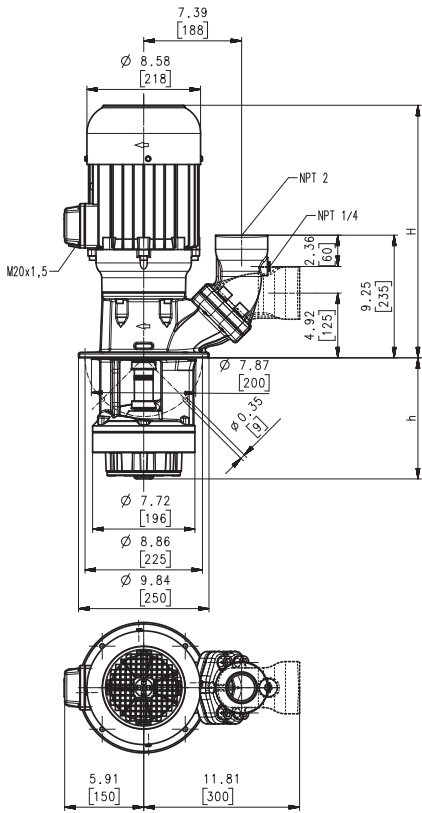
Cutter Pumps

SPC820S

Axial/semi-open impellers



SPC820S



Dimensions in Inches / mm

Type	Flow at head		Height		Depth of immersion		Weight		Power 3~		Frequency		Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch mm	h inch h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM			
SPC820S230	100/32	19.8	9.13	232	156.6	71	5.1	230	60	12.8	3520			
	400/9.5	503					3.8	460	60	6.4	3520			
330			13.07	332	161.0	73								
460			18.19	462	165	75								



Cutter Pumps

The cutter pumps of the series SPC are designed to handle and reliably cut long, stringy plastic chips. The higher number of cutting blades results in an increased cutting frequency of all chips to be consistently cut into small pieces.

The SPC pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

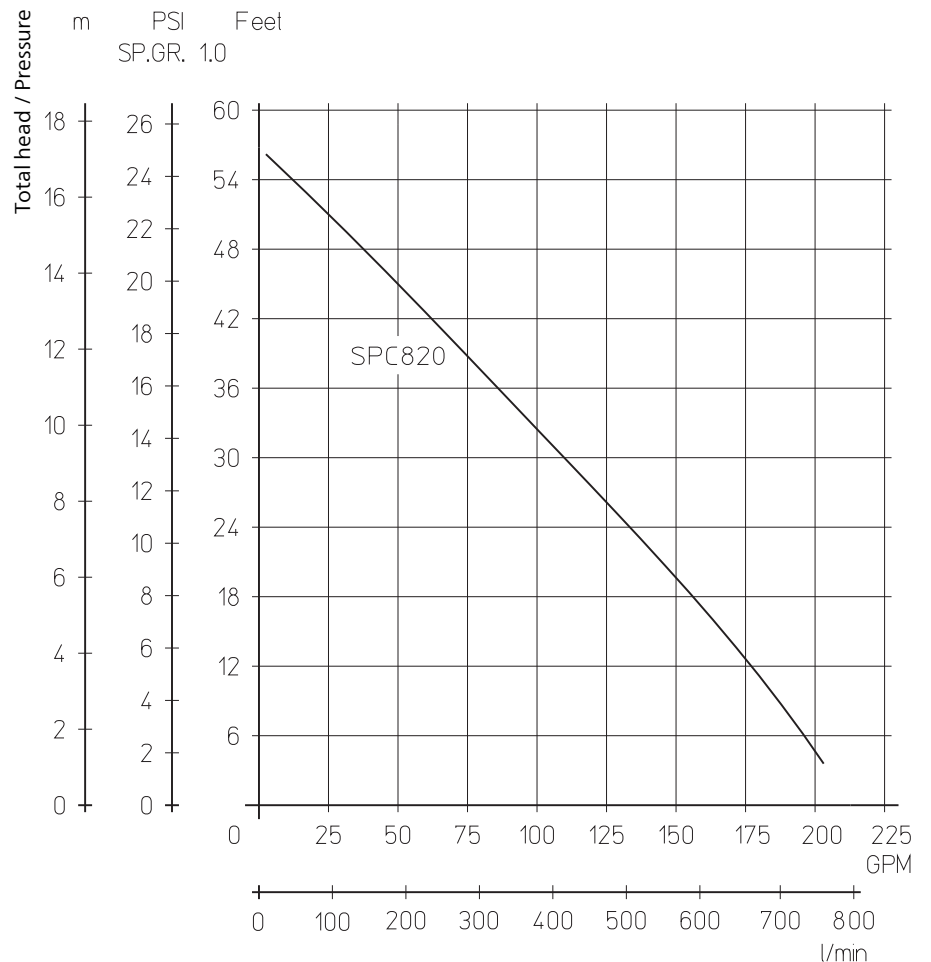
For more information see lifting pumps features SXC/SPC within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 0.3 %
- Chip material: Plastic
- Kinematic viscosity ...140 SSU (...30 mm²/s)
- Pumping temperature 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller radial	cast steel
Cutting unit	Hardened (>60 HRC)
Shaft	steel



Horizontal End-Suction Pumps

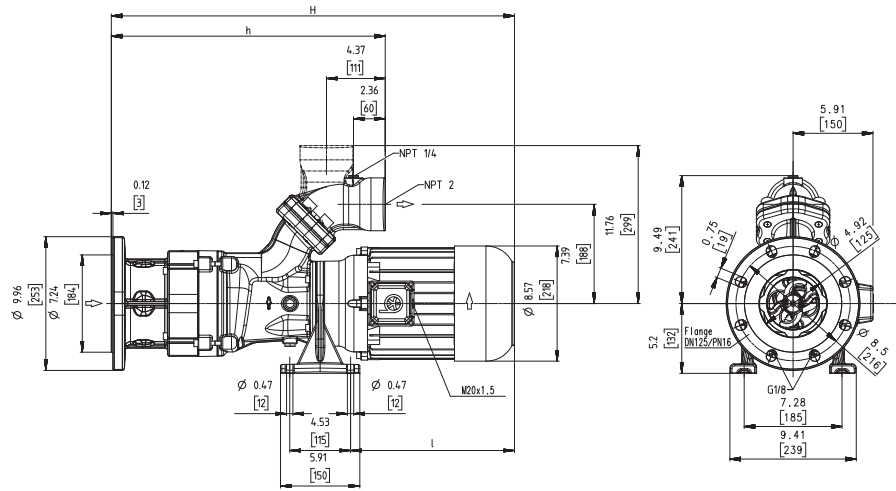
SBC820S...1820S

Axial/semi-open impellers

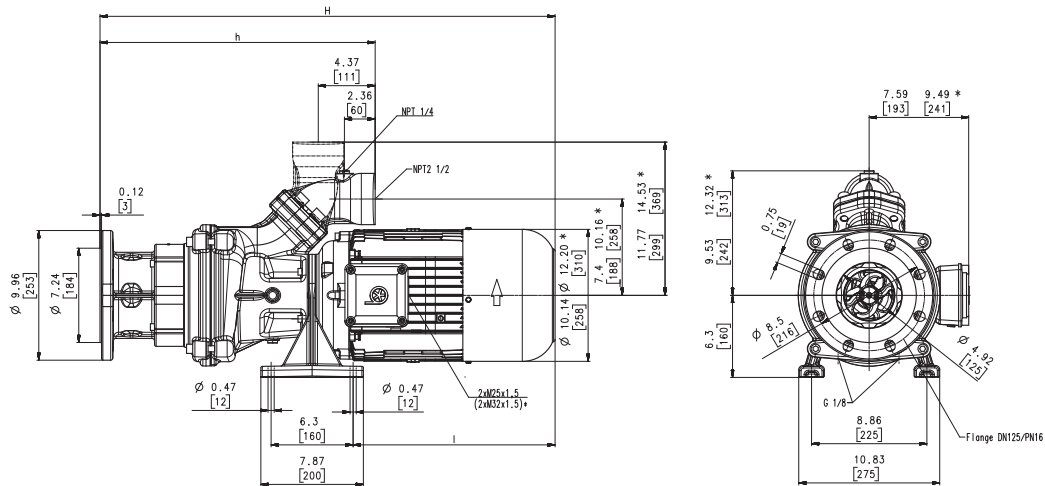


60 Hz

SBC820S...1120S



SBC1520S...1820S



Dimensions in Inches / mm

*) Dimensions SBC1820S

Type	Flow at head		Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM	
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	l Inch	l mm	Lbs						kg
SBC820S	125/30	30.7	780	20.4	518	12.9	328	187	85	6.1	230	60	15.8	3520
	480/9									4.55	460	60	7.9	3520
SBC1120S	175/30	31.9	810	20.4	518	14.1	358	196	89	8.4	230	60	20.8	3510
	690/9									6.3	460	60	10.4	3510
SBC1520S	200/49	35.7	906	21.1	537	16.3	414	291	132	11.5	230	60	27.8	3550
	800/14.5									8.6	460	60	13.9	3550
SBC1820S	225/67	36.0	915	23.9	608	16.6	422	359	163	16.9	230	60	39.2	3560
	900/19.5									12.6	460	60	19.6	3560



Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal.

This pump series is designed for horizontal installations next to a tank and are capable of cutting aluminium chips and similar materials and pumping of these materials along with the coolant fluid. An agitator located at the pump suction helps to break up and separate any large bundles of chips or birds nests which reach the pump suction.

The hardened cutting unit (> 60 HRC) is cutting chips and the above located semi-open impeller allows with its large clearances to pump the particles along with the coolant fluid from the machine back to the filter. The SBC pumps are capable of handling chip to coolant ratios of up to 1.5% by weight.

The SBC pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4.

For more information see mechanical features within the technical information section (SFC/SBC).

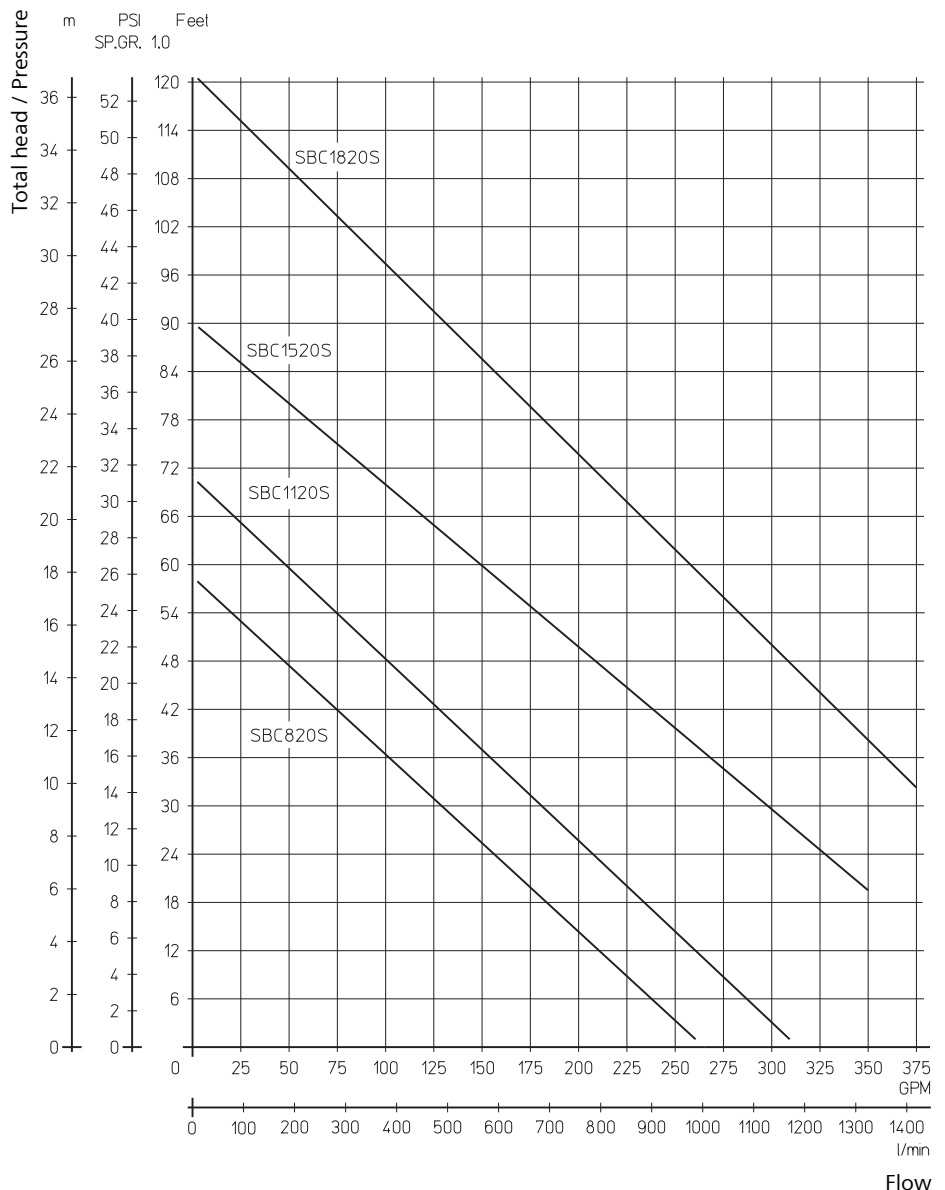


Applications

- Types of fluid
 - coolants
 - cooling/cutting oils on request
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium
- Chip geometry:
 - Chip bundles to max. Ø 3.94 Inch (100 mm)
- Kinematic viscosity: ...200 SSU (...45 mm²/s)
- Pumping temperature: 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Cutting unit	Hardened (>60 HRC)
Agitator	Highly ductile steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBC820S...SBC1120S	76 dBA
SBC1520S	78 dBA
SBC1820S	79 dBA



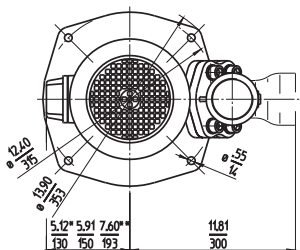
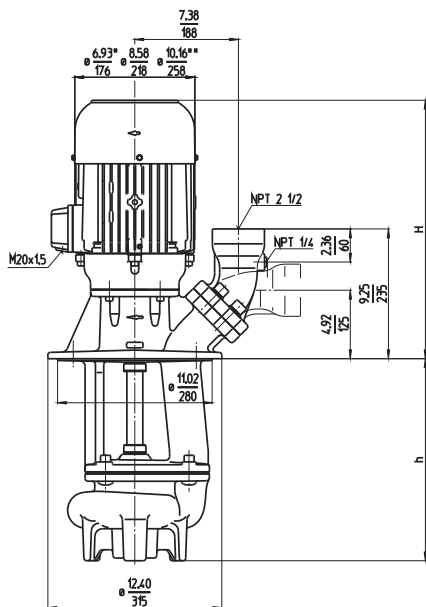
Vortex Pumps

SFT450...1100

Semi-open impellers



SFT450, 710 SFT1100



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

- *) Dimensions SFT450
- **) Dimensions SFT1100

Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SFT450S300	150/17	18.3	11.81	300	143.3	65	3.9	230	60	10.2	3480
	600/5	464					2.94	460	60	5.1	3480
	430		16.93	430	154.4	70					
	550		21.65	550	163	74					
	800		31.50	800	214	97					
1050		41.34	1050	225	102						
SFT710S300	225/17	19.8	11.81	300	179	81	6.1	230	60	15.8	3520
	900/5	503					4.55	460	60	7.9	3520
	430		16.93	430	185	84					
	550		21.65	550	190	86					
	800		31.50	800	240	109					
1050		41.34	1050	284	129						
SFT1100S300	300/17	22.6	11.81	300	229	104	10	230	60	23.0	3545
	1150/5	574					7.48	460	60	11.5	3545
	430		16.93	430	240	109					
	550		21.65	550	254	115					
	800		31.50	800	304	138					
1050		41.34	1050	326	148						



Vortex Pumps

series SFT are designed to lift coolant for filtering. Coarse shreds can be transported together with liquids.

The pump inlet and pump discharge port have the same dimensions.

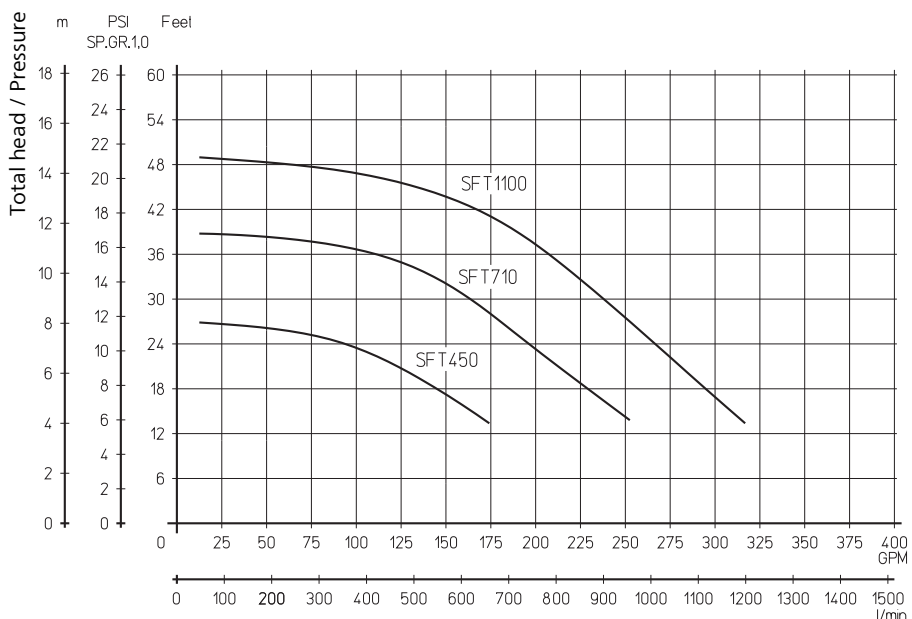
The SFT pumps are equipped with the user-friendly 45 degree flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity
 - ... 140 SSU (...30 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	special cast iron
Impeller	cast steel
Shaft	steel



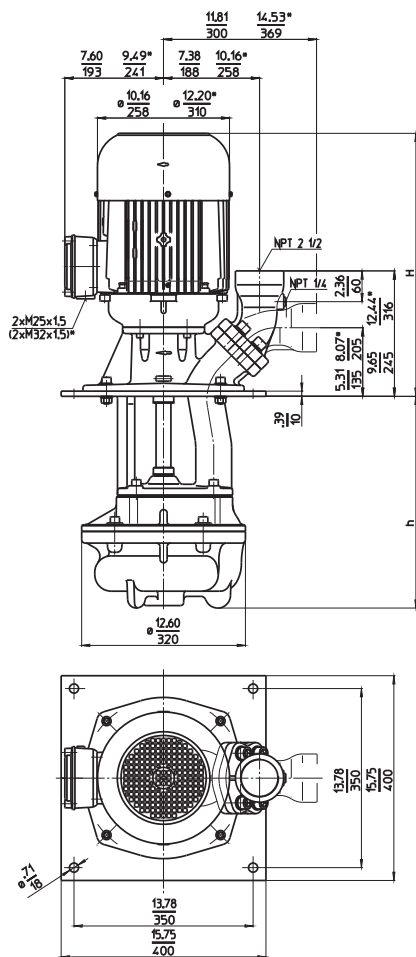
Vortex Pumps

SFT1300...1400

Semi-open impellers



SFT1300, 1350 SFT1400



Dimensions in Inches / mm
*) Dimensions SFT1400

Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
SFT1300S360	200/36	22.6	14.29	363	342	155	10	230	60	23.0	3545
	800/10	574					7.48	460	60	11.5	3545
	490		19.41	493	353	160					
610		24.13	613	362	164						
SFT1350S360	200/50	24.1	14.29	363	366	166	13.8	230	60	31.6	3550
	800/15	612					10.3	460	60	15.8	3550
	490		19.41	493	377	171					
610		24.13	613	386	175						
SFT1400S360	200/65	24.4	14.29	363	419	190	16.9	230	60	39.2	3560
	800/19	620					12.6	460	60	19.6	3560
	490		19.41	493	430	195					
610		24.13	613	439	199						



Vortex Pumps

series SFT are designed to lift coolant for filtering. Coarse shreds can be transported together with liquids.

The pump inlet and pump discharge port have the same dimensions.

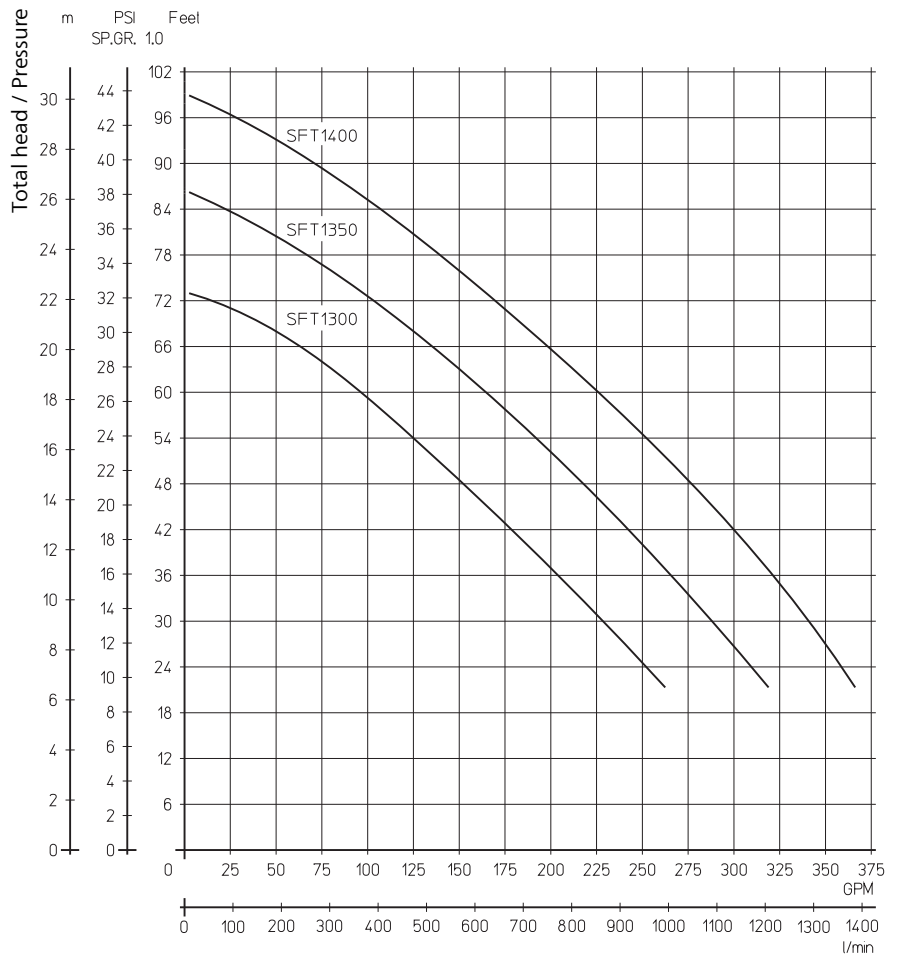
The SFT pumps are equipped with the user-friendly 45 degree flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity
 - ...140 SSU (...30 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	special cast iron
Impeller	cast steel
Shaft	steel

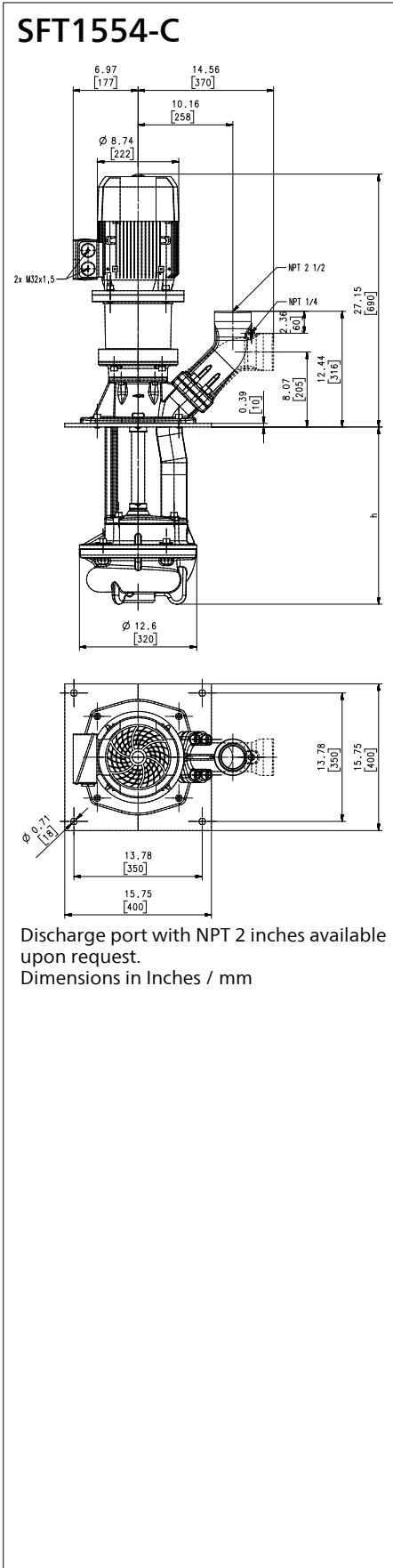


Free Flow-Immersion Pumps

SFT1554-C



Semi-open impellers



Type	Flow at head	Height	Depth of im- mersion		Weight		Power (4-pole) 3~ HP kW	Voltage V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
SFT1554S360-C	150/54	27.2	14.29	363	276	125	6.1	460	60	7.7	1770
	600/16	690					4.55				
490-C			19.41	493	284	129					

Discharge port with NPT 2 inches available upon request.
Dimensions in Inches / mm



Free Flow-Immersion Pumps

series SFT are provided to lift coolant for filtering. Coarse shreds can be transported together with liquids.

The pump inlet and pump discharge port have the same dimensions.

Cantilever construction. Half speed.

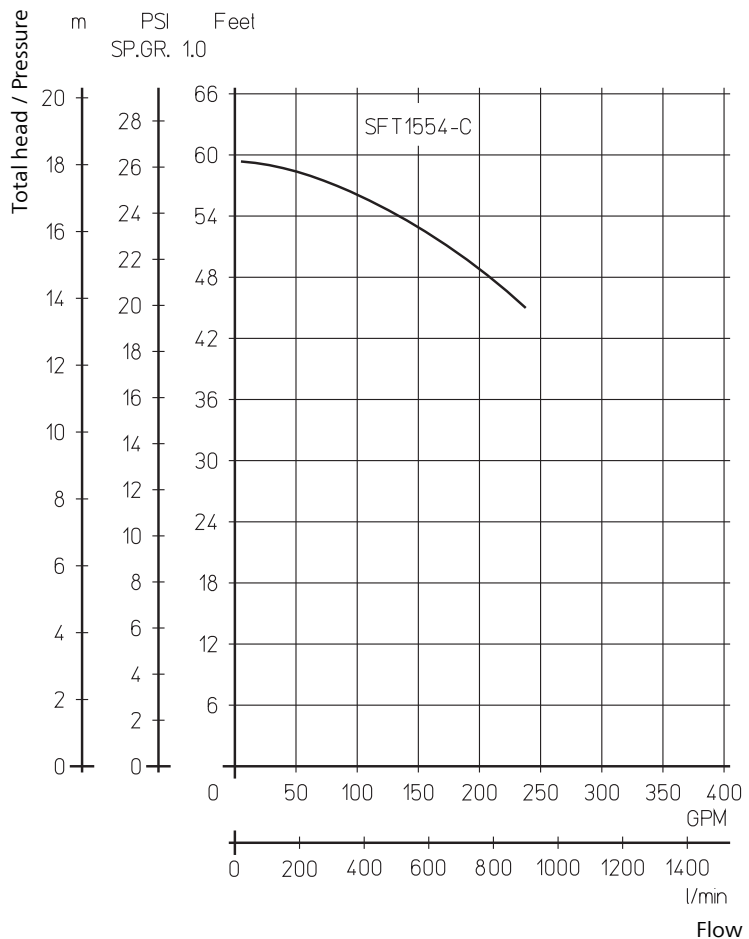
The SFT pumps are equipped with the user-friendly 45 degree flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm)
 - long
- Kinematic viscosity ...66 SSU (...12 mm²/s)
- Pumping temperature 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	special cast iron
Impeller	cast steel
Shaft	steel



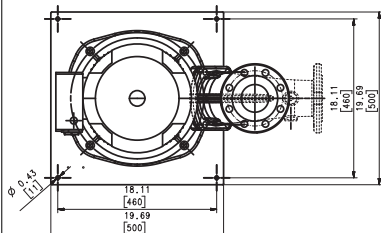
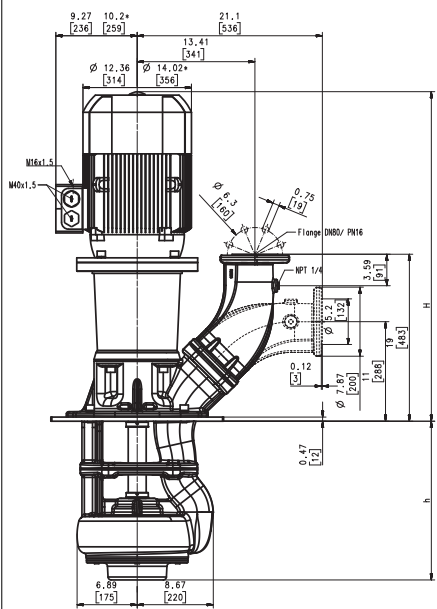
Vortex Pumps

SFT2254...3554

Semi-open impellers



SFT2254...3554



Dimensions in Inches / mm
*) Dimensions SFT3554

Type	Flow at head	Height	Depth of im- mersion		Weight		Power (4-pole) 3~ HP kW	Voltage V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
SFT2254S460	300/42	37.5	18.11	460	481	218	15 11.0	460	60	18	1775
	1125/13	953									
	660		25.98	660	503	228					
	860		33.86	860	525	238					
	1210		47.64	1210	646	293					
1610		63.39	1610	690	313						
SFT3054S460	450/42	39.9	18.11	460	520	236	20 15.0	460	60	25	1780
	1700/13	1013									
	660		25.98	660	542	246					
	860		33.86	860	564	256					
	1210		47.64	1210	686	311					
1610		63.39	1610	730	331						
SFT3554S460	550/42	41.3	18.11	460	589	267	25 18.5	460	60	30.5	1775
	2100/13	1048									
	660		25.98	660	611	277					
	860		33.86	860	633	287					
	1210		47.64	1210	754	342					
1610		63.39	1610	798	362						



Vortex Pumps

series SFT are provided to lift coolant for filtering. Coarse shreds can be transported together with liquids. The pump inlet and pump discharge port have the same dimensions. Half speed.

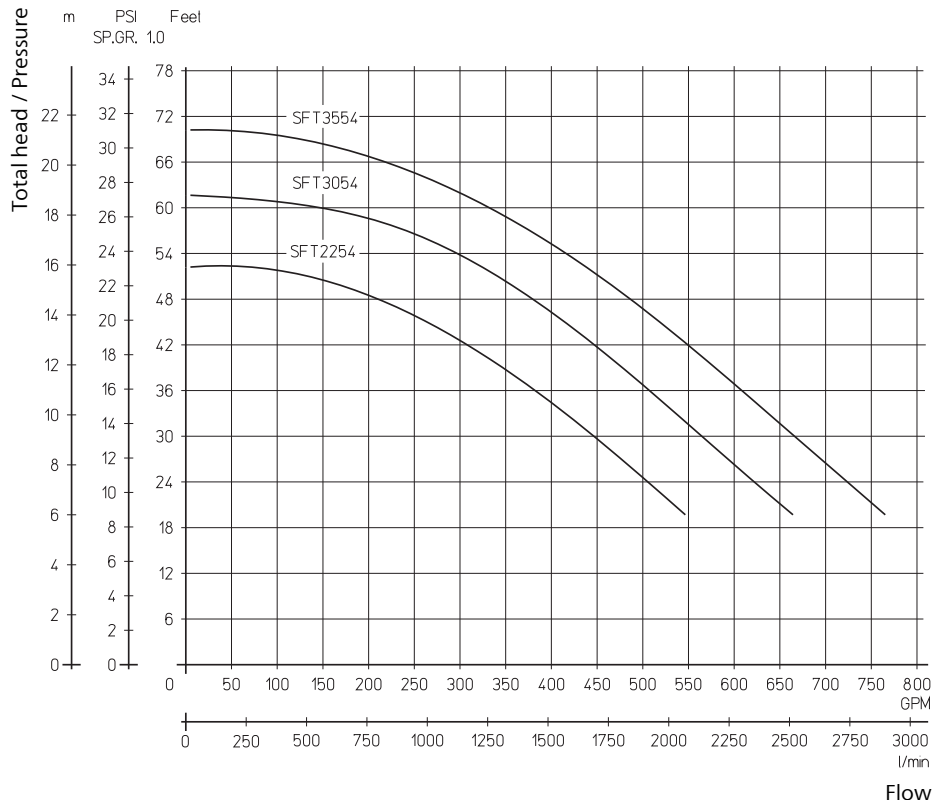
The SFT pumps are equipped with the user-friendly 45 degree flange connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
 - The max. ball diameter is 1.77 inch (45 mm)
- Kinematic viscosity ...66 SSU (...12 mm²/s)
- Pumping temperature 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Optional: Impeller	CrMo-steel



Horizontal End-Suction Pumps

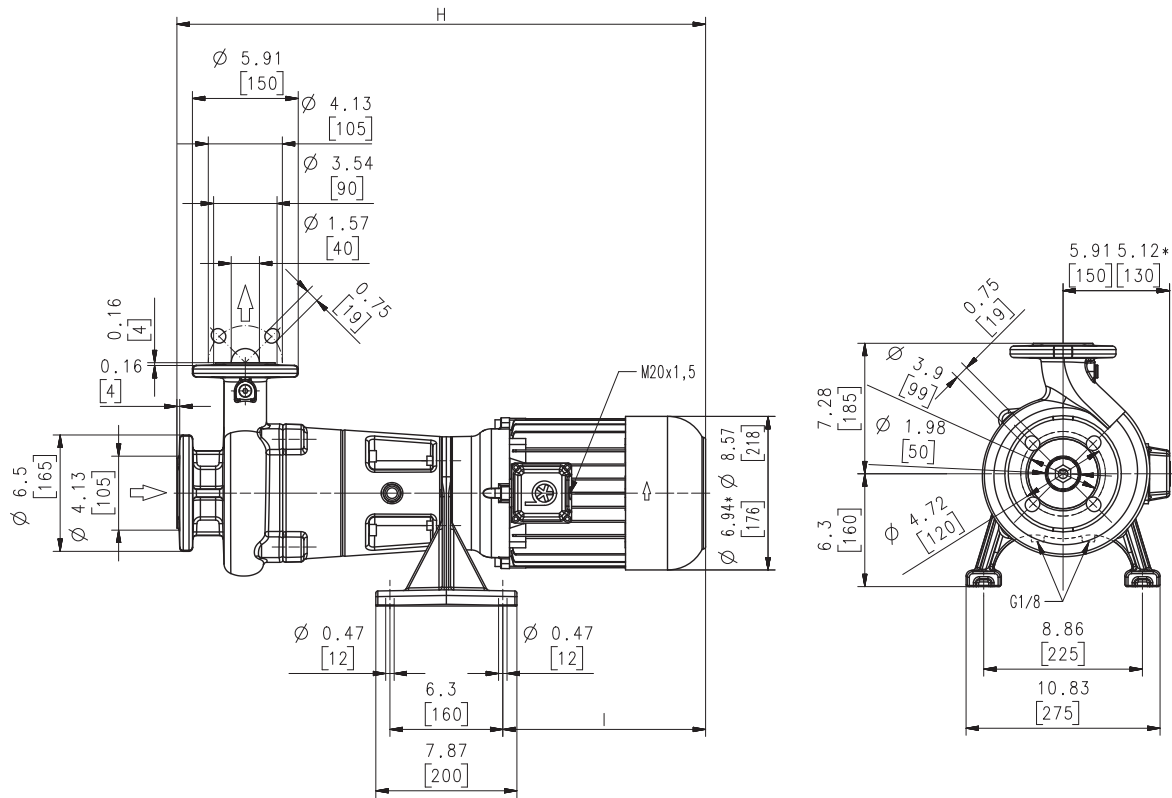
BFT750S...1250S

Semi-open impellers



60 Hz

BFT750S...1250S



Dimensions in Inches / mm
*) Dimensions BFT750S

Type	Flow at head		Dimensions		Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch	H mm	l Inch	l mm	Lbs	kg						
BFT750S	125/28	28.7	728	10.5	266	134.5	61	3.9	230	60	10.2	3480	
	400/11							2.94	460	60	5.1	3480	
BFT1250S	175/34	30.2	767	12.0	305	158.8	72	6.1	230	60	15.8	3520	
	600/12							4.55	460	60	7.9	3520	



Horizontal End-Suction Pumps

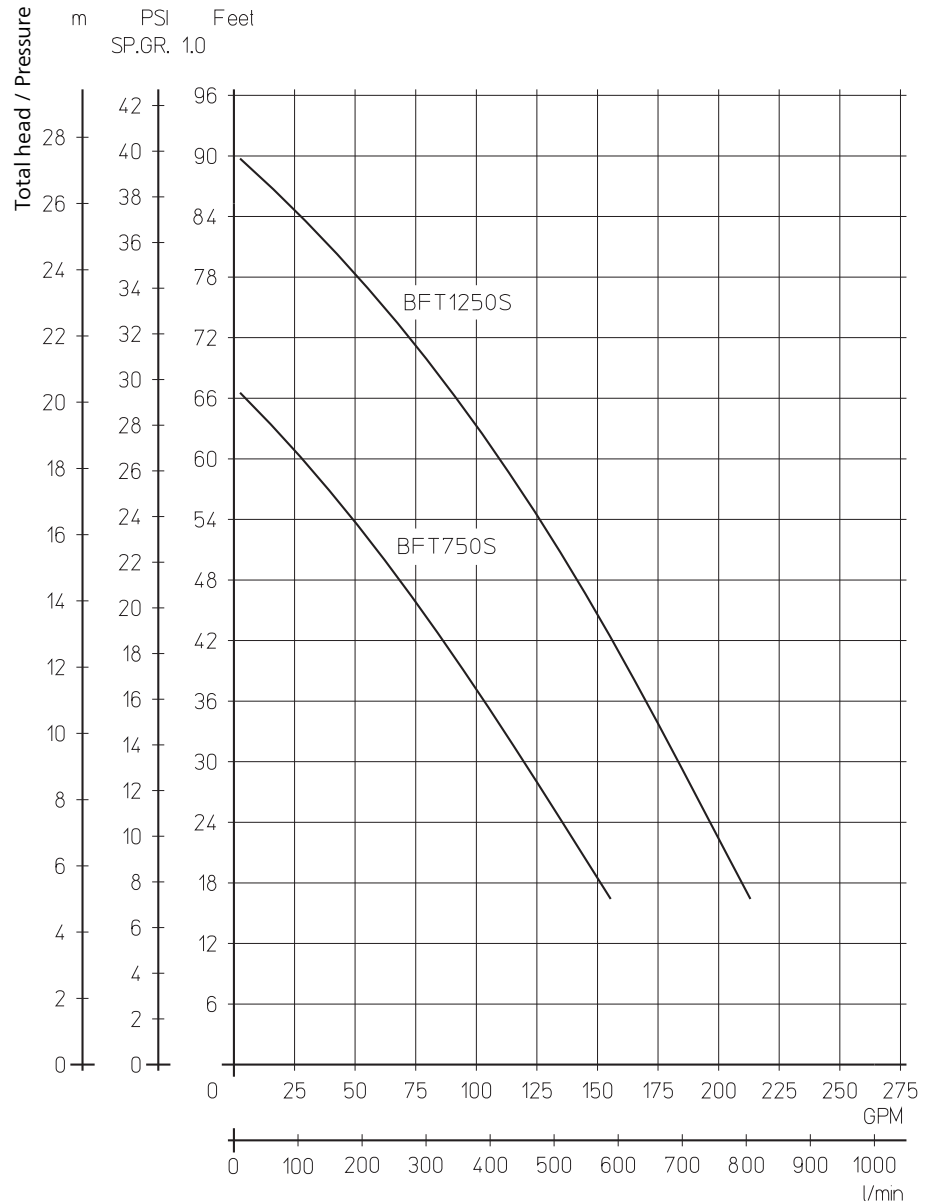
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank. **Series BFT** are designed to lift coolant for filtering. **Coarse shreds** can be transported together with liquids.. For more information see lifting pumps features SFT/BFT within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 1.5 %
 Chip material:
 Aluminium, steel, coloured steels
 Chip geometry:
 The max. ball diameter is 35 mm
 Kinematic viscosity
 ...140 SSU (...30 mm²/s)
 Pumping temperature
 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Mechanical seal	SiC



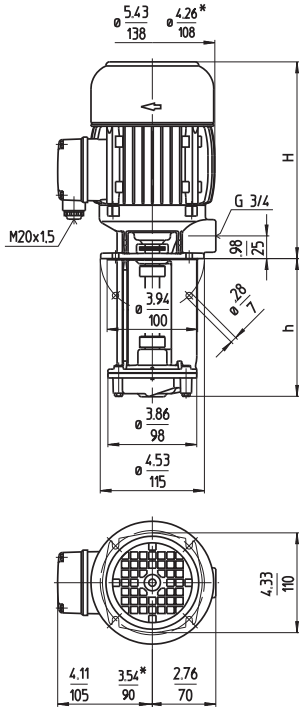
Immersion Pumps

TS12...24

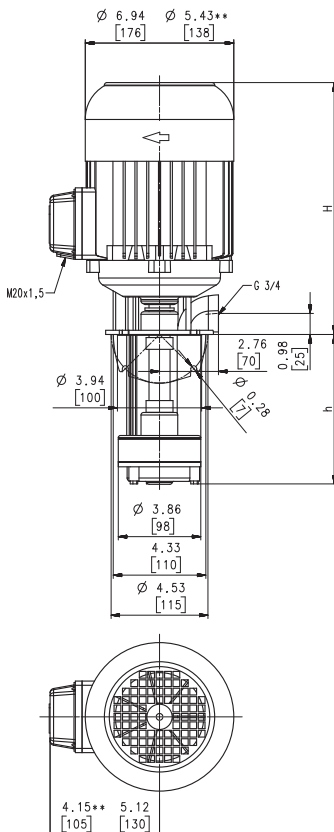
Peripheral impellers



TS12, 13, 21, 22



TS15, TS24



Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch	H inch	h inch	h mm	Lbs	kg	AMPS				RPM	
TS12S110	5/45	7.0	4.33	110	11.9	5.4	0.36	208-230	60	1.26	3300		
	20/14	178					0.27	460	60	0.63	3300		
	150		5.91	150	12.3	5.6							
	190		7.48	190	13.2	6.0							
	250		9.84	250	14.3	6.5							
300		11.81	300	15.4	7.0								
TS13S110	5/74	8.3	4.33	110	14.3	6.5	0.54	208-230	60	1.8	3200		
	20/23	211					0.4	460	60	0.9	3200		
	150		5.91	150	15.0	6.8							
	190		7.48	190	15.9	7.2							
	250		9.84	250	16.5	7.5							
300		11.81	300	17.2	7.8								
TS15S190	5/125	11.2	7.48	190	27.6	12.5	1.7	230	60	4.8	3440		
	20/35	285					1.27	460	60	2.4	3440		
	220		8.66	220	28.7	13.0							
TS21S110	5/90	8.5	4.33	110	18.1	8.2	0.85	208-230	60	3.0	3250		
	20/27	217					0.63	460	60	1.5	3250		
	150		5.91	150	18.7	8.5							
	190		7.48	190	19.8	9.0							
	250		9.84	250	20.9	9.5							
	300		11.81	300	22.0	10.0							
350		13.78	350	23.2	10.5								
TS22S110	5/125	11.2	4.33	110	26.0	11.8	1.7	230	60	4.8	3440		
	20/38	285					1.27	460	60	2.4	3440		
	150		5.91	150	26.9	12.2							
	190		7.48	190	27.6	12.5							
	250		9.84	250	28.7	13.0							
300		11.81	300	29.5	13.4								
350		13.78	350	30.2	13.7								
TS24S140	10/124	14.2	5.51	140	57.3	26	2.9	230	60	7.8	3500		
	40/36	360					2.18	460	60	3.9	3500		
	180		7.09	180	59.5	27							
220		8.66	220	61.7	28								

Dimensions in Inches / mm


*) Dimensions TS12, 13

***) Dimensions TS15



Immersion Pumps

models **TS12 to TS24** are suitable for **CNC machine tools** featuring coolant supply through the tool holder or driving spindle. The TS series is also used for machines equipped with internally cooled tools. TS pumps are equipped with a peripheral impeller to achieve a compact high pressure unit. Series TS are suitable for filtered coolant only. To reduce pump pressure, model TS22 to TS24 is also available with an optional Y/YY (Dahlander) motor configuration for 4 pole operation at half speed.

 Special versions of the pumps can be supplied for use with temperature controlling systems carrying thermal oils of up to 300 °F (150 °C) resp. 390 °F (200 °C).

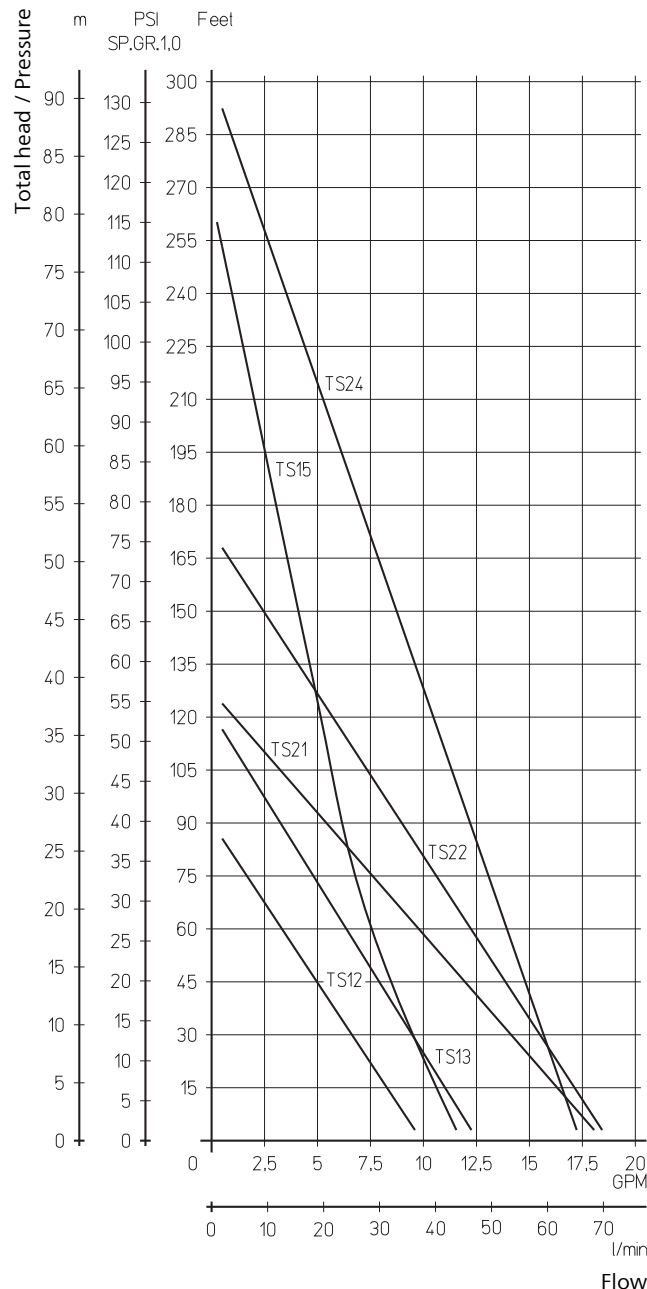


Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...200 SSU (...45 mm²/s)
Pumping temperature
30...175 °F (0...80 °C)
300 °F (150° C) as special make

Construction

Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Pump body	bronze (TS12...TS13, TS21...TS22)
Cover	bronze (TS12...TS13, TS21...TS22)
Impellers	CrNi-steel (TS12...TS22)
Noise level	
TS12...TS13	61 dBA
TS15...TS22	68 dBA
TS24	74 dBA



Medium Pressure Pumps (S)TC | (S)TH | FH

Our multistage pump models (S)TC25 to (S)TC460 have been especially developed to supply internally cooled tools with coolant fluid.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.



(S)TC63



(S)TC260

SAE Flange for TC Pumps

Upon request all TC pumps are available with an SAE flange. The flange allows for either vertical or horizontal pipe connection and offers a NPT 1/4 (G 1/4) pressure gauge connection port. A surcharge applies for pumps ordered with SAE flange.

Pump Curves

One key feature of the (S)TC series pumps is their non-overloading motors. These pumps can be operated across the entire pump curve without damaging the motor. This key advantage applies for all allowed fluids, including coolant oils. For specific applications where only one working point is required, the pump/motor combinations can be reviewed and a smaller motor size might be applicable.

Number of Stages

(S)TC pump curves are determined by the number of impeller used within the pump.

Within the range the immersion depth can be extended up to the maximum mentioned length.

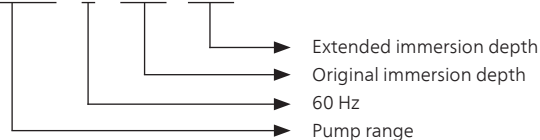
Example: STC63S350-750

Pump suction with threaded inlet

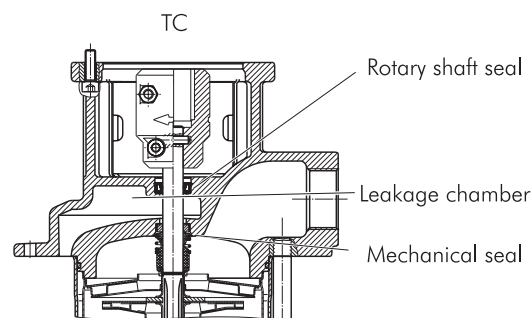
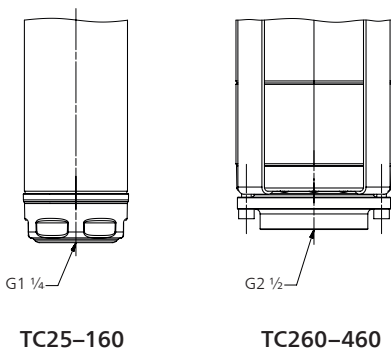
The TC25 to TC160 series pumps are also available with threaded suction ports upon request. This feature increases the standard immersion depth by 1.57 inch (40 mm).

Type Designation

(S)TC63 S 270 - 750



Leakage chamber / Leakage connections



Medium Pressure Pumps (S)TC | (S)TH | FH

Series (S)TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies. In addition, the (S)TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.



(S)TH



FH

SAE Flange for TH Pumps

Upon request all TH pumps are available with an SAE flange (STH). The flange allows for either vertical or horizontal pipe connection and offers a NPT 1/4 (G 1/4) pressure gauge connection port. A surge charge applies for pumps ordered with SAE flange.

Pump Curves

One key feature of the (S)TH/FH series pumps is their non-overloading motors. These pumps can be operated across the entire pump curve without damaging the motor. This key advantage applies for all allowed fluids, including coolant oils. For specific applications where only one working point is required, the pump/motor combinations can be reviewed and a smaller motor size might be applicable.

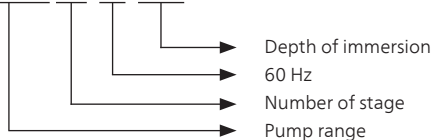
Number of Stages

(S)TH/FH pump curves are determined by the number of impeller used within the pump.

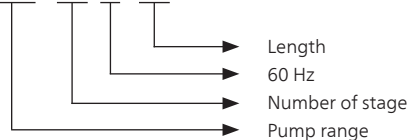
Within the range the immersion depth can be extend up to the maximum mentioned length.
Example: STH203S690 (3 impeller, 27.17 inch / 690 mm immersion depth)

Type Designation

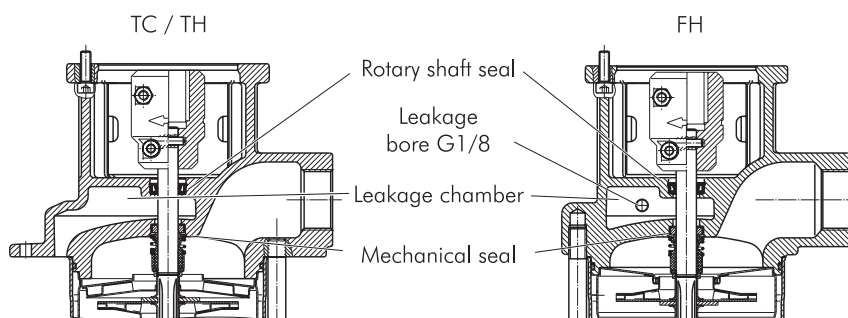
(S)TH4 11 S 290



FH4 11 S 39



Leakage chamber / Leakage connections



Small leaks flow back through the leakage chamber into the tank without reaching the outside.

By connecting a leakage line it is possible to direct minor leaks back into the tank.

Medium Pressure Pumps (S)TC | (S)TH | FH

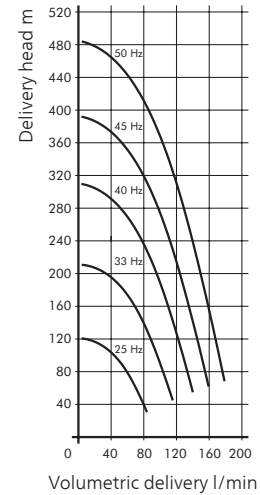
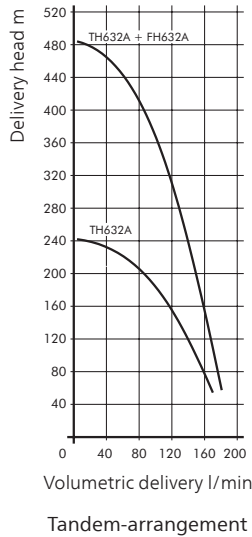
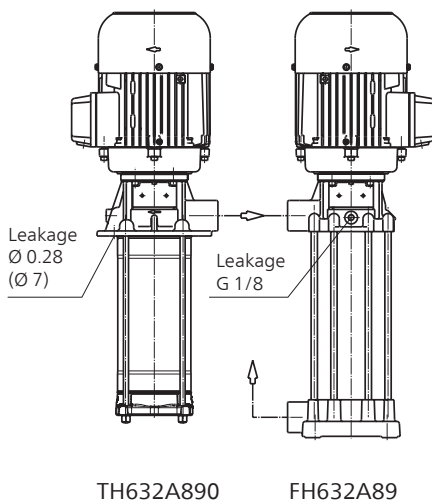
Applying (S)TH/FH pumps in grinding applications

Grinding versions (S)TH/FH pumps (-E). (S)TH/FH series pumps can be supplied upon request as a special grinding version for applications with heavy loads of abrasive particles (>50HRC).
Ordering description: e.g. TH224A590-E

In this version pumps are supplied without internal diffuser gaskets in order to prevent increased wear caused by the abrasive particles in the fluid. As a result, however, the internal losses of the pump increase and the pump curves are reduced.

These curves are available upon request.

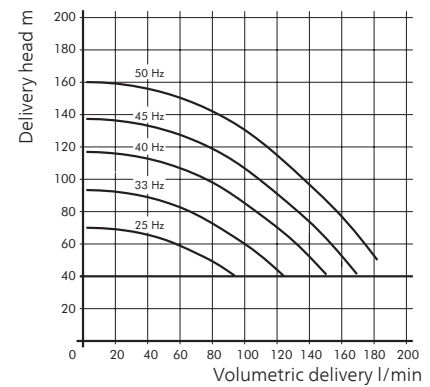
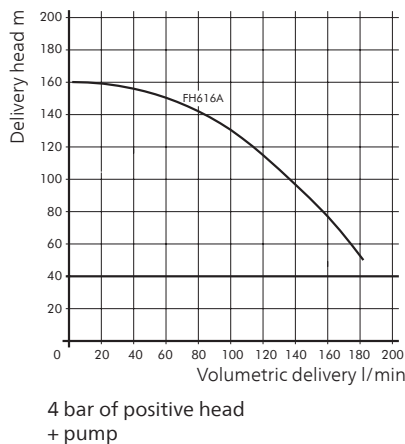
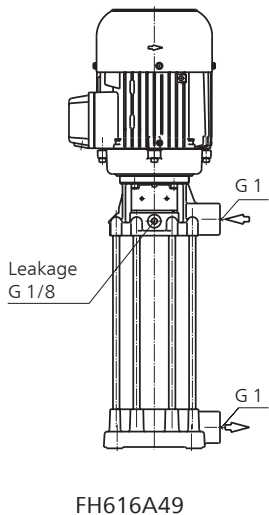
Examples for pressure boosting: TH632A890 + FH632A89 in tandem-arrangement



Tandem-arrangement
Both pumps controlled by one variable frequency converter

Dimensions in Inches / mm

Examples for pressure boosting: FH616A49 + 4 bar of positive head from central coolant supply



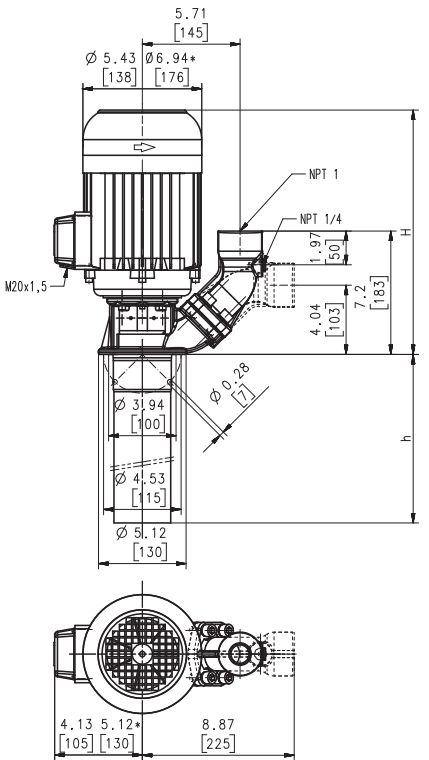
4 bar of positive head
+ pump controlled by frequency converter

Immersion Pumps (S)TC40

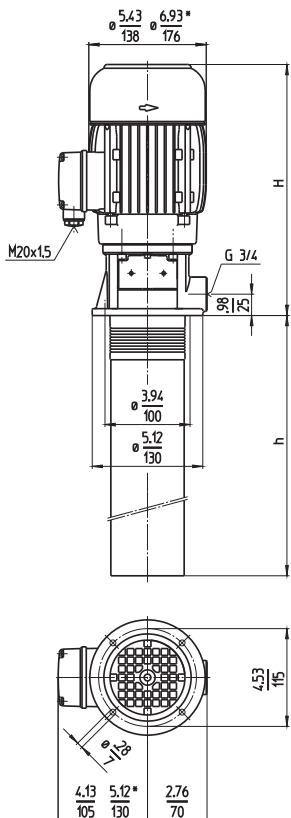
Closed impellers



STC40



TC40



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet /min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TC40S260	5/142	10.9	10.24	260	26.5	12	0.75	208-230	60	2.70	3250
	20/42	276					0.55	460	60	1.45	3250
(S)TC40S340	5/220	12.5	13.19	335	30.9	14	1.3	230	60	4	3450
	20/66	318					0.98	460	60	2	3450
(S)TC40S430	5/320	14.4	16.93	430	48.5	22	2.3	230	60	6.2	3470
	20/96	367					1.75	460	60	3.1	3470
(S)TC40S550	5/430	15.5	21.65	550	55.1	25	2.6	230	60	7.0	3480
	20/127	393					1.95	460	60	3.5	3480
(S)TC40S720	5/615	16.7	28.35	720	66.2	30	3.9	230	60	10.2	3480
	20/182	425					2.94	460	60	5.1	3480

Dimensions in Inches / mm
) Dimensions for (S)TC40S430...720



Immersion Pumps

models (S)TC40...(S)TC160 have been especially developed to supply **internally cooled tools** with coolant.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

A **frequency alternator** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Longer pump lengths and threaded inlets are available upon request.

Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

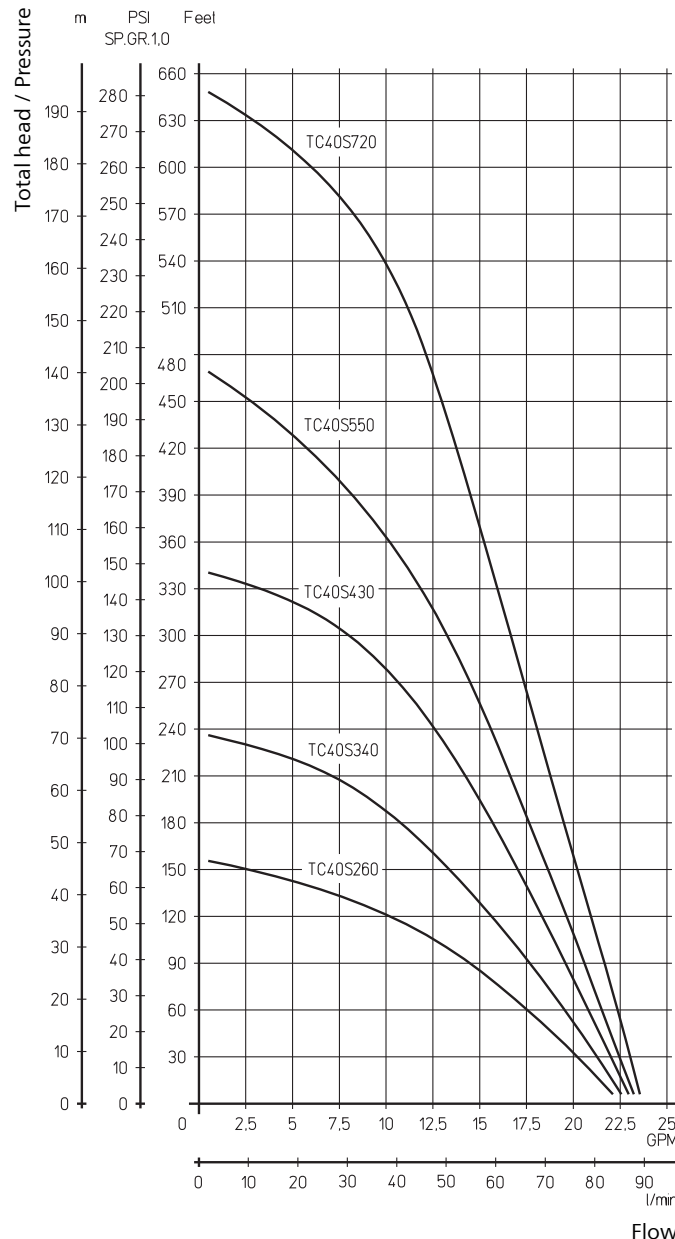


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton [®]
Optional:	
Pump body	bronze CrNi-steel
Noise level	
(S)TC40S260...(S)TC40S340	61 dBA
(S)TC40S430...(S)TC40S720	68 dBA



Immersion Pumps

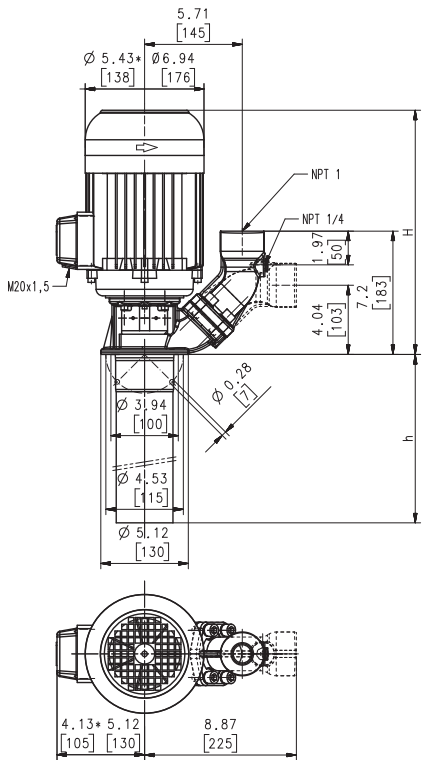
(S)TC63

Closed impellers

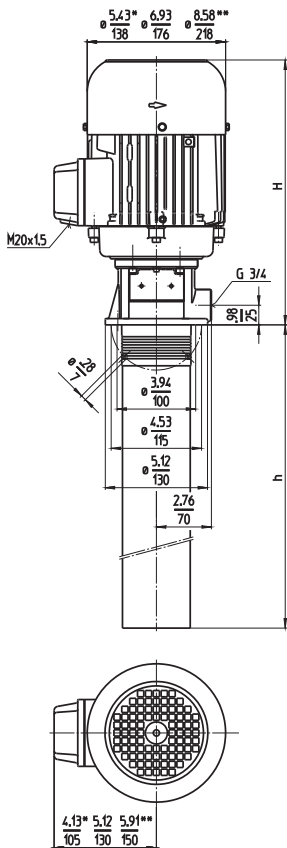


60 Hz

STC63



TC63



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet /min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TC63S270	15/120	13.6	10.83	275	32.0	14.5	1.7	230	60	4.8	3440
	60/34	345					1.27	460	60	2.4	3440
(S)TC63S350	15/172	14.4	13.39	340	48.5	22	2.3	230	60	6.2	3470
	60/50	367					1.75	460	60	3.1	3470
(S)TC63S440	15/240	16.7	17.32	440	59.5	27	2.9	230	60	7.8	3500
	60/70	425					2.18	460	60	3.9	3500
(S)TC63S560	15/355	16.7	22.24	565	66.2	30	3.9	230	60	10.2	3480
	60/104	425					2.94	460	60	5.1	3480
TC63S750	15/500	16.5	29.72	755	92.6	42	5.1	230	60	12.8	3520
	60/145	418					3.8	460	60	6.4	3520

Dimensions in Inches / mm
 *) Dimensions (S)TC63S270
 **) Dimensions TC63S750



Immersion Pumps

models (S)TC40...(S)TC160 have been especially developed to supply **internally cooled tools** with coolant.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

A **frequency alternator** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Longer pump lengths and threaded inlets are available upon request.

Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

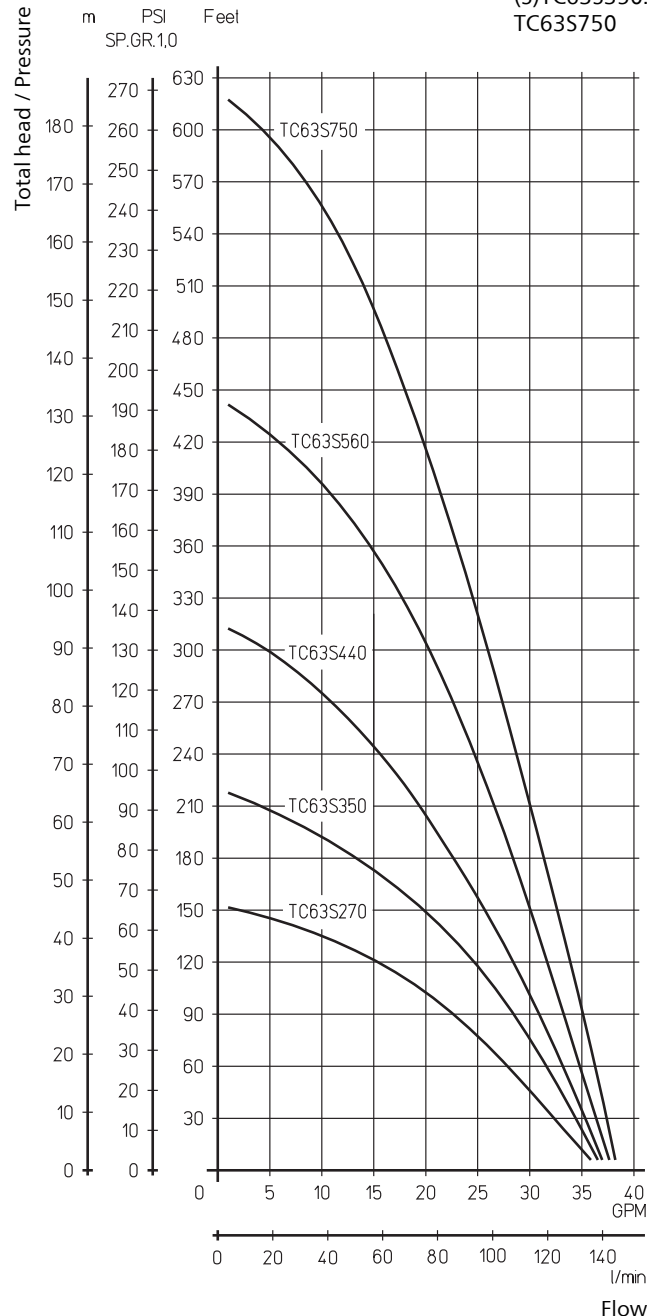


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton [®]
Optional:	
Pump body	bronze CrNi-steel
Noise level	
(S)TC63S270	61 dBA
(S)TC63S350...(S)TC63S560	68 dBA
TC63S750	72 dBA



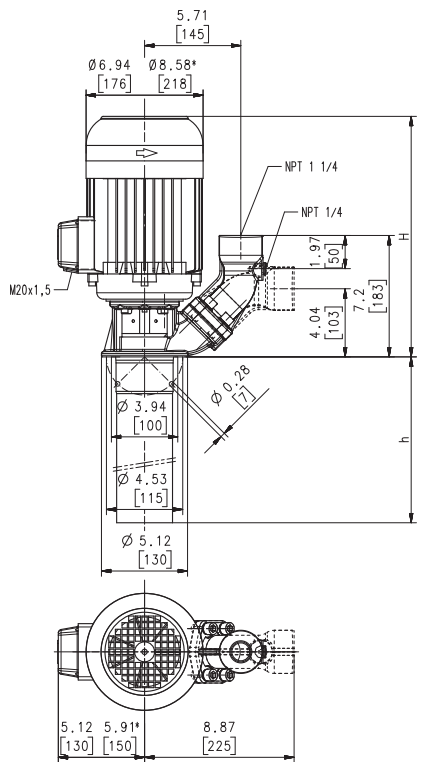
Immersion Pumps

(S)TC160

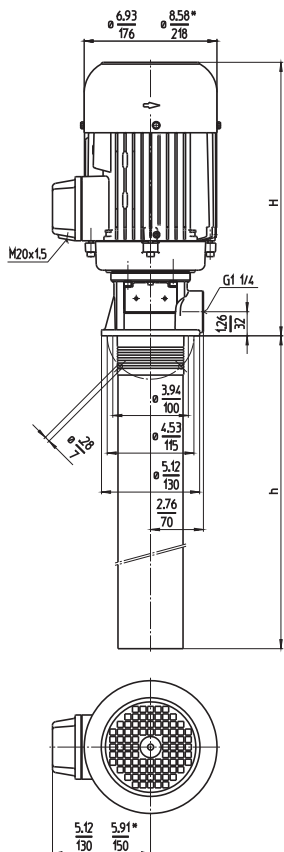
Closed impellers



STC160



TC160



Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet /min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
(S)TC160S330	20/110	14.4	12.80	325	46.3	21	2.3	230	60	6.2	3470
	80/32	367					1.75	460	60	3.1	3470
(S)TC160S430	20/175	16.7	16.73	425	59.5	27	2.9	230	60	7.8	3500
	80/51	425					2.18	460	60	3.9	3500
(S)TC160S580	20/270	16.5	22.83	580	92.6	42	4.6	230	60	12	3520
	80/78	418					3.45	460	60	6	3520
TC160S740	20/365	16.5	28.94	735	97.0	44	6.1	230	60	15.8	3520
	80/108	418					4.55	460	60	7.9	3520

Dimensions in Inches / mm
*) Dimensions STC160S580, TC160S580...740



Immersion Pumps

models (S)TC40...(S)TC160 have been especially developed to supply **internally cooled tools** with coolant.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

A **frequency alternator** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Longer pump lengths and threaded inlets are available upon request.

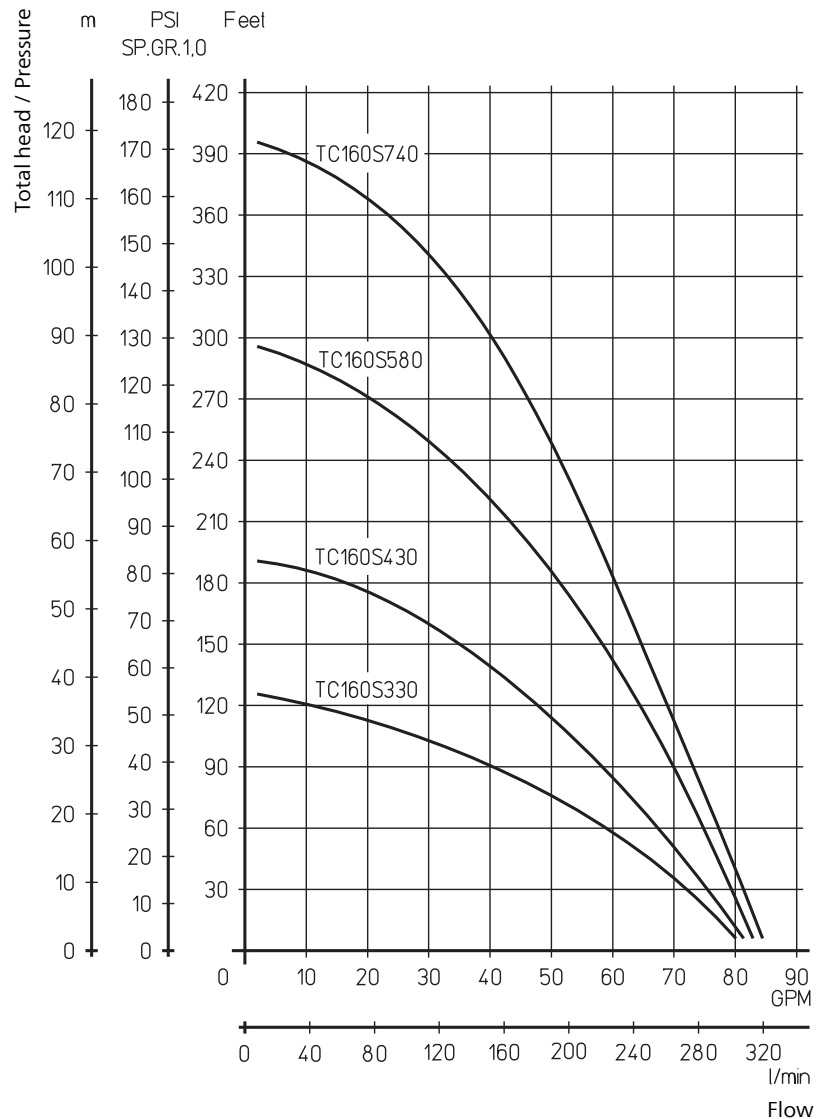
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)

Construction

Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton®
Optional: Pump body	bronze CrNi-steel
Noise level (S)TC160S330...(S)TC160S580 TC160S740	68 dBA 72 dBA



Immersion Pumps

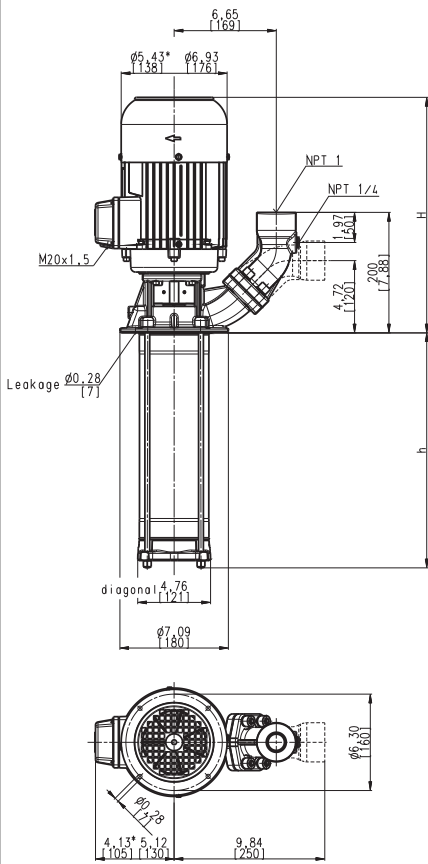
(S)TH2

Closed impellers

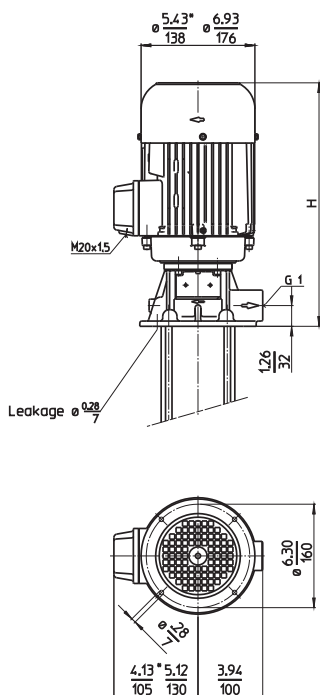


60 Hz

STH203...231



TH203...231



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet	H inch	h inch	h mm	Lbs	kg					
(S)TH203S190	5/80	11.5	7.48	190	31.8	14.4	0.6	208-230	60	2.2	3200
(S)TH204S190	5/110				32.0	14.5	0.45	460	60	1.1	3200
(S)TH205S190	5/130	11.5	7.48	190	32.9	14.9	0.73	208-230	60	2.8	3300
(S)TH206S190	5/165				33.1	15.0	0.54	460	60	1.4	3300
(S)TH207S290	5/190	13.1	11.42	290	41.9	19.0	1.15	230	60	3.70	3440
(S)TH208S290	5/220				42.1	19.1	0.86	460	60	1.85	3440
(S)TH209S290	5/240				42.3	19.2					
(S)TH210S290	5/270	13.1	11.42	290	44.3	20.1	1.3	230	60	4	3450
							0.98	460	60	2	3450
(S)TH211S290	5/300	13.1	11.42	290	44.8	20.3	1.4	230	60	4.2	3440
							1.06	460	60	2.1	3440
(S)TH212S390	5/325		15.35	390	45.0	20.4					
(S)TH213S390	5/355				45.2	20.5					
(S)TH214S390	5/375	14.1	15.35	390	47.8	21.7	1.7	230	60	4.8	3440
(S)TH215S390	5/395				48.1	21.8	1.27	460	60	2.4	3440
(S)TH216S390	5/420	15.0	15.35	390	61.7	28	2	230	60	5.4	3500
							1.49	460	60	2.7	3500
(S)TH217S490	5/440	15.0	19.29	490	66.6	30.2	2.3	230	60	6.2	3470
(S)TH218S490	5/480				66.8	30.3	1.75	460	60	3.1	3470
(S)TH219S490	5/505				67.0	30.4					
(S)TH220S490	5/540	16.0	19.29	490	71.7	32.5	2.6	230	60	7.0	3480
(S)TH221S490	5/570				71.9	32.6	1.95	460	60	3.5	3480
(S)TH222S590	5/605	17.3	23.23	590	82.5	37.4	2.9	230	60	7.8	3500
(S)TH223S590	5/635				82.7	37.5	2.18	460	60	3.9	3500
(S)TH224S590	5/660	17.3	23.23	590	84.2	38.2	3.4	230	60	8.8	3480
(S)TH225S590	5/690				84.7	38.4	2.55	460	60	4.4	3480
(S)TH226S590	5/715				84.9	38.5					
(S)TH227S690	5/740		27.17	690	86.2	39.1					
(S)TH228S690	5/760	17.3	27.17	690	88.6	40.2	3.9	230	60	10.2	3480
(S)TH229S690	5/785				88.9	40.3	2.94	460	60	5.1	3480
(S)TH230S690	5/810				89.1	40.4					
(S)TH231S690	5/835				89.3	40.5					

Dimensions in Inches / mm
*) Dimensions (S)TH203...215

Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

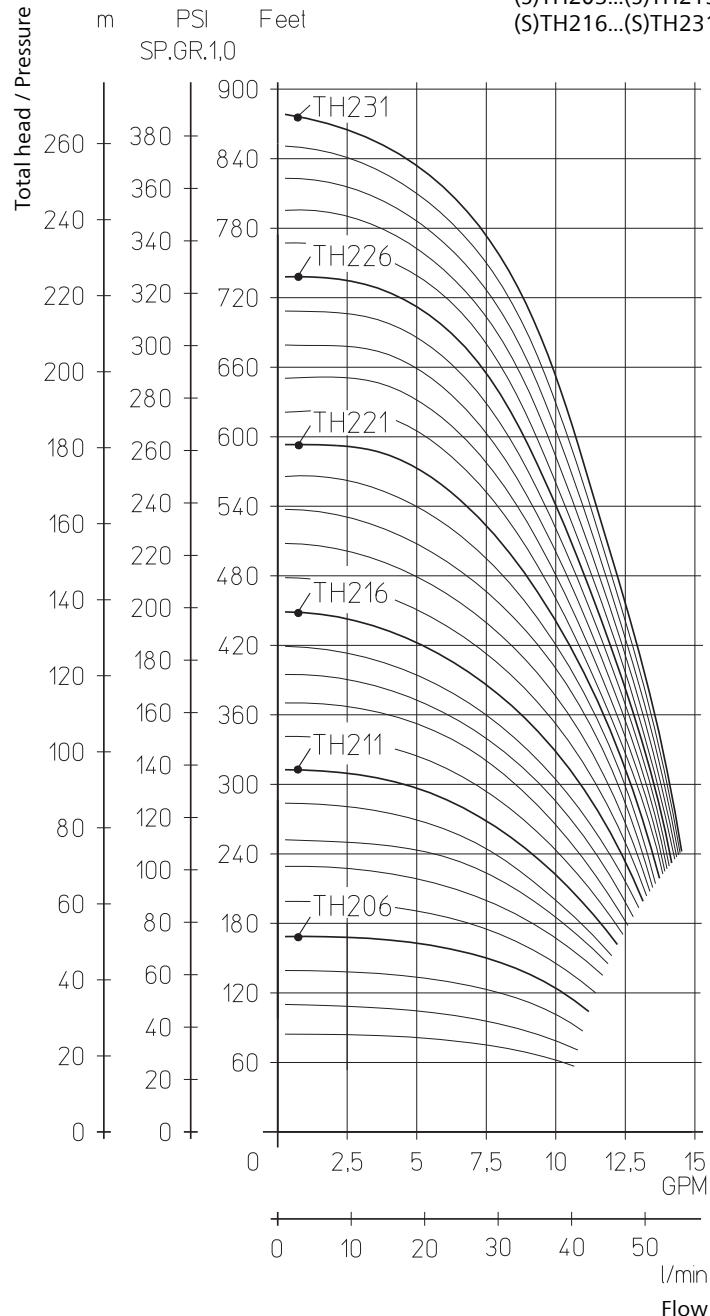


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	CrNi-steel
Cover	bronze
Cover	CrNi-steel
Noise level	
(S)TH203...(S)TH215	61 dBA
(S)TH216...(S)TH231	66 dBA

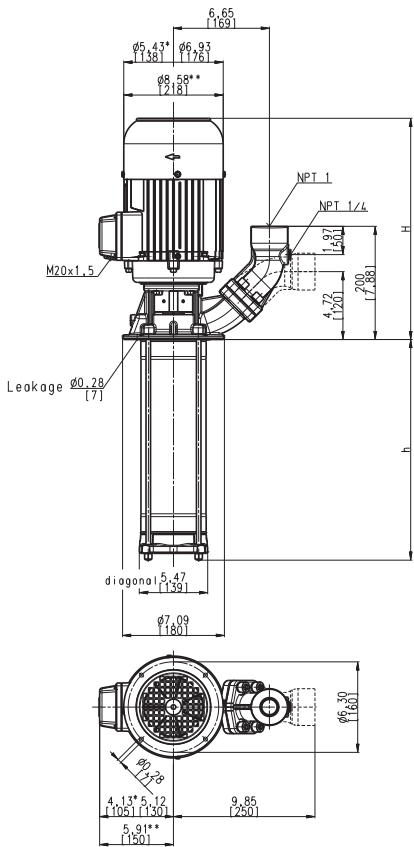


Immersion Pumps (S)TH4

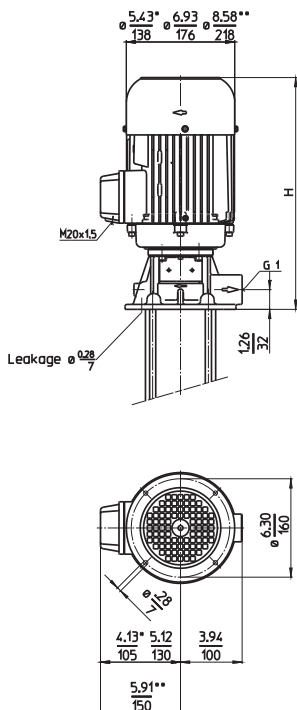
Closed impellers



STH403...424



TH403...424



Type	Flow at head	Height	Depth of im- mersion		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
(S)TH403S190	10/90	11.5	7.48	190	32.9	14.9	0.73	208-230	60	2.8	3300
	40/29	291					0.54	460	60	1.4	3300
(S)TH404S190	10/130	13.1	7.48	190	37.7	17.1	1.15	230	60	3.70	3440
	40/39	332					0.86	460	60	1.85	3440
(S)TH405S190	10/170				37.9	17.2					
(S)TH406S190	10/195	13.1	7.48	190	40.1	18.2	1.4	230	60	4.2	3440
	40/58	332					1.06	460	60	2.1	3440
(S)TH407S290	10/230	14.1	11.42	290	42.8	19.4	1.7	230	60	4.8	3440
(S)TH408S290	40/68	359					1.27	460	60	2.4	3440
	10/260				43.0	19.5					
(S)TH409S290	10/285	15.0	11.42	290	59.5	27	2	230	60	5.4	3500
	40/88	381					1.49	460	60	2.7	3500
(S)TH410S290	10/330	15.0	11.42	290	60.0	27.2	2.3	230	60	6.2	3470
	40/100	381					1.75	460	60	3.1	3470
(S)TH411S290	10/360	16.0	11.42	290	64.8	29.4	2.6	230	60	7.0	3480
	40/110	407					1.95	460	60	3.5	3480
(S)TH412S390	10/395		15.35	390	66.2	30.0					
(S)TH413S390	40/119						2.9	230	60	7.8	3500
	10/425	17.3	15.35	390	77.2	35	2.18	460	60	3.9	3500
(S)TH414S390	40/129	439					3.4	230	60	8.8	3480
	10/465	17.3	15.35	390	78.3	35.5	2.55	460	60	4.4	3480
(S)TH415S390	10/505				78.5	35.6					
(S)TH416S390	40/150						3.9	230	60	10.2	3480
	10/530	17.3	15.35	390	79.4	36.0	2.94	460	60	5.1	3480
(S)TH417S490	10/565		19.29	490	79.6	36.1					
(S)TH418S490	40/170						5.1	230	60	12.8	3520
	10/595	17.0	19.29	490	105.6	47.9	3.8	460	60	6.4	3520
(S)TH419S490	10/635				105.8	48.0					
(S)TH420S490	40/192	432					5.1	230	60	12.8	3520
	10/670				105.8	48.0					
(S)TH421S490	10/705				106.1	48.1					
(S)TH422S590	40/214						6.1	230	60	15.8	3520
	10/735		23.23	590	106.5	48.3	4.55	460	60	7.9	3520
(S)TH423S590	10/770	17.0	23.23	590	109.1	49.5					
(S)TH424S590	40/233	432					6.1	230	60	15.8	3520
	10/800				109.6	49.7					
(S)TH424S590	40/242										

Dimensions in Inches / mm
 *) Dimensions (S)TH403...408
 **) Dimensions (S)TH419...424



Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

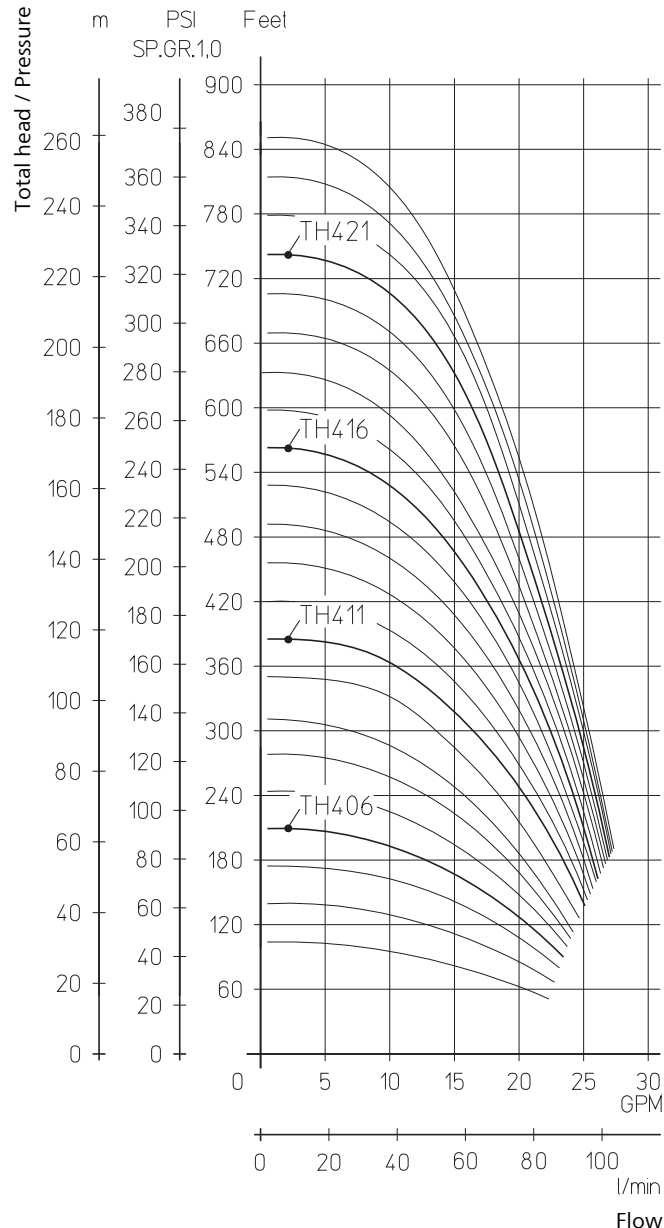
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
	CrNi-steel
Cover	bronze
	CrNi-steel
Noise level	
(S)TH403...(S)TH408	61 dBA
(S)TH409...(S)TH418	66 dBA
(S)TH419...(S)TH424	75 dBA



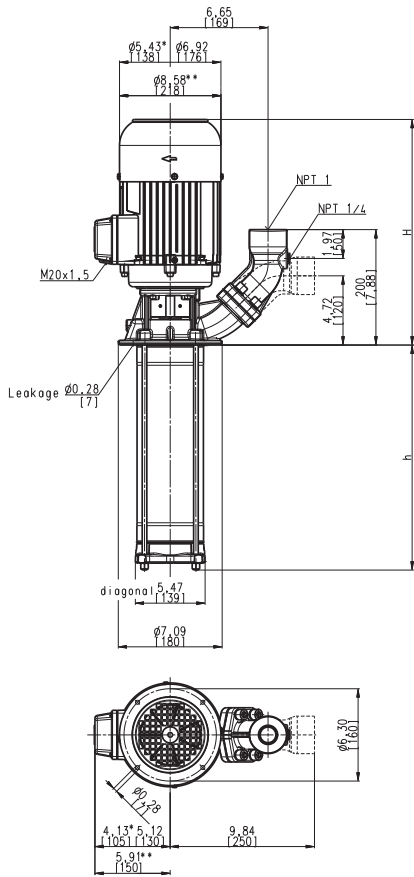
Immersion Pumps

(S)TH6

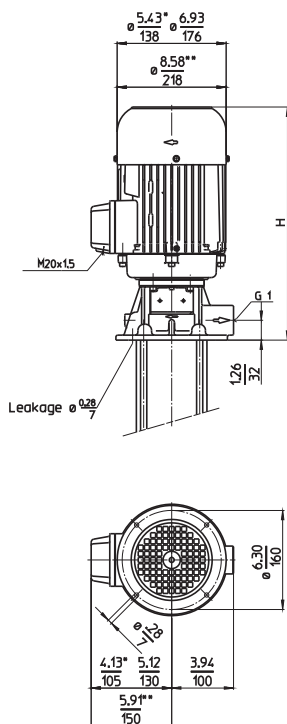
Closed impellers



STH603...624



TH603...624



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TH603S190	20/95	13.1	7.48	190	37.0	16.8	1.15	230	60	3.70	3440
	80/28	332					0.86	460	60	1.85	3440
(S)TH604S190	20/120	13.1	7.48	190	38.6	17.5	1.4	230	60	4.2	3440
	80/38	332					1.06	460	60	2.1	3440
(S)TH605S240	20/150	14.1	9.45	240	40.8	18.5	1.7	230	60	4.8	3440
	80/48	359					1.27	460	60	2.4	3440
(S)TH606S240	20/185	15.0	9.45	240	55.1	25	2.3	230	60	6.2	3470
	80/58	381					1.75	460	60	3.1	3470
(S)TH607S290	20/220	16.0	11.42	290	63.9	29	2.6	230	60	7.0	3480
	80/68	407					1.95	460	60	3.5	3480
(S)TH608S290	20/255	17.3	11.42	290	70.6	32	2.9	230	60	7.8	3500
	80/78	439					2.18	460	60	3.9	3500
(S)TH609S340	20/285	17.3	13.39	340	77.2	35	3.4	230	60	8.8	3480
	80/88	439					2.55	460	60	4.4	3480
(S)TH610S340	20/330	17.3	13.39	340	79.4	36.0	3.9	230	60	10.2	3480
	80/98	439					2.94	460	60	5.1	3480
(S)TH611S390	20/358		15.35	390	80.7	36.6					
	80/108										
(S)TH612S390	20/395	17.0	15.35	390	105.8	48	4.6	230	60	12	3520
	80/118	432					3.45	460	60	6	3520
(S)TH613S490	20/420	17.0	19.29	490	110.0	49.9	5.1	230	60	12.8	3520
	80/128	432					3.8	460	60	6.4	3520
(S)TH614S490	20/455				110.5	50.1					
	80/139										
(S)TH615S490	20/490	17.0	19.29	490	114.2	51.8	6.1	230	60	15.8	3520
	80/149	432					4.55	460	60	7.9	3520
(S)TH616S490	20/520				115.3	52.3					
	80/159										
(S)TH617S590	20/555		23.23	590	116.4	52.8					
	80/168										
(S)TH618S590	20/580	18.2	23.23	590	125.2	56.8	7.7	230	60	19.0	3520
	80/178	462					5.75	460	60	9.5	3520
(S)TH619S590	20/615				125.5	56.9					
	80/188										
(S)TH620S590	20/645				125.7	57.0					
	80/198										
(S)TH621S690	20/675		27.17	690	126.1	57.2					
	80/206										
(S)TH622S690	20/705				126.3	57.3					
	80/214										
(S)TH623S690	20/735	18.2	27.17	690	134.5	61.0	8.4	230	60	20.8	3510
	80/222	462					6.3	460	60	10.4	3510
(S)TH624S690	20/765				134.9	61.2					
	80/232										

Dimensions in Inches / mm
 *) Dimensions (S)TH603...605
 **) Dimensions (S)TH612...624



Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

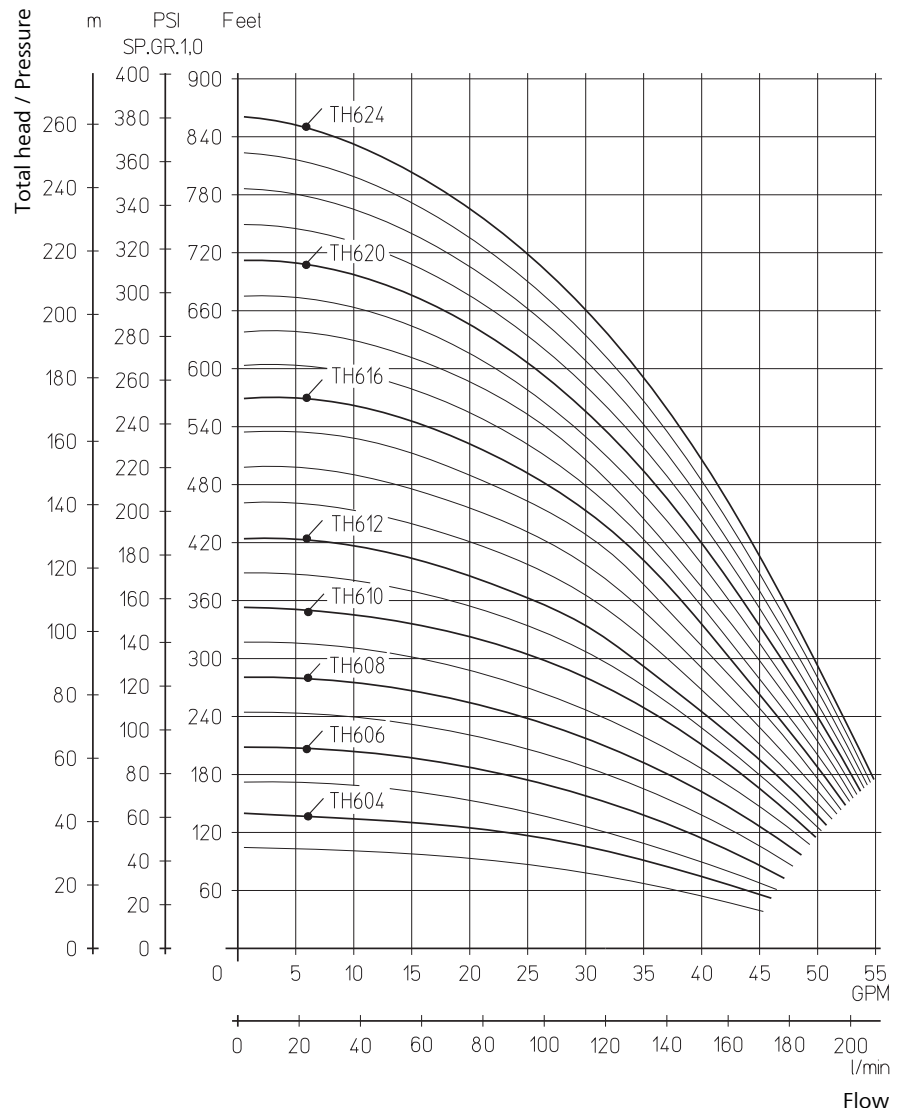
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
	CrNi-steel
Cover	bronze
	CrNi-steel
Noise level	
(S)TH603...(S)TH605	61 dBA
(S)TH606...(S)TH611	66 dBA
(S)TH612...(S)TH624	75 dBA

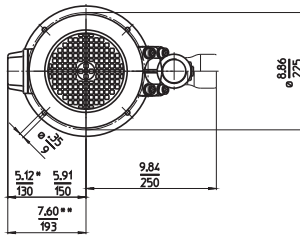
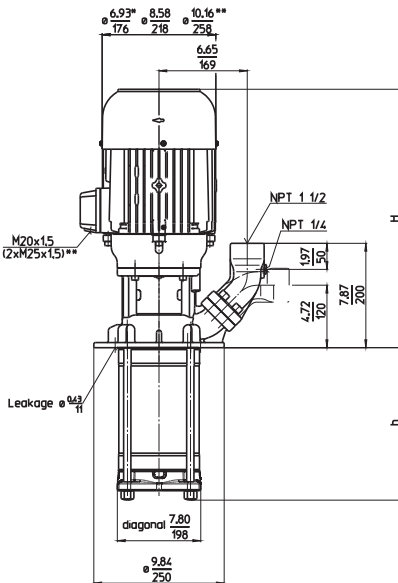


Immersion Pumps

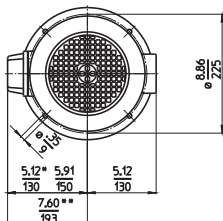
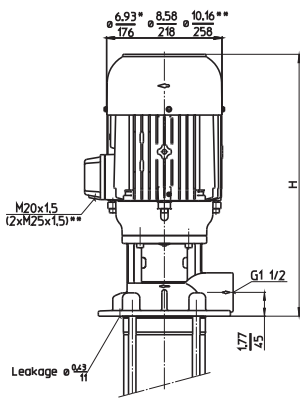
(S)TH11

Closed impellers

STH1102...1115



TH1102...1115



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TH1102S180	37.5/100	17.0	7.17	182	75.0	34	2	230	60	5.4	3500
	150/30	433					1.49	460	60	2.7	3500
(S)TH1103S180	37.5/150	19.4	7.17	182	94.8	43	2.9	230	60	7.8	3500
	150/45	492					2.18	460	60	3.9	3500
(S)TH1104S280	37.5/200	19.4	10.94	278	97.0	44	3.9	230	60	10.2	3480
	150/59	492					2.94	460	60	5.1	3480
(S)TH1105S280	37.5/250	20.9	10.94	278	125.7	57	5.1	230	60	12.8	3520
	150/77	531					3.8	460	60	6.4	3520
(S)TH1106S280	37.5/300	20.9	10.94	278	127.9	58	6.1	230	60	15.8	3520
	150/90	531					4.55	460	60	7.9	3520
(S)TH1107S310	37.5/355	22.1	12.20	310	136.7	62	7.7	230	60	19.0	3520
	150/106	561					5.75	460	60	9.5	3520
(S)TH1108S380	37.5/400		14.72	374	141.1	64					
(S)TH1109S380	37.5/455	22.1	14.72	374	143.3	65	8.4	230	60	20.8	3510
	150/138	561					6.3	460	60	10.4	3510
(S)TH1110S470	37.5/510	25.2	18.50	470	214	97	11.5	230	60	27.8	3550
	150/152	640					8.6	460	60	13.9	3550
(S)TH1111S470	37.5/550				216	98					
(S)TH1112S470	37.5/600				218	99					
(S)TH1113S500	37.5/655	25.2	19.76	502	238	108	13.8	230	60	31.6	3550
	150/198	640					10.3	460	60	15.8	3550
(S)TH1114S570	37.5/705		22.28	566	240	109					
(S)TH1115S570	37.5/755				243	110					
	150/230										

Dimensions in Inches / mm
 *) Dimensions (S)TH1102...1104
 **) Dimensions (S)TH1110...1115



Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

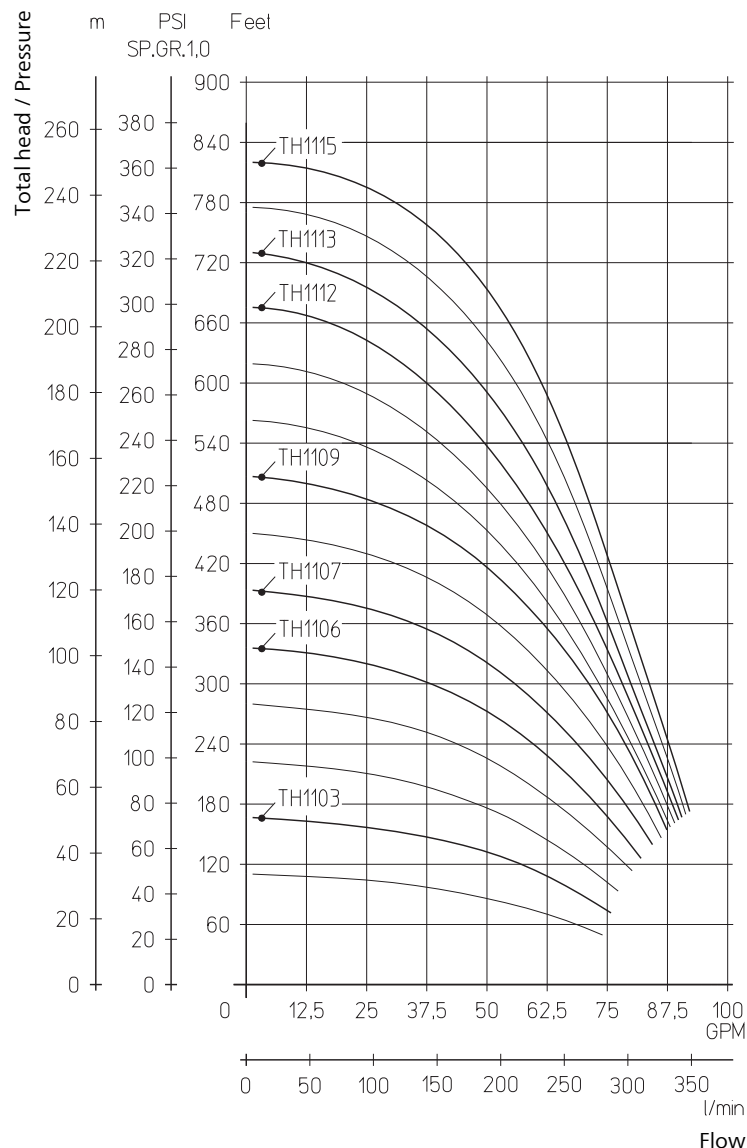
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Noise level	
(S)TH1102...(S)TH1104	66 dBA
(S)TH1105...(S)TH1109	74 dBA
(S)TH1110...(S)TH1115	77 dBA



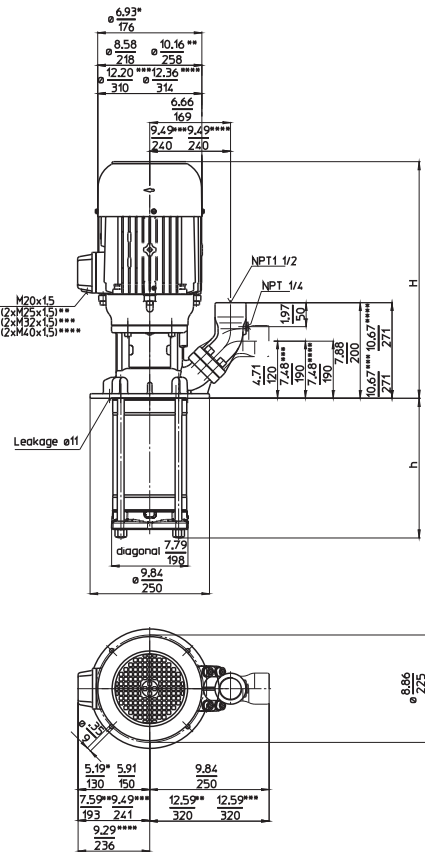
Immersion Pumps (S)TH14

Closed impellers



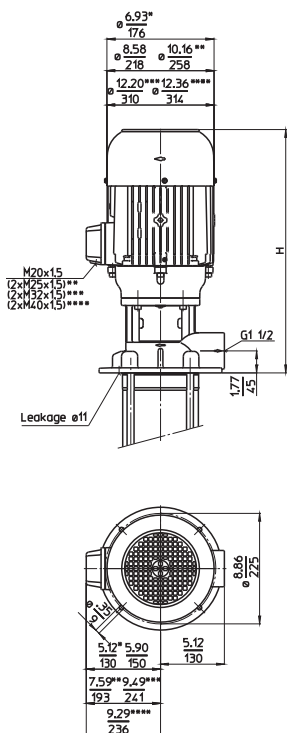
60 Hz

STH1402...1412



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
(S)TH1402S180	62.5/115 250/38	19.4 492	7.17	182	103.6	47	3.9 2.94	230 460	60 60	10.2 5.1	3480 3480
(S)TH1403S280	62.5/180 250/58	20.9 531	10.94	278	127.9	58	6.1 4.55	230 460	60 60	15.8 7.9	3520 3520
(S)TH1404S280	62.5/240 250/77	22.1 561	10.94	278	143.3	65	8.4 6.3	230 460	60 60	20.8 10.4	3510 3510
(S)TH1405S380	62.5/305 250/96	25.2 640	14.72	374	207	94	11.5 8.6	230 460	60 60	27.8 13.9	3550 3550
(S)TH1406S380	62.5/370 250/111				209	95					
(S)TH1407S470	62.5/430 250/128	25.2 640	18.50	470	238	108	13.8 10.3	230 460	60 60	31.6 15.8	3550 3550
(S)TH1408S470	62.5/490 250/147	25.5 647	18.50	470	271	123	16.9 12.6	230 460	60 60	39.2 19.6	3560 3560
(S)TH1409S570	62.5/560 250/165	25.5 647	22.28	566	280	127	20.1 15.0	230 460	60 60	48.2 24.1	3560 3560
(S)TH1410S570	62.5/620 250/184				282	128					
(S)TH1411S660	62.5/685 250/203	39.8 1012	26.06	662	346	157	25 18.5	460	60	28	3560
(S)TH1412S660	62.5/730 250/222				353	160					

TH1402...1412



Dimensions in Inches / mm
 *) Dimensions (S)TH1402
 **) Dimensions (S)TH1405...1407
 ***) Dimensions (S)TH1408...410
 ****) Dimensions (S)TH1411...1412



Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

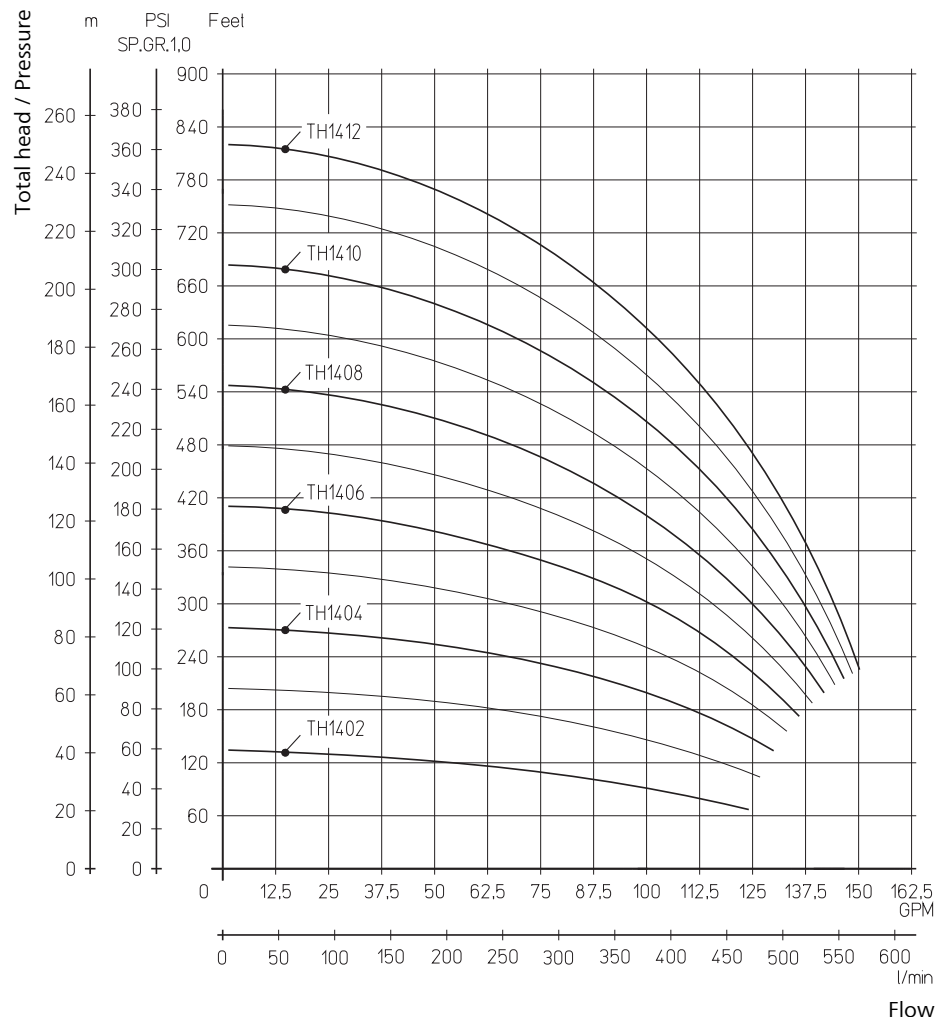
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Noise level	
(S)TH1402	66 dBA
(S)TH1403...(S)TH1404	74 dBA
(S)TH1405...(S)TH1407	77 dBA
(S)TH1408...(S)TH1410	79 dBA
(S)TH1411...(S)TH1412	81 dBA



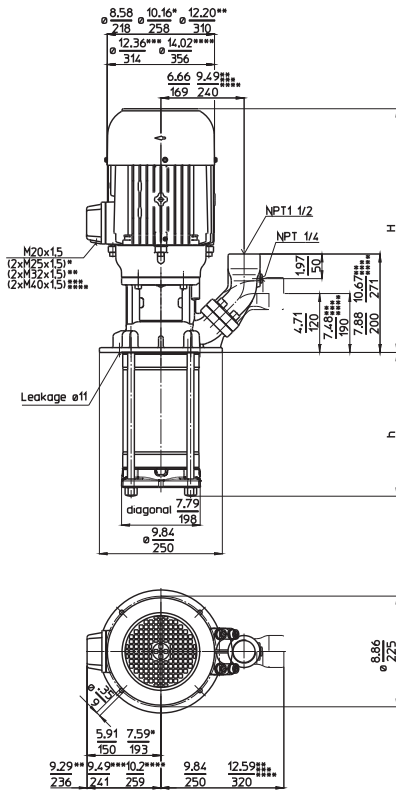
Immersion Pumps (S)TH17

Closed impellers

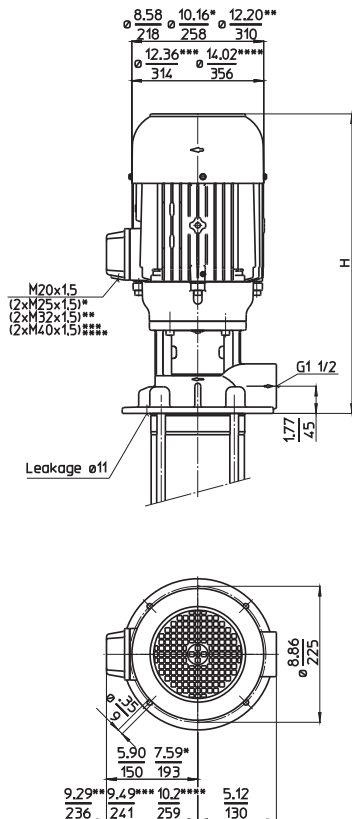


60 Hz

STH1702...1711



TH1702...1711



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet /min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TH1702S180	75/120	20.9	7.17	182	121.3	55	5.1	230	60	12.8	3520
	300/37	531					3.8	460	60	6.4	3520
(S)TH1703S280	75/180	22.1	10.94	278	132.3	60	7.7	230	60	19.0	3520
	300/58	561					5.75	460	60	9.5	3520
(S)TH1704S280	75/260	25.2	10.94	278	190	86	11.5	230	60	27.8	3550
	300/80	640					8.6	460	60	13.9	3550
(S)TH1705S380	75/330	25.2	14.72	374	254	115	13.8	230	60	31.6	3550
	300/99	640					10.3	460	60	15.8	3550
(S)TH1706S380	75/410	25.5	14.72	374	260	118	16.9	230	60	39.2	3560
	300/118	647					12.6	460	60	19.6	3560
(S)TH1707S470	75/470	25.5	18.50	470	269	122	20.1	230	60	48.2	3560
	300/140	647					15.0	460	60	24.1	3560
(S)TH1708S470	75/530				271	123					
(S)TH1709S570	75/600	39.8	22.28	566	326	148	25	460	60	28	3560
	300/180	1012					18.5				
(S)TH1710S570	75/660	40.8	22.28	566	353	160	30	460	60	34	3560
	300/200	1037					22.0				
(S)TH1711S660	75/730		26.06	662	355	161					
	300/219										

Dimensions in Inches / mm
 *) Dimensions for (S)TH1704...1705
 **) Dimensions for (S)TH1706...1708
 ***) Dimensions for (S)TH1709
 ****) Dimensions for (S)TH1710...1711



Immersion Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

Longer pump lengths and threaded inlets are available upon request.

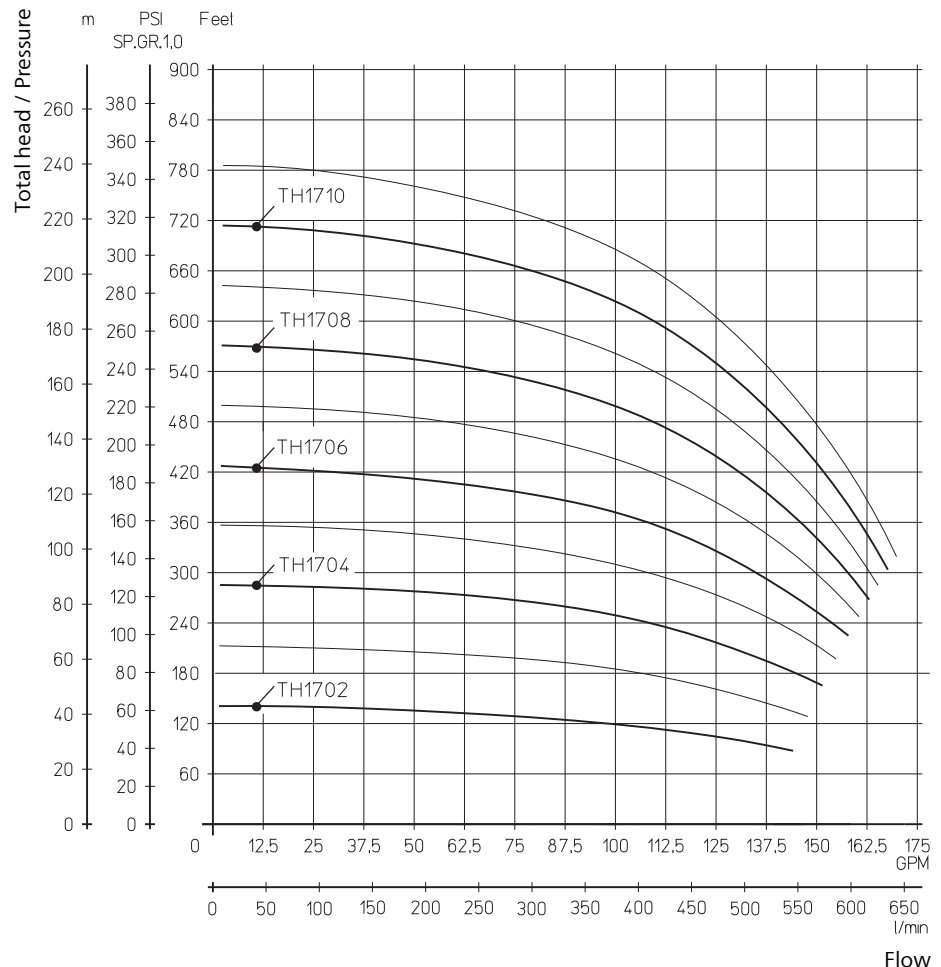
Please see medium pressure pumps features in the Technical Information section of this catalog or call 248-926-9400 for details.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Noise level	
(S)TH1702...(S)TH1703	74 dBA
(S)TH1704...(S)TH1705	77 dBA
(S)TH1706...(S)TH1708	79 dBA
(S)TH1709	81 dBA
(S)TH1710...(S)TH1711	84 dBA



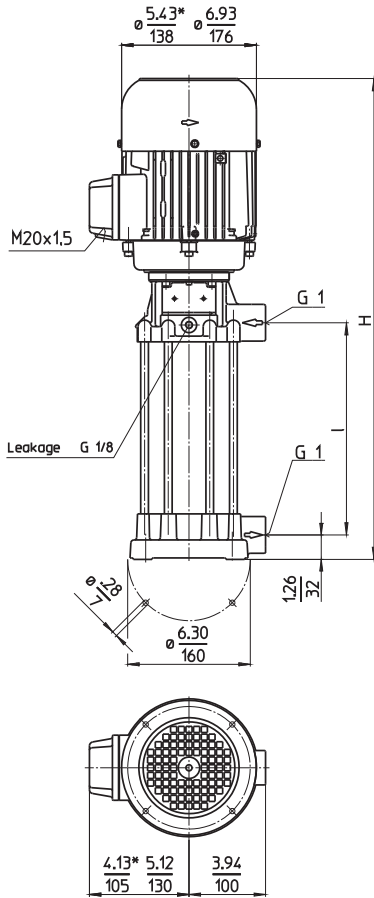
Pressure Boosting Pumps

FH2

Closed impellers



FH203...230



Dimensions in Inches / mm
*) Dimensions FH203...FH215

Type	Flow at head		Height			Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet	H inch	I Inch	I mm	Lbs	kg								
FH203S19	5/80	19.2	7.8	197	37.3	16.9	0.6	208-230	60	2.2	3200			
FH204S19	5/110				37.5	17.0	0.45	460	60	1.1	3200			
FH205S19	5/130	19.2	7.8	197	38.4	17.4	0.73	208-230	60	2.8	3300			
FH206S29	5/165	23.1	11.7	297	39.5	17.9	0.54	460	60	1.4	3300			
FH207S29	5/190	24.8	11.7	297	48.5	22.0	1.15	230	60	3.70	3440			
FH208S29	5/220				48.7	22.1	0.86	460	60	1.85	3440			
FH209S29	5/240				49.0	22.2								
FH210S29	5/270	24.8	11.7	297	51.4	23.3	1.3	230	60	4	3450			
					0.98	460	60	2	3450					
FH211S39	5/300	28.7	15.6	397	52.9	24.0	1.4	230	60	4.2	3440			
FH212S39	5/325				53.1	24.1	1.06	460	60	2.1	3440			
FH213S39	5/375				53.4	24.2								
FH214S39	5/395	29.8	15.6	397	56.0	25.4	1.7	230	60	4.8	3440			
FH215S39	5/420				56.2	25.5	1.27	460	60	2.4	3440			
FH216S49	5/440	34.6	19.6	497	68.4	31	2	230	60	5.4	3500			
					1.49	460	60	2.7	3500					
FH217S49	5/480	34.6	19.6	497	73.2	33.2	2.3	230	60	6.2	3470			
FH218S49	5/505				73.4	33.3	1.75	460	60	3.1	3470			
FH219S49	5/540				73.6	33.4								
FH220S49	5/570	35.6	19.6	497	78.3	35.5	2.6	230	60	7.0	3480			
					1.95	460	60	3.5	3480					
FH221S59	5/605	39.5	23.5	597	80.5	36.5								
FH222S59	5/635	40.8	23.5	597	89.1	40.4	2.9	230	60	7.8	3500			
FH223S59	5/660				89.3	40.5	2.18	460	60	3.9	3500			
FH224S59	5/690	40.8	23.5	597	90.8	41.2	3.4	230	60	8.8	3480			
FH225S59	5/715				91.3	41.4	2.55	460	60	4.4	3480			
FH226S69	5/740	44.7	27.4	697	92.6	42.0								
FH227S69	5/760				92.8	42.1								
FH228S69	5/785	44.7	27.4	697	95.0	43.1	3.9	230	60	10.2	3480			
FH229S69	5/810				95.5	43.3	2.94	460	60	5.1	3480			
FH230S69	5/835				95.9	43.5								



Pressure Boosting Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

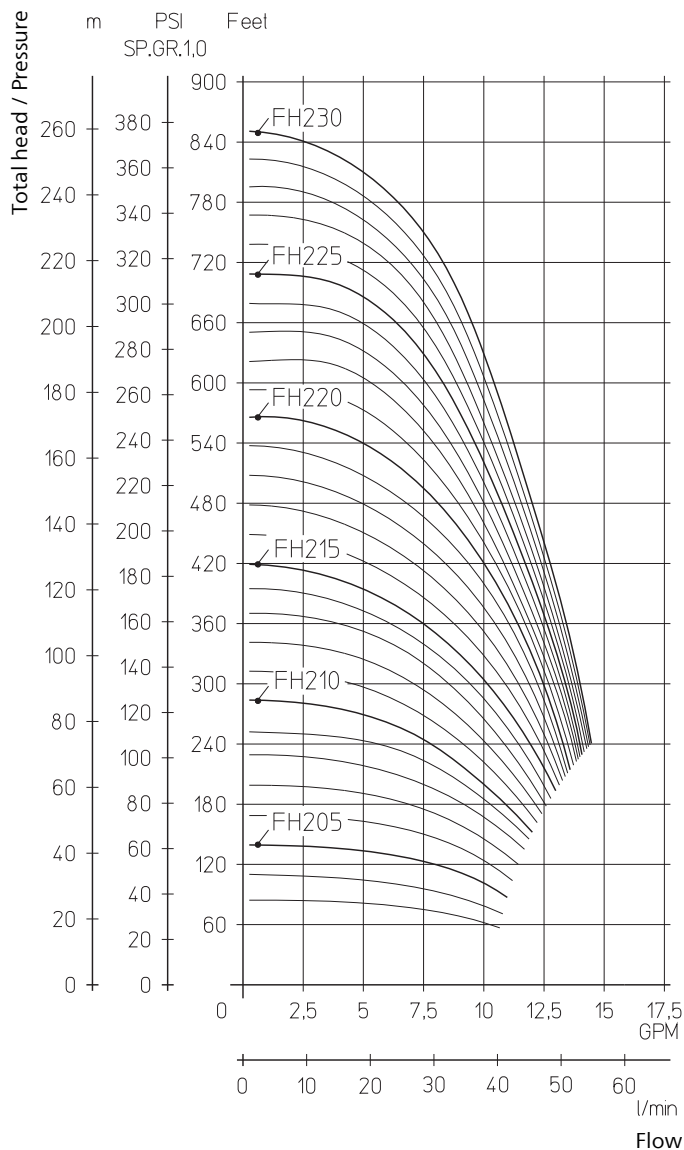
A frequency alternator can be supplied for special applications or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	bronze
Noise level	
FH203...FH215	61 dBA
FH216...FH230	66 dBA

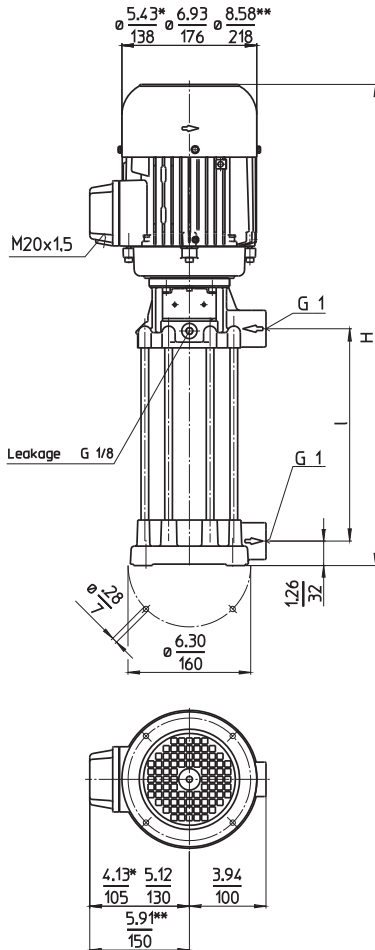


Pressure Boosting Pumps

FH4

Closed impellers

FH403...423



Dimensions in Inches / mm
 *) Dimensions FH403...FH408
 **) Dimensions FH419...FH423

Type	Flow at head	Height	Length			Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet l/min /m	H inch mm	l Inch	l mm	Lbs	kg	HP kW	3~ V	quen- cy Hz	AMPS	RPM	
FH403S19	10/90	19.2	7.8	197	39.5	17.9	0.73	208-230	60	2.8	3300	
	40/29	488					0.54	460	60	1.4	3300	
FH404S19	10/130	20.8	7.8	197	44.5	20.2	1.15	230	60	3.70	3440	
	40/39	529					0.86	460	60	1.85	3440	
FH405S19	10/170				44.8	20.3						
	40/49											
FH406S29	10/195	24.8	11.7	297	46.7	21.2	1.4	230	60	4.2	3440	
	40/58	629					1.06	460	60	2.1	3440	
FH407S29	10/230	25.8	11.7	297	49.4	22.4	1.7	230	60	4.8	3440	
	40/68	656					1.27	460	60	2.4	3440	
FH408S29	10/260				49.6	22.5						
	40/78											
FH409S29	10/285	26.7	11.7	297	66.2	30	2	230	60	5.4	3500	
	40/88	678					1.49	460	60	2.7	3500	
FH410S29	10/330	26.7	11.7	297	66.6	30.2	2.3	230	60	6.2	3470	
	40/100	678					1.75	460	60	3.1	3470	
FH411S39	10/360	31.7	15.6	397	71.4	32.4	2.6	230	60	7.0	3480	
	40/110	804					1.95	460	60	3.5	3480	
FH412S39	10/395				72.8	33.0						
	40/119											
FH413S39	10/425	32.9	15.6	397	83.8	38	2.9	230	60	7.8	3500	
	40/129	836					2.18	460	60	3.9	3500	
FH414S39	10/465	32.9	15.6	397	84.9	38.5	3.4	230	60	8.8	3480	
	40/139	836					2.55	460	60	4.4	3480	
FH415S39	10/505				85.1	38.6						
	40/150											
FH416S49	10/530	36.9	19.6	497	86.0	39.0	3.9	230	60	10.2	3480	
	40/159	936					2.94	460	60	5.1	3480	
FH417S49	10/565				86.2	39.1						
	40/170											
FH418S49	10/595				86.4	39.2						
	40/179											
FH419S49	10/635	36.6	19.6	497	112.2	50.9	5.1	230	60	12.8	3520	
	40/192	929					3.8	460	60	6.4	3520	
FH420S49	10/670				112.5	51.0						
	40/202											
FH421S59	10/705	40.5	23.5	597	112.7	51.1						
	40/214	1029										
FH422S59	10/735				113.1	51.3						
	40/224											
FH423S59	10/770	40.5	23.5	597	122.4	55.5	6.1	230	60	15.8	3520	
	40/233	1029					4.55	460	60	7.9	3520	



Pressure Boosting Pumps

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In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

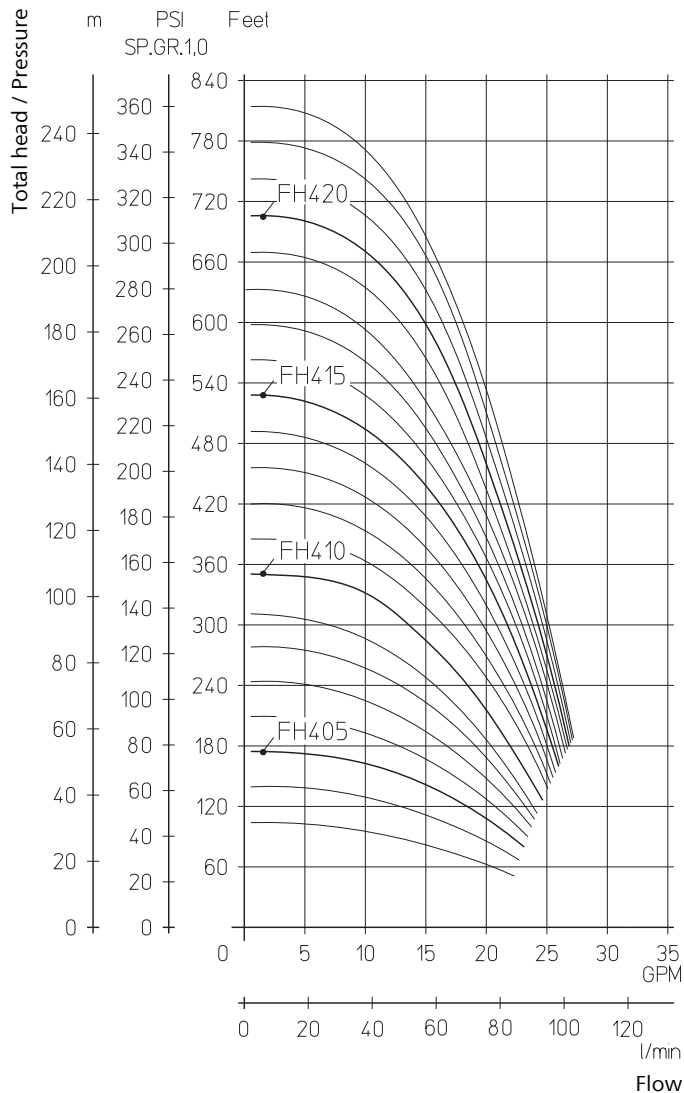
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Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	bronze
Noise level	
FH403...FH408	61 dBA
FH409...FH418	66 dBA
FH419...FH423	75 dBA



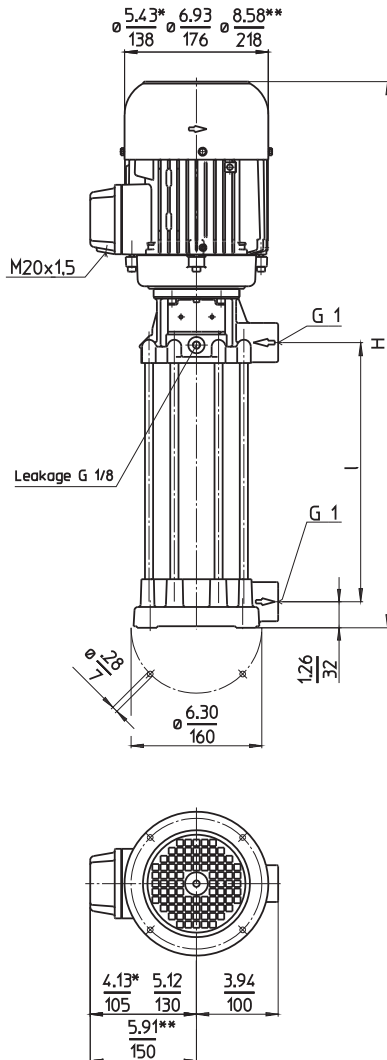
Pressure Boosting Pumps

FH6

Closed impellers



FH603...624



Dimensions in Inches / mm
 *) Dimensions FH603...FH605
 **) Dimensions FH612...FH624

Type	Flow at head	Height	Length			Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet l/min /m	H inch mm	l Inch	l mm	Lbs	kg	HP kW	3~ V	quen- cy Hz	AMPS	RPM	
FH603S19	20/95	20.8	7.8	197	43.9	19.9	1.15	230	60	3.70	3440	
	80/28	529					0.86	460	60	1.85	3440	
FH604S19	20/120	20.8	7.8	197	46.3	21	1.4	230	60	4.2	3440	
	80/38	529					1.06	460	60	2.1	3440	
FH605S24	20/150	23.9	9.7	247	48.5	22	1.7	230	60	4.8	3440	
	80/48	606					1.27	460	60	2.4	3440	
FH606S24	20/185	24.7	9.7	247	61.7	28	2.3	230	60	6.2	3470	
	80/58	628					1.75	460	60	3.1	3470	
FH607S29	20/220	27.7	11.7	297	70.6	32	2.6	230	60	7.0	3480	
	80/68	704					1.95	460	60	3.5	3480	
FH608S29	20/255	29.0	11.7	297	77.2	35	2.9	230	60	7.8	3500	
	80/78	736					2.18	460	60	3.9	3500	
FH609S34	20/285	30.9	13.7	347	83.8	38	3.4	230	60	8.8	3480	
	80/88	786					2.55	460	60	4.4	3480	
FH610S34	20/330	30.9	13.7	347	86.0	39.0	3.9	230	60	10.2	3480	
	80/98	786					2.94	460	60	5.1	3480	
FH611S39	20/358	32.9	15.6	397	87.3	39.6						
	80/108	836										
FH612S39	20/395	32.6	15.6	397	115.3	52.3	4.6	230	60	12	3520	
	80/118	829					3.45	460	60	6	3520	
FH613S49	20/420	36.6	19.6	497	117.3	53.2	5.1	230	60	12.8	3520	
	80/128	929					3.8	460	60	6.4	3520	
FH614S49	20/455				118.0	53.5						
	80/139											
FH615S49	20/490	36.6	19.6	497	122.6	55.6	6.1	230	60	15.8	3520	
	80/149	929					4.55	460	60	7.9	3520	
FH616S49	20/520				123.0	55.8						
	80/159											
FH617S59	20/555	40.5	23.5	597	124.1	56.3						
	80/168	1029										
FH618S59	20/580	41.7	23.5	597	133.0	60.3	7.7	230	60	19.0	3520	
	80/178	1059					5.75	460	60	9.5	3520	
FH619S59	20/615				133.2	60.4						
	80/188											
FH620S59	20/645				133.4	60.5						
	80/198											
FH621S69	20/675	45.6	27.4	697	134.9	61.2						
	80/206	1159										
FH622S69	20/705				135.2	61.3						
	80/214											
FH623S69	20/735	45.6	27.4	697	142.2	64.5	8.4	230	60	20.8	3510	
	80/222	1159					6.3	460	60	10.4	3510	
FH624S69	20/765				142.7	64.7						
	80/232											



Pressure Boosting Pumps

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In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

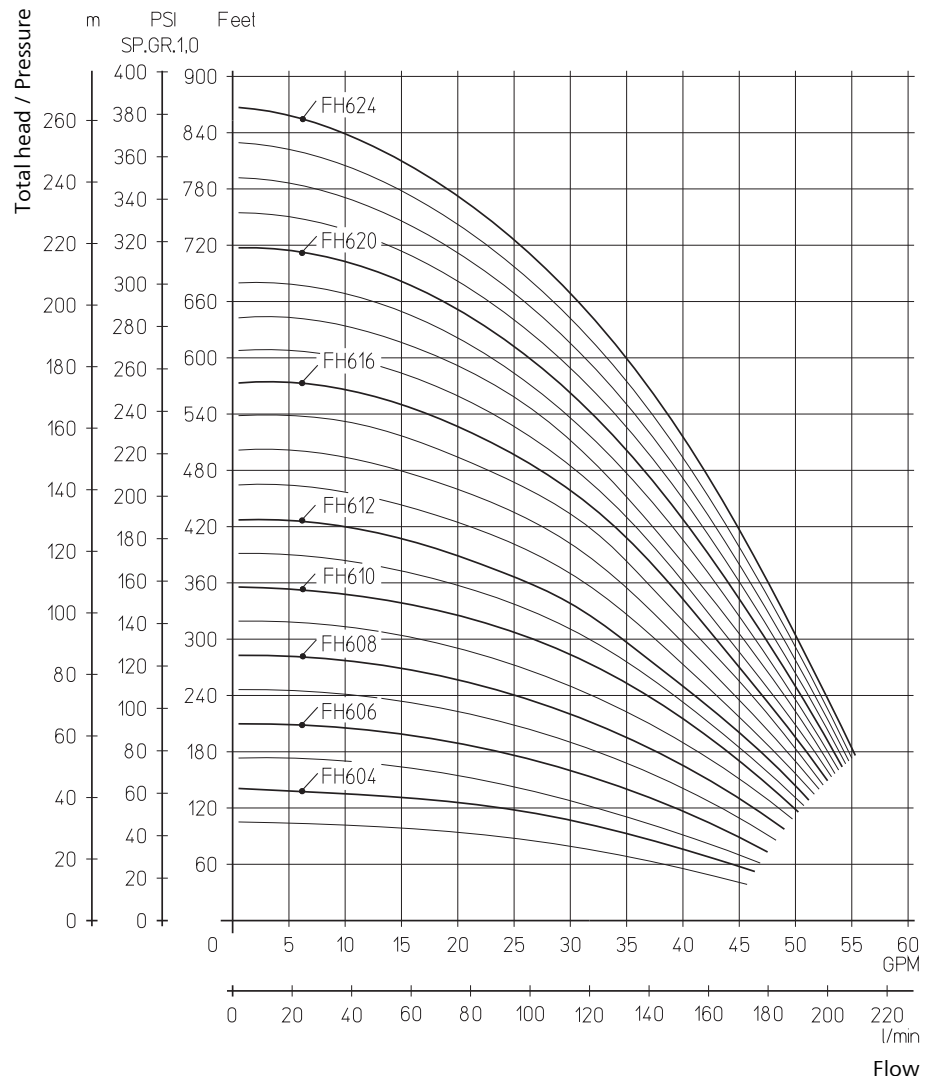
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Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 4.6 SSU (1 mm²/s)
 - higher viscosity upon request
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	bronze
Noise level	
FH603...FH605	61 dBA
FH606...FH611	66 dBA
FH612...FH624	75 dBA



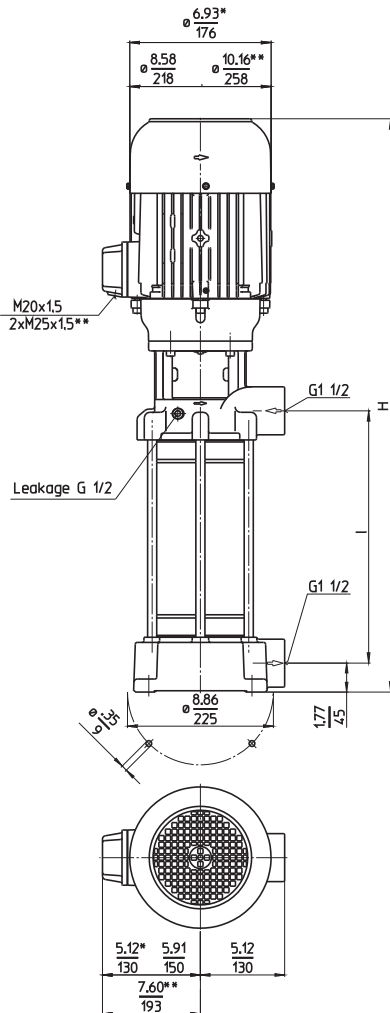
Pressure Boosting Pumps

FH11

Closed impellers



FH1102...1115



Dimensions in Inches / mm

*) Dimensions FH1102...FH1104

**) Dimensions FH1110...FH1115

Type	Flow at head		Height	Length		Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet	H inch	I Inch	I mm	Lbs	kg	HP	3~	quency	AMPS	RPM	
	l/min /m	mm					kW	V	Hz			
FH1102S18	37.5/100	25.3	8.3	212	86.0	39	2	230	60	5.4	3500	
	150/30	643					1.49	460	60	2.7	3500	
FH1103S18	37.5/150	27.6	8.3	212	101.4	46	2.9	230	60	7.8	3500	
	150/45	702					2.18	460	60	3.9	3500	
FH1104S28	37.5/200	31.4	12.1	308	103.6	47	3.9	230	60	10.2	3480	
	150/59	798					2.94	460	60	5.1	3480	
FH1105S28	37.5/250	33.0	12.1	308	132.3	60	5.1	230	60	12.8	3520	
	150/77	837					3.8	460	60	6.4	3520	
FH1106S28	37.5/300	33.0	12.1	308	136.7	62	6.1	230	60	15.8	3520	
	150/90	837					4.55	460	60	7.9	3520	
FH1107S31	37.5/355	35.4	13.4	340	147.7	67	7.7	230	60	19.0	3520	
	150/106	899					5.75	460	60	9.5	3520	
FH1108S38	37.5/400	37.9	15.9	404	152.1	69						
	150/121	963										
FH1109S38	37.5/455	37.9	15.9	404	156.6	71	8.4	230	60	20.8	3510	
	150/138	963					6.3	460	60	10.4	3510	
FH1110S47	37.5/510	44.7	19.7	500	225	102	11.5	230	60	27.8	3550	
	150/152	1136					8.6	460	60	13.9	3550	
FH1111S47	37.5/550				227	103						
	150/166											
FH1112S47	37.5/600				229	104						
	150/180											
FH1113S50	37.5/655	46.0	20.9	532	247	112	13.8	230	60	31.6	3550	
	150/198	1168					10.3	460	60	15.8	3550	
FH1114S57	37.5/705	48.5	23.5	596	249	113						
	150/212	1232										
FH1115S57	37.5/755				251	114						
	150/230											



Pressure Boosting Pumps

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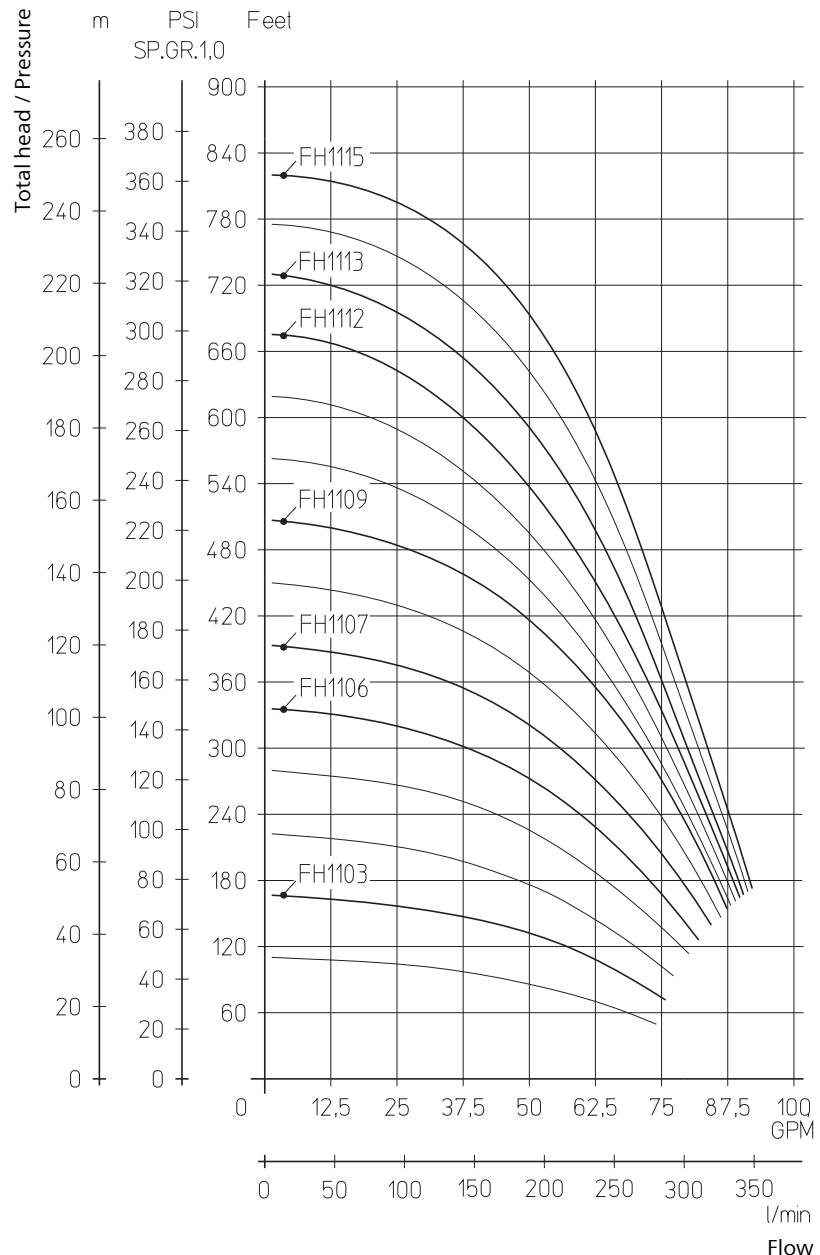
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Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Noise level	
FH1102...FH1104	66 dBA
FH1105...FH1109	74 dBA
FH1110...FH1115	77 dBA



Pressure Boosting Pumps

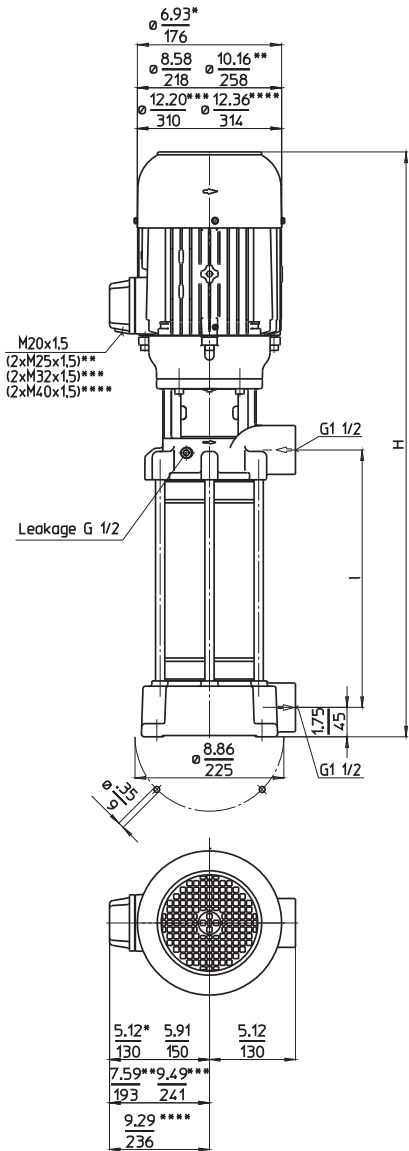


FH14



Closed impellers

FH1402...1412



Dimensions in Inches / mm

- *) Dimensions FH1402
- **) Dimensions FH1405...FH1407
- ***) Dimensions FH1408...FH1410
- ****) Dimensions FH1411...FH1412

Type	Flow at head		Height	Length		Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet	H inch	l Inch	l mm	Lbs	kg	HP	V	quen-	AMPS	RPM	
	l/min /m	mm					kW	3~	cy			
FH1402S18	62.5/115	27.6	8.3	212	105.8	48	3.9	230	60	10.2	3480	
	250/38	702					2.94	460	60	5.1	3480	
FH1403S28	62.5/180	33.0	12.1	308	136.7	62	6.1	230	60	15.8	3520	
	250/58	837					4.55	460	60	7.9	3520	
FH1404S28	62.5/240	34.1	12.1	308	149.9	68	8.4	230	60	20.8	3510	
	250/77	867					6.3	460	60	10.4	3510	
FH1405S38	62.5/305	40.9	15.9	404	216	98	11.5	230	60	27.8	3550	
	250/96	1040					8.6	460	60	13.9	3550	
FH1406S38	62.5/370				218	99						
	250/111											
FH1407S47	62.5/430	44.7	19.7	500	240	109	13.8	230	60	31.6	3550	
	250/128	1136					10.3	460	60	15.8	3550	
FH1408S47	62.5/490	45.0	19.7	500	280	127	16.9	230	60	39.2	3560	
	250/147	1144					12.6	460	60	19.6	3560	
FH1409S57	62.5/560	48.8	23.5	596	289	131	20.1	230	60	48.2	3560	
	250/165	1240					15.0	460	60	24.1	3560	
FH1410S57	62.5/620				293	133						
	250/184											
FH1411S66	62.5/685	67.0	27.2	692	355	161	25	460	60	28	3560	
	250/203	1701					18.5					
FH1412S66	62.5/730				362	164						
	250/222											



Pressure Boosting Pumps

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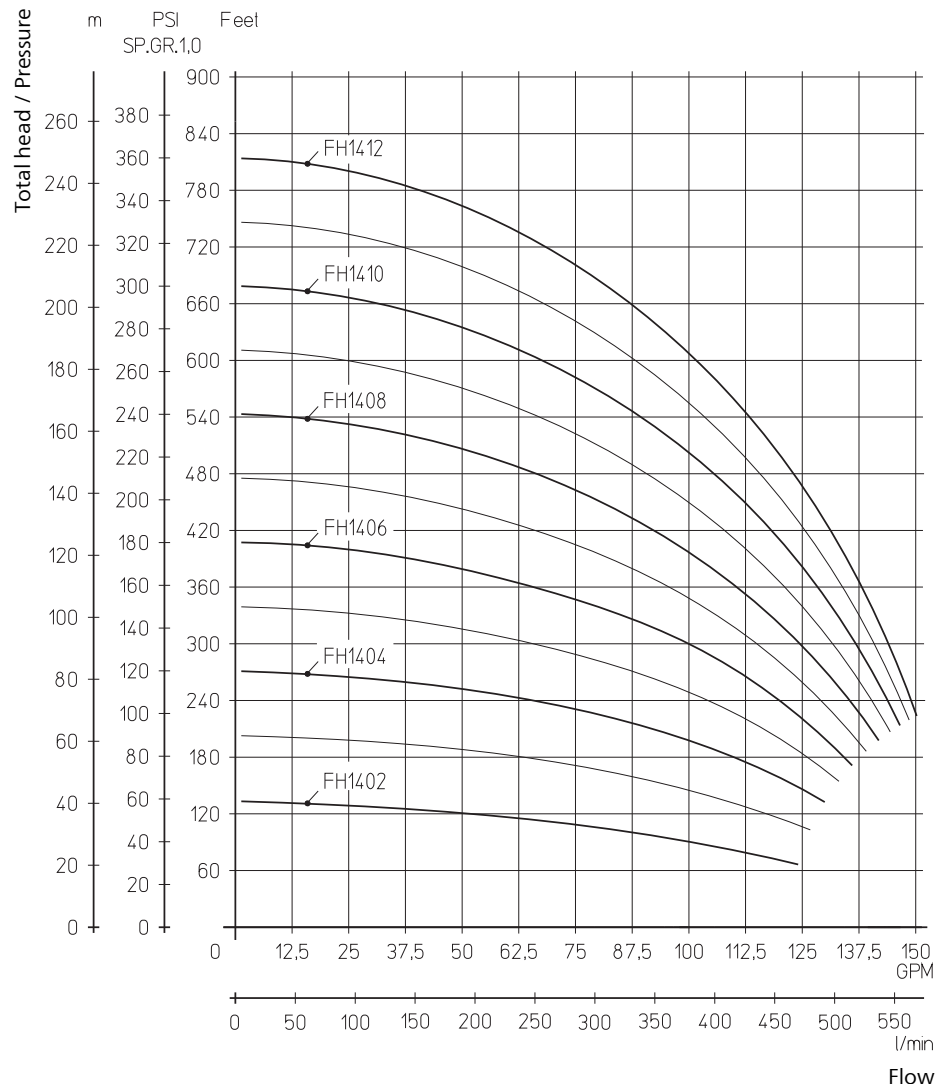
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Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Noise level	
FH1402	66 dBA
FH1403...FH1404	74 dBA
FH1405...FH1407	77 dBA
FH1408...FH1410	79 dBA
FH1411...FH1412	81 dBA



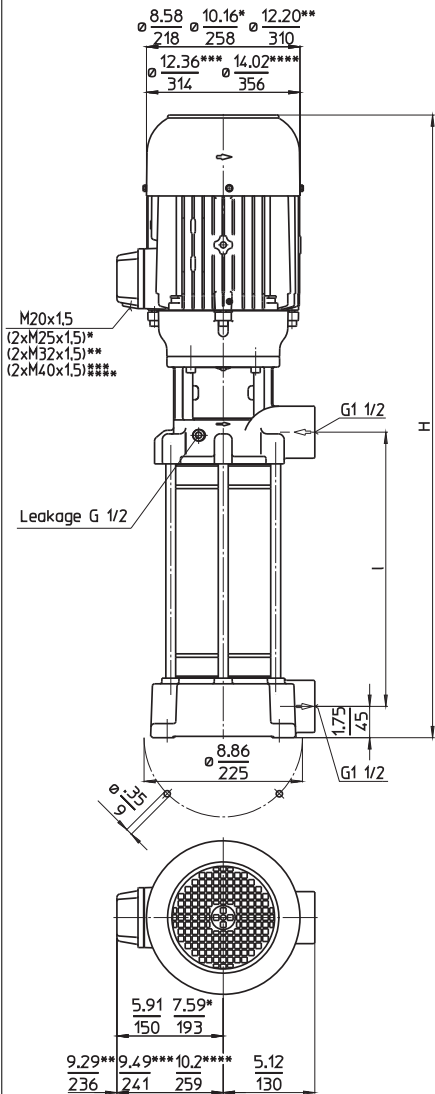
Pressure Boosting Pumps

FH17

Closed impellers



FH1702...1711



Dimensions in Inches / mm
 *) Dimensions for FH1704...1705
 **) Dimensions for FH1706...1708
 ***) Dimensions for FH1709
 ****) Dimensions for FH1710...1711

Type	Flow at head		Height	Length		Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet	H inch	l Inch	l mm	Lbs	kg	HP	V	quen-	AMPS	RPM	
	l/min /m	mm					kW	3~	cy	Hz		
FH1702S18	75/120	29.2	8.3	212	132.3	60	5.1	230	60	12.8	3520	
	300/37	741					3.8	460	60	6.4	3520	
FH1703S28	75/180	34.1	12.1	308	145.5	66	7.7	230	60	19.0	3520	
	300/58	867					5.75	460	60	9.5	3520	
FH1704S28	75/260	37.1	12.1	308	201	91	11.5	230	60	27.8	3550	
	300/80	943					8.6	460	60	13.9	3550	
FH1705S38	75/330	40.9	15.9	404	265	120	13.8	230	60	31.6	3550	
	300/99	1040					10.3	460	60	15.8	3550	
FH1706S38	75/410	41.3	15.9	404	271	123	16.9	230	60	39.2	3560	
	300/118	1048					12.6	460	60	19.6	3560	
FH1707S47	75/470	45.0	19.7	500	278	126	20.1	230	60	48.2	3560	
	300/140	1144					15.0	460	60	24.1	3560	
FH1708S47	75/530				282	128						
	300/160											
FH1709S57	75/600	63.2	23.5	596	340	154	25	460	60	28	3560	
	300/180	1605					18.5					
FH1710S57	75/660	64.1	23.5	596	381	173	30	460	60	34	3560	
	300/200	1629					22.0					
FH1711S66	75/730	67.9	27.2	692	386	175						
	300/219	1725										



Pressure Boosting Pumps

series TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies.

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

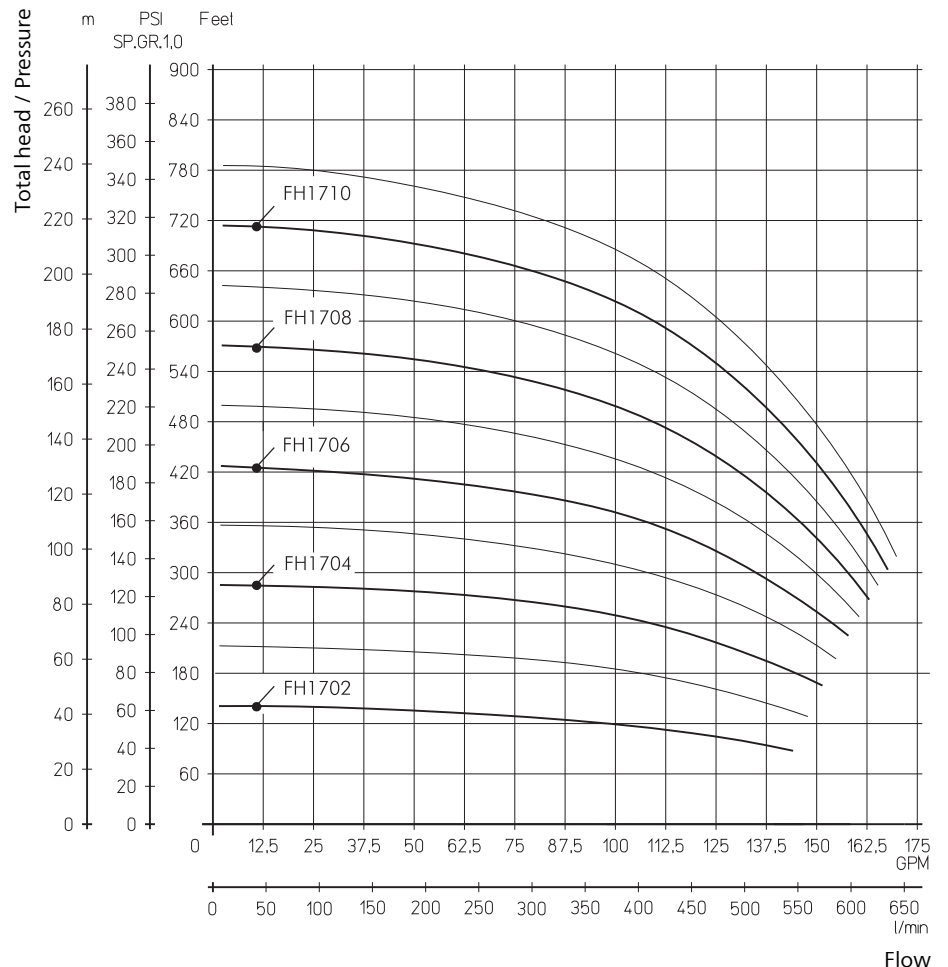
A frequency alternator can be supplied for special applications or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...115 SSU (...25 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Noise level	
FH1702...FH1703	74 dBA
FH1704...FH1705	77 dBA
FH1706...FH1708	79 dBA
FH1709	81 dBA
FH1710...FH1711	84 dBA



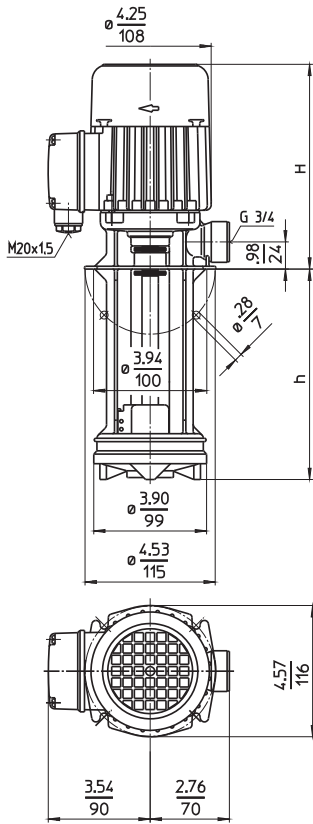
Immersion Pumps in Plastics

KTF61...KTF63

Semi-open impellers



KTF61, 62, 63



Dimensions in Inches / mm

Type	Flow at head		Height		Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch mm	h inch mm	Lbs kg	Lbs kg							
KTF61S120	7.5/25	7.1	4.65	118	6.8	3.1	0.19	208-230	60	0.82	3200		
	25/8	181					0.14	460	60	0.41	3200		
	170		6.61	168	7.1	3.2							
	220		8.58	218	7.3	3.3							
270		10.55	268	7.7	3.5								
KTF62S150	7.5/50	7.1	5.94	151	7.9	3.6	0.3	208-230	60	0.95	3200		
	25/15	181					0.22	460	60	0.55	3200		
	200		7.91	201	8.2	3.7							
	250		9.88	251	8.4	3.8							
300		11.85	301	8.8	4.0								
KTF63S190	7.5/68	8.4	7.24	184	10.1	4.6	0.38	208-230	60	1.6	3200		
	25/22	214					0.28	460	60	0.8	3200		
	240		9.21	234	10.6	4.8							
	290		11.18	284	11.0	5.0							
340		13.15	334	11.5	5.2								



Immersion Pumps in Plastics

series KTF are suitable for various **water supply applications**.

These pumps are also suitable for a wide range of **chemical liquids**.

No shaft seal is required, due to the construction.

Applications

Types of fluid

Industry water; warm, cold, with and without chemical admixtures, distilled, de-ionnized

Kinematic viscosity

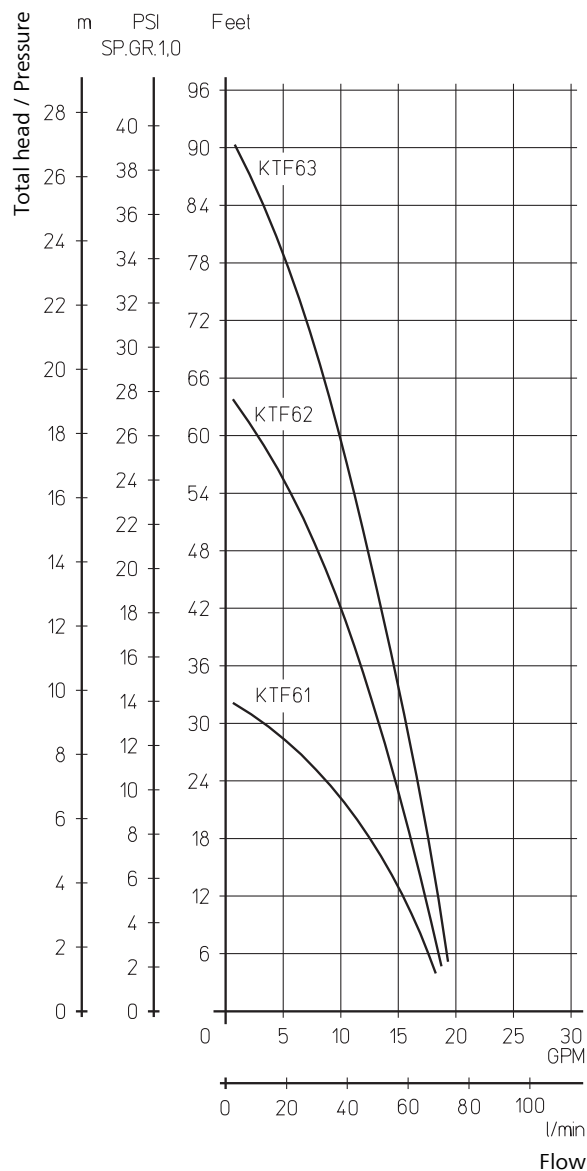
...66 SSU (...12 mm²/s)

Pumping temperature

15...140 °F (-10...+60 °C)

Construction

Pump body	PPS
Cover	PP
Impellers	PPS
Shaft	Cr-steel
Noise level KTF61...KTF63	55 dBA



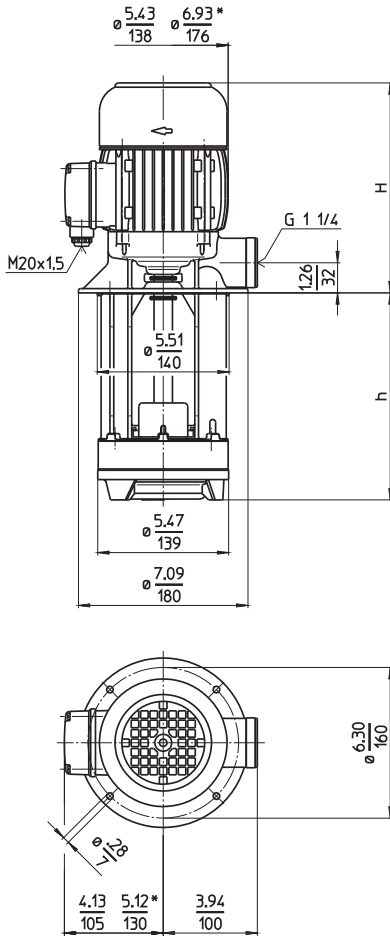
Immersion Pumps in Plastics

KTF151...KTF153

Semi-open impellers



KTF151...153



Dimensions in Inches / mm
*) Dimensions KTF153

Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg					
KTF151S140	35/30	8.8	5.51	140	15.9	7.2	0.7	208-230	60	2.6	3350
		120/10	223				0.53	460	60	1.3	3350
	220			8.66	220	16.5	7.5				
	290			11.42	290	17.6	8.0				
370			14.57	370	18.1	8.2					
KTF152S180	35/60	11.5	7.09	180	23.2	10.5	1.7	230	60	4.8	3440
		120/18	291				1.27	460	60	2.4	3440
	260			10.24	260	24.3	11.0				
	330			12.99	330	25.4	11.5				
410			16.14	410	26.5	12.0					
KTF153S220	35/95	13.6	8.66	220	45.2	20.5	2.6	230	60	7.0	3480
		120/28	346				1.95	460	60	3.5	3480
	300			11.81	300	46.3	21.0				
	370			14.57	370	47.4	21.5				
450			17.72	450	48.5	22.0					



Immersion Pumps in Plastics

series KTF are suitable for various **water supply applications**.

These pumps are also suitable for a wide range of **chemical liquids**.

No shaft seal is required, due to the construction.

Applications

Types of fluid

Industry water; warm, cold, with and without chemical admixtures, distilled, de-ionnized

Kinematic viscosity

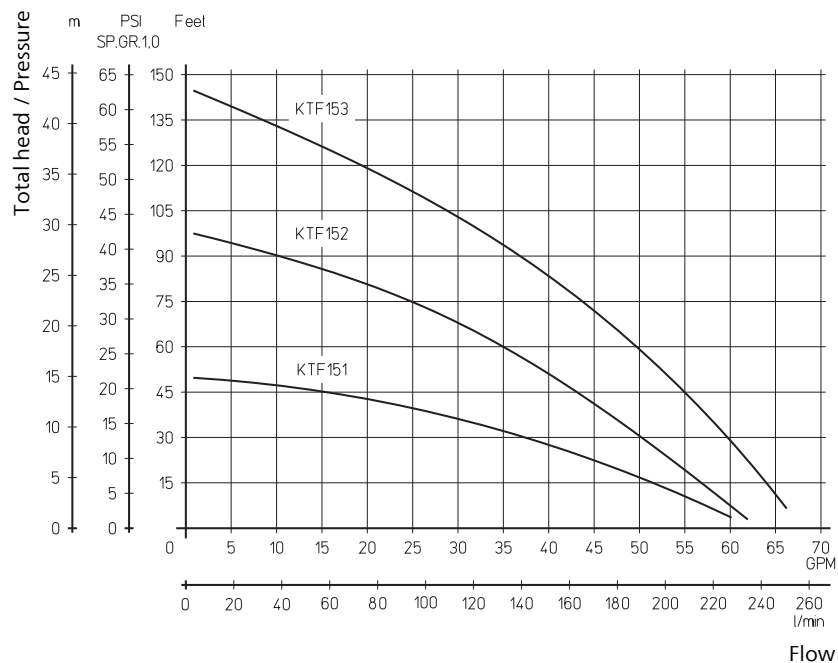
...66 SSU (...12 mm²/s)

Pumping temperature

15...140 °F (-10...+60 °C)

Construction

Pump body	POM
Cover	PP
Impellers	PPS
Shaft	Cr-steel
Optional: Shaft	CrMo
Noise level	
KTF151...KTF152	61 dBA
KTF153	68 dBA



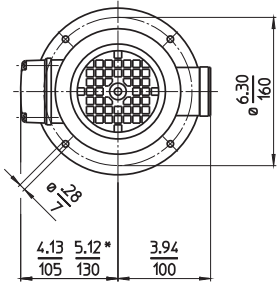
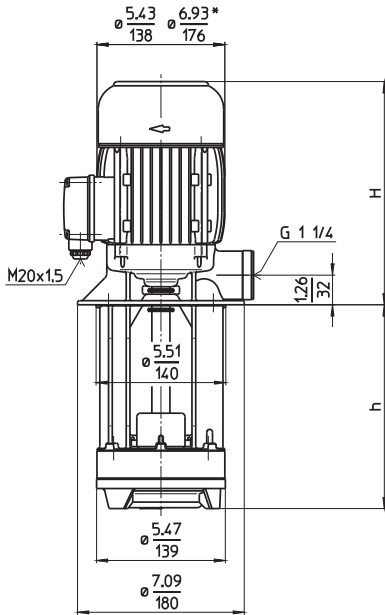
Immersion Pumps in Plastics

KTF301...KTF303

Semi-open impellers



KTF301...303



Dimensions in Inches / mm
 *) Dimensions KTF302, 303

Type	Flow at head		Height		Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs	kg							
KTF301S140	60/30	11.5	5.51	140	22.0	10.0	1.7	230	60	4.8	3440		
	220		8.66	220	23.2	10.5	1.27	460	60	2.4	3440		
	290		11.42	290	24.3	11.0							
	370		14.57	370	25.4	11.5							
KTF302S180	60/65	13.6	7.09	180	44.1	20.0	2.6	230	60	7.0	3480		
	260		10.24	260	45.2	20.5	1.95	460	60	3.5	3480		
	330		12.99	330	46.3	21.0							
	410		16.14	410	47.4	21.5							
KTF303S220	60/100	14.9	8.66	220	55.1	25.0	3.9	230	60	10.2	3480		
	300		11.81	300	56.2	25.5	2.94	460	60	5.1	3480		
	370		14.57	370	57.3	26.0							
	450		17.72	450	58.4	26.5							



Immersion Pumps in Plastics

series KTF are suitable for various **water supply applications**.

These pumps are also suitable for a wide range of **chemical liquids**.

No shaft seal is required, due to the construction.

Applications

Types of fluid

Industry water; warm, cold, with and without chemical admixtures, distilled, de-ionnized

Kinematic viscosity

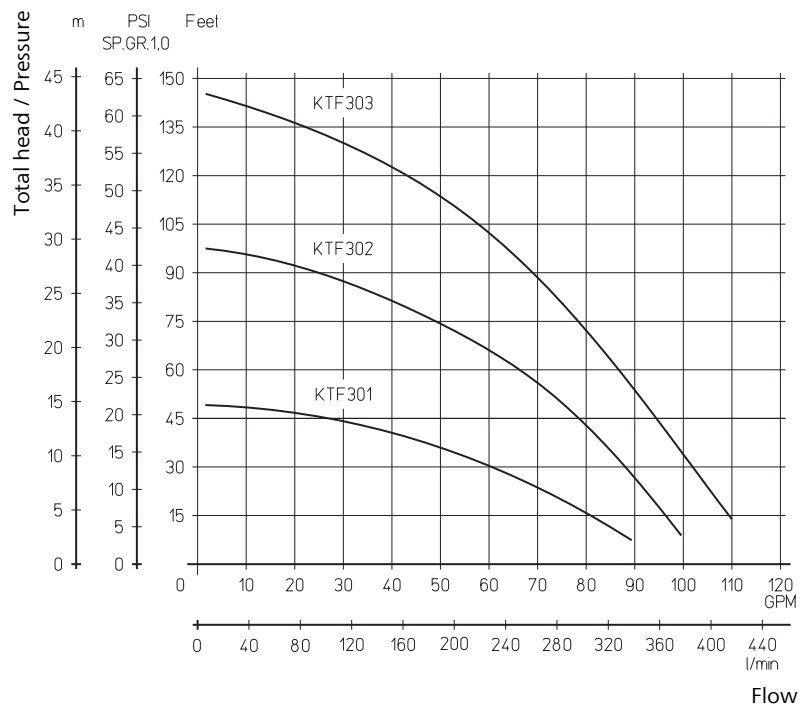
...66 SSU (...12 mm²/s)

Pumping temperature

15...140 °F (-10...+60 °C)

Construction

Pump body	POM
Cover	PP
Impellers	PPS
Shaft	Cr-steel
Optional: Shaft	CrMo
Noise level	
KTF301	61 dBA
KTF302...KTF303	68 dBA



Miniature Centrifugal Pumps

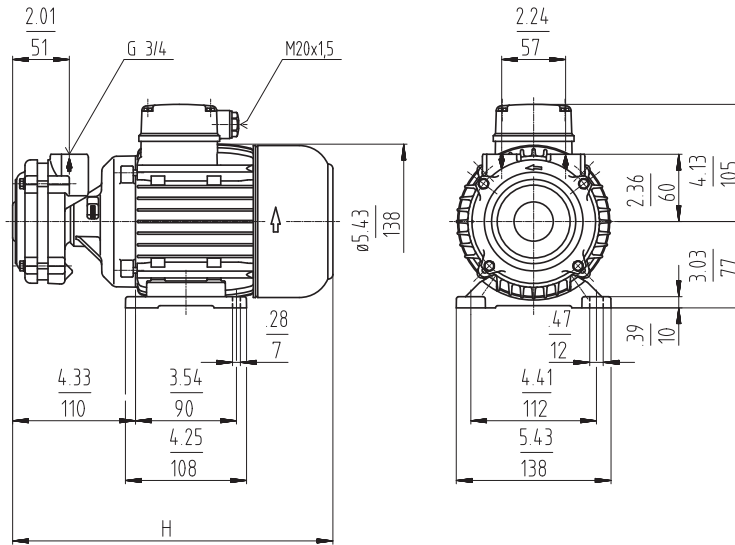
KC60S

Peripheral impellers



60 Hz

KC60S self-priming



Dimensions in Inches / mm

Type	Flow at head		Dimensions		Weight		Power	Voltage	Fre-	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	Lbs	kg	HP kW	3 ~ V	quen- cy Hz	AMPS	RPM	
KC60S	7.5/75	12.2	309	24.3	11	1.4	230	60	4.2	3440	
	30/20					1.06	460	60	2.1	3440	



Miniature Centrifugal Pumps

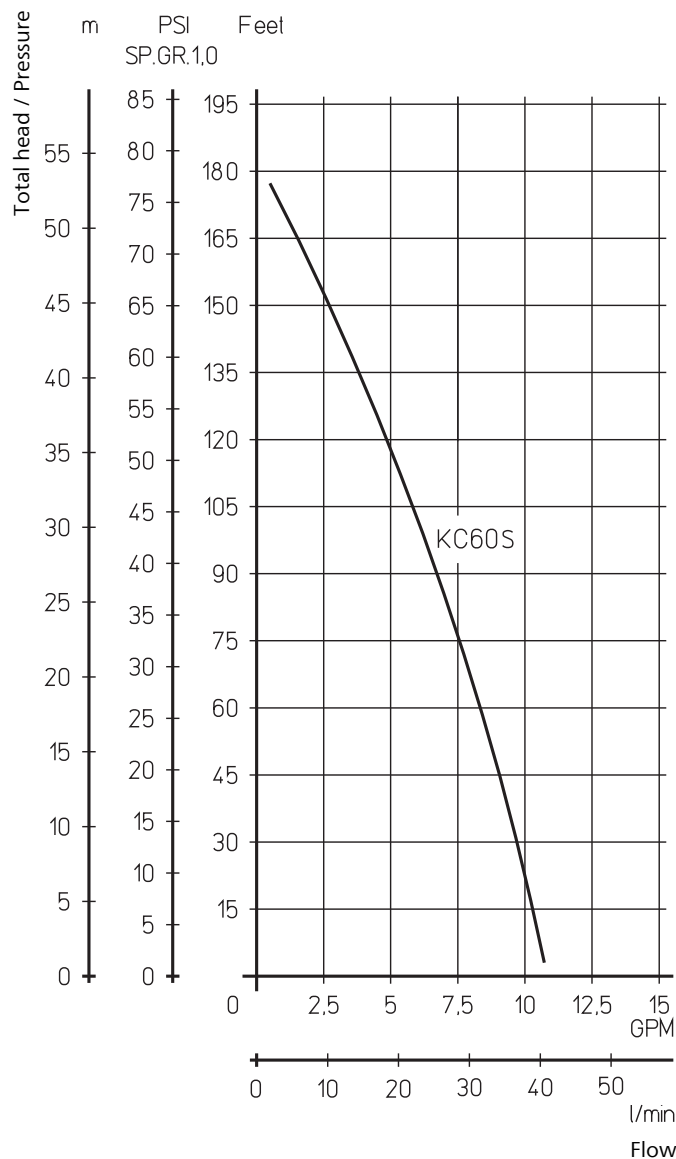
series **KC60** are suitable for pumping thin-bodied fluids. They operate according to the bypass duct principle and are self-priming after initial priming.

Applications

Types of fluid
 Industry water
 coolants
 fuel oil
 Kinematic viscosity
 ...66 SSU (...12 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)
 Suction height
 6.6 feet (2 m) without foot-located valve
 20 feet (6 m) with foot-located valve

Construction

Cover	brass
Impeller	brass
Shaft	Cr-steel
Gasket	Viton®
Noise level KC60S	68 dBA

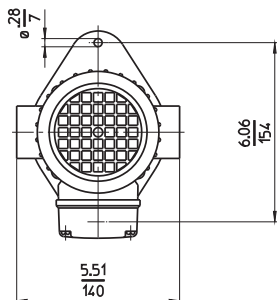
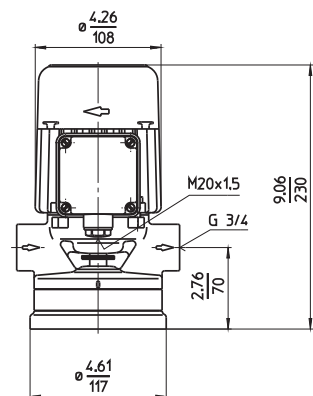


Suction Pumps

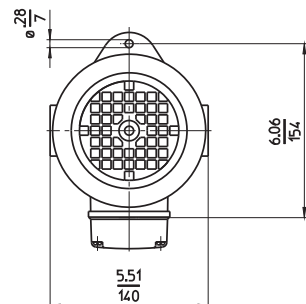
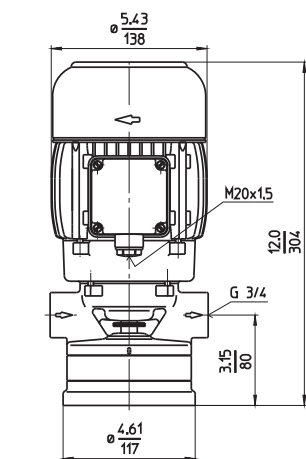
SB20S...60S

Open impellers

SB20S, SB40S



SB60S



Type	Flow at head		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	Lbs kg							
SB20S	5/10	12.1	5.5		0.19	208-230	60	0.82	3200
	20/2				0.14	460	60	0.41	3200
SB40S	10/12	14.3	6.5		0.3	208-230	60	0.95	3200
	40/3				0.22	460	60	0.55	3200
SB60S	10/30	22.0	10		0.85	208-230	60	3.0	3250
	60/2				0.63	460	60	1.5	3250

Dimensions in Inches / mm



Suction Pumps

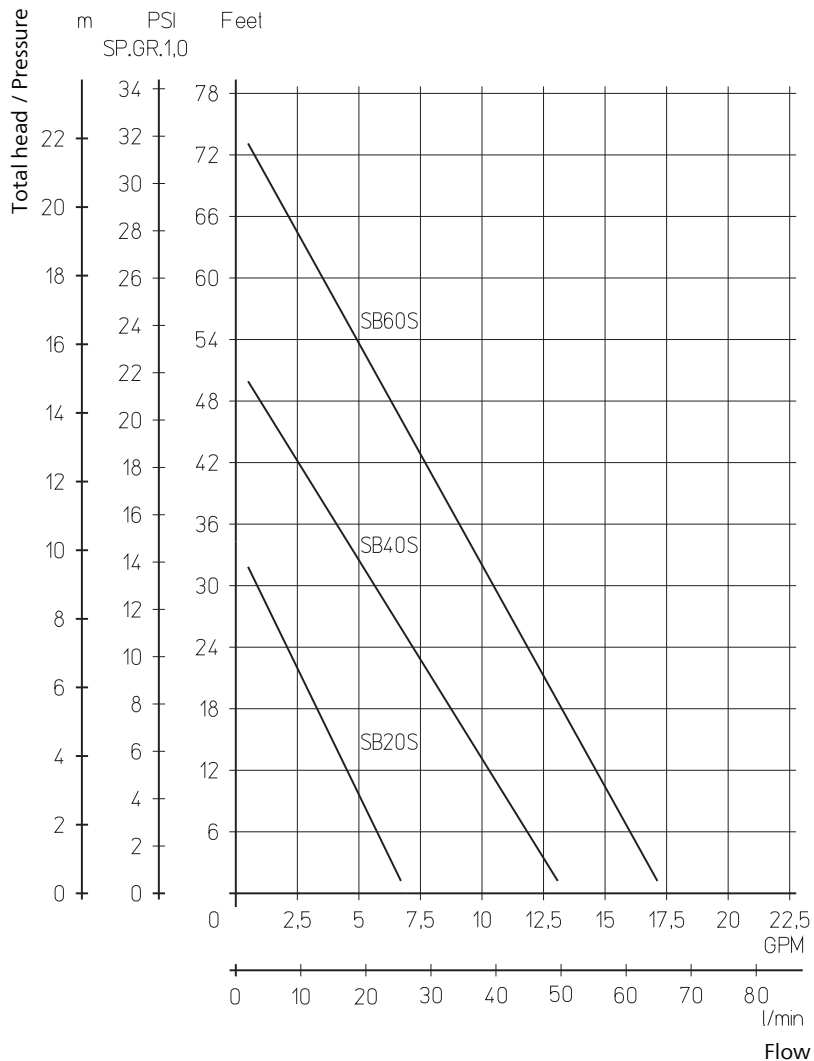
are self-priming after initial priming and operate according to the bypass duct principle. We recommend pump models featuring bronze body elements for pumping water without anticorrosion additives. The dimensions are based on standard specification EN 12157.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
 - fuel oil
 - water (with anticorrosive additive)
- Kinematic viscosity
 - ...280 SSU (...60 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
- Suction height
 - 6.6 feet (2 m) without foot-located valve
 - 20 feet (6 m) with foot-located valve

Construction

Pump body	cast iron
Cover	cast iron
Impeller	brass
Shaft	steel
Mechanical seal	graphite based
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	bronze
Impeller	CrNi-steel
Noise level	
SB20S...SB40S	64 dBA
SB60S	67 dBA



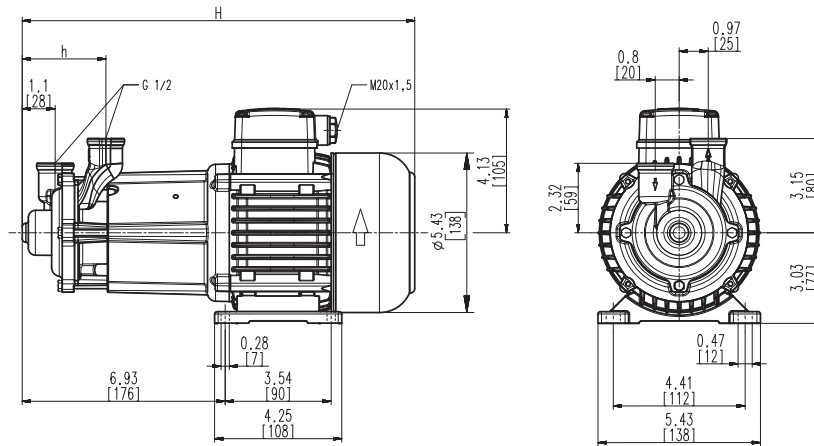
Miniature Centrifugal Pumps

BMK3...BMK4

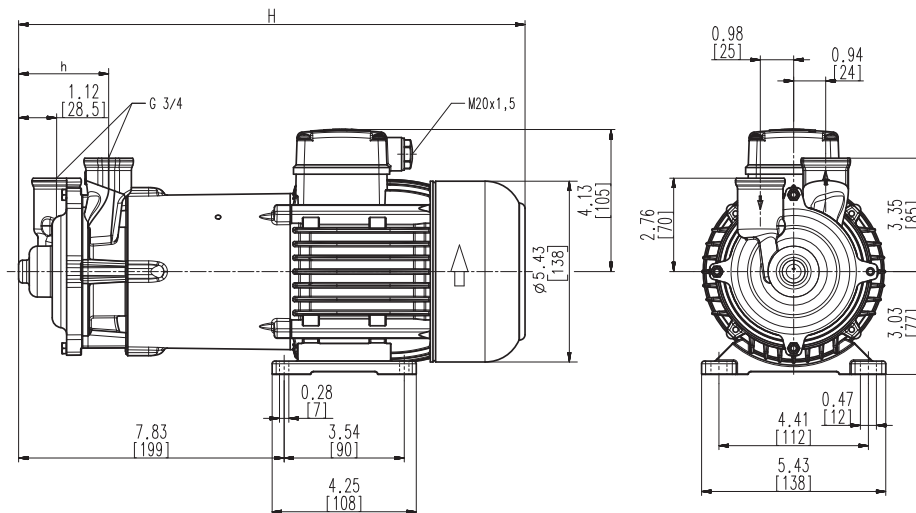
Peripheral impellers



BMK3



BMK4



Dimensions in Inches / mm

Type	Flow at head	Dimen- Dimensions		Dimensions		Weight		Power	Voltage	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
BMK3	5/120	13.1	333	2.8	71	20.5	9.3	0.69	208-230	60	2.80	3400
	20/31							0.52	460	60	1.34	3400
BMK4	5/135	16.9	430	2.7	67.5	30.9	14	1.7	230	60	4.8	3440
	20/42							1.27	460	60	2.4	3440



Miniature Centrifugal Pumps

of the **BMK series** have been desined for **clean water circuits** of up to 320° F (160° C) fluid temperature and up to **100 psi (7 bar)** of system pressure.

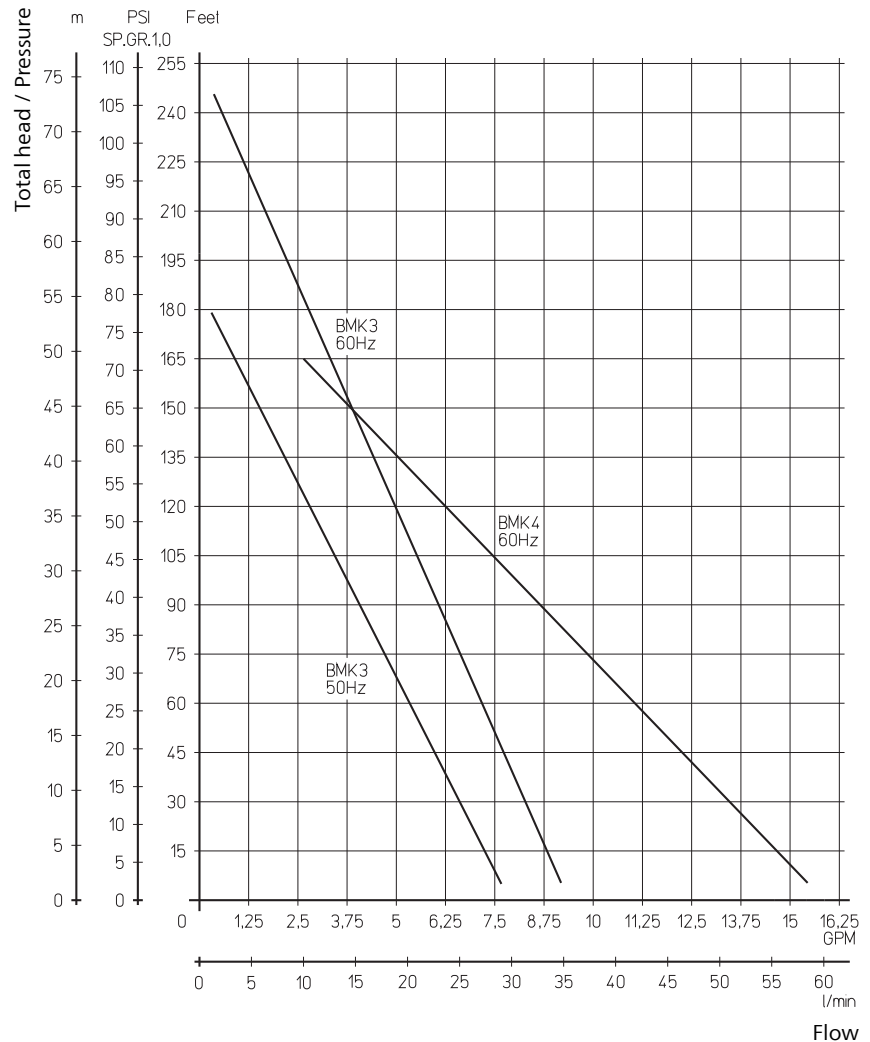
The pumps are equipped with a magnetic coupling. The pumps can be mounted vertically or horizontally. The specific design allows the pumps to operate without wear poor.

Applications

Types of fluid
 Industry water up to 320 °F (160° C) with a system pressure of 100 psi (7 bar)

Construction

Pump body	CrNi-steel
Cover	CrNi-steel
Impeller	CrNi-steel
Shaft	Ceramic
Gasket	Split-case
Noise level	
BMK3	68 dBA
BMK4	69 dBA



Brinkmann Pumps Inc.

Terms and Conditions



The following terms and conditions govern all quotations made by Brinkmann Pumps Inc. („Brinkmann“) and any orders based upon these quotations. No contract term or condition shall be amended, deleted or added without the express written consent of Brinkmann, and Brinkmann hereby rejects any terms set forth in any other writing which are in addition to or different from the terms in this quotation.

These items and conditions and any other terms and conditions delivered in writing by an authorized agent of Brinkmann contemporaneously herewith constitute the complete agreement between Brinkmann and the buyer and supersede all prior oral, written or printed statements of any kind (including any terms and conditions submitted by the buyer and performance or production data from any source whatsoever, including references to accuracy, capacity, and capability of products, all of which are estimates only) made by Brinkmann or the buyer or their respective representatives. No statement, recommendation or assistance given by Brinkmann or its representatives to buyer or its representatives, in connection with the use of any products by buyer, shall constitute a waiver by Brinkmann of any of the provisions hereof or affect Brinkmann's liability, as defined herein. All transactions covered hereby and all terms and conditions of sale shall be governed by the laws of the state of Michigan.

Prices

The products offered in this proposal and the prices quoted are based on our understanding of buyer's requirements; any change in requirements will necessitate a revision in prices quoted. Prices are F.O.B. our dock, Wixom, Michigan, or other location as specified on proposal. Brinkmann's prices do not include sales, use, excise, or similar tax, applicable to the sale or use of the equipment proposed. These taxes shall be paid by the buyer, or in lieu thereof, the buyer shall provide Brinkmann with a tax exemption certificate acceptable to the taxing authorities.

Delays or failure to deliver

Brinkmann shall not be responsible for delay or failure to deliver due to acts of God, or to government action (civil or military), or to prior orders, or to fire, embargo, strike or other labor problems, wrecks, delays in transportation, unusually severe weather or inability to obtain necessary labor or materials from the usual source of supply, or any other circumstances beyond Brinkmann's control.

Brinkmann shall have the right to furnish suitable substitutes for materials which cannot be obtained because of such force majeure.

Installation

Buyer shall install at its own expense, all products covered hereby in accordance with the operating instructions to be furnished to buyer upon request. Unless otherwise stated, no installation services are included in the price indicated.

Limited warranty

Brinkmann warrants to the buyer (but not to any others) for a period of one year from date of shipment that all new parts are free from defects in material and workmanship. Brinkmann's said warranty shall exist only if buyer gives written notice to Brinkmann within ten days after the first determination that the part is defective and within the aforesaid one year period from the date of shipment and includes in said notice consent to Brinkmann to inspect, at any reasonable time, said part and the machine in which it may be embodied, and if, and only if, Brinkmann determines to its reasonable satisfaction upon said inspection that said part and the machine in which it may be embodied are, and have been, used in accordance with all Brinkmann's instructions as to maintenance and operation set forth in the operating instructions relating to the machine. Brinkmann's warranty is limited to shipping to buyer replacement of any part which is so proven to be defective and in any event shall have **no liability whatsoever for incidental or consequential damage or loss of profit**, including damages resulting from personal injury or death, or damage to, or loss of use of, any property. Brinkmann is not responsible for shipping costs or labor, extends no warranty of any kind for gasket, seals and wear and tear materials. Notwithstanding any provisions of these terms and conditions, **this warranty is the only warranty extended by Brinkmann in connection with any sales of products and is in lieu of all other warranties, express or implied, including warranties of merchantability or fitness for purpose.** No agent, employee or representative of Brinkmann has any authority to bind Brinkmann to any affirmation, representation, or warranty concerning the products that are the subject of this quotation beyond that specifically included in the written quotation. Brinkmann shall have no obligation to install or provide improvements or changes in design adapted by Brinkmann for similar equipment subsequent to acceptance of buyer's order.

Warranties have been discussed and understood by both parties.

Buyer's use and O.S.H.A.

Buyer shall use and require all persons operating the equipment to use all proper and safe operating procedures set forth in operating instructions relating to the equipment and observe all occupational safety health and standards act (O.S.H.A.), American National Standard Institute (ANSI), and state regulations as required and all available, feasible and practical point of operation safety devices consistent with buyer's use of the equipment. Buyer shall not remove or modify, any device, warning sign, operating instructions or work handling tools installed on or attached to the equipment. Buyer shall notify Brinkmann promptly, in writing, and in all events within ten (10) days after its occurrence, of any accident or malfunction involving any equipment which results in injury to or death of persons or damage to property, or the loss of use thereof and buyer shall cooperate fully with Brinkmann in investigation and determining the cause of any such occurrence of malfunction. At Brinkmann's request made at any time, buyer will either at its or Brinkmann's place of business, permit to redesign, remodel or revise the equipment and buyer waives any claims against Brinkmann for buyer's inability to use the equipment during the time that same is out of service for such revision, modification or redesign.

Brinkmann shall not be responsible for any failure to comply which results from the location, operation, design, use or maintenance of the equipment from alternation of the equipment by persons or firms other than Brinkmann, or from an option or accessory to the equipment by persons or firms other than Brinkmann, which was available to the buyer but omitted at the buyer's direction, or from design or instructions furnished by the buyer or its agents. In view of the above, Brinkmann does not make any warranties with respect to O.S.H.A. requirements, including noise; and will not be responsible for fines, penalties, or consequential damages.

Payment terms

Net payment in full of all invoices is due thirty (30) days net, unless stated otherwise in quotation. Any unpaid balance thereafter shall be subject to a service charge of 1.75 % per month or, if illegal, at the highest rate allowed by law. There shall be no extension or change in the time for payment due to delay in instal-

lation and/or delays in operation of the equipment caused by damage, warranty service or warranty replacement of parts. If after Brinkmann's acceptance of buyer's purchase order, buyer requests Brinkmann to delay shipment of the equipment, the purchase price shall become due and owing thirty (30) days after the equipment is ready for shipment.

If buyer fails to pay the purchase price as provided herein and Brinkmann institutes a lawsuit for the collection of said price, buyer agrees to pay Brinkmann's reasonable attorney fees incurred in connection therewith.

Acceptance of orders

Quotations are offered for written acceptance within thirty (30) days from date (unless otherwise stated) but are subject to change without notice at any time before acceptance. If any order contains printed, stamped or other provisions inconsistent or in conflict with the terms and conditions hereof, the terms and conditions hereof shall control, unless otherwise specifically stated by Brinkmann in writing. All clerical errors are subject to correction in favor of either party upon notice of either party. All orders are subject to the credit approval of Brinkmann. An order containing subject matter not within the contemplation of the proposal shall be subject to a further quotation as to price or delivery or both. Modifications, changes, deferred shipments, cancellations or additions will be effective only if accepted by Brinkmann in writing and then only upon terms that will indemnify Brinkmann against all costs and losses.

Title and security agreement

Delivery to carrier shall constitute transfer to the buyer, and all risk of loss or damage in transit shall be borne by the buyer.

By execution of a purchase order, buyer hereby grants to Brinkmann a security interest in the equipment covered by the proposal, and its products and/or proceeds in order to secure the payment of the purchase price thereof and buyer authorizes to file financing statements reflecting this security interest without buyer's signature. Buyer will cooperate with Brinkmann in preparing documents necessary to perfect this security interest.

Proprietary and other materials

This quotation and all drawings, specifications, materials, patterns, and special purpose manufacturing aids which are supplied to buyer by Brinkmann shall be kept in confidence and shall be listed and maintained in suitable con-

dition at the expense of buyer and are to be considered the property of Brinkmann held on consignment by buyer and to be insured while in buyer's possession. Such articles and all copies thereof from any source shall be returned to Brinkmann at any time upon request and shall not be used for or by any third parties without the express written permission of Brinkmann.

Performance in event of default

In addition to the rights and remedies conferred upon Brinkmann by law, Brinkmann will not be required to proceed with the performance of any order or contract if buyer is in default in the performance of any order or contract with Brinkmann and in case of doubt as to buyer's financial condition, shipments under an order may be suspended or sent sight draft with bill of lading attached and Brinkmann may decline further shipments except for cash before shipment.

Hold harmless/indemnity

Except to the extent of the limited warranty set forth above and Brinkmann's own gross negligence or willful misconduct, buyer hereby:

(1) waives, releases and discharges any and all claims of any and every kind (including but not limited to injury or death of any person or damage to property), which it may have at any time against Brinkmann, its agents or employees, by reason of or arising out of any claimed improper design, specification or manufacture of the equipment sold hereunder, or of any claimed inadequate or insufficient safeguards or safety devices; and (2) covenants to indemnify and hold harmless Brinkmann, its agents and employees of, from and against any and all loss, damage, expense (including attorney's fees), claims, suits or liability which Brinkmann or any of its employees may sustain or incur at any time for or by reason of any injury or death of any person or persons or damage to any property, arising out of any claimed improper design or manufacture of the equipment sold hereunder, or of any claimed inadequate or insufficient safeguards or safety devices.

Electrical equipment

Motors, electrical equipment and wiring on the equipment quoted will be supplied in accordance with the manufacturer's standards. Unless specifically quoted they are not guaranteed to meet ordinances of any local governing body and the responsibility of conforming to any local ordinance is assumed by the buyer.

Inspection and testing, production estimates and performance

All working drawings or other materials provided by Brinkmann are for general information purposes only and may or may not relate to buyer's order or other equipment. Any specifications contained therein are not binding on Brinkmann except as expressly so stated. Brinkmann reserves the right to make, at any time, such changes in detail of design or construction as shall in the sole judgment of Brinkmann constitute an improvement over former practice. Production data, where given, are based on Brinkmann's careful analysis and understanding of the limits of accuracy, machinability of materials, amount of material to be removed, handling facilities provided, and location points but are nonetheless an estimate only and not guaranteed or warranted. In no event shall Brinkmann be responsible for performance figures supplied by other parties. If by written agreement the equipment is to be subject to acceptance tests before shipment, rejection under this clause must take place prior to shipment.

Returned equipment

In no case is equipment to be returned without first obtaining written permission from Brinkmann. Unless otherwise expressly agreed an order for equivalent value must accompany returned equipment and all such returned equipment will be accepted for credit only after inspection. Equipment returned without good cause and for which no credit is given shall be subject to a restocking charge. Buyer returning equipment must pay transportation charges and bear risks of loss or damage to goods while in transit. Acceptance of returned products by Brinkmann's receiving department shall not bind Brinkmann nor have any force or effect unless acceptance is made by Brinkmann in writing.

Application Questionnaire



Fax	USA +248-926-9405	Date	
E-Mail	sales@brinkmannpumps.com		

Contact details	
Company	
Address	
Contact partner	
Telephone	
E-Mail	

Pump	
Application	
Requirement per year (each)	

Required performance data	
Flow rate (gpm / l/min.)	
Pressure (psi / bar)	
Delivery head (feet / m)	

Dimensions	
Immersion depth	

Medium to be pumped	
Type	
Temperature (°F / °C)	
Viscosity at pumping temperature (SSU / mm ² /s, cSt)	
Specific weight (kg/l)	
Percentage of solids by weight	
Size of solids (inch/inch / mm/mm)	
pH value	
Percentage of air in medium	

Pump materials	
Pump body	
Cover	
Impeller	
Shaft	
Seals	

Power Supply			
laid out for line power	<input type="checkbox"/> 3 x 400 V, 50 Hz	<input type="checkbox"/> 3 x 440 V, 60 Hz	<input type="checkbox"/> 3 x 208-230 V, 60 Hz
	<input type="checkbox"/> 3 x 415 V, 50 Hz	<input type="checkbox"/> 3 x 460 V, 60 Hz	<input type="checkbox"/> 3 x 200-220 V, 60 Hz
	<input type="checkbox"/> 3 x 380 V, 50 Hz	<input type="checkbox"/> 3 x 480 V, 60 Hz	<input type="checkbox"/> 1 x 115 V, 60 Hz
	<input type="checkbox"/> 3 x 200 V, 50 Hz	<input type="checkbox"/> 3 x 380 V, 60 Hz	<input type="checkbox"/> other:
	<input type="checkbox"/> 1 x 230 V, 50 Hz	<input type="checkbox"/> 3 x 400 V, 60 Hz	

Motor	
Protective system IP55	
Insulation class (F)	
Ambient temperature (°F / °C)	
Variable frequency drive (Hz)	from to
On/Off cycles (per min)	
Motor connection plug HAN	<input type="checkbox"/> yes

Other

「The Brinkmann Pumps network – This is the way to find us.」



BRINKMANN PUMPS has a global presence and direct representation throughout North America, Europe, and Asia. This ensures quick response times, competent consulting personnel and the highest level of service, which Brinkmann Pumps is known for, anytime and anywhere. Visit our website – where you will find all the contact details for our representative offices. Visit us and convince yourself of our capabilities.

Welcome to BRINKMANN PUMPS.



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