

2015

COOLANT PUMPS MAIN CATALOG

COOLING, LUBRICATING, CHIP HANDLING,
PRESSURE BOOSTING, FLUSHING,
MAINTAINING TEMPERATURES ...



<p>Recommendations to choose Coolant Pumps Technical Information: Electrical, Mechanical and Hydraulic Features Control / Regulation</p>		
<p>Immersion Pumps TB TA TE STE STA</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</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 BFT</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

60 Hz

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	lifting	washing	pressuring
TA40 ... 80 / TB16 ... 100	●	●	●	●	●	○	●				●	●	●	○	○			○	●	●	●	●		●	●	
TA160 ... 600	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TE/STE141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TA/STA301 ... 306	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TA200 ... STA430	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
STA401 ... 407	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
STA601 ... 607	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
STA630 ... 1130	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
STA901 ... 904	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
STA1001 ... 4500	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TL50 ... SAL430	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TL/STL141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TAL/SAL301 ... 607	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
SAL630 ... 2500	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TGL/SGL331 ... 2200	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
TAS301 ... 601	●	●	●	●	●	○	●				●	●	●	○	○			○	●	●	●	●		●	●	●
STS1001... 2000	●	●	●	●	●	○	●				●	●	●	○	○			○	●	●	●	●		●	●	●
SBA141S ... 2000S (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
SBG501S ... 1700S (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○			○	●	●	●	●		●	●	●
SBM140S	●	●	●	●	●	○	●	○	○	○	●	●	●	○		○	○		●	●	●	●		●	●	●
SFL650 ... 2350	●	●	●	●	●	○	●		○	○	●	●	○	○		○	○	●	●	●	●	●		●	●	●
SBF550S ... 1850S	●	●	●	●	●	○	●		○	○	●	●	○	○		○	○	●	●	●	●	●		●	●	●
SFC820 ... 2320	●	●	●	●	●	○	●		○	○	●	●	○	○		○	○	●	●	●	●	●		●	●	●
SXC2824S	●	●	●	●							●	●	○	○				●	●	●	●	●		●	●	●
SPC820S	●	●	●	●							●	●	○	○				●	●	●				●	●	●
SBC820S ... 1820S	●	●	●	●	●	○	●		○	○	○	○	○	○		○	○	●	●	●	●	●		●	●	●
SFT450 ... 1400	●	●	●	●	●	○	●			○	●	●	●	○	○		○	●	●			●		●	●	●
SFT1100-4	●	●	●	●	●	○	●			○	●	●	●	○	○		○	●	●			●		●	●	●
SFT1554-C ... 3554	●	●	●	●	●	○	●			○	●	●	●	○	○		○	●	●			●		●	●	●
BFT750S ... 1250S	●	●	●	●	●	○	●			○	●	●	●	○	○		○	●	●			●		●	●	●
TS12 ... 24	●	●	●	●	●	○	●	○	○	○	●	●	●	○	○		○			●	●			●	●	●
(S)TC25 ... 160	●	●	●	●	○	○	●	○	○		●	●	●	○	○			○	●	●				●	●	●
(S)TH2 ... 17	●	●	●	●	○	○	●	○	○	○	●	●	●	○	○		○	●	●					●	●	●
FH2 ... 17	●	●	●	●	○	○		○	○	○	●	●	●	○	○		○	●	●					●	●	●
(S)TC260 ... 460	●	●	●	●	○	○	●	○	○	○	●	●	●	○	○		○	●	●					●	●	●
KTF61 ... 303						○	●	○	●		●	○	○		○	○				●	●			●	●	●
KC60S	○	○	○	○		○	●	○	○	○	○		○	○	○	○	○			○	●			●	●	●
SB20S ... 60S	●	●	●	●	○	○	●	○	○	○	●	●	○	○	○	○	○		○	●	●			●	●	●
BMK3 ... BMK4						○	●	●	○	○	●	○	○	○	○	○	○			●	●			●	●	●
TB40-M ... 100M								●	●	○		●	●	○	○	○	○		●	●	●			●	●	●
BFS1 ... TFS6	●	●	●	●	○						●	●	○							●	●			●	●	●

● usable

○ please ask before making a selection

Electrical Features

CE Motors acc. to EN 60034

Grade of protection	IP55
Type of insulation	F
Number of poles	2
Efficiencies	EN 60034-30, IE2 1.0 HP (0.75) < 10 HP (7.5 kW); IE3 ≥ 10 HP (7.5 kW)

60 Hz	208–230 V √√ 460 V √	440 V–480 V √	440 V–480 V Δ
up to 7.4 HP	Standard	●	●
10 HP – 13.4 HP	Standard	●	●
15 HP and higher	–	–	Standard

The voltage tolerance is ±5% in accordance with DIN EN 60034-1.

Available as a special design, e.g.:

60 Hz	200 V Δ	265 V Δ 460 V √	400 V √	400 V Δ	575 V √	575 V Δ
up to 7.4 HP	●	●	●	●	●	●
10 HP – 13.4 HP	●	●	●	●	●	●
15 HP and higher	–	□	□	□	□	□

50 Hz	200 V Δ	220–240 V Δ 380–420 V √	400 V √	400 V Δ	380–420 V Δ	500 V √	500 V Δ
up to 7.4 HP	●	●	●	●	●	●	●
10 HP – 13.4 HP	●	●	●	●	●	●	●
15 HP and higher	–	–	□	●	●	□	●

- Available
- Upon request

Other voltages upon request.

Pole changing motors are nonstandard motors.

For operation on 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, ± 5 %, 50 – 60 Hz.

Comparison of motor efficiency classes worldwide

Efficiency Class	Europe	North America, Australia, New Zealand	China
Super premium efficiency	IE4	–	Grade 1
Premium efficiency	IE3	NEMA Premium	Grade 2
High efficiency	IE2	EPAct	Grade 3
Standard efficiency	IE1	–	–
Below standard efficiency	–	–	–

IE = International Efficiency

Motors of 10 HP (7.5 kW) and larger

Motor design available for √/Δ -starting.

√/Δ-starting is not required for centrifugal pumps. Screw-spindle pumps for √/Δ-starting must be started without pressure. Soft-starting devices are an alternative to √/Δ-starting.

Motor cycle time

Motors less 4.0 HP (3 kW) ▶ up to 200 times per hour.

Motors from 4.0 HP (3 kW) to 5.4 HP (4 kW) ▶ up to 40 times per hour.

Motors from 6.7 HP (5 kW) to 15 HP (11 kW) ▶ up to 20 times per hour.

Motors 16 HP (12 kW) and larger ▶ up to 15 times per hour.

Higher on/off cycling frequencies are available upon request.

UL/CSA Certification

Brinkmann motors up to 17.5 HP (13 kW) and up to max. 600 V are available as special designs with cUL-certification. Approval testing is carried out by the Underwriters Laboratories Inc. according to the UL 1004 Electric Motors Standard. The motor's name plate bears the identification:



„Recognized Component Mark for Canada and the United States“.

Motors larger than 17.5 HP (13 kW) are available upon request with cRUus or CSA/UL approval testing.

Brinkmann motors ranging from 3.1 HP (2.3 kW) to 7.4 HP (5.5 kW) are available with the China Energy Label, GB18613-2012, Grade 3 and motors ranging from 10 HP (7.5 kW) to 17.5 HP (13 kW) are available with Grade 2 on request.

Additional country-specific approvals upon request.

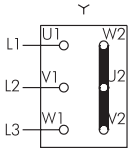
Electrical Features

Circuits

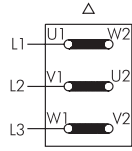
on request

Y (Star Connection)
up to 7.4 HP
(5.5 kW)

Δ (Delta Connection)
10, 12, 15, 17.5 HP
(7.5, 9, 11, 13 kW)



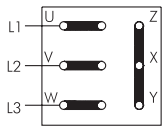
Y 440 V – 480 V
60 Hz



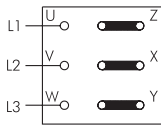
Δ 440 V – 480 V
60 Hz

Voltage changing 1 : 2 Y Y / Y

e. g. 208 – 230 V / 460 V, 60 Hz



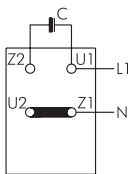
Low Voltage



High Voltage

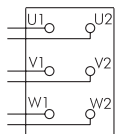
Connection to single-phase

e. g. 1 x 110 V, 60 Hz:

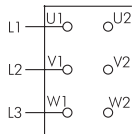


Optional

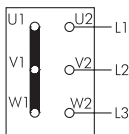
Pole-changing motor 4/2 poles Y Y / Y
for 50 % reduction of speed can be chosen



Dahlander circ.
Y / Y Y
with polechanger



(n = 1700 RPM)
4-poles Y
without polechanger

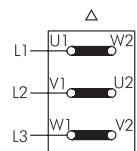


(n = 3400 RPM)
2-poles Y Y
without polechanger

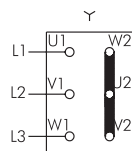
Voltage changing Δ / Y

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

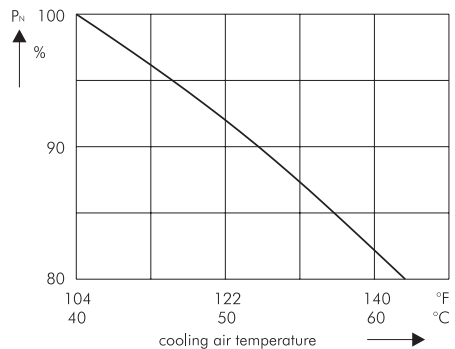
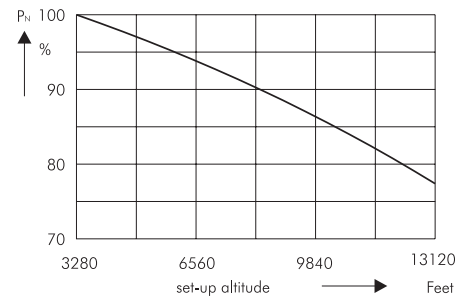


Y 380 V – 420 V,
50 Hz

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.

Current / Rated current

The current stated in the data sheets is used for the dimensioning of electrical components. The effective rated current at rated voltage may be lower.

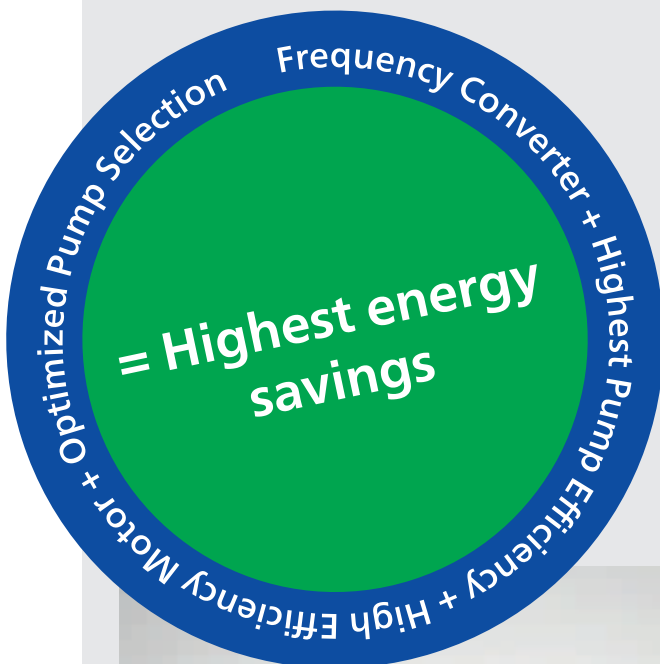
Control / Regulation

The **energy consumption of a coolant pump** is primarily influenced by the efficiency of the pump, the efficiency of the motor and the sizing of the pump with respect to the working point of the system.

Within the scope of our **seminars** we offer our support for:

- pump selections
- supply you with detailed information on the use of variable frequency drives
- show potential energy savings through pump controls
- support you locally in retrofitting existing applications and systems

For detailed information please do not hesitate to contact us.



Brinkmann coolant pumps with frequency converter 1.75 – 75 HP (1.3 – 55 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.

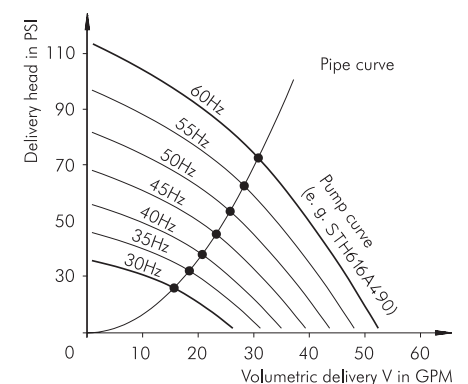


Fig. 1: Performance map

Control / Regulation

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.

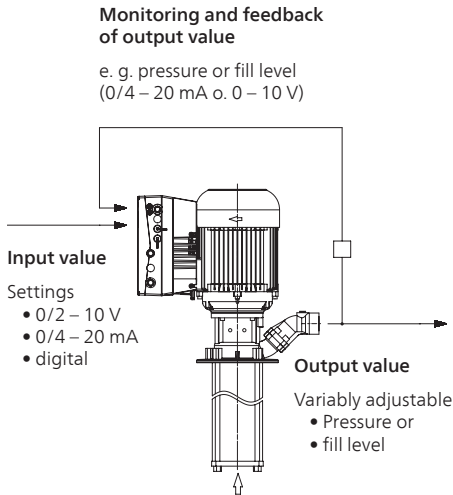


Fig. 2: Scheme of regulation

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.

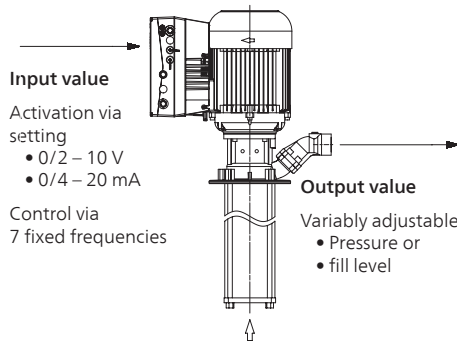


Fig. 4: Control scheme

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 50 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.

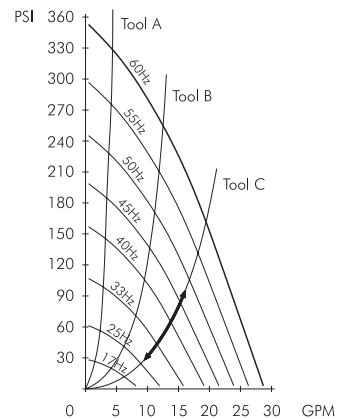


Fig. 5: Analog signal (infinite)

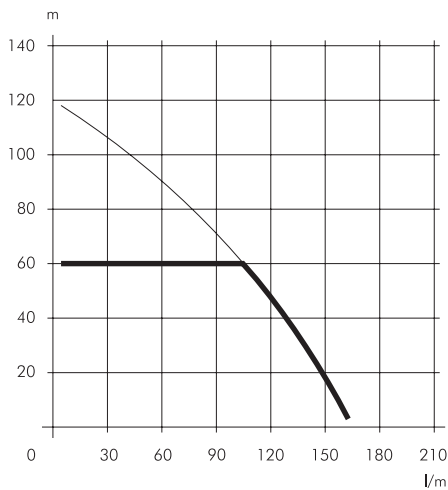


Fig. 3: Pressure regulation limited to max. 85 PSI (6 bar)

Control / Regulation

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.

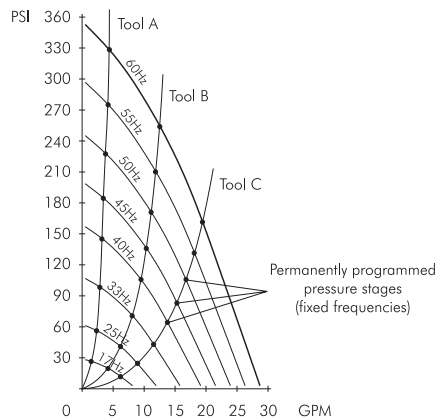


Fig. 6: Fixed frequencies

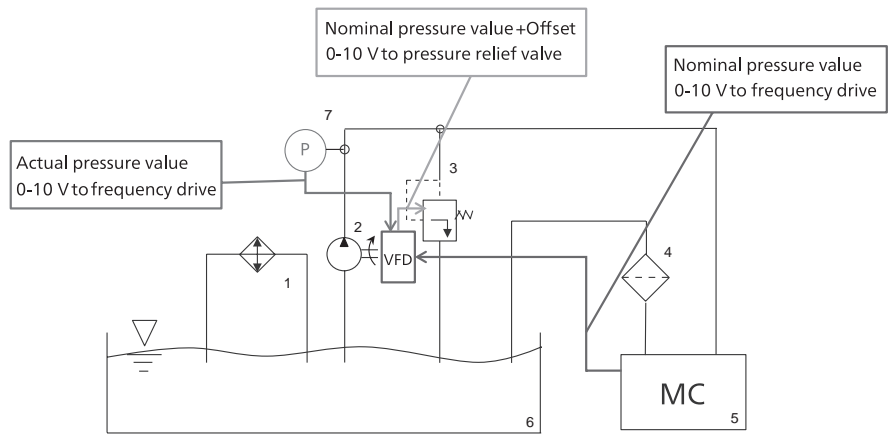
Brinkmann Pumps Offset Regulation for High Pressure Pumps

The target pressure is calculated by the VFD based on the working point and is not supplied by the machine tool.

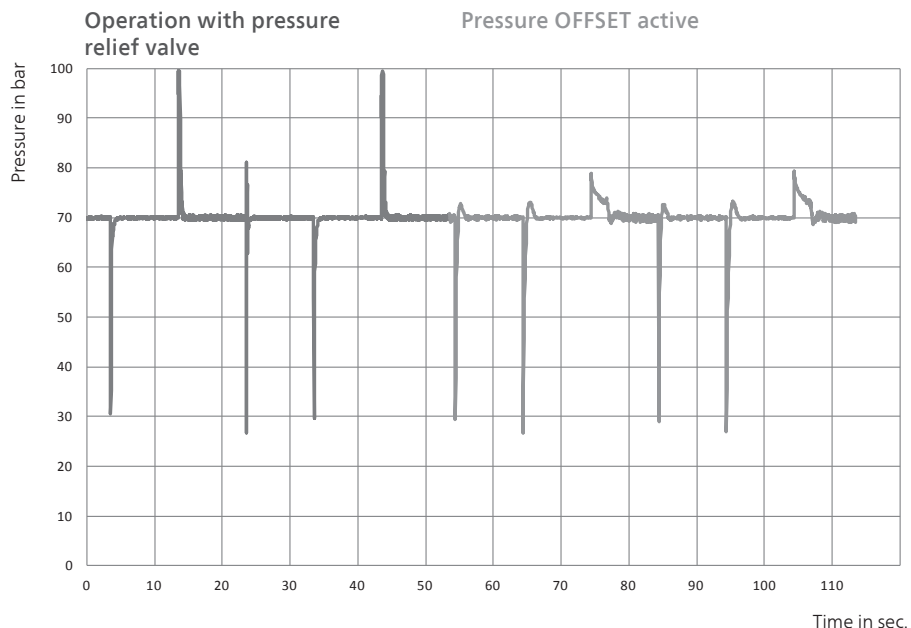
The intelligent control of the valves allows for minimizing potential pressure spikes.

Registered German utility model!

- 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



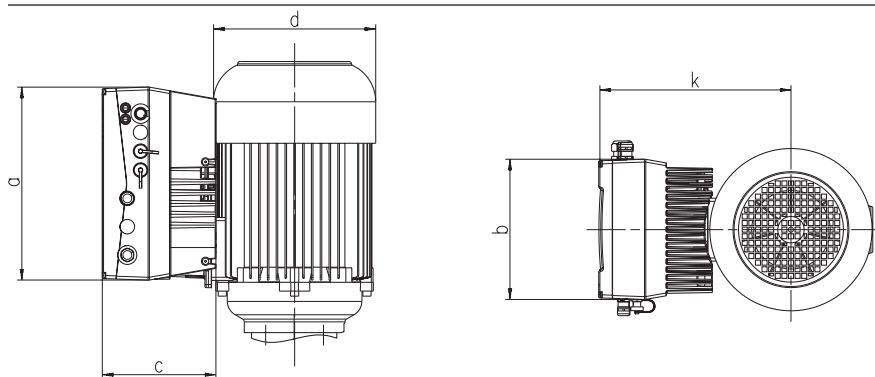
Minimizing pressure peaks during tool change



Control / Regulation

TECHNICAL DATA				
Frequency converter FKO (1.5 – 10 HP)				
Function	Specification			
Rated voltage	3 AC 400 V -10 % ... 480 V +10 %			
Rated frequency	50/60 Hz			
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 (-Imax = 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			
UL approval	yes			

Dimensions

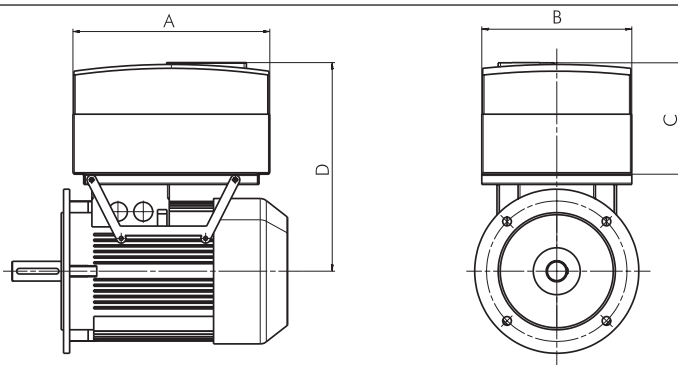


Motor power HP	housing size	a inch	b inch	c inch	d inch	k inch
1.5 – 2.3	A	9.17	6.02	4.72	6.93	8.70
2.5 – 5.4	B	10.63	7.44	5.24	8.58	9.49
6.7 – 12	C	12.09	9.17	7.13	10.16	12.05
15 – 29.5	D	16.30	11.57	9.77	12.36	15.75

Control / Regulation

TECHNICAL DATA Frequency converter FKS (15 – 74 HP)				
Function	Specification			
Rated voltage	3 AC 380 V ... 480 V \pm 10 % three-phase			
Rated frequency	50/60 Hz			
Output ranges	2.0 ... 4.0 HP	5.4 ... 10 HP	15 ... 23.5 HP	40 ... 74 HP
Housing size	A	B	C	D
Protective system	IP 55			
Filter class A	integrated			
Temperature range	14 °F ... 104 °F			
Control procedure	U/f			
Overload capability	1.5 times rated output current			
Protective functions	undervoltage, overvoltage, overload, short circuit, motor failure, rotor lockup, excessive motor temperature, excessive converter temperature			
Output frequency range	according to layout at factory			
Digital inputs	6, 4 of these can be parameterized as required			
Fixed frequencies	4			
Fadable frequency ranges	4			
Relay outputs	2 x NO contacts 250 V AC 1 A			
Analog inputs	2 analog inputs (0/2 – 10 V, 0/4 – 20 mA), 1 input for PI controller			
Serial interface	RS 232			
Process control	PI			
Multiple pump configuration	up to 6 pumps			
UL approval	no			

Dimensions



Motor power HP	housing size	A inch	B inch	C inch	D inch
2.0 – 4.0	A	10.24	7.48	6.22	11.26
5.4 – 10	B	12.80	9.84	6.69	13.50
12 – 25	C	16.54	12.60	9.25	17.32
29.5	C	16.54	12.60	9.25	20.28
40 – 50	D	23.62	17.72	11.42	24.02
60	D	23.62	17.72	11.42	25.00
74	D	23.62	17.72	11.42	26.26

DESINA

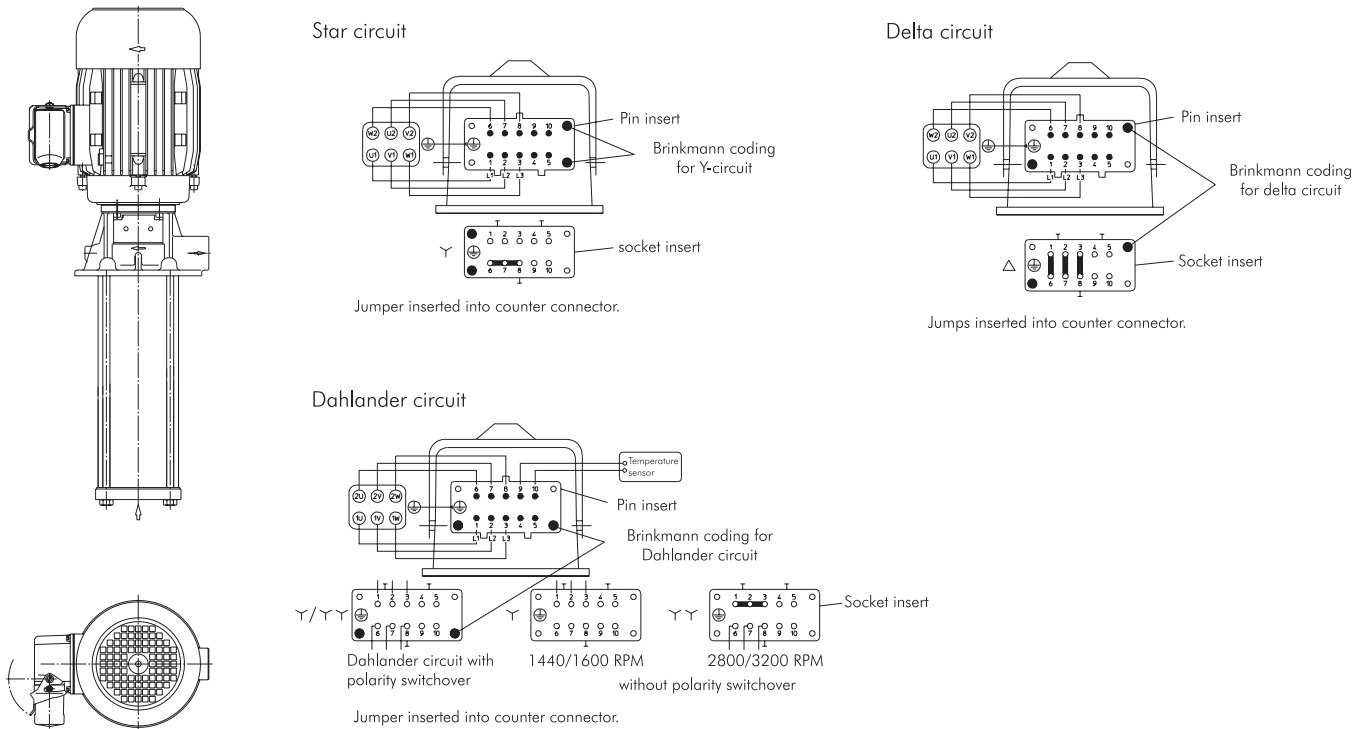
DESINA – DEcentral and Standardized INstallation technology

DESINA includes a complete concept for standardization and decentralization of the electronic and fluid technical installation of machine tool OEMs, the automotive industry and its suppliers. The specifications for the required components were defined in cooperation between the machine construction, automotive and supplier industry.

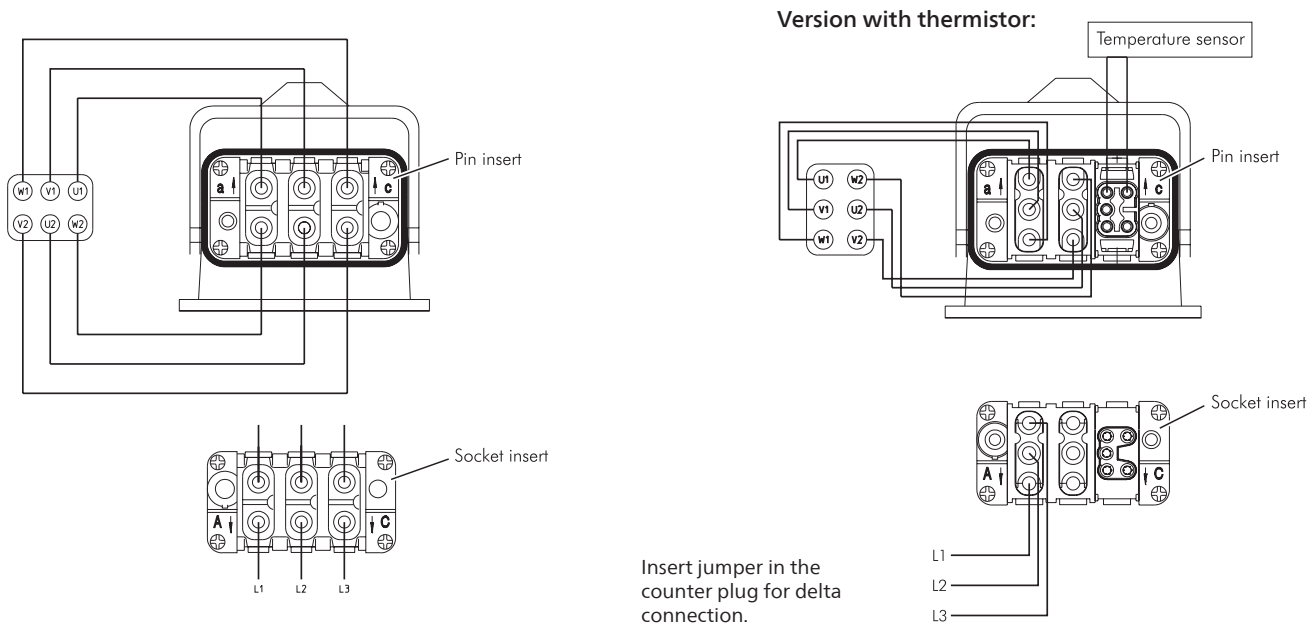
DESINA considers proven solutions such as open bus systems, industrial standards for connectors, etc.

By standardizing components, interfaces and connection elements it is possible to realize highly varying field bus systems on a common physical basis.

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 10 HP to 17.5 HP (7.5 kW to 13 kW)



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 are provided for handling of air inflated 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 slot screen).

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 ask for additional applications by informing us 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.

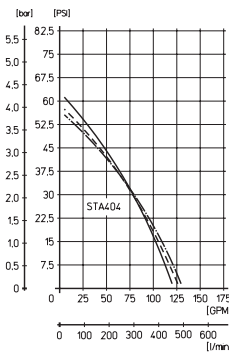
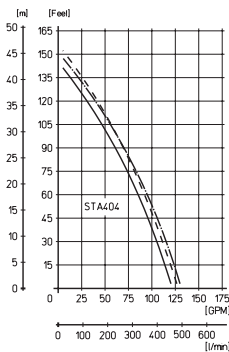
Centrifugal pump pressure is stated as delivery head in Feet, (m) and PSI.

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.

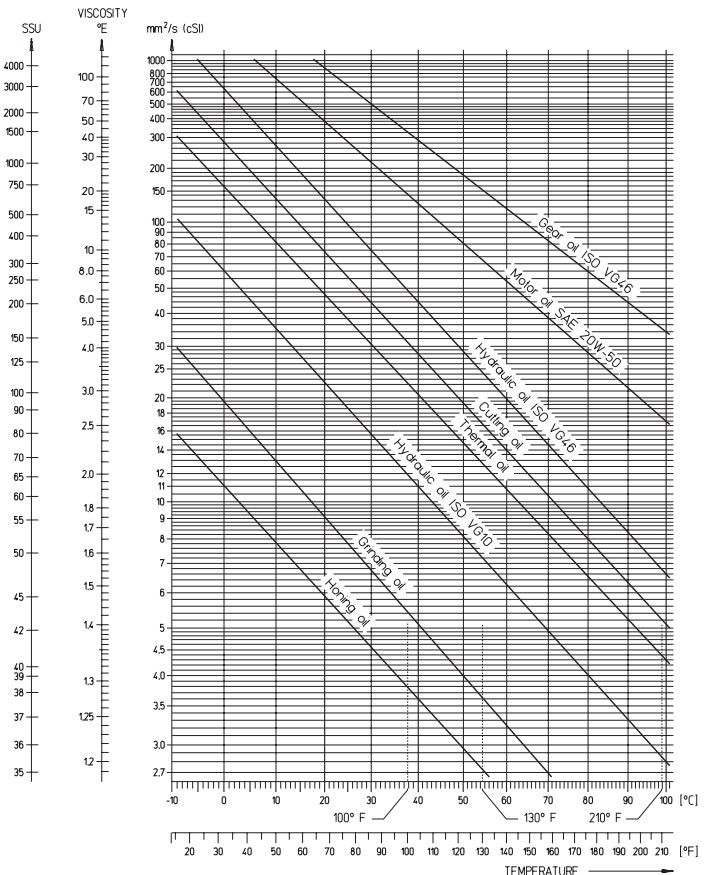
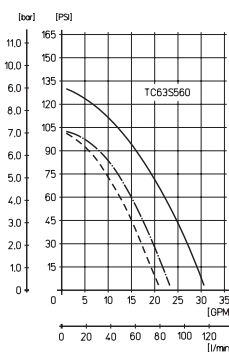
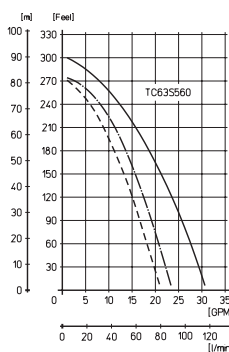
Noise levels refer to 60 Hz operation.

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/Hydraulic Features

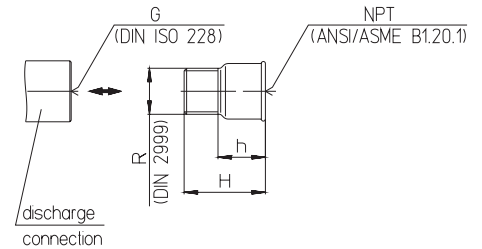
Terminal Box Position acc. to EN 12157

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 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 32-1.
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

Immersion-depth extension

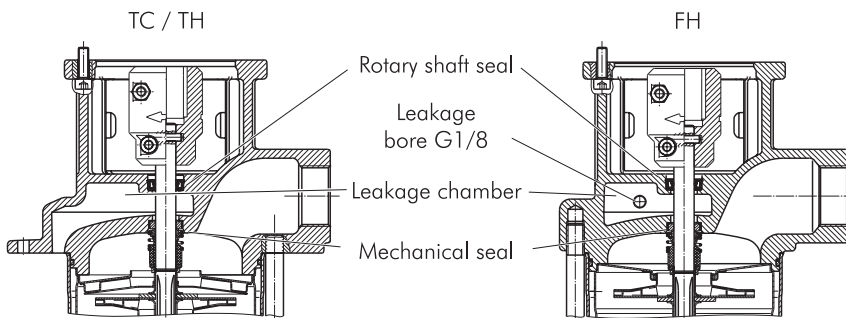
Immersion depths of the TC and TH pumps can be extended by dummy stages to any immersion depth available in the series without having to change the electrical and hydraulic power.

Example:
The pumping rate of the TC63S350 pump is required at an immersion depth of 29.72 Inch (750 mm).
Solution: TC63S350 – 750

Paintwork

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

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.

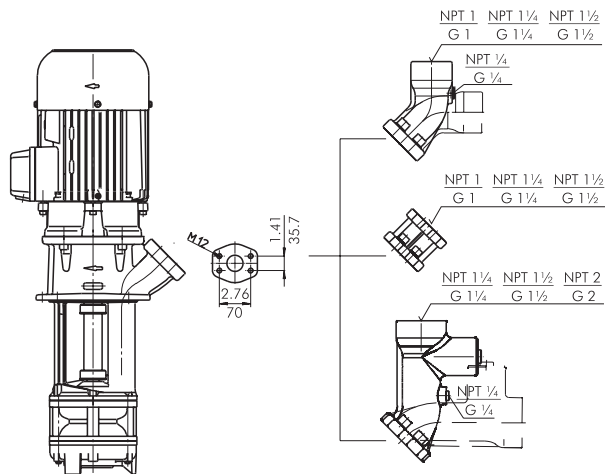
SAE / 45 Degree Flanges

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.

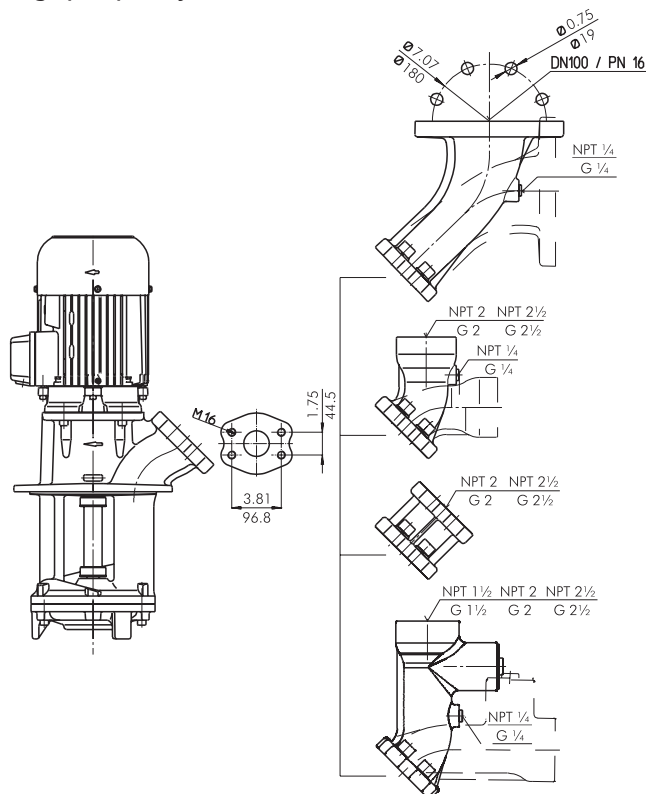
SAE Extension Port

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.

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 1/2 (G 2 1/2) 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. An additional check valve is available upon request.

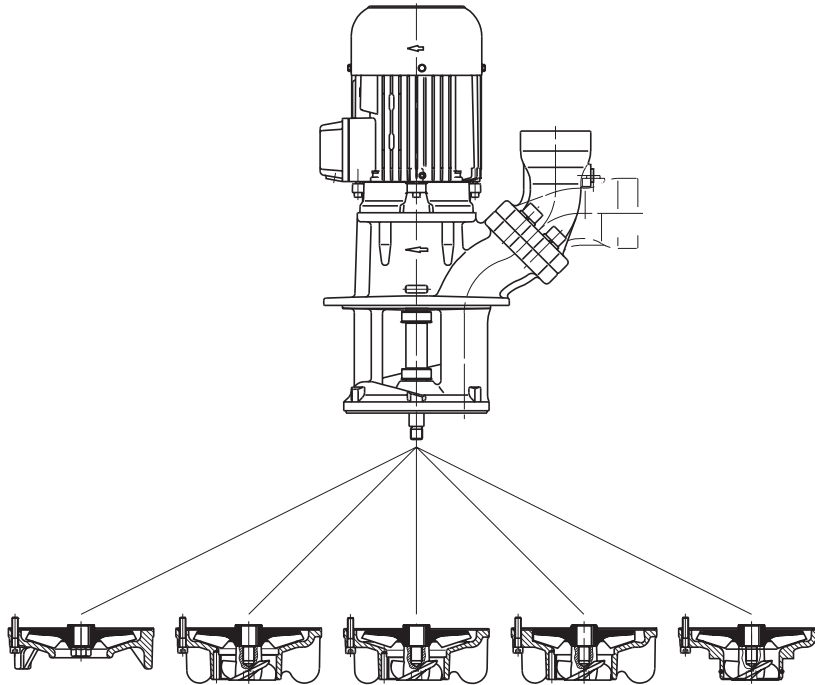
Modular Design System

Hydraulic modular system

The comprehensive hydraulic modular system ensures best adaptation to your specific application requirements.

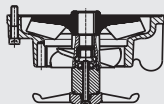
Depending on whether water soluble coolant or oil is used as coolant during the machining process and depending on the application parameters several hydraulic options are available, including an integrated variable frequency drive, if selected.

The range includes standard lifting pumps such as the STA900 with 0.4 inch (10 mm) sphere size passage as well as the classic Vortex pumps such as the SFT1100 with a 2.0 inch (50 mm) sphere size passage and extends all the way to the cutter pump with its integrated cutting mechanism. All pumps are equipped with a 45 degree flange which allows for a either vertical or horizontal pipe connection and which offers a NPT 1/4 (G 1/4) port for the connection of a pressure gauge.



STA	SAL	SFL	SGL	STS
Immersion pumps	Quick suctioning immersion pumps	Quick suctioning immersion pumps	Quick suctioning immersion pumps	Suction immersion pumps
Lifting pump for standard applications	Lifting pump for emulsions with some percentage of air	Lifting pump for emulsions/oil with increased percentage of chips	Lifting pump for oil or water soluble coolants with high percentage of air (fine machining)	Pump for vacuum filter, e.g. on split sieve basis for vacuums from -5 ... -7 PSI (-0.3 ... -0.5 bar)
	Quick suctioning feature	Quick suctioning feature	Quick suctioning feature	

Option:



SFL and SGL 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.

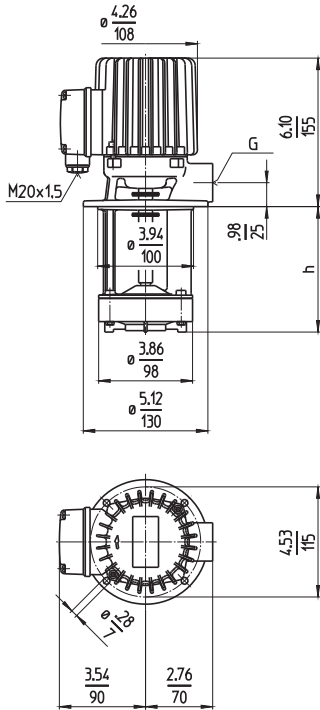
Immersion Pumps

TA40...80

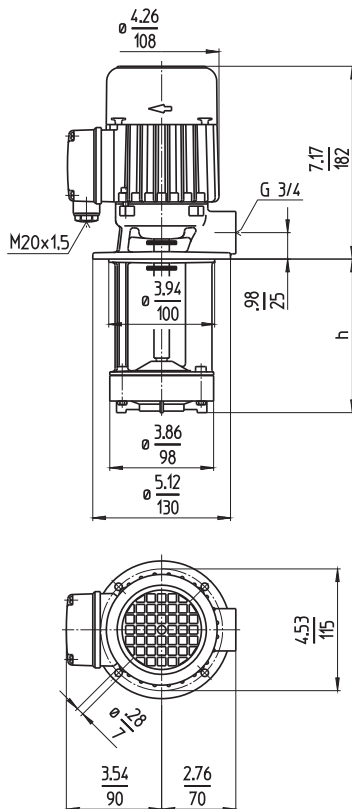
Semi-open impellers



TA40



TA80



Type	Flow at head	Depth of immersion		Thread	Weight		Power	Voltage 3~	Frequency	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					
TA80S120	20/15	10.63	270	G 3/4	13.0	5.9	0.3	208-230	60	0.95	3200
	80/4						0.22	460	60	0.55	3200
	170	7.09	180		13.0	5.9					
	220	9.06	230		13.7	6.2					
	270	11.02	280		14.3	6.5					
	350	14.17	360		16.1	7.3					

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

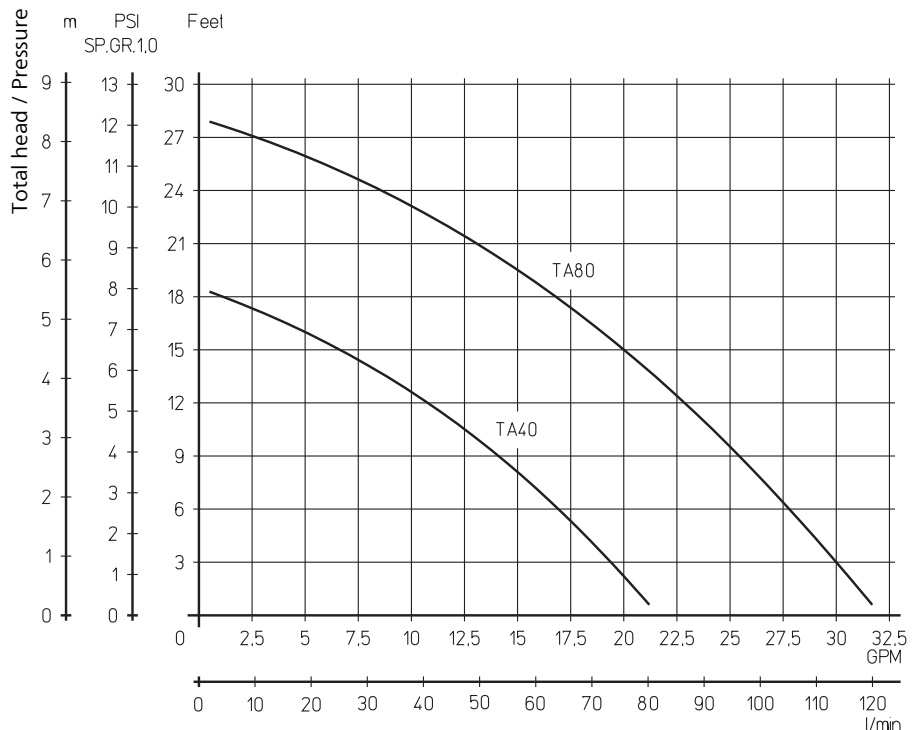
Pump body	cast iron
Cover	POM
Impeller	POM
Shaft	steel
Optional:	
Cover	cast iron cast iron with thread
Impeller	brass cast iron
Noise level	
TA40	48 dBA
TA80	56 dBA



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.



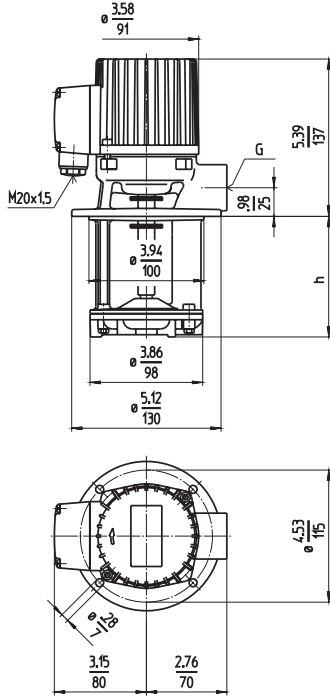
Immersion Pumps



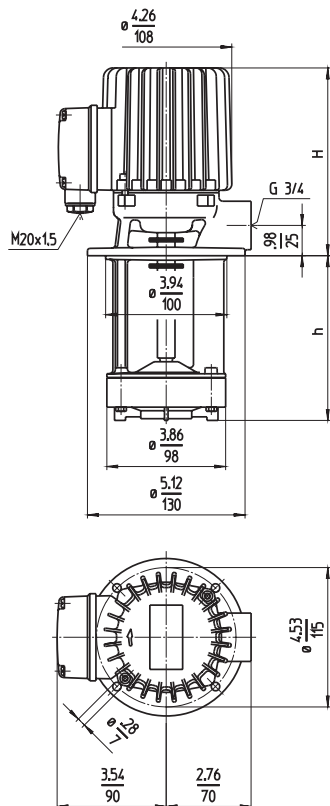
TB16...100

Semi-open impellers

TB16, 25, 40



TB63, 100



Dimensions in Inches / mm

Type	Flow at head		Thread		Depth of immersion		Weight		Power HP kW	Voltage 3 Phase V	Frq Hz	Rated current AMPS	Speed RPM
	GPM / Feet l/min. / m	G	h Inch	mm	Lbs	kg							
TB16/90	6/6	G 1/2	3.54	90	9.0	4.1	0.1	220-240	50	0.35	2800		
	120	16/2	4.53	115	9.5	4.3	0.07	380-420	50	0.2	2800		
	170		6.50	165	10.1	4.6		460	60	0.2	3300		
	220		8.46	215	10.8	4.9							
TB25/90	10/6	G 1/2	3.54	90	9.3	4.2	0.14	220-240	50	0.38	2700		
	120	30/2	4.53	115	9.7	4.4	0.1	380-420	50	0.22	2700		
	170		6.50	165	10.1	4.6		460	60	0.22	3200		
	220		8.46	215	11.0	5.0							
	270	G 3/4	10.43	265	12.1	5.5							
	350		13.58	345	13.4	6.1							
TB40/90	13.5/6	G 3/4	3.74	95	9.5	4.3	0.16	220-240	50	0.44	2700		
	120	50/2	4.72	120	9.9	4.5	0.12	380-420	50	0.25	2700		
	170		6.69	170	10.4	4.7		460	60	0.25	3200		
	220		8.66	220	11.2	5.1							
	270		10.63	270	12.3	5.6							
	350		13.78	350	13.7	6.2							
TB63/90	20/6	G 3/4	4.13	105	10.6	4.8	0.3	220-240	50	0.71	2800		
	120	75/2	5.12	150	11.2	5.1	0.21	380-420	50	0.41	2800		
	170		7.09	180	12.1	5.5		460	60	0.41	3300		
	220		9.06	230	12.8	5.8							
	270		11.02	280	13.4	6.1							
	350		14.17	360	15.2	6.9							
TB100/120	24/6	G 3/4	5.12	150	11.5	5.2	0.32	220-240	50	0.76	2750		
	170	100/2	7.09	180	12.3	5.6	0.24	380-420	50	0.44	2750		
	220		9.06	230	13.0	5.9		460	60	0.44	3250		
	270		11.02	280	13.7	6.2							
	350		14.17	360	15.4	7.0							

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.



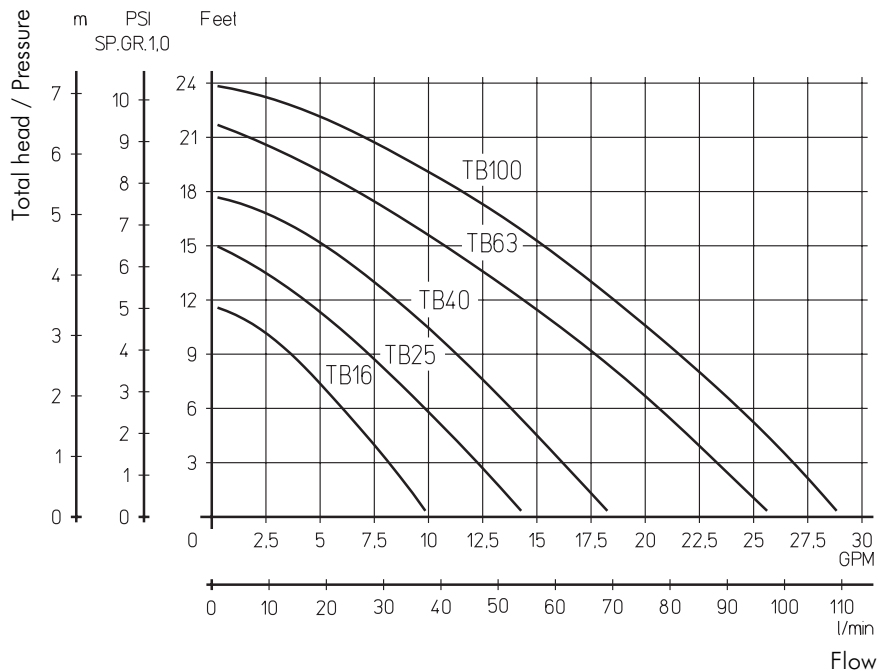
For position of terminal box, see mechanical features within the technical information section.
 Standard for immersion pumps: terminal box opposite to pump discharge = position 1.
 Terminal box can be rotated in 90° increments.
 On request G 3/4 can be supplied for TB25/90 to 220 mm depth of immersion.

Applications

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

Materials of construction

Pump body	cast iron
Cover	POM
Impeller	POM
Shaft	steel
Optional:	
Impeller	brass
Cover	cast iron
	cast iron
	cast iron with thread
Noise level / 50 Hz	
TB16...TB100	45 dBA



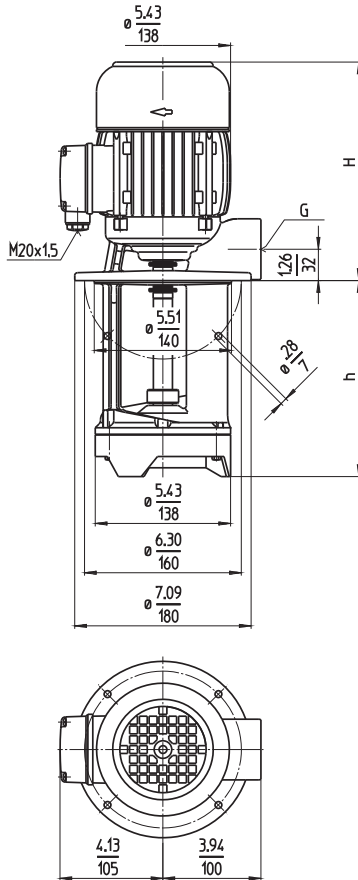
Immersion Pumps

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	25.4	11.5	0.67	208-230	60	2.5	3300
	255/2	223						0.5	460	60	1.4	3300
	270		10.63	270		27.6	12.5					
	350		13.78	350		29.8	13.5					
	440		17.32	440		32.0	14.5					
550		21.65	550		34.2	15.5						
TA250S200	90/6	8.8	7.87	200	G 1 ¼	26.5	12	0.85	208-230	60	3.0	3250
	345/2	223						0.63	460	60	1.5	3250
	270		10.63	270		28.7	13					
	350		13.78	350		30.9	14					
	440		17.32	440		33.1	15					
550		21.65	550		35.3	16						
TA400S200	105/6	9.5	7.87	200	G 1 ½	30.9	14	1.15	208-230	60	5.2	3300
	400/2	241						0.85	460	60	2.5	3300
	270		10.63	270		33.1	15					
	350		13.78	350		35.3	16					
	440		17.32	440		37.5	17					
550		21.65	550		39.7	18						
TA600S210	120/6	9.5	8.27	210	G 1 ½	33.1	15	1.25	208-230	60	5.4	3300
	460/2	241						0.92	460	60	2.7	3300
	280		11.02	280		35.3	16					
	360		14.17	360		37.5	17					
	450		17.72	450		39.7	18					
560		22.05	560		41.9	19						



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

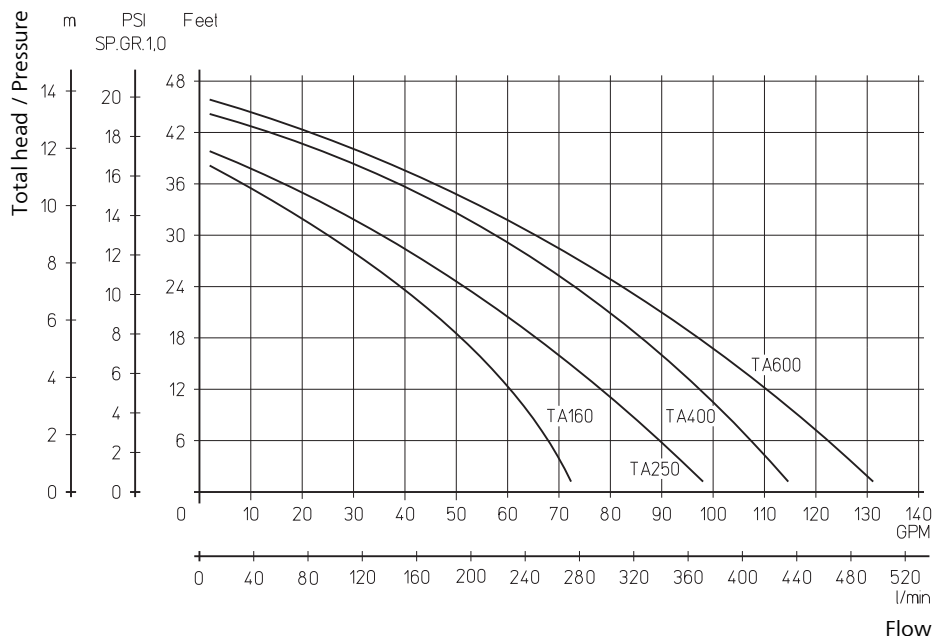
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C)
 - higher temperatures upon request

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



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

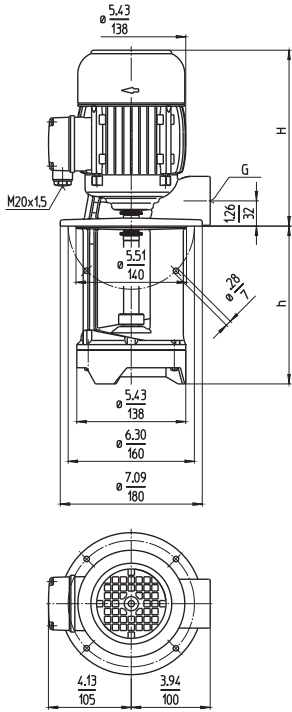


Immersion Pumps TA/STA200...430

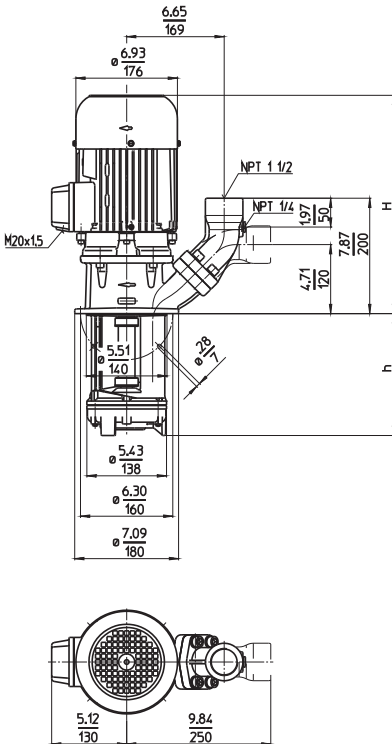


Semi-open impellers

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	25.4	11.5	0.75 0.55	208-230 460	60 60	2.70 1.45	3250 3250
	270		10.63	270		27.6	12.5					
	350		13.78	350		29.8	13.5					
	440		17.32	440		32.0	14.5					
	550		21.65	550		34.2	15.5					
TA320S200	60/32 240/9	9.5 241	7.87	200	G 1 1/2	33.1	15	1.25 0.92	208-230 460	60 60	5.4 2.7	3300 3300
	270		10.63	270		35.3	16					
	350		13.78	350		37.5	17					
	440		17.32	440		39.7	18					
	550		21.65	550		41.9	19					
STA430S210	120/24 460/7	14.0 355	8.27	210		59.5	27	2.3 1.7	208-230 460	60 60	8.2 4.1	3400 3400
	280		11.02	280		61.7	28					
	360		14.17	360		63.9	29					
	450		17.72	450		66.2	30					
	560		22.05	560		68.4	31					

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

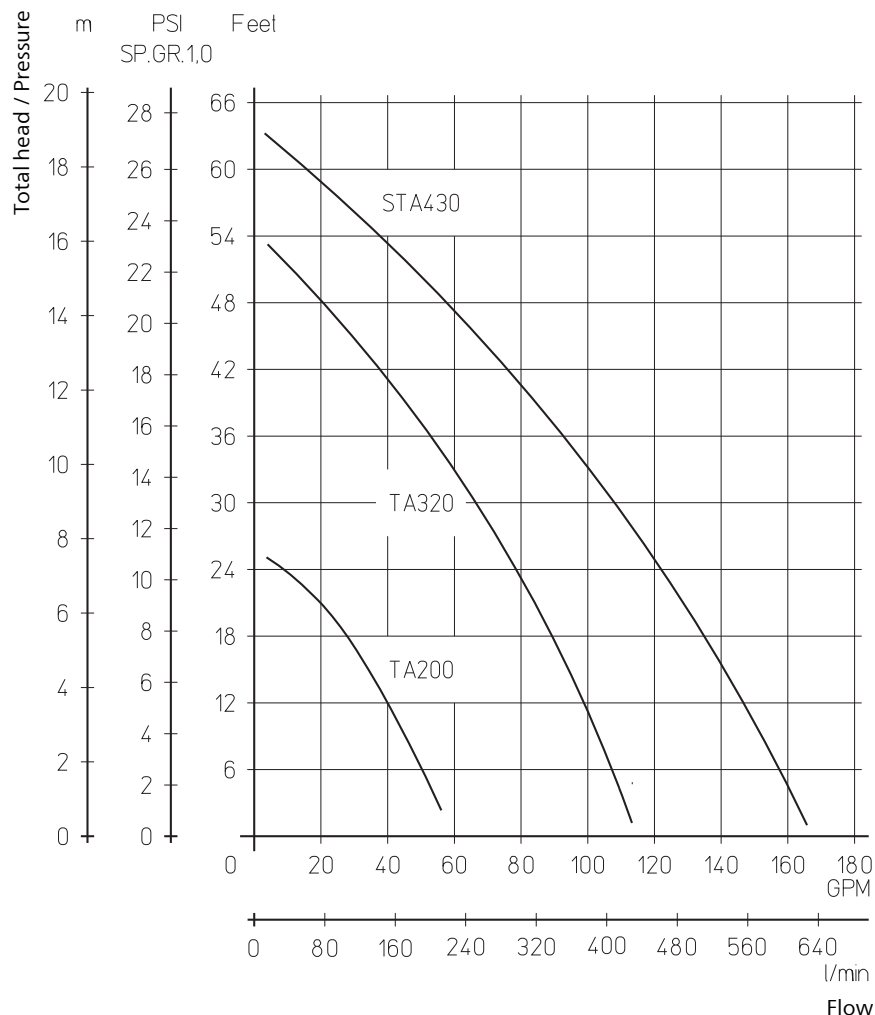
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C) TA200
 - 30...175 °F (0...80 °C) TA320...STA430
 - higher temperatures upon request

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



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



Immersion Pumps

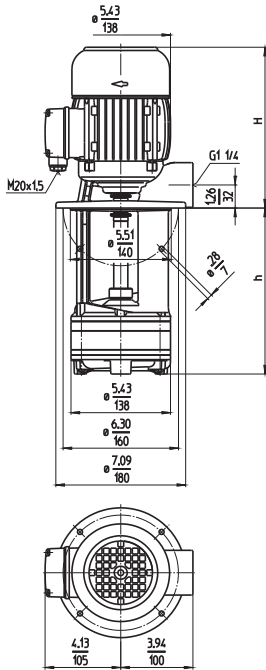
TE/STE141...146

Semi-open impellers

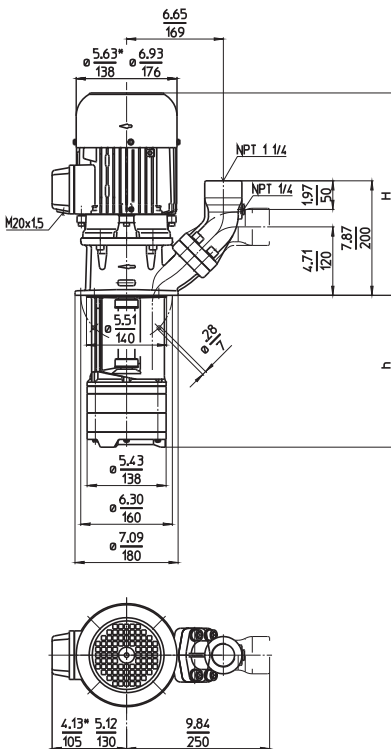


60 Hz

TE141, 142



STE141...146



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
TE141S200	30/30	8.8	7.87	200	27.6	12.5	0.67	208-230	60	2.5	3300
	270		10.63	270	29.8	13.5	0.5	460	60	1.4	3300
	350		13.78	350	32.0	14.5					
	440		17.32	440	34.2	15.5					
	550		21.65	550	38.6	17.5					
TE142S150	30/60	10.3	5.91	150	33.1	15	1.5	208-230	60	5.8	3300
	230		9.06	230	35.3	16	1.1	460	60	2.9	3300
	300		11.81	300	37.5	17					
	380		14.96	380	39.7	18					
	470		18.50	470	41.9	19					
	580		22.83	580	46.3	21					
STE141S120	30/30	11.5	4.72	120	30.9	14	0.73	208-230	60	2.8	3300
	200		7.87	200	33.1	15	0.54	460	60	1.4	3300
	270		10.63	270	35.3	16					
	350		13.78	350	37.5	17					
	440		17.32	440	39.7	18					
STE142S150	30/60	13.0	5.91	150	41.9	19	1.5	208-230	60	5.8	3300
	230		9.06	230	44.1	20	1.1	460	60	2.9	3300
	300		11.81	300	46.3	21					
	380		14.96	380	48.5	22					
	470		18.50	470	50.7	23					
STE143S190	30/88	14.0	7.28	185	61.7	28	2	208-230	60	7.6	3400
	270		10.43	265	63.9	29	1.5	460	60	3.8	3400
	340		13.19	335	66.2	30					
	420		16.34	415	68.4	31					
	510		19.88	505	70.6	32					
STE144S220	30/115	14.0	8.66	220	63.9	29	2.3	208-230	60	8.2	3400
	300		11.81	300	66.2	30	1.7	460	60	4.1	3400
	370		14.57	370	68.4	31					
	450		17.72	450	70.6	32					
	540		21.26	540	72.8	33					
STE145S270	30/162	15.6	10.63	270	75.0	34	3	208-230	60	10.6	3400
	350		13.78	350	77.2	35	2.2	460	60	5.3	3400
	420		16.54	420	79.4	36					
	500		19.69	500	81.6	37					
	590		23.23	590	83.8	38					
STE146S300	30/195	15.9	12.01	305	75.0	34	3.5	208-230	60	12.6	3400
	380		15.16	385	77.2	35	2.6	460	60	6.3	3400
	450		17.91	455	79.4	36					
	530		21.06	535	81.6	37					

Dimensions in Inches / mm
*) Dimensions STE141, 142



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.



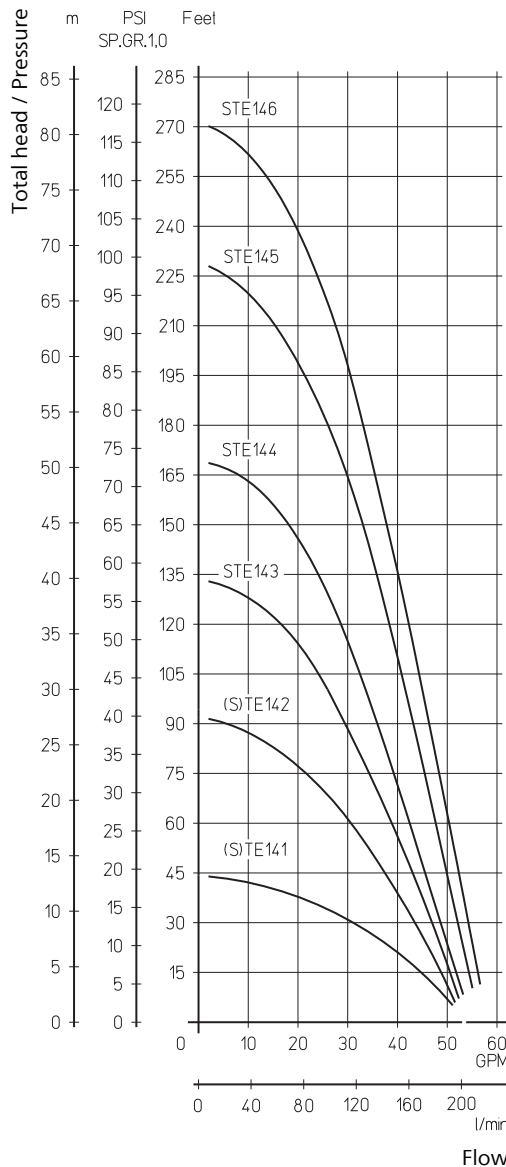
For position of terminal box, see mechanical features within the technical information section.

Applications

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

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
Other materials	on request
Noise level	
TE141...STE142	62 dBA
STE143...STE146	69 dBA



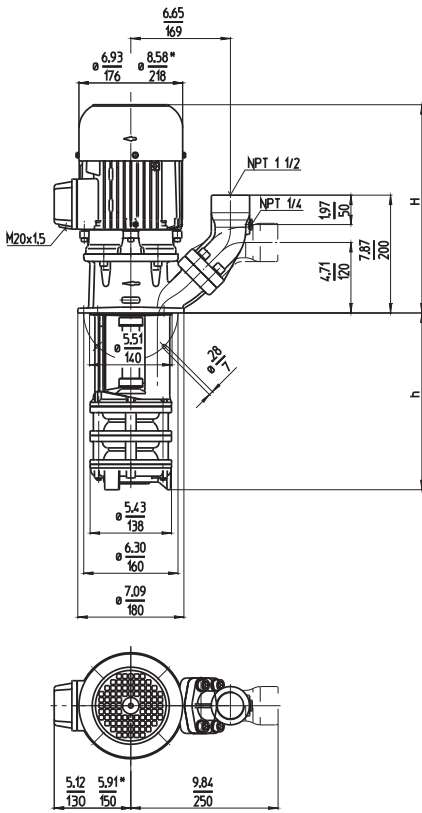
Immersion Pumps

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	h mm	Lbs	kg	AMPS	RPM					
STA212S170	40/69	14.0	6.69	170	50.7	23	2	208-230	60	7.6	3400		
	160/20	355					1.5	460	60	3.8	3400		
	250		9.84	250	52.9	24							
	320		12.60	320	55.1	25							
	400		15.75	400	57.3	26							
	490		19.29	490	59.5	27							
600		23.62	600	61.7	28								
STA213S220	40/102	15.6	8.66	220	83.8	38	3	208-230	60	10.6	3400		
	160/30	395					2.2	460	60	5.3	3400		
	300		11.81	300	86.0	39							
	370		14.57	370	88.2	40							
	450		17.72	450	90.4	41							
	540		21.26	540	92.6	42							
	650		25.59	650	94.8	43							
	850		33.46	850	99.2	45							
1000		39.37	1000	101.4	46								
STA322S170	60/70	15.6	6.69	170	81.6	37	3	208-230	60	10.6	3400		
	250/20	395					2.2	460	60	5.3	3400		
	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	90.4	41							
	600		23.62	600	92.6	42							
	800		31.50	800	97.0	44							
950		37.40	950	99.2	45								
STA323S220	60/105	15.9	8.66	220	86.0	39	3.5	208-230	60	12.6	3400		
	250/30	405					2.6	460	60	6.3	3400		
	300		11.81	300	88.2	40							
	370		14.57	370	90.4	41							
	450		17.72	450	92.6	42							
	540		21.26	540	94.8	43							
	650		25.59	650	97.0	44							
	850		33.46	850	99.2	45							
1000		39.37	1000	101.4	46								
STA432S200	100/72	17.5	7.68	195	103.6	47	4.4	208-230	60	16	3450		
	400/22	445					3.3	460	60	8	3450		
	280		10.83	275	105.8	48							
	350		13.58	345	108.0	49							
	430		16.73	425	110.2	50							
	520		20.28	515	112.5	51							
	630		24.61	625	114.7	52							
	830		32.48	825	119.1	54							
1000		39.17	995	121.3	55								
STA433S260	100/107	17.5	10.24	260	114.7	52	5.4	208-230	60	19.0	3450		
	400/32	445					4.0	460	60	9.5	3450		
	340		13.39	340	116.9	53							
	410		16.14	410	119.1	54							
	490		19.29	490	121.3	55							
	580		22.83	580	123.5	56							
	690		27.17	690	127.9	58							
	890		35.04	890	130.1	59							
1040		40.94	1040	132.3	60								



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

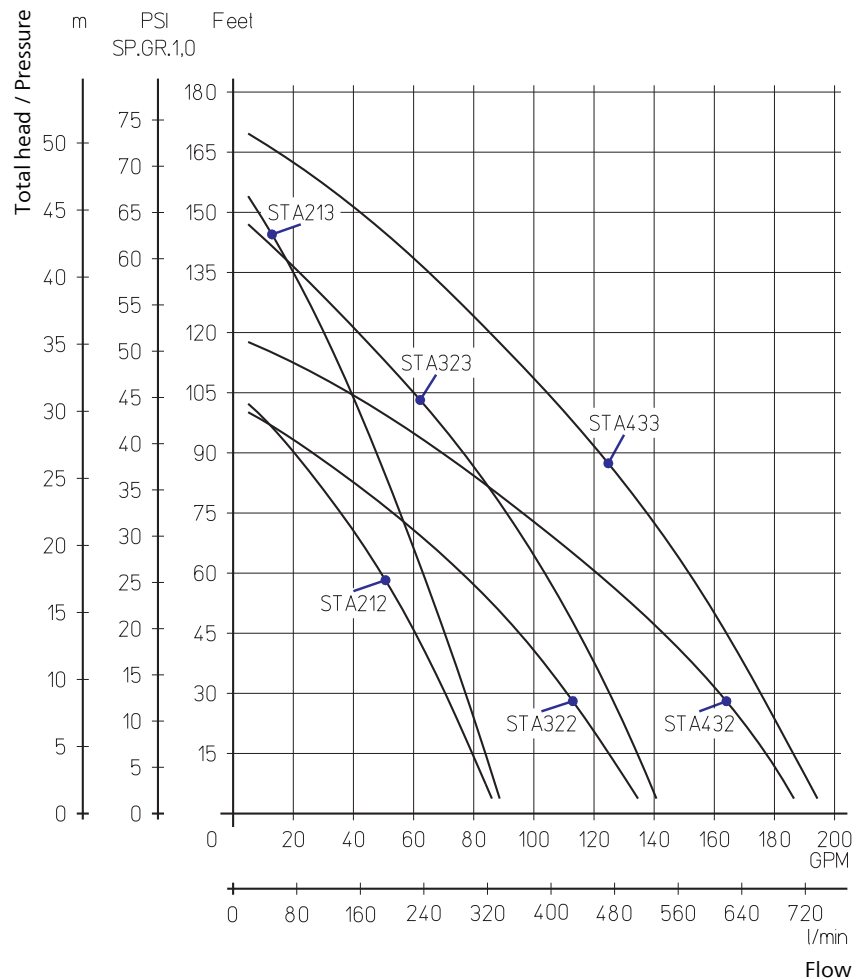
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

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



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

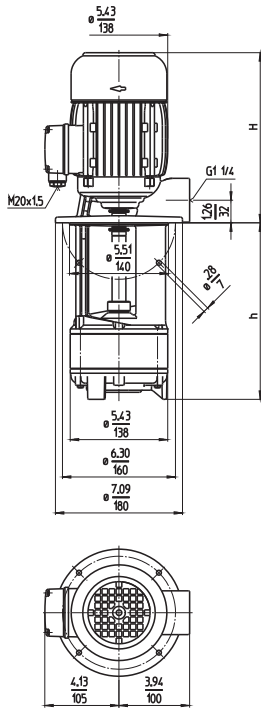


Immersion Pumps TA/STA301...306

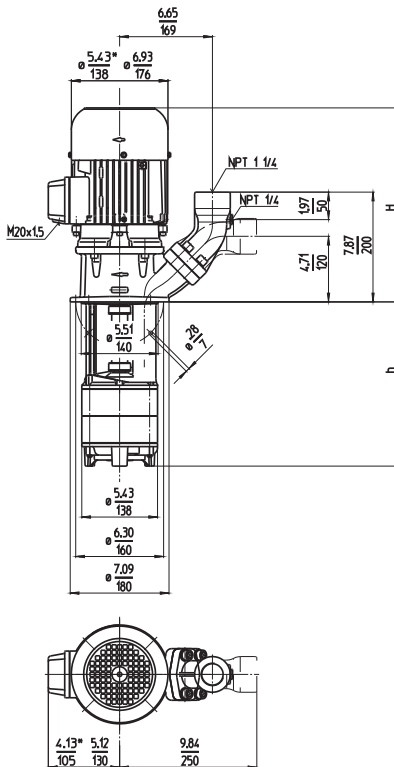


Semi-open impellers

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	10.3	6.69	170	36.4	16.5	1.5	208-230	60	5.8	3300
	250		9.84	250	38.6	17.5	1.1	460	60	2.9	3300
	320		12.60	320	40.8	18.5					
	400		15.75	400	43.0	19.5					
	490		19.29	490	45.2	20.5					
	600		23.62	600	47.4	21.5					
STA301S120	40/30	11.5	4.72	120	28.7	13	0.73	208-230	60	2.8	3300
	200		7.87	200	30.9	14	0.54	460	60	1.4	3300
	270		10.63	270	33.1	15					
	350		13.78	350	35.3	16					
	440		17.32	440	37.5	17					
	550		21.65	550	39.7	18					
STA302S170	40/46	13.0	6.69	170	44.1	20	1.5	208-230	60	5.8	3300
	250		9.84	250	46.3	21	1.1	460	60	2.9	3300
	320		12.60	320	48.5	22					
	400		15.75	400	50.7	23					
	490		19.29	490	52.9	24					
	600		23.62	600	55.1	25					
STA303S220	40/76	14.0	8.66	220	72.8	33	2	208-230	60	7.6	3400
	300		11.81	300	75.0	34	1.5	460	60	3.8	3400
	370		14.57	370	77.2	35					
	450		17.72	450	79.4	36					
	540		21.26	540	81.6	37					
	650		25.59	650	83.8	38					
	850		33.46	850	88.2	40					
	1000		39.37	1000	90.4	41					
STA304S270	40/105	15.6	10.63	270	88.2	40	2.5	208-230	60	9.8	3400
	350		13.78	350	90.4	41	1.9	460	60	4.9	3400
	420		16.54	420	92.6	42					
	500		19.69	500	94.8	43					
	590		23.23	590	97.0	44					
	700		27.56	700	99.2	45					
	900		35.43	900	103.6	47					
	1050		41.34	1050	105.8	48					
STA305S320	40/135	15.6	12.60	320	94.8	43	3	208-230	60	10.6	3400
	400		15.75	400	97.0	44	2.2	460	60	5.3	3400
	470		18.50	470	99.2	45					
	550		21.65	550	101.4	46					
	640		25.20	640	103.6	47					
	750		29.53	750	105.8	48					
	950		37.40	950	110.2	50					
	1100		43.31	1100	112.5	51					
STA306S370	40/165	15.9	14.57	370	105.8	48	3.5	208-230	60	12.6	3400
	450		17.72	450	108.0	49	2.6	460	60	6.3	3400
	520		20.47	520	110.2	50					
	600		23.62	600	112.5	51					
	690		27.17	690	116.9	53					
	800		31.50	800	119.1	54					
	1000		39.37	1000	121.3	55					

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



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.



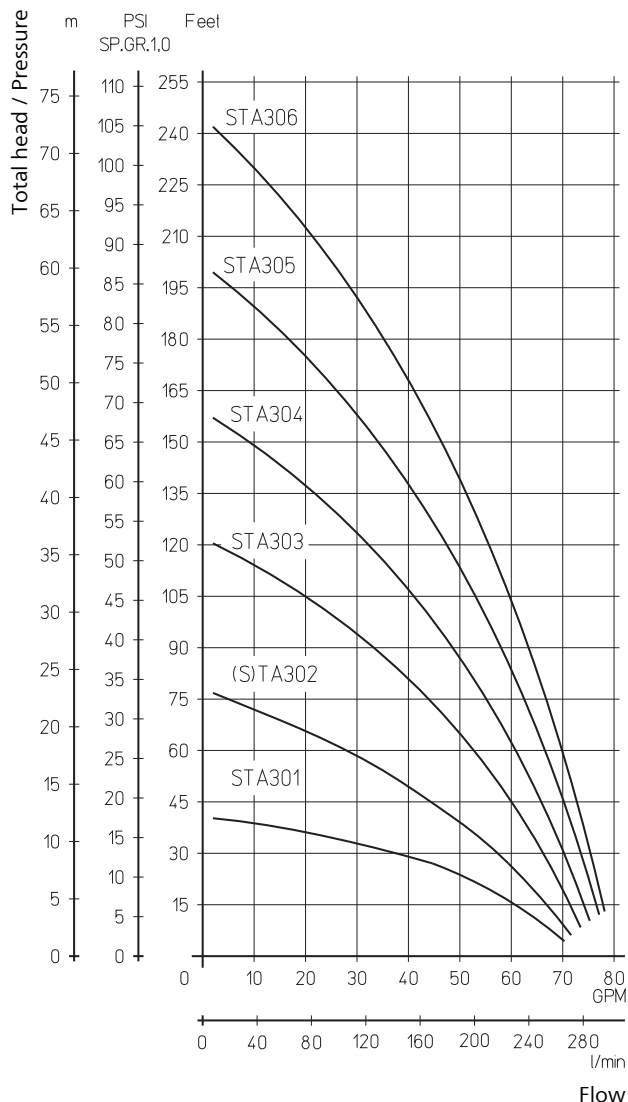
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...140 °F (0...60 °C) 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...STA306	69 dBA



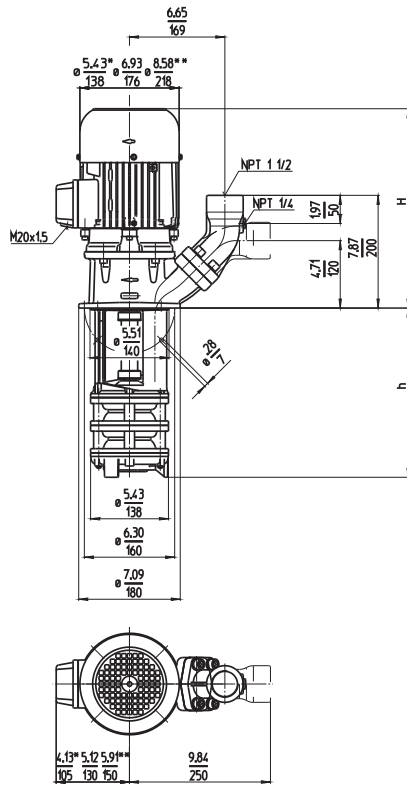
Immersion Pumps

STA401...407

Semi-open impellers



STA401...407



Dimensions in Inches / mm

*) Dimensions STA401

**) Dimensions STA406, 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	12.2	4.72	120	33.1	15	1.15	208-230	60	5.2	3300
	200		7.87	200	35.3	16	0.85	460	60	2.5	3300
	270		10.63	270	37.5	17					
	350		13.78	350	39.7	18					
	440		17.32	440	41.9	19					
	550		21.65	550	44.1	20					
	750		29.53	750	48.5	22					
900		35.43	900	50.7	23						
STA402S170	60/45	14.0	6.69	170	66.2	30	1.75	208-230	60	6	3400
	250		9.84	250	68.4	31	1.3	460	60	3	3400
	320		12.60	320	70.6	32					
	400		15.75	400	72.8	33					
	490		19.29	490	75.0	34					
	600		23.62	600	77.2	35					
	800		31.50	800	81.6	37					
950		37.40	950	83.8	38						
STA403S220	60/70	14.0	8.66	220	70.6	32	2.3	208-230	60	8.2	3400
	300		11.81	300	72.8	33	1.7	460	60	4.1	3400
	370		14.57	370	75.0	34					
	450		17.72	450	77.2	35					
	540		21.26	540	79.4	36					
	650		25.59	650	81.6	37					
	850		33.46	850	86.0	39					
1000		39.37	1000	88.2	40						
STA404S270	60/92	15.6	10.63	270	83.8	38	3	208-230	60	10.6	3400
	350		13.78	350	86.0	39	2.2	460	60	5.3	3400
	420		16.54	420	88.2	40					
	500		19.69	500	90.4	41					
	590		23.23	590	92.6	42					
	700		27.56	700	94.8	43					
	900		35.43	900	99.2	45					
1050		41.34	1050	101.4	46						
STA405S320	60/120	15.9	12.60	320	92.6	42	3.5	208-230	60	12.6	3400
	400		15.75	400	94.8	43	2.6	460	60	6.3	3400
	470		18.50	470	97.0	44					
	550		21.65	550	99.2	45					
	640		25.20	640	101.4	46					
	750		29.53	750	103.6	47					
	950		37.40	950	108.0	49					
1100		43.31	1100	110.2	50						
STA406S370	60/145	17.5	14.57	370	121.3	55	4.4	208-230	60	16	3450
	450		17.72	450	123.5	56	3.3	460	60	8	3450
	520		20.47	520	125.7	57					
	600		23.62	600	127.9	58					
	690		27.17	690	130.1	59					
	800		31.50	800	132.3	60					
	1000		39.37	1000	134.5	61					
STA407S420	60/170	17.5	16.54	420	130.1	59	5.4	208-230	60	19.0	3450
	500		19.69	500	132.3	60	4.0	460	60	9.5	3450
	570		22.44	570	134.5	61					
	650		25.59	650	136.7	62					
	740		29.13	740	138.9	63					
	850		33.46	850	141.1	64					



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.



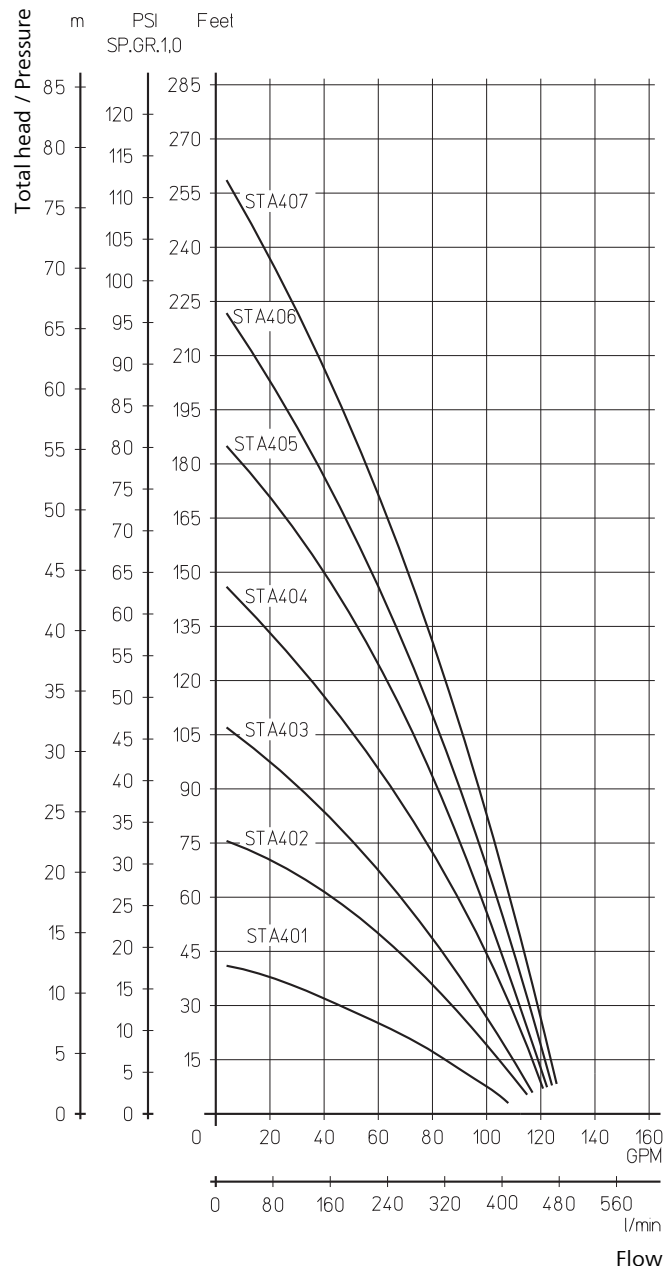
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - 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...STA405	69 dBA
STA406...STA407	73 dBA



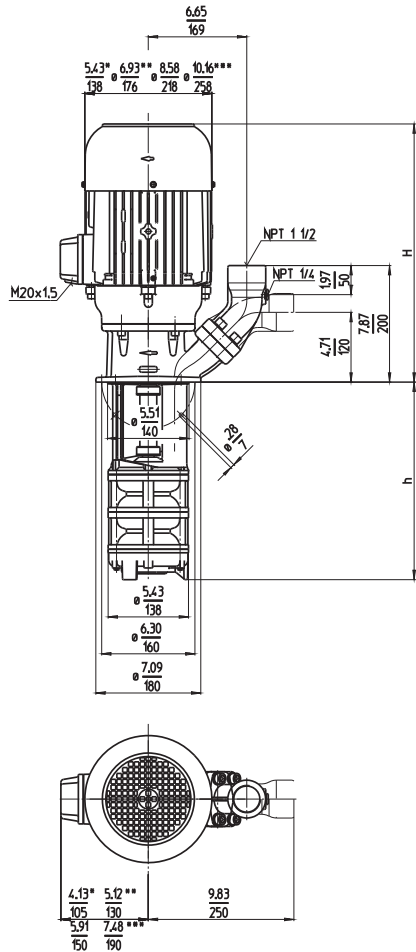
Immersion Pumps

STA601...608

Semi-open impellers



STA601...608



Dimensions in Inches / mm

- *) Dimensions STA601
- **) Dimensions STA602
- ***) Dimensions STA605, 607, 608

Type	Flow at head		Height		Depth of im- mersion		Weight		Power 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	12.2	5.12	130	35.3	16	1.25	208-230	60	5.4	3300		
210			8.27	210	37.5	17	0.92	460	60	2.7	3300		
280			11.02	280	39.7	18							
360			14.17	360	41.9	19							
450			17.72	450	44.1	20							
560			22.05	560	46.3	21							
760			29.92	760	55.1	25							
910			35.83	910	57.3	26							
STA602S200	100/44	15.6	7.68	195	75.0	34	3	208-230	60	10.6	3400		
280			10.83	275	77.2	35	2.2	460	60	5.3	3400		
350			13.58	345	79.4	36							
430			16.73	425	81.6	37							
520			20.28	515	83.8	38							
630			24.61	625	88.2	40							
830			32.48	825	92.6	42							
1000			39.17	995	94.8	43							
STA603S260	100/60	17.5	10.24	260	108.0	49	4.4	208-230	60	16	3450		
340			13.39	340	110.2	50	3.3	460	60	8	3450		
410			16.14	410	112.5	51							
490			19.29	490	114.7	52							
580			22.83	580	116.9	53							
690			27.17	690	119.1	54							
890			35.04	890	123.5	56							
1040			40.94	1040	125.7	57							
STA604S330	100/88	17.5	12.80	325	119.1	54	5.4	208-230	60	19.0	3450		
410			15.94	405	121.3	55	4.0	460	60	9.5	3450		
480			18.70	475	123.5	56							
560			21.85	555	125.7	57							
650			25.39	645	127.9	58							
760			29.72	755	130.1	59							
960			37.60	955	134.5	61							
1110			43.50	1105	136.7	62							
STA605S390	100/110	18.9	15.35	390	158.8	72	7.4	208-230	60	25.0	3450		
470			18.50	470	161.0	73	5.5	460	60	12.5	3450		
540			21.26	540	163	74							
620			24.41	620	165	75							
710			27.95	710	168	76							
820			32.28	820	170	77							
1020			40.16	1020	172	78							
STA607S520	100/170	23.1	20.47	520	227	103	11.5	460	60	14.2	3550		
600			23.62	600	229	104	8.6						
670			26.38	670	232	105							
750			29.53	750	234	106							
840			33.07	840	236	107							
950			37.40	950	238	108							
STA608S580	100/215	23.1	22.83	580	249	113	13.8	460	60	16.9	3550		
660			25.98	660	251	114	10.3						
730			28.74	730	254	115							
810			31.89	810	256	116							
900			35.43	900	258	117							
1010			39.76	1010	260	118							



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.



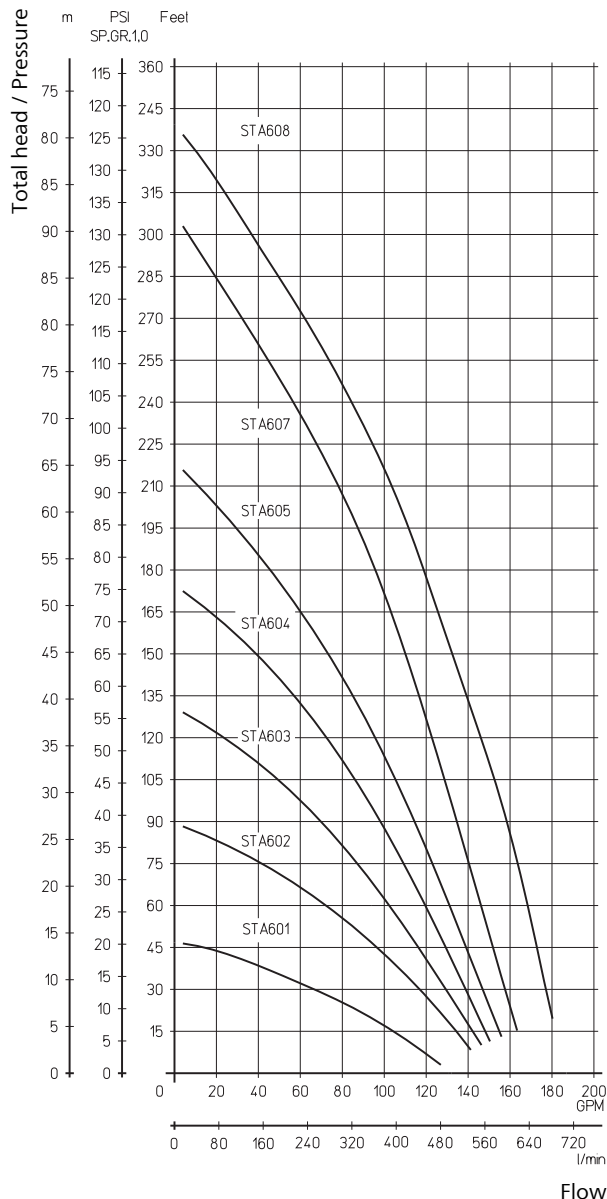
For position of terminal box, see mechanical features within the technical information section.

Applications

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

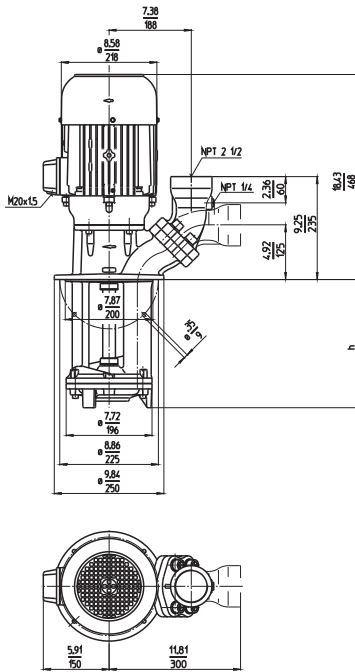


Immersion Pumps

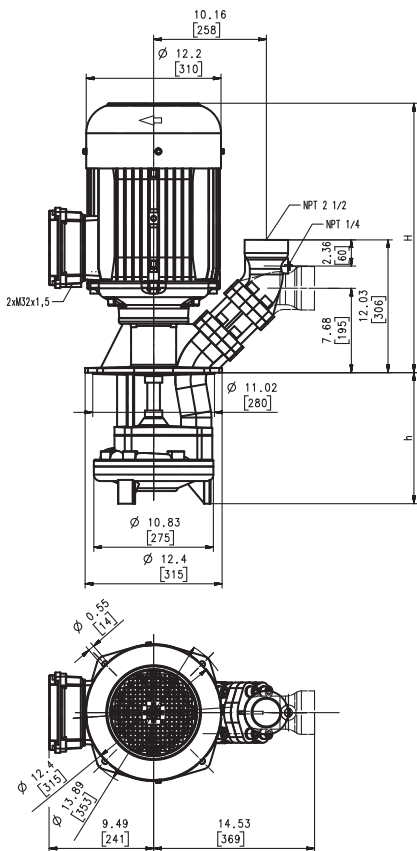
STA630...1130

Semi-open impellers

STA630, 830



STA1130



Type	Flow at head	Height	Depth of immersion		Weight		Power 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
STA630S200	175/60	18.4	7.87	200	158.8	72	5.4	208-230	60	19.0	3450
	600/20	468					4.0	460	60	9.5	3450
	300		11.81	300	165	75					
	430		16.93	430	172	78					
	550		21.65	550	181	82					
	750		29.53	750	190	86					
STA830S210	200/72	18.4	8.27	210	161.0	73	5.4	208-230	60	19.0	3450
	800/22	468					4.0	460	60	9.5	3450
	310		12.20	310	168	76					
	440		17.32	440	174	79					
	560		22.05	560	183	83					
	760		29.92	760	192	87					
STA1130S300	400/75	24.4	11.81	300	306	139	17	460	60	21.5	3560
	1400/24	620					12.6				
	430		16.93	430	311	141					
	550		21.65	550	318	144					
	800		31.50	800	331	150					
	1050		41.34	1050	335	152					

Discharge port with NPT 2 inches available upon request
 Diminsions 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

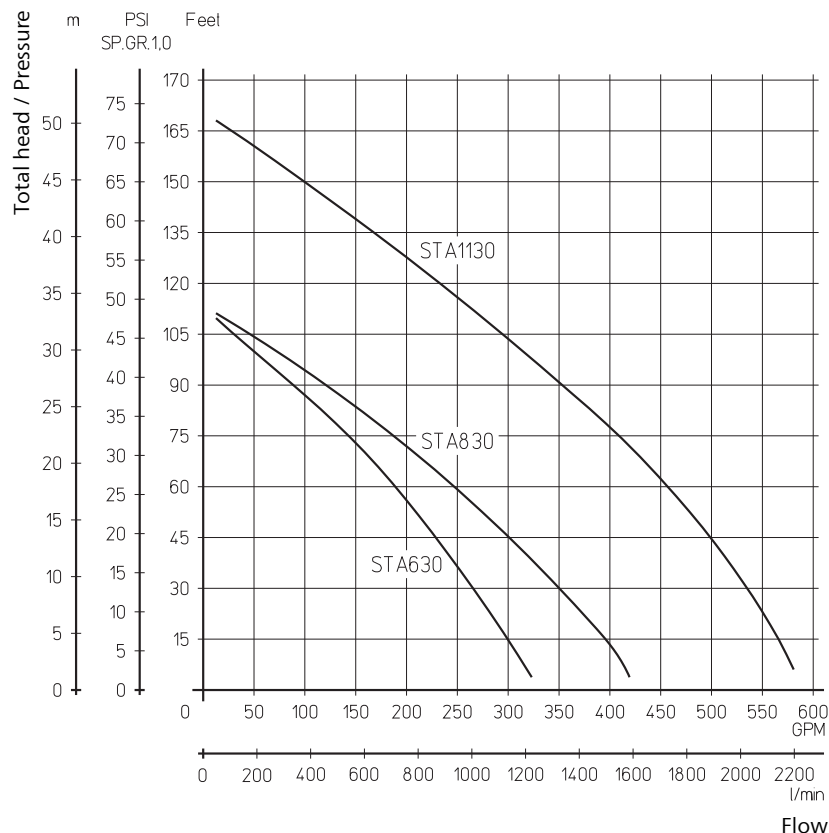
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

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 (-6 dBA)



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



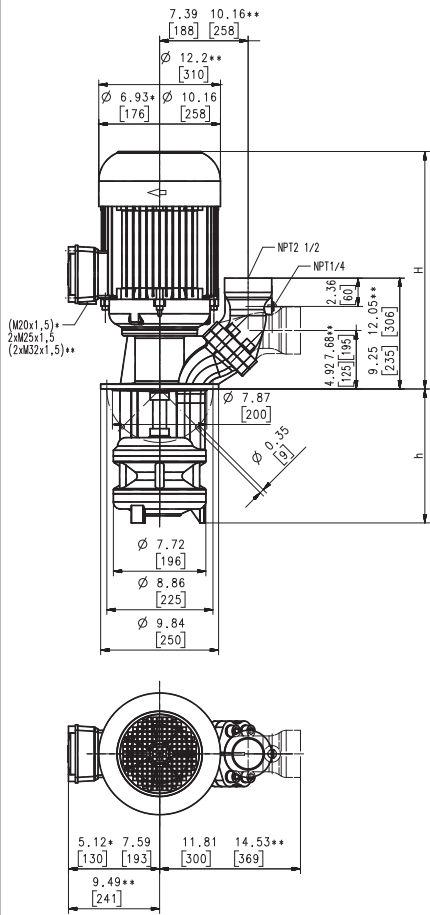
Immersion Pumps

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 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 inch h mm	Lbs kg	Lbs kg	AMPS	RPM					
STA901S200	175/42	16.9	7.87	200	108.0	49	3.5	208-230	60	12.6	3400		
	700/11	429					2.6	460	60	6.3	3400		
	300		11.81	300	112.5	57							
	430		16.93	430	116.9	53							
	550		21.65	550	123.5	56							
	750		29.53	750	134.5	67							
STA902S270	175/95	19.8	10.63	270	181	82	7.4	208-230	60	25.0	3450		
	700/28	504					5.5	460	60	12.5	3450		
	370		14.57	370	187	85							
	500		19.69	500	196	89							
	620		24.41	620	205	93							
	820		32.28	820	216	98							
STA903S340	175/145	24.1	13.39	340	260	118	13.8	460	60	16.9	3550		
	700/42	612					10.3						
	440		17.32	440	267	121							
	570		22.44	570	276	125							
	690		27.17	690	284	129							
	890		35.04	890	295	134							
STA904S410	175/190	24.4	16.14	410	318	144	17	460	60	21.5	3560		
	700/55	620					12.6						
	510		20.08	510	324	147							
	640		25.20	640	333	151							
	760		29.92	760	342	155							
	960		37.80	960	353	160							
1190		46.85	1190	364	165								



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.



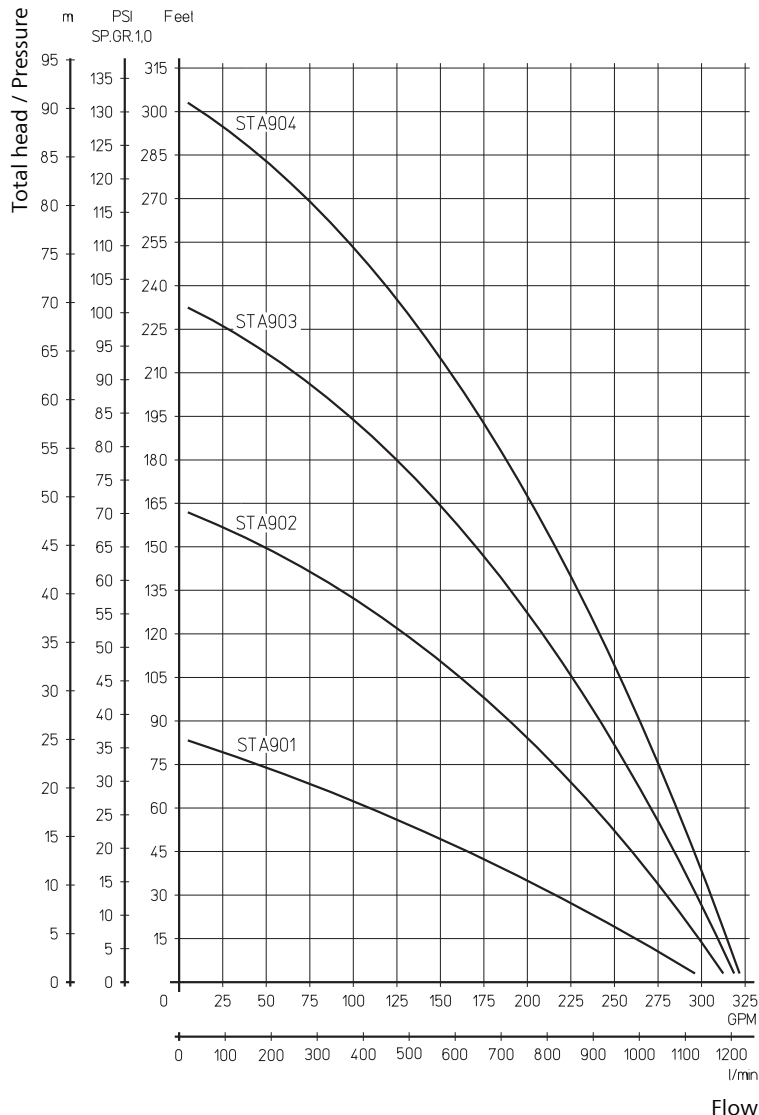
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - 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	71 dBA
STA902	74 dBA
STA903	78 dBA
STA904	79 dBA



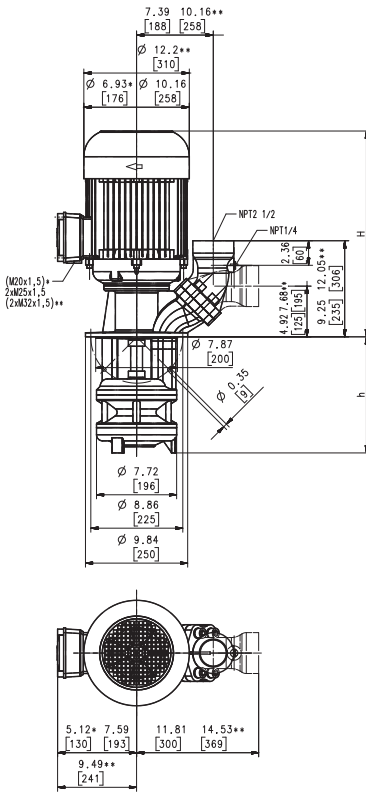
Immersion Pumps

STA1001...1006

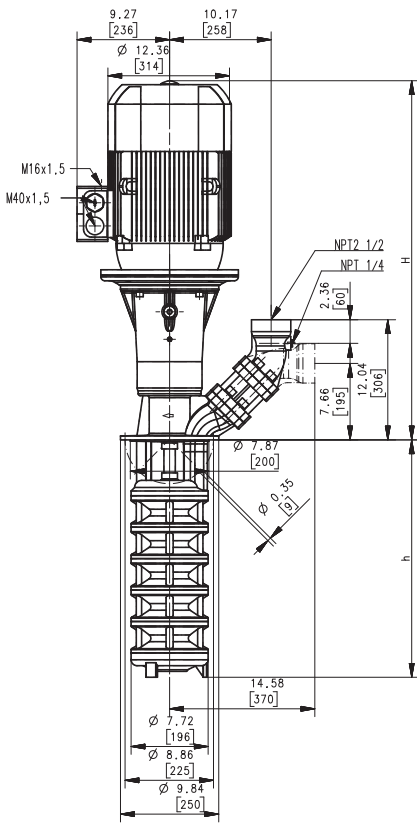
Semi-open impellers



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	16.9	8.27	210	110.2	50	3.5	208-230	60	12.6	3400
		800/11	429				2.6	460	60	6.3	3400
	310			12.20	310	114.7	52				
	440			17.32	440	119.1	54				
	560			22.05	560	125.7	57				
	760			29.92	760	136.7	62				
STA1002S290	200/75	19.8	11.42	290	183	83	7.4	208-230	60	25.0	3450
		800/22	504				5.5	460	60	12.5	3450
	390			15.35	390	190	86				
	520			20.47	520	198	90				
	640			25.20	640	207	94				
	840			33.07	840	218	99				
STA1003S370	200/115	24.1	14.57	370	262	119	13.8	460	60	16.9	3550
		800/33	612				10.3				
	470			18.50	470	269	122				
	600			23.62	600	278	126				
	720			28.35	720	287	130				
	920			36.22	920	298	135				
STA1004S450	200/165	24.4	17.72	450	331	150	20	460	60	24.8	3560
		800/47	620				15.0				
	550			21.65	550	337	153				
	680			26.77	680	346	157				
	800			31.50	800	355	161				
	1000			39.37	1000	366	166				
STA1006S610	200/265	38.3	24.02	610	392	178	29	460	60	32	3555
		800/76	974				21.3				
	710			27.95	710	399	181				
	840			33.07	840	408	185				
	960			37.80	960	417	189				

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.



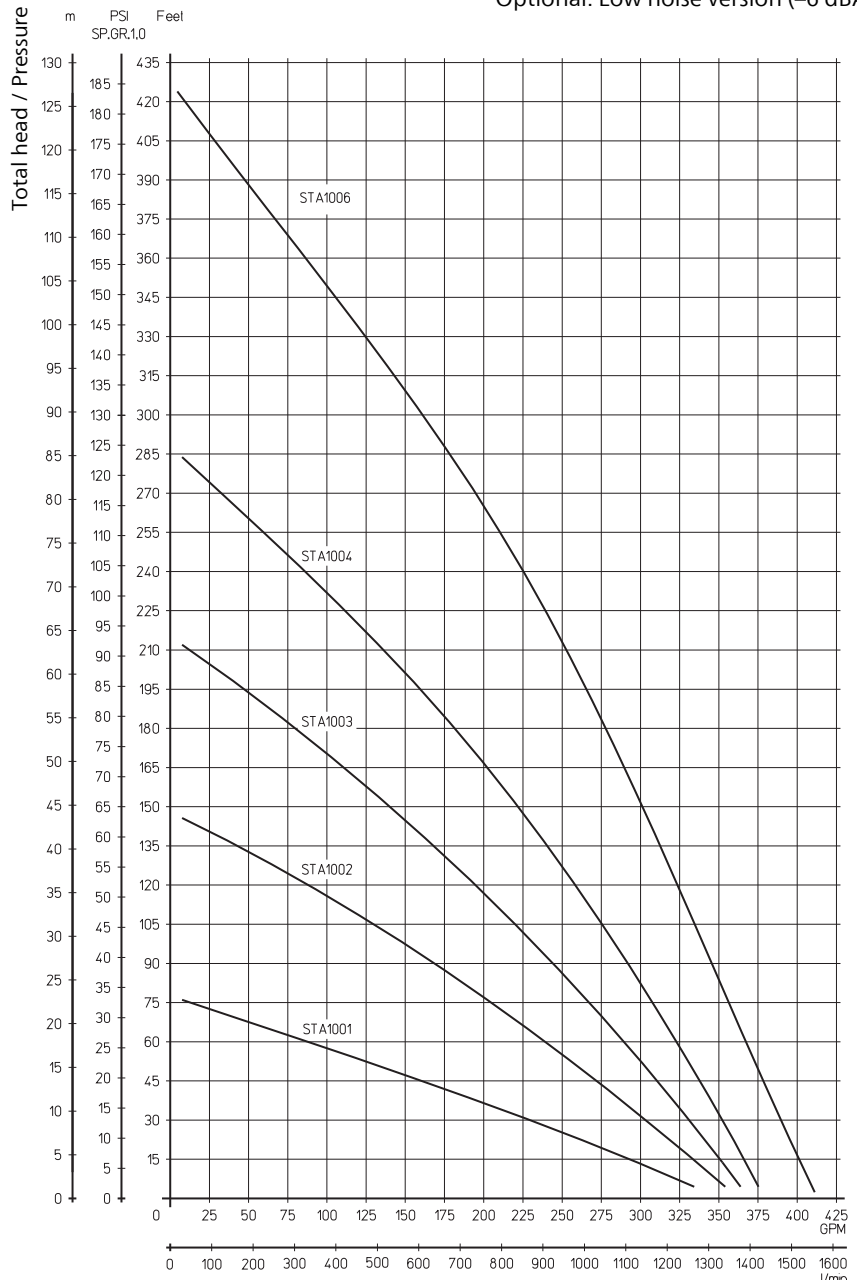
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - 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	70 dBA
STA1002	73 dBA
STA1003	76 dBA
STA1004	79 dBA
STA1006	80 dBA
Optional: Low noise version (-6 dBA)	



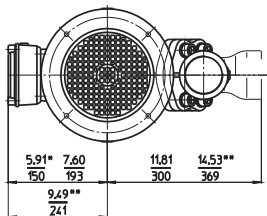
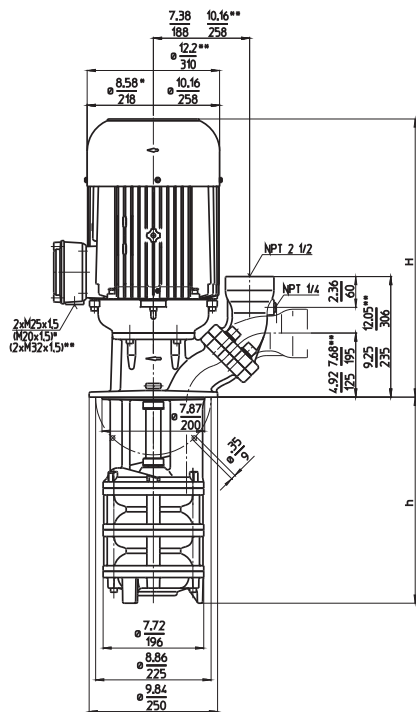
Immersion Pumps

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	18.4	8.27	210	125.7	57	5.4	208-230	60	19.0	3450		
	900/12	468					4.0	460	60	9.5	3450		
	310		12.20	310	130.1	59							
	440		17.32	440	134.5	61							
	560		22.05	560	141.1	64							
	760		29.92	760	152.1	69							
990		38.98	990	168	76								
1110		43.70	1110	174	79								
STA1302S290	250/90	24.1	11.42	290	245	111	13.8	460	60	16.9	3550		
	900/28	612					10.3						
	390		15.35	390	251	114							
	520		20.47	520	260	118							
	640		25.20	640	269	122							
	840		33.07	840	280	127							
1070		42.13	1070	295	134								
STA1303S370	250/137	24.4	14.57	370	304	138	17	460	60	21.5	3560		
	900/42	620					12.6						
	470		18.50	470	311	141							
	600		23.62	600	324	147							
	720		28.35	720	329	149							
	920		36.22	920	340	154							
1150		45.28	1150	355	161								



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

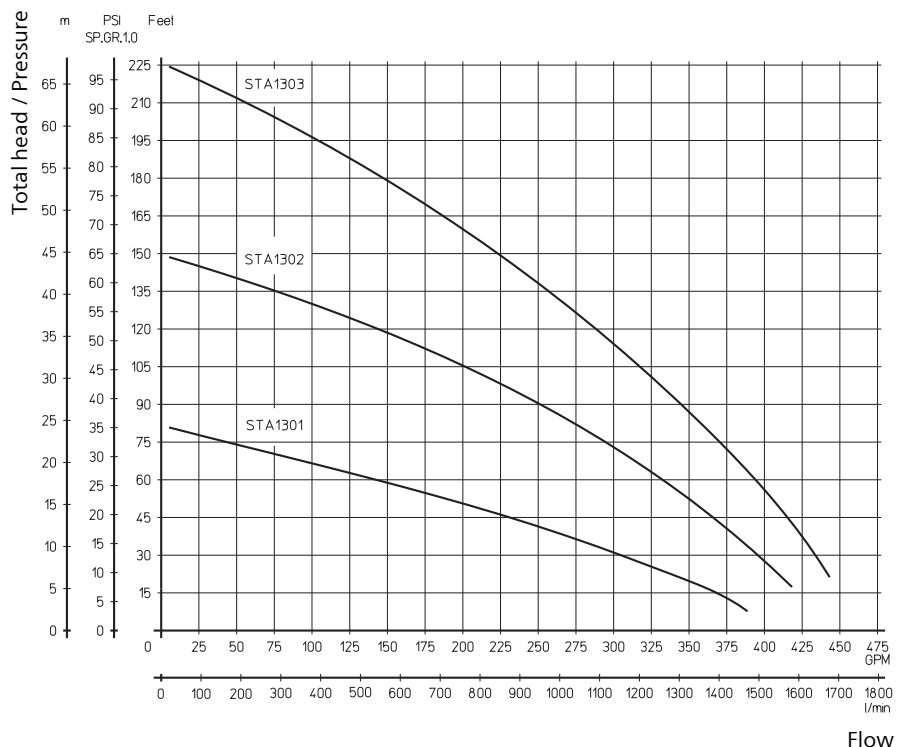
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)
 - higher temperatures upon request

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



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



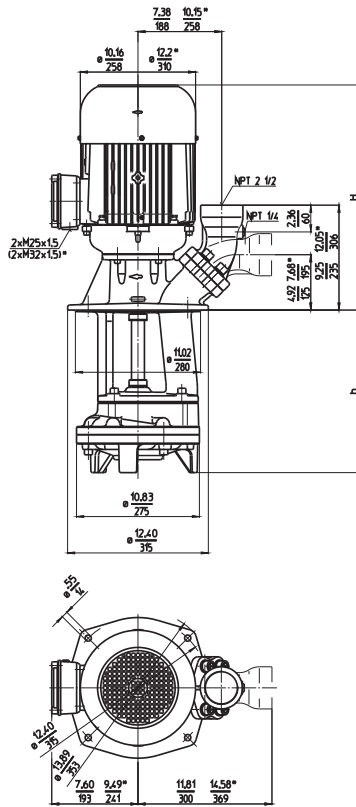
Immersion Pumps

STA1600...2500

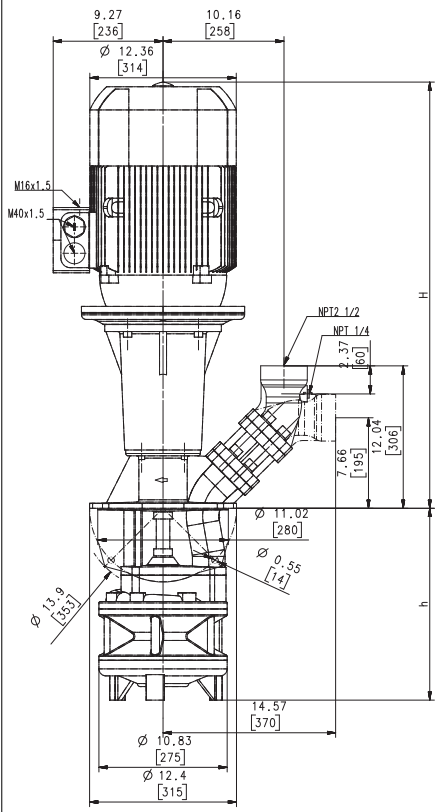
Semi-open impellers



STA1600...2000



STA1602...2500



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	kg						
STA1600S300	350/58 1300/17	24.1 612	11.81 300	256	116	13.8 10.3	460	60	16.9	3550	
	430		16.93	430	260						118
	550		21.65	550	265						120
	800		31.50	800	278						126
	1050		41.34	1050	282						128
STA2000S300	400/75 1600/22	24.4 620	11.81 300	313	142	17 12.6	460	60	21.5	3560	
	430		16.93	430	318						144
	550		21.65	550	324						147
	800		31.50	800	337						153
	1050		41.34	1050	342						155
STA1602S410	350/118 1300/37	38.3 974	16.14 410	415	188	29 21.3	460	60	32	3555	
	540		21.26	540	419						190
	660		25.98	660	423						192
	910		35.83	910	437						198
	1160		45.67	1160	441						200
STA2002S410	400/152 1600/44	38.5 978	16.14 410	549	249	34 25.3	460	60	38.9	3550	
	540		21.26	540	558						253
	660		25.98	660	567						257
	910		35.83	910	587						266
	1160		45.67	1160	595						270
STA2500S330	500/105 2000/28	38.3 974	12.99 330	346	157	29 21.3	460	60	32	3555	
	460		18.11	460	351						159
	580		22.83	580	355						161
	830		32.68	830	390						177
	1080		42.52	1080	395						179

Dimensions in Inches / mm
 *) Dimensions STA2000
 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.



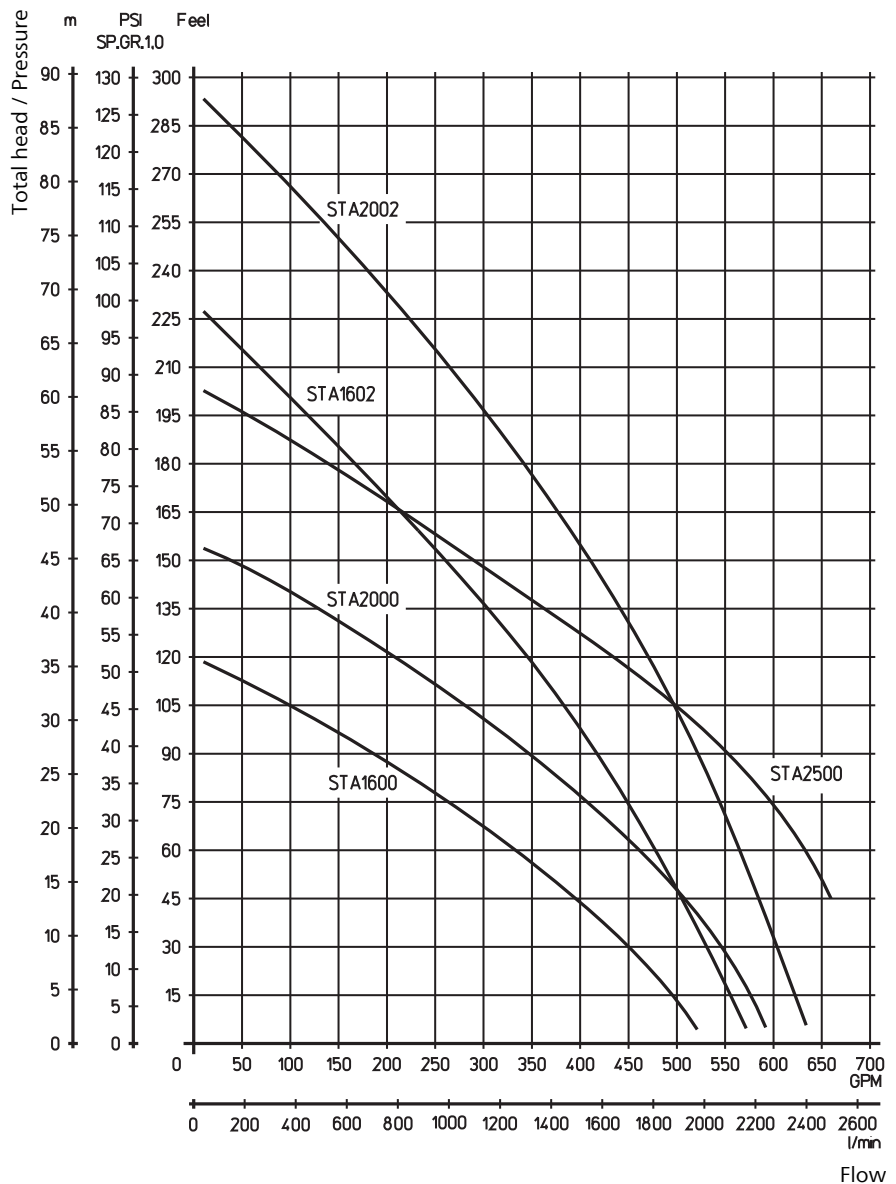
For position of terminal box, see mechanical features within the technical information section.

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	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 (-6 dBA)	

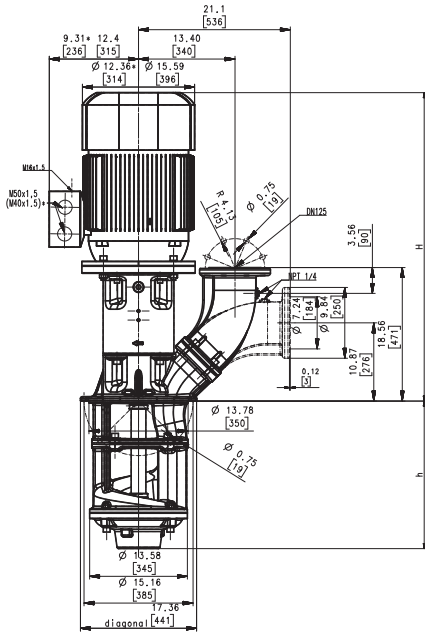


Immersion Pumps STA3600...4500

Semi-open impellers



STA3600...4500



Dimensions in Inches / mm
*) Dimensions for STA3600

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					
STA3600S520	900/60 3400/20	41.0 1041	20.51	521	730	331	34 25.3	460	60	38.9	3550		
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	56 41.5	460	60	63	3555		
720			28.39	721	977	443							
920			36.26	921	1010	458							
1270			50.04	1271	1153	523							



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

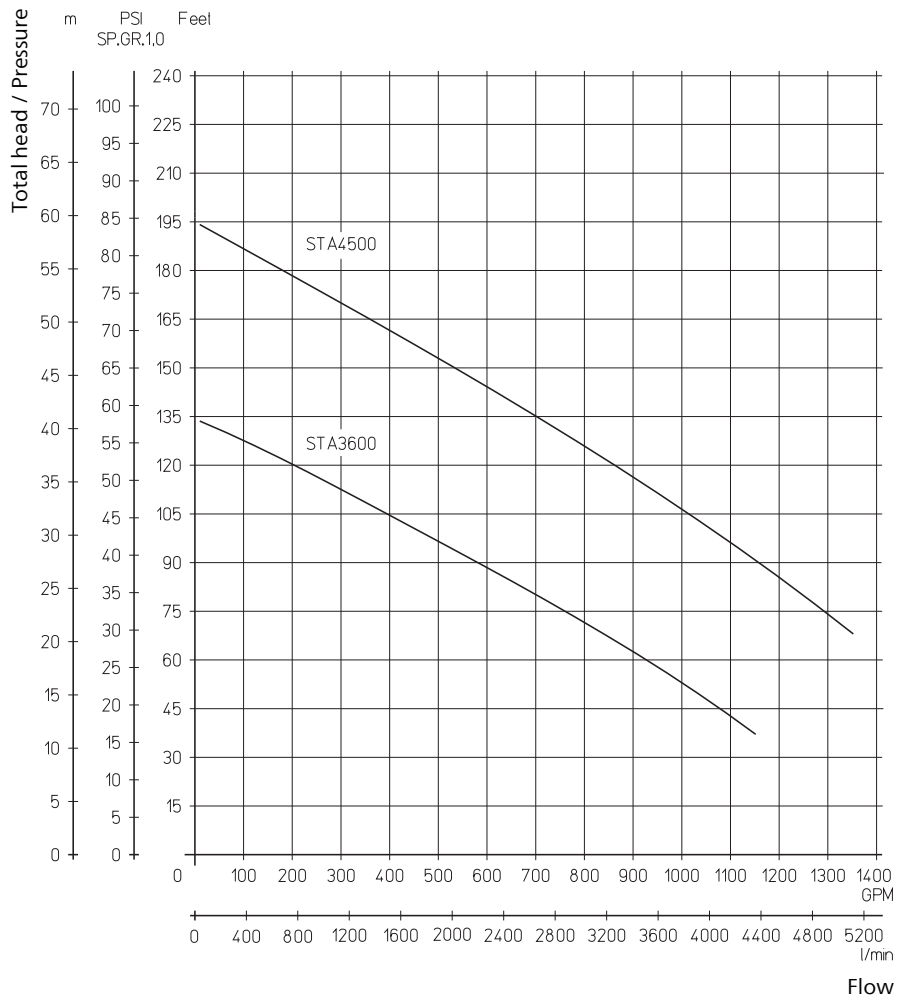
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Other materials	on request
Noise level	
STA3600	86 dBA
STA4500	88 dBA
Optional: Low noise version	(-6 dBA)



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



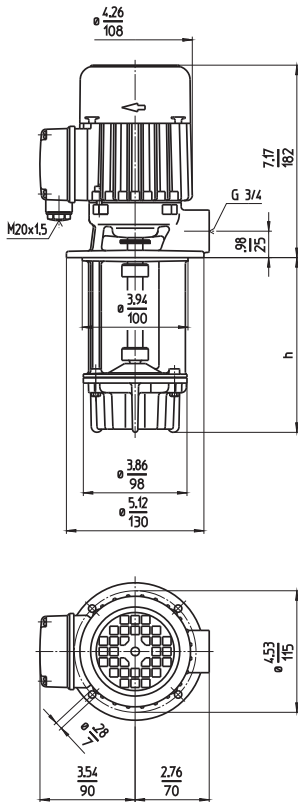
Quick Suctioning Immersion Pumps

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	13.7	6.2	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	16.5	7.5							
370			14.76	375	17.9	8.1							



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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

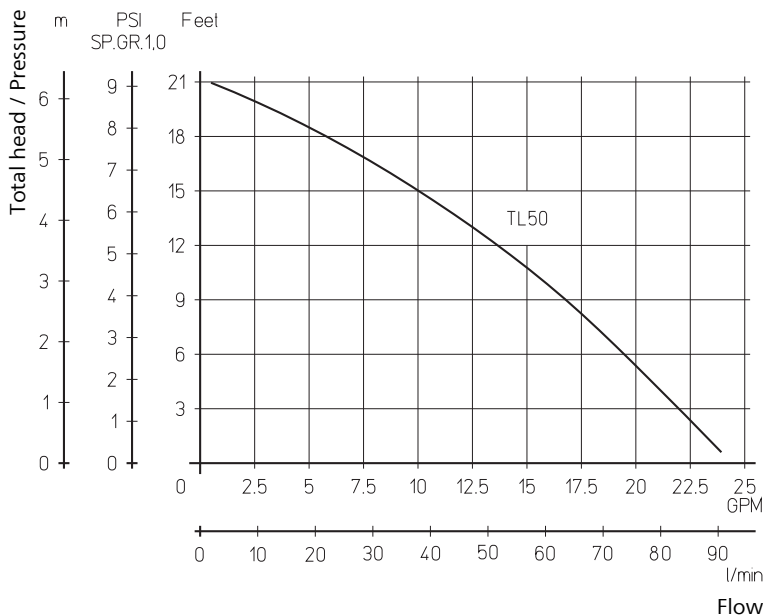
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

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



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



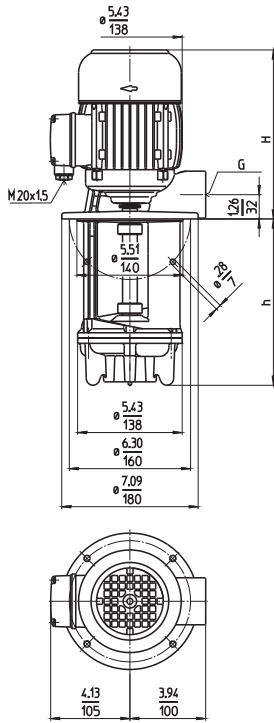
Quick Suctioning Immersion Pumps

TAL/SAL200...430



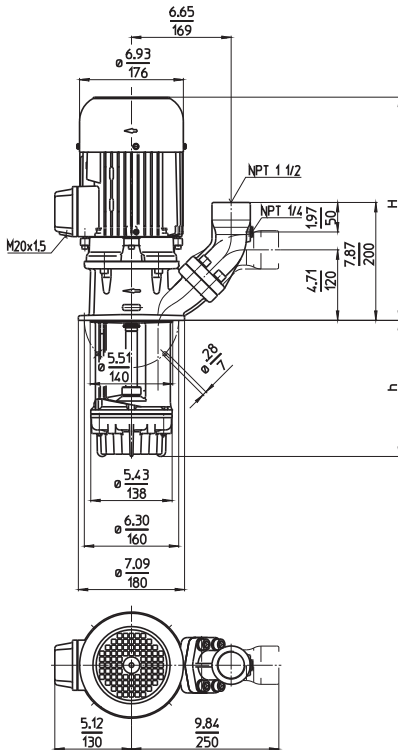
Axial/semi-open impellers

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	28.7	13	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					
	290		11.42	290		33.1	15					
	370		14.57	370		35.3	16					
	460		18.11	460		37.5	17					
TAL320S140	70/24	9.5	5.51	140	G 1 ½	32.0	14.5	1.25	208-230	60	5.4	3300
	400/2	241						0.92	460	60	2.7	3300
	220		8.66	220		34.2	15.5					
	290		11.42	290		36.4	16.5					
	370		14.57	370		38.6	17.5					
	460		18.11	460		40.8	18.5					
SAL430S150	120/24	14.0	5.91	150		57.3	26	2.3	208-230	60	8.2	3400
	460/7	355						1.7	460	60	4.1	3400
	230		9.06	230		61.7	28					
	300		11.81	300		63.9	29					
	380		14.96	380		66.2	30					
	470		18.50	470		68.4	31					
580		22.83	580		70.6	32						

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 inflated 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

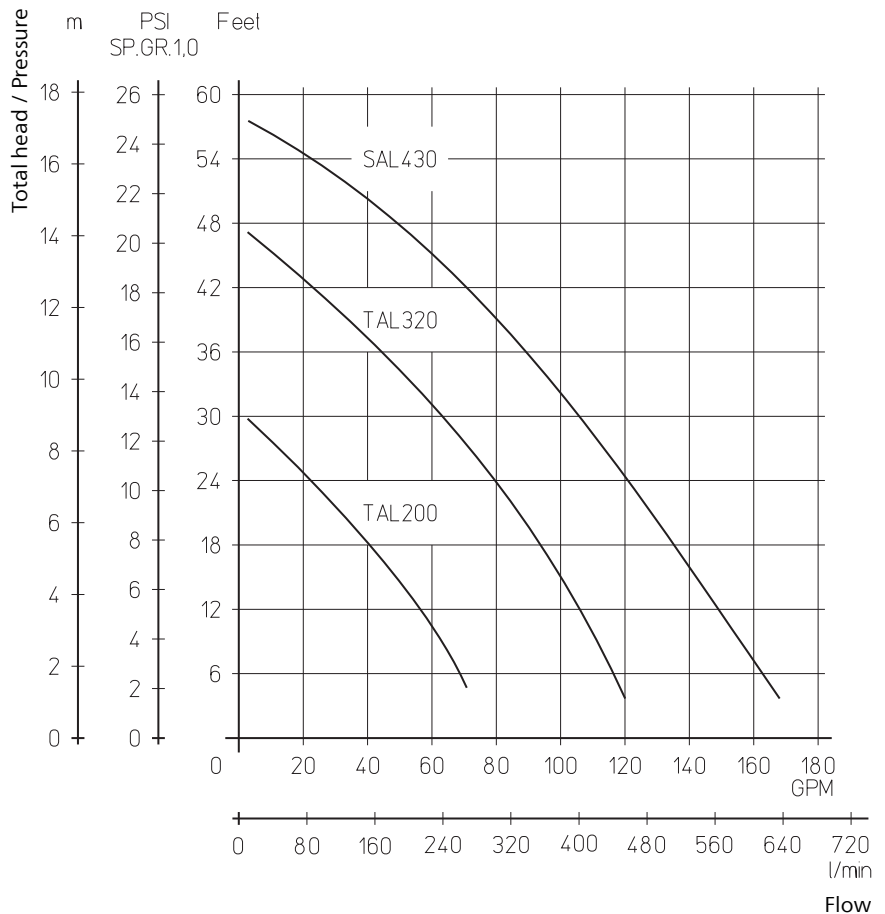
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

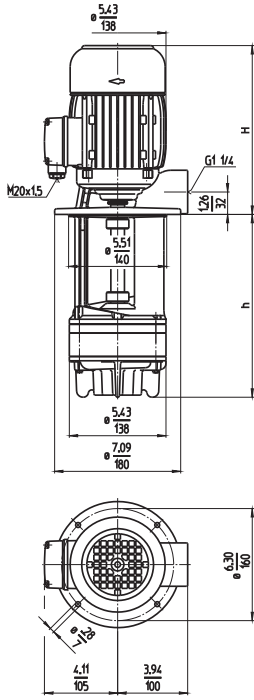


TL/STL141...146

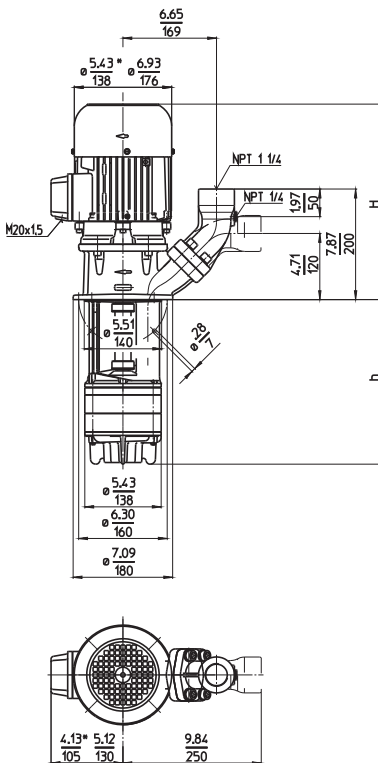
Axial/semi-open impellers



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	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	33.1	15.0							
	380		14.96	380	34.2	15.5							
	470		18.50	470	38.6	17.5							
	580		22.83	580	41.9	19.0							
TL142S180	30/58	10.3	7.09	180	37.5	17	1.5	208-230	60	5.8	3300		
	260		10.24	260	39.7	18	1.1	460	60	2.9	3300		
	330		12.99	330	41.9	19							
	410		16.14	410	44.1	20							
	500		19.69	500	46.3	21							
	610		24.02	610	48.5	22							
STL141S150	30/28	11.5	5.91	150	35.3	16.0	0.73	208-230	60	2.8	3300		
	230		9.06	230	36.4	16.5	0.54	460	60	1.4	3300		
	300		11.81	300	37.5	17.0							
	380		14.96	380	38.6	17.5							
	470		18.50	470	43.0	19.5							
	580		22.83	580	46.3	21.0							
STL142S180	30/58	13.0	7.09	180	44.1	20	1.5	208-230	60	5.8	3300		
	260		10.24	260	46.3	21	1.1	460	60	2.9	3300		
	330		12.99	330	48.5	22							
	410		16.14	410	50.7	23							
	500		19.69	500	52.9	24							
	610		24.02	610	55.1	25							
STL143S220	30/88	14.0	8.46	215	66.2	30	2	208-230	60	7.6	3400		
	300		11.61	295	68.4	31	1.5	460	60	3.8	3400		
	370		14.37	365	70.6	32							
	450		17.52	445	72.8	33							
	540		21.06	535	75.0	34							
	650		25.39	645	77.2	35							
STL144S250	30/118	14.0	9.84	250	68.4	31	2.3	208-230	60	8.2	3400		
	330		12.99	330	70.6	32	1.7	460	60	4.1	3400		
	400		15.75	400	72.8	33							
	480		18.90	480	75.0	34							
	570		22.44	570	77.2	35							
	680		26.77	680	79.4	36							
STL145S300	30/148	15.6	11.81	300	79.4	36	3	208-230	60	10.6	3400		
	380		14.96	380	81.6	37	2.2	460	60	5.3	3400		
	450		17.72	450	83.8	38							
	530		20.87	530	86.0	39							
	620		24.41	620	88.2	40							
	730		28.74	730	90.4	41							
STL146S330	30/180	15.9	13.19	335	79.4	36	3.5	208-230	60	12.6	3400		
	410		16.34	415	81.6	37	2.6	460	60	6.3	3400		
	480		19.09	485	83.8	38							
	560		22.24	565	86.0	39							

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



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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

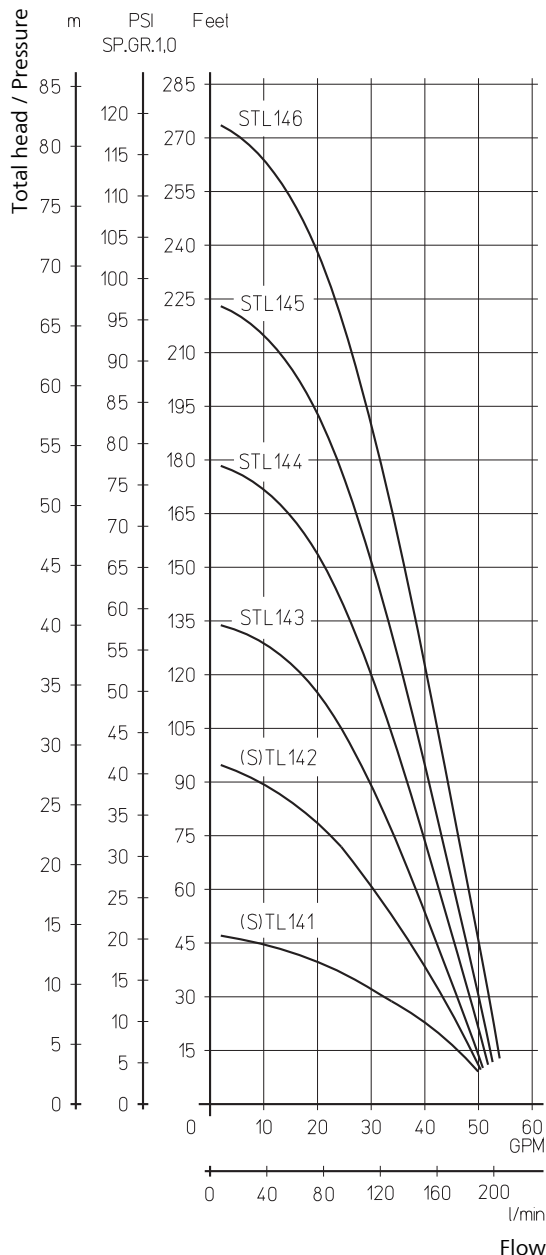
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

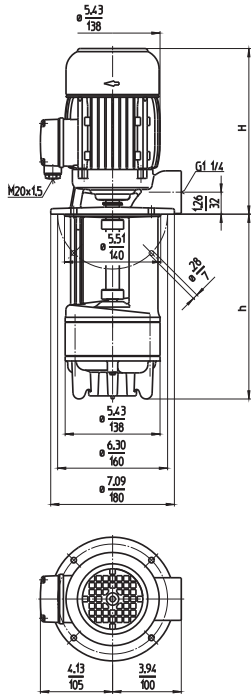


TAL/SAL301...306

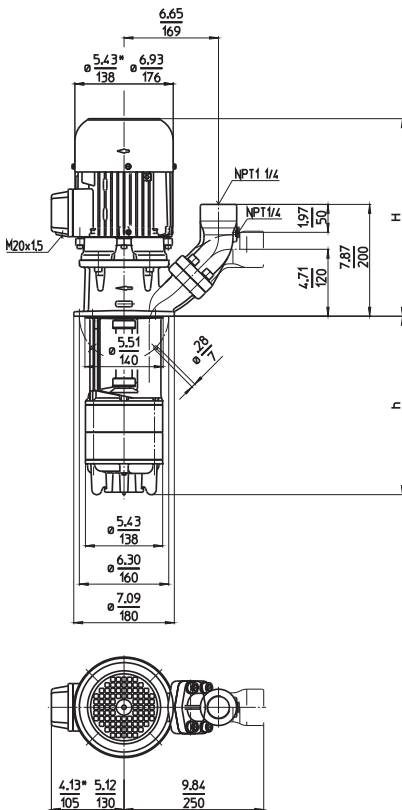


Axial/semi-open impellers

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	10.3	7.48	190	40.8	18.5	1.5	208-230	60	5.8	3300
	270		10.63	270	43.0	19.5	1.1	460	60	2.9	3300
	340		13.39	340	45.2	20.5					
	420		16.54	420	47.4	21.5					
	510		20.08	510	49.6	22.5					
	620		24.41	620	51.8	23.5					
SAL301S140	40/28	11.5	5.51	140	29.8	13.5	0.73	208-230	60	2.8	3300
	220		8.66	220	32.0	14.5	0.54	460	60	1.4	3300
	290		11.42	290	34.2	15.5					
	370		14.57	370	36.4	16.5					
	460		18.11	460	38.6	17.5					
	570		22.44	570	40.8	18.5					
SAL302S190	40/43	13.0	7.48	190	46.3	21	1.5	208-230	60	5.8	3300
	270		10.63	270	48.5	22	1.1	460	60	2.9	3300
	340		13.39	340	50.7	23					
	420		16.54	420	52.9	24					
	510		20.08	510	55.1	25					
	620				57.3	26					
SAL303S240	40/80	14.0	9.45	240	77.2	35	2	208-230	60	7.6	3400
	320		12.60	320	79.4	36	1.5	460	60	3.8	3400
	390		15.35	390	81.6	37					
	470		18.50	470	83.8	38					
	560		22.05	560	86.0	39					
	670		26.38	670	88.2	40					
	870		34.25	870	92.6	42					
	1020		40.16	1020	94.8	43					
SAL304S290	40/108	15.6	11.42	290	92.6	42	2.5	208-230	60	9.8	3400
	370		14.57	370	94.8	43	1.9	460	60	4.9	3400
	440		17.32	440	97.0	44					
	520		20.47	520	99.2	45					
	610		24.02	610	101.4	46					
	720		28.35	720	103.6	47					
	920		36.22	920	108.0	49					
	1070		42.13	1070	110.2	50					
SAL305S340	40/140	15.6	13.39	340	99.2	45	3	208-230	60	10.6	3400
	420		16.54	420	101.4	46	2.2	460	60	5.3	3400
	490		19.29	490	103.6	47					
	570		22.44	570	105.8	48					
	660		25.98	660	108.0	49					
	770		30.31	770	110.2	50					
	970		38.19	970	114.7	52					
	1120		44.09	1120	116.9	53					
SAL306S390	40/170	15.9	15.35	390	110.2	50	3.5	208-230	60	12.6	3400
	470		18.50	470	112.5	51	2.6	460	60	6.3	3400
	540		21.26	540	114.7	52					
	620		24.41	620	116.9	53					
	710		27.95	710	121.3	55					
	820		32.28	820	123.5	56					
1020		40.16	1020	125.7	57						

Dimensions in Inches / mm
 *) Dimensions SAL301, 302



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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

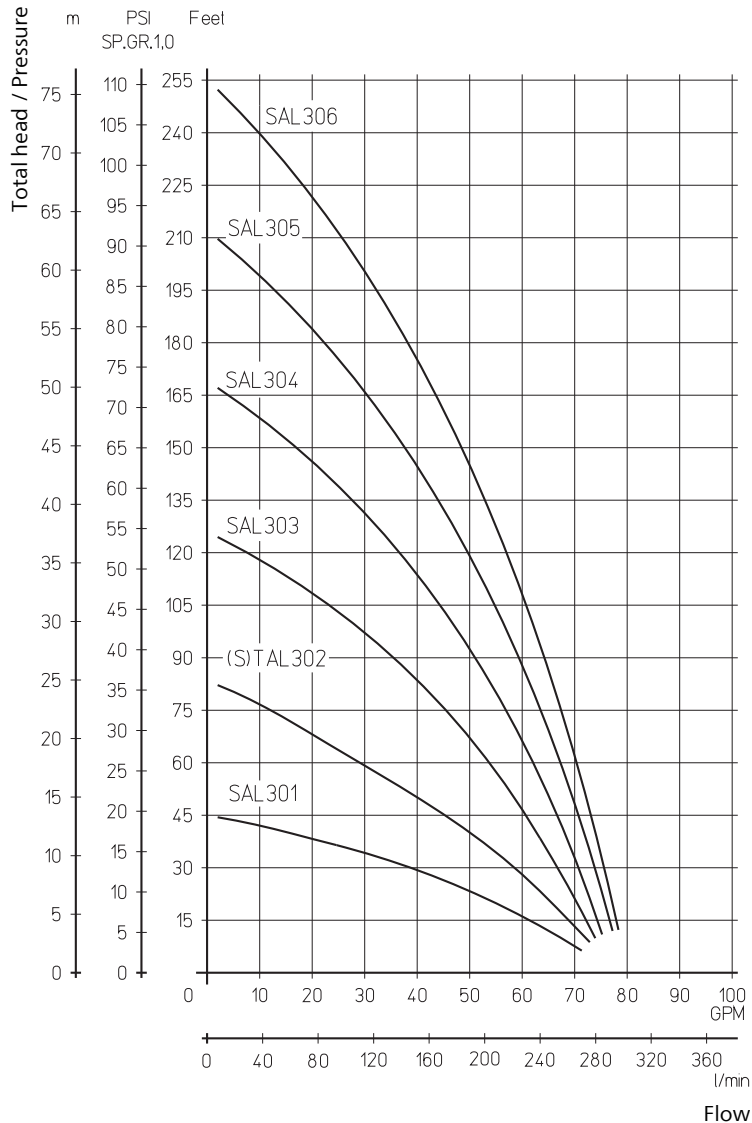
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

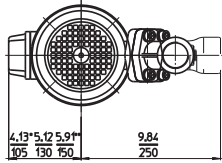
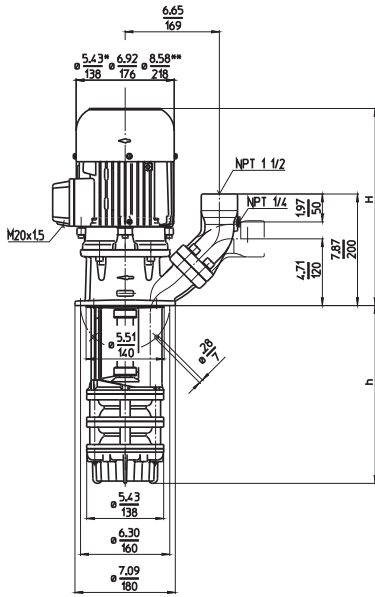


SAL401...407



Axial/semi-open impellers

SAL401...407



Dimensions in Inches / mm

*) Dimensions SAL401

**) Dimensions SAL406, 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	12.2	5.51	140	35.3	16	1.15	208-230	60	5.2	3300		
220			8.66	220	37.5	17	0.85	460	60	2.5	3300		
290			11.42	290	39.7	18							
370			14.57	370	41.9	19							
460			18.11	460	44.1	20							
570			22.44	570	46.3	21							
770			30.31	770	48.5	22							
920			36.22	920	50.7	23							
SAL402S190	60/45	14.0	7.48	190	68.4	31	1.75	208-230	60	6	3400		
270			10.63	270	70.6	32	1.3	460	60	3	3400		
340			13.39	340	72.8	33							
420			16.54	420	75.0	34							
510			20.08	510	77.2	35							
620			24.41	620	81.6	37							
820			32.28	820	83.8	38							
970			38.19	970	86.0	39							
SAL403S240	60/68	14.0	9.45	240	72.8	33	2.3	208-230	60	8.2	3400		
320			12.60	320	75.0	34	1.7	460	60	4.1	3400		
390			15.35	390	77.2	35							
470			18.50	470	79.4	36							
560			22.05	560	81.6	37							
670			26.38	670	83.8	38							
870			34.25	870	88.2	40							
1020			40.16	1020	90.4	41							
SAL404S290	60/98	15.6	11.42	290	86.0	39	3	208-230	60	10.6	3400		
370			14.57	370	88.2	40	2.2	460	60	5.3	3400		
440			17.32	440	90.4	41							
520			20.47	520	92.6	42							
610			24.02	610	94.8	43							
720			28.35	720	97.0	44							
920			36.22	920	101.4	46							
1070			42.13	1070	103.6	47							
SAL405S340	60/120	15.9	13.39	340	94.8	43	3.5	208-230	60	12.6	3400		
420			16.54	420	97.0	44	2.6	460	60	6.3	3400		
490			19.29	490	99.2	45							
570			22.44	570	101.4	46							
660			25.98	660	103.6	47							
770			30.31	770	105.8	48							
970			38.19	970	112.5	51							
1120			44.09	1120	114.7	52							
SAL406S390	60/148	17.5	15.35	390	123.5	56	4.4	208-230	60	16	3450		
470			18.50	470	125.7	57	3.3	460	60	8	3450		
540			21.26	540	127.9	58							
620			24.41	620	130.1	59							
710			27.95	710	132.3	60							
820			32.28	820	134.5	61							
1020			40.16	1020	136.7	62							
SAL407S440	60/175	17.5	17.32	440	132.3	60	5.4	208-230	60	19.0	3450		
520			20.47	520	134.5	61	4.0	460	60	9.5	3450		
590			23.23	590	136.7	62							
670			26.38	670	138.9	63							
760			29.92	760	141.1	64							
870			34.25	870	143.3	65							



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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

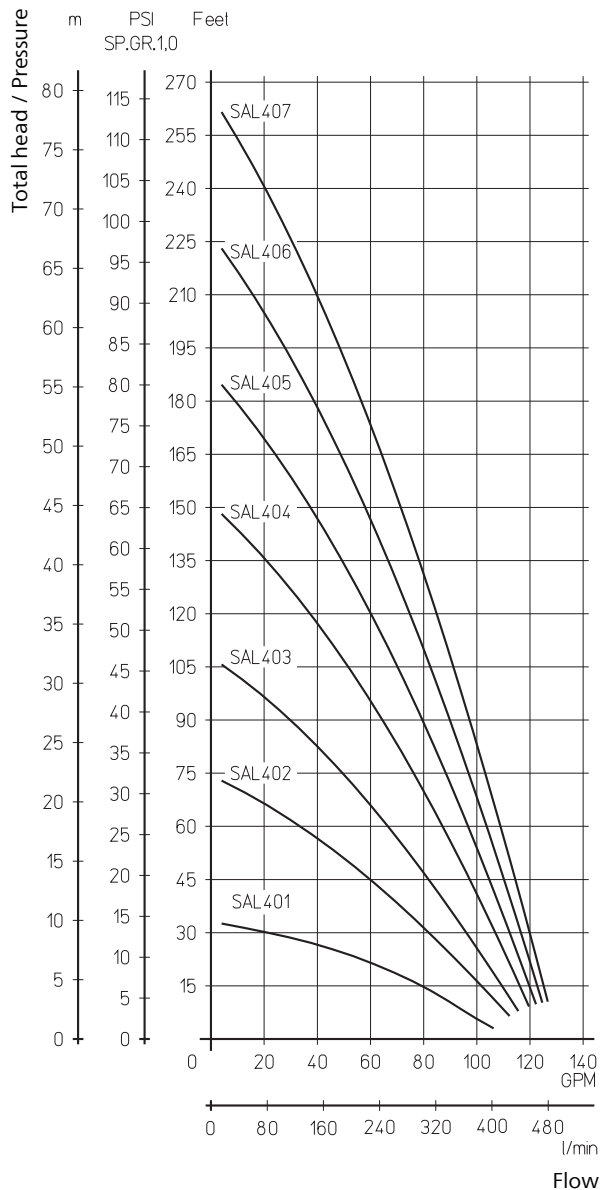
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

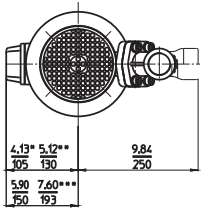
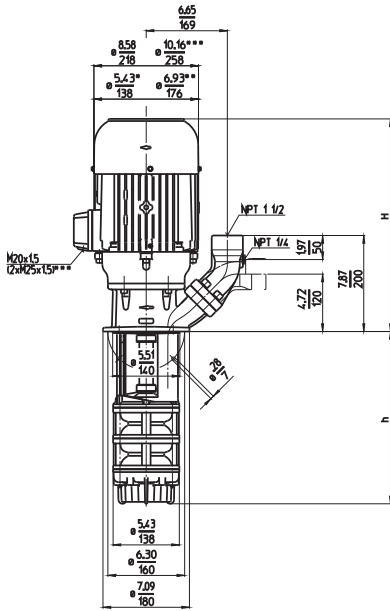


SAL601...608



Axial/semi-open impellers

SAL601...608



Dimensions in Inches / mm

- *) Dimensions SAL601
- **) Dimensions SAL602
- ***) Dimensions SAL605, 607, 608

Type	Flow at head		Height		Depth of im- mersion		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	12.2	5.91	150	37.5	17	1.25	208-230	60	5.4	3300		
230			9.06	230	39.7	18	0.92	460	60	2.7	3300		
300			11.81	300	41.9	19							
380			14.96	380	44.1	20							
470			18.50	470	46.3	21							
580			22.83	580	48.5	22							
780			30.71	780	55.1	25							
930			36.61	930	57.3	26							
SAL602S220	100/40	15.6	8.46	215	77.2	35	3	208-230	60	10.6	3400		
300			11.61	295	79.4	36	2.2	460	60	5.3	3400		
370			14.37	365	81.6	37							
450			17.52	445	83.8	38							
540			21.06	535	86.0	39							
650			25.39	645	90.4	41							
850			33.27	845	94.8	43							
1000			39.17	995	97.0	44							
SAL603S280	100/60	17.5	11.02	280	110.2	50	4.4	208-230	60	16	3450		
360			14.17	360	112.5	51	3.3	460	60	8	3450		
430			16.93	430	114.7	52							
510			20.08	510	116.9	53							
600			23.62	600	119.1	54							
710			27.95	710	121.3	55							
910			35.83	910	125.7	57							
1060			41.73	1060	127.9	58							
SAL604S350	100/90	17.5	13.58	345	121.3	55	5.4	208-230	60	19.0	3450		
430			16.73	425	123.5	56	4.0	460	60	9.5	3450		
500			19.49	495	125.7	57							
580			22.64	575	127.9	58							
670			26.18	665	130.1	59							
780			30.71	780	132.3	60							
980			38.39	975	136.7	62							
1130			44.29	1125	138.9	63							
SAL605S410	100/110	18.9	16.14	410	161.0	73	7.4	208-230	60	25.0	3450		
490			19.29	490	163	74	5.5	460	60	12.5	3450		
560			22.05	560	165	75							
640			25.20	640	168	76							
730			28.74	730	170	77							
840			33.07	840	172	78							
1040			40.94	1040	174	79							
SAL607S540	100/165	23.1	21.26	540	229	104	11.5	460	60	14.2	3550		
620			24.41	620	232	105	8.6						
690			27.17	690	234	106							
770			30.31	770	236	107							
860			33.86	860	238	108							
970			38.19	970	240	109							
SAL608S600	100/205	23.1	23.62	600	251	114	13.8	460	60	16.9	3550		
680			26.77	680	254	115	10.3						
750			29.53	750	256	116							
830			32.68	830	258	117							
920			36.22	920	260	118							
1030			40.55	1030	262	119							



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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.



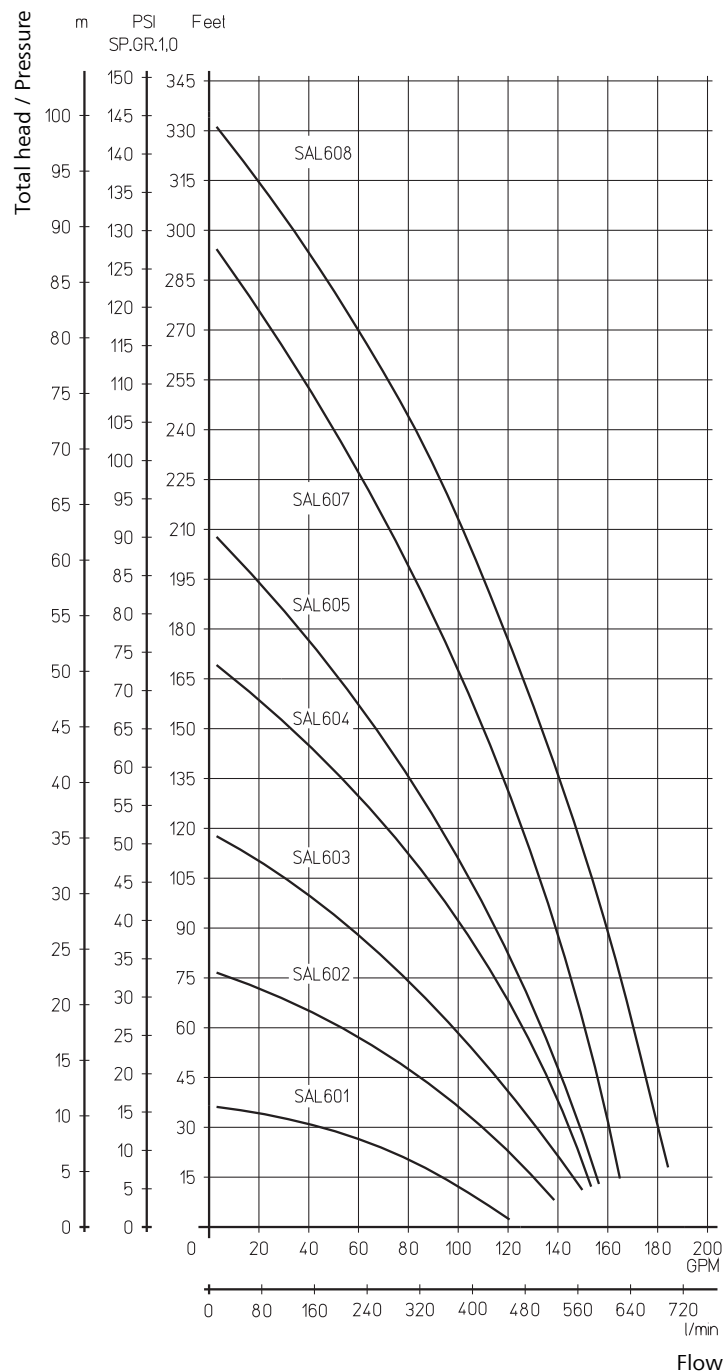
For position of terminal box, see mechanical features within the technical information section.

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	brass
Shaft	steel
Optional: Impeller radial	cast steel



Quick Suctioning Immersion Pumps

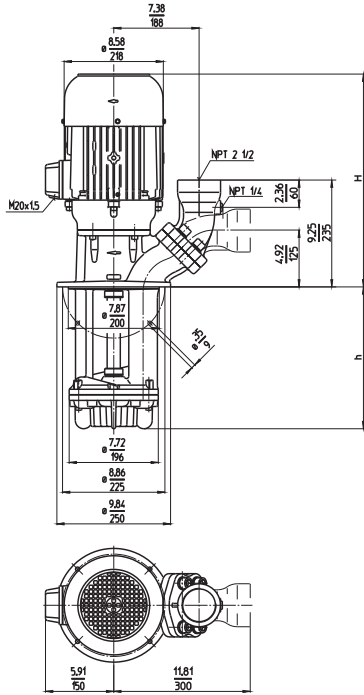


SAL630...1130

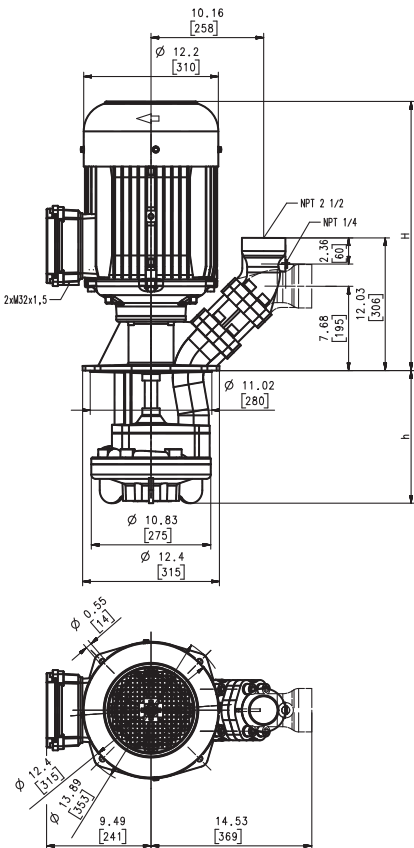
Axial/semi-open impellers



SAL630, 830



SAL1130



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					
SAL630S220	150/75	18.4	8.66	220	163	74	5.4	208-230	60	19.0	3450		
	600/22	468					4.0	460	60	9.5	3450		
	320		12.60	320	170	77							
	450		17.72	450	176	80							
	570		22.44	570	185	84							
	770		30.31	770	194	88							
1000		39.37	1000	209	95								
SAL830S230	200/72	18.4	9.06	230	165	75	5.4	208-230	60	19.0	3450		
	800/22	468					4.0	460	60	9.5	3450		
	330		12.99	330	172	78							
	460		18.11	460	179	81							
	580		22.83	580	187	85							
	780		30.71	780	196	89							
	1010		39.76	1010	212	96							
1130		44.49	1130	218	99								
SAL1130S310	400/75	24.4	12.20	310	311	141	17	460	60	21.5	3560		
	1400/24	620					12.6						
	440		17.32	440	315	143							
	560		22.05	560	322	146							
	810		31.89	810	335	152							
1060		41.73	1060	340	154								

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 inflated 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

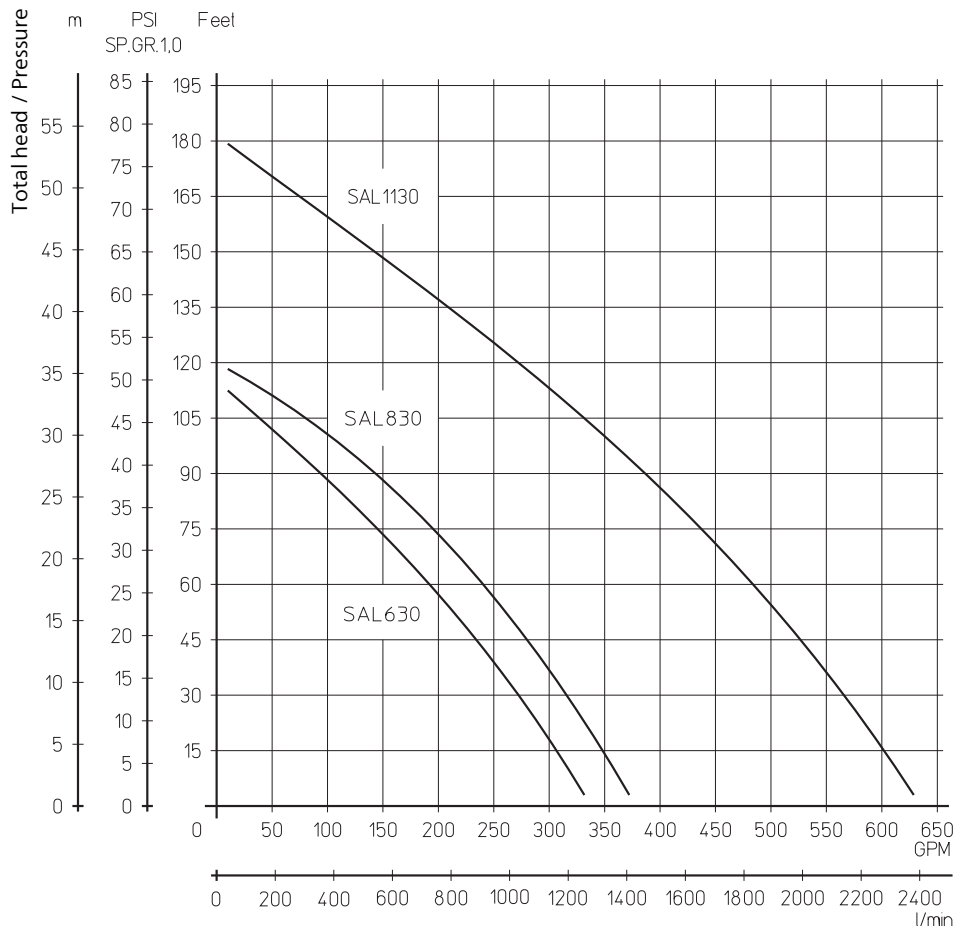
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

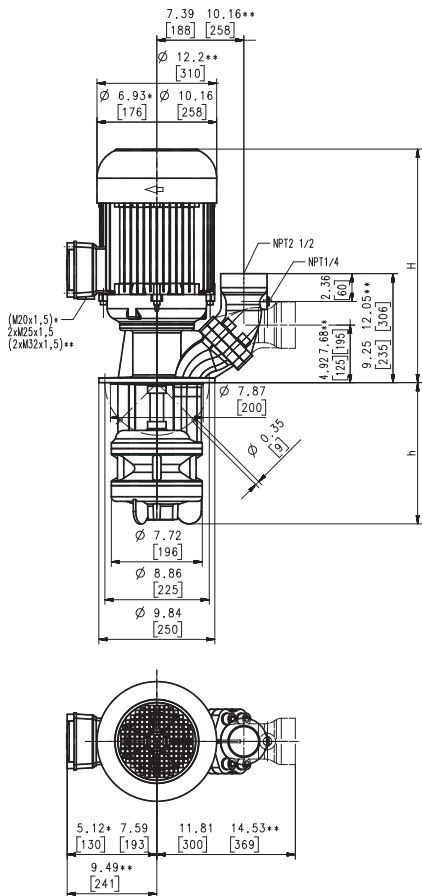


SAL901...904



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 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					
SAL901S220	175/43	16.9	8.66	220	110.2	50	3.5	208-230	60	12.6	3400		
	700/12	429					2.6	460	60	6.3	3400		
	320		12.60	320	114.7	52							
	450		17.72	450	119.1	54							
	570		22.44	570	125.7	57							
	770		30.31	770	136.7	62							
	1000		39.37	1000	152.1	69							
1120		44.09	1120	161.0	73								
SAL902S290	175/92	19.8	11.42	290	183	83	7.4	208-230	60	25.0	3450		
	700/26	504					5.5	460	60	12.5	3450		
	390		15.35	390	190	86							
	520		20.47	520	198	90							
	640		25.20	640	207	94							
	840		33.07	840	218	99							
	1070		42.13	1070	234	106							
1190		46.85	1190	245	111								
SAL903S360	175/135	24.1	14.17	360	260	118	13.8	460	60	16.9	3550		
	700/37	612					10.3						
	460		18.11	460	269	122							
	590		23.23	590	278	126							
	710		27.95	710	287	130							
	910		35.83	910	298	135							
1140		44.88	1140	313	142								
SAL904S430	175/180	24.4	16.93	430	320	145	17	460	60	21.5	3560		
	700/52	620					12.6						
	530		20.87	530	326	148							
	660		25.98	660	335	152							
	780		30.71	780	344	156							
	980		38.58	980	355	161							
1210		47.64	1210	370	168								



Quick Suctioning Immersion Pumps

equipped with the patented "BRINK-MANN's Suction De-aeration System" are excellently suited for pumping **extremely inflated 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

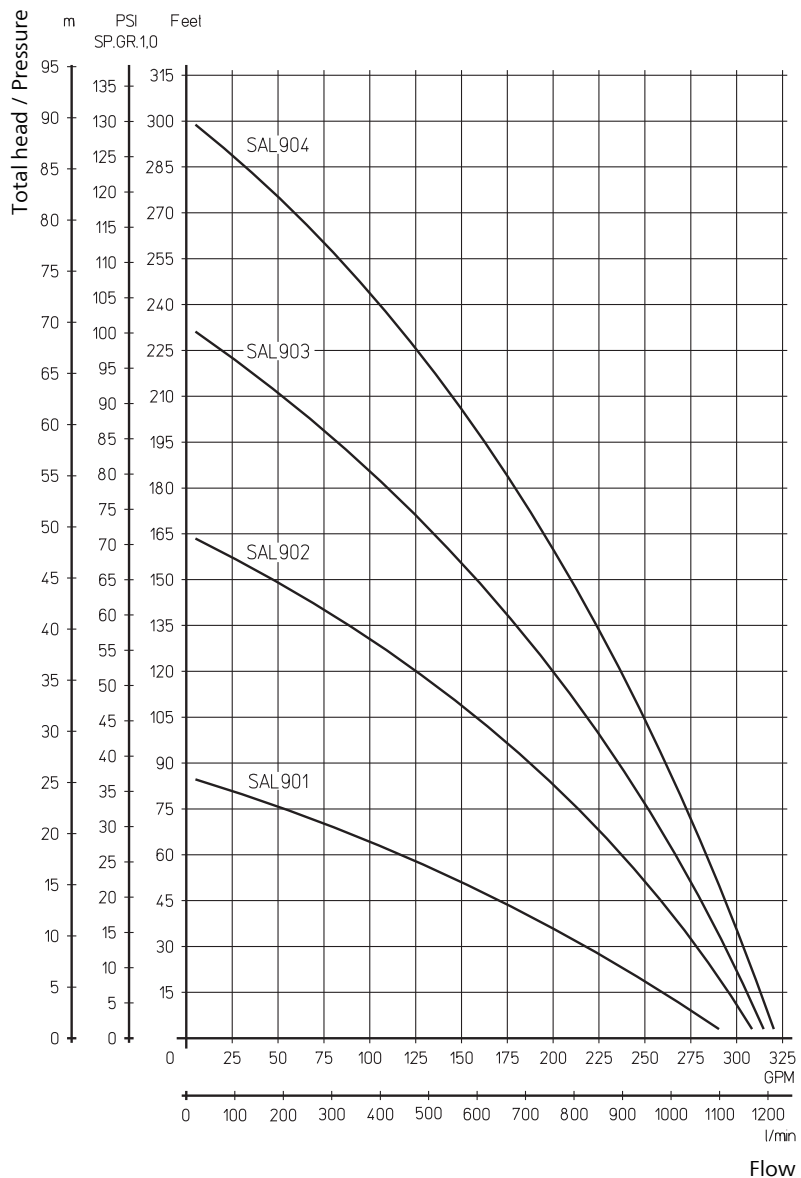
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



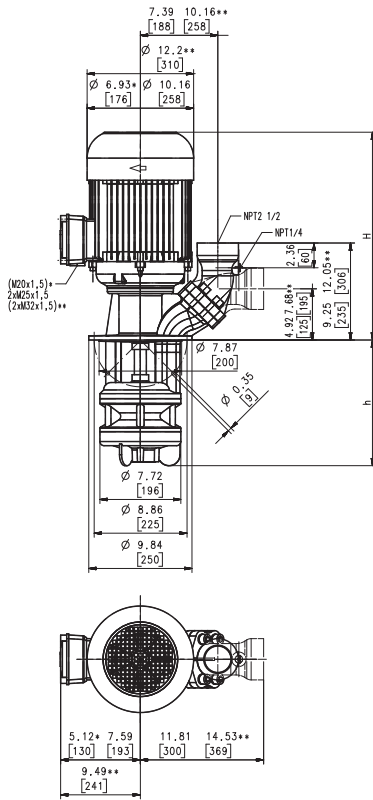
Quick Suctioning Immersion Pumps

SAL1001...1006

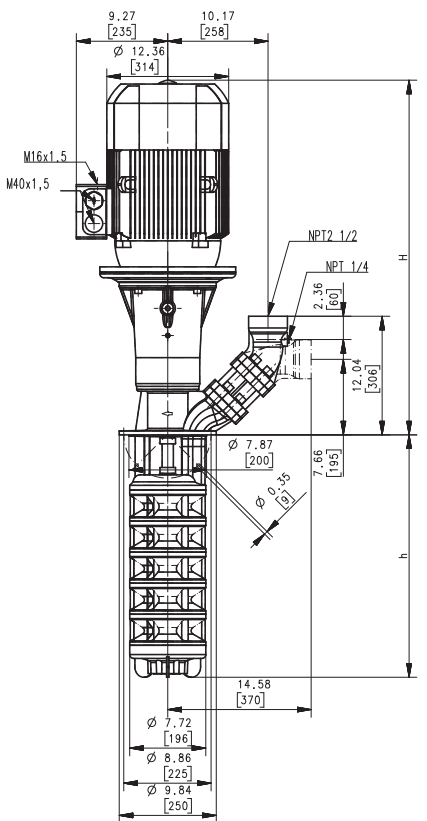
Axial/semi-open impellers



SAL1001...1004



SAL1006



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
SAL1001S230	200/38	16.9	9.06	230	112.5	51	3.5	208-230	60	12.6	3400
	800/10	429					2.6	460	60	6.3	3400
	330		12.99	330	116.9	53					
	460		18.11	460	121.3	55					
	580		22.83	580	127.9	58					
	780		30.71	780	138.9	63					
SAL1002S310	200/74	19.8	12.20	310	185	84	7.4	208-230	60	25.0	3450
	800/21	504					5.5	460	60	12.5	3450
	410		16.14	410	192	87					
	540		21.26	540	201	91					
	660		25.98	660	209	95					
	860		33.86	860	220	100					
SAL1003S390	200/115	24.1	15.35	390	265	120	13.8	460	60	16.9	3550
	800/32	612					10.3				
	490		19.29	490	271	123					
	620		24.41	620	280	127					
	740		29.13	740	289	131					
	940		37.01	940	300	136					
SAL1004S470	200/160	24.4	18.50	470	333	151	20	460	60	24.8	3560
	800/45	620					15.0				
	570		22.44	570	340	154					
	700		27.56	700	348	158					
	820		32.28	820	357	162					
	1020		40.16	1020	368	167					
SAL1006S630	200/265	38.3	24.80	630	395	179	29	460	60	32	3555
	800/76	974					21.3				
	730		28.74	730	401	182					
	860		33.86	860	410	186					
	980		38.58	980	423	192					

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 inflated 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.



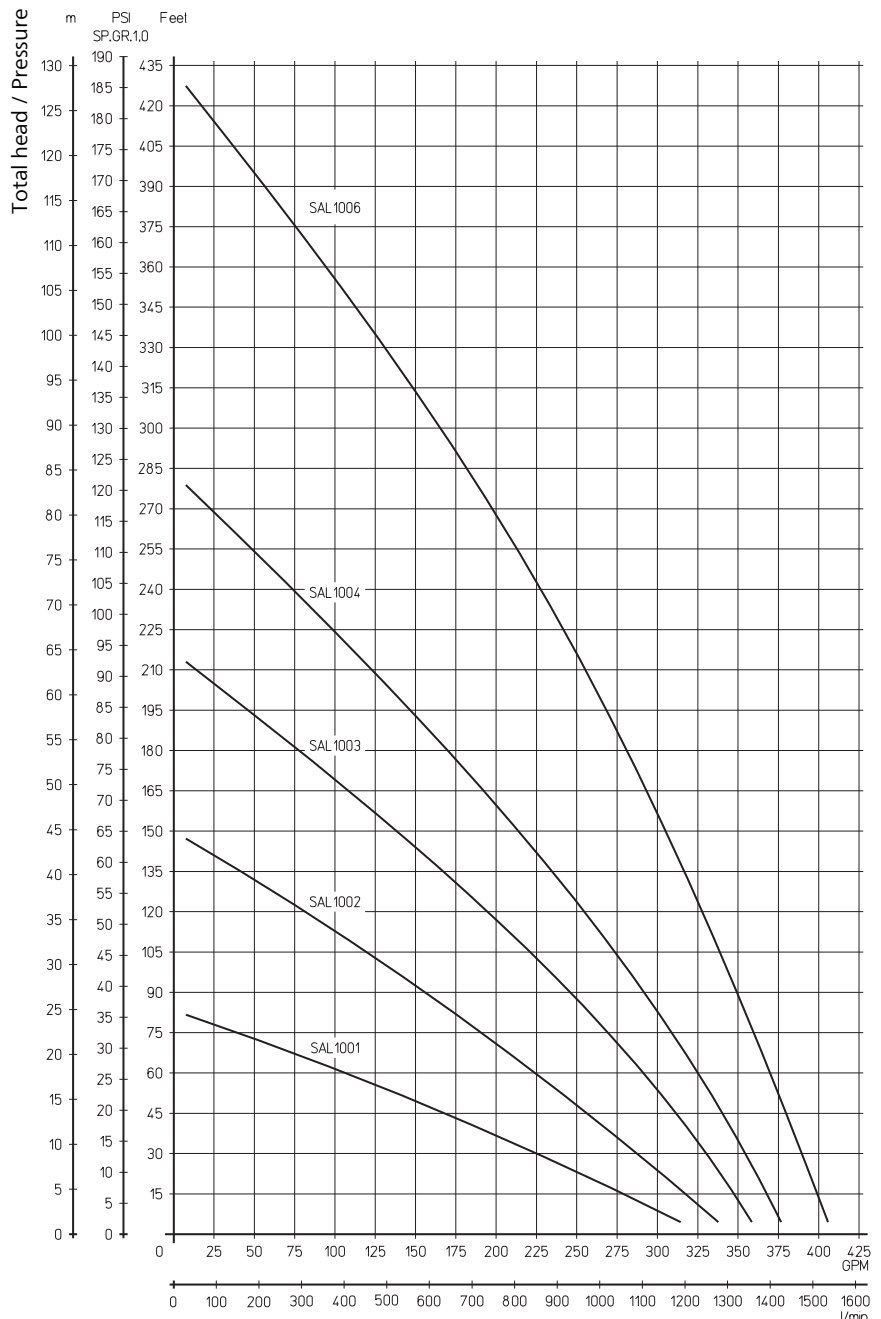
For position of terminal box, see mechanical features within the technical information section.

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



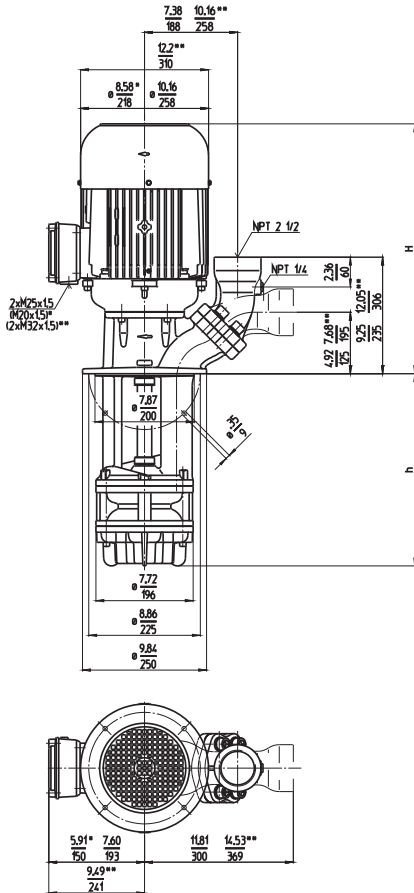
Quick Suctioning Immersion Pumps

SAL1301...1303

Axial/semi-open impellers



SAL1301, 1302 SAL1303



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					
SAL1301S230	250/32	18.4	9.06	230	127.9	58	5.4	208-230	60	19.0	3450		
	900/11	468					4.0	460	60	9.5	3450		
	330		12.99	330	132.3	60							
	460		18.11	460	136.7	62							
	580		22.83	580	143.3	65							
	780		30.71	780	154.4	70							
SAL1302S310	250/82	24.1	12.20	310	247	112	13.8	460	60	16.9	3550		
	900/26	612					10.3						
	410		16.14	410	254	115							
	540		21.26	540	262	119							
	660		25.98	660	271	123							
	860		33.86	860	284	129							
SAL1303S390	250/130	24.4	15.35	390	306	139	17	460	60	21.5	3560		
	900/40	620					12.6						
	490		19.29	490	313	142							
	620		24.41	620	326	148							
	740		29.13	740	337	153							
	940		37.01	940	348	158							
1170		46.06	1170	364	165								

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 inflated 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

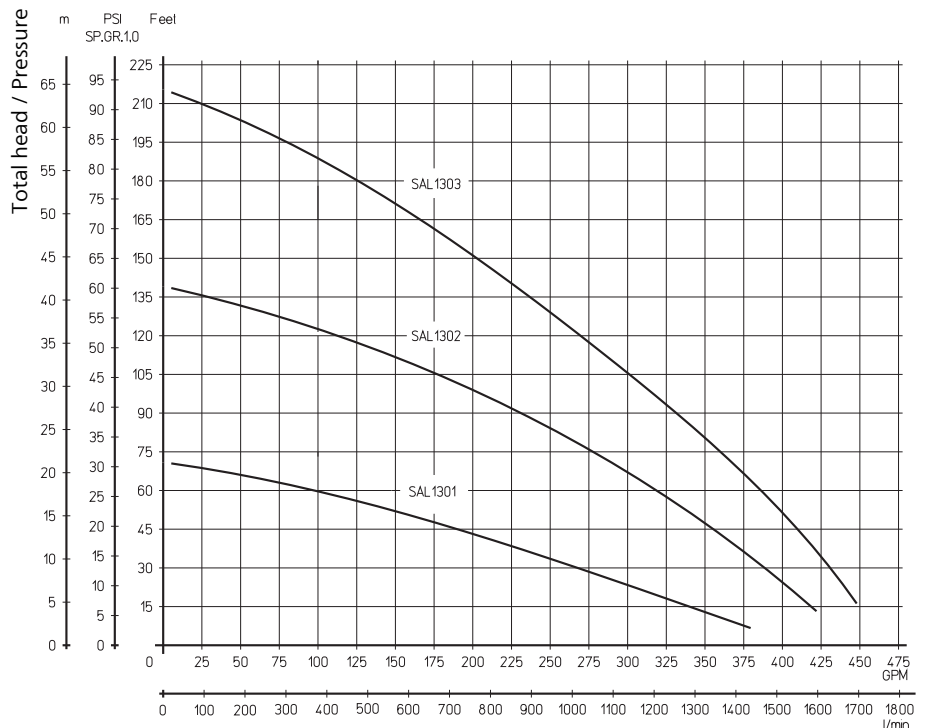
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



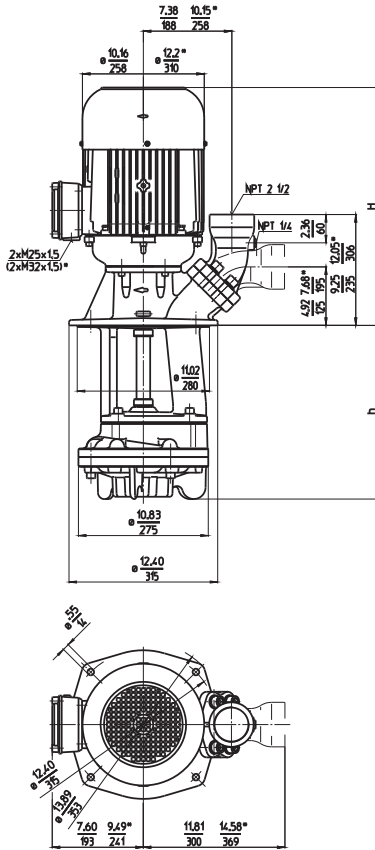
Quick Suctioning Immersion Pumps

SAL1600...2500

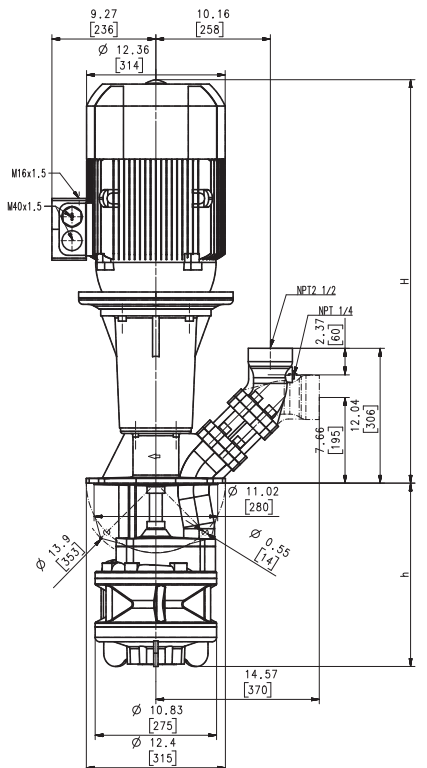
Axial/semi-open impellers



SAL1600...2000



SAL1602...2500



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					
SAL1600S310	350/55 1300/17	24.1 612	12.20 310	260	118	13.8 10.3	460	60	16.9	3550
	440		17.32 440	265	120					
	560		22.05 560	269	122					
	810		31.89 810	282	128					
	1060		41.73 1060	287	130					
SAL2000S310	400/75 1600/21	24.4 620	12.20 310	318	144	17 12.6	460	60	21.5	3560
	440		17.32 440	322	146					
	560		22.05 560	329	149					
	810		31.89 810	342	155					
	1060		41.73 1060	346	157					
SAL1602S420	350/118 1300/36	38.3 974	16.54 420	419	190	29 21.3	460	60	32	3555
	550		21.65 550	423	192					
	670		26.38 670	428	194					
	920		36.22 920	441	200					
	1170		46.06 1170	445	202					
SAL2002S420	400/158 1600/45	38.5 978	16.54 420	553	251	34 25.3	460	60	38.9	3550
	550		21.65 550	562	255					
	670		26.38 670	571	259					
	920		36.22 920	591	268					
	1170		46.06 1170	600	272					
SAL2500S340	500/105 2000/30	38.3 974	13.39 340	351	159	29 21.3	460	60	32	3555
	470		18.50 470	355	161					
	590		23.23 590	359	163					
	840		33.07 840	395	179					
	1090		42.91 1090	399	181					

Dimensions in Inches / mm
 *) Dimensions SAL2000
 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 inflated 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

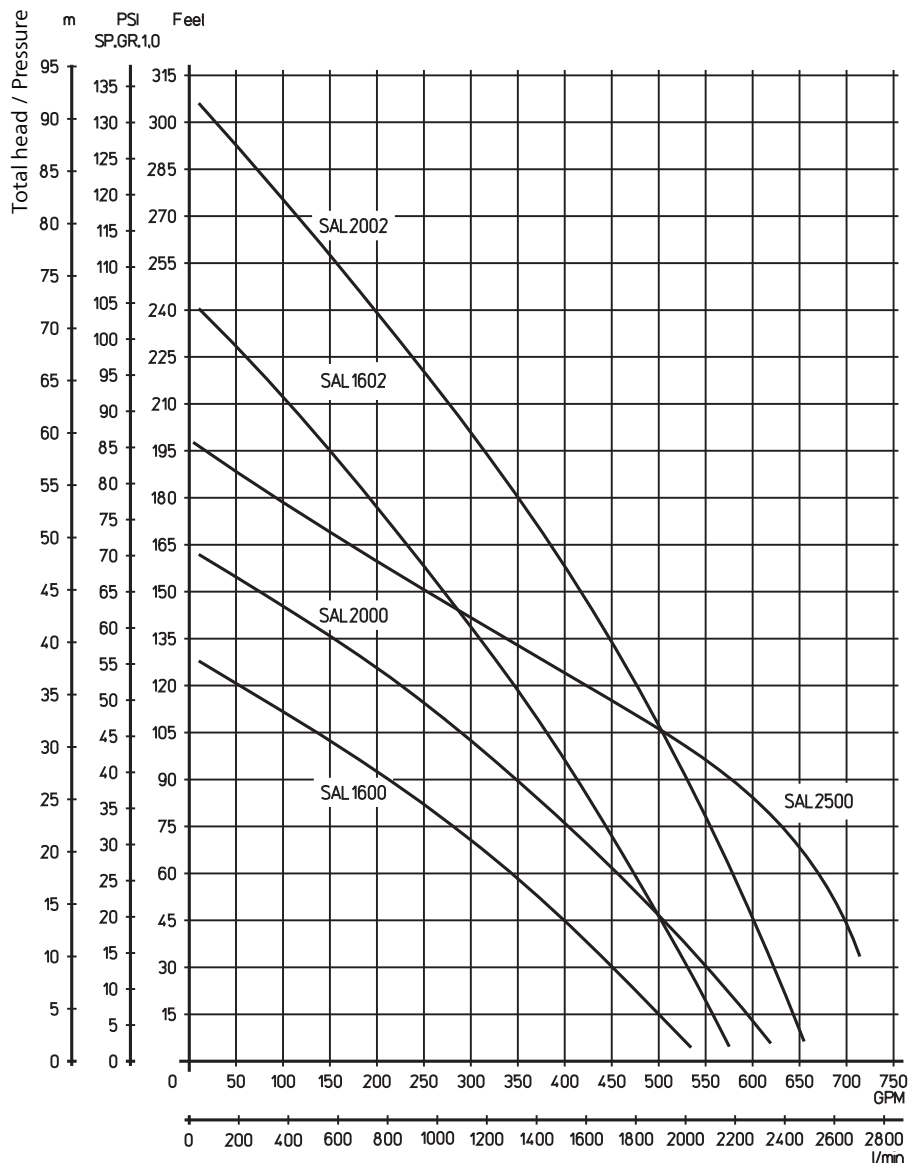
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



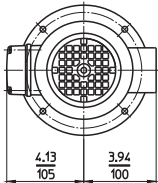
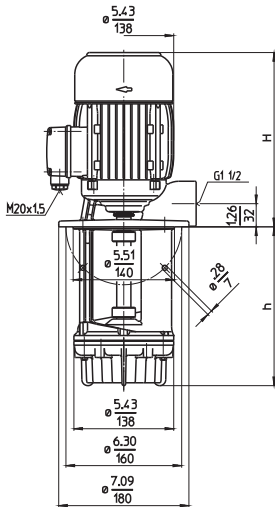
Quick Suctioning Immersion Pumps

TGL/SGL331...333

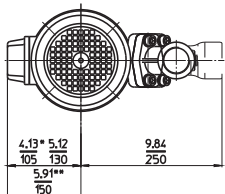
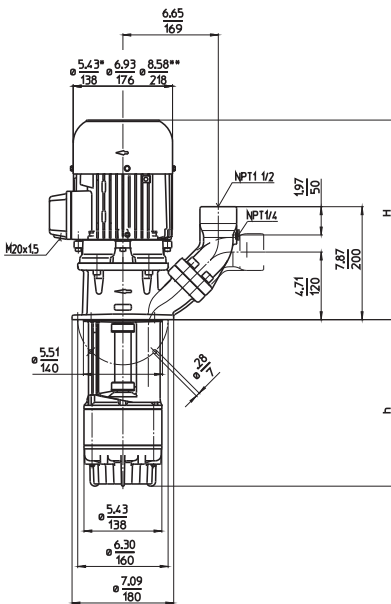
Axial/semi-open impellers



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 l/min	Feet /m	H inch mm	h inch mm	h inch mm	Lbs kg	HP kW	V				Hz	AMPS
TGL331S140	50/25	9.5	5.51	140	29.8	13.5	1.15	208-230	60	5.2	3300		
	200/8	241					0.85	460	60	2.5	3300		
	220		8.66	220	32.0	14.5							
	290		11.42	290	34.2	15.5							
	370		14.57	370	36.4	16.5							
	460		18.11	460	38.6	17.5							
570		22.44	570	40.8	18.5								
SGL331S140	50/25	12.2	5.51	140	35.3	16	1.15	208-230	60	5.2	3300		
	200/8	311					0.85	460	60	2.5	3300		
	220		8.66	220	37.5	17							
	290		11.42	290	39.7	18							
	370		14.57	370	41.9	19							
	460		18.11	460	44.1	20							
	570		22.44	570	46.3	21							
	770		30.31	770	48.5	22							
	920		36.22	920	50.7	23							
SGL332S190	50/50	14.0	7.48	190	55.1	25	1.75	208-230	60	6	3400		
	200/15	355					1.3	460	60	3	3400		
	270		10.63	270	57.3	26							
	340		13.39	340	59.5	27							
	420		16.54	420	61.7	28							
	510		20.87	530	63.9	29							
	620		24.41	620	68.4	31							
	820		32.28	820	83.8	38							
	970		38.19	970	86.0	39							
SGL333S240	50/75	14.0	9.45	240	59.5	27	2.3	208-230	60	8.2	3400		
	200/22	355					1.7	460	60	4.1	3400		
	320		12.60	320	61.7	28							
	390		15.35	390	63.9	29							
	470		18.50	470	66.2	30							
	560		22.05	560	70.6	32							
	670		26.38	670	72.8	33							
	870		34.25	870	88.2	40							
	1020		40.16	1020	90.4	41							

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 inflated 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

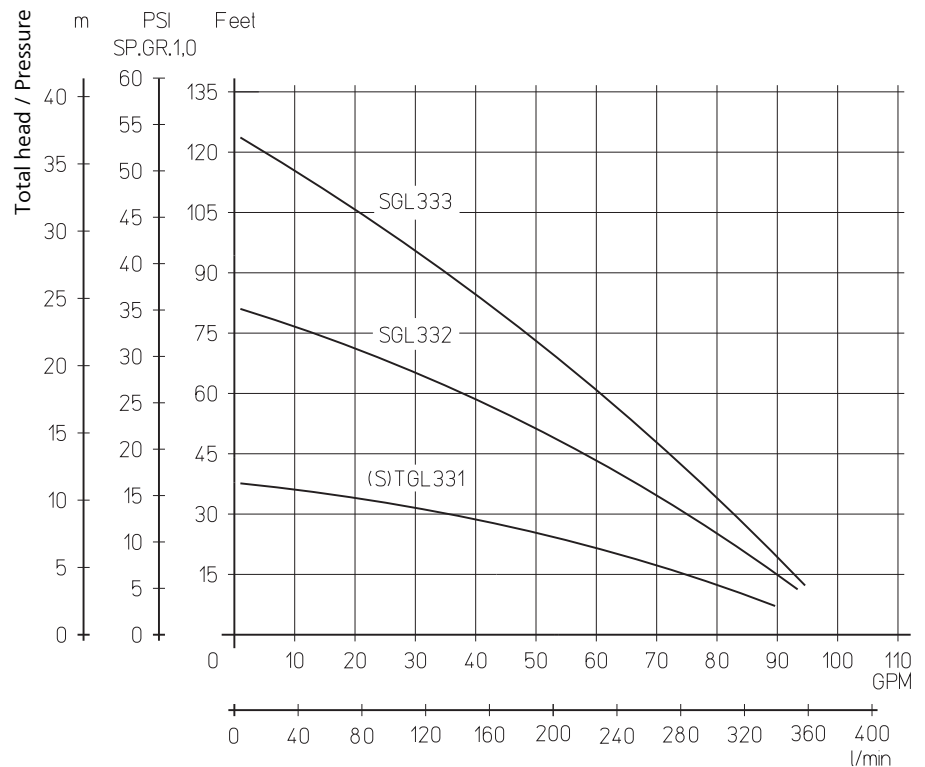
- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



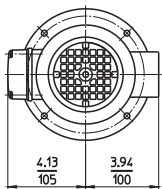
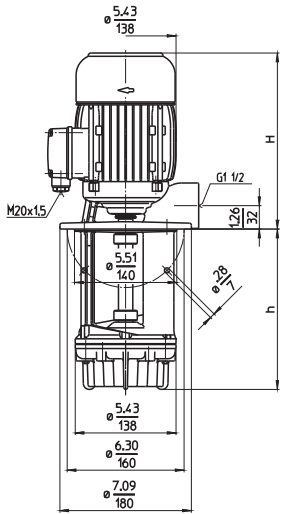
Quick Suctioning Immersion Pumps

TGL/SGL501...503

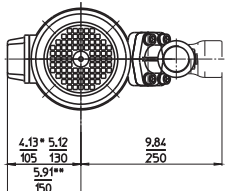
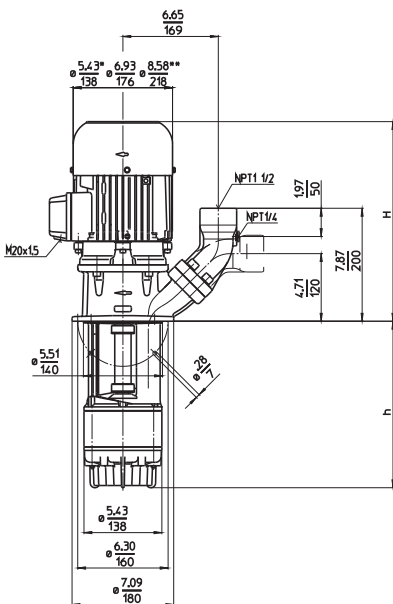
Axial/semi-open impellers



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 /Feet l/min /m	H inch mm	h inch mm	h mm	Lbs	kg	AMPS	RPM					
TGL501S150	60/22	10.3	5.91	150	33.1	15.0	1.5	208-230	60	5.8	3300		
	240/7	261					1.1	460	60	2.9	3300		
	230		9.06	230	36.4	16.5							
	300		11.81	300	38.6	17.5							
	380		14.96	380	40.8	18.5							
	470		18.50	470	43.0	19.5							
580		22.83	580	45.2	20.5								
SGL501S150	60/22	13.0	5.91	150	37.5	17	1.5	208-230	60	5.8	3300		
	240/7	331					1.1	460	60	2.9	3300		
	230		9.06	230	39.7	18							
	300		11.81	300	41.9	19							
	380		14.96	380	44.1	20							
	470		18.50	470	46.3	21							
	580		22.83	580	48.5	22							
	780		30.71	780	55.1	25							
	930		36.61	930	57.3	26							
	SGL502S220	60/55	15.6	8.46	215	77.2	35	3	208-230	60	10.6	3400	
	240/16	395					2.2	460	60	5.3	3400		
300			11.61	295	79.4	36							
370			14.37	365	81.6	37							
450			17.52	445	83.8	38							
540			21.06	535	86.0	39							
650			25.39	645	90.4	41							
850			33.27	845	94.8	43							
1000			39.17	995	97.0	44							
SGL503S280	60/85	17.5	11.02	280	110.2	50	4.4	208-230	60	16	3450		
	240/24	445					3.3	460	60	8	3450		
	360		14.17	360	112.5	51							
	430		16.93	430	114.7	52							
	510		20.08	510	116.9	53							
	600		23.62	600	119.1	54							
	710		27.95	710	121.3	55							
	910		35.83	910	125.7	57							
1060		41.73	1060	127.9	58								

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 inflated 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

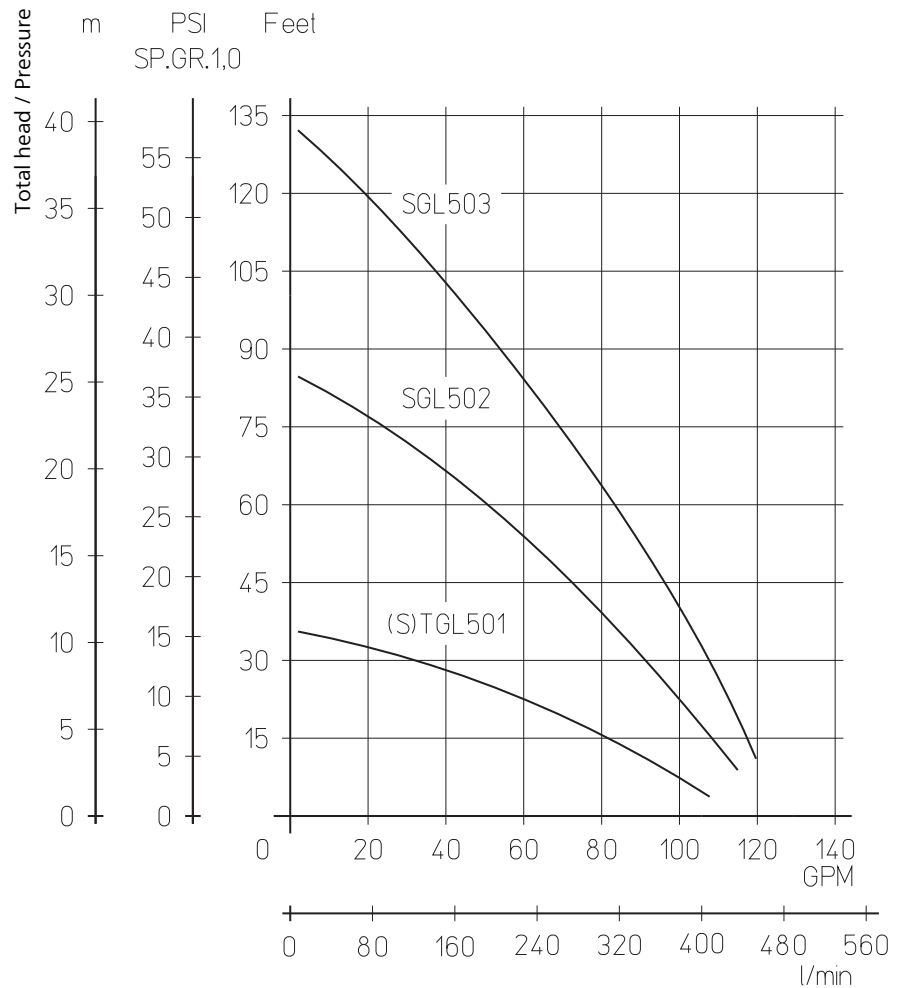
- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



Quick Suctioning Immersion Pumps

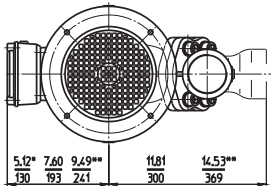
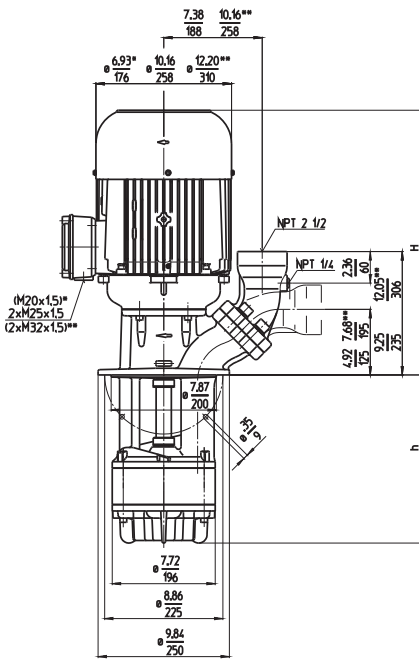


SGL801...804



Axial/semi-open impellers

SGL801, 802 SGL803, 804



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SGL801

**) Dimensions SGL804

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	h inch	h mm	Lbs	kg						
SGL801S220	150/40	16.9	8.66	220	110.2	50	3.5	208-230	60	12.6	3400	
	600/10	429					2.6	460	60	6.3	3400	
	320		12.60	320	114.7	52						
	450		17.72	450	119.1	54						
	570		22.44	570	125.7	57						
	770		30.31	770	136.7	62						
1000		39.37	1000	152.1	69							
SGL802S290	150/75	19.8	11.42	290	183	83	7.4	208-230	60	25.0	3450	
	600/22	504					5.5	460	60	12.5	3450	
	390		15.35	390	190	86						
	520		20.47	520	198	90						
	640		25.20	640	207	94						
	840		33.07	840	218	99						
1070		42.13	1070	234	106							
SGL803S360	150/105	24.1	14.17	360	262	119	13.8	460	60	16.9	3550	
	600/30	612					10.3					
	460		18.11	460	273	124						
	590		23.23	590	282	128						
	710		27.95	710	291	132						
910		35.83	910	302	137							
SGL804S430	150/140	24.4	16.93	430	324	147	20	460	60	24.8	3560	
	600/40	620					15.0					
	530		20.87	530	331	150						
	660		25.98	660	340	154						
	780		30.71	780	348	158						
980		38.58	980	359	163							

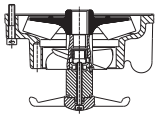


Quick Suctioning Immersion Pumps

of **series SGL** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely inflated 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.



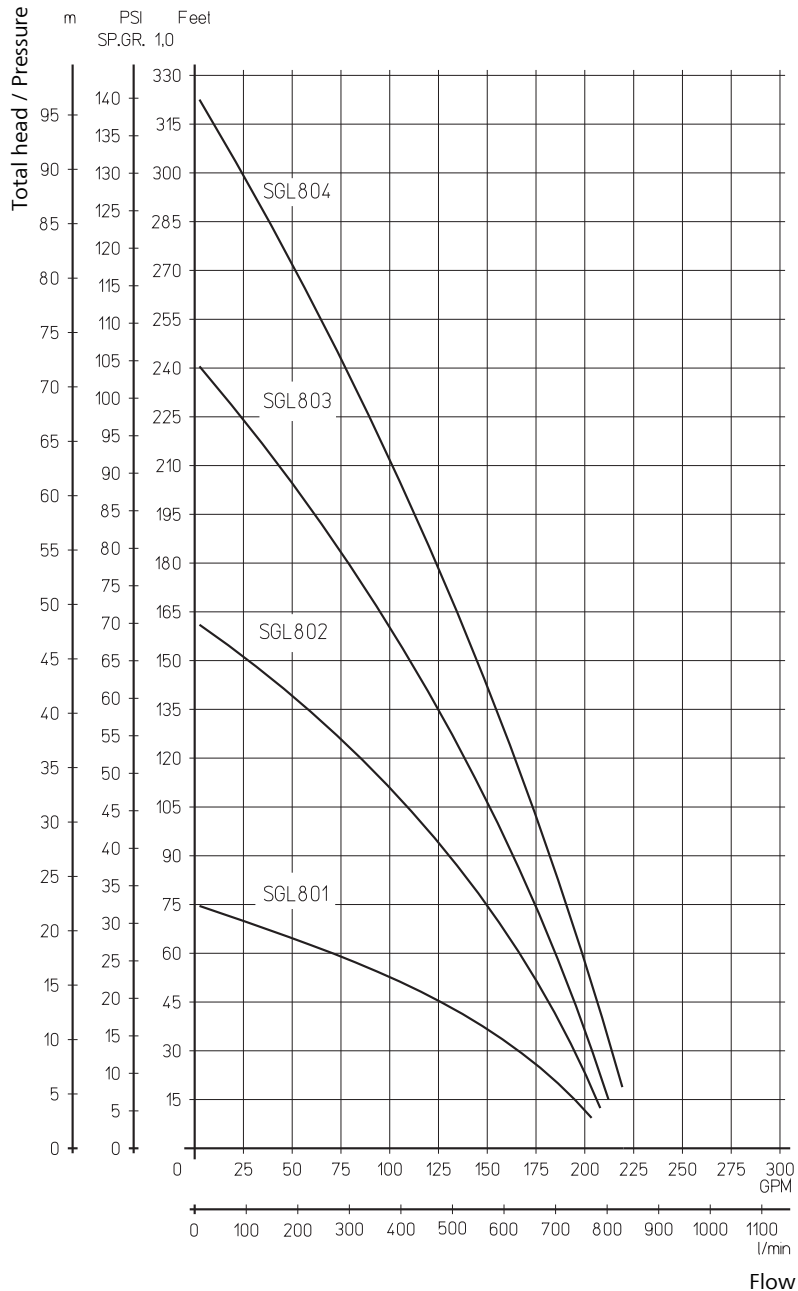
For position of terminal box, see mechanical features within the technical information section.

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



Quick Suctioning Immersion Pumps

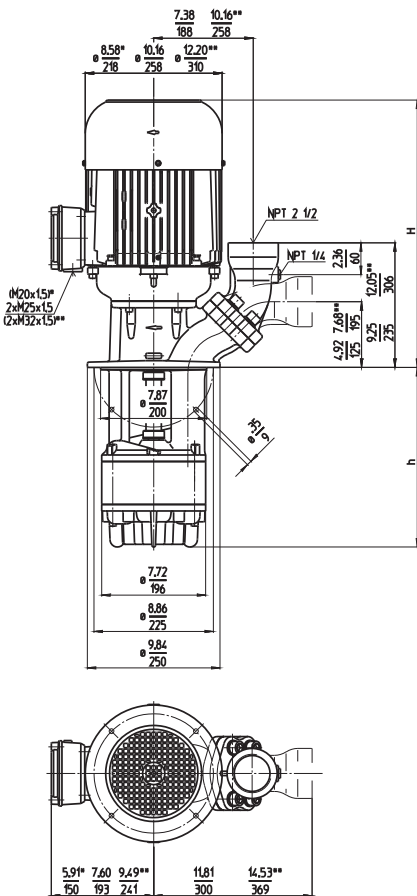


SGL1101...1103

Axial/semi-open impellers



SGL1101, 1102 SGL1103



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
SGL1101S230	250/32	18.4	9.06	230	127.9	58	5.4	208-230	60	19.0	3450
	950/10	468					4.0	460	60	9.5	3450
	330		12.99	330	132.3	60					
	460		18.11	460	136.7	62					
	580		22.83	580	143.3	65					
	780		30.71	780	154.4	70					
1010		39.76	1010	170	77						
SGL1102S310	250/65	24.1	12.20	310	247	112	13.8	460	60	16.9	3550
	950/19	612					10.3				
	410		16.14	410	254	115					
	540		21.26	540	260	118					
	660		25.98	660	271	123					
	860		33.86	860	282	128					
1090		42.91	1090	298	135						
SGL1103S390	250/90	24.4	15.35	390	306	139	20	460	60	24.8	3560
	950/27	620					15.0				
	490		19.29	490	313	142					
	620		24.41	620	326	148					
	740		29.13	740	331	150					
	940		37.01	940	342	155					

Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SGL1101

**) Dimensions SGL1103

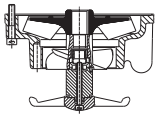


Quick Suctioning Immersion Pumps

of **series SGL** are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely inflated 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

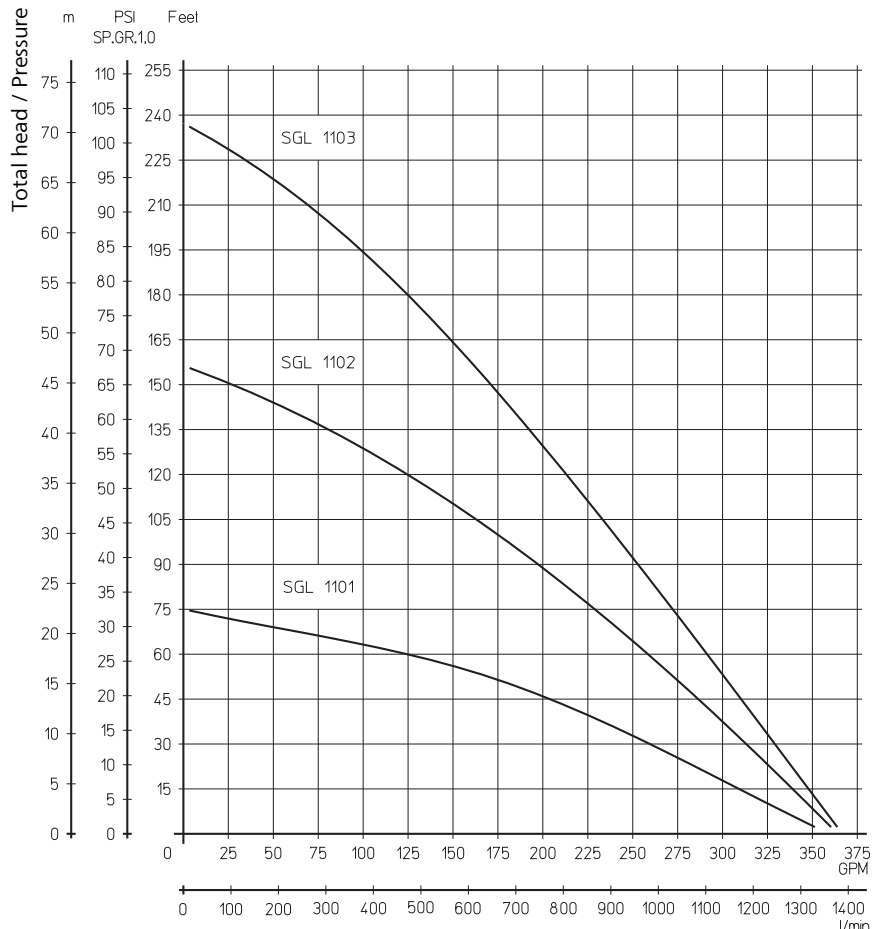
- Types of fluid
 - coolants
 - cooling/cutting oils
 - grinding oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Construction

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



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



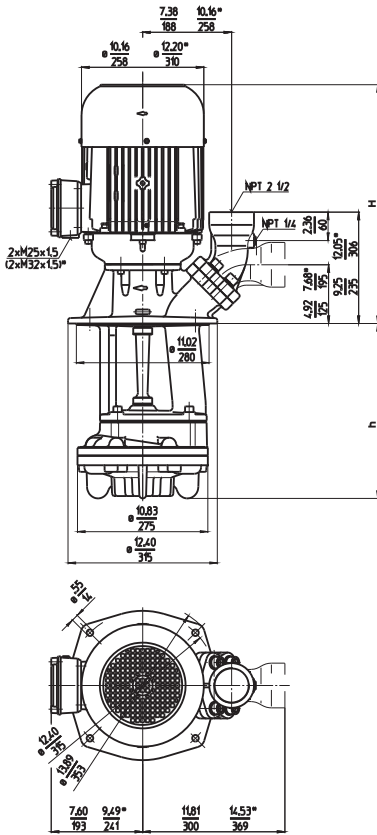
Quick Suctioning Immersion Pumps

SGL1400...2200

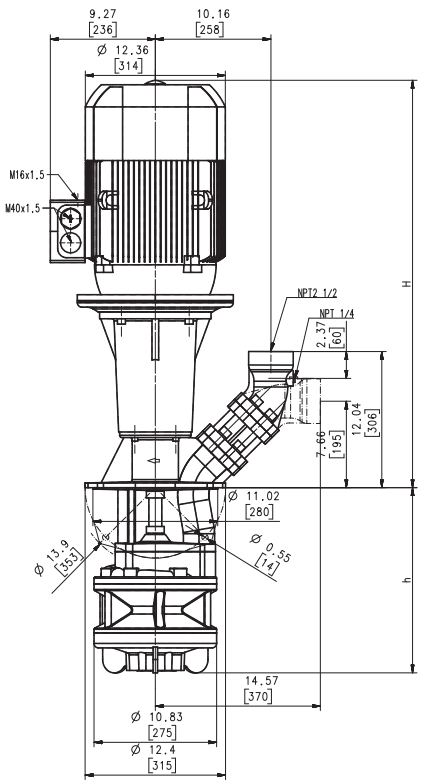
Axial/semi-open impellers



SGL1400, 1700



SGL1402...2200



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					
SGL1400S310	300/65	24.1	12.20	310	265	120	13.8 10.3	460	60	16.9	3550
	1200/18	612									
	440		17.32	440	269	122					
	560		22.05	560	273	124					
	810		31.89	810	287	130					
1060		41.73	1060	291	132						
SGL1700S310	350/75	24.4	12.20	310	322	146	20 15.0	460	60	24.8	3560
	1500/19	620									
	440		17.32	440	329	149					
	560		22.05	560	333	151					
	810		31.89	810	346	157					
1060		41.73	1060	351	159						
SGL1402S420	300/130	38.3	16.54	420	423	192	29 21.3	460	60	32	3555
	1200/35	974									
	550		21.65	550	428	194					
	670		26.38	670	432	196					
	920		36.22	920	445	202					
1170		46.06	1170	450	204						
SGL1732S420	350/180	38.5	16.54	420	558	253	34 25.3	460	60	38.9	3550
	1500/46	978									
	550		21.65	550	567	257					
	670		26.38	670	576	261					
	920		36.22	920	595	270					
1170		46.06	1170	604	274						
SGL2200S340	450/90	38.3	13.39	340	355	161	29 21.3	460	60	32	3555
	1800/26	974									
	470		18.50	470	359	163					
	590		23.23	590	364	165					
	840		33.07	840	377	171					
1090		42.91	1090	404	183						

Dimensions in Inches / mm
 *) Dimensions SGL1700
 Discharge port with NPT 2 inches available upon request.

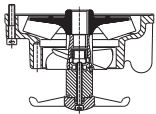


Quick Suctioning Immersion Pumps

of series SGL are equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely inflated 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.



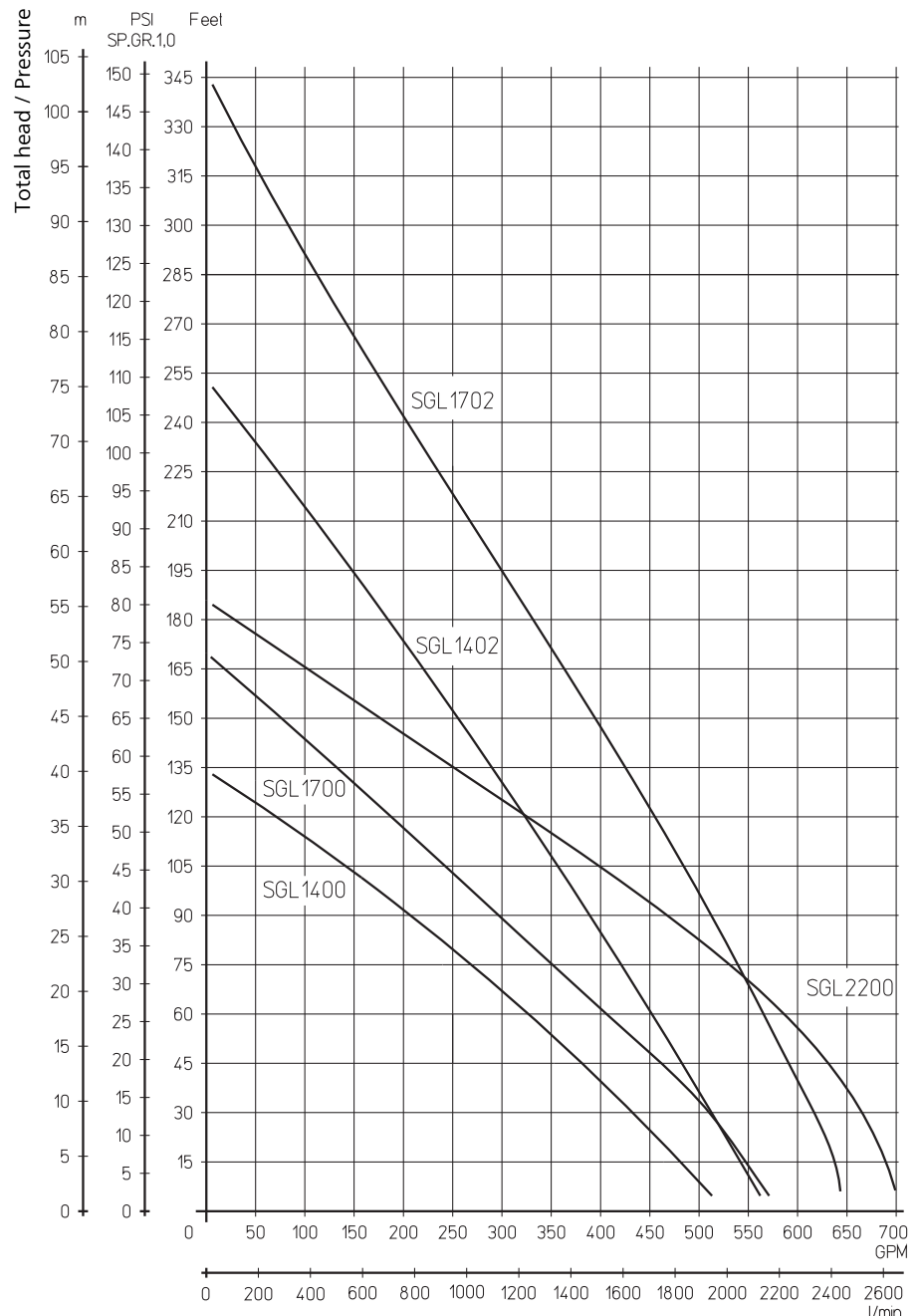
For position of terminal box, see mechanical features within the technical information section.

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



Suction Immersion Pumps

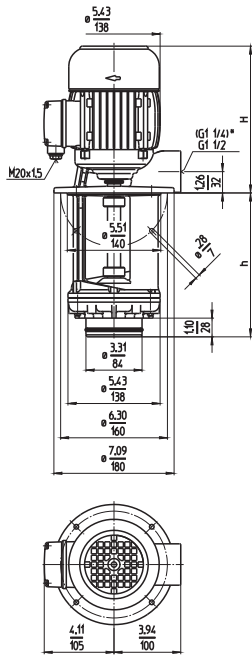
TAS/STS301...2000

Axial/semi-open impellers

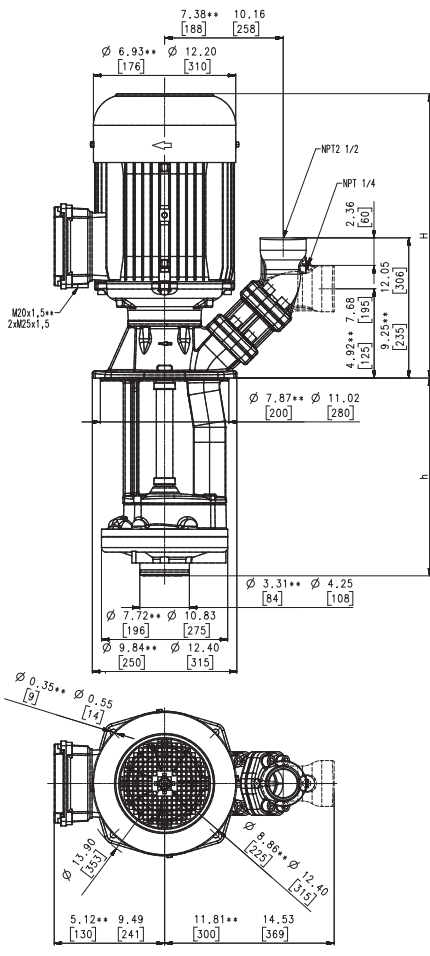


60 Hz

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	27.6	12.5	0.75	208-230	60	2.70	3250
	200/3	223					0.55	460	60	1.45	3250
	220		8.50	216	28.7	13.0					
	290		11.26	286	29.8	13.5					
	370		14.41	366	30.9	14.0					
TAS401S140	75/16	9.5	5.35	136	29.8	13.5	1.15	208-230	60	5.2	3300
	250/5	241					0.85	460	60	2.5	3300
	220		8.50	216	32.0	14.5					
	290		11.26	286	34.2	15.5					
	370		14.41	366	36.4	16.5					
TAS601S150	100/18	9.5	5.67	144	30.9	14.0	1.25	208-230	60	5.4	3300
	400/4	241					0.92	460	60	2.7	3300
	230		8.82	224	34.2	15.5					
	300		11.57	294	36.4	16.5					
	380		14.72	374	38.6	17.5					
STS1001S230	175/45	16.9	8.50	216	112.5	51	3.5	208-230	60	12.6	3400
	600/14	429					2.6	460	60	6.3	3400
	330		12.44	316	116.9	53					
	460		17.56	446	121.3	55					
	580		22.28	566	127.9	58					
STS2000S310	400/75	24.4	11.81	300	318	144	17	460	60	21.5	3560
	1600/21	620					12.6				
	440		16.93	430	322	146					
	560		21.65	550	329	149					
	810		31.50	800	342	155					
1060		41.34	1050	346	157						

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.

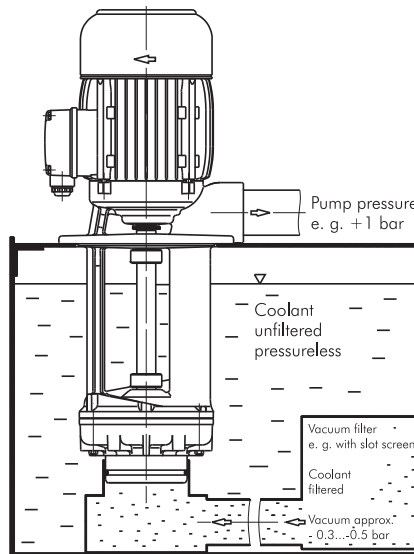


For position of terminal box, see mechanical features within the technical information section.

Viton® is a registered trademark of Du Pont.

Applications

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

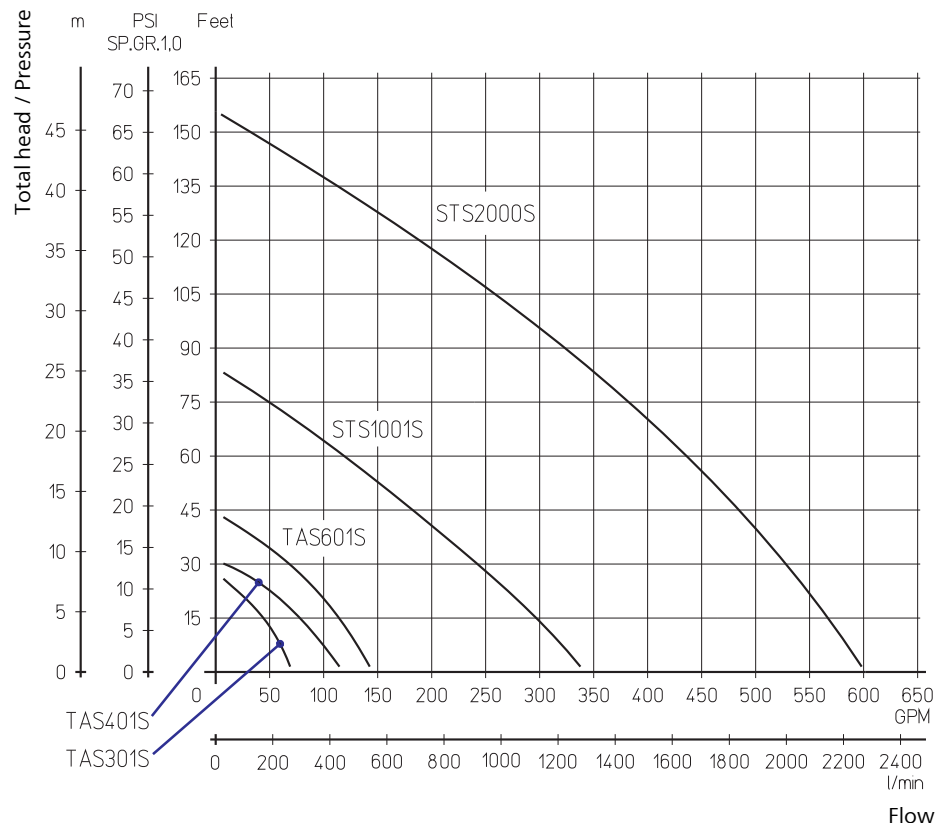


Construction

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	70 dBA
STS2000	79 dBA

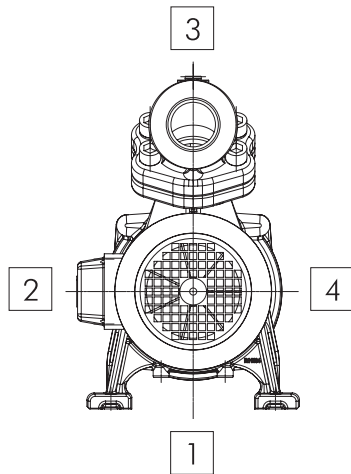
Suction connection

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

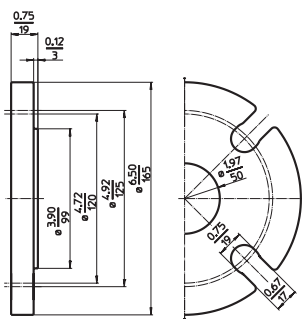


Location	Series SBA, SBG and SBF	
	Terminal box location	Foot location
1	–	Standard
2	Standard	●
3	□	–
4	●	●

- available
- available upon request
- not available

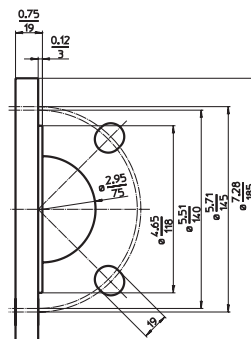
Attention:
Terminal box location and foot location cannot be facing in the same direction!

Horizontal End-Suction Pumps – Suction port



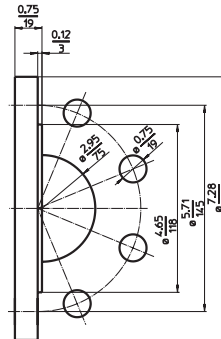
DN50, 4 hole flange connection
size 140

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

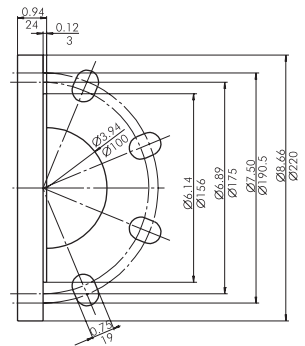


DN65, 4 hole flange connection
sizes 400, 550, 600
sizes 650, 850, 1150, 800, 900,
1300

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

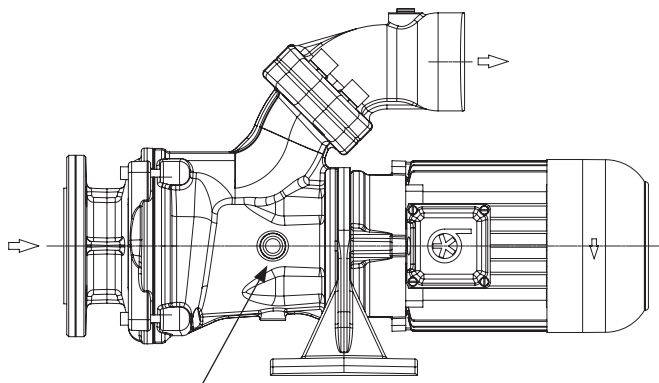


DN65, 8 hole flange connection
sizes 850, 1150, 1100, 1300
Available upon request



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

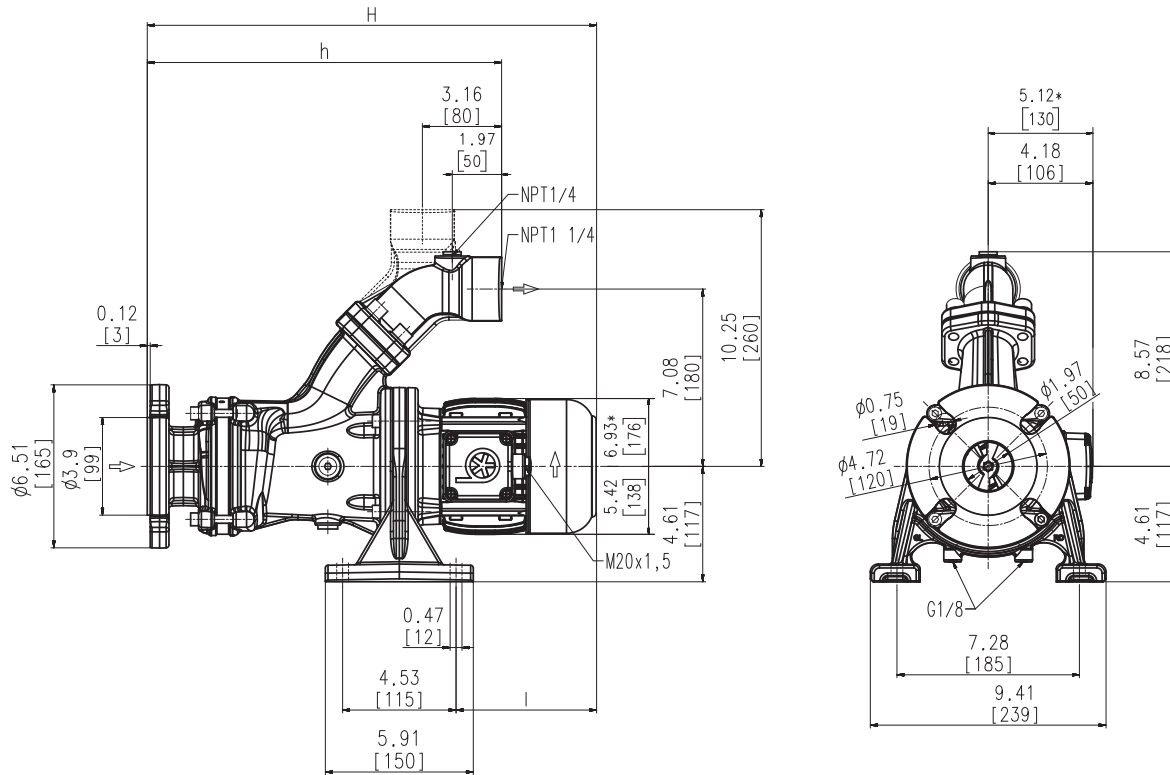
SBA141S...143S

Axial/semi-open impellers



60 Hz

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
SBA141S	25/32	18.0	456	14.1	359	5.6	143	56.2	25.5	0.73	208-230	60	2.8	3300
	100/9									0.54	460	60	1.4	3300
SBA142S	25/53	21.4	544	16.1	410	7.1	181	62.8	28.5	1.5	208-230	60	5.8	3300
	100/14									1.1	460	60	2.9	3300
SBA143S	25/83	23.6	600	17.4	443	8.0	203	84.9	38.5	2	208-230	60	7.6	3400
	100/21									1.5	460	60	3.8	3400



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

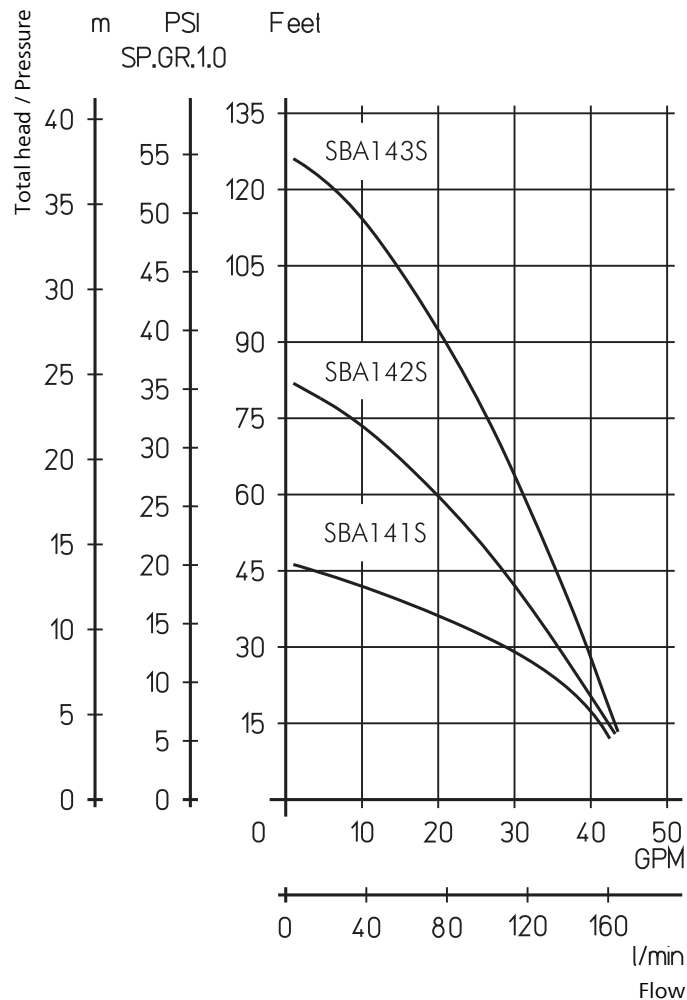
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



Horizontal End-Suction Pumps

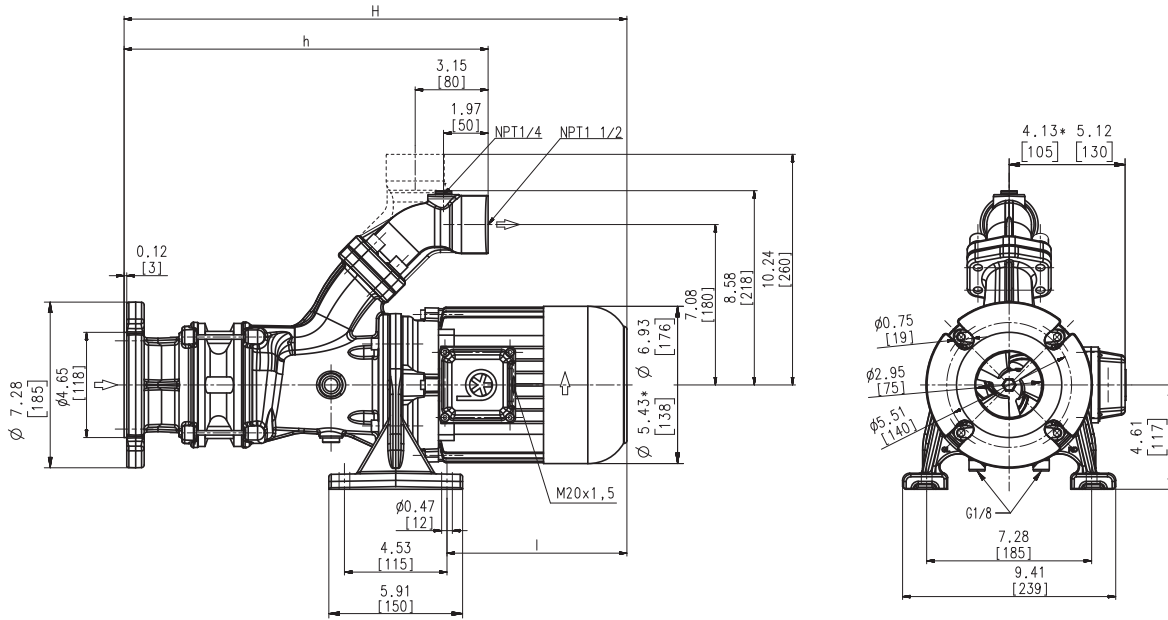
SBA401S...403S

Axial/semi-open impellers



60 Hz

SBA401S...403S



Dimensions in Inches / mm
*) Dimensions SBA401S

Type	Flow at head	Dimensions				Length		Weight		Power 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					
SBA401S	60/25	18.7	474	14.1	359	6.3	161	55.1	25	1.15	208-230	60	5.2	3300
	240/7									0.85	460	60	2.5	3300
SBA402S	60/47	22.2	565	16.1	408	8.0	203	86.0	39	1.75	208-230	60	6	3400
	240/14									1.3	460	60	3	3400
SBA403S	60/70	24.2	614	18.0	457	8.0	203	90.4	41	2.3	208-230	60	8.2	3400
	240/21									1.7	460	60	4.1	3400



Horizontal End-Suction Pumps

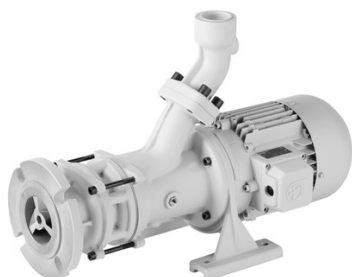
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). 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

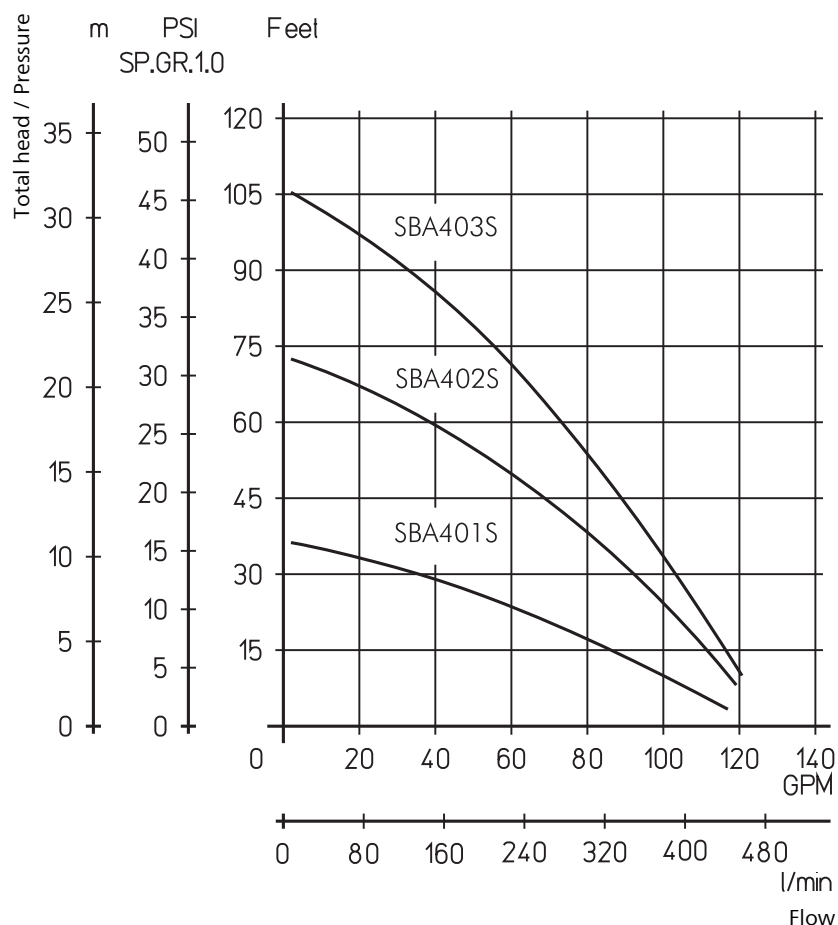
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



Horizontal End-Suction Pumps

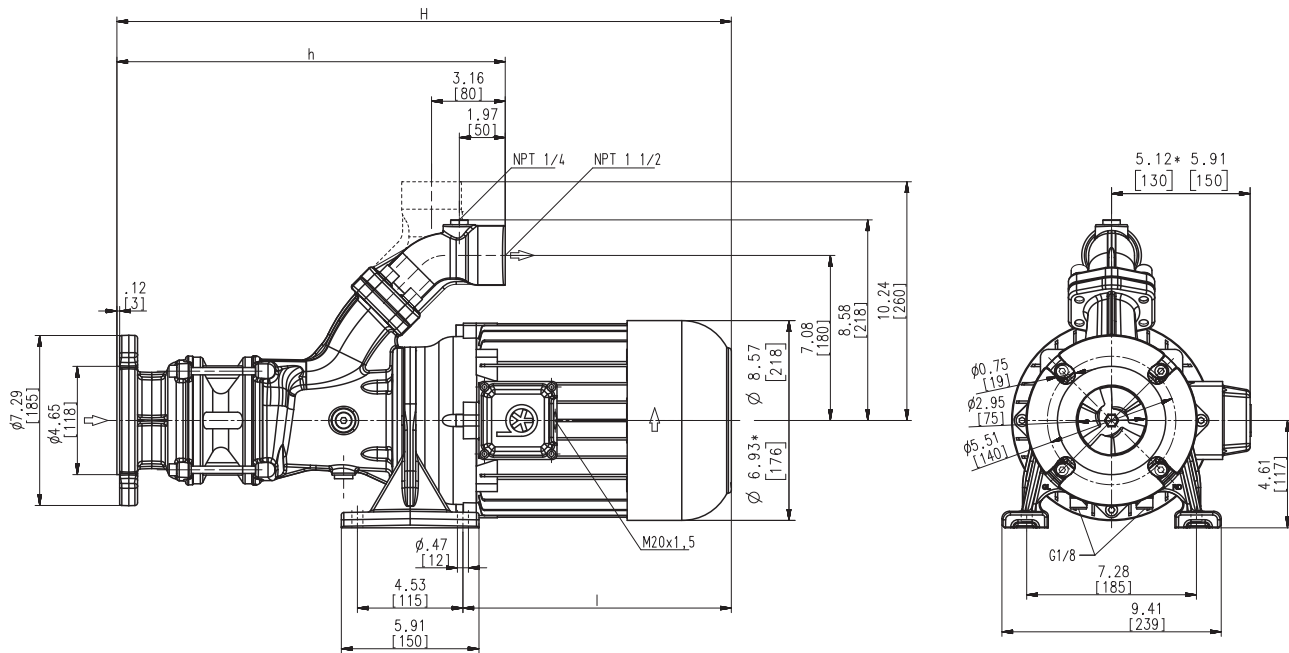
SBA430S...433S

Axial/semi-open impellers



60 Hz

SBA430S...433S



Dimensions in Inches / mm

*) Dimensions SBA431S

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	20.3	516	14.1	359	8.0	203	83.8	38	2.3	208-230	60	8.2	3400
	400/11									1.7	460	60	4.1	3400
SBA432S	100/82	26.3	669	16.7	423	11.5	293	127.9	58	4.4	208-230	60	16	3450
	400/24									3.3	460	60	8	3450
SBA433S	100/118	28.9	733	19.2	487	11.5	293	138.9	63	5.4	208-230	60	19.0	3450
	400/34									4.0	460	60	9.5	3450



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

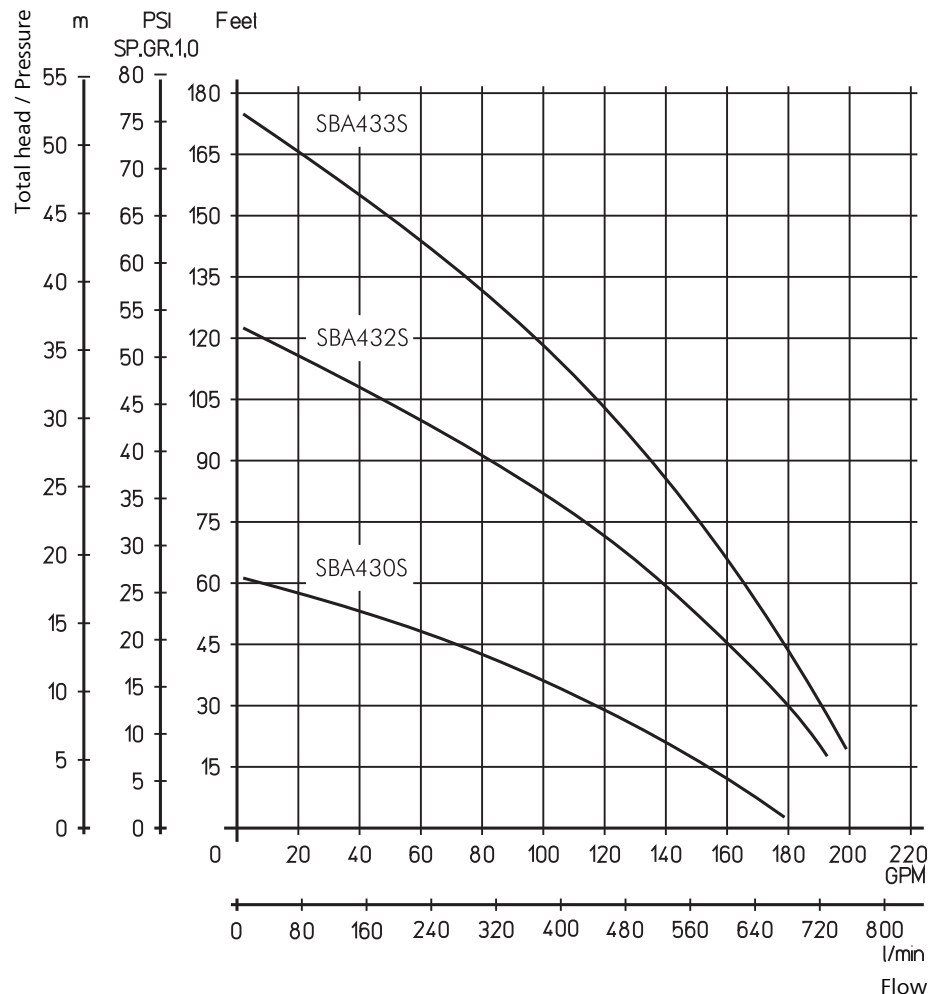
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



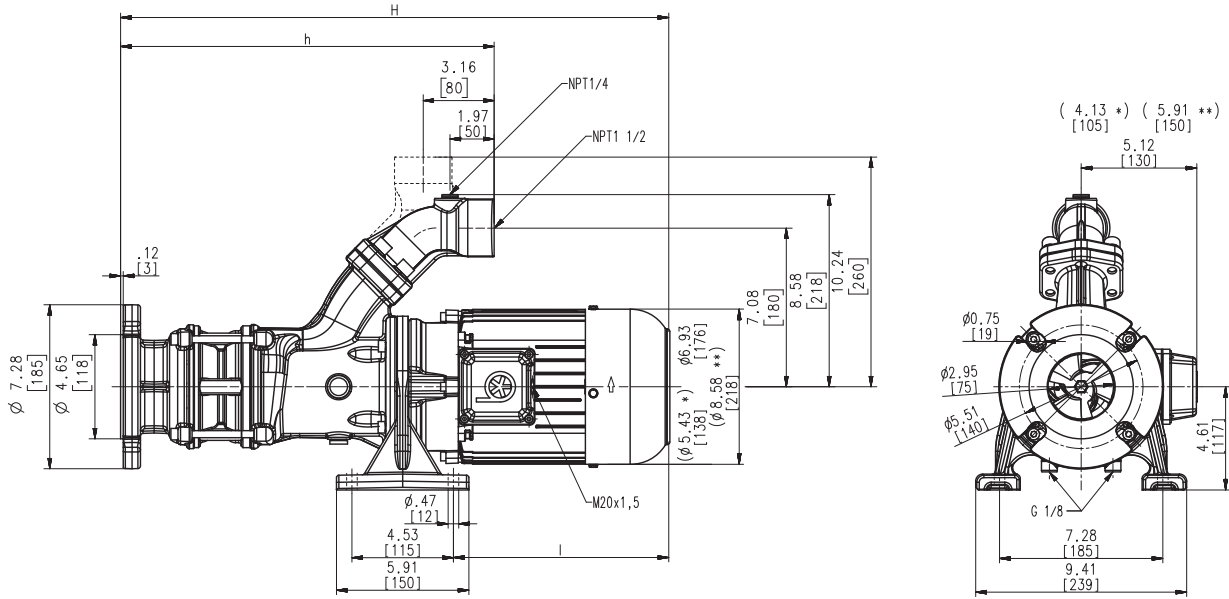
Horizontal End-Suction Pumps

SBA601S...604S

Axial/semi-open impellers



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	18.7	474	14.1	359	6.3	161	57.3	26	1.25	208-230	60	5.4	3300
	440/5									0.92	460	60	2.7	3300
SBA602S	110/46	24.4	620	16.7	423	9.6	243	94.8	43	3	208-230	60	10.6	3400
	440/13									2.2	460	60	5.3	3400
SBA603S	110/76	28.9	733	19.2	487	11.5	293	105.8	48	4.4	208-230	60	16	3450
	440/21									3.3	460	60	8	3450
SBA604S	110/90	31.4	797	21.7	551	11.5	293	141.1	64	5.4	208-230	60	19.0	3450
	440/25									4.0	460	60	9.5	3450



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.



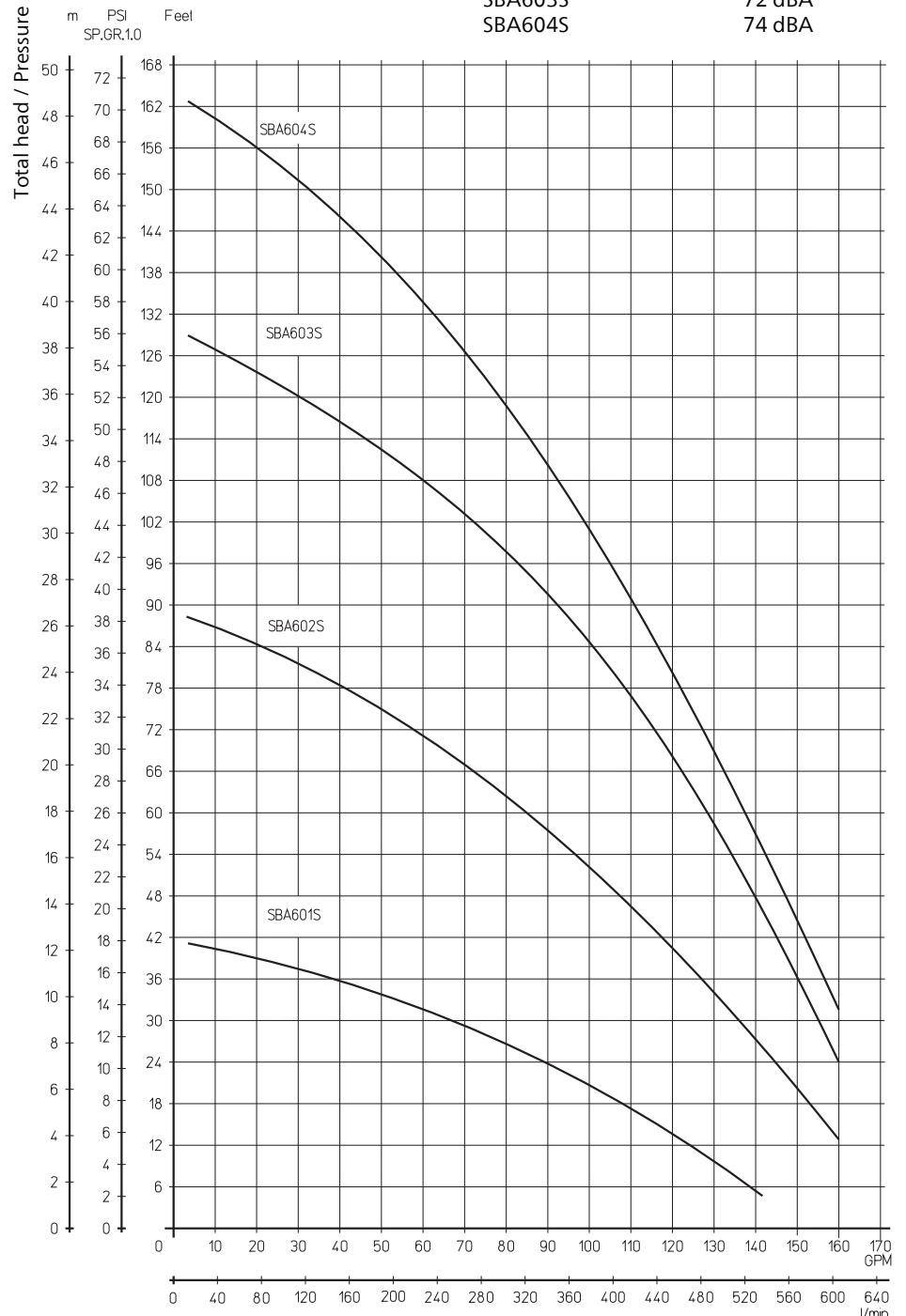
For position of terminal box, see mechanical features within the technical information section.

Applications

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

Construction

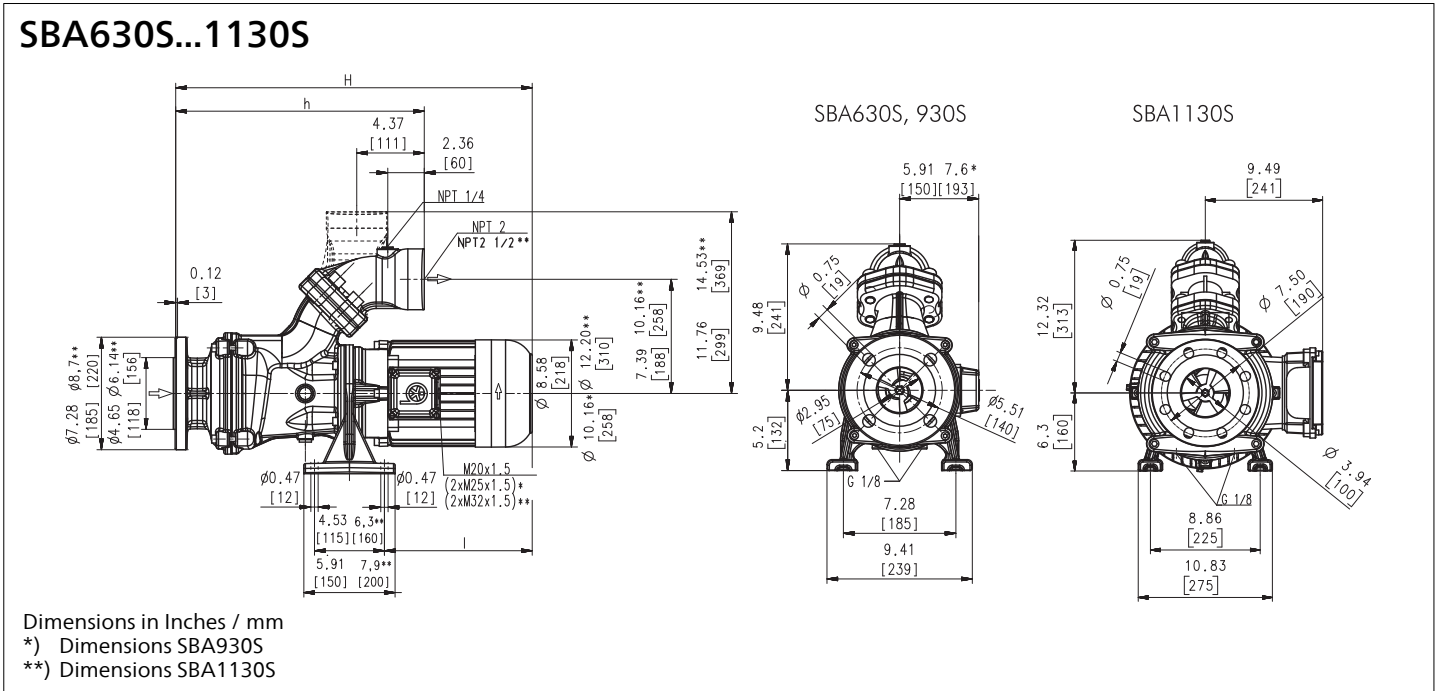
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA601S	65 dBA
SBA602S	69 dBA
SBA603S	72 dBA
SBA604S	74 dBA



Horizontal End-Suction Pumps

SBA630S...1130S

Axial/semi-open impellers



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	25.0	636	16.1	408	11.5	293	138.9	63	5.4	208-230	60	19.0	3450
	800/16									4.0	460	60	9.5	3450
SBA930S	250/65	26.6	676	16.2	412	13.0	329	181	82	7.4	208-230	60	25.0	3450
	1000/18									5.5	460	60	12.5	3450
SBA1130S	450/75	31.6	802	19.5	495	16.6	422	313	142	17	460	60	21.5	3560
	1700/24									12.6				



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

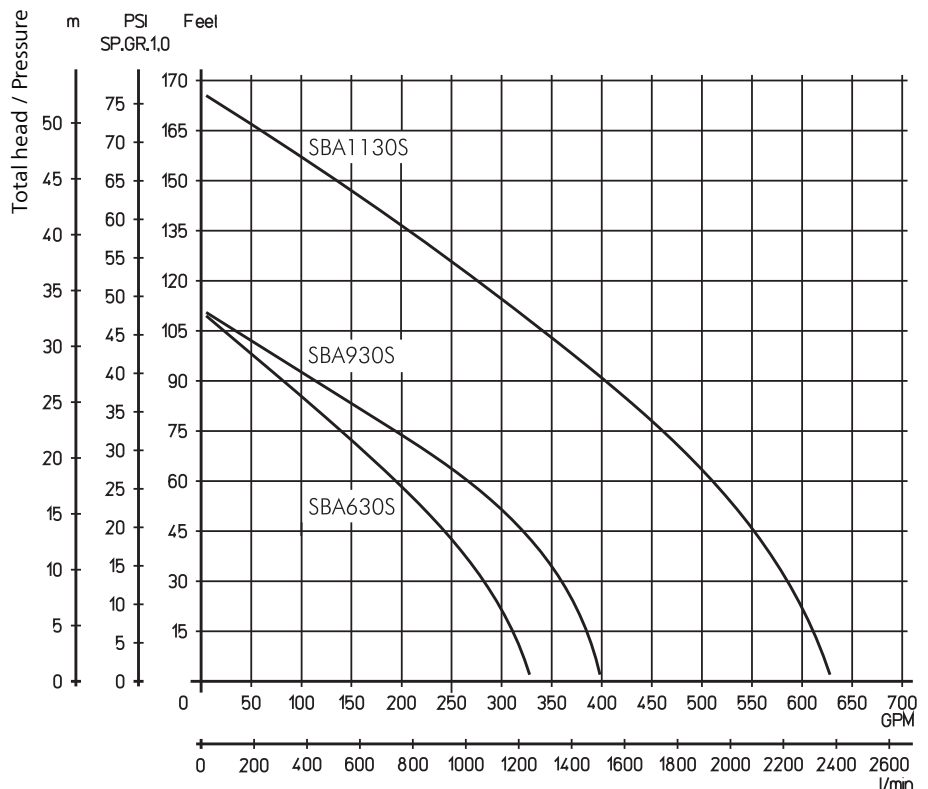
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

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 (-6 dBA)	



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



Horizontal End-Suction Pumps

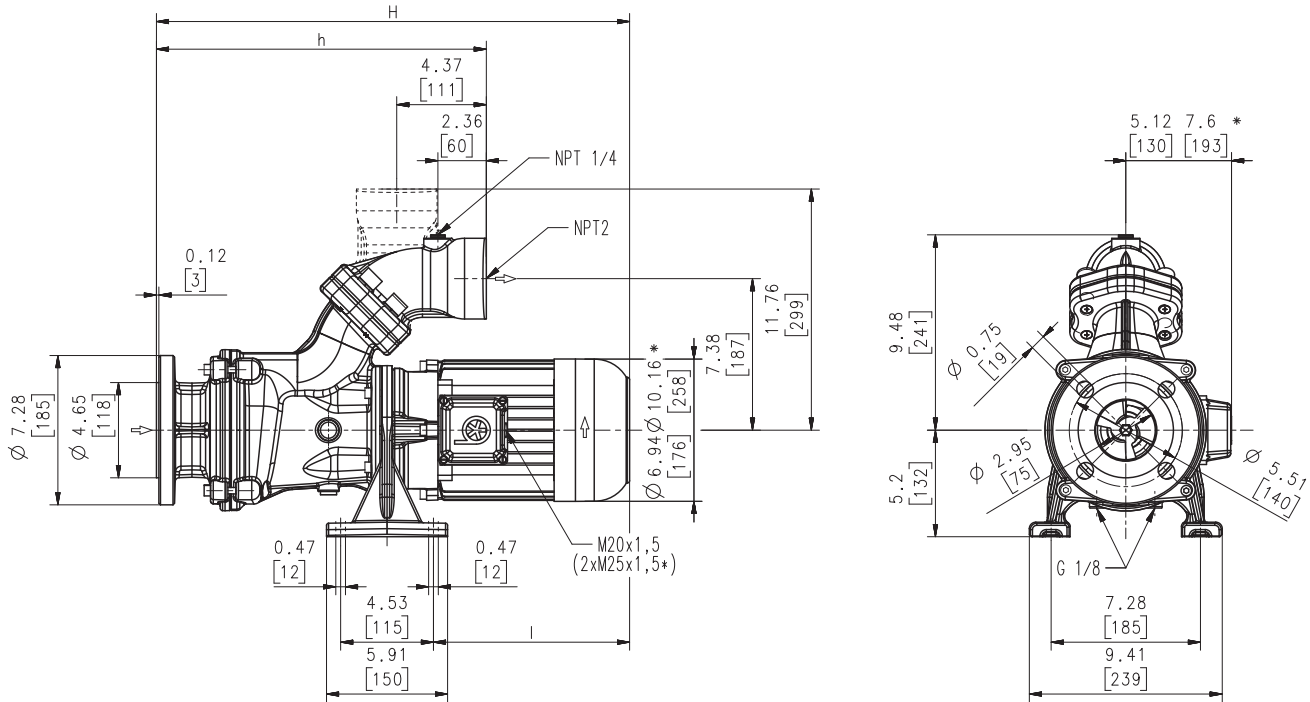
SBA901S...903S

Axial/semi-open impellers



60 Hz

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	175/46 700/14	23.5	596	16.1	408	10.0	253	116.9	53	3.5	208-230	60	12.6	3400	
				7.6	193	2.6	60	6.3	3400						
SBA902S	175/95 700/28	29.2	742	18.8	478	13.0	329	190	86	7.4	208-230	60	25.0	3450	
				7.6	193	5.5	60	12.5	3450						
SBA903S	175/140 700/42	36.2	919	21.6	548	17.2	437	269	122	13.8	460	60	16.9	3550	
				7.6	193	10.3	260	16.9	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

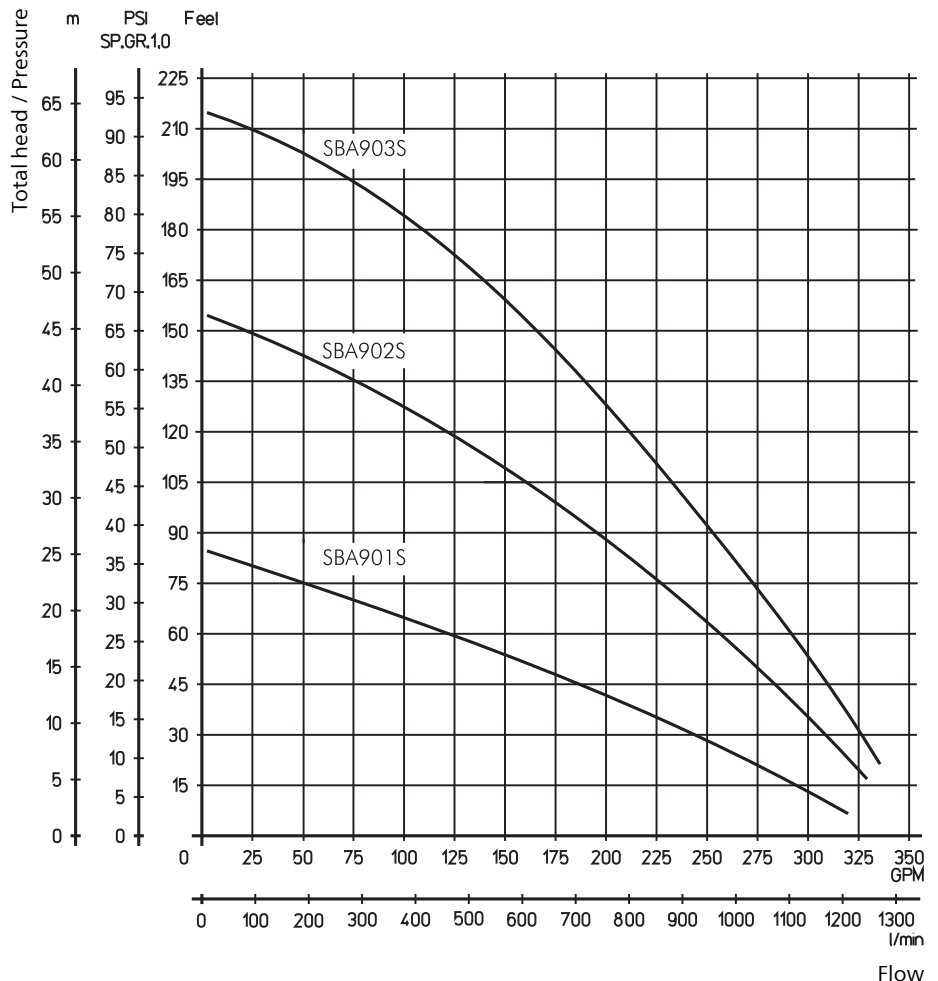
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA901S	71 dBA
SBA902S	74 dBA
SBA903S	78 dBA



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



Horizontal End-Suction Pumps

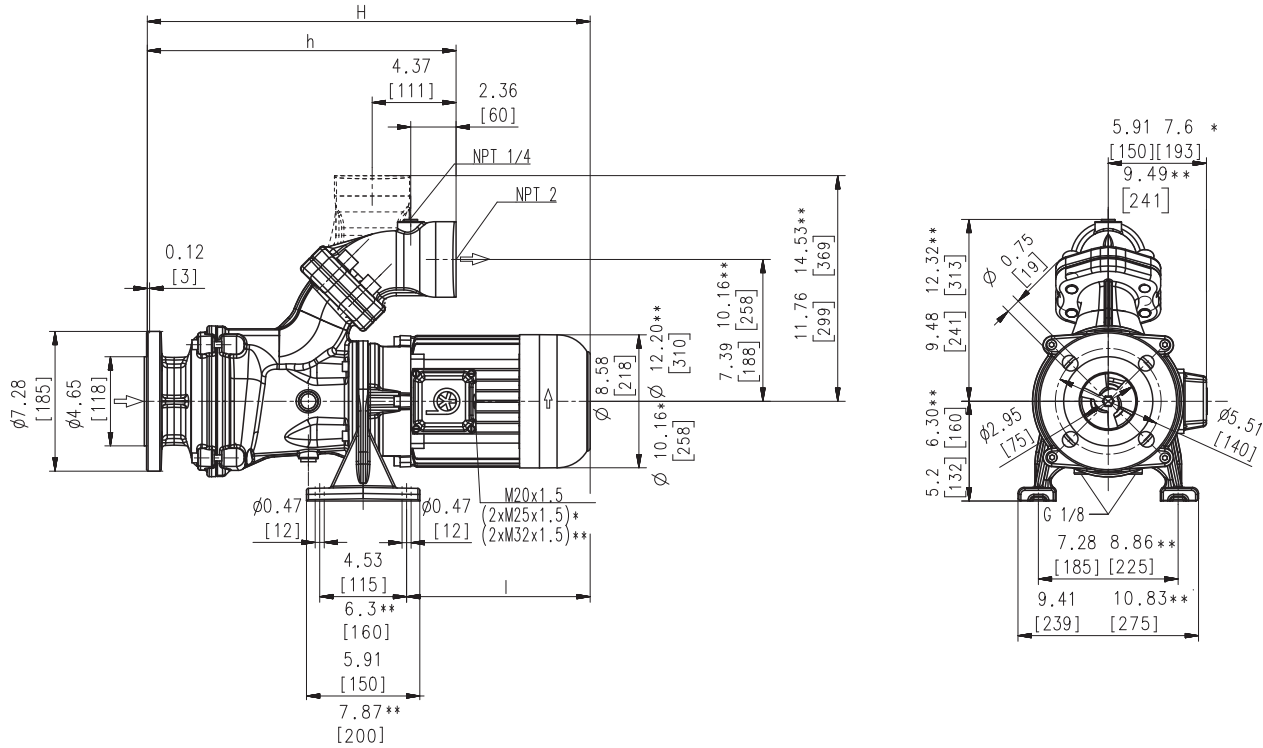
SBA1301S...1303S

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	25.2	640	16.2	412	11.5	293	134.5	61	5.4	208-230	60	19.0	3450
	900/12									4.0	460	60	9.5	3450
SBA1302S	225/90	34.0	863	19.4	492	17.2	437	247	112	11.5	460	60	14.2	3550
	900/25									8.6				
SBA1303S	225/135	37.4	951	25.3	643	16.6	422	313	142	17	460	60	21.5	3560
	900/39									12.6				



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

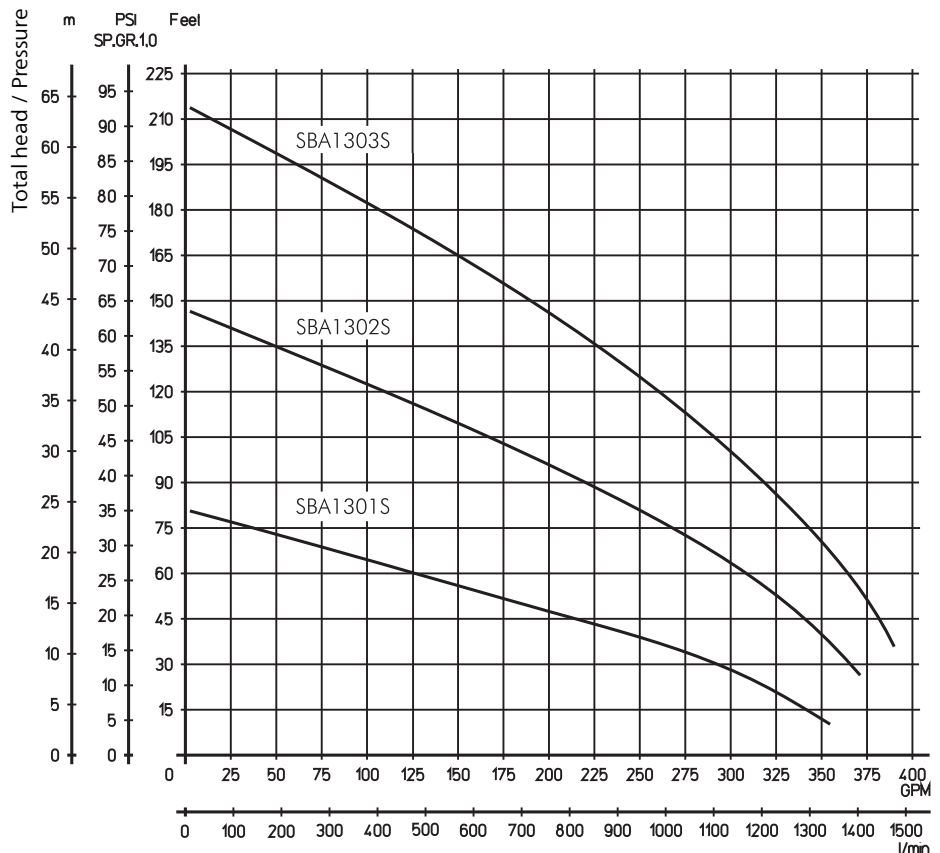
Types of fluid
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

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



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



Horizontal End-Suction Pumps

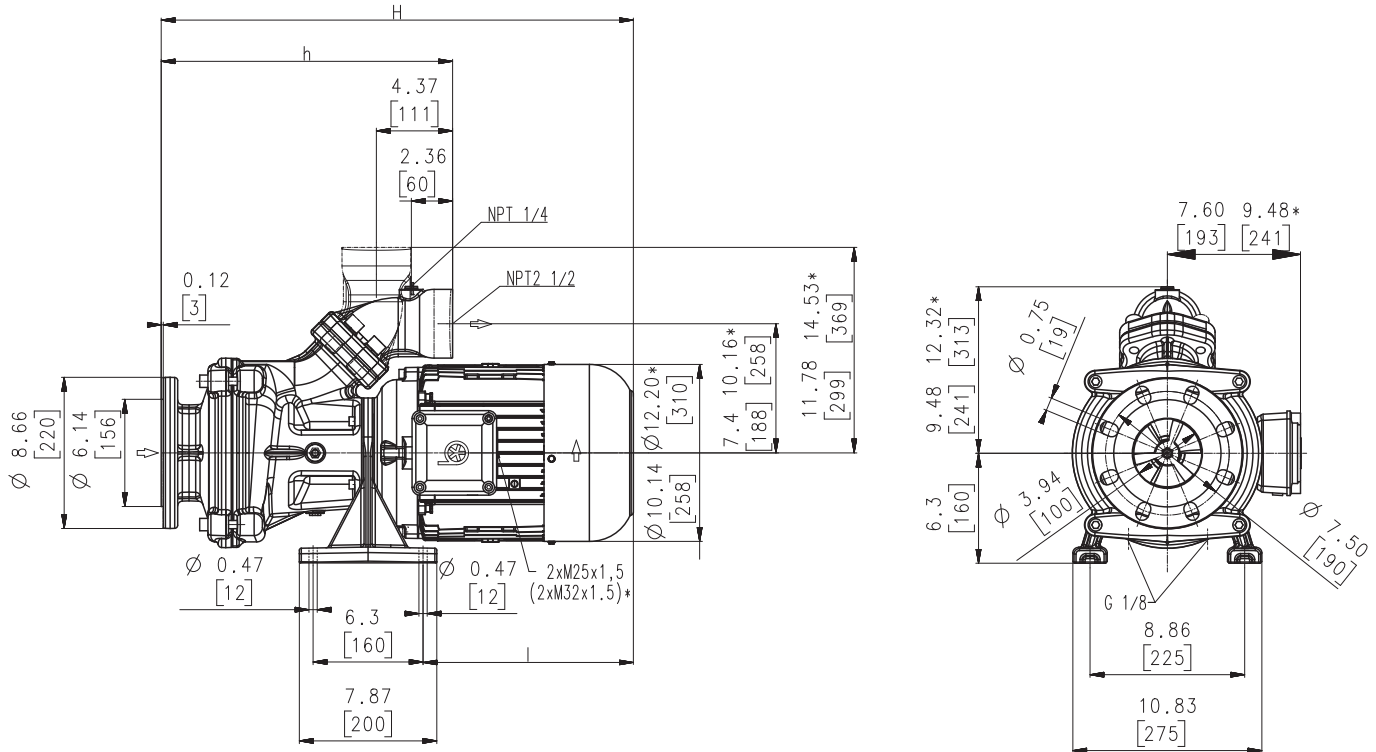
SBA1600S...2000S

Axial/semi-open impellers



60 Hz

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 1400/17	31.2	793	16.7	424	16.3	414	256	116	13.8 10.3	460	60	16.9	3550
SBA2000S	400/70 1600/20	31.6	802	19.5	495	16.6	422	313	142	17 12.6	460	60	21.5	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

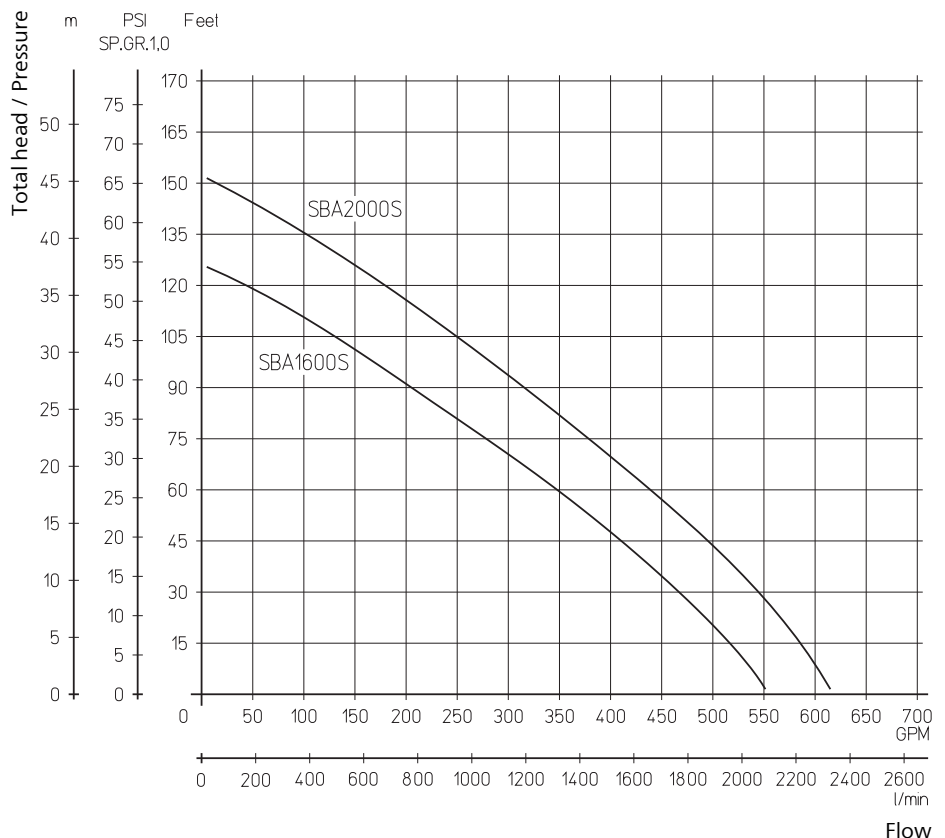
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...200 SSU (...45 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

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



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



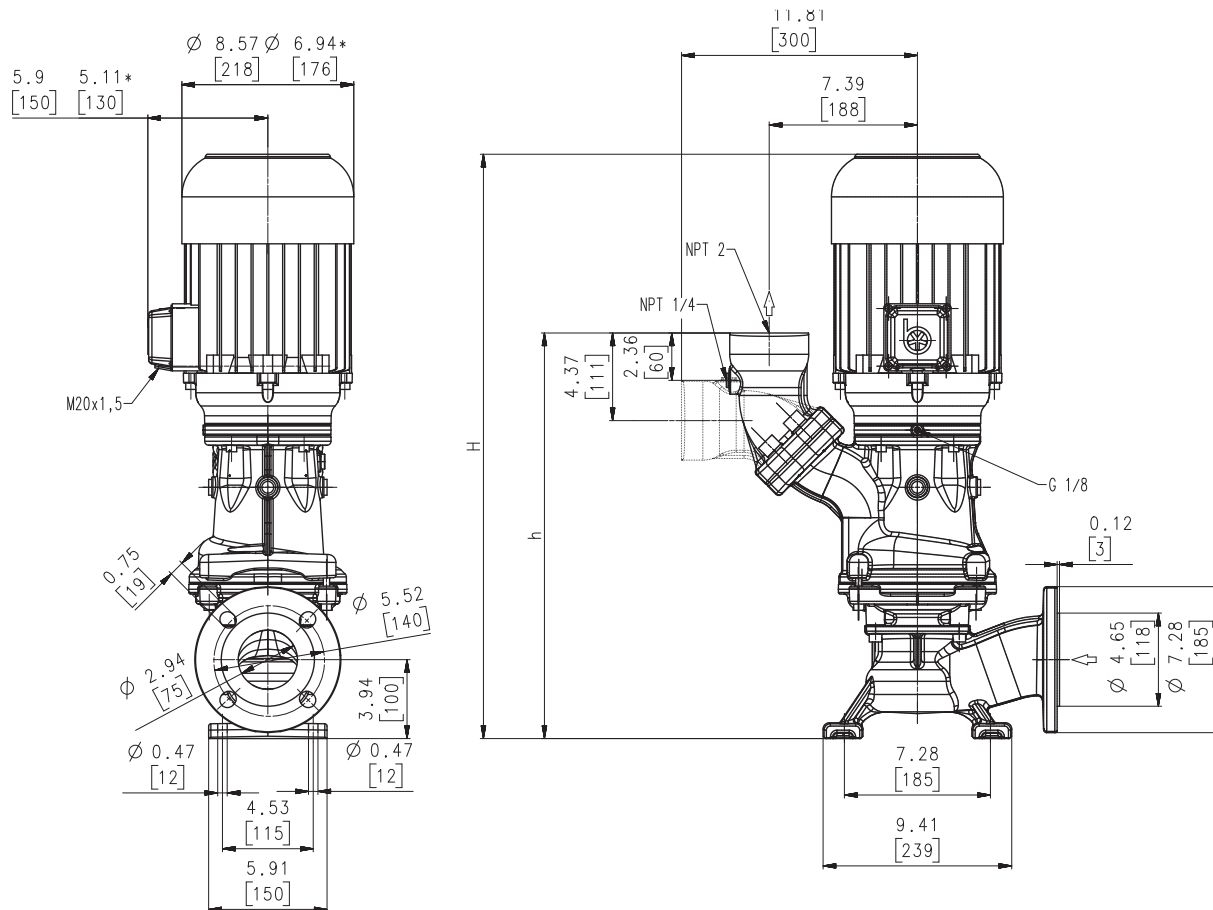
Vertical End Suction Pumps

SBA901S...1301S-V

Axial/semi-open impellers



SBA901S...1301S-V



Dimensions in Inches / mm; *) Dimensions SBA901S-V

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	27.8	707	19.9	506	138.9	63	3.5	208-230	60	12.6	3400	
	600/12							2.6	460	60	6.3	3400	
SBA1301S-V	250/40	29.1	740	20.2	514	156.6	71	5.4	208-230	60	19.0	3450	
	900/12							4.0	460	60	9.5	3450	



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.**

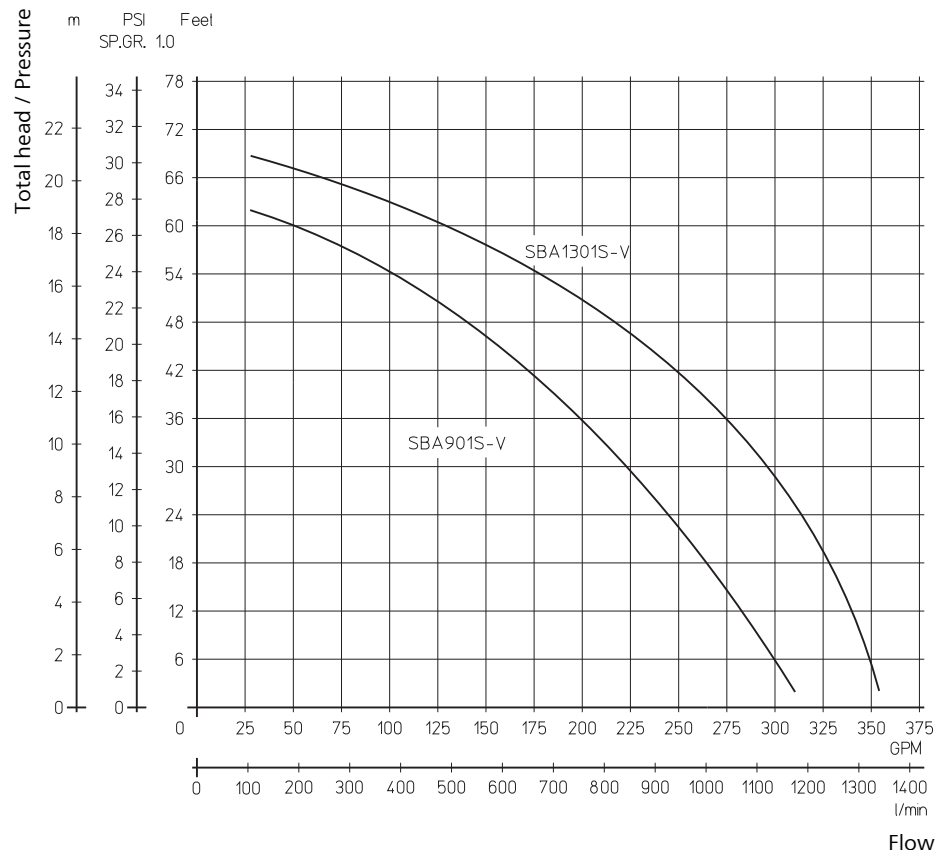
The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

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	72 dBA
SBA1301S-V	74 dBA

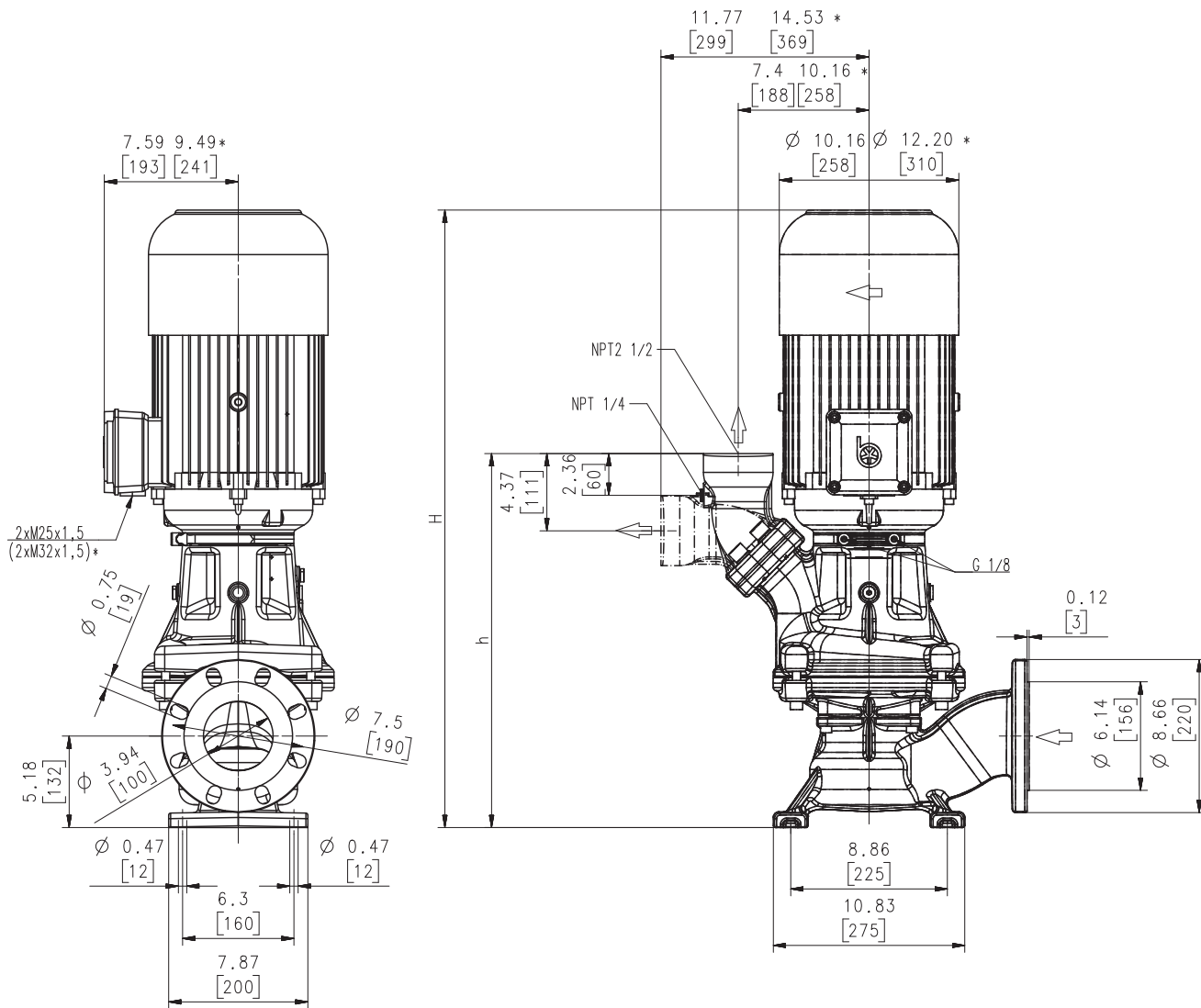


Vertical End Suction Pumps

SBA1600S...2000S-V

Axial/semi-open impellers

SBA1600S...2000S-V



Dimensions in Inches / mm
*) Dimensions SBA2000S-V

Type	Flow at head	Dimensions		Weight		Power	Voltage	Fre-	Current	Speed		
	GPM /Feet l/min /m	H inch	H mm	h inch	h mm	Lbs	kg	3~	AMPS	RPM		
						HP	V	quency				
						kW		Hz				
SBA1600S-V	350/47 1400/15	35.7	907	21.2	538	280	127	13.8 10.3	460	60	16.9	3550
SBA2000S-V	450/60 1600/21	36.1	916	24.0	609	337	153	17 12.6	460	60	21.5	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 **air entrained coolant fluids, such as water-soluble coolants or cutting oils**, as they occur in **high speed turning, milling or grinding applications**.

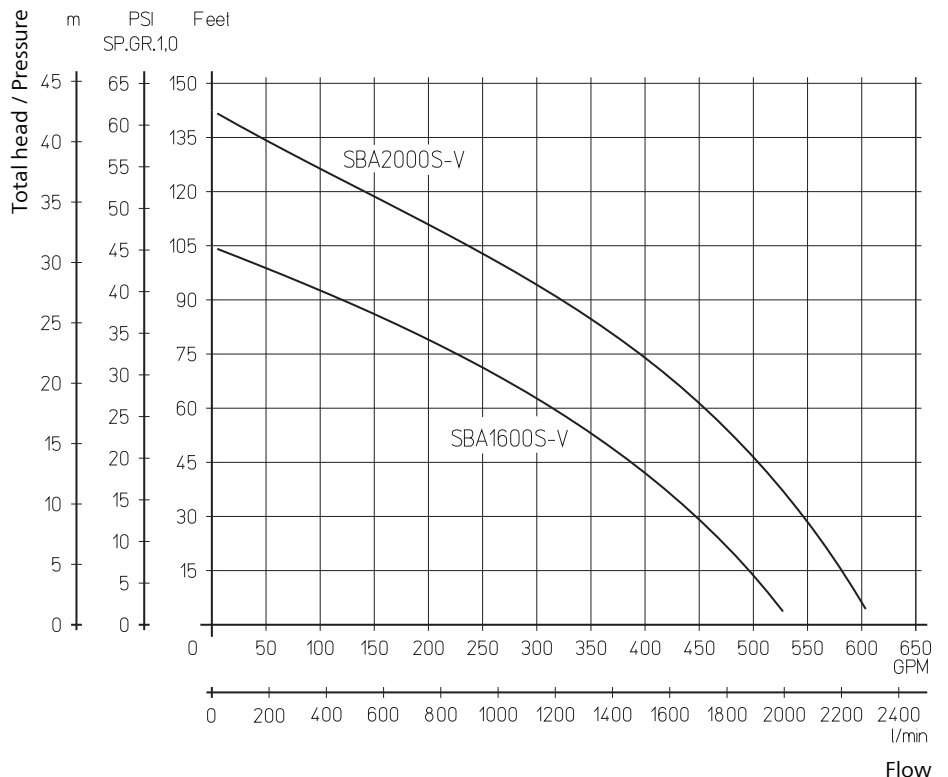
The SBA pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

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	76 dBA
SBA2000S-V	79 dBA



Horizontal End-Suction Pumps

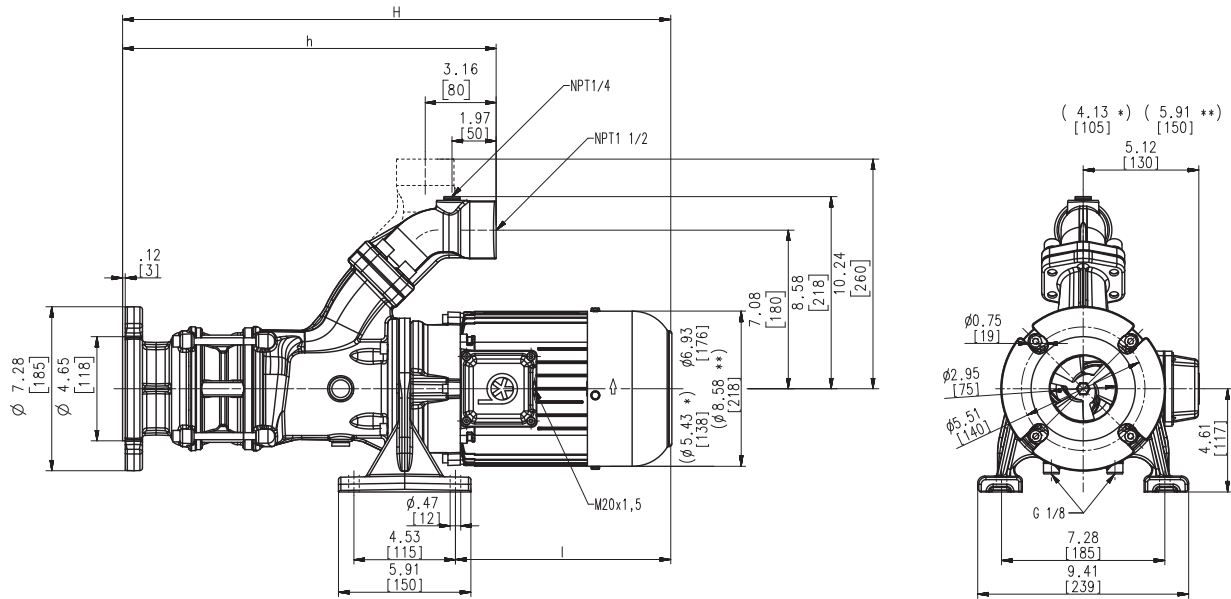
SBG501S...503S

Axial/semi-open impellers



60 Hz

SBG501S...503S



Dimensions in Inches / mm

*) Dimensions SBG501S

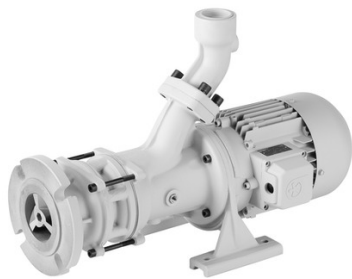
**) Dimensions SBG503S

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	19.4	494	14.1	359	7.1	181	59.5	27	1.5	208-230	60	5.8	3300
	240/9									1.1	460	60	2.9	3300
SBG502S	60/62	24.4	620	16.7	423	9.6	243	94.8	43	3	208-230	60	10.6	3400
	240/18									2.2	460	60	5.3	3400
SBG503S	60/90	28.9	733	19.2	487	11.5	293	105.8	48	4.4	208-230	60	16	3450
	240/25									3.3	460	60	8	3450



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.



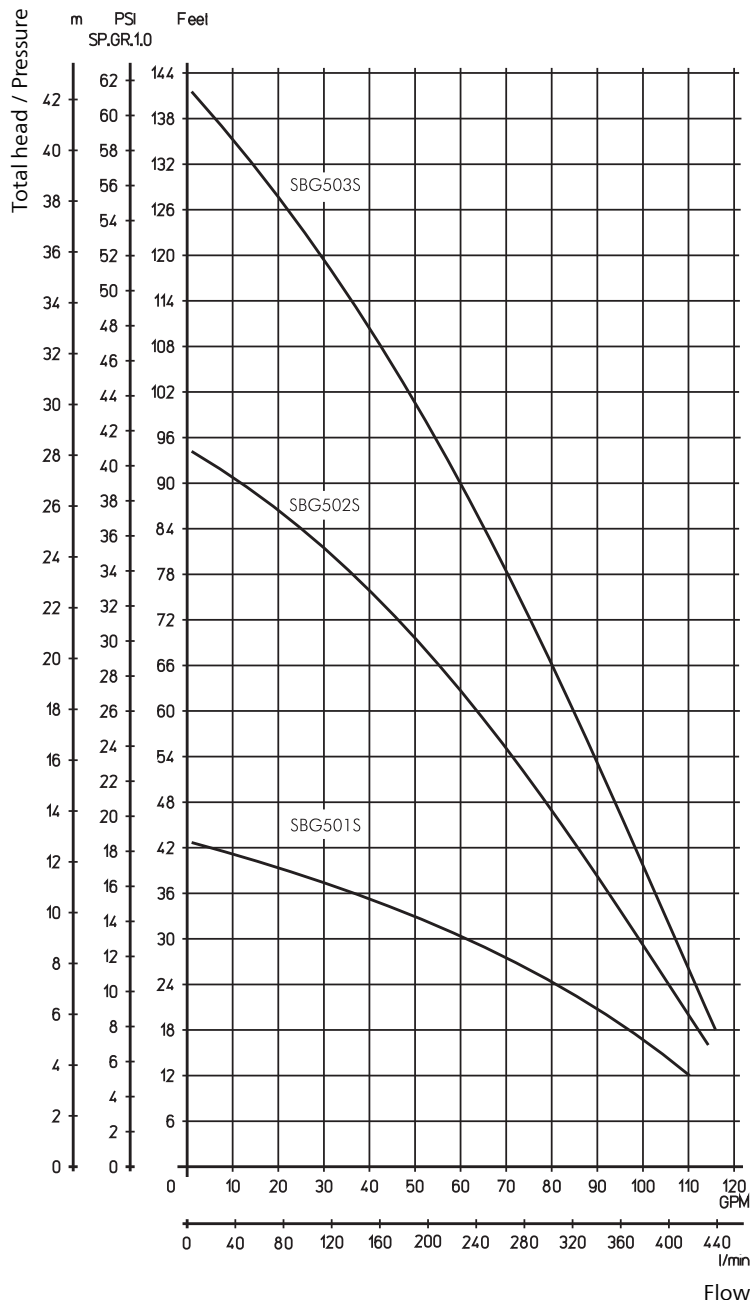
For position of terminal box, see mechanical features within the technical information section.

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

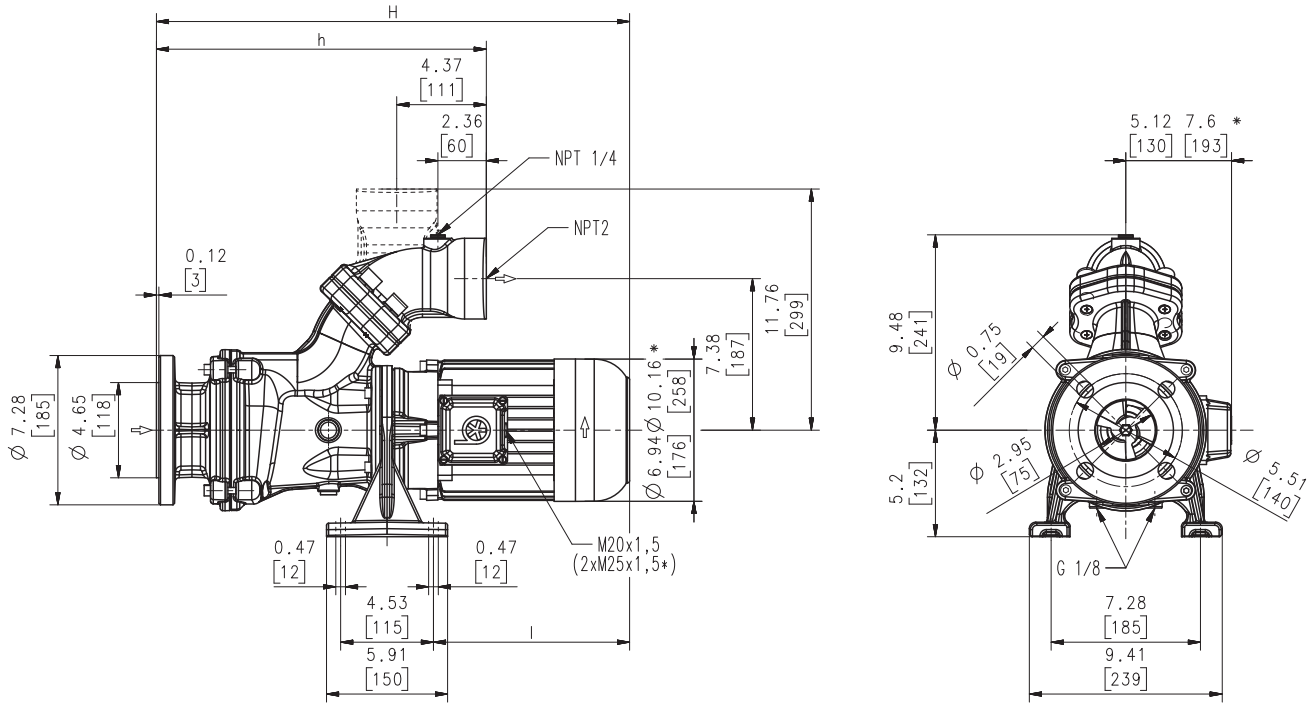
SBG801S...803S

Axial/semi-open impellers



60 Hz

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	150/46 600/14	23.5	596	16.1	408	10.0	253	116.9	53	3.5	208-230	60	12.6	3400	
				2.6	460	60	6.3	3400							
SBG802S	150/92 600/26	29.2	742	18.8	478	13.0	329	190	86	7.4	208-230	60	25.0	3450	
				5.5	460	60	12.5	3450							
SBG803S	150/112 600/31	36.2	919	21.6	548	17.2	437	269	122	13.8	460	60	16.9	3550	
				10.3											



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.



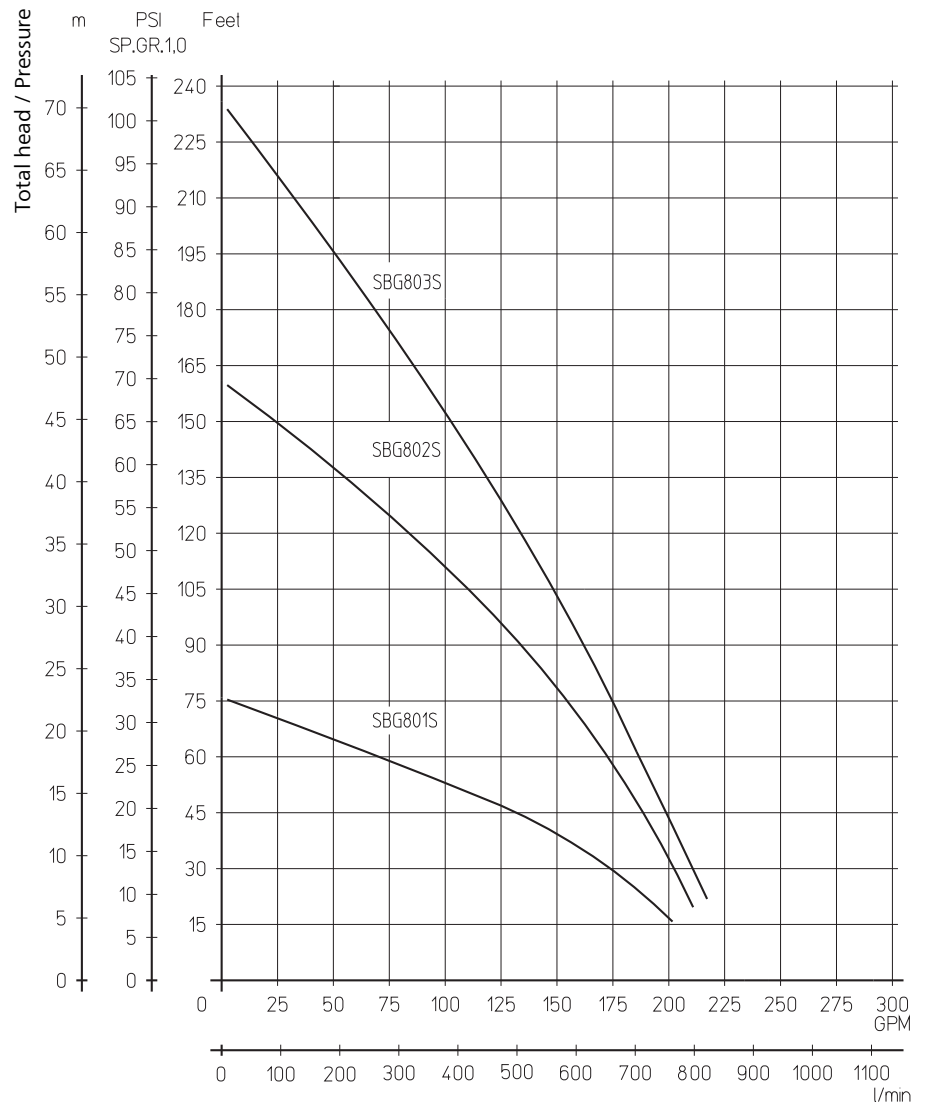
For position of terminal box, see mechanical features within the technical information section.

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

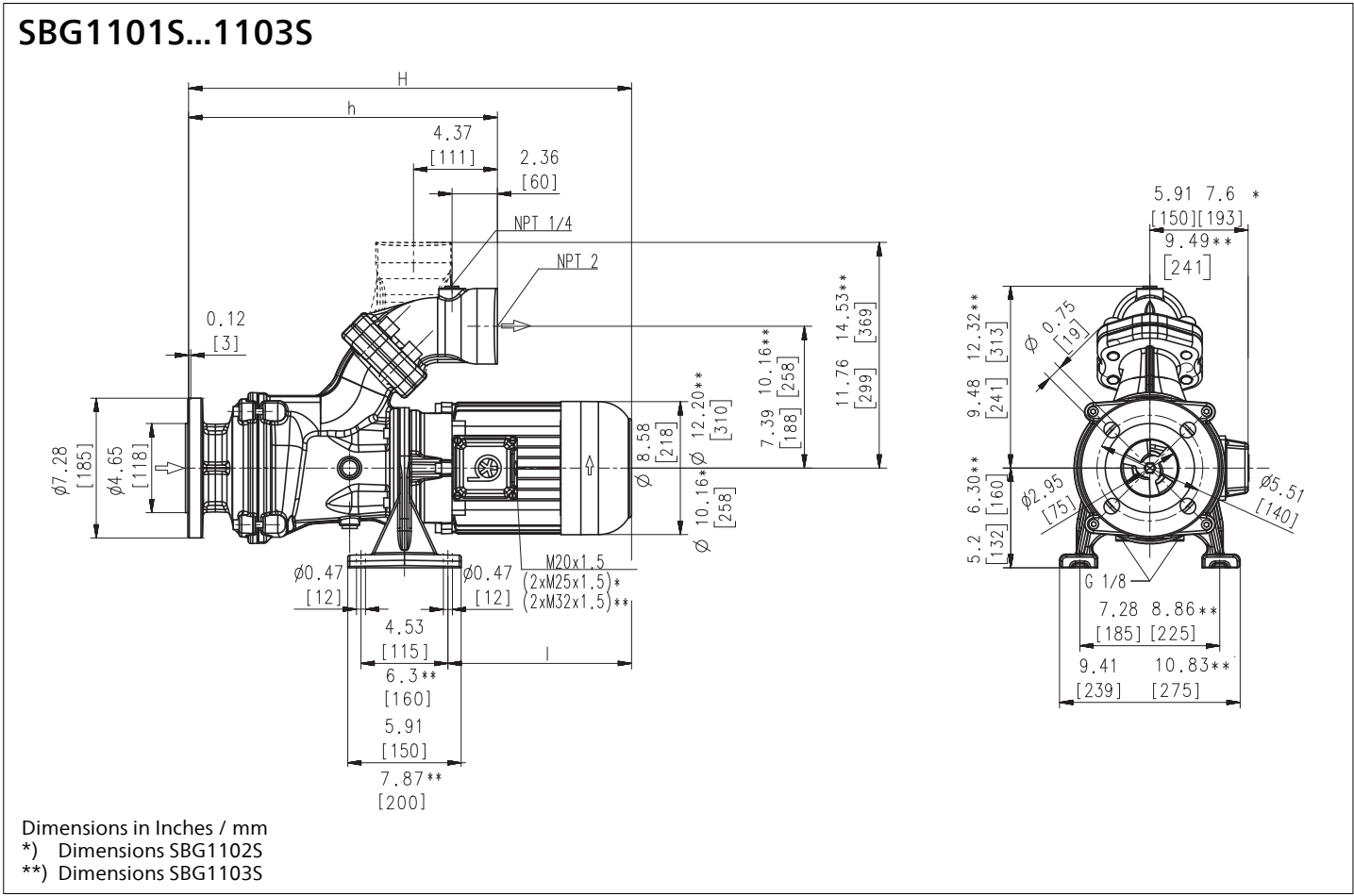
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG801S	73 dBA
SBG802S	76 dBA
SBG803S	79 dBA



Horizontal End-Suction Pumps

SBG1101S...1103S

Axial/semi-open impellers



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
SBG1101S	225/40	25.2	640	16.2	412	11.5	293	132.3	60	5.4	208-230	60	3450
	850/12									4.0	460	60	3450
SBG1102S	225/76	34.0	863	19.4	492	17.2	437	276	125	13.8	460	60	3550
	850/24									10.3			
SBG1103S	225/105	37.4	951	25.3	643	16.6	422	309	140	20	460	60	3560
	850/32									15.0			



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

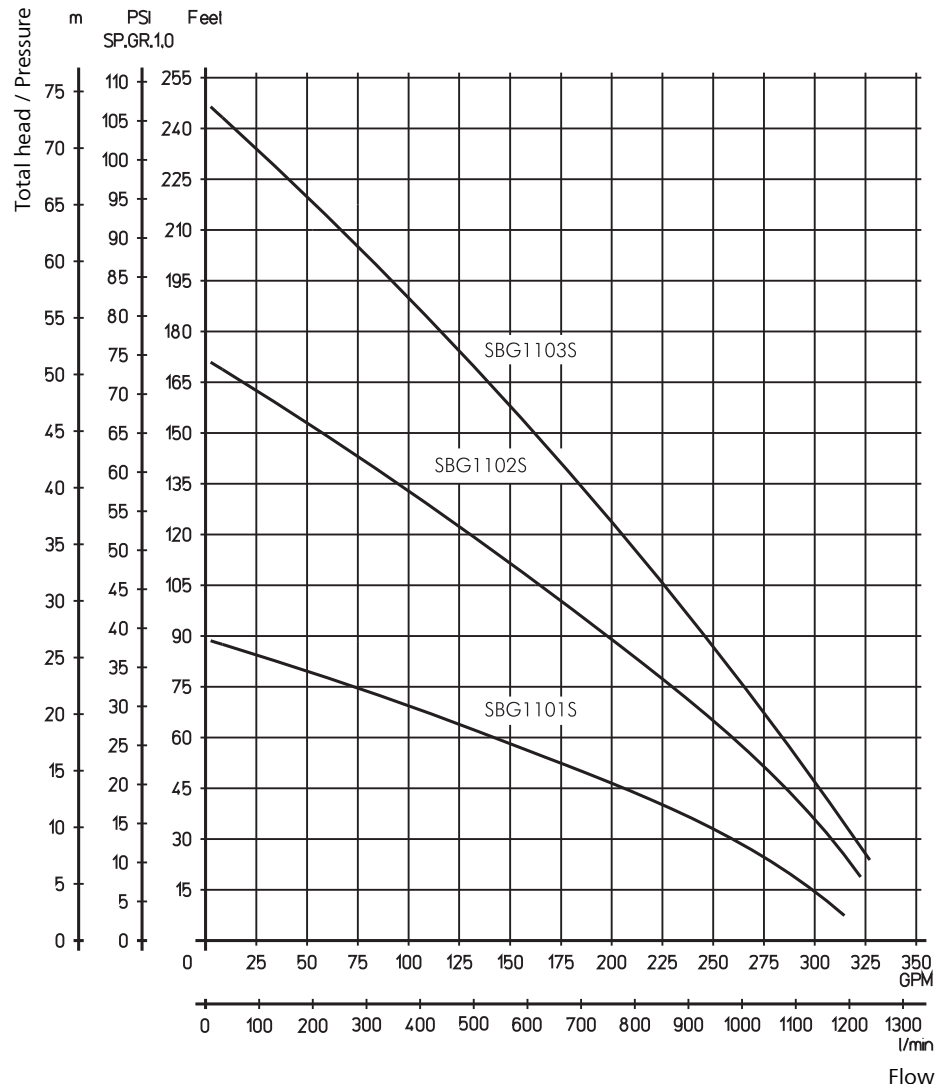
Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



Horizontal End-Suction Pumps

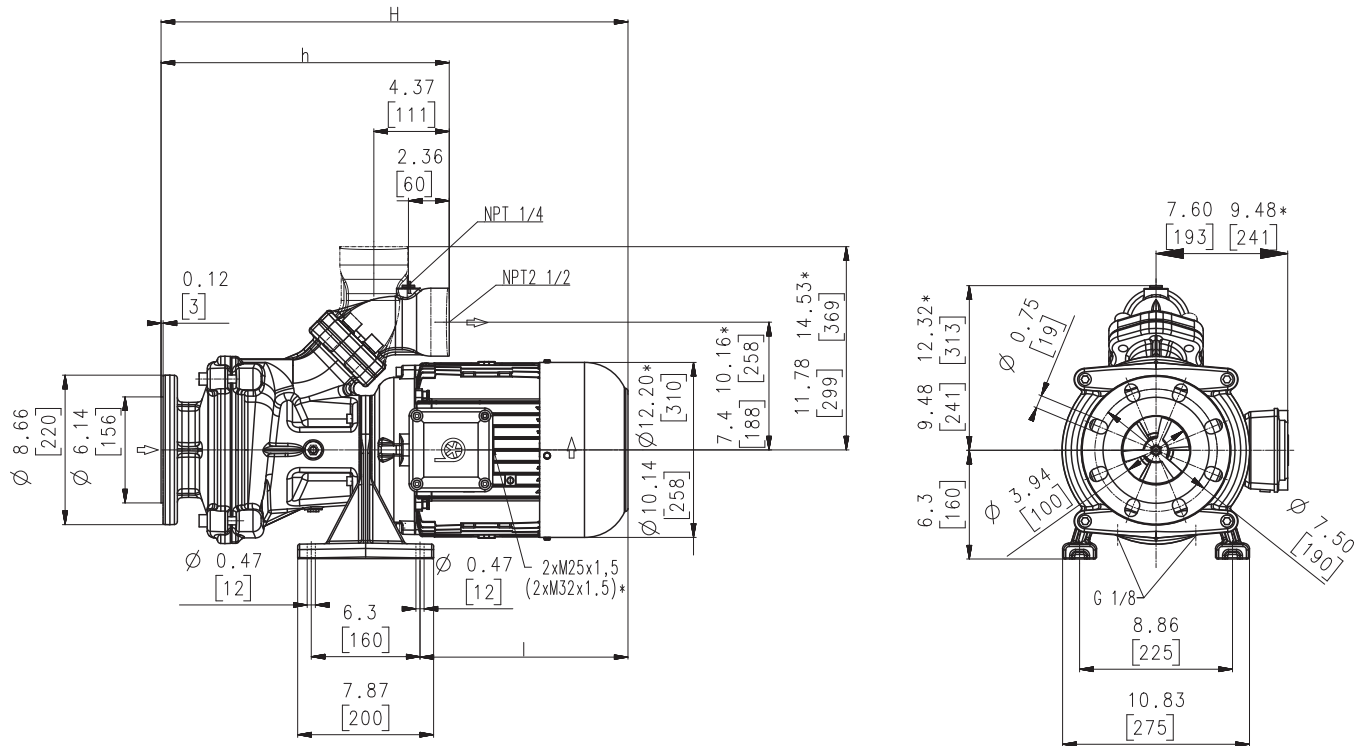
SBG1400S...1700S

Axial/semi-open impellers



60 Hz

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 1200/17	31.2	793	16.7	424	16.3	414	256	116	13.8 10.3	460	60	16.9	3550
SBG1700S	400/60 1600/17	31.6	802	19.5	495	16.6	422	313	142	20 15.0	460	60	24.8	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

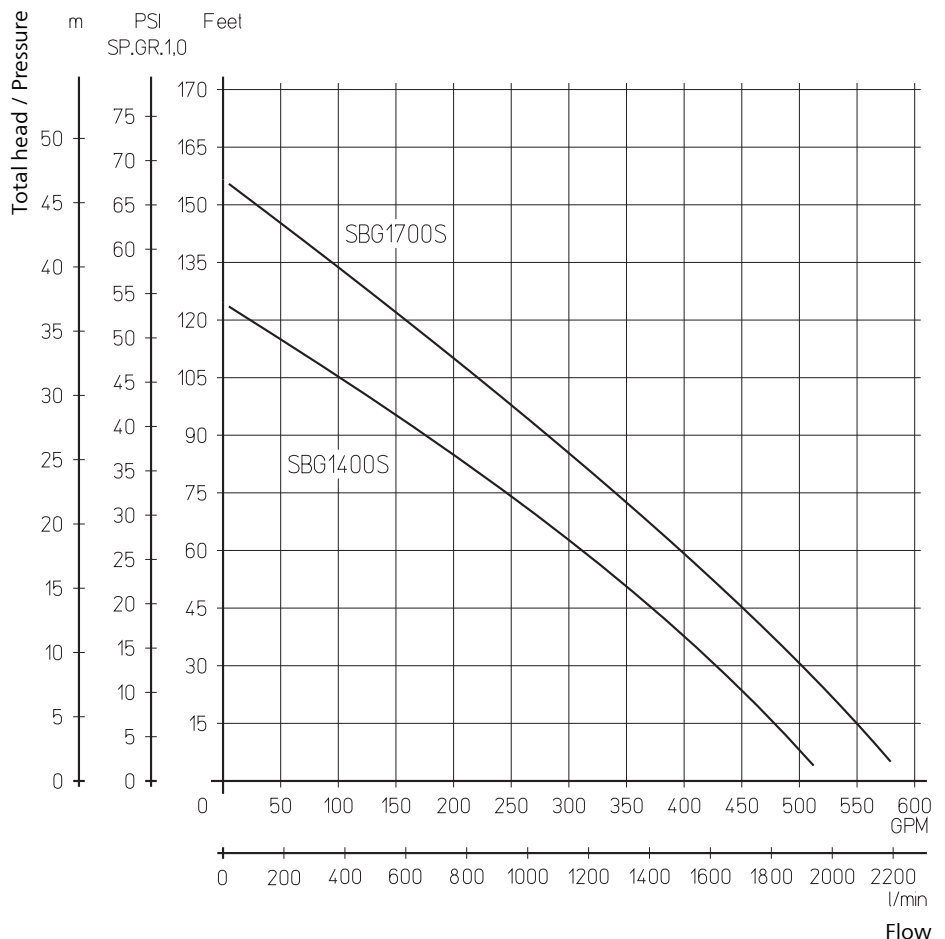
Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



Vertical End Suction Pumps

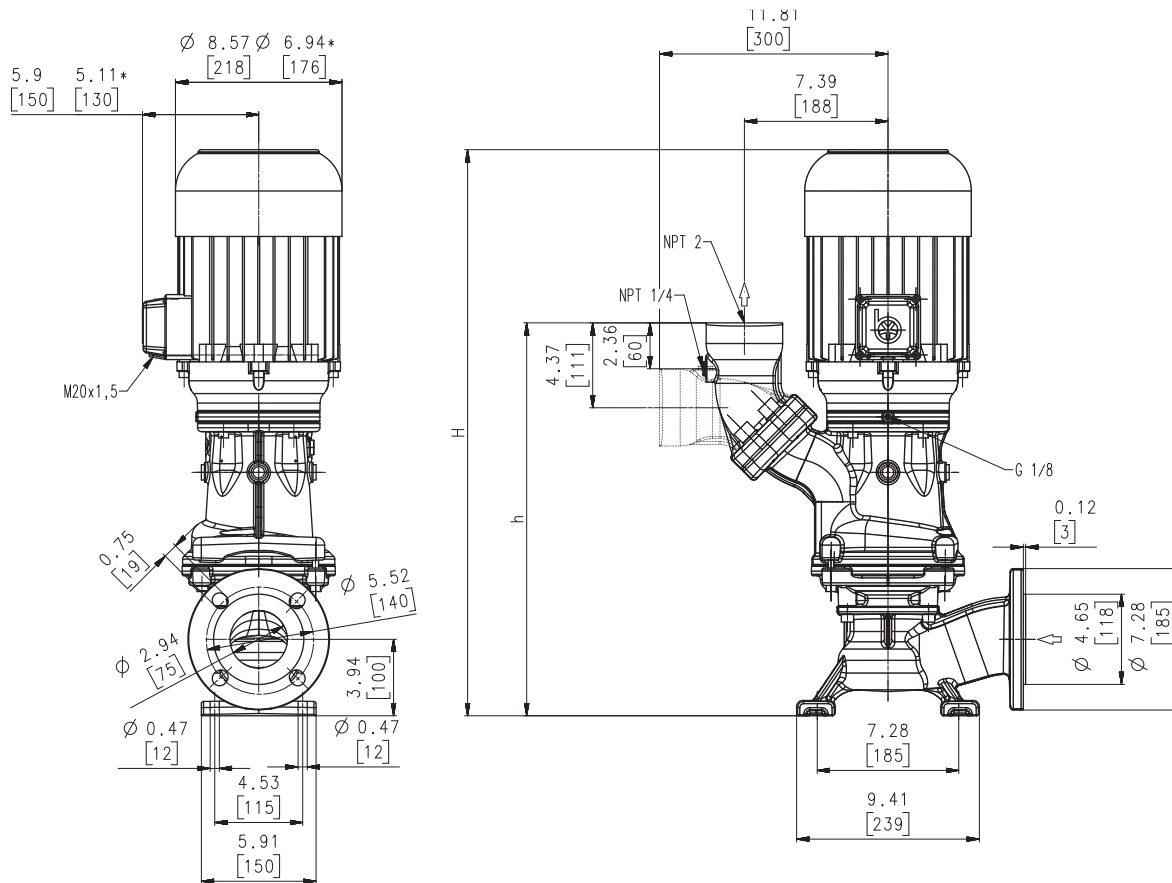
SBG801S...1101S-V

Axial/semi-open impellers



60 Hz

SBG801S...SBG1101S-V



Dimensions in Inches / mm; *) Dimensions SBG801S-V

Type	Flow at head GPM /Feet l/min /m	Dimensions				Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
		H inch	H mm	h inch	h mm	Lbs	kg					
SBG801S-V	175/32	27.8	707	19.9	506	138.9	63	3.5	208-230	60	12.6	3400
	600/11							2.6	460	60	6.3	3400
SBG1101S-V	225/36	29.1	740	20.2	514	156.6	71	5.4	208-230	60	19.0	3450
	800/12							4.0	460	60	9.5	3450



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.

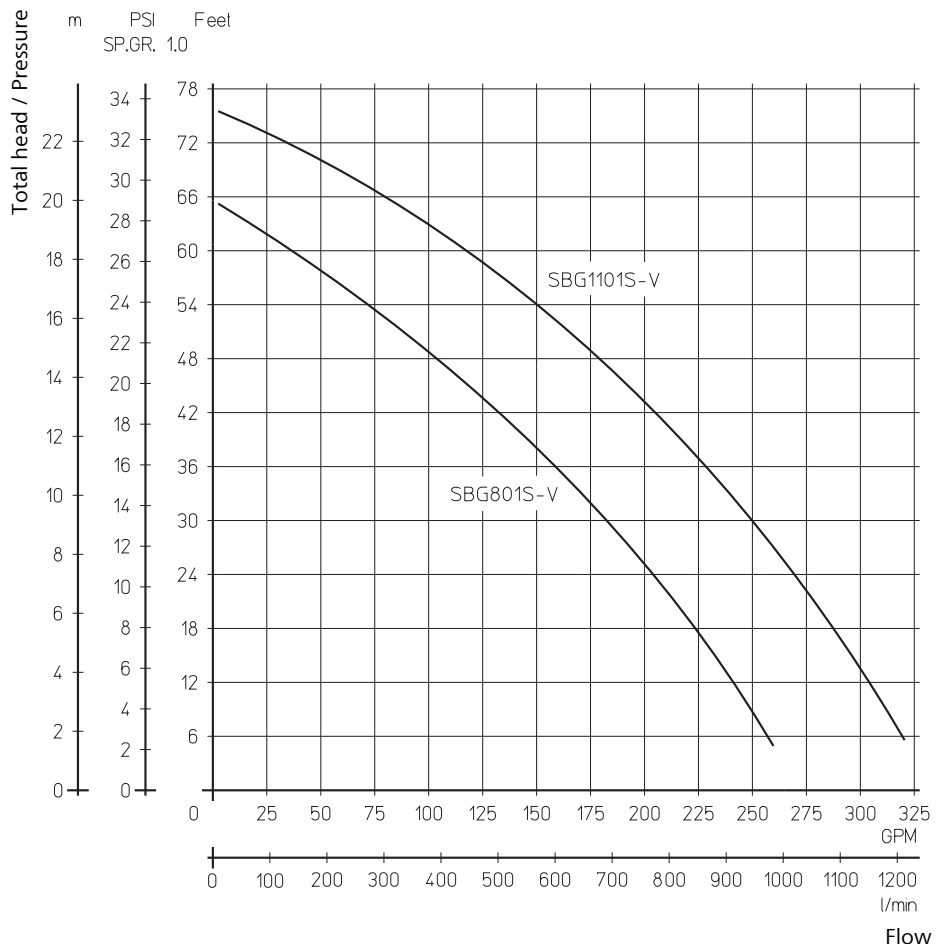
All types specified are also available as multistage pumps e.g. SBG802S-V, SBG1103S-V.

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

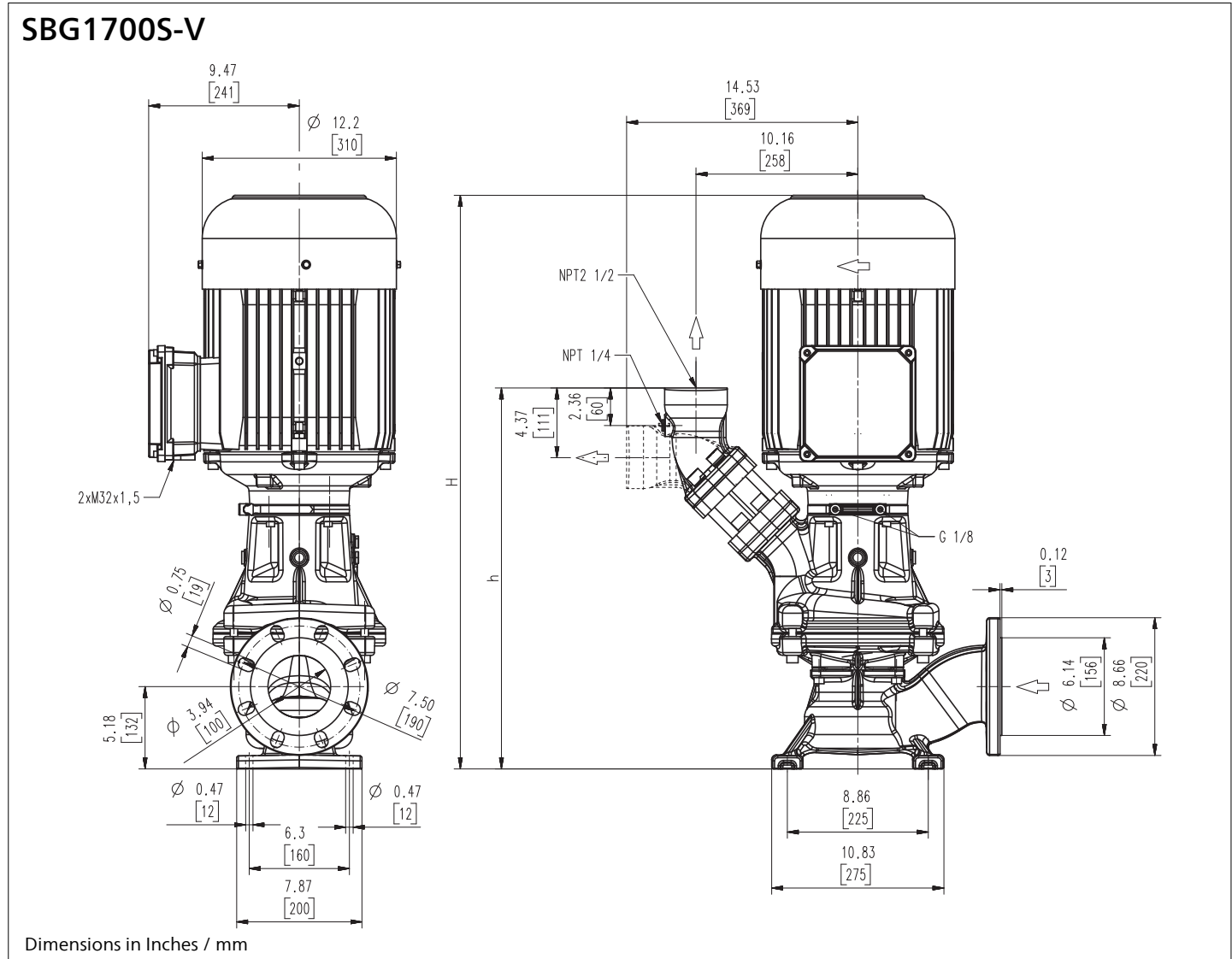
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG801S-V	72 dBA
SBG1101S-V	74 dBA



Vertical End Suction Pumps

SBG1700S-V

Axial/semi-open impellers



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 1300/15	36.1	916	24.0	609	320 145	20 460	60	24.8	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**.

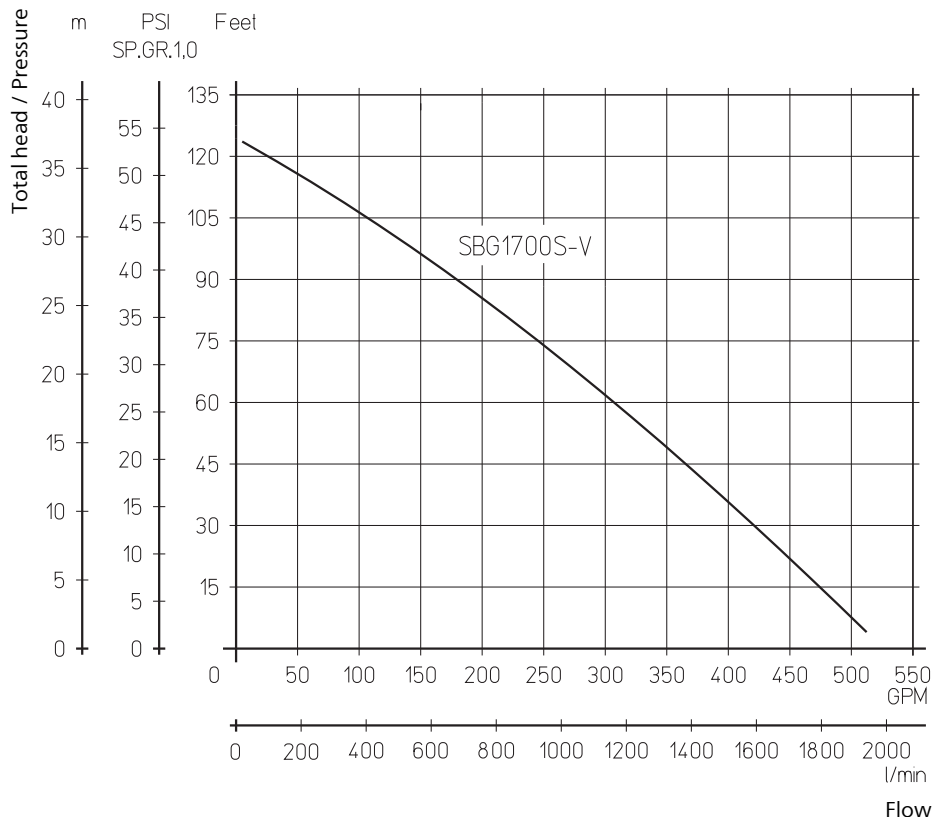
The SBG pumps are equipped with the user-friendly 45 degree **flange** connection which allows for either vertical or horizontal pipe connection and the connection of a pressure gauge with NPT 1/4. For more information see mechanical features within the technical information section.

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

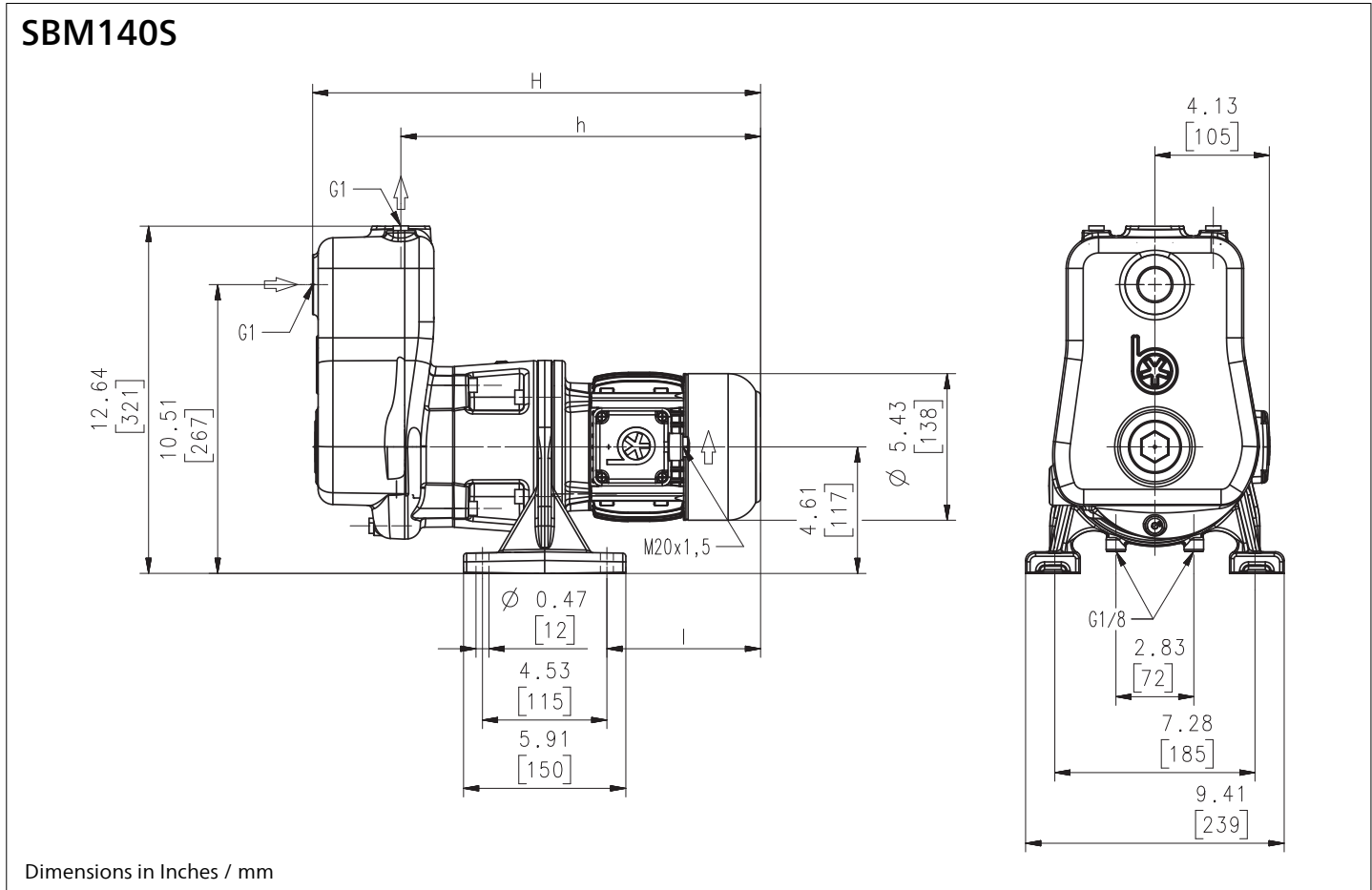
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level SBG1700S-V	79 dBA



Horizontal End-Suction Pumps

SBM140S

Semi-open impellers



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
SBM140S	40/36	17.0	433	13.8	351	6.3	161	63.9	29	1.25	208-230	60	5.4	3300
	120/12									0.92	460	60	2.7	3300



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**.

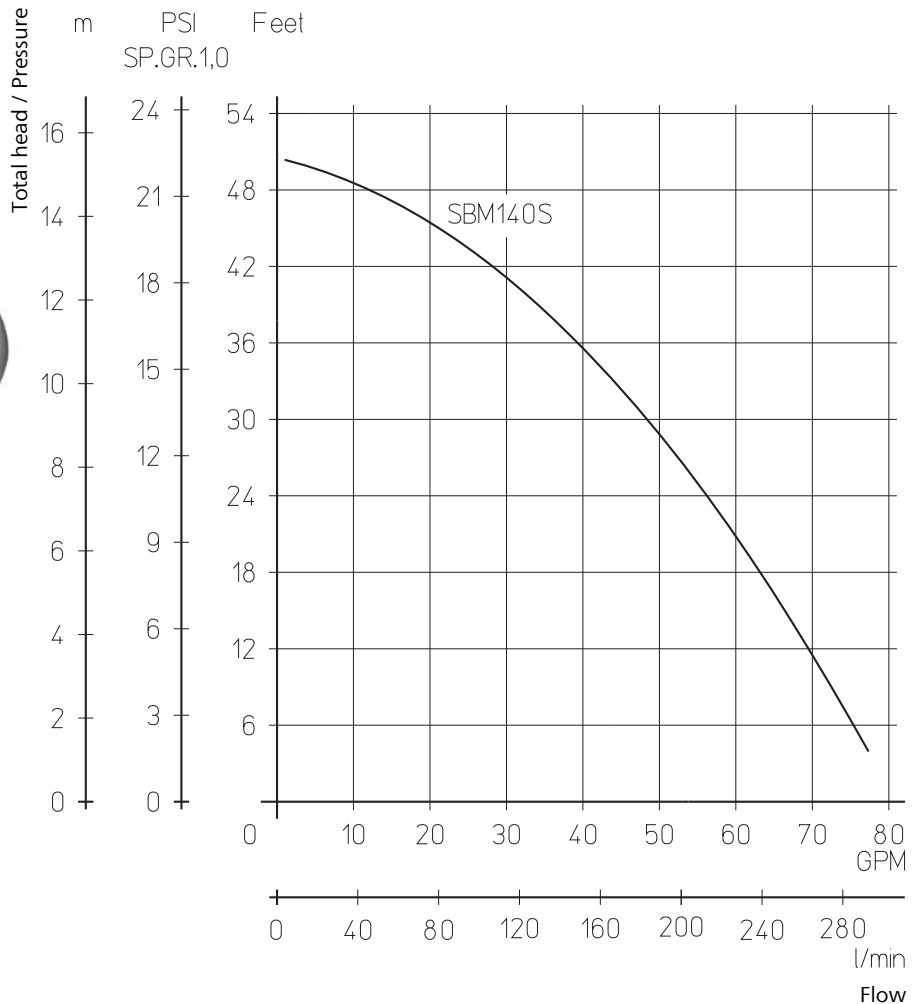
For more information see mechanical features within the technical information section.

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

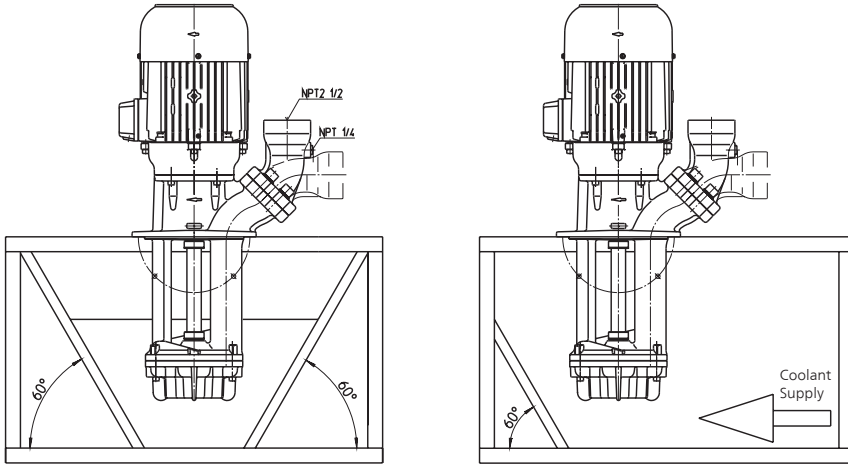
Construction

Cover	cast iron
Impeller	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level SBM140S	66 dBA



Lifting pump versions SFL | SBF

Lifting Pumps SFL



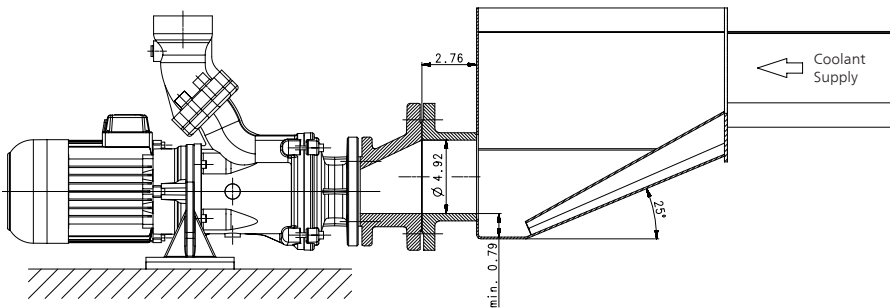
The SFL pump series represents an innovative lift pump concept which has found many pumpback applications world wide. The SFL pumps series can be customized through various options and upgrades.

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	coloured metal, aluminium, 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%

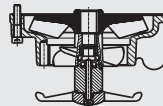
Type	Chip diameter	Chip length
	Inch / mm	Inch / mm
SFL650	0.3 / 8	0.6 / 15
SFL850	0.4 / 10	0.8 / 20
SFL1150	0.6 / 15	1.18 / 30
SFL1350	0.6 / 15	1.18 / 30
SFL1550	0.6 / 15	1.18 / 30
SFL1850	0.6 / 15	1.18 / 30
SFL2350	1.0 / 25	1.97 / 50

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. 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:

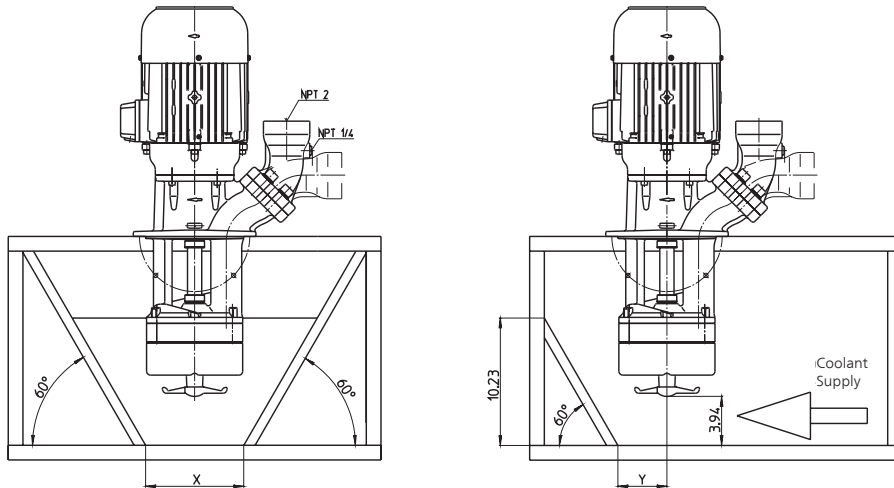


SFL and **SBF pumps** are also available with an additional agitator at the pump suction. The agitator can either be supplied directly with the pump assembly or is available as a separate component for installation in the field at a later date.

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

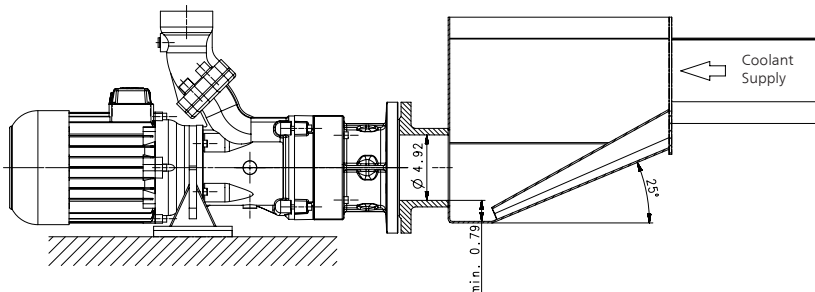
The cutter pumps of the series SFC are suited for cutting aluminum chips or similar materials and for pumping these materials along with the coolant fluid. An agitator located at the pump suction helps to break up and separate any large bundles of chips or birds nests which reach the pump suction. The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



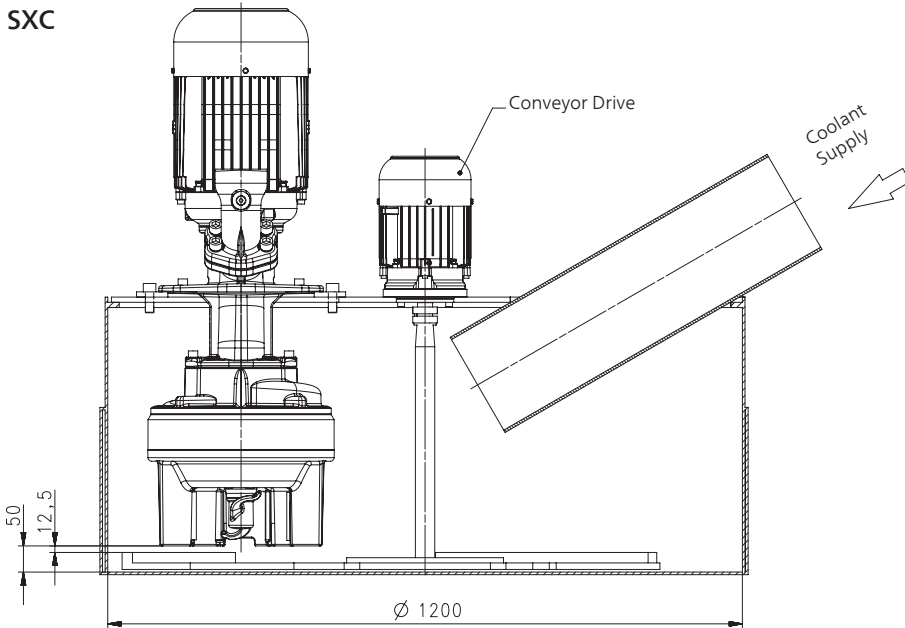
SBC pumps are comparable to SFC pumps from a technical standpoint. When directly mounted to the tank or to the machine tool preventive actions must be taken in order to avoid unwanted foreign objects, such as broken tooling pieces, from reaching the pump suction.

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



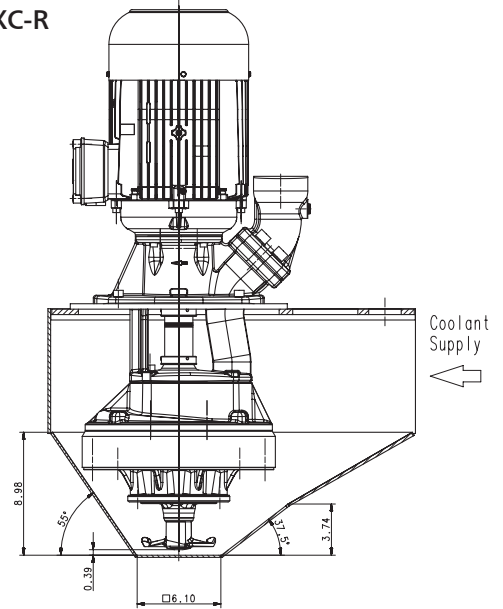
The cutter pumps of the series SXC are designed to handle low alloyed steels, machining steel and cast iron / aluminum combinations. Chips can also be in the shape of birds nests or chip bundles.

The chips must be supplied to the suction mouth 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.

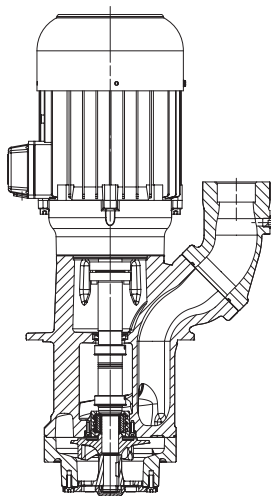
SXC-R



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



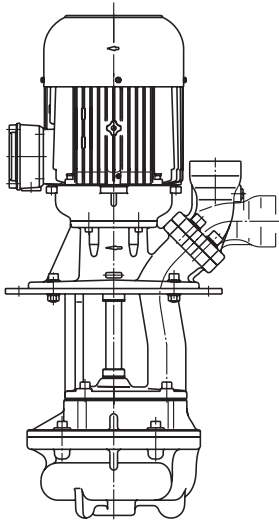
The cutter pumps of the series SPC are designed to handle and reliably cut long, stringy plastic chips.

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

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 | BFT

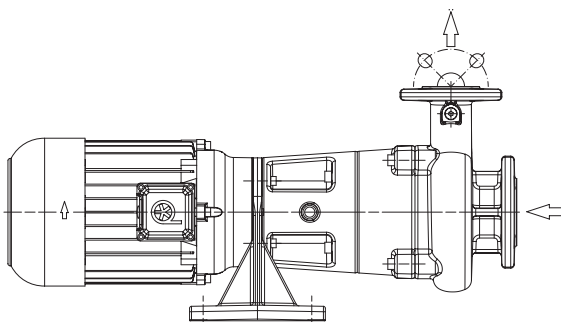
Vortex Pumps SFT



Vortex pumps are traditional lift pumps with a recessed impeller that allows for a sphere passage of up 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 aluminium 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	–	1.5%	1.57 / 40	

Vortex Pumps BFT



In a horizontal inline design, the vortex pump allow for space saving installation without a tank and directly mounted to the machine tool. All models are available with an option for a second mechanical seal which enables the pumps to operate with unlimited dry running.

	Impeller material	Inlet cover material	Shaft bushing	Max. chip to coolant ratio by weight	sphere size passage Inch / mm	Chip handling capabilities
BFT750 BFT1250	Cast steel	Special cast iron	–	1.5%	1.37 / 35	colored metal aluminium cast iron steel alloyed steel hardened steel forged steel

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

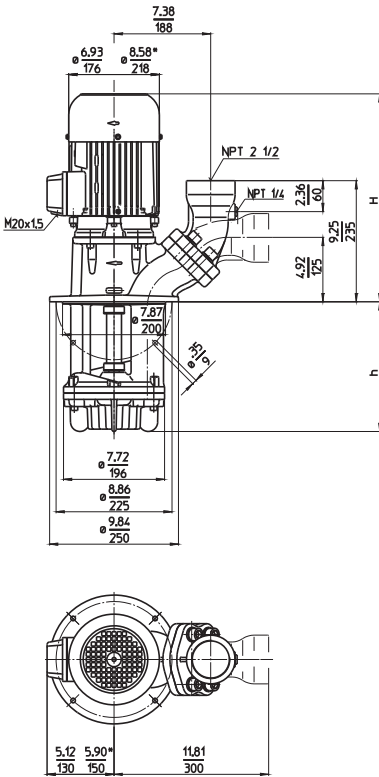


SFL650...2350

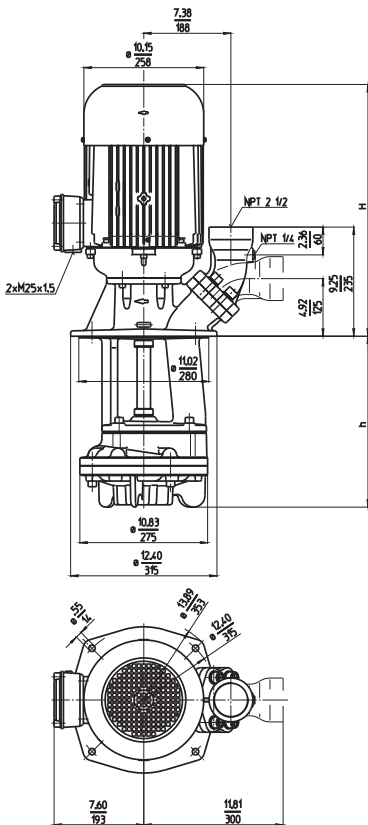


Axial/semi-open impellers

SFL650...1150



SFL1550...2350



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
SFL650S220	100/30	16.5	8.66	220	108.0	49	3	208-230	60	10.6	3400
	400/9	419					2.2	460	60	5.3	3400
	320		12.60	320	112.5	51					
	450		17.72	450	116.9	53					
	570		22.44	570	123.5	56					
	770		30.31	770	134.5	61					
1000		39.37	1000	149.9	68						
SFL850S230	125/42	16.9	9.06	230	112.5	51	3.5	208-230	60	12.6	3400
	500/13	429					2.6	460	60	6.3	3400
	330		12.99	330	116.9	53					
	460		18.11	460	121.3	55					
	580		22.83	580	127.9	58					
	780		30.71	780	138.9	63					
1010		39.76	1010	154.4	70						
SFL1150S230	150/52	18.4	9.06	230	127.9	58	5.4	208-230	60	19.0	3450
	600/16	468					4.0	460	60	9.5	3450
	330		12.99	330	132.3	60					
	460		18.11	460	136.7	62					
	580		22.83	580	143.3	65					
	780		30.71	780	154.4	70					
1010		39.76	1010	170	77						
SFL1550S310	230/58	24.1	12.20	310	256	116	11.5	460	60	14.2	3550
	900/17	612					8.6				
	440		17.32	440	260	118					
	560		22.05	560	265	120					
	810		31.89	810	278	126					
	1060		41.73	1060	282	128					
SFL1850S310	300/68	24.1	12.20	310	276	125	13.8	460	60	16.9	3550
	1150/20	612					10.3				
	440		17.32	440	282	128					
	560		22.05	560	287	130					
	810		31.89	810	300	136					
	1060		41.73	1060	304	138					
SFL2350S340	350/113	38.3	13.39	340	353	160	29	460	60	32	3555
	1400/32	974					21.3				
	470		18.50	470	357	162					
	590		23.23	590	362	164					
	840		33.07	840	397	180					
	1090		42.91	1090	401	182					

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

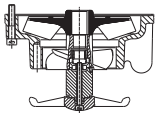


Quick Suctioning Immersion Pumps

of series SFL equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely inflated 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.



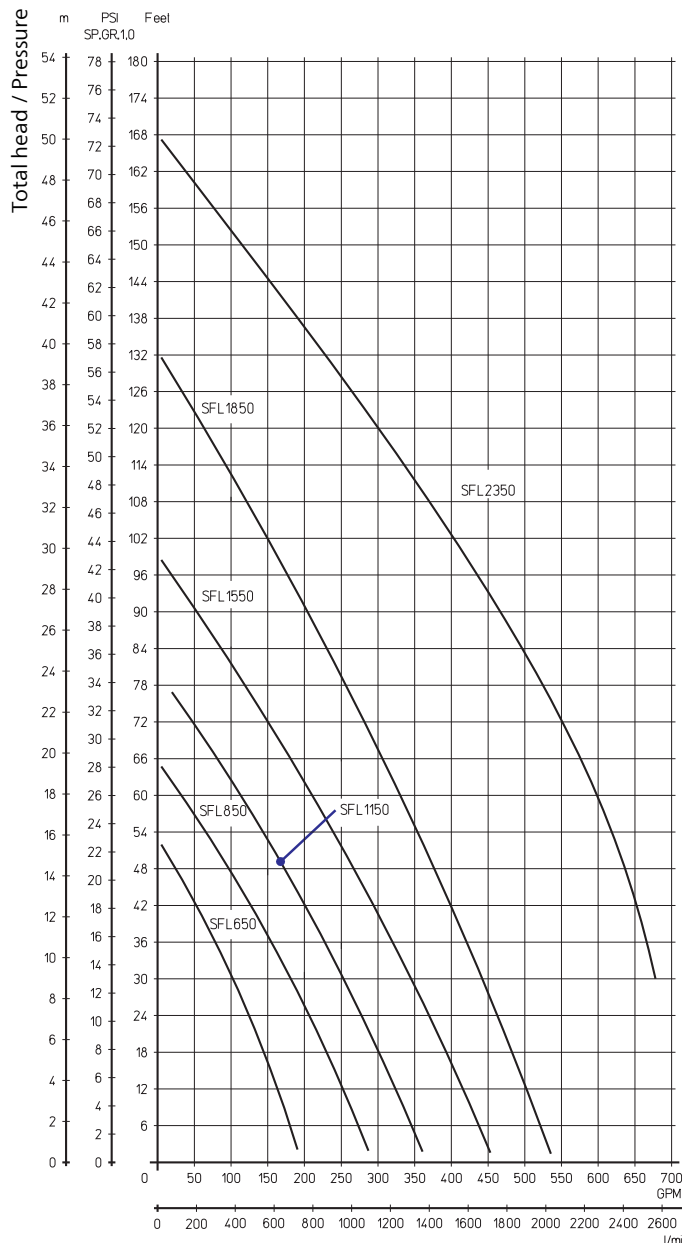
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.0 %
- 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

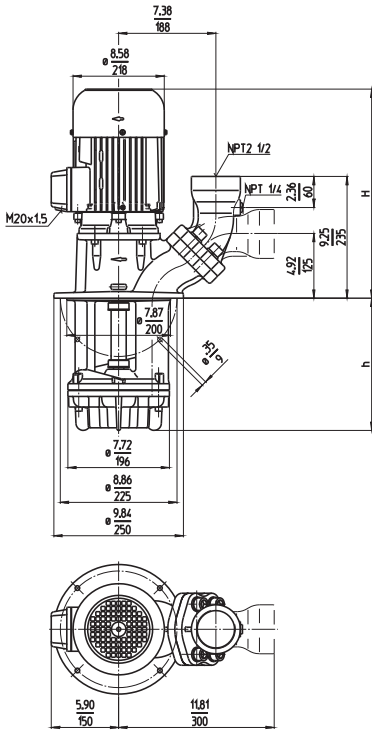


SFL860...2060

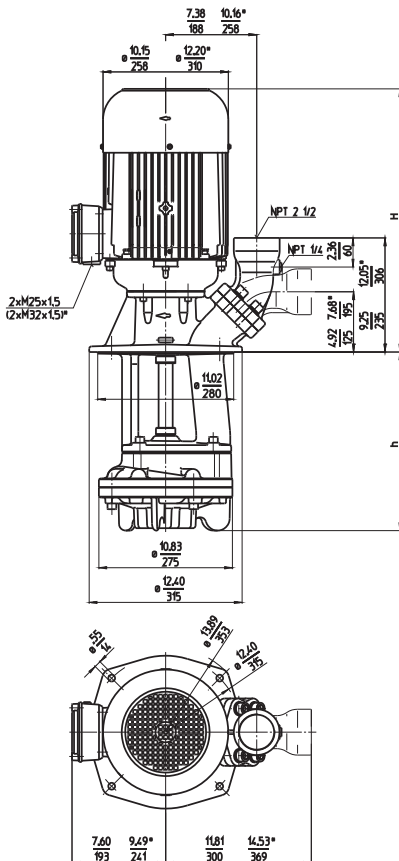


Axial/semi-open impellers

SFL860



SFL1360...2060



Type	Flow at head	Height	Depth of im- mersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
SFL860S230	150/60	18.4	9.06	230	158.8	72	5.4	208-230	60	19.0	3450
	600/17	468					4.0	460	60	9.5	3450
	330		12.99	330	165	75					
	460		18.11	460	172	78					
	580		22.83	580	181	82					
	780		30.71	780	190	86					
1010		39.76	1010	205	93						
SFL1360S310	200/72	19.8	12.20	310	209	95	7.4	208-230	60	25.0	3450
	800/21	504					5.5	460	60	12.5	3450
	440		17.32	440	214	97					
	560		22.05	560	218	99					
	810		31.89	810	236	107					
	1060		41.73	1060	243	110					
SFL1860S310	300/77	24.4	12.20	310	320	145	17	460	60	21.5	3560
	1200/22	620					12.6				
	440		17.32	440	326	148					
	560		22.05	560	331	150					
	810		31.89	810	344	156					
	1060		41.73	1060	348	158					
SFL2060S310	400/76	36.0	12.20	310	322	146	23	460	60	27	3555
	1500/23	914					17.3				
	440		17.32	440	326	148					
	560		22.05	560	331	150					
	810		31.89	810	366	166					
	1060		41.73	1060	370	168					

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

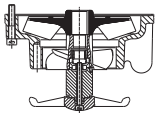


Quick Suctioning Immersion Pumps

of series SFL equipped with the patented "BRINKMANN's Suction De-aeration System" and are excellently suited for pumping **extremely inflated 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.



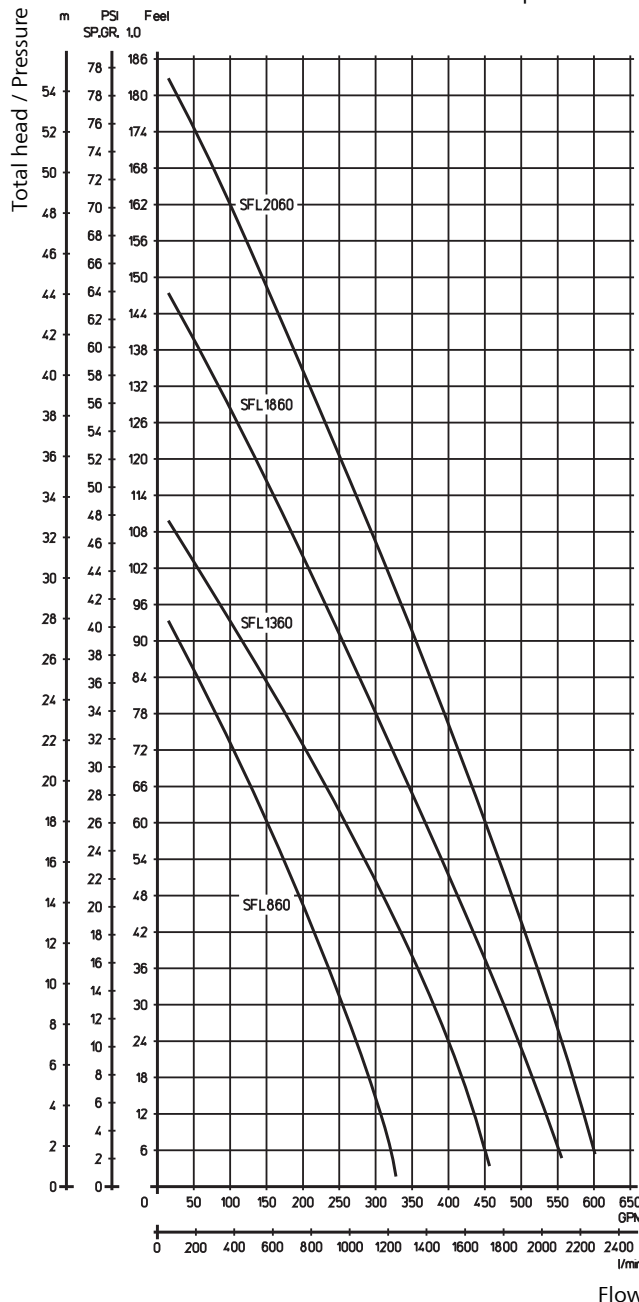
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.0 %
- 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



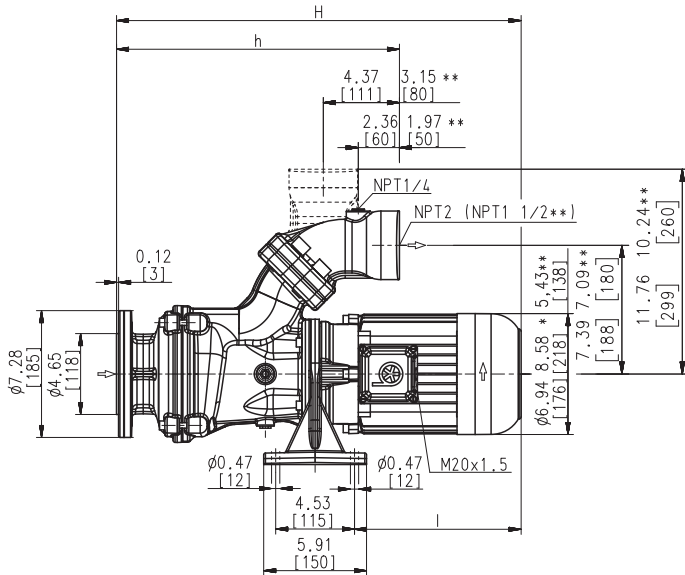
Horizontal End-Suction Pumps

SBF550S...1150S

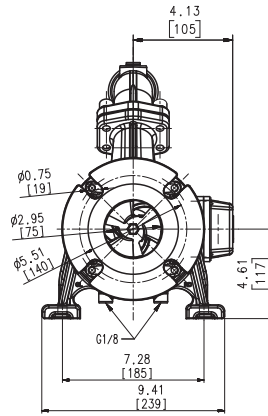
Axial/semi-open impellers



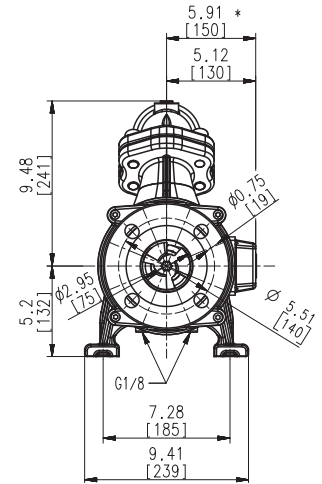
SBF550S...1150S



SBF550S



SBF650S, 850S, 1150S



Dimensions in Inches / mm; *) Dimensions SBF1150S
**) Dimensions SBF550S

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
SBF550S	75/12	19.4	494	14.1	359	7.1	181	58.4	26.5	1.5	208-230	60	5.8	3300
	250/5									1.7	460	60	2.9	3300
SBF650S	100/36	23.1	586	16.1	408	9.6	243	114.7	52	3	208-230	60	10.6	3400
	400/10									2.2	460	60	5.3	3400
SBF850S	125/42	23.6	600	16.2	412	10.0	253	119.1	54	3.5	208-230	60	12.6	3400
	500/12									2.6	460	60	6.3	3400
SBF1150S	150/47	25.2	640	16.2	412	11.5	293	134.5	61	5.4	208-230	60	19.0	3450
	600/13									4.0	460	60	9.5	3450



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

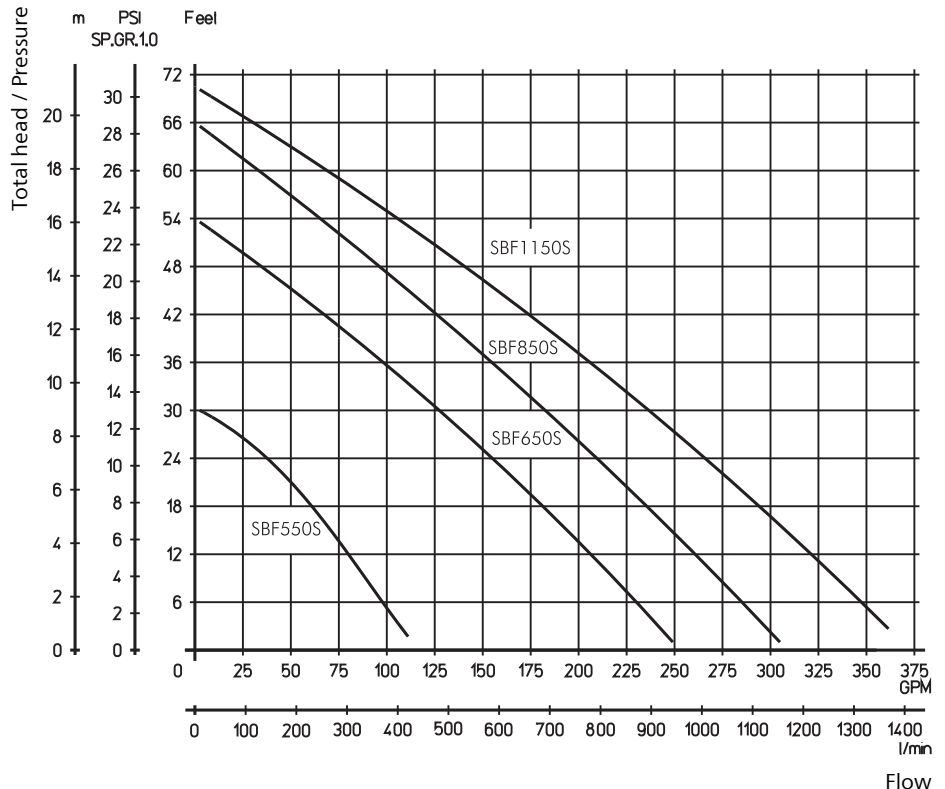
Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 1.0 % depending on the specific chip type
 Chip material:
 Aluminium, steel, coloured steels, cast iron
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBF550S	65 dBA
SBF650S	69 dBA
SBF850S	70 dBA
SBF1150S	74 dBA



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



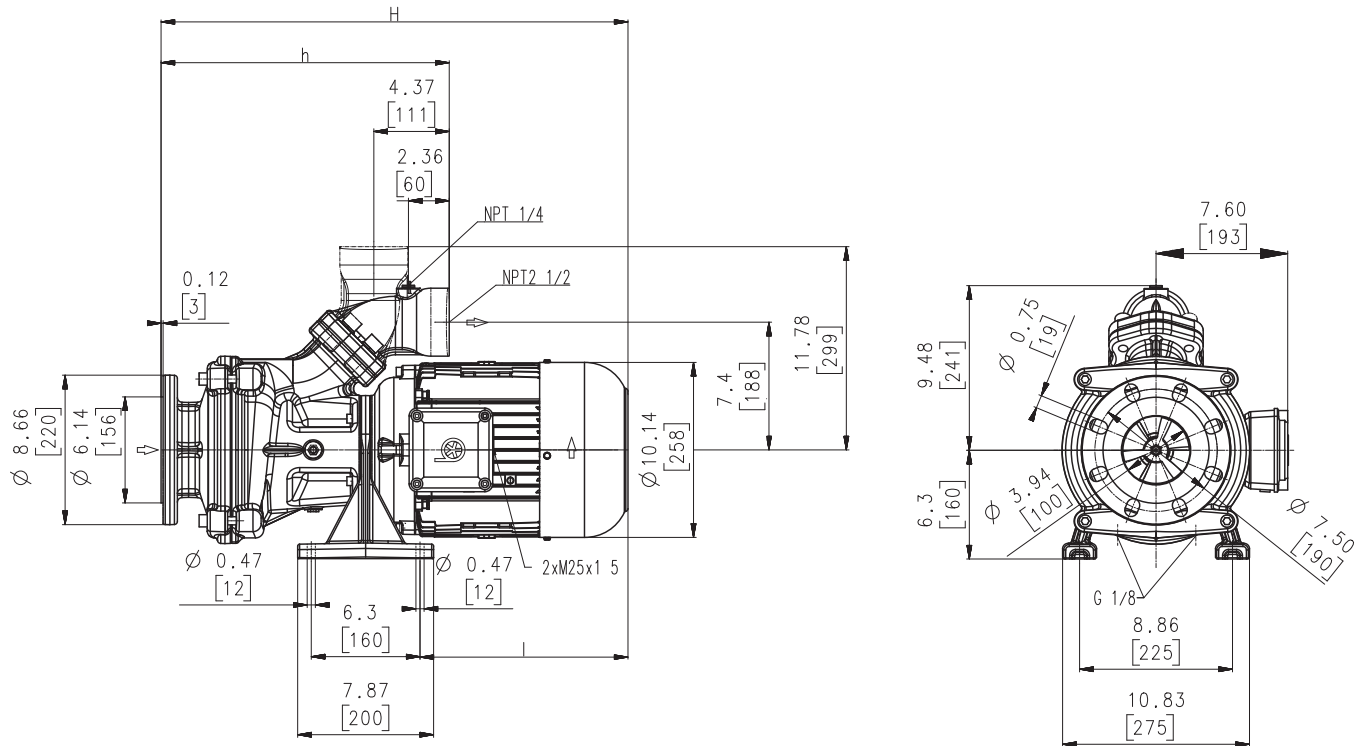
Horizontal End-Suction Pumps

SBF1350S...1850S

Axial/semi-open impellers



SBF1350S...1850S



Dimensions in Inches / mm

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~	quen-	AMPS	RPM
										V	cy		
SBF1350S	150/46	27.0	686	16.7	424	12.0	305	203	92	7.4	60	25.0	3450
	600/15									5.5	60	12.5	3450
SBF1550S	200/70 800/21	31.2	793	16.7	424	16.3	414	249	113	11.5 8.6	60	14.2	3550
SBF1850S	250/85 1200/23	33.2	843	16.7	424	16.3	414	262	119	13.8 10.3	60	16.9	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

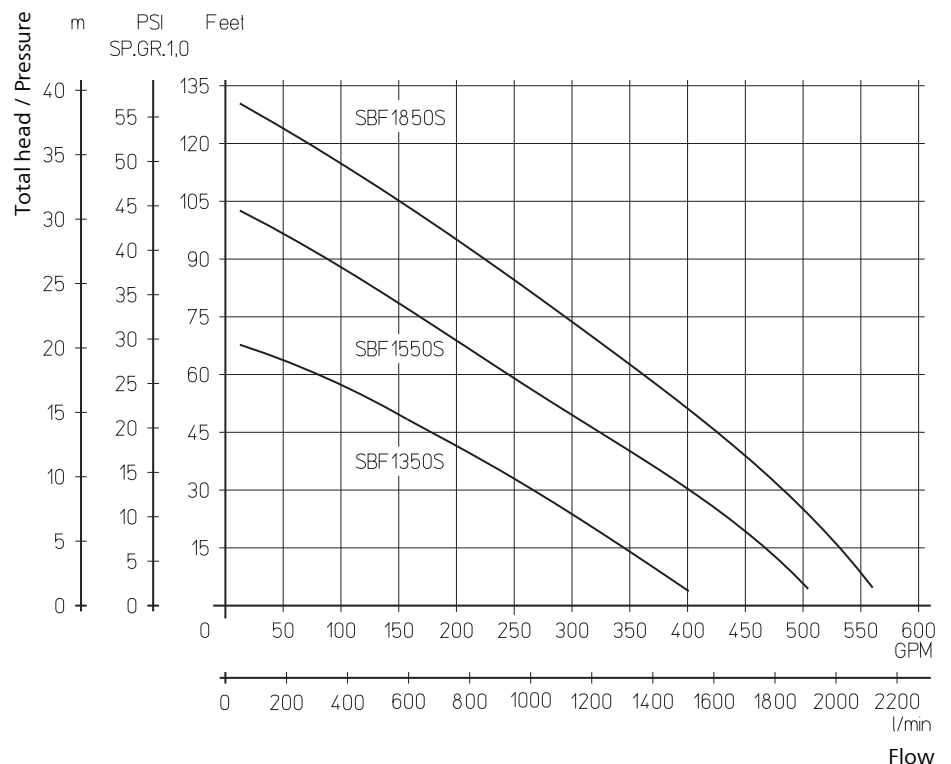
Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 1.0 % depending on the specific chip type
 Chip material:
 Aluminium, steel, coloured steels, cast iron
 Kinematic viscosity
 ...200 SSU (...45 mm²/s)
 Pumping temperature
 30...175 °F (0...80 °C)

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



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



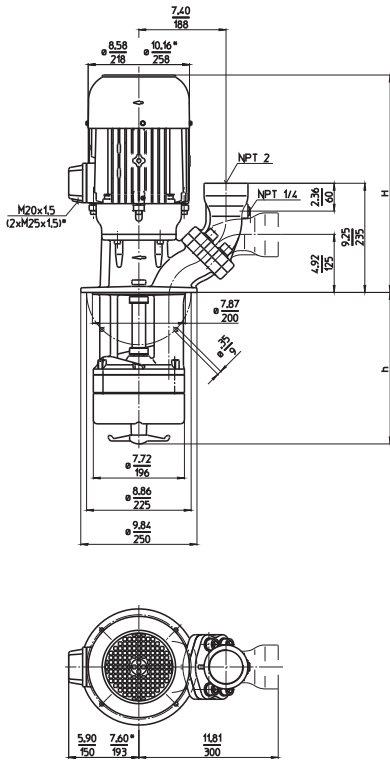
Cutter Pumps

SFC820...2320

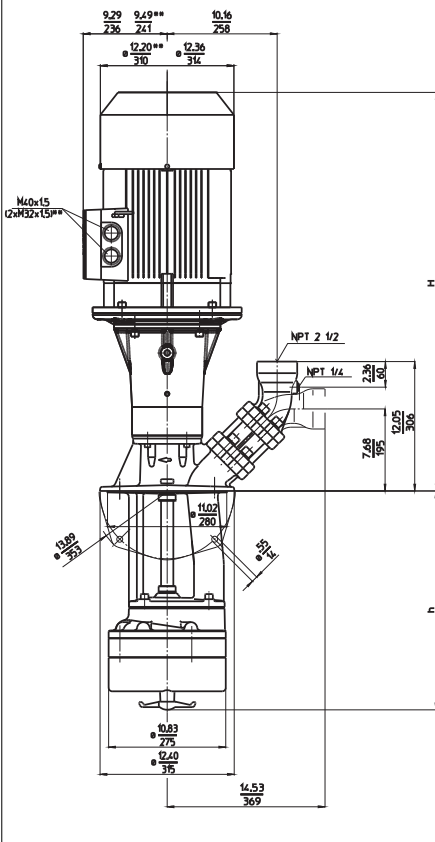
Axial/semi-open impellers



SFC820...1120



SFC1520...2320



Type	Flow at head		Height	Depth of immersion		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy 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	19.2	11.50	292	152.1	69	5.4	208-230	60	19.0	3450	
	400/110	487					4.0	460	60	9.5	3450	
	390		15.43	392	156.6	71						
	520		20.55	522	161.0	73						
640		25.28	642	168	76							
SFC1120S290	150/36	19.8	11.50	292	201	91	7.4	208-230	60	25.0	3450	
	500/112	504					5.5	460	60	12.5	3450	
	390		15.43	392	205	93						
	520		20.55	522	209	95						
640		25.28	642	216	98							
SFC1520S370	200/56	24.1	14.65	372	300	136	11.5	460	60	14.2	3550	
	700/180	612					8.6					
	500		19.76	502	304	138						
620		24.49	622	309	140							
SFC1820S370	250/68	24.4	14.65	372	364	165	17	460	60	21.5	3560	
	850/230	620					12.6					
	500		19.76	502	370	168						
620		24.49	622	375	170							
SFC2320S400	250/106	38.3	15.75	400	375	170	29	460	60	32	3555	
	900/320	974					21.3					
	530		20.87	530	381	173						
650		25.59	650	388	176							

Dimensions in Inches / mm
 *) Dimensions SFC1120S
 **) Dimensions SFC1820S
 Discharge port with NPT 2 inches available upon request.
 Dimensions SFC2320 above the flange as with SGL1402



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.



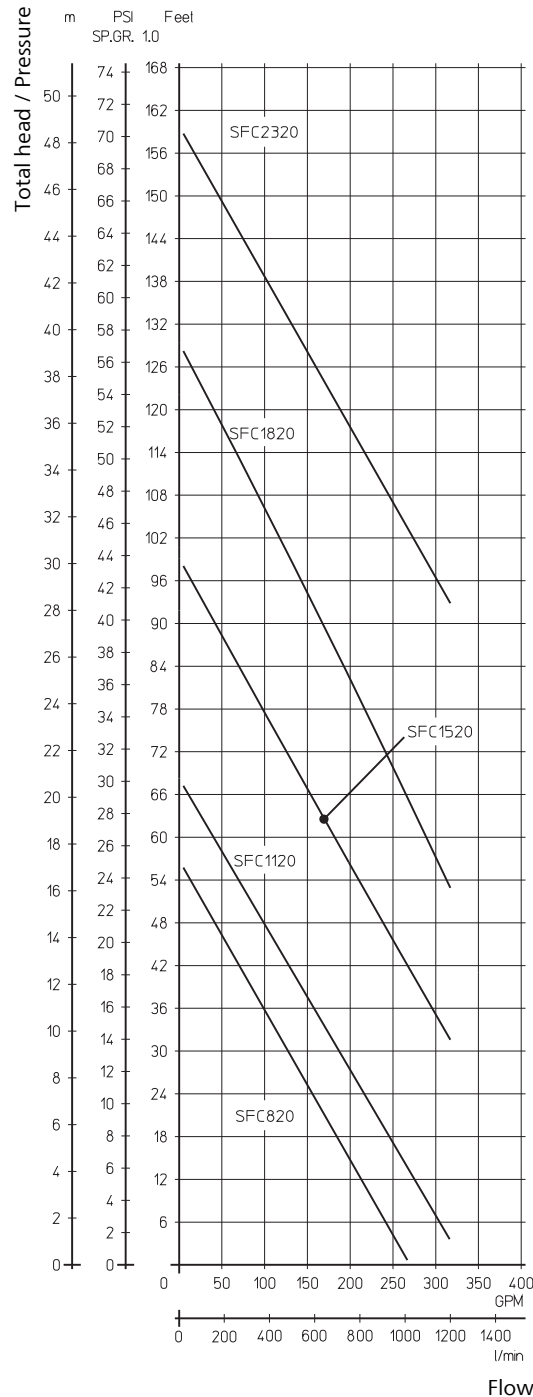
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium
- 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 |



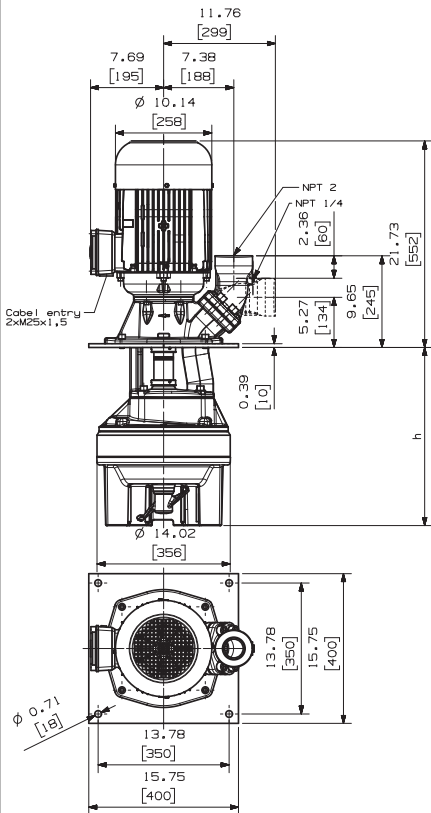
Cutter Pumps

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 mm	h inch	h mm	Lbs	kg	HP kW	V	Hz	AMPS	RPM
SXC2824S480	200/45 750/14	21.7 552	18.74	476	384	174	7.4 5.5	460	60	13	1750
	610		23.86	606	388	176					
	730		28.58	726	395	179					



Cutter Pumps

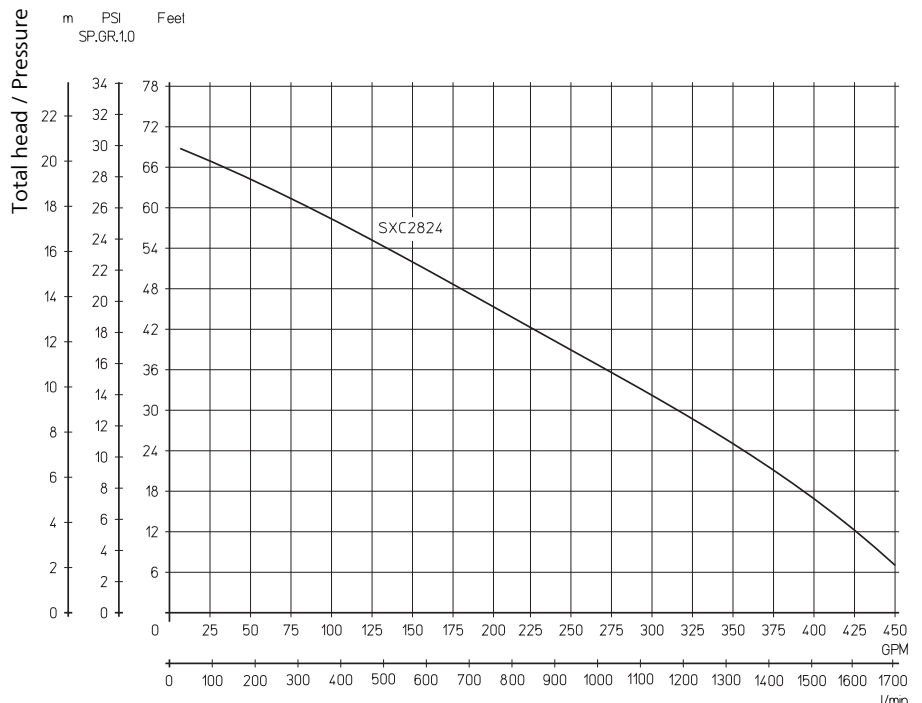
The cutter pumps of the series SXC are designed to handle low alloyed steels, machining steel and cast iron / aluminum combinations. Chips can also be in the shape of birds nests or chip bundles, and must be supplied to the suction mouth of the pump. The chips are picked up by the agitator, broken up 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:
 1.5 %
 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	Hardened (>60 HRC)
Shaft	steel



Cutter Pumps

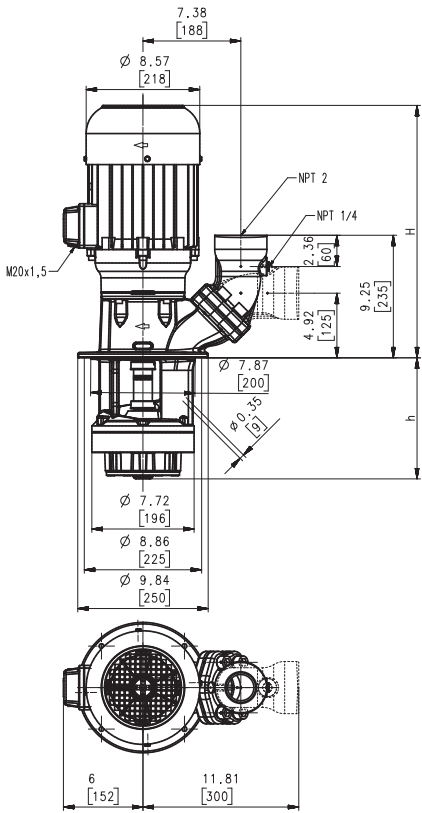
SPC820S

Axial/semi-open impellers



60 Hz

SPC820S



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 inch h mm	Lbs kg	HP kW	AMPS	RPM					
SPC820S230	100/32	19.2	9.13	232	149.9	68	4.4	208-230	60	16	3450		
	400/9.5	487					3.3	460	60	8	3450		
330			13.07	332	154.4	70							
460			18.19	462	158.8	72							



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.

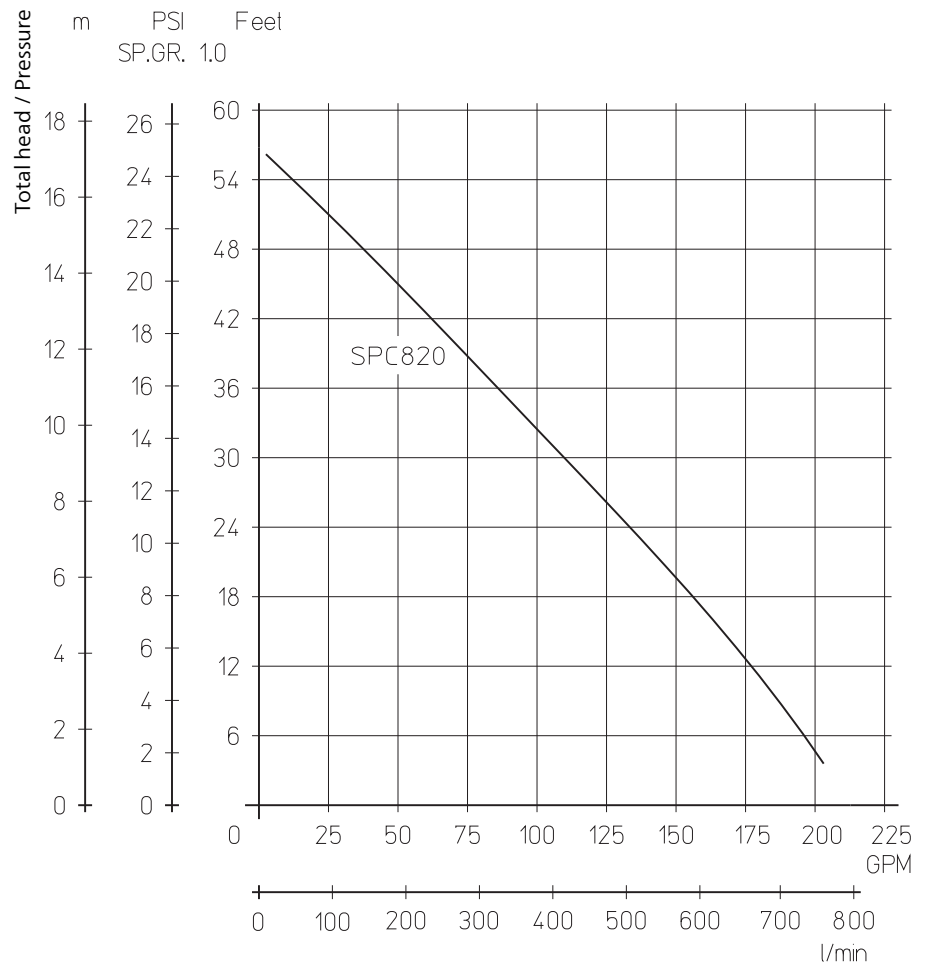
For more information see lifting pumps features SXC/SPC within the technical information section.

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

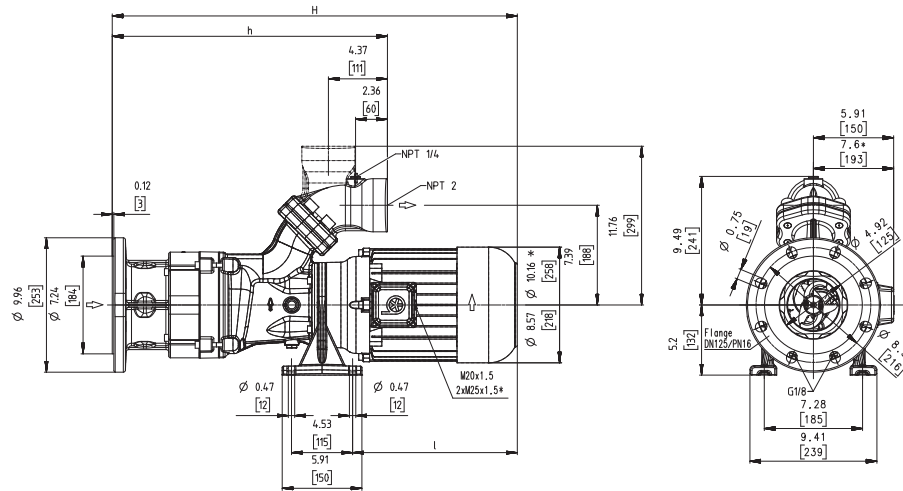
SBC820S...1820S

Axial/semi-open impellers

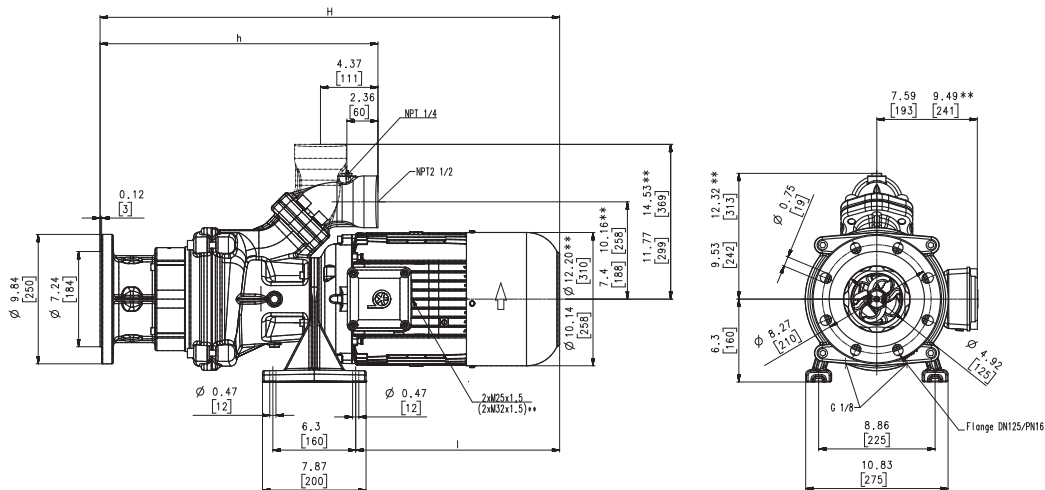


60 Hz

SBC820S...1120S



SBC1520S...1820S



Dimensions in Inches / mm; *) Dimensions SBC1120S
**) 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					
SBC820S	125/30 480/9	30.0	761	20.4	518	12.2	309	156.6	71	5.4	208-230	60	3450
SBC1120S	175/30 690/9	30.7	780	20.4	518	12.9	328	205	93	7.4	208-230	60	3450
SBC1520S	200/49 800/14.5	35.7	906	21.1	537	16.3	414	304	138	11.5	460	60	3550
SBC1820S	225/67 900/19.5	36.0	915	23.9	608	16.6	422	370	168	17	460	60	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).



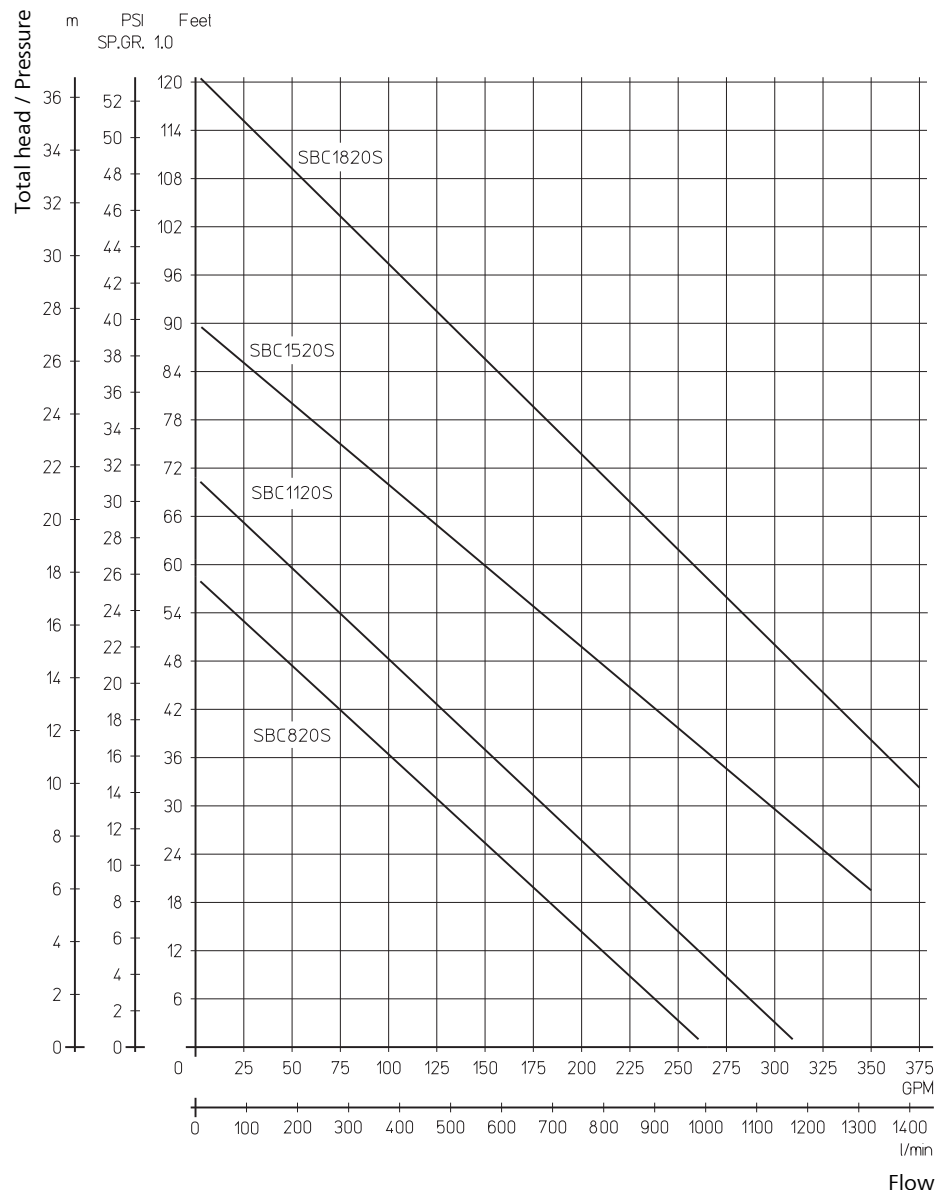
For position of terminal box, see mechanical features within the technical information section.

Applications

- Types of fluid
 - coolants
 - cooling/cutting oils on request
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium
- 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



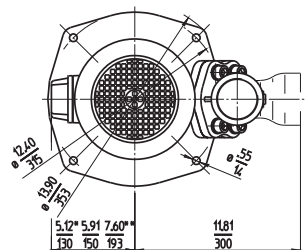
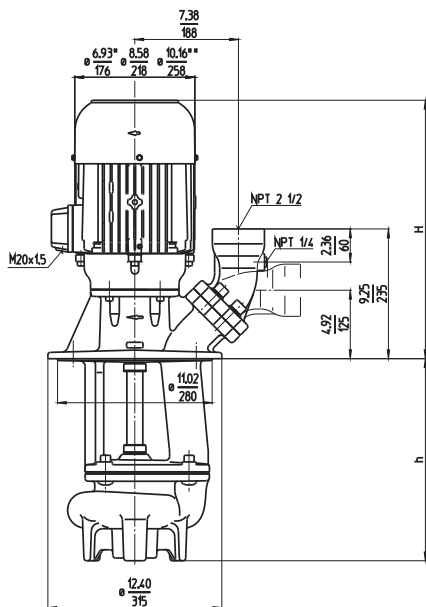
Vortex Pumps

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 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					
SFT450S300	150/17	16.5	11.81	300	156.6	71	3	208-230	60	10.6	3400
	600/5	419					2.2	460	60	5.3	3400
	430		16.93	430	163	74					
	550		21.65	550	168	76					
	800		31.50	800	207	94					
1050		41.34	1050	218	99						
SFT710S300	225/17	18.4	11.81	300	172	78	4.4	208-230	60	16	3450
	900/5	468					3.3	460	60	8	3450
	430		16.93	430	179	81					
	550		21.65	550	183	83					
	800		31.50	800	223	101					
1050		41.34	1050	234	106						
SFT1100S300	300/17	19.8	11.81	300	201	91	7.4	208-230	60	25.0	3450
	1150/5	504					5.5	460	60	12.5	3450
	430		16.93	430	207	94					
	550		21.65	550	212	96					
	800		31.50	800	254	115					
1050		41.34	1050	267	121						



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

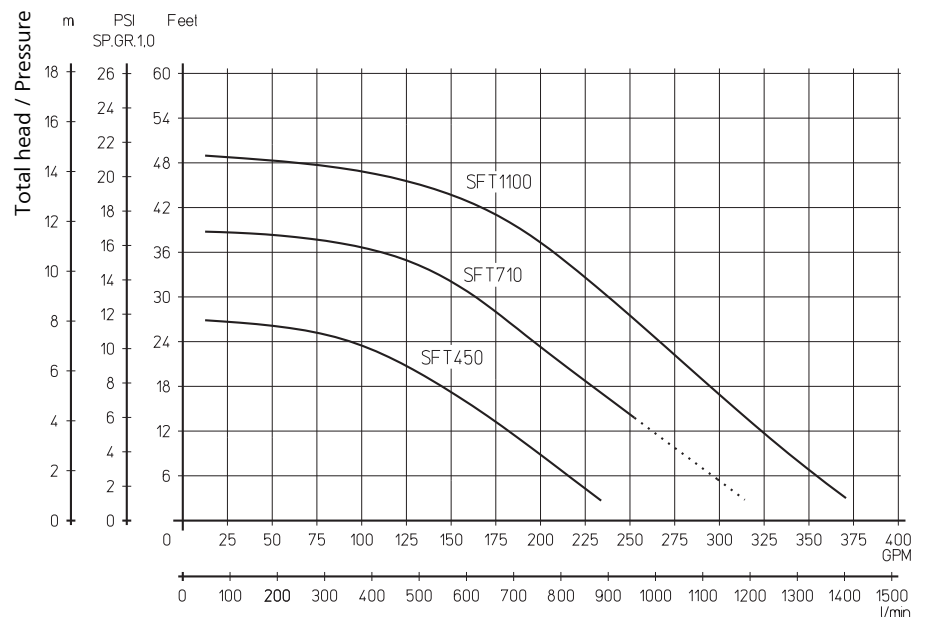
- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity
 - ...140 SSU (...30 mm²/s)
 - On request higher viscosity
- Pumping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

Construction

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



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



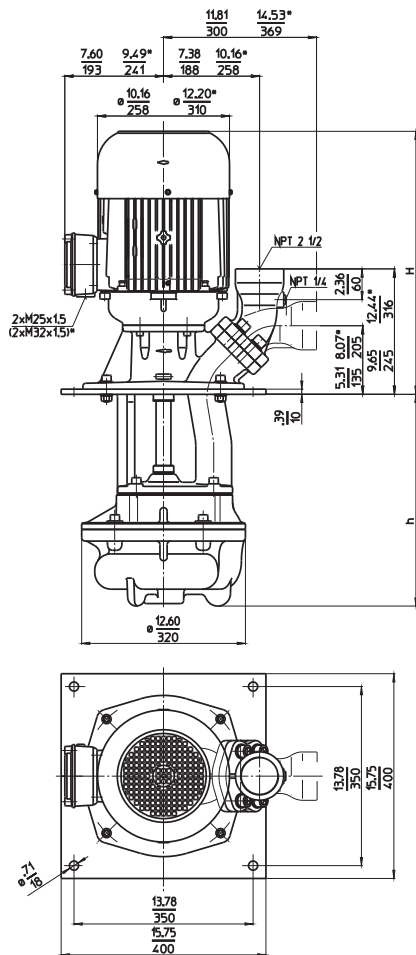
Vortex Pumps

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	20.2	14.29	363	313	142	7.4	208-230	60	25.0	3450
	800/10	514					5.5	460	60	12.5	3450
	490		19.41	493	324	147					
610			24.13	613	333	151					
SFT1350S360	200/50	24.1	14.29	363	366	166	13.8	460	60	16.9	3550
	800/15	612					10.3				
	490		19.41	493	377	171					
610			24.13	613	386	175					
SFT1400S360	200/65	24.4	14.29	363	419	190	17	460	60	21.5	3560
	800/19	620					12.6				
	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

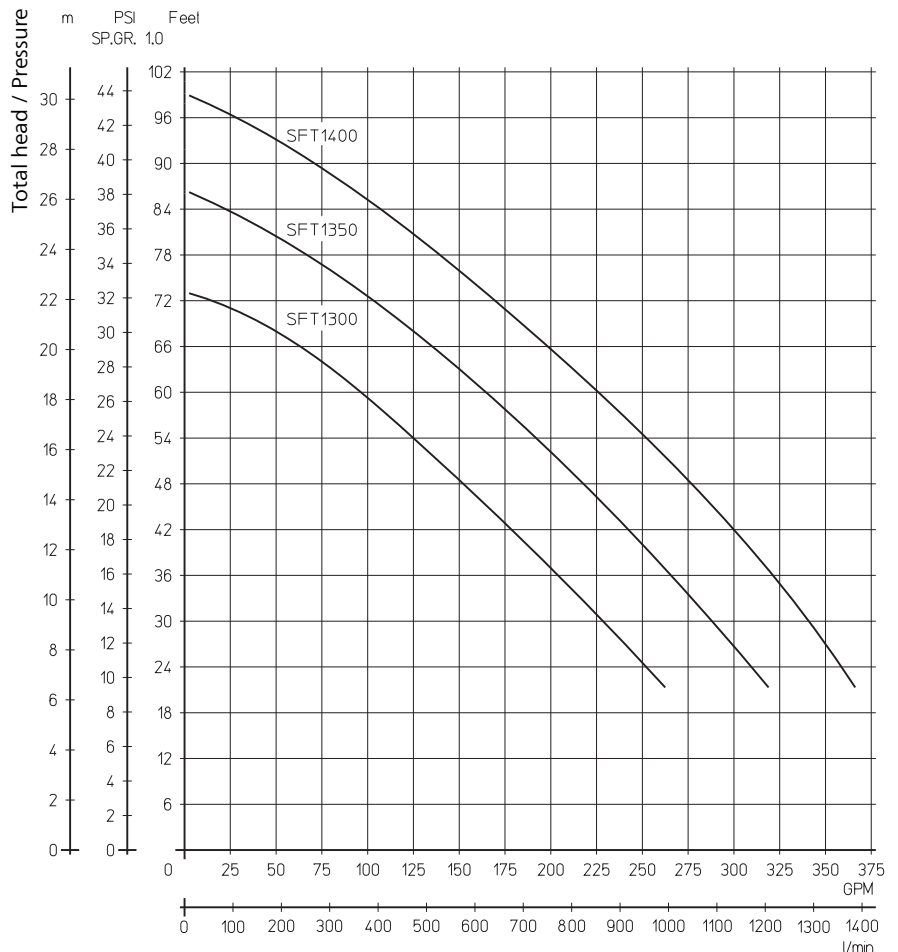
- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity
 - ...140 SSU (...30 mm²/s)
 - On request higher viscosity
- Pumping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

Construction

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



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



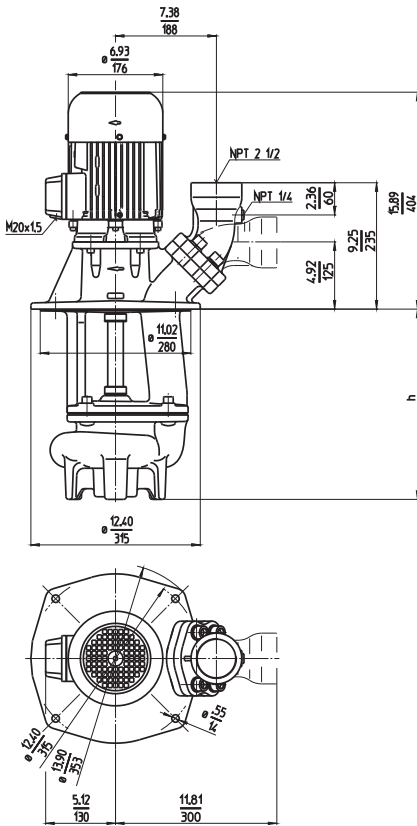
Vortex Pumps

SFT1100-4

Semi-open impellers



SFT1100-4



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

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
SFT1100S300-4	50/15	15.9	11.81	300	138.9	63	2.1	208-230	60	3.5	1750
	300/4	404					1.55	460	60	7.0	1750
550-4			21.65	550	149.9	68					
800-4			31.50	800	172	78					
1050-4			41.34	1050	183	83					



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

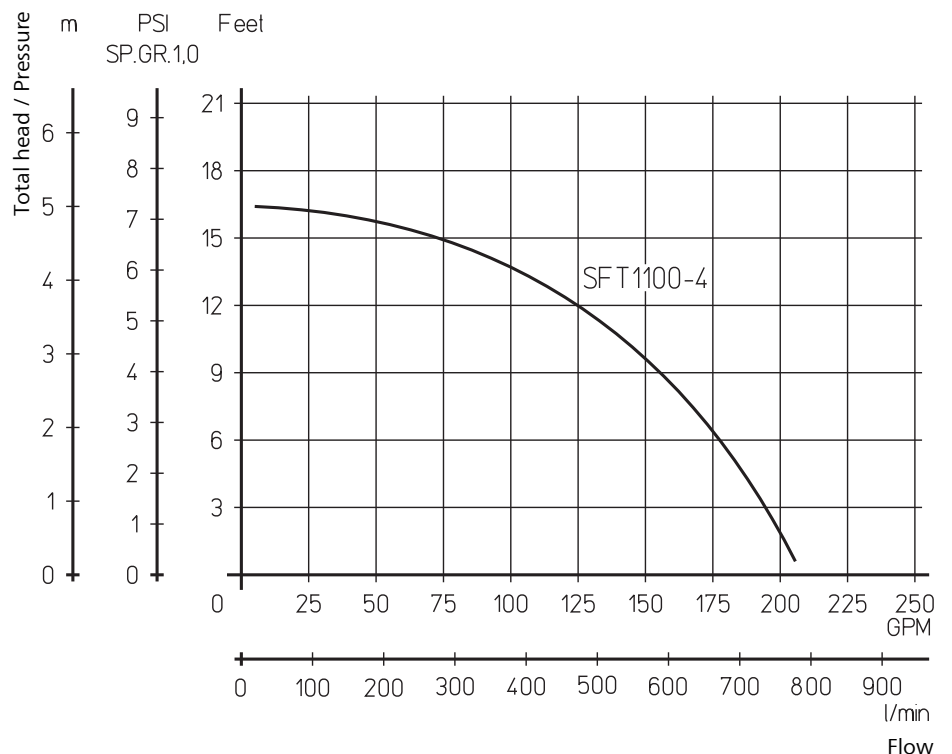
- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity
 - ...140 SSU (...30 mm²/s)
 - On request higher viscosity
- Pumping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

Construction

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



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



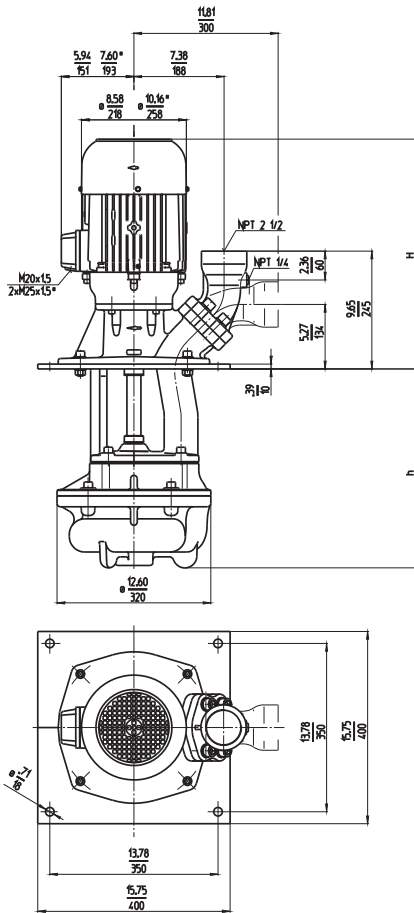
Free Flow-Immersion Pumps

SFT1554...1584-C

Semi-open impellers



SFT1554, 1584-C



Discharge port with NPT 2 inches available upon request.

Dimensions in Inches / mm

*) Dimensions SFT1584-C

Type	Flow at head		Height	Depth of immersion		Weight		Power (4-pole) 3~ HP kW	Voltage V	Frequency Hz	Current Speed	
	GPM /Feet l/min /m	H inch mm	H inch mm	h inch h mm	Lbs kg	HP kW	AMPS				RPM	
SFT1554S360-C	150/54	18.4	14.29	363	249	113	5	208-230	60	12.6	1725	
	600/16	468					3.7	460	60	6.3	1725	
490-C			19.41	493	254	115						
SFT1584S360-C	300/40	21.3	14.29	363	313	142	9.9	208-230	60	29.2	1750	
	1200/11	542					7.4	460	60	14.6	1750	
490-C			19.41	493	318	144						



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

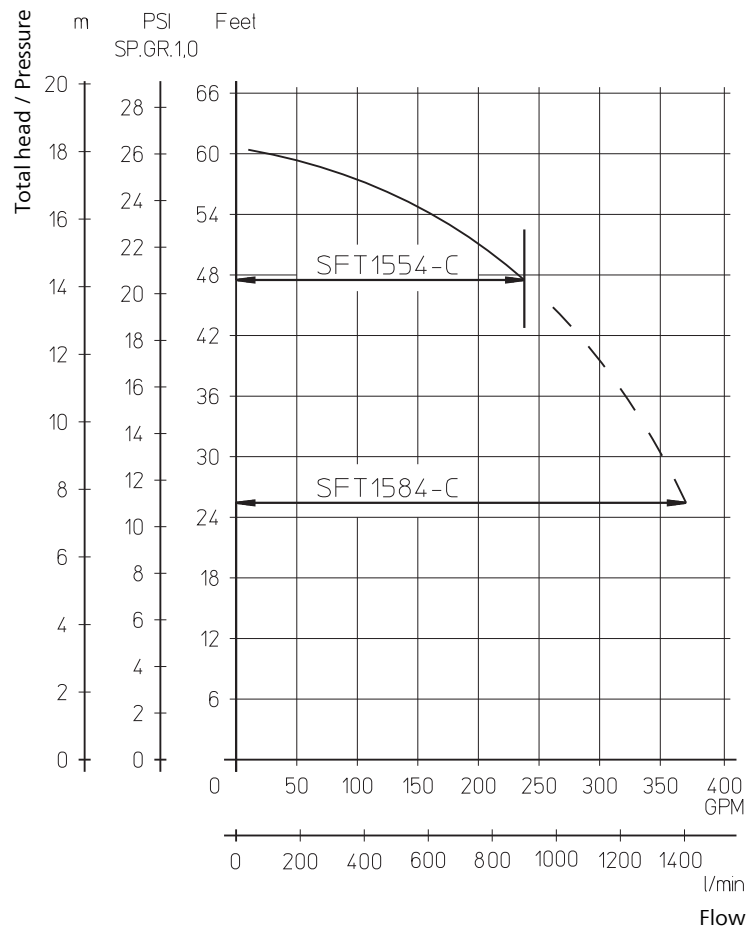
- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
- Kinematic viscosity ...66 SSU (...12 mm²/s)
- Pumping temperature 30...140 °F (0...60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

Construction

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



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



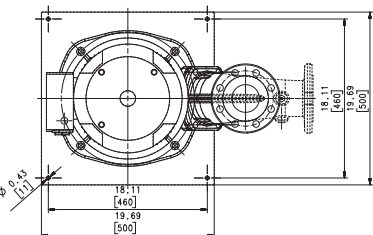
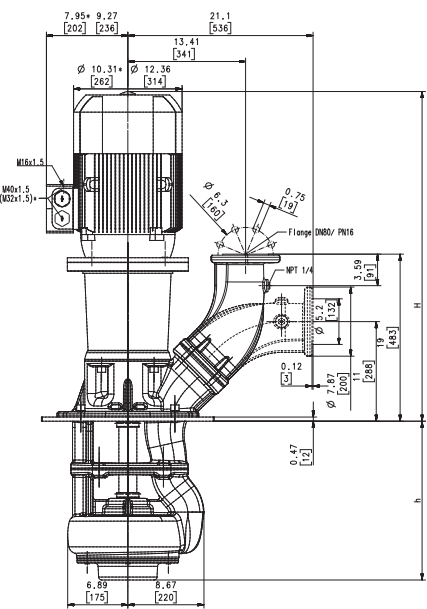
Vortex Pumps

SFT2254...3554

Semi-open impellers



SFT2254...3554



Dimensions in Inches / mm

*) Dimensions SFT2254

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
SFT2254S460	300/42	33.5	18.11	460	481	218	11.5 8.6	460	60	13.8	1765
	1125/13	851									
	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	38.0	18.11	460	520	236	17 12.6	460	60	20	1775
	1700/13	964									
	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	39.5	18.11	460	589	267	23 17.3	460	60	28	1775
	2100/13	1004									
	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

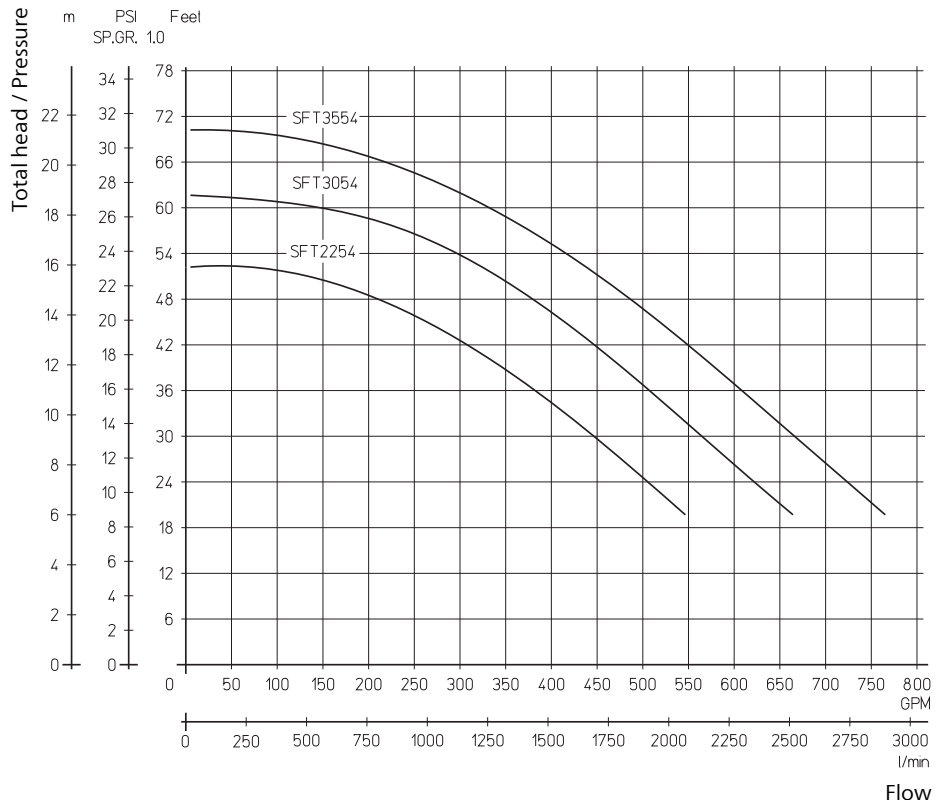
- Types of fluid
 - coolants
 - cooling/cutting oils
- Max. chip to coolant ratio by weight: 1.5 %
- Chip material: Aluminium, steel, coloured steels
- Chip geometry:
 - Flow chips up until 3.15 inch (80 mm) long
 - The max. ball diameter is 1.77 inch (45 mm)
- Kinematic viscosity ...66 SSU (...12 mm²/s)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



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



Horizontal End-Suction Pumps

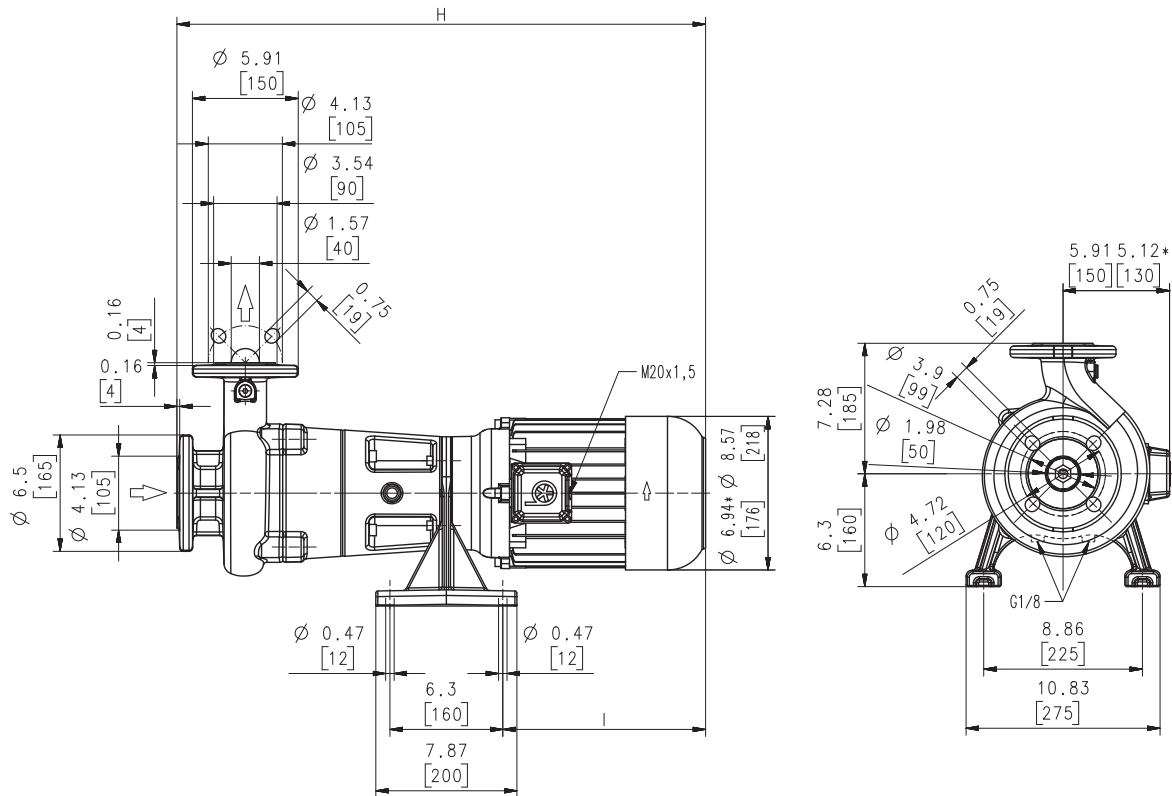
BFT750S...1250S

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	27.4	697	9.3	235	130.1	59	3.5	208-230	60	12.6	3400	
	400/11							2.6	460	60	6.3	3400	
BFT1250S	175/34	28.8	731	10.6	269	158.8	72	5.4	208-230	60	19.0	3450	
	600/12							4.0	460	60	9.5	3450	



Horizontal End-Suction Pumps

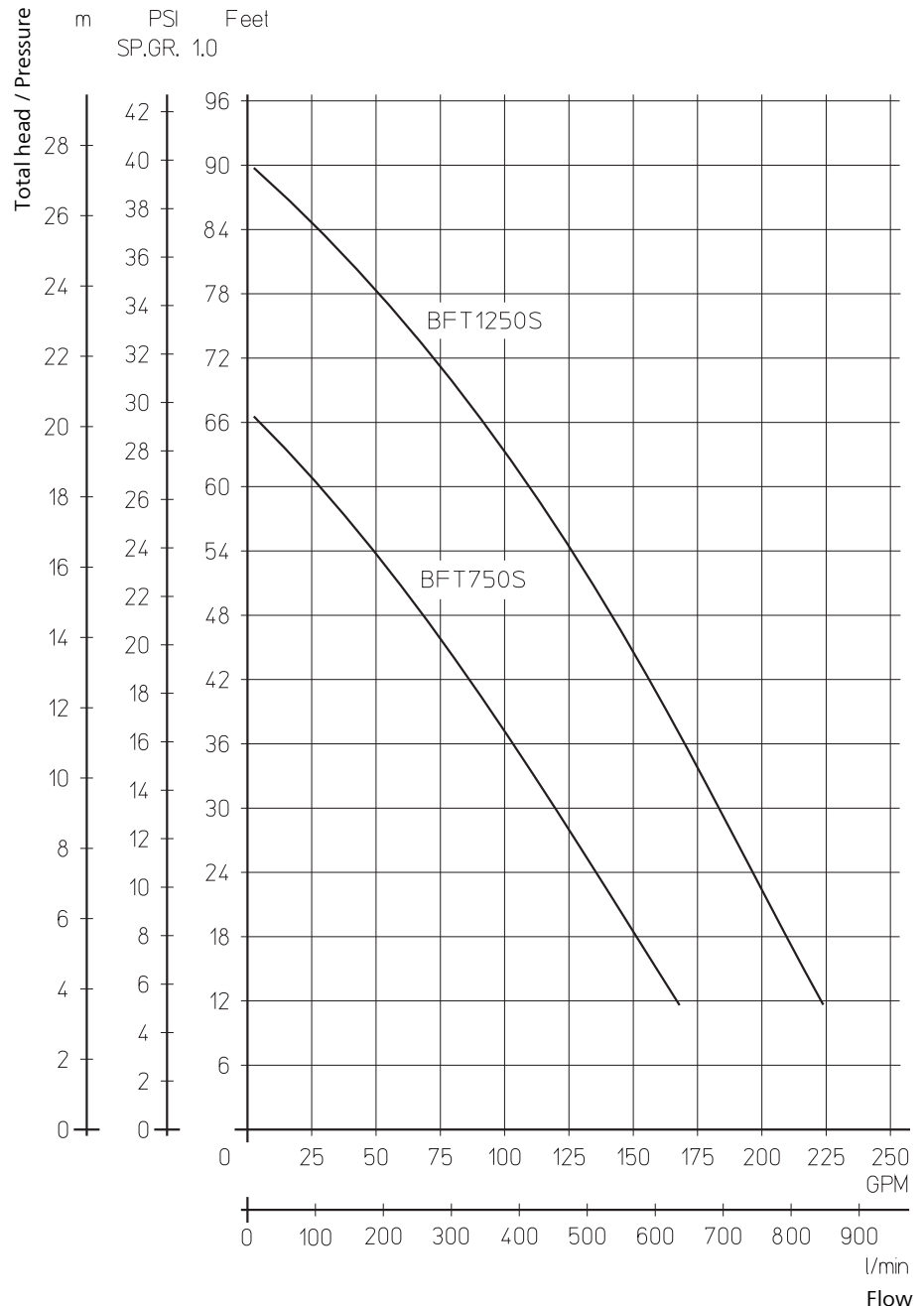
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). 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



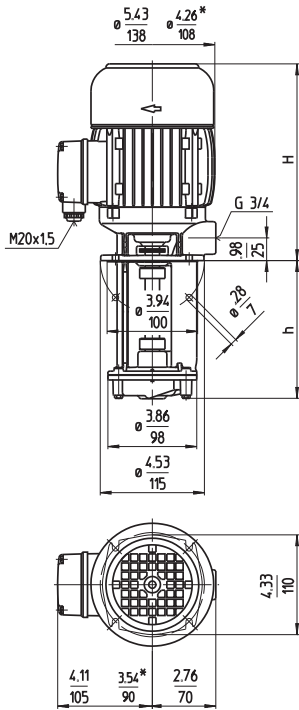
Immersion Pumps

TS12...24

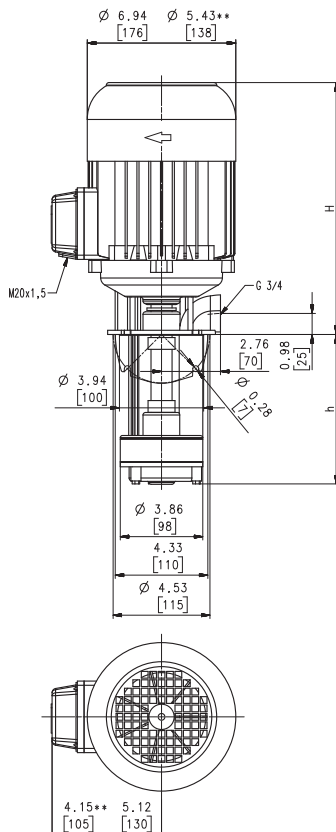
Peripheral impellers



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 mm	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	12.8	5.8					
	250		9.84	250	13.5	6.1					
300		11.81	300	14.3	6.5						
TS13S110	5/74	8.3	4.33	110	13.9	6.3	0.54	208-230	60	1.8	3200
	20/23	211					0.4	460	60	0.9	3200
	150		5.91	150	14.3	6.5					
	190		7.48	190	14.8	6.7					
	250		9.84	250	15.4	7.0					
300		11.81	300	16.3	7.4						
TS15S190	5/125	10.0	7.48	190	26.9	12.2	1.5	208-230	60	5.8	3300
	20/35	255					1.1	460	60	2.9	3300
	220		8.66	220	27.8	12.6					
TS21S110	5/90	8.5	4.33	110	17.2	7.8	0.85	208-230	60	3.0	3250
	20/27	217					0.63	460	60	1.5	3250
	150		5.91	150	17.6	8.0					
	190		7.48	190	18.1	8.2					
	250		9.84	250	18.7	8.5					
300		11.81	300	19.6	8.9						
350		13.78	350	20.5	9.3						
TS22S110	5/125	9.3	4.33	110	21.4	9.7	1.25	208-230	60	5.4	3300
	20/38	235					0.92	460	60	2.7	3300
	150		5.91	150	21.8	9.9					
	190		7.48	190	22.3	10.1					
	250		9.84	250	22.9	10.4					
300		11.81	300	23.8	10.8						
350		13.78	350	24.7	11.2						
TS24S140	10/124	11.8	5.51	140	44.1	20	2.3	208-230	60	8.2	3400
	40/36	300					1.7	460	60	4.1	3400
	180		7.09	180	46.3	21					
220		8.66	220	48.5	22						

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).



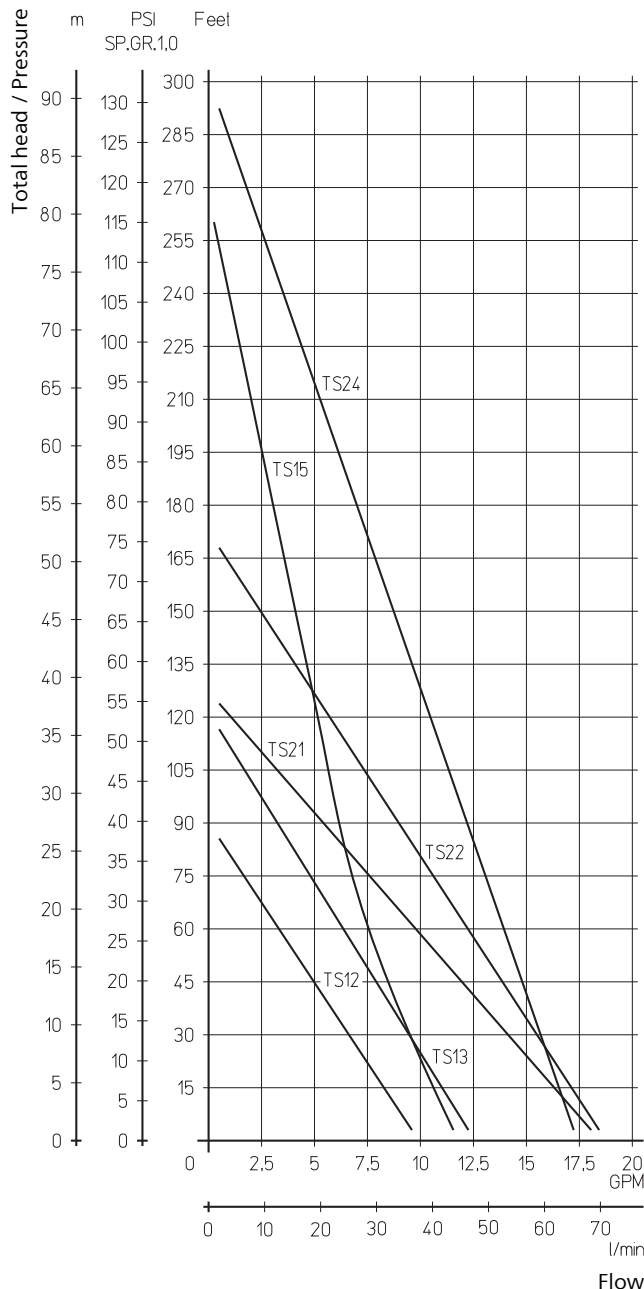
For position of terminal box, see mechanical features within the technical information section.

Applications

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



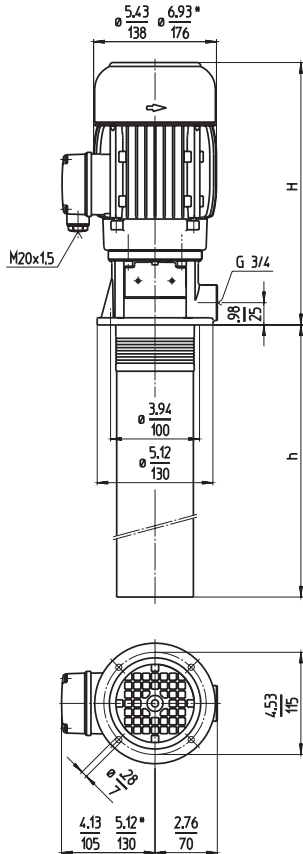
Immersion Pumps



(S)TC25

Closed impellers

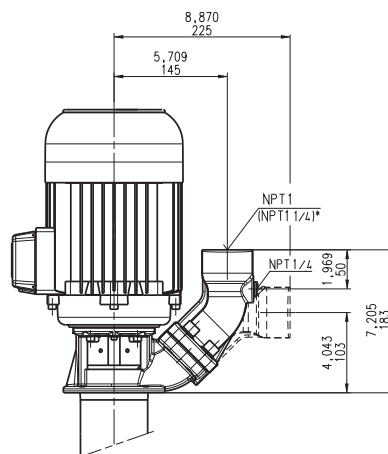
TC25



Dimensions in Inches / mm
*) Dimensions for TC25/810

Longer pump lengths and threaded inlets are available upon request. Please see mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.

Type	Flow at head	Height	Depth of immersion		Weight		Power HP kW	Voltage 3 Phase V	Frq Hz	Rated current AMPS	Speed RPM
	GPM / Feet l/min. / m	H Inch mm	h Inch mm	mm	Lbs kg						
(S)TC25/260	2.5/95	10.9	10.24	260	20.9	9.5	0.5	220-240	50	1.75	2750
	10/28	276					0.38	380-420	50	1.0	2750
								460	60	1.0	3250
(S)TC25/340	2.5/150	10.9	13.19	335	25.4	11.5	0.67	220-240	50	2.42	2800
	10/45	276					0.5	380-420	50	1.4	2800
								460	60	1.4	3300
(S)TC25/430	2.5/210	10.9	16.93	430	27.6	12.5	0.85	220-240	50	2.6	2750
	10/63	276					0.63	380-420	50	1.5	2750
								460	60	1.5	3250
(S)TC25/550	2.5/285	12.36	22.24	565	34.2	15.5	1.5	220-240	50	5.0	2700
	10/85	314					1.1	380-420	50	2.9	2700
								460	60	2.9	3300
(S)TC25/805	2.5/375	12.36	31.89	810	40	18	1.5	220-240	50	5.0	2700
	10/110	314					1.1	380-420	50	2.9	2700
								460	60	2.9	3300
(S)TC25/810	2.5/470	13.3	31.89	810	50.7	23	1.75	220-240	50	5.2	2850
	10/140	337					1.3	380-420	50	3.0	2850
								460	60	3.0	3400



45 degree SAE Flanges for STC Pumps

Upon request all TC pumps are also available with an optional SAE flange. The flange allows for either vertical or horizontal pipe connection and includes a NPT 1/4 pressure gauge connection port.

A surcharge applies for pumps ordered with SAE flange.

*) Dimensions STC160

Our multistage pump models TC25...TC160 have been especially developed to supply **internally cooled tools** with coolant.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

For alternating machining using **internally** and **externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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.



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

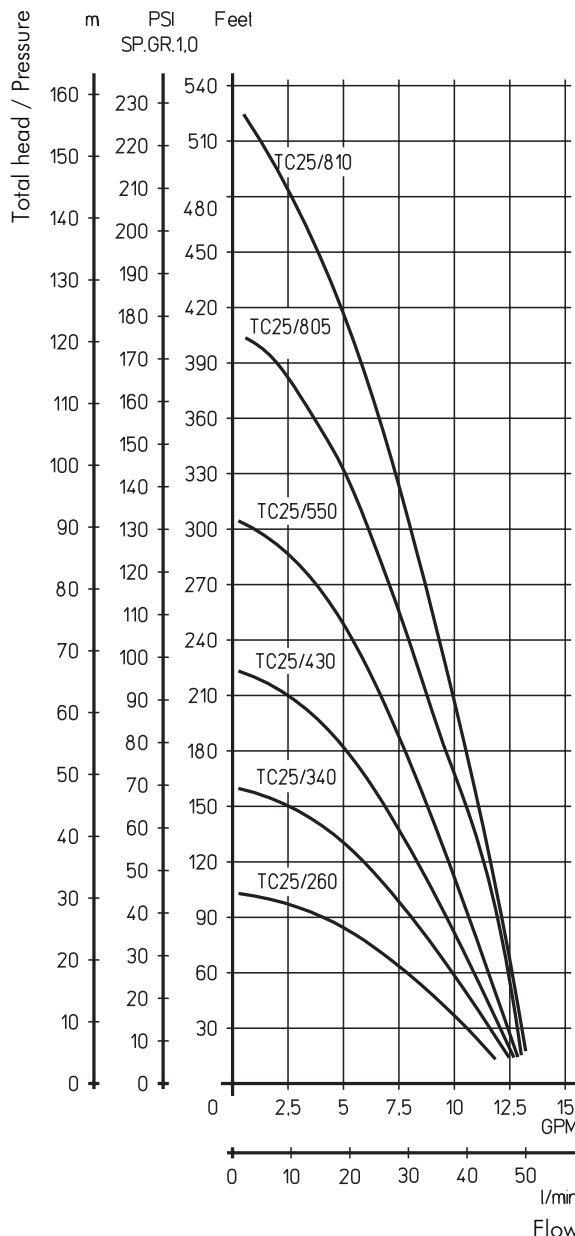
Viton® is a registered trademark of DuPont.

Applications

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

Materials of construction

Pump body	cast iron
Pump shell	steel
Shafts	steel
Impellers + covers	PBTP
Intake strainer	steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pole-changing motor	4 - 2 poles
Pump body	bronze
	CrNi-steel
Noise level	
TC25/260 - 805	58 dBA
TC25/810	63 dBA

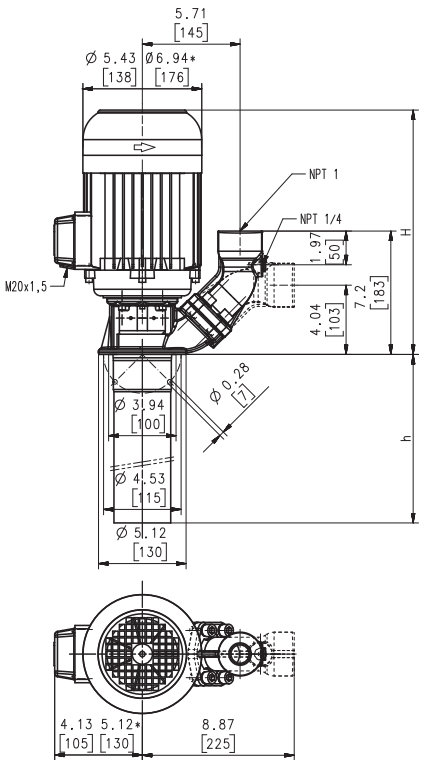


Immersion Pumps (S)TC40

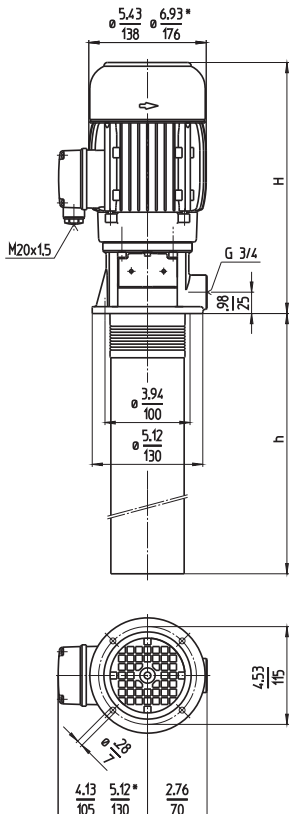
Closed impellers

60 Hz

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	24.3	11	0.75	208-230	60	2.70	3250
	20/42	276					0.55	460	60	1.45	3250
(S)TC40S340	5/220	11.6	13.19	335	28.7	13	1.15	208-230	60	5.2	3300
	20/66	294					0.85	460	60	2.5	3300
(S)TC40S430	5/320	13.3	16.93	430	48.5	22	2	208-230	60	7.6	3400
	20/96	337					1.5	460	60	3.8	3400
(S)TC40S550	5/430	13.3	21.65	550	50.7	23	2.3	208-230	60	8.2	3400
	20/127	337					1.7	460	60	4.1	3400
(S)TC40S720	5/615	15.2	28.35	720	63.9	29	3.5	208-230	60	12.6	3400
	20/182	387					2.6	460	60	6.3	3400

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.

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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 mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.



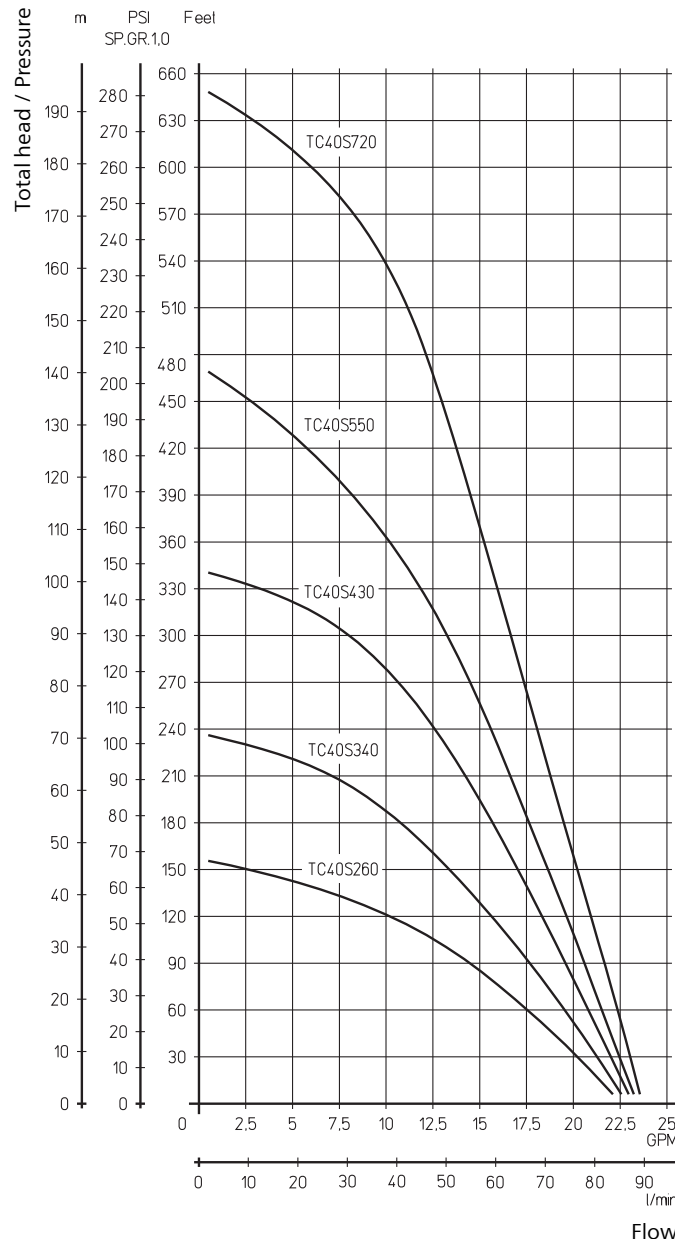
Viton® is a registered trademark of Du Pont.

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
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC40S260...(S)TC40S340	61 dBA
(S)TC40S430...(S)TC40S720	68 dBA



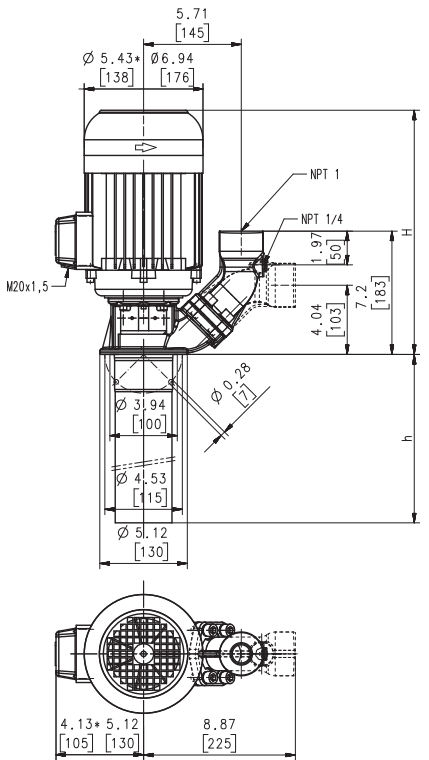
Immersion Pumps

(S)TC63

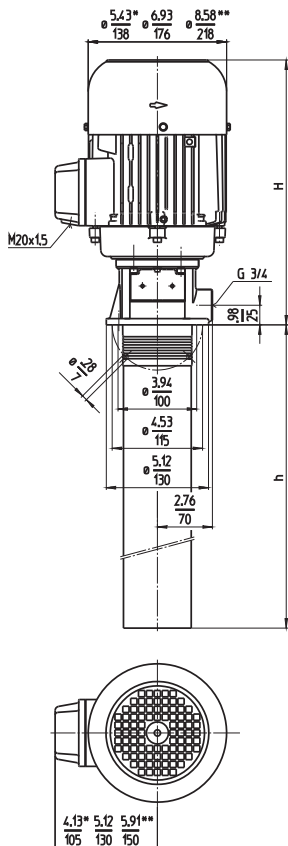
Closed impellers



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	12.4	10.83	275	30.9	14	1.5	208-230	60	5.8	3300
	60/34	314					1.1	460	60	2.9	3300
(S)TC63S350	15/172	13.3	13.39	340	48.5	22	2	208-230	60	7.6	3400
	60/50	337					1.5	460	60	3.8	3400
(S)TC63S440	15/240	13.3	17.32	440	50.7	23	2.3	208-230	60	8.2	3400
	60/70	337					1.7	460	60	4.1	3400
(S)TC63S560	15/355	14.3	22.24	565	63.9	29	3	208-230	60	10.6	3400
	60/104	362					2.2	460	60	5.3	3400
TC63S750	15/500	16.8	29.72	755	90.4	41	4.4	208-230	60	16	3450
	60/145	427					3.3	460	60	8	3450

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.

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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 mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.



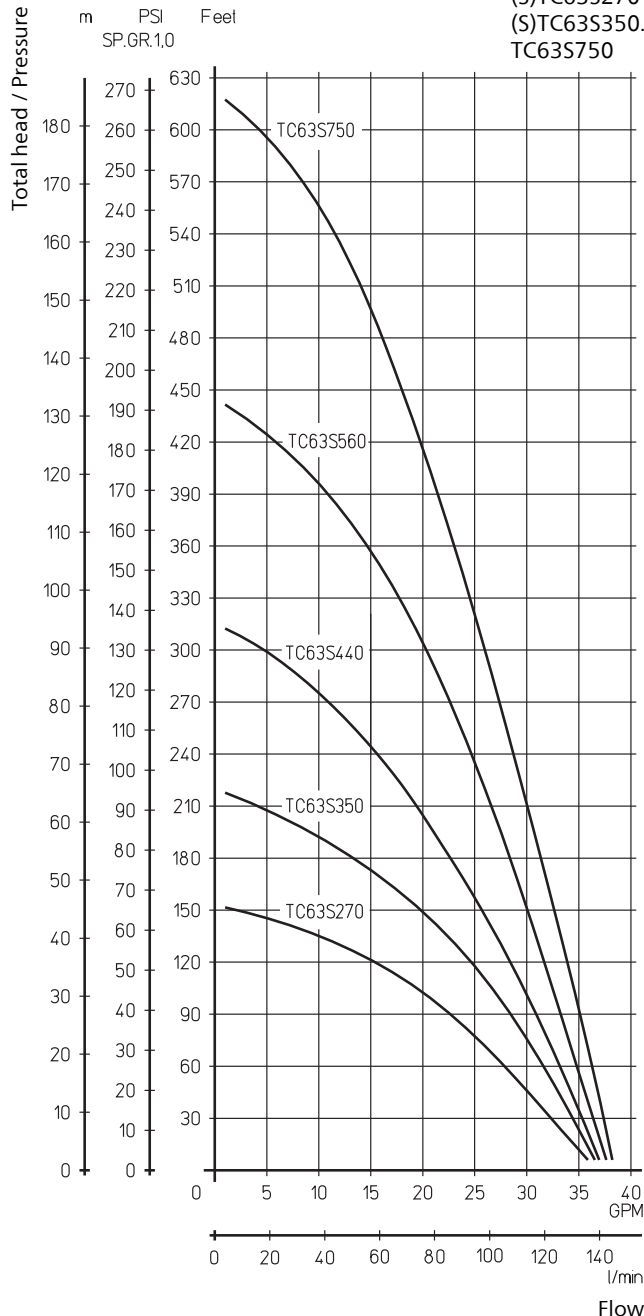
Viton® is a registered trademark of Du Pont.

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
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC63S270	61 dBA
(S)TC63S350...(S)TC63S560	68 dBA
TC63S750	72 dBA

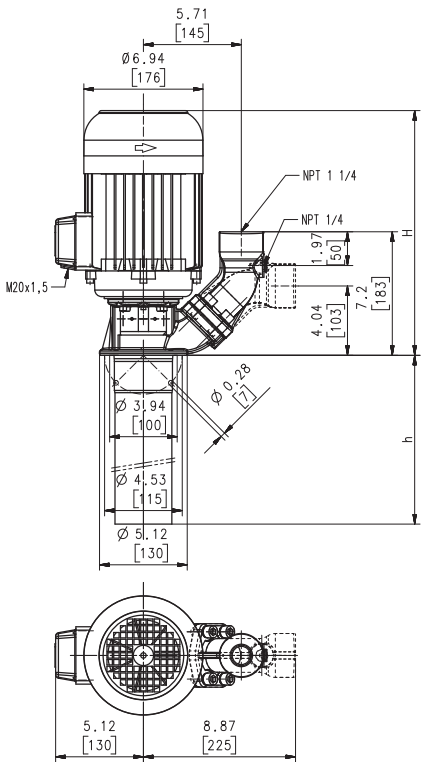


Immersion Pumps (S)TC160

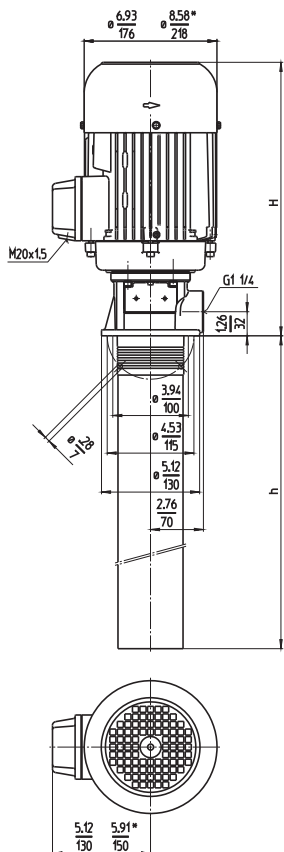
Closed impellers

60 Hz

STC160



TC160



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)TC160S330	20/110	13.3	12.80	325	46.3	21	2	208-230	60	7.6	3400
	80/32	337					1.5	460	60	3.8	3400
(S)TC160S430	20/175	13.3	16.73	425	48.5	22	2.3	208-230	60	8.2	3400
	80/51	337					1.7	460	60	4.1	3400
(S)TC160S580	20/270	15.2	22.83	580	61.7	28	3.5	208-230	60	12.6	3400
	80/78	387					2.6	460	60	6.3	3400
TC160S740	20/365	16.8	28.94	735	88.2	40	4.4	208-230	60	16	3450
	80/108	427					3.3	460	60	8	3450

Dimensions in Inches / mm
*) Dimensions TC160S740



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.

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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 mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.



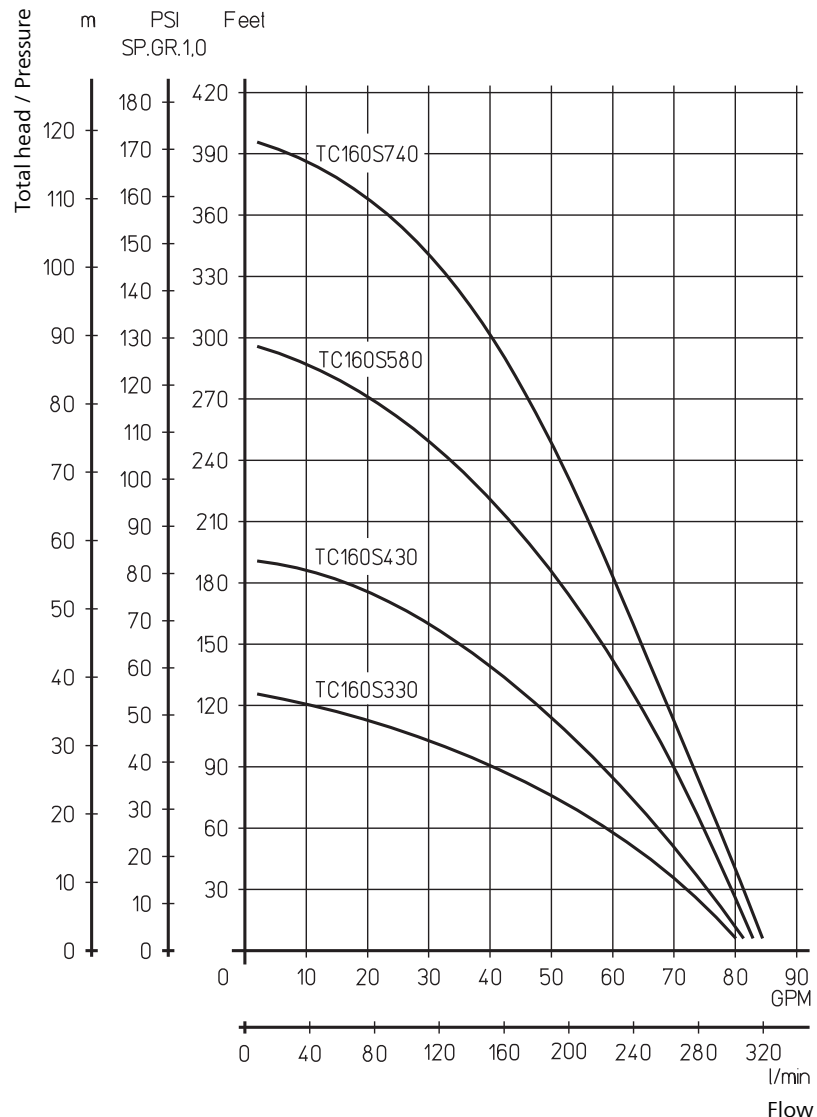
Viton® is a registered trademark of Du Pont.

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
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC160S330...(S)TC160S580	68 dBA
TC160S740	72 dBA



Immersion Pumps TH

Pressure Boosting Pumps FH

Closed impellers

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).

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY- configured **polechanging motors** (Dahlander) for optional changeover to half speed operation. 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

Applications

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

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Diffusers	CrNi-steel
Shaft	CrNi-steel
Mechanical seal	SiC
O-rings	Viton

Optional
 Pole-changing motor 4 - 2 poles
 Pump body + cover in bronze/
 stainless steel

For position of terminal box, please see Mechanical/Hydraulic Features in the Technical information of this catalog.

SAE Flange for TH Pumps

Upon request all (S)TH 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

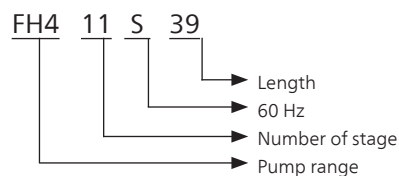
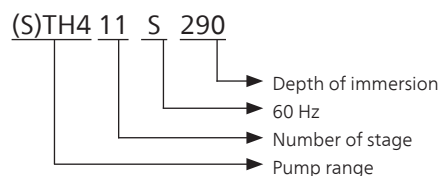
One key feature of the (S)TH/FH series pumps is their non-overloading motors. These pumps can be operated across the entire pump curve without damaging the motor. This key advantage applies for all allowed fluids, including coolant oils. For specific applications where only one working point is required,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



Immersion Pumps TH

Pressure Boosting Pumps FH

Closed impellers

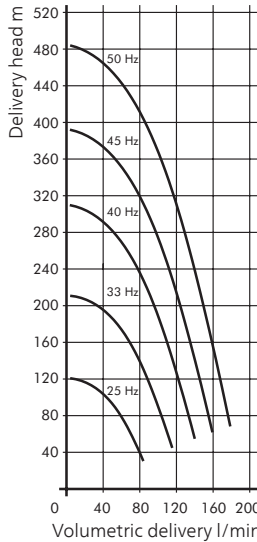
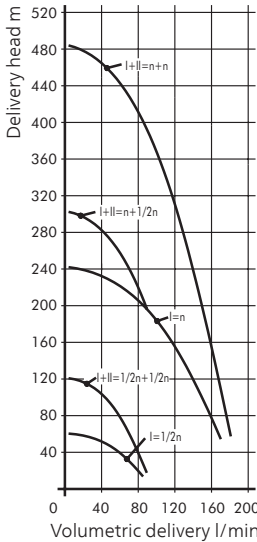
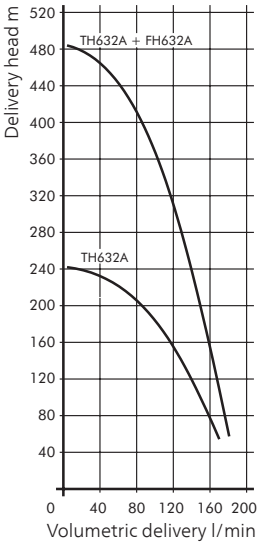
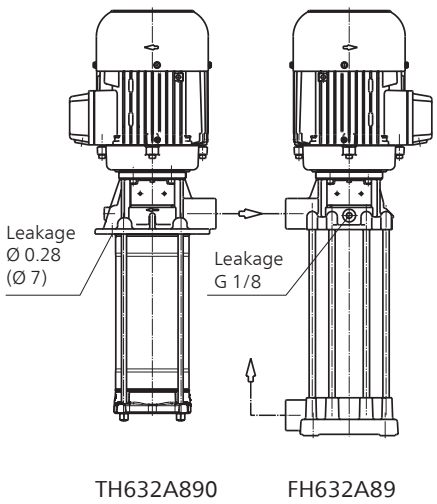
Applying (S)TH/FH pumps in grinding applications

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



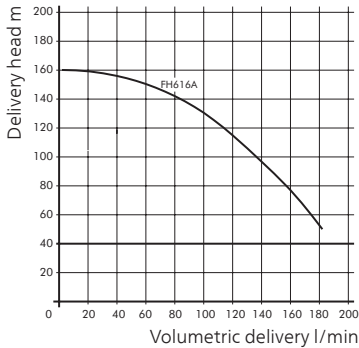
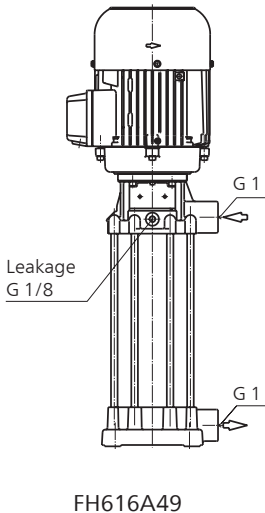
Dimensions in Inches / mm

Tandem-arrangement

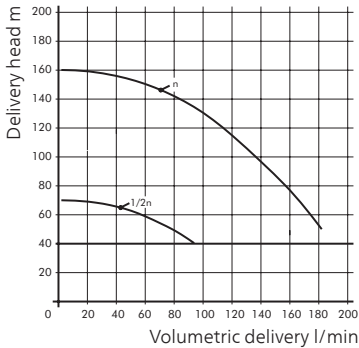
Tandem-arrangement pole-changing motors 4 - 2 poles

Tandem-arrangement Both pumps controlled by one variable frequency converter

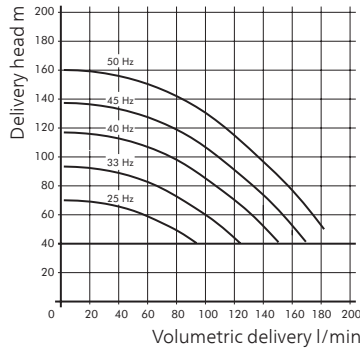
Examples for pressure boosting: FH616A49 + 4 bar of positive head from central coolant supply



4 bar of positive head + pump



4 bar of positive head + pump with pole-changing motor 4 - 2 poles



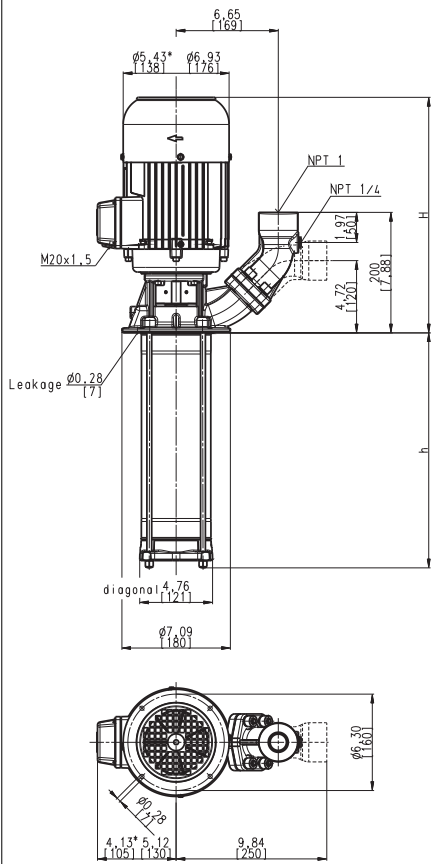
4 bar of positive head + pump controlled by frequency converter

Immersion Pumps

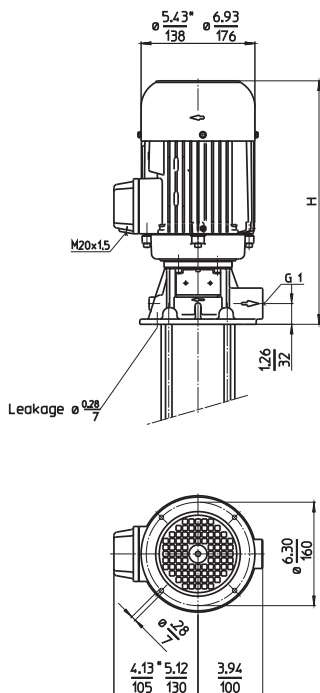
(S)TH2

Closed impellers

STH203...231



TH203...231



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
(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	12.2	11.42	290	37.0	16.8	1	208-230	60	4.4	3300
(S)TH208S290	5/220				37.3	16.9	0.75	460	60	2.2	3300
(S)TH209S290	5/240				37.5	17.0					
(S)TH210S290	5/270				37.7	17.1					
(S)TH211S290	5/300	12.2	11.42	290	39.7	18.0	1.25	208-230	60	5.4	3300
							0.92	460	60	2.7	3300
(S)TH212S390	5/325		15.35	390	40.8	18.5					
(S)TH213S390	5/355				41.0	18.6					
(S)TH214S390	5/375	13.0	15.35	390	43.2	19.6	1.5	208-230	60	5.8	3300
(S)TH215S390	5/395				43.4	19.7	1.1	460	60	2.9	3300
(S)TH216S390	5/420	13.9	15.35	390	59.5	27	1.75	208-230	60	6	3400
							1.3	460	60	3	3400
(S)TH217S490	5/440	13.9	19.29	490	61.7	28.0	2	208-230	60	7.6	3400
(S)TH218S490	5/480				62.0	28.1	1.5	460	60	3.8	3400
(S)TH219S490	5/505				62.2	28.2					
(S)TH220S490	5/540	13.9	19.29	490	63.3	28.7	2.3	208-230	60	8.2	3400
(S)TH221S490	5/570				63.5	28.8	1.7	460	60	4.1	3400
(S)TH222S590	5/605	14.8	23.23	590	73.2	33.2	2.5	208-230	60	9.8	3400
(S)TH223S590	5/635				73.4	33.3	1.9	460	60	4.9	3400
(S)TH224S590	5/660	14.8	23.23	590	74.7	33.9	3	208-230	60	10.6	3400
(S)TH225S590	5/690				75.0	34.0	2.2	460	60	5.3	3400
(S)TH226S590	5/715				75.2	34.1					
(S)TH227S690	5/740		27.17	690	76.3	34.6					
(S)TH228S690	5/760	15.2	27.17	690	77.6	35.2	3.5	208-230	60	12.6	3400
(S)TH229S690	5/785				77.8	35.3	2.6				
(S)TH230S690	5/810				78.1	35.4					
(S)TH231S690	5/835				78.3	35.5					

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 mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.



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

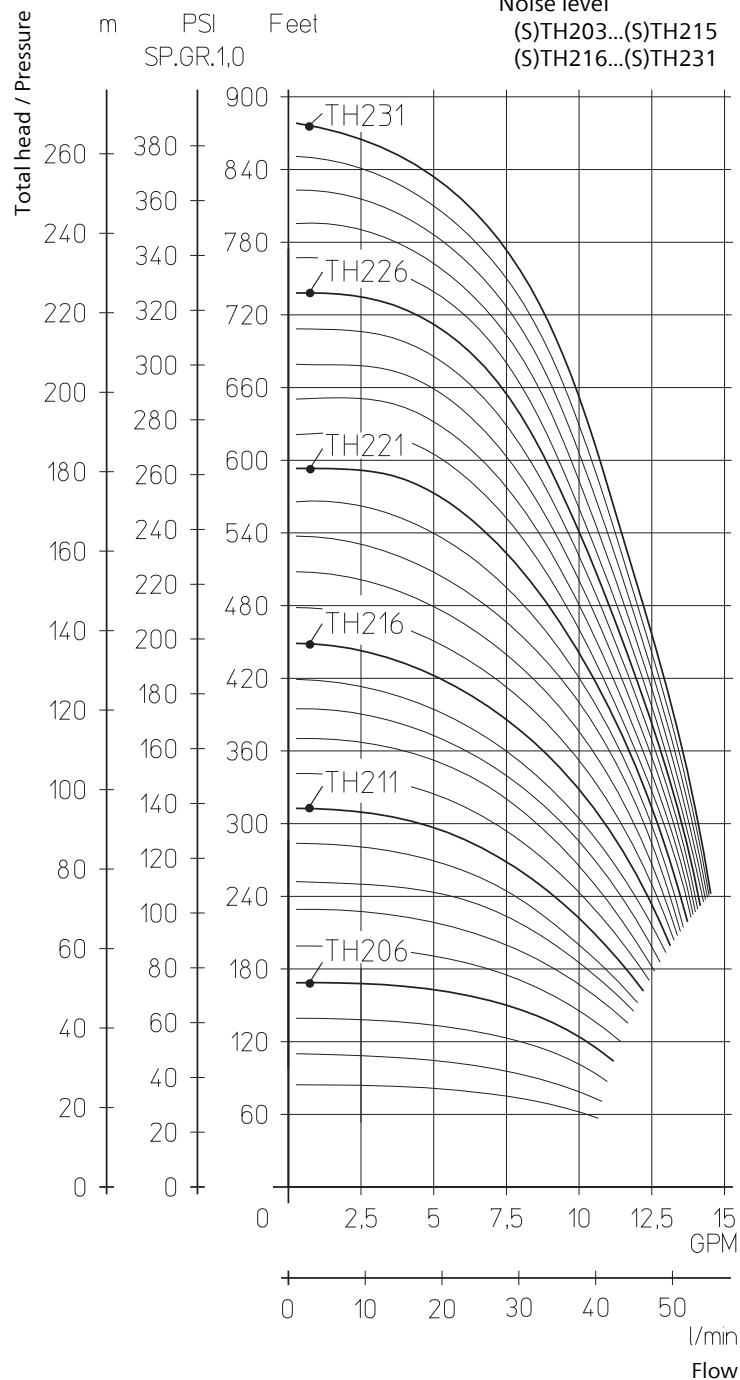
Viton® is a registered trademark of Du Pont.

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	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH203...(S)TH215	61 dBA
(S)TH216...(S)TH231	66 dBA

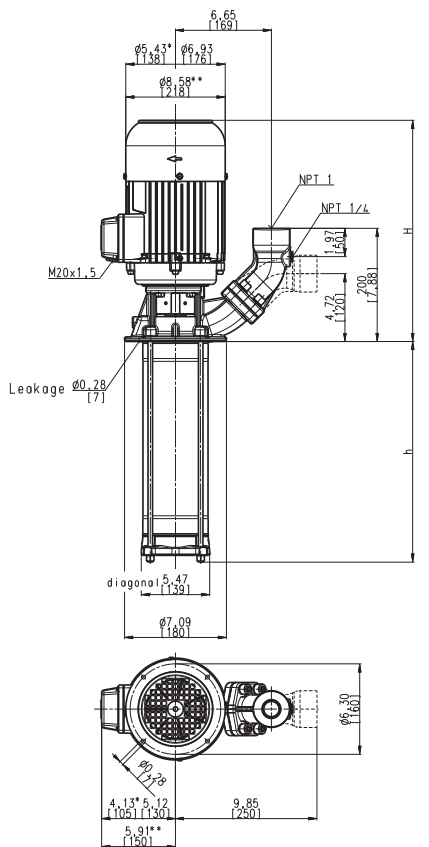


Immersion Pumps (S)TH4

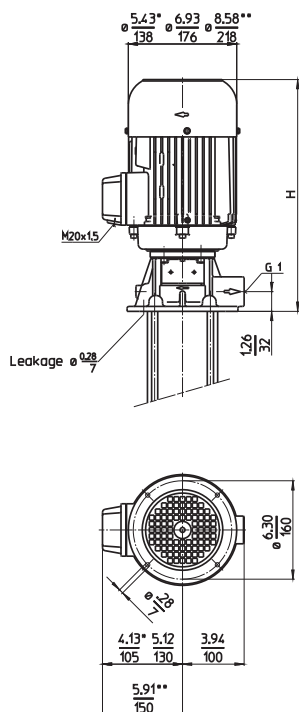
Closed impellers



STH403...424



TH403...424



Type	Flow at head	Height	Depth of im- mersion		Weight		Power 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)TH403S190	10/90	11.5	7.48	190	32.4	14.7	0.73	208-230	60	2.8	3300
	40/29	291					0.54	460	60	1.4	3300
(S)TH404S190	10/130	12.2	7.48	190	37.7	17.1	1	208-230	60	4.4	3300
	40/39	309					0.75	460	60	2.2	3300
(S)TH405S190	10/170				37.9	17.2					
	40/49										
(S)TH406S190	10/195	12.2	7.48	190	40.1	18.2	1.25	208-230	60	5.4	3300
	40/58	309					0.92	460	60	2.7	3300
(S)TH407S290	10/230	13.0	11.42	290	43.2	19.6	1.5	208-230	60	5.8	3300
	40/68	329					1.1	460	60	2.9	3300
(S)TH408S290	10/260				43.4	19.7					
	40/78										
(S)TH409S290	10/285	13.9	11.42	290	59.5	27	1.75	208-230	60	6	3400
	40/88	352					1.3	460	60	3	3400
(S)TH410S290	10/330	13.9	11.42	290	60.9	27.6	2	208-230	60	7.6	3400
	40/100	352					1.5	460	60	3.8	3400
(S)TH411S290	10/360	13.9	11.42	290	62.0	28.1	2.3	208-230	60	8.2	3400
	40/110	352					1.7	460	60	4.1	3400
(S)TH412S390	10/395		15.35	390	63.1	28.6					
	40/119										
(S)TH413S390	10/425	14.8	15.35	390	71.9	32.6	2.5	208-230	60	9.8	3400
	40/129	376					1.9	460	60	4.9	3400
(S)TH414S390	10/465	14.8	15.35	390	73.2	33.2	3	208-230	60	10.6	3400
	40/139	376					2.2	460	60	5.3	3400
(S)TH415S390	10/505				73.4	33.3					
	40/150										
(S)TH416S390	10/530	15.2	15.35	390	74.7	33.9	3.5	208-230	60	12.6	3400
	40/159	386					2.6	460	60	6.3	3400
(S)TH417S490	10/565		19.29	490	75.9	34.4					
	40/170										
(S)TH418S490	10/595				76.1	34.5					
	40/179										
(S)TH419S490	10/635	17.4	19.29	490	98.6	44.7	4.4	208-230	60	16	3450
	40/192	441					3.3	460	60	8	3450
(S)TH420S490	10/670				98.8	44.8					
	40/202										
(S)TH421S490	10/705				99.0	44.9					
	40/214										
(S)TH422S590	10/735		23.23	590	100.1	45.4					
	40/224										
(S)TH423S590	10/770				100.3	45.5					
	40/233										
(S)TH424S590	10/800	17.4	23.23	590	105.8	48	5.4	208-230	60	19.0	3450
	40/242	441					4.0	460	60	9.5	3450

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 mechanical/hydraulic features in the Technical Information section of this catalog or call 248-926-9400 for details.



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

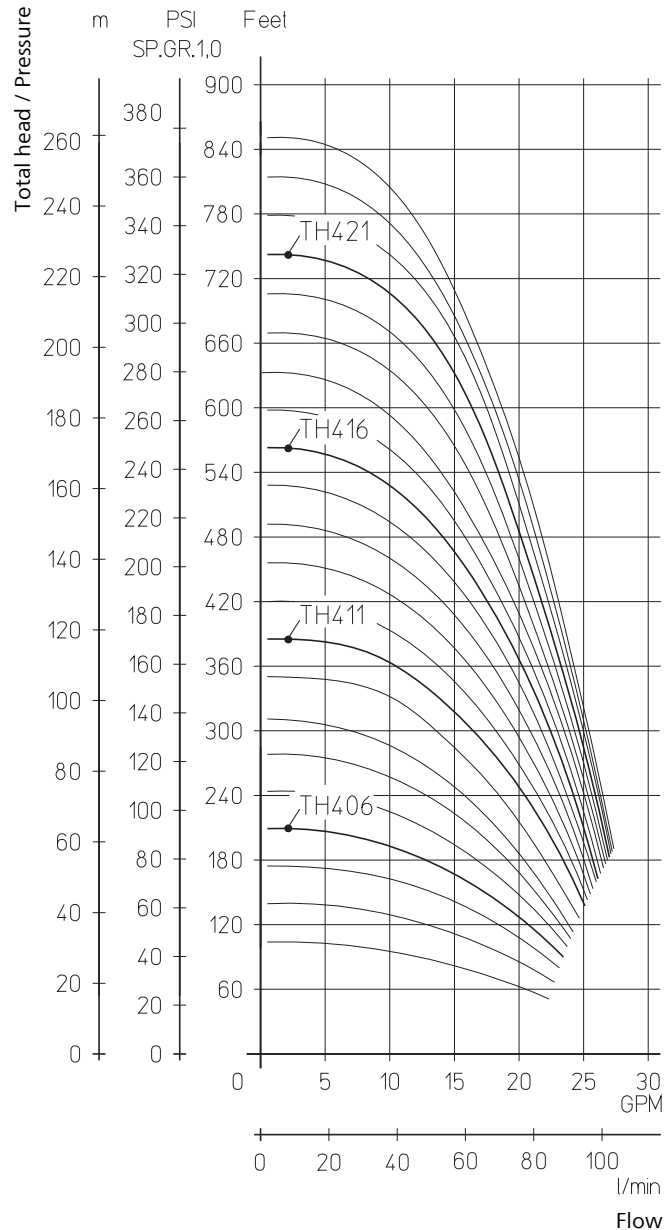
Viton® is a registered trademark of Du Pont.

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	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH403...(S)TH408	61 dBA
(S)TH409...(S)TH418	66 dBA
(S)TH419...(S)TH424	75 dBA



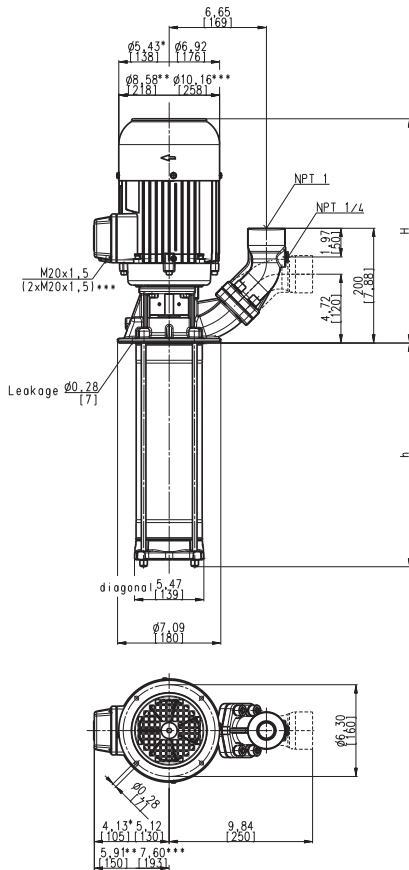
Immersion Pumps

(S)TH6

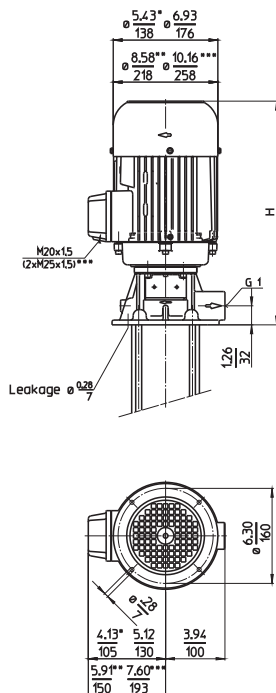
Closed impellers



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 Speed	
	GPM /Feet l/min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
(S)TH603S190	20/95 80/28	11.5 291	7.48	190	36.2	16.4	1 0.75	208-230 460	60 60	4.4 2.2	3300 3300
(S)TH604S190	20/120 80/38	12.2 309	7.48	190	38.6	17.5	1.25 0.92	208-230 460	60 60	5.4 2.7	3300 3300
(S)TH605S240	20/150 80/48	13.0 329	9.45	240	40.4	18.3	1.5 1.1	208-230 460	60 60	5.8 2.9	3300 3300
(S)TH606S240	20/185 80/58	13.9 352	9.45	240	56.0	25.4	2 1.5	208-230 460	60 60	7.6 3.8	3400 3400
(S)TH607S290	20/220 80/68	13.9 352	11.42	290	65.5	29.7	2.3 1.7	208-230 460	60 60	8.2 4.1	3400 3400
(S)TH608S290	20/255 80/78	14.8 376	11.42	290	74.5	33.8	2.5 1.9	208-230 460	60 60	9.8 4.9	3400 3400
(S)TH609S340	20/285 80/88	14.8 376	13.39	340	76.1	34.5	3 2.2	208-230 460	60 60	10.6 5.3	3400 3400
(S)TH610S340	20/330 80/98	15.2 386	13.39	340	77.4	35.1	3.5 2.6	208-230 460	60 60	12.6 6.3	3400 3400
(S)TH611S390	20/358 80/108		15.35	390	78.5	35.6					
(S)TH612S390	20/395 80/118				78.7	35.7					
(S)TH613S490	20/420 80/128	17.4 441	19.29	490	109.4	49.6	4.4 3.3	208-230 460	60 60	16 8	3450 3450
(S)TH614S490	20/455 80/139				109.6	49.7					
(S)TH615S490	20/490 80/149				109.8	49.8					
(S)TH616S490	20/520 80/159	17.4 441	19.29	490	115.3	52.3	5.4 4.0	208-230 460	60 60	19.0 9.5	3450 3450
(S)TH617S590	20/555 80/168		23.23	590	116.4	52.8					
(S)TH618S590	20/580 80/178	18.8 477	23.23	590	153.0	69.4	6.7 5.0	208-230 460	60 60	24 12	3450 3450
(S)TH619S590	20/615 80/188				153.2	69.5					
(S)TH620S590	20/645 80/198				153.5	69.6					
(S)TH621S690	20/675 80/206		27.17	690	154.6	70.1					
(S)TH622S690	20/705 80/214				154.8	70.2					
(S)TH623S690	20/735 80/222	18.8 477	27.17	690	157.0	71.2	7.4 5.5	208-230 460	60 60	25.0 12.5	3450 3450
(S)TH624S690	20/765 80/232				157.2	71.3					

Dimensions in Inches / mm
 *) Dimensions (S)TH603...605
 **) Dimensions (S)TH613...617
 ***) Dimensions (S)TH618...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 mechanical/hydraulic 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)

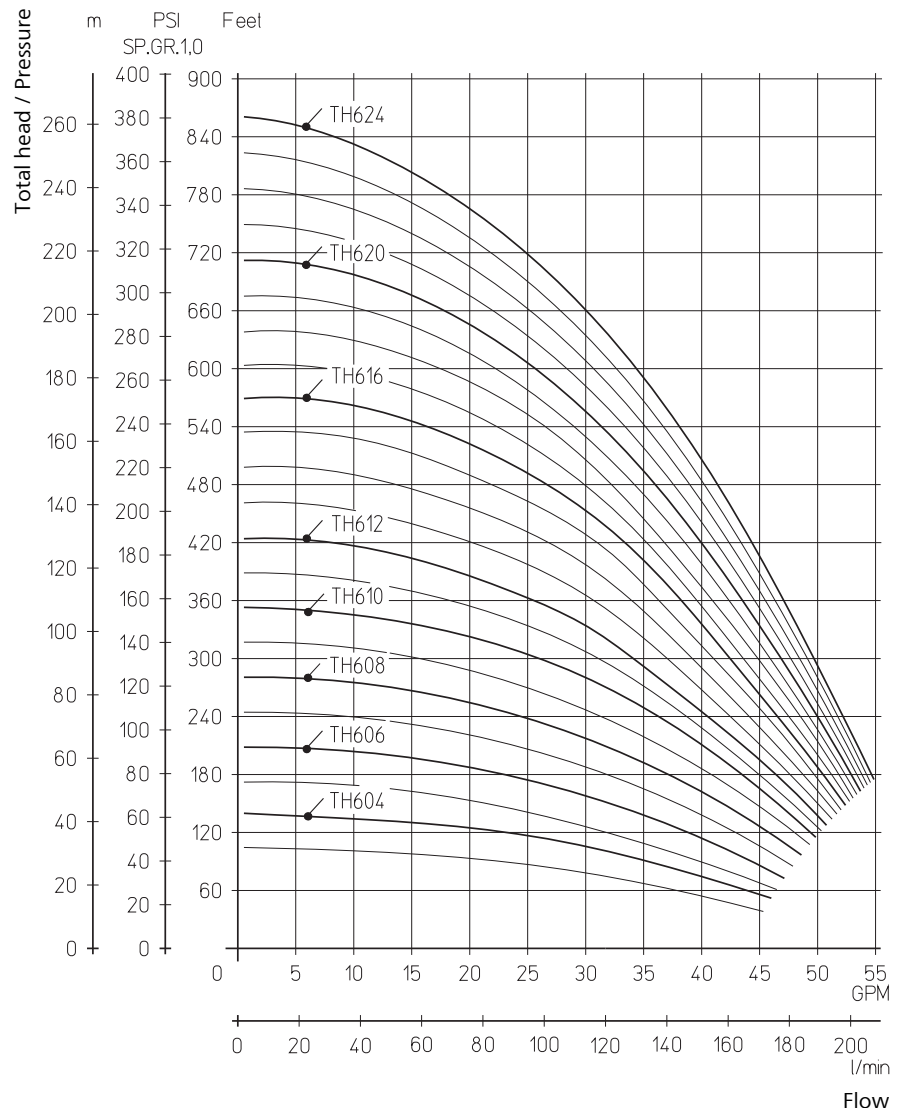
Construction

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	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH603...(S)TH605	61 dBA
(S)TH606...(S)TH612	66 dBA
(S)TH613...(S)TH624	75 dBA



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

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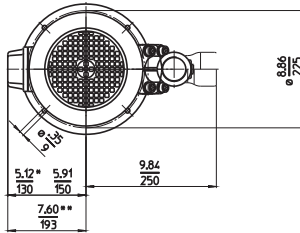
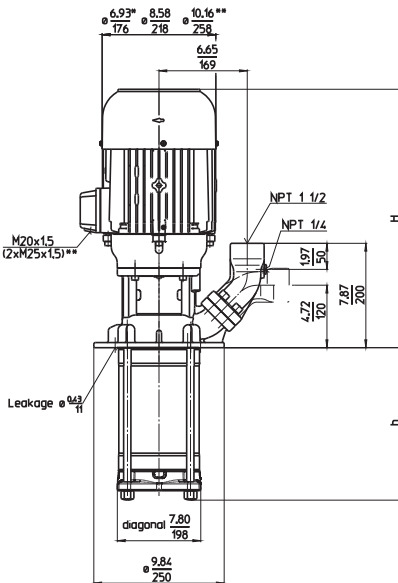
Immersion Pumps

(S)TH11

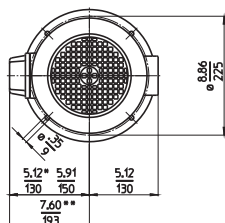
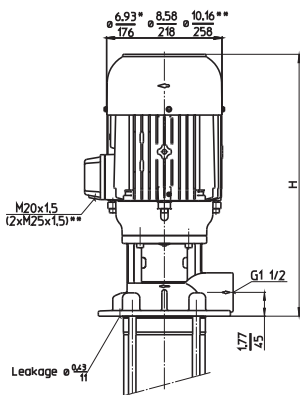
Closed impellers



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	16.0	7.17	182	75.0	34	1.75	208-230	60	6	3400
	150/30	406					1.3	460	60	3	3400
(S)TH1103S180	37.5/150	17.0	7.17	182	83.8	38	2.5	208-230	60	9.8	3400
	150/45	431					1.9	460	60	4.9	3400
(S)TH1104S280	37.5/200	17.4	10.94	278	90.4	41	3.5	208-230	60	12.6	3400
	150/59	441					2.6	460	60	6.3	3400
(S)TH1105S280	37.5/250	19.5	10.94	278	114.7	52	4.4	208-230	60	16	3450
	150/77	496					3.3	460	60	8	3450
(S)TH1106S280	37.5/300	19.5	10.94	278	121.3	55	5.4	208-230	60	19.0	3450
	150/90	496					4.0	460	60	9.5	3450
(S)TH1107S310	37.5/355	20.9	12.20	310	158.8	72	6.7	208-230	60	24	3450
	150/106	532					5.0	460	60	12	3450
(S)TH1108S380	37.5/400		14.72	374	163	74					
(S)TH1109S380	37.5/455	20.9	14.72	374	165	75	7.4	208-230	60	25.0	3450
	150/138	532					5.5	460	60	12.5	3450
(S)TH1110S470	37.5/510	25.2	18.50	470	214	97	11.5	460	60	14.2	3550
	150/152	640					8.6				
(S)TH1111S470	37.5/550				216	98					
(S)TH1112S470	37.5/600				218	99					
	150/180										
(S)TH1113S500	37.5/655	25.2	19.76	502	260	118	13.8	460	60	16.9	3550
	150/198	640					10.3				
(S)TH1114S570	37.5/705		22.28	566	262	119					
(S)TH1115S570	150/212										
	37.5/755				265	120					
	150/230										

Dimensions in Inches / mm
 *) Dimensions (S)TH1102...1104
 **) Dimensions (S)TH1107...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 mechanical/hydraulic 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)

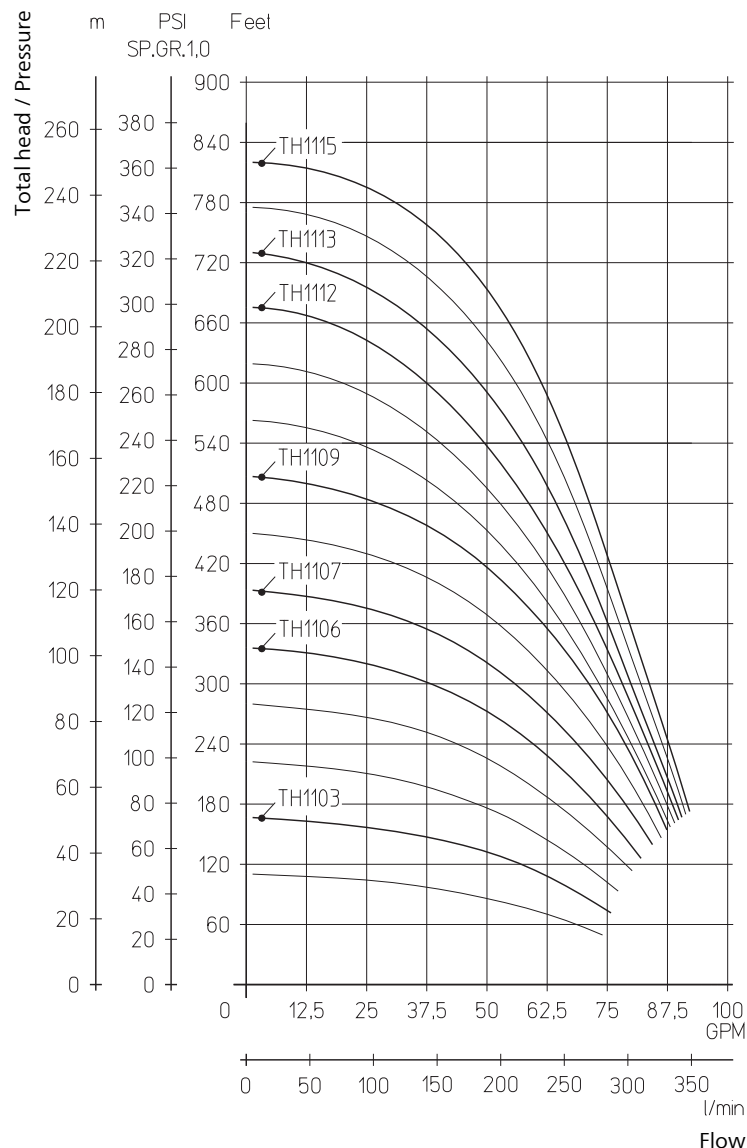
Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH1102...(S)TH1104	66 dBA
(S)TH1105...(S)TH1109	74 dBA
(S)TH1110...(S)TH1115	77 dBA



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

Viton® is a registered trademark of Du Pont.



Immersion Pumps

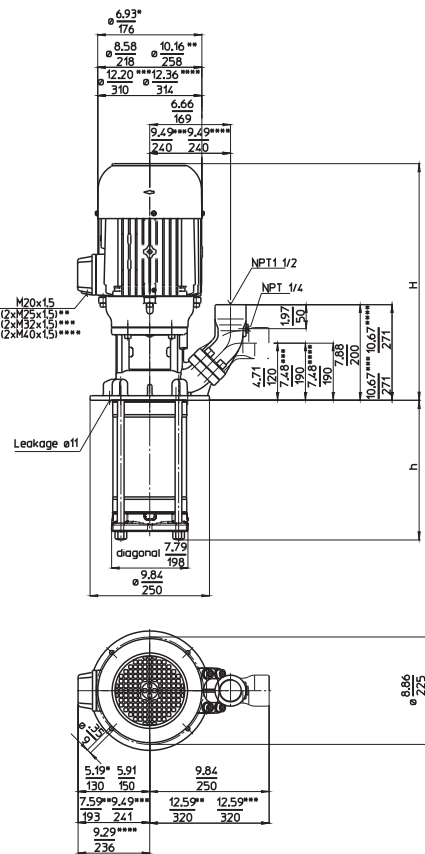
(S)TH14

Closed impellers

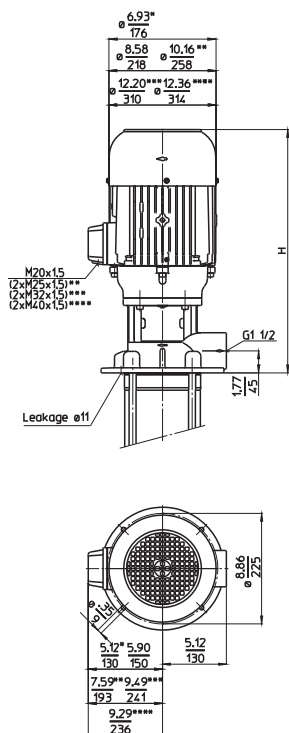


60 Hz

STH1402...1412



TH1402...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 /min /m	H inch mm	h inch	h mm	Lbs	kg				AMPS	RPM
(S)TH1402S180	62.5/115	17.4	7.17	182	86.0	39	3.5	208-230	60	12.6	3400
	250/38	441					2.6	460	60	6.3	3400
(S)TH1403S280	62.5/180	19.5	10.94	278	119.1	54	5.4	208-230	60	19.0	3450
	250/58	496					4.0	460	60	9.5	3450
(S)TH1404S280	62.5/240	20.9	10.94	278	158.8	72	7.4	208-230	60	25.0	3450
	250/77	532					5.5	460	60	12.5	3450
(S)TH1405S380	62.5/305	25.2	14.72	374	207	94	11.5	460	60	14.2	3550
	250/96	640					8.6				
(S)TH1406S380	62.5/370				209	95					
(S)TH1407S470	62.5/430	25.2	18.50	470	254	115	13.8	460	60	16.9	3550
	250/128	640					10.3				
(S)TH1408S470	62.5/490	25.5	18.50	470	271	123	17	460	60	21.5	3560
	250/147	647					12.6				
(S)TH1409S570	62.5/560	37.5	22.28	566	284	129	23	460	60	27	3555
	250/165	952					17.3				
(S)TH1410S570	62.5/620				289	131					
(S)TH1411S660	62.5/685		26.06	662	291	132					
	250/203										
(S)TH1412S660	62.5/730				293	133					
	250/222										

Dimensions in Inches / mm
 *) Dimensions (S)TH1402
 **) Dimensions (S)TH1404...1407
 ***) Dimensions (S)TH1408
 ****) Dimensions (S)TH1409...1412



Immersion Pumps

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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)

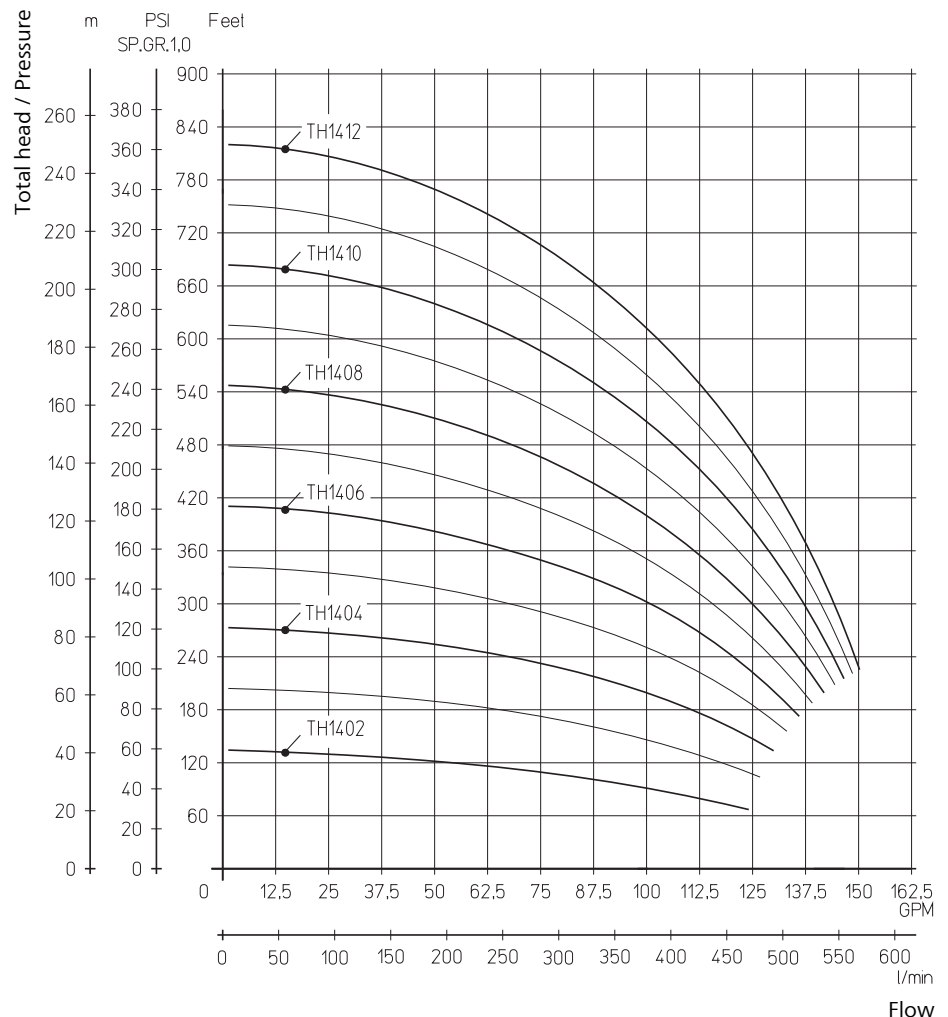
Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton [®]
Optional:	
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH1402	66 dBA
(S)TH1403...(S)TH1404	74 dBA
(S)TH1405...(S)TH1407	77 dBA
(S)TH1408	79 dBA
(S)TH1409...(S)TH1412	81 dBA



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

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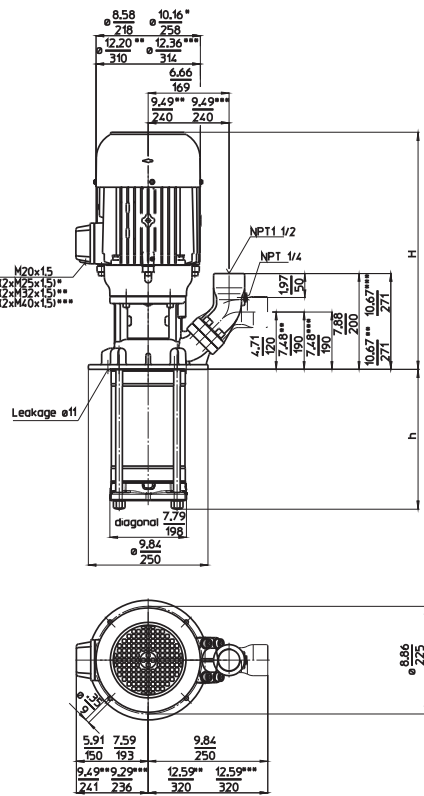
Immersion Pumps

(S)TH17

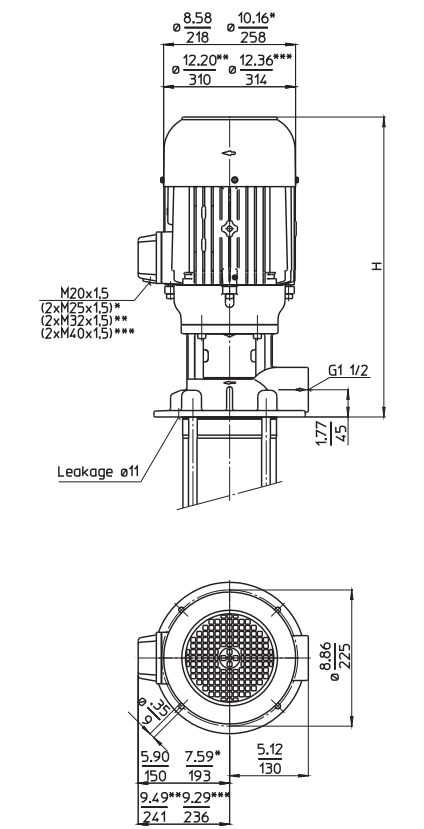
Closed impellers



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 l/min /m	H inch mm	h inch	h mm	Lbs	kg					
(S)TH1702S180	75/120	19.5	7.17	182	110.2	50	4.4	208-230	60	16	3450
	300/37	496					3.3	460	60	8	3450
(S)TH1703S280	75/180	20.9	10.94	278	155.5	70.5	6.7	208-230	60	24	3450
	300/58	532					5.0	460	60	12	3450
(S)TH1704S280	75/260	25.2	10.94	278	205	93	11.5	460	60	14.2	3550
	300/80	640					8.6				
(S)TH1705S380	75/330	25.2	14.72	374	247	112	13.8	460	60	16.9	3550
	300/99	640					10.3				
(S)TH1706S380	75/410	25.5	14.72	374	265	120	17	460	60	21.5	3560
	300/118	647					12.6				
(S)TH1707S470	75/470	37.5	18.50	470	311	141	23	460	60	27	3555
	300/140	952					17.3				
(S)TH1708S470	75/530				313	142					
(S)TH1709S570	75/600		22.28	566	318	144					
	300/180										
(S)TH1710S570	75/660	39.4	22.28	566	342	155	29	460	60	32	3555
	300/200	1002					21.3				
(S)TH1711S660	75/730		26.06	662	346	157					
	300/219										

Dimensions in Inches / mm
 *) Dimensions for (S)TH1703...1705
 **) Dimensions for (S)TH1706
 ***) Dimensions for (S)TH1707...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 mechanical/hydraulic 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)

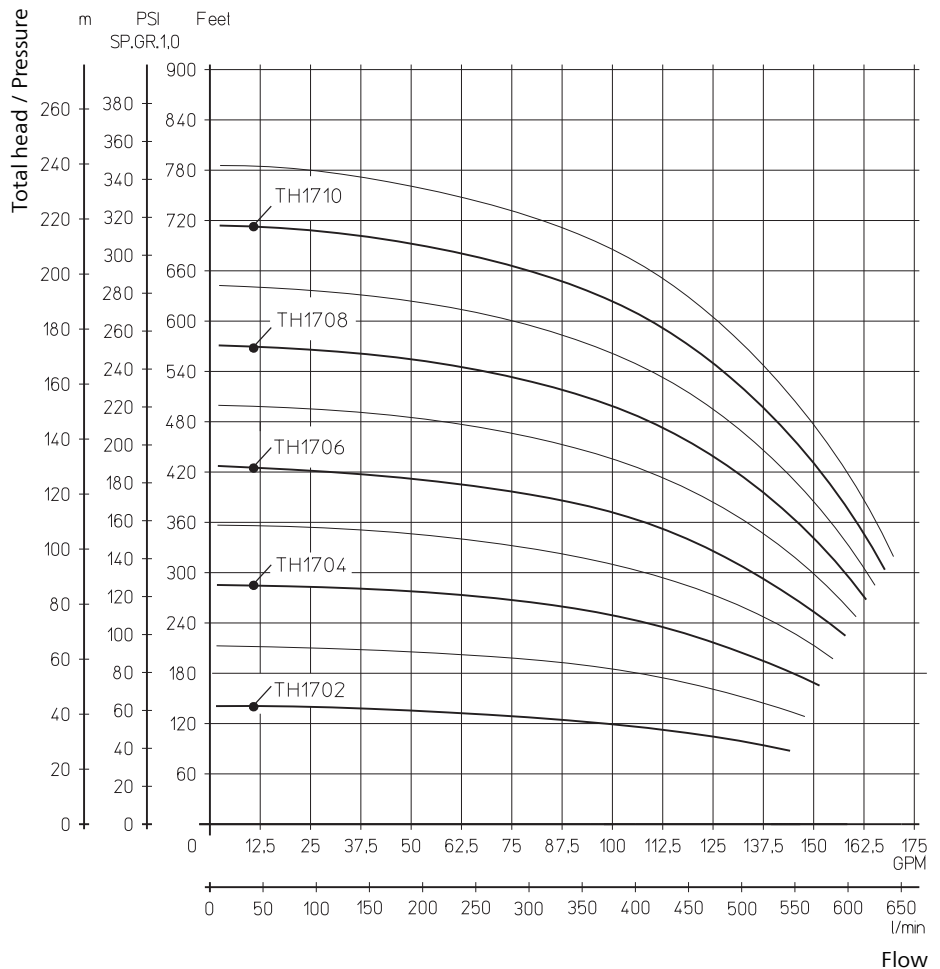
Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH1702	72 dBA
(S)TH1703	74 dBA
(S)TH1704...(S)TH1705	77 dBA
(S)TH1706	79 dBA
(S)TH1707...(S)TH1711	81 dBA



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

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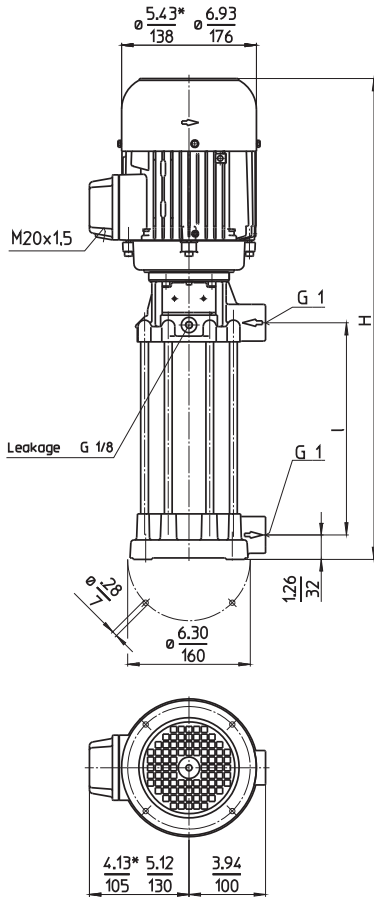
Pressure Boosting Pumps

FH2

Closed impellers



FH203...230



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

Type	Flow at head		Height		Length		Weight		Power 3~ HP kW	Voltage 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	23.9	11.7	297	42.6	19.3	1	208-230	60	4.4	3300		
FH208S29	5/220				42.8	19.4	0.75	460	60	2.2	3300		
FH209S29	5/240				43.0	19.5							
FH210S29	5/270				43.2	19.6							
FH211S39	5/300	27.8	15.6	397	46.1	20.9	1.25	208-230	60	5.4	3300		
FH212S39	5/325				46.3	21.0	0.92	460	60	2.7	3300		
FH213S39	5/375				46.5	21.1							
FH214S39	5/395	28.6	15.6	397	48.7	22.1	1.5	208-230	60	5.8	3300		
FH215S39	5/420				49.0	22.2	1.1	460	60	2.9	3300		
FH216S49	5/440	33.4	19.6	497	65.9	29.9	1.75	208-230	60	6	3400		
							1.3	460	60	3	3400		
FH217S49	5/480	33.4	19.6	497	67.3	30.5	2	208-230	60	7.6	3400		
FH218S49	5/505				67.5	30.6	1.5	460	60	3.8	3400		
FH219S49	5/540				67.7	30.7							
FH220S49	5/570	33.4	19.6	497	68.8	31.2	2.3	208-230	60	8.2	3400		
							1.7	460	60	4.1	3400		
FH221S59	5/605	37.4	23.5	597	69.9	31.7							
FH222S59	5/635	38.3	23.5	597	78.7	35.7	2.5	208-230	60	9.8	3400		
FH223S59	5/660				78.9	35.8	1.9	460	60	4.9	3400		
FH224S59	5/690	38.3	23.5	597	80.3	36.4	3	208-230	60	10.6	3400		
FH225S59	5/715				80.5	36.5	2.2	460	60	5.3	3400		
FH226S69	5/740	42.2	27.4	697	81.6	37.0							
FH227S69	5/760				81.8	37.1							
FH228S69	5/785	42.6	27.4	697	82.7	37.5	3.5	208-230	60	12.6	3400		
FH229S69	5/810				83.3	37.8	2.6	460	60	6.3	3400		
FH230S69	5/835				83.6	37.9							



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).

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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.



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

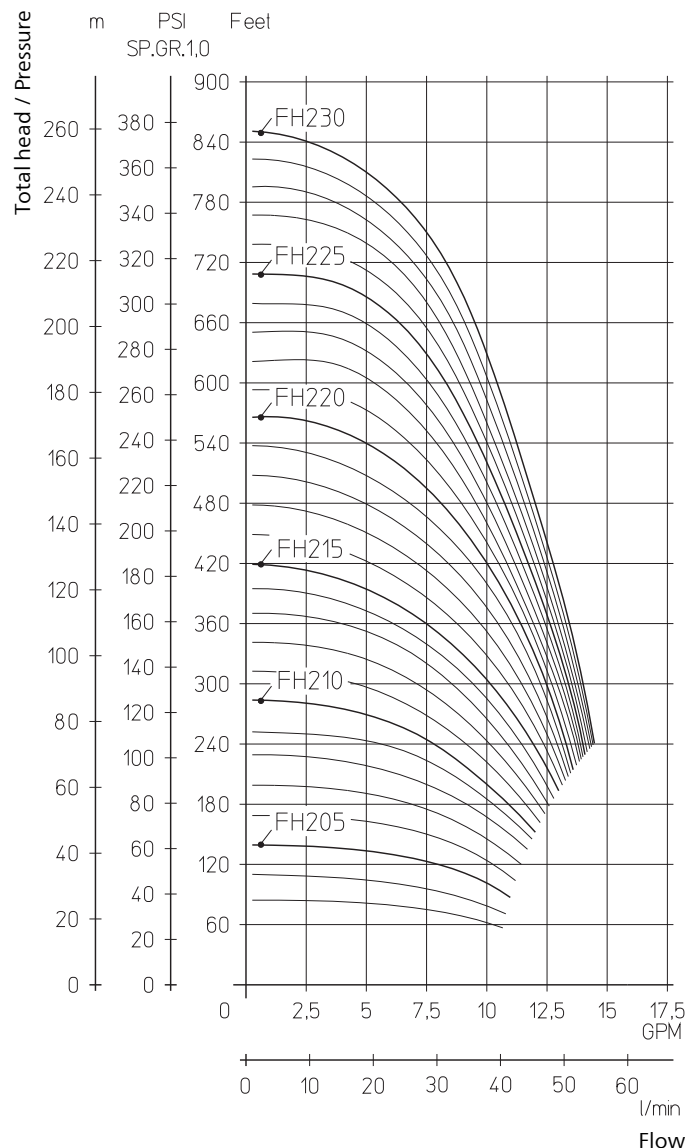
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Applications

- 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®
Optional:	
Pump body	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
FH203...FH215	61 dBA
FH216...FH230	66 dBA



Pressure Boosting Pumps

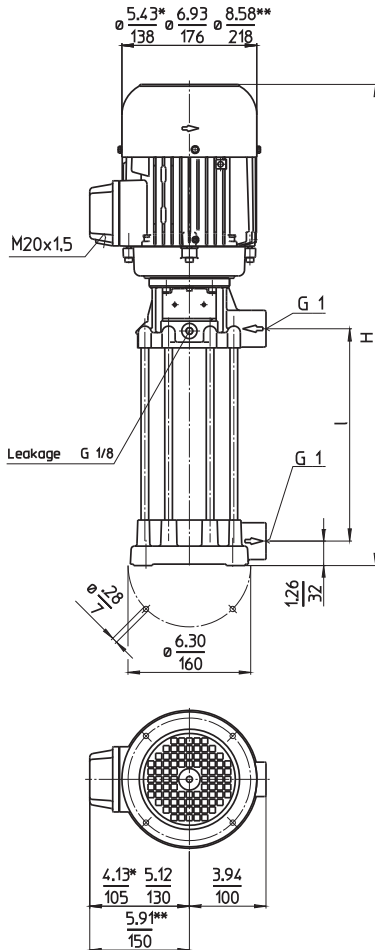
FH4

Closed impellers



60 Hz

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	37.9	17.2	0.73	208-230	60	2.8	3300	
	40/29	488					0.54	460	60	1.4	3300	
FH404S19	10/130	19.9	7.8	197	43.2	19.6	1	208-230	60	4.4	3300	
	40/39	506					0.75	460	60	2.2	3300	
FH405S19	10/170				43.4	19.7						
	40/49											
FH406S29	10/195	23.9	11.7	297	46.5	21.1	1.25	208-230	60	5.4	3300	
	40/58	606					0.92	460	60	2.7	3300	
FH407S29	10/230	24.6	11.7	297	48.7	22.1	1.5	208-230	60	5.8	3300	
	40/68	626					1.1	460	60	2.9	3300	
FH408S29	10/260				49.0	22.2						
	40/78											
FH409S29	10/285	25.6	11.7	297	65.0	29.5	1.75	208-230	60	6	3400	
	40/88	649					1.3	460	60	3	3400	
FH410S29	10/330	25.6	11.7	297	66.4	30.1	2	208-230	60	7.6	3400	
	40/100	649					1.5	460	60	3.8	3400	
FH411S39	10/360	29.5	15.6	397	67.5	30.6	2.3	208-230	60	8.2	3400	
	40/110	749					1.7	460	60	4.1	3400	
FH412S39	10/395				68.6	31.1						
	40/119											
FH413S39	10/425	30.4	15.6	397	77.4	35.1	2.5	208-230	60	9.8	3400	
	40/129	773					1.9	460	60	4.9	3400	
FH414S39	10/465	30.4	15.6	397	78.7	35.7	3	208-230	60	10.6	3400	
	40/139	773					2.2	460	60	5.3	3400	
FH415S39	10/505				78.9	35.8						
	40/150											
FH416S49	10/530	34.8	19.6	497	81.1	36.8	3.5	208-230	60	12.6	3400	
	40/159	883					2.6	460	60	6.3	3400	
FH417S49	10/565				81.4	36.9						
	40/170											
FH418S49	10/595				81.6	37.0						
	40/179											
FH419S49	10/635	36.9	19.6	497	104.1	47.2	4.4	208-230	60	16	3450	
	40/192	938					3.3	460	60	8	3450	
FH420S49	10/670				104.3	47.3						
	40/202											
FH421S59	10/705	40.9	23.5	597	105.4	47.8						
	40/214	1038										
FH422S59	10/735				105.6	47.9						
	40/224											
FH423S59	10/770				105.8	48.0						
	40/233											

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).

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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

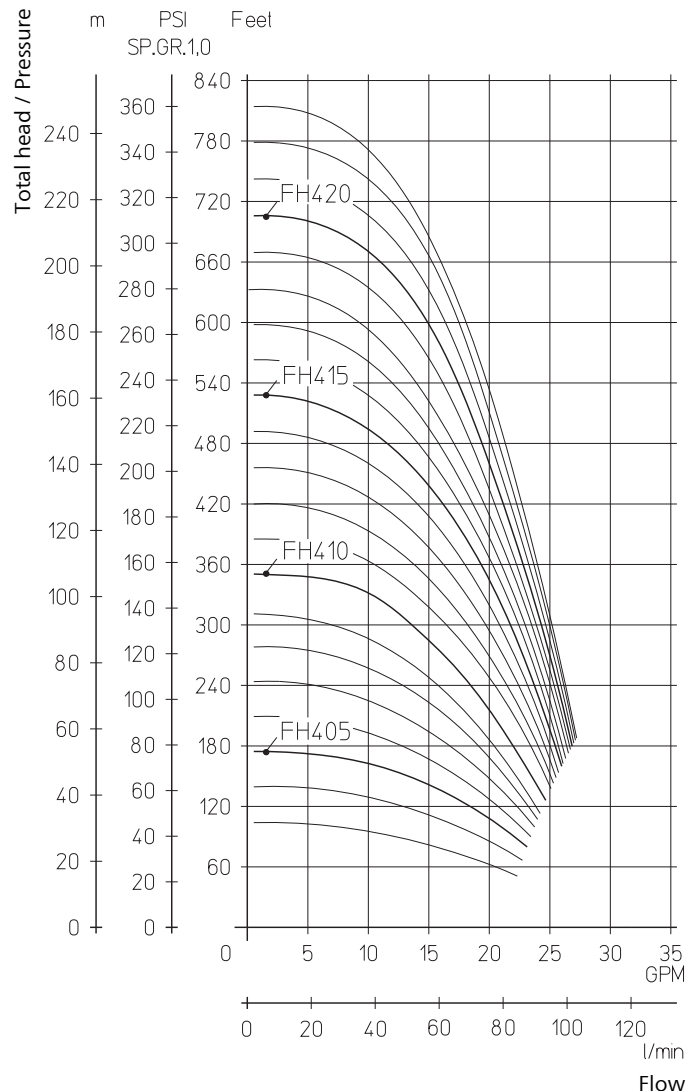
Viton® is a registered trademark of Du Pont.

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	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
FH403...FH408	61 dBA
FH409...FH418	66 dBA
FH419...FH423	75 dBA



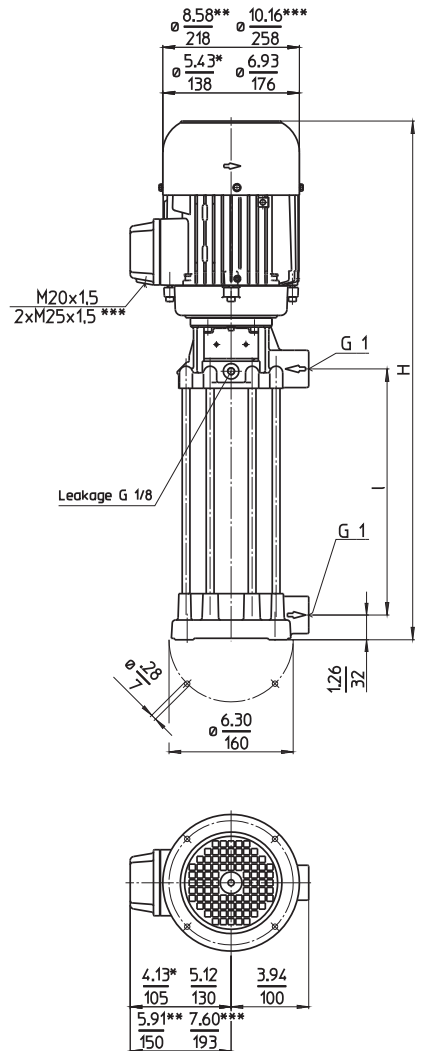
Pressure Boosting Pumps

FH6

Closed impellers



FH603...624



Dimensions in Inches / mm
 *) Dimensions FH603...FH605
 **) Dimensions FH613...FH617
 ***) Dimensions FH618...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	19.9	7.8	197	41.7	18.9	1	208-230	60	4.4	3300
	80/28	506					0.75	460	60	2.2	3300
FH604S19	20/120	19.9	7.8	197	44.1	20	1.25	208-230	60	5.4	3300
	80/38	506					0.92	460	60	2.7	3300
FH605S24	20/150	22.7	9.7	247	45.9	20.8	1.5	208-230	60	5.8	3300
	80/48	576					1.1				
FH606S24	20/185	23.6	9.7	247	61.5	27.9	2	208-230	60	7.6	3400
	80/58	599					1.5	460	60	3.8	3400
FH607S29	20/220	25.6	11.7	297	71.0	32.2	2.3	208-230	60	8.2	3400
	80/68	649					1.7	460	60	4.1	3400
FH608S29	20/255	26.5	11.7	297	80.0	36.3	2.5	208-230	60	9.8	3400
	80/78	673					1.9	460	60	4.9	3400
FH609S34	20/285	28.5	13.7	347	81.6	37	3	208-230	60	10.6	3400
	80/88	723					2.2	460	60	5.3	3400
FH610S34	20/330	28.9	13.7	347	82.9	37.6	3.5	208-230	60	12.6	3400
	80/98	733					2.6	460	60	6.3	3400
FH611S39	20/358	30.8	15.6	397	84.0	38.1					
FH612S39	20/395				84.2	38.2					
FH612S39	80/118										
FH613S49	20/420	36.9	19.6	497	114.9	52.1	4.4	208-230	60	16	3450
	80/128	938					3.3	460	60	8	3450
FH614S49	20/455				115.1	52.2					
	80/139										
FH615S49	20/490				115.3	52.3					
	80/149										
FH616S49	20/520	36.9	19.6	497	120.8	54.8	5.4	208-230	60	19.0	3450
	80/159	938					4.0	460	60	9.5	3450
FH617S59	20/555	40.9	23.5	597	121.9	55.3					
FH617S59	80/168	1038									
FH618S59	20/580	42.3	23.5	597	158.5	71.9	6.7	208-230	60	24	3450
	80/178	1074					5.0	460	60	12	3450
FH619S59	20/615				158.8	72.0					
FH619S59	80/188										
FH620S59	20/645				159.0	72.1					
	80/198										
FH621S69	20/675	46.2	27.4	697	160.1	72.6					
	80/206	1174									
FH622S69	20/705				160.3	72.7					
	80/214										
FH623S69	20/735	46.2	27.4	697	163	73.7	7.4	208-230	60	25.0	3450
	80/222	1174					5.5	460	60	12.5	3450
FH624S69	20/765				163	73.8					
	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). For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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.



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

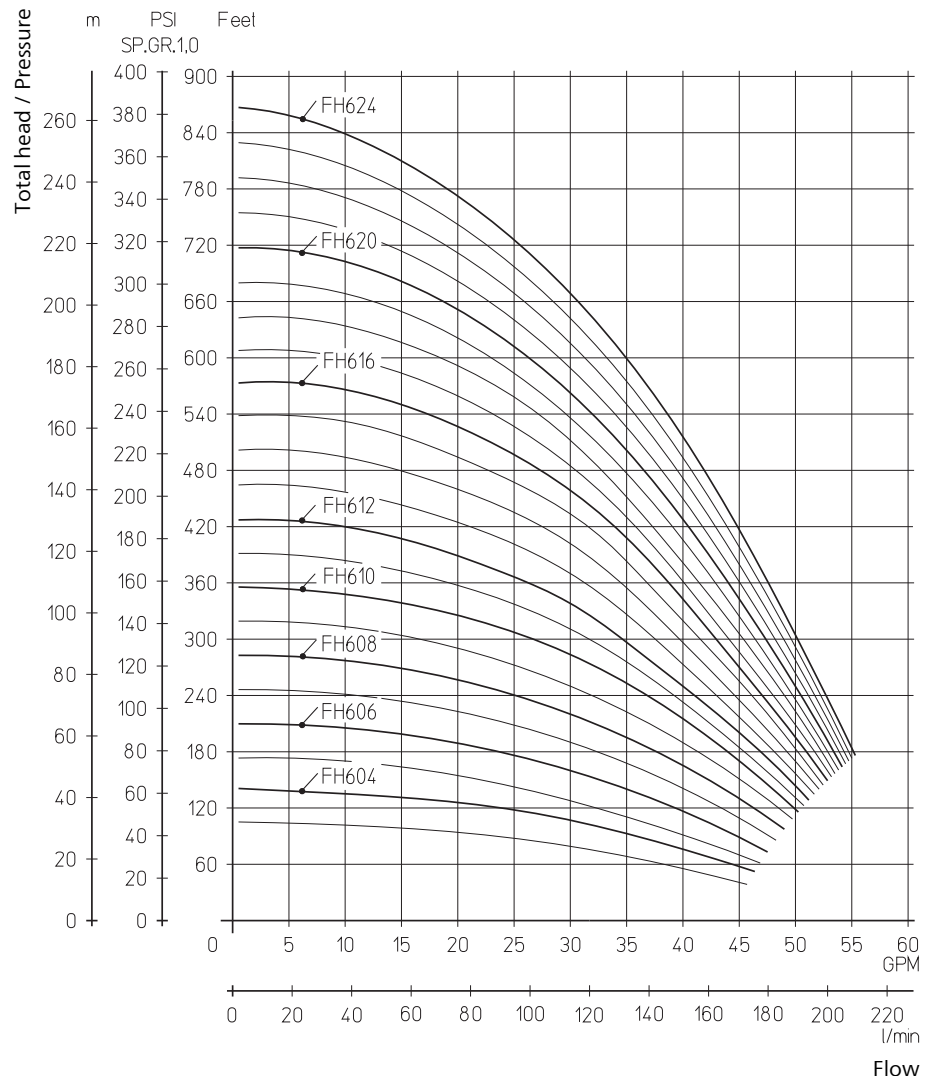
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Applications

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®
Optional:	
Pump body	bronze
Cover	bronze
Pole-changing motor	4 - 2 poles
Noise level	
FH603...FH605	61 dBA
FH606...FH612	66 dBA
FH613...FH624	75 dBA



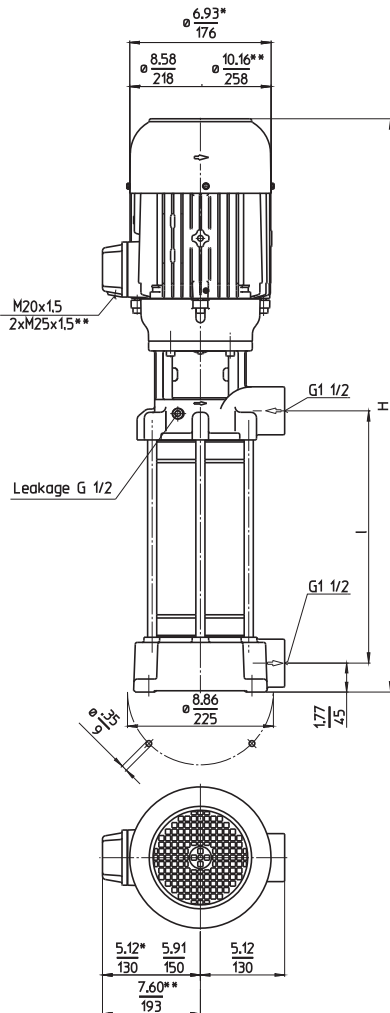
Pressure Boosting Pumps

FH11

Closed impellers



FH1102...1115



Dimensions in Inches / mm

*) Dimensions FH1102...FH1104

**) Dimensions FH1107...FH1115

Type	Flow at head		Height	Length		Weight		Power 3~ HP kW	Voltage V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	I Inch I mm	Lbs kg								
FH1102S18	37.5/100	24.2	8.3	212	86.0	39	1.75	208-230	60	6	3400	
	150/30	615					1.3	460	60	3	3400	
FH1103S18	37.5/150	25.2	8.3	212	94.8	43	2.5	208-230	60	9.8	3400	
	150/45	641					1.9	460	60	4.9	3400	
FH1104S28	37.5/200	29.4	12.1	308	103.6	47	3.5	208-230	60	12.6	3400	
	150/59	747					2.6	460	60	6.3	3400	
FH1105S28	37.5/250	31.5	12.1	308	125.7	57	4.4	208-230	60	16	3450	
	150/77	801					3.3	460	60	8	3450	
FH1106S28	37.5/300	31.5	12.1	308	132.3	60	5.4	208-230	60	19.0	3450	
	150/90	801					4.0	460	60	9.5	3450	
FH1107S31	37.5/355	34.2	13.4	340	172	78	6.7	208-230	60	24	3450	
	150/106	869					5.0	460	60	12	3450	
FH1108S38	37.5/400	36.7	15.9	404	176	80						
	150/121	933										
FH1109S38	37.5/455	36.7	15.9	404	179	81	7.4	208-230	60	25.0	3450	
	150/138	933					5.5	460	60	12.5	3450	
FH1110S47	37.5/510	44.7	19.7	500	229	104	11.5	460	60	14.2	3550	
	150/152	1136					8.6					
FH1111S47	37.5/550				232	105						
	150/166											
FH1112S47	37.5/600				234	106						
	150/180											
FH1113S50	37.5/655	46.0	20.9	532	245	111	13.8	460	60	16.9	3550	
	150/198	1168					10.3					
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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For position of terminal box, see mechanical features within the technical information section.

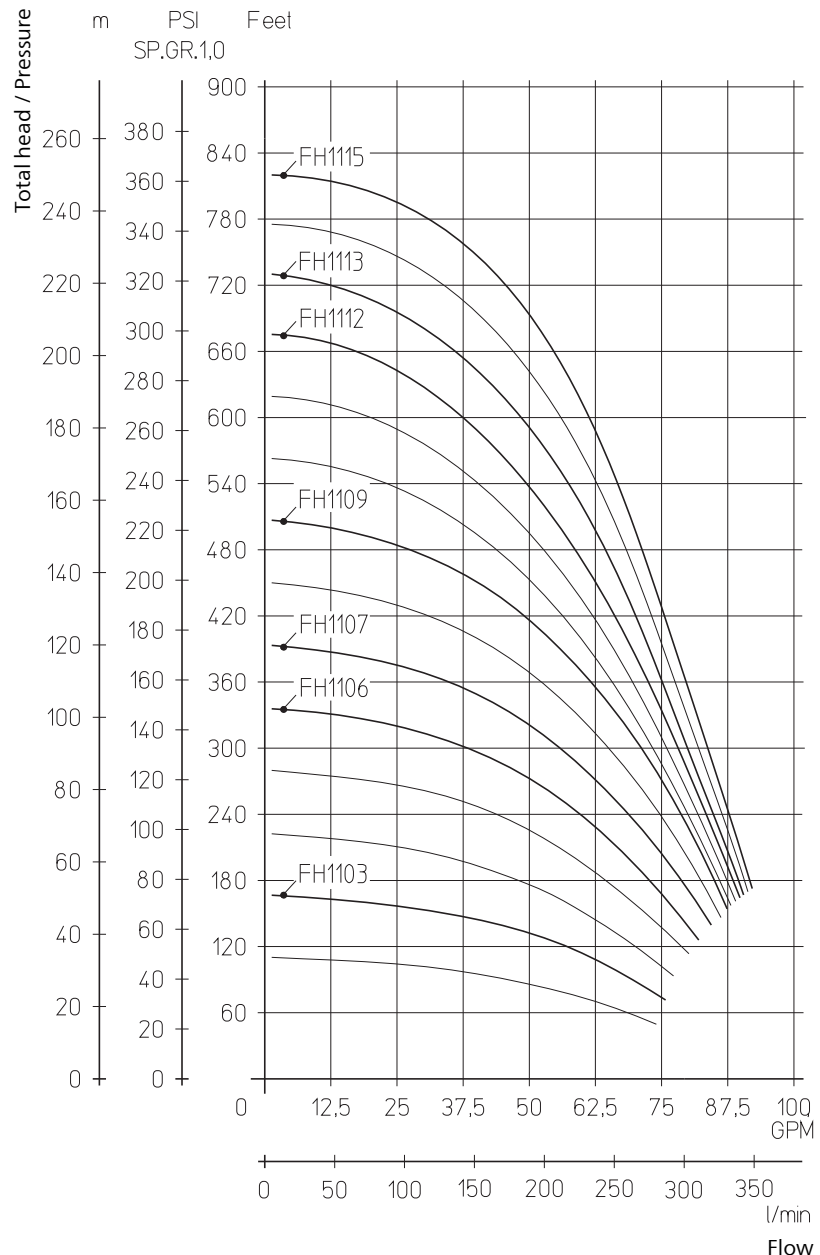
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Applications

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 - 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:	
Pole-changing motor	4 - 2 poles
Noise level	
FH1102...FH1104	66 dBA
FH1105...FH1109	74 dBA
FH1110...FH1115	77 dBA



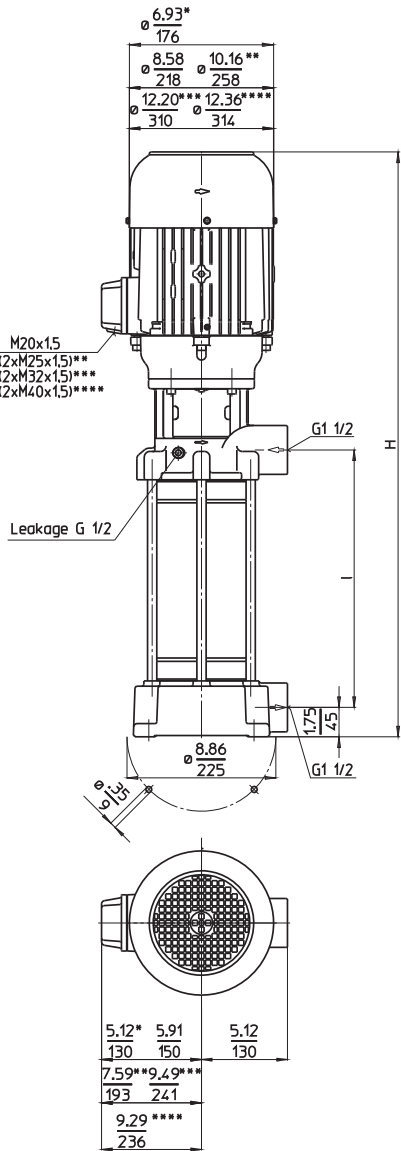
Pressure Boosting Pumps

FH14

Closed impellers



FH1402...1412



Dimensions in Inches / mm

- *) Dimensions FH1402
- **) Dimensions FH1404...FH1407
- ***) Dimensions FH1408
- ****) Dimensions FH1409...FH1412

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
FH1402S18	62.5/115	25.6	8.3	212	97.0	44	3.5	208-230	60	12.6	3400
	250/38	651					2.6	460	60	6.3	3400
FH1403S28	62.5/180	31.5	12.1	308	132.3	60	5.4	208-230	60	19.0	3450
	250/58	801					4.0	460	60	9.5	3450
FH1404S28	62.5/240	33.0	12.1	308	170	77	7.4	208-230	60	25.0	3450
	250/77	837					5.5	460	60	12.5	3450
FH1405S38	62.5/305	40.9	15.9	404	220	100	11.5	460	60	14.2	3550
	250/96	1040					8.6				
FH1406S38	62.5/370				223	101					
	250/111										
FH1407S47	62.5/430	44.7	19.7	500	269	122	13.8	460	60	16.9	3550
	250/128	1136					10.3				
FH1408S47	62.5/490	45.0	19.7	500	287	130	17	460	60	21.5	3560
	250/147	1144					12.6				
FH1409S57	62.5/560	60.8	23.5	596	298	135	23	460	60	27	3555
	250/165	1545					17.3				
FH1410S57	62.5/620				300	136					
	250/184										
FH1411S66	62.5/685	64.6	27.2	692	306	139					
	250/203	1641									
FH1412S66	62.5/730				309	140					
	250/222										



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).

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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.



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

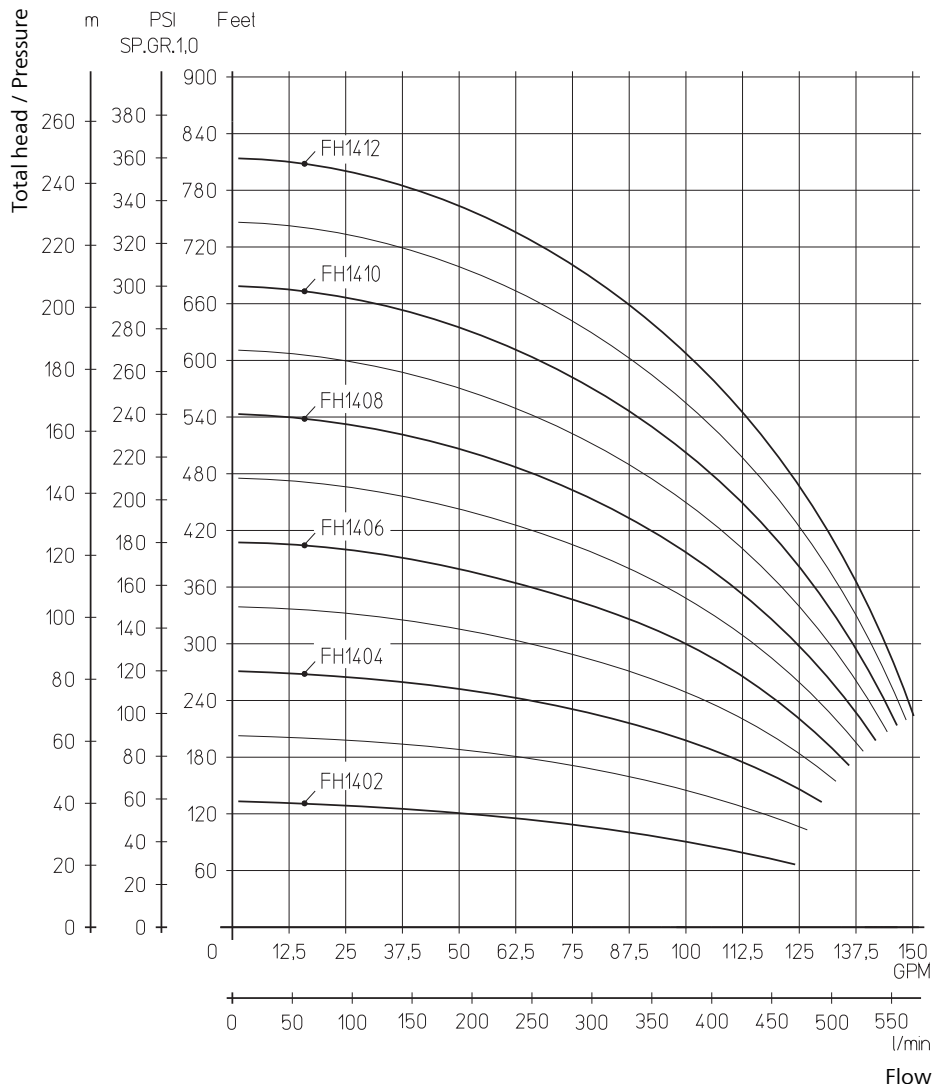
Viton® is a registered trademark of Du Pont.

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:	
Pole-changing motor	4 - 2 poles
Noise level	
FH1402	66 dBA
FH1403...FH1404	74 dBA
FH1405...FH1407	77 dBA
FH1408	79 dBA
FH1409...FH1412	81 dBA



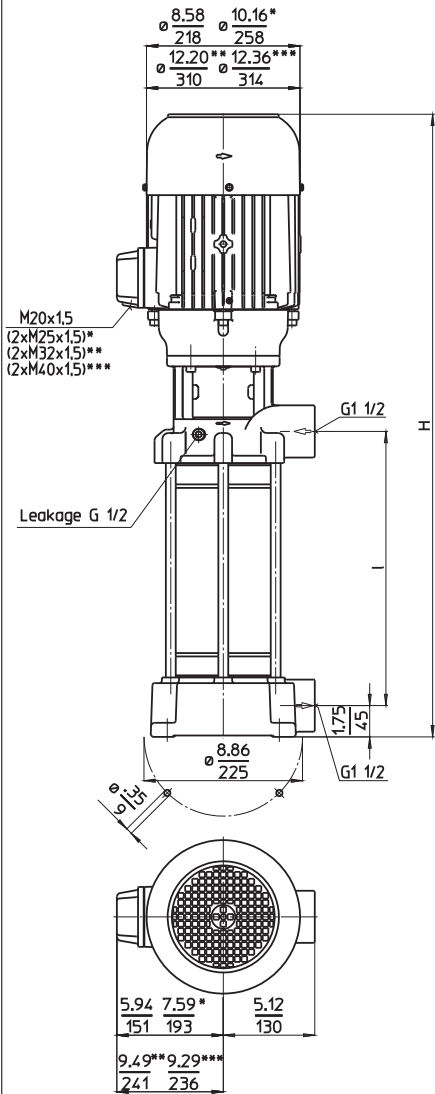
Pressure Boosting Pumps

FH17

Closed impellers



FH1702...1711



Dimensions in Inches / mm
 *) Dimensions for FH1703...1705
 **) Dimensions for FH1706
 ***) Dimensions for FH1707...1711

Type	Flow at head	Height	Length		Weight		Power HP kW	Voltage 3~ V	Fre- quen- cy Hz	Current AMPS	Speed RPM
	GPM /Feet l/min /m	H inch mm	l Inch	l mm	Lbs	kg					
FH1702S18	75/120	27.8	8.3	212	120.2	54.5	4.4	208-230	60	16	3450
	300/37	705					3.3	460	60	8	3450
FH1703S28	75/180	33.0	12.1	308	169	76.5	6.7	208-230	60	24	3450
	300/58	837					5.0	460	60	12	3450
FH1704S28	75/260	37.1	12.1	308	216	98	11.5	460	60	14.2	3550
	300/80	943					8.6				
FH1705S38	75/330	40.9	15.9	404	262	119	13.8	460	60	16.9	3550
	300/99	1040					10.3				
FH1706S38	75/410	41.3	15.9	404	278	126	17	460	60	21.5	3560
	300/118	1048					12.6				
FH1707S47	75/470	57.0	19.7	500	326	148	23	460	60	27	3555
	300/140	1449					17.3				
FH1708S47	75/530				329	149					
	300/160										
FH1709S57	75/600	60.8	23.5	596	331	150					
	300/180	1545									
FH1710S57	75/660	62.8	23.5	596	355	161	29	460	60	32	3555
	300/200	1594					21.3				
FH1711S66	75/730	66.5	27.2	692	362	164					
	300/219	1690									



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).

For alternating machining using **internally and externally cooled tools**, these models are available with Y/YY-configured **pole-changing motor** (Dahlander) for optional changeover to **half speed** operation.

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)

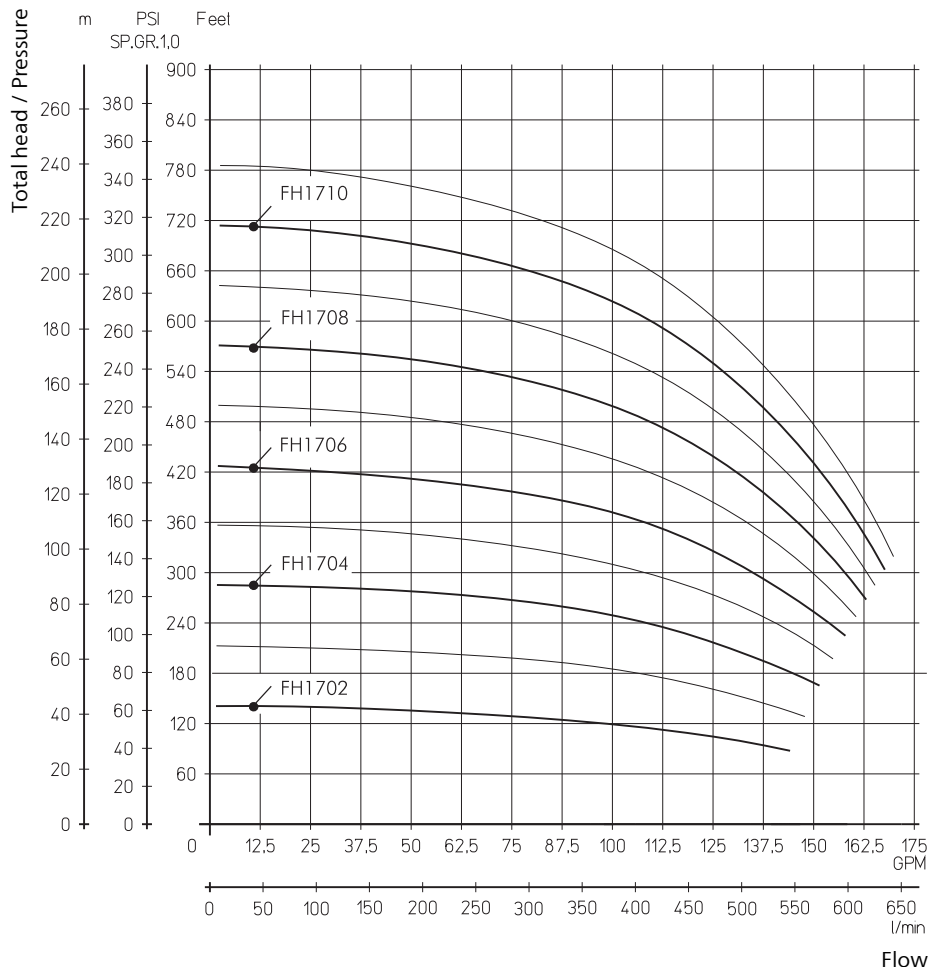
Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton®
Optional:	
Pole-changing motor	4 - 2 poles
Noise level	
FH1702	72 dBA
FH1703	74 dBA
FH1704...FH1705	77 dBA
FH1706	79 dBA
FH1707...FH1711	81 dBA



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

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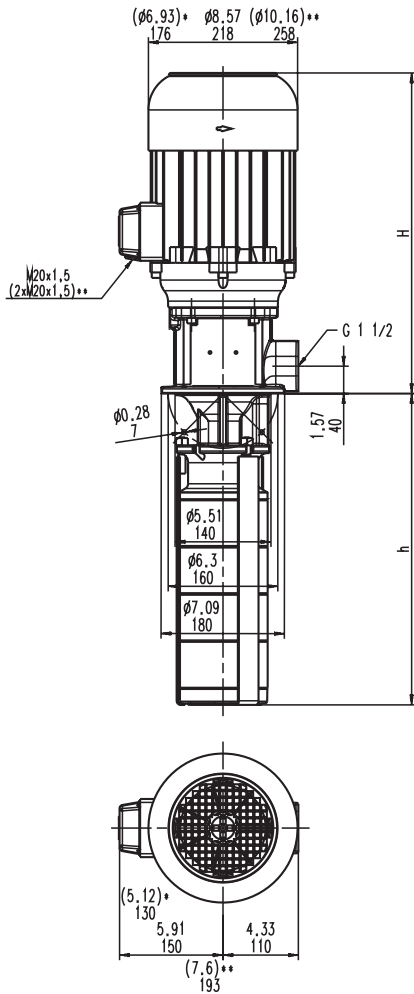
Immersion Pumps



(S)TC260...TC460

Closed impellers

TC260/460... 1150
TC460/320... 870



Dimensions in Inches / mm
 *) Dimensions TC260/460, TC460/320
 **) Dimensions TC260/920 - 1150,
 TC450/740 - 870

Type	Flow at head		Height	Depth of immersion		Weight		Power HP kW	Voltage 3 Phase V	Frq Hz	Rated current AMPS	Speed RPM
	GPM / l/min.	Feet / m	H Inch mm	h Inch mm	Lbs kg	Lbs kg						
(S)TC260/460	65/110	15.9	17.91	455	84	38	3.5	220-240	50	10.9	2850	
	250/30	405					2.8	380-420	50	6.3	2850	
								460	60	6.3	3400	
(S)TC260/600	65/175	18.4	23.35	593	112	51	5.4	220-240	50	16.5	2900	
	250/50	468					4.0	380-420	50	9.5	2900	
								460	60	9.5	3450	
(S)TC260/690	65/230	18.4	26.97	685	123	56	7.4	220-240	50	22	2900	
	250/65	468					5.5	380-420	50	12.5	2900	
								460	60	12.5	3450	
(S)TC260/920	65/340	24.1	36.02	915	184	109	10.0	380-420	50	16.9	2955	
	250/95	613					9.0	460	60	16.9	3550	
								13.8			10.3	
(S)TC260/1150	65/490	24.4	45.08	1145	273	124	15.0	380-420	50	21.5	2960	
	250/150	621					11					
								17.0	460	60	21.5	3560
											12.6	
(S)TC460/320	120/50	15.9	12.48	317	71	32	3.0	220-240	50	9.2	2850	
	450/15	405					2.2	380-420	50	5.3	2850	
								460	60	5.3	3400	
(S)TC460/390	120/80	18.4	15.20	386	93	42	4.4	220-240	50	13.8	2900	
	450/24	468					3.3	380-420	50	8.0	2900	
								460	60	8.0	3450	
(S)TC460/460	120/115	18.4	17.91	455	106	48	5.4	220-240	50	16.5	2900	
	450/34	468					4.0	380-420	50	9.5	2900	
								460	60	9.5	3450	
(S)TC460/530	120/140	18.4	20.63	524	115	52	7.4	220-240	50	22	2900	
	450/42	468					5.5	380-420	50	12.5	2900	
								460	60	12.5	3450	
(S)TC460/740	120/230	24.1	28.78	731	229	104	12.0	380-420	50	16.9	2955	
	450/69	613					9.0					
								13.8	460	60	16.9	3550
											10.3	
(S)TC460/870	120/295	24.4	34.21	869	278	126	17.5	380-420	50	24.8	2960	
	450/90	621					13					

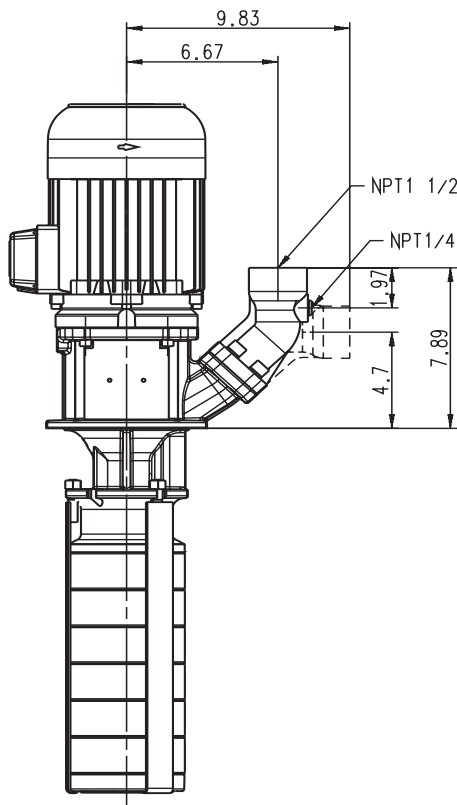
Longer pump lengths and threaded inlets are available upon request.
 Please see mechanical/hydraulic features in the Technical Information section
 of this catalog or call 248-926-9400 for details.

The immersed parts of types TC260 to TC460 are made of stainless steel. They are designed for use on **central coolant supplies** and CNC machining centers with **internally cooled tools**.

45 degree SAE Flanges for STC Pumps

Upon request all TC pumps are also available with an optional SAE flange. The flange allows for either vertical or horizontal pipe connection and includes a NPT 1/4 pressure gauge connection port.

A surcharge applies for pumps ordered with SAE flange.



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

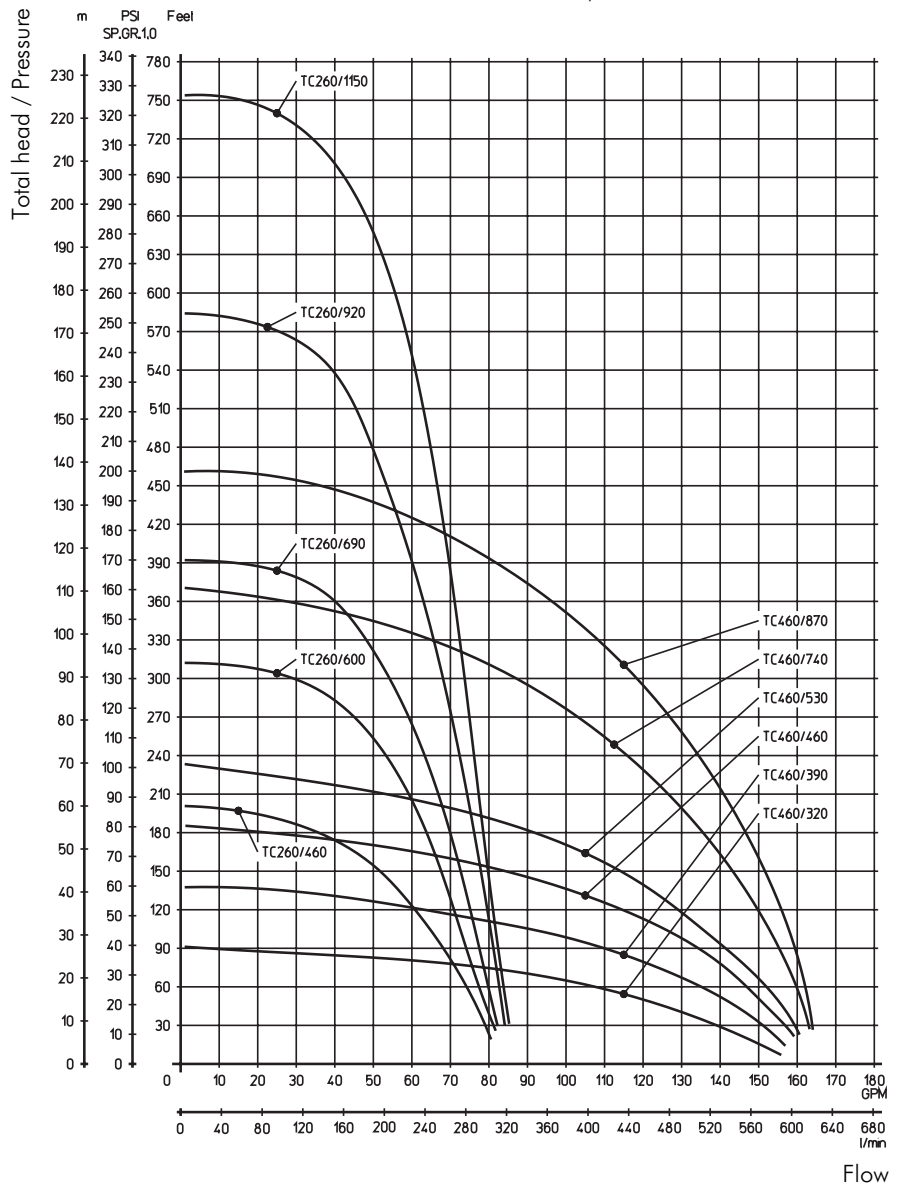
Motors of 10 HP and more are supplied in Δ connection.
e.g. Δ 3 x 380 - 420 V, 50 Hz.
 See electrical features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolant
 - cooling/cutting oils
- Kinematical viscosity
 - ...140 SSU (...30 mm²/s)
- Pumping temperature
 - 30...175 °F (0...80 °C)

Materials of construction

Pump body	cast iron
Shafts	Cr-steel
Impellers	CrNi-steel
Diffusers	CrNi-steel
Intake strainer	CrNi-steel
Mechanical seal	SiC
Optional:	
Pole-changing motor	4 - 2 poles
Pump body	bronze
Noise level/50 Hz	
TC260/460	63 dBA
TC260/600- 690	70 dBA
TC260/920-1150	74 dBA
TC460/320	63 dBA
TC460/390-530	70 dBA
TC460/740-870	74 dBA



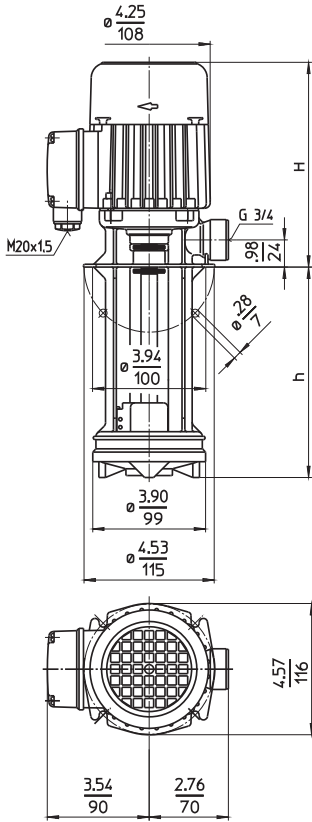
Immersion Pumps in Plastics

KTF61...KTF63

Semi-open impellers



KTF61, 62, 63



Dimensions in Inches / mm

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							
KTF61S120	7.5/25	7.1	4.65	118	6.4	2.9	0.19	208-230	60	0.82	3200		
	25/8	181					0.14	460	60	0.41	3200		
	170		6.61	168	6.6	3.0							
	220		8.58	218	6.8	3.1							
270		10.55	268	7.3	3.3								
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

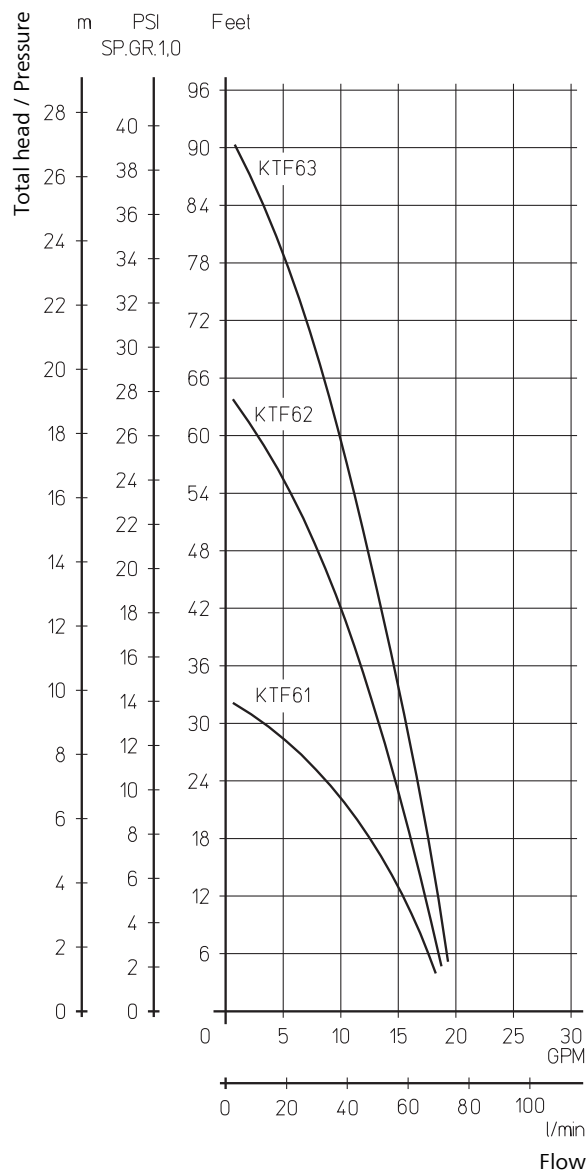
15...140 °F (-10...+60 °C)

Construction

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



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



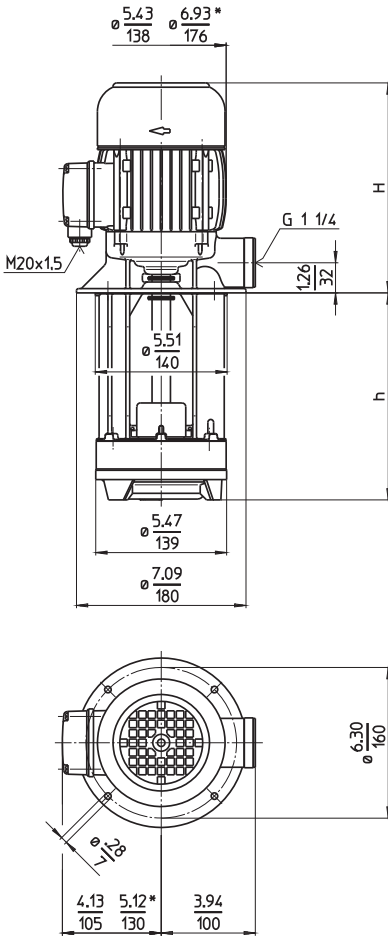
Immersion Pumps in Plastics

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 mm	h mm	Lbs	kg							
KTF151S140	35/30	8.8	5.51	140	15.4	7.0	0.7	208-230	60	2.6	3350		
	120/10	223					0.53	460	60	1.3	3350		
	220		8.66	220	16.3	7.4							
	290		11.42	290	17.2	7.8							
370		14.57	370	18.1	8.2								
KTF152S180	35/60	10.3	7.09	180	20.7	9.4	1.5	208-230	60	5.8	3300		
	120/18	261					1.1	460	60	2.9	3300		
	260		10.24	260	21.6	9.8							
	330		12.99	330	22.5	10.2							
410		16.14	410	23.4	10.6								
KTF153S220	35/95	12.5	8.66	220	43.0	19.5	2	208-230	60	7.6	3400		
	120/28	318					1.5	460	60	3.8	3400		
	300		11.81	300	44.1	20.0							
	370		14.57	370	45.2	20.5							
450		17.72	450	46.3	21.0								



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

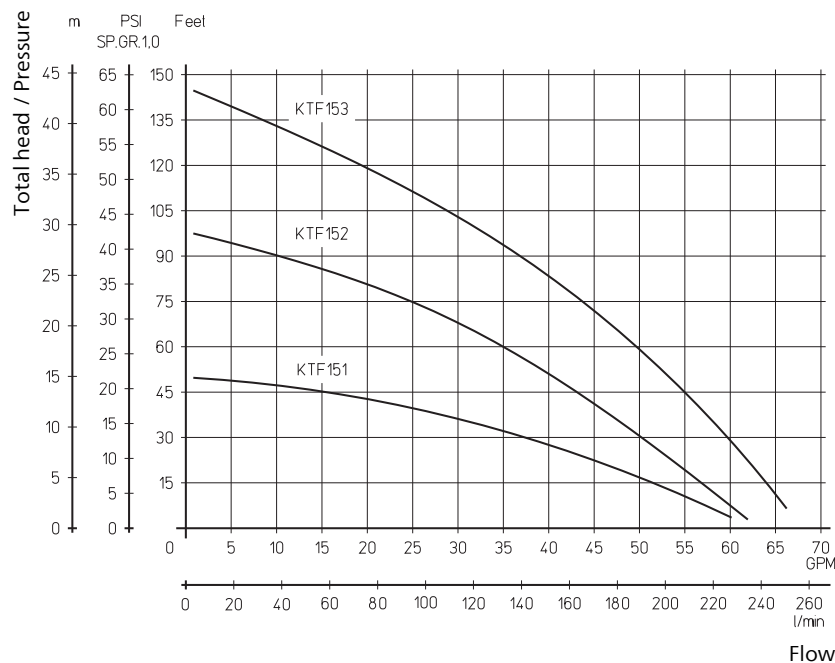
15...140 °F (-10...+60 °C)

Construction

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



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



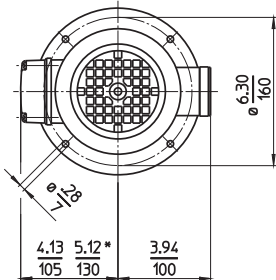
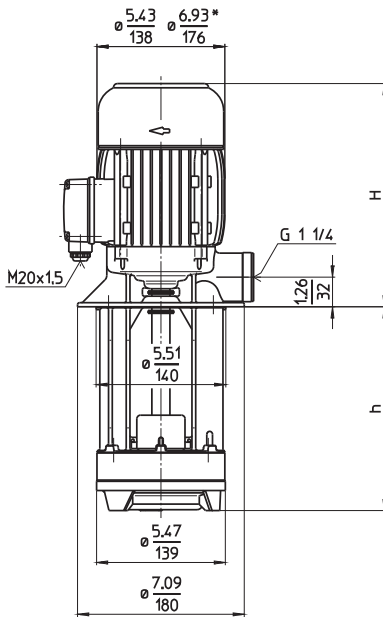
Immersion Pumps in Plastics

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	10.3	5.51	140	21.6	9.8	1.5	208-230	60	5.8	3300		
	220/10	261					1.1	460	60	2.9	3300		
	220		8.66	220	22.3	10.1							
	290		11.42	290	23.2	10.5							
370		14.57	370	24.0	10.9								
KTF302S180	60/65	12.5	7.09	180	41.9	19.0	2	208-230	60	7.6	3400		
	220/20	318					1.5	460	60	3.8	3400		
	260		10.24	260	43.0	19.5							
	330		12.99	330	44.1	20.0							
410		16.14	410	45.2	20.5								
KTF303S220	60/100	13.5	8.66	220	50.7	23.0	2.5	208-230	60	9.8	3400		
	220/32	343					1.9	460	60	4.9	3400		
	300		11.81	300	51.8	23.5							
	370		14.57	370	52.9	24.0							
450		17.72	450	54.0	24.5								



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

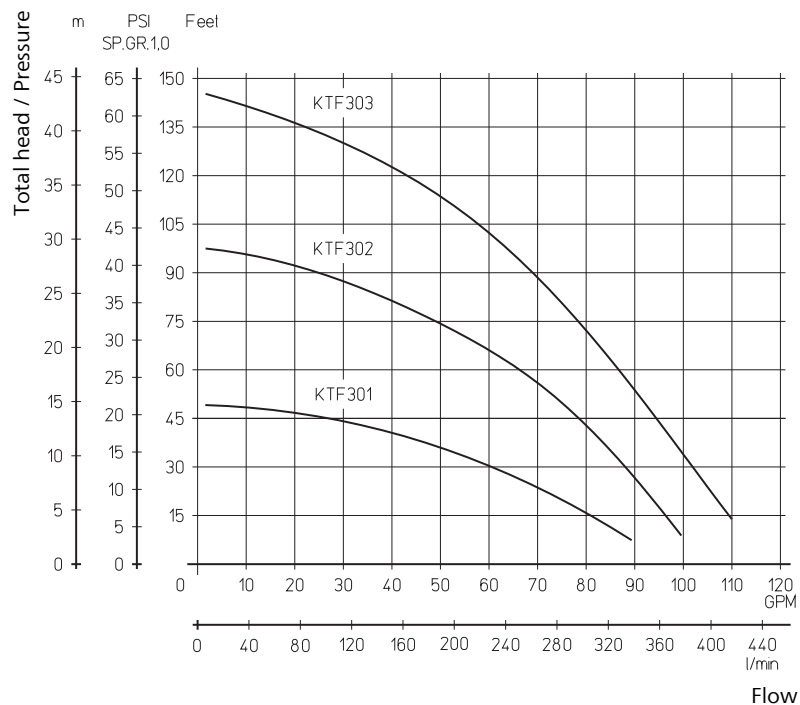
15...140 °F (-10...+60 °C)

Construction

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



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



Miniature Centrifugal Pumps

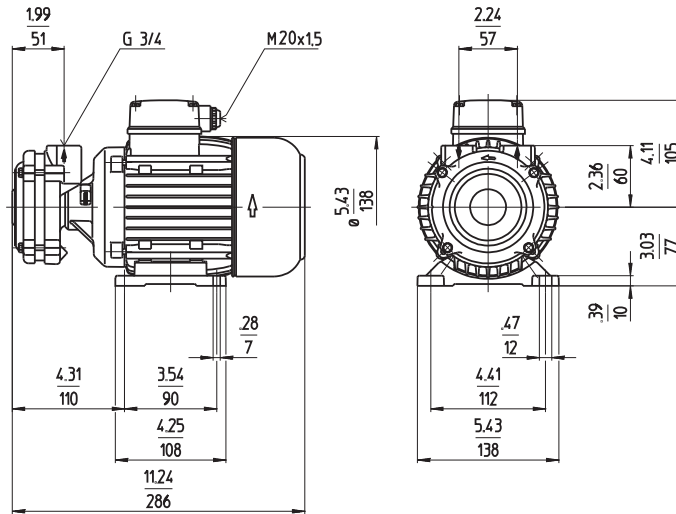
KC60S

Peripheral impellers



60 Hz

KC60S self-priming



Dimensions in Inches / mm

Type	Flow at head		Weight		Power	Voltage 3 ~	Fre- quen- cy	Current	Speed
	GPM /Feet l/min /m	Lbs kg	HP kW	V	Hz	AMPS	RPM		
KC60S	7.5/75	23.2	10.5	1.5	208-230	60	5.8	3300	
	30/20			1.1	460	60	2.9	3300	



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

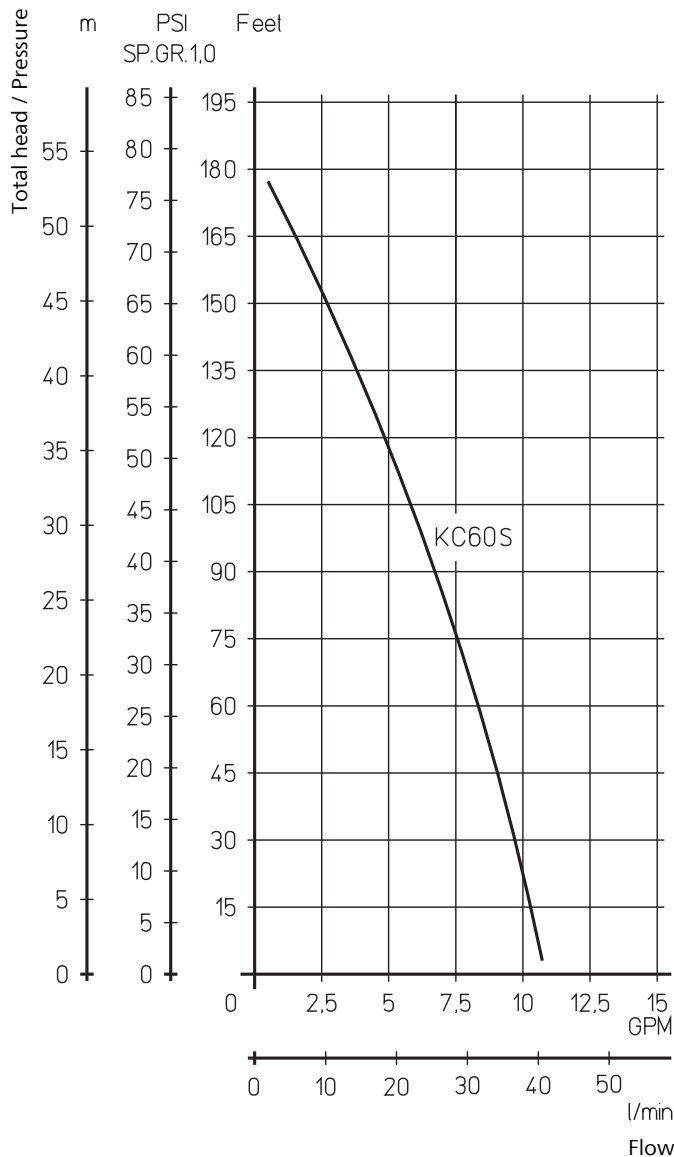
Cover	bronze
Impeller	brass
Shaft	Cr-steel
Gasket	Viton®
Noise level KC60S	68 dBA



Terminal box position
 Standard pos. 3

See mechanical features within the technical information section.

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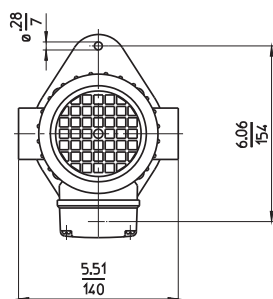
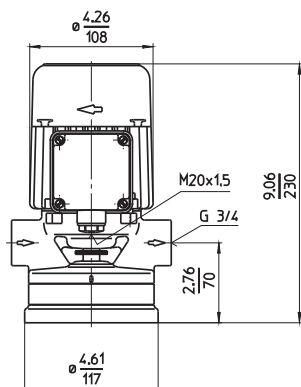


Suction Pumps

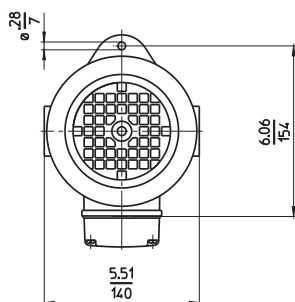
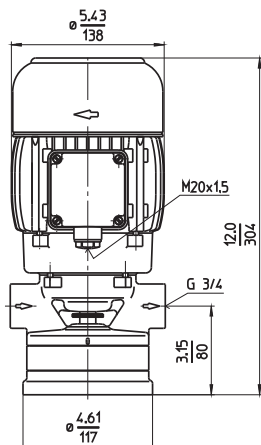
SB20S...60S

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	12.8	5.8	0.19	208-230	60	0.82	3200	
	20/2			0.14	460	60	0.41	3200	
SB40S	10/12	14.1	6.4	0.3	208-230	60	0.95	3200	
	40/3			0.22	460	60	0.55	3200	
SB60S	10/30	21.8	9.9	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

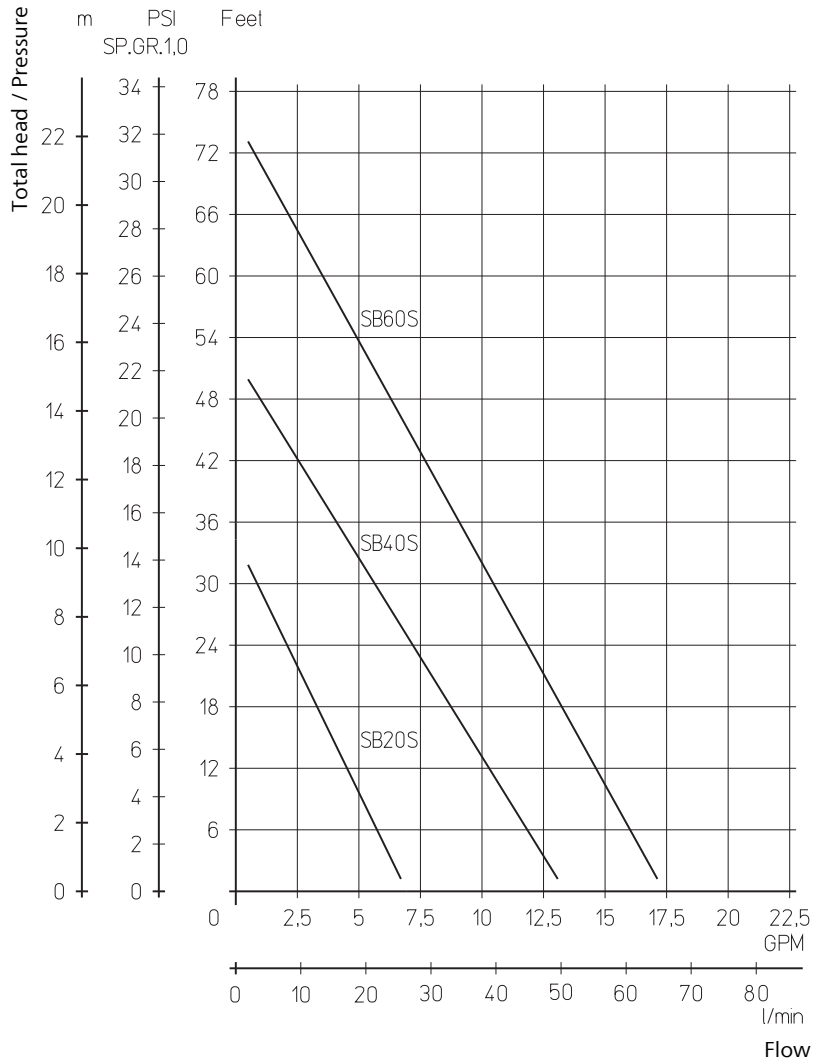
Pump body	cast iron
Cover	cast iron
Impeller	brass
Shaft	steel
Mechanical seal	graphite based
O-rings	Viton®
Optional:	
Pump body	bronze
Cover	bronze
Impeller	CrNi-steel
Noise level	
SB20S...SB40S	64 dBA
SB60S	67 dBA



Terminal box position
Standard pos. 2

See mechanical features within the technical information section.

Viton® is a registered trademark of DU Pont.



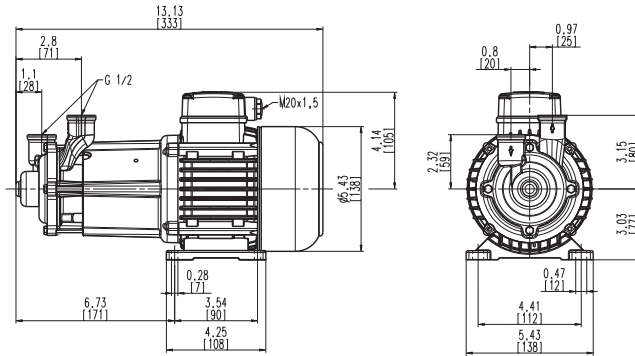
Miniature Centrifugal Pumps

BMK3...BMK4

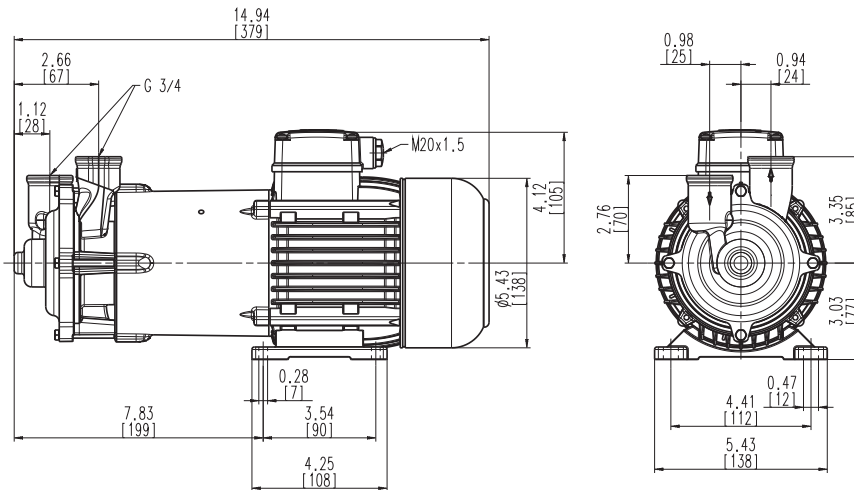
Peripheral impellers



BMK3



BMK4



Dimensions in Inches / mm

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							
BMK3	5/120	19.8	9		0.69	208-230	60	2.80	3400
	20/31				0.52	460	60	1.34	3400
BMK4	5/135	25.4	11.5		1.25	208-230	60	5.4	3300
	20/42				0.92	460	60	2.7	3300



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.

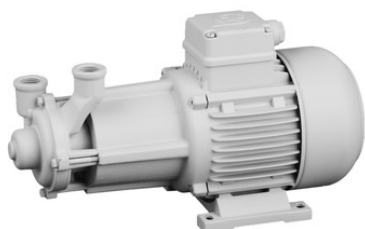
The pumps are equipped with a magnetic coupling. The pumps can be mounted vertically or horizontally. The specific design allows the pumps to operate without wear poor.

Applications

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

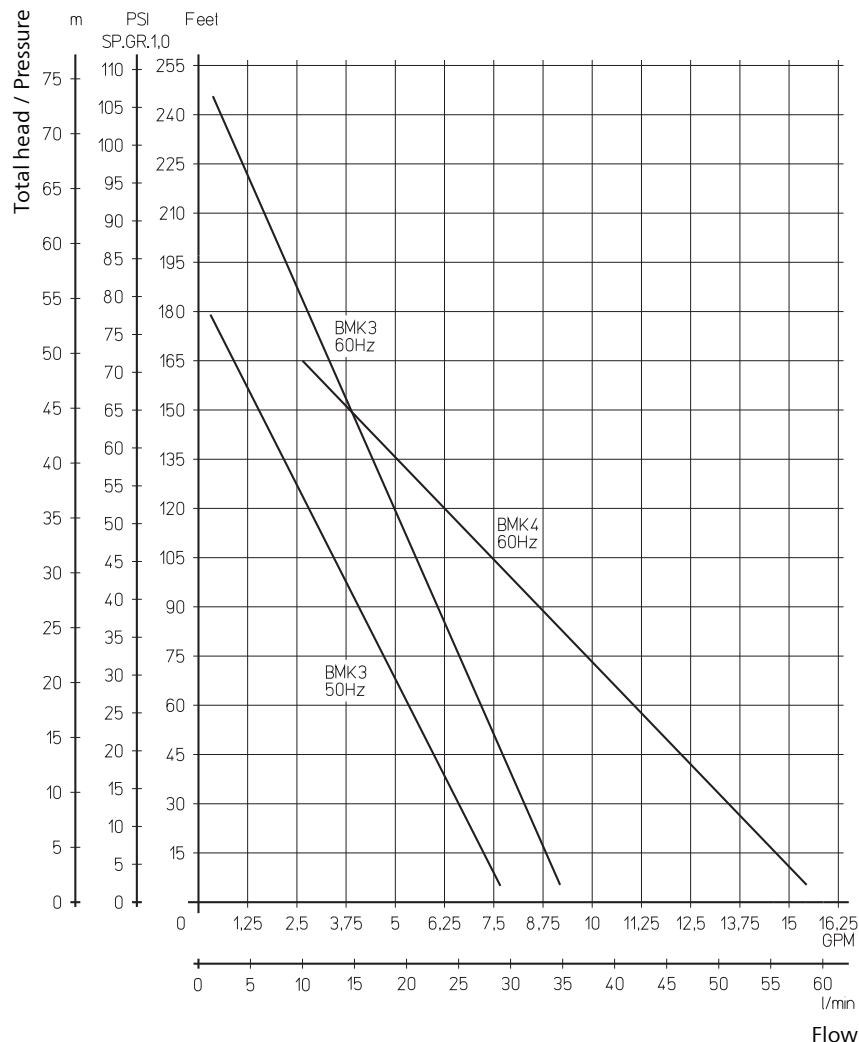
Construction

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



Terminal box position
 Standard pos. 3

See mechanical features within the technical information section.



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 <input type="text"/> to <input type="text"/>
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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United States

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