



2017

COOLANT PUMPS MAIN CATALOGUE

COOLING, LUBRICATING,
RINSING, MAINTAINING TEMPERATURES ...



Story



BRINKMANN PUMPS represents over 60 years of the highest quality and reliability made in Germany. More than 200 employees worldwide in engineering, research and development and production worldwide work on customer specific solutions with the same goal: exceeding our customers' expectations with every pump.

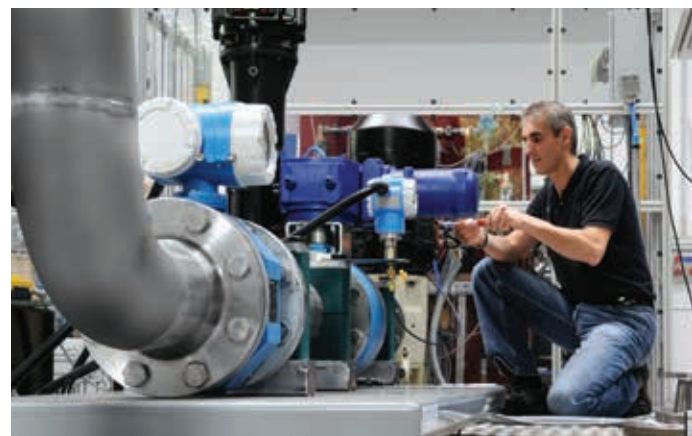
From a small centrifugal coolant pump for external cooling to the rugged lifting and cutter pumps to the high pressure screw spindle pumps, BRINKMANN PUMPS is the only supplier to cover all your coolant pump needs. Performance and reliability of our pumps over many decades has machine tool designers and manufacturers worldwide convinced of our unsurpassed quality and service.

Engineering

Each BRINKMANN Pump is embedded with often many years of research, including internal and external product development and in-house and field testing.

Being directly in contact with our global customer base, we can continuously deliver innovations and market driven pump solutions. For example, our patented quick suctioning immersion pumps, which are uniquely capable of handling coolants with a high percentage of air-entrainment.

In order to provide custom solutions in a cost effective way, we have developed a highly sophisticated modular design system. This system allows us to quickly and economically develop and customize application specific products for each customer.





Recommendations to choose Coolant Pumps	4
Technical Information	
Electrical Features	5 – 7
Control / Regulation	8 – 11
DESINA	12
Mechanical and Hydraulic Features	13 – 15
Pumps with changeable flanges	16
Modular Design System	17
Machine tool coolant supply – Low Pressure Pumps	19
Chip handling – Lifting Pumps	105 – 109
Machine tool coolant supply – Medium and High Pressure Pumps	133
Plastic and miniature centrifugal pumps	197
Questionnaire	213

Immersion Pumps TB TA TE STE STA	Semi-open impellers Standard coolant pumps 25 ... 5000 l/min 4 ... 120 m	20 – 41	
Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System TL TAL STL SAL	Axial/semi-open impellers Inflated fluids / slurping 25 ... 2600 l/min 5 ... 115 m	42 – 59	
Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System TGL SGL	Axial/semi-open impellers Inflated grinding oils / slurping 25 ... 2600 l/min 5 ... 90 m	60 – 69	
Suction Immersion Pumps Lifting Pumps TAS STS TAA	Axial/semi-open impellers Vacuum filter / lifting 25 ... 1200 l/min 4 ... 60 m	70 – 73	
Horizontal End-Suction Pumps SBA SBA-V SBG SBG-V SBM	Axial - radial impellers Coolant Lubricants / cutting oils 25 ... 2250 l/min 5 ... 62 m	74 – 103	
Quick Suctioning Immersion Pumps with BRINKMANN's Suction De-aeration System SFL SBF	Axial/semi-open impellers Inflated coolants / slurping heavy chip loads 25 ... 2500 l/min 5 ... 46 m	110 – 115	
Cutter Pumps with cutting units SFC SXC SPC SBC	Axial - radial impellers Large chips 25 ... 1700 l/min 4 ... 45 m	116 – 123	
Free-flow Immersion Pumps/Vortex Pumps FT FTA SFT BFT	Semi-open impellers Large chips 25 ... 2500 l/min 4 ... 20 m	124 – 131	
Immersion Pumps TS	Peripheral impellers High pressure in compact units 10 ... 70 l/min 25 ... 95 m	134 – 135	
Immersion Pumps Pressure Boosting Pumps (S)TC (S)TH FH	Closed impellers High pressure / no long chips 10 ... 640 l/min 30 ... 520 m	136 – 195	
High Pressure Pumps BFS TFS FFS	Screw spindles High pressure 2.6 ... 878 l/min 10 ... 200 bar	196	
Immersion Pumps in Plastics KTF KTB	Semi-open impellers Industrial water circuits 15 ... 400 l/min 4 ... 42 m	198 – 201	
Miniature Centrifugal Pumps Suction Pumps KC SB	Open/peripheral impellers Suctioning / circulating 2 ... 60 l/min 10 ... 45 m	202 – 205	
Immersion Pumps / Miniature Centrifugal Pumps TB-M B BMK	Open/semi-open/peripheral impellers Maintaining temperatures 10 ... 100 l/min 5 ... 65 m	206 – 211	



Recommendations to choose Coolant Pumps



Series	Application										Medium						Pollution			Proportion of air in the fluid		Performance		Page				
	boring	sawing	milling	turning	grinding	eroding	circulating	tempering	cooling	washing	emulsions	coolants and lubricants	grinding oils	thermal oils	dielectric	industrial water	de-ionized water	lees / solvents	coarse	medium	few	normal	increased		lifting	washing	pressuring	
TB16 ... 100	●	●	●	●	●	○	●			●	●	●	○	○			○		●	●	●	●		●	●		20-21	
TA160 ... 600	●	●	●	●	●	○	●	○	○	○	●	●	●	●	●	○		○	●	●	●	●		●	●	●	22-23	
TE/STE141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○		●	●	●	●		●	●	●	24-25
TA/STA301 ... 306	●	●	●	●	●	○	●	○	○	○	●	●	●	●	●	○		○	●	●	●	●		●	●	●	26-27	
STA401 ... 4500	●	●	●	●	●	○	●	○	○	○	●	●	●	●	●	○		○	●	●	●	●		●	●	●	28-41	
TL50 ... TAL200	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○	●	●	●	●	●	●	●	●	42-43	
TL/STL141 ... 146	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○		●	●	●	●	●	●	●	44-45	
TAL/SAL301 ... 306	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○	●	●	●	●	●	●	●	●	46-47	
SAL401 ... 2500	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○	●	●	●	●	●	●	●	●	48-59	
TGL/SGL331 ... 2200	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●	○		○	●	●	●	●	●	●	●	●	60-69	
TAS301 ... 601	●	●	●	●	●	○	●				●	●	●	●	●	○		○	●	●	●	●		●	●	●	70-71	
STS1001	●	●	●	●	●	○	●				●	●	●	●	●	○		○	●	●	●	●		●	●	●	70-71	
TAA140 ... 280	●	●	●	●	●	○	●				●	●	●	●	●	○		○	●	●	●			●	●		72-73	
SBA141 ... 2000 (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●			○		●	●	●		●	●	●	74-89	
SBG501 ... 1700 (V)	●	●	●	●	●	○	●	○	○	○	●	●	●	○	●			○		●	●	●	●		●	●	90-101	
SBM140	●	●	●	●	●	○	●	○	○	○	●	●	●	○		○		○		●	●			●	●		102-103	
SFL650 ... 2350	●	●	●	●	●	○	●		○	○	●	●	○	○		○		○	●	●	●	●	●	●	●	●	110-111	
SBF550 ... 1850	●	●	●	●	●	○	●		○	○	●	●	○	○				○	●	●	●	●		●	●		112-115	
SFC820 ... 2320	●	●	●	●	●	○	●		○	○	●	●	○	○				○	●	●	●	●	●	●			116-117	
SXC2824	●	●	●	●							●	●	○	○					●	●	●	●	●	●			118-119	
SPC820	●	●	●	●							●	●	○	○					●	●	●			●			120-121	
SBC820 ... 1820	●	●	●	●	●	○	●		○	○	○	○	○	○				○	●	●	●	●	●	●	●	●	122-123	
FT35 ... FTA140	●	●	●	●	●	○	●				●	●	●	●	●	○		○		●	●			●	●		124-125	
SFT450 ... 3554	●	●	●	●	●	○	●		○		●	●	●	●	●	○		○	●	●		●		●	●		126-129	
BFT750 ... 1250	●	●	●	●	●	○	●		○		●	●	●	●	●	○		○	●	●		●		●	●		130-131	
TS12 ... 24	●	●	●	●	●	○	●	○	○	○	●	●	●	●	●	○	○	○			●	●			●	●	134-135	
(S)TC25 ... 160	●	●	●	●	○	○	●	○	○		●	●	●	●	●	○	○		○	●	●			●	●		136-143	
(S)TH2 ... 17	●	●	●	●	○	○	●	○	○	○	●	●	●	●	●	○	○		○	●	●			●	●		146-169	
FH2 ... 17	●	●	●	●	○	○		○	○	○	●	●	●	●	●	○	○		○	●	●			●	●		170-193	
(S)TC260 ... 460	●	●	●	●	○	○	●	○	○	○	●	●	●	●	●	○	○		○	●	●			●	●		194-195	
BFS1 ... TFS6	●	●	●	●	○						●	●	●	○						●	●			●	●		196	
FFS1 ... FFS6	●	●	●	●	○						●	●	●	○						●	●			●	●		196	
KTF25 ... 83						○	●	○	●		●	○	○		○	○	○			●	●			●	●	●	199-199	
KTF151 ... 303						○	●	○	●		●	○	○		○	○	○			●	●			●	●	●	200-201	
KTB200						○	●	○	●		●	○	○		○	○	○			●	●			●	●	●	200-201	
KC21 ... 60	○	○	○	○		○	●	○	○	○	○		●	○	○	○	○			●	●			●	●		202-203	
SB20 ... 60	●	●	●	●	○	○	●	○	○	○	●	●	●	○	○	○	○		○	●	●			●			204-205	
TB40-M ... 100-M							●	●	○			●	●	○	○	○	○		●	●	●			●			206-207	
B401 ... 501						○	●	●	○	○	●	○	●	○	●	○	○			●	●			●	●		208-209	
BMK3 ... BMK4						○	●	●	○	○	●	○	●	○	●	○	○			●	●			●	●		210-211	

● usable ○ please ask before choice

Electrical Features



Motors acc. to EN 60034-1

Protective system	IP55
Insulation class	F
Number of poles	2
Efficiencies	EN 60034-30, IE3 ≥ 0,75 kW

	50 Hz		60 Hz	
	220 V – 240 V Δ 380 V – 415 V Υ	380 V – 415 V Δ	460 V Υ	460 V Δ
up to 5.5 kW	Standard	●	●	●
as of 6.0 kW	–	Standard	–	●

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

Special voltages are available upon request:

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

● available – not available

Other voltages upon request.

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 and 60 Hz (Transformer usage) are possible after consulting with the company, e. g. 3 x 400 V, $\pm 5\%$, 50 – 60 Hz.

Motors as of 7.5 kW

Motor design available for Υ/Δ -starting.

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

Switching-on frequency

Motors less than 3 kW ►
maximum 200 times per hour

Motors from 3 kW to 4 kW ►
maximum 40 times per hour

Motors from 5 kW to 9 kW ►
maximum 20 times per hour

Motors as of 11 kW ►
maximum 15 times per hour

Higher on/off cycling frequencies are available upon request.

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

IE = International Efficiency

Electrical Features



Non-European Regulations, Brinkmann motors



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



Brinkmann motors ranging from 2.3 kW to 13 kW, 50 Hz, are available with the China Energy Label GB18613-2012, Grade 2 on request.



CC311B

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

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

Brinkmann motors ranging from 0.86 kW to 15 kW, 60 Hz, are available with NEMA PREMIUM MG 1 on request.

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

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

Non-European Regulations, Standard motors

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

Current / Rated current

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

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

Motor ≥ 0.75 kW: $I_{\text{max}} = 1,05 \times I_{\text{catalog}}$

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

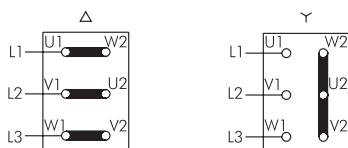
Electrical Features



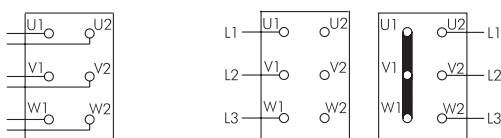
Circuits

Standard voltage changing Υ / Δ
e. g. 220 – 240 V / 380 – 415 V, 50 Hz

Δ (Delta Connection) Υ (Star Connection)



Optional
Pole-changing motor 4/2 poles $\Upsilon / \Upsilon\Upsilon$
for 50 % reduced revolutions to choice



Dahlander circ.

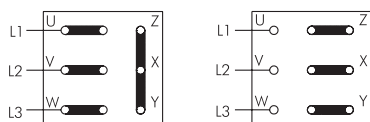
(1500 RPM)

(3000 RPM)

$\Upsilon / \Upsilon\Upsilon$
with pole-switch

4-poles Υ 2-poles $\Upsilon\Upsilon$
without pole-switch

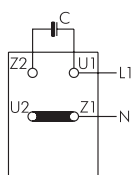
Voltage changing 1 : 2 $\Upsilon\Upsilon / \Upsilon$
e. g. 230 V / 460 V, 60 Hz



Low Voltage

High Voltage

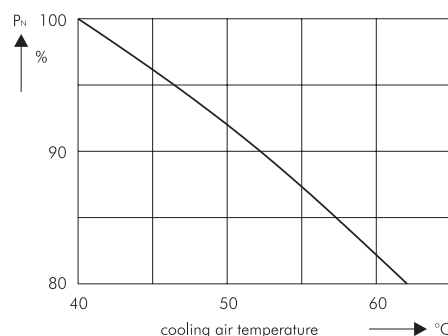
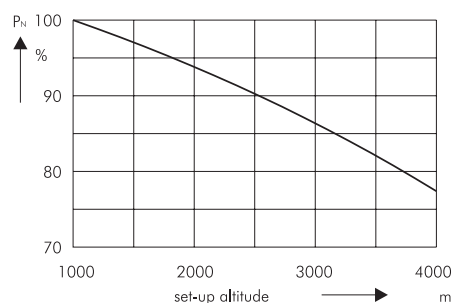
Optional
Connection to **single-phase**
e. g. 1 x 230 V, 50 Hz:



Set-up altitude and coolant temperature

The specified power ratings (P_N) and operating values for the motors apply for operating mode S 1 according to EN 60034-1 (continuous operation) at a frequency of 50 Hz, rated voltage, a cooling air temperature (KT) of max. 40 °C and a set-up altitude of up to 1000 m above sea level. The motors can also be used at a cooling air temperature above 40 °C up to max. 60 °C or set-up altitude above 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 1000 m above sea level.

Set-up altitude / m	Maximum cooling air temperature for heat class F / °C
0 up to 1000	40
1000 up to 2000	30
2000 up to 3000	19
3000 up to 4000	9



Single-phase	Capacitor
0.045 kW	5 μ F 400 V DB
0.055 kW	5 μ F 400 V DB
0.075 kW	5 μ F 400 V DB
0.14 kW	5 μ F 400 V DB
0.22 kW	10 μ F 400 V DB
0.28 kW	12 μ F 400 V DB

Noise Levels

The noise levels stated in the catalog are valid for 50 Hz operation. For 60 Hz operation the noise levels are approximately 3 – 4 dBA above those stated. For reduced noise levels special axial motor fan blades are available upon request.

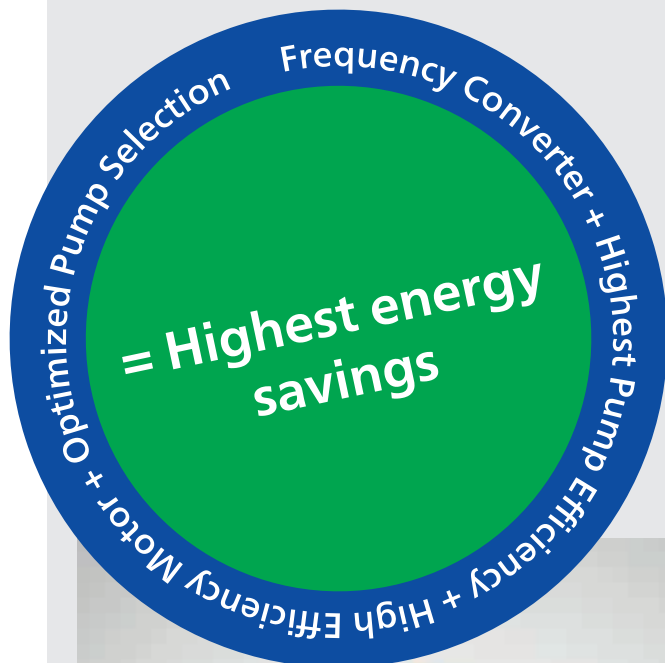


The energy consumption of a coolant pump is primarily influenced by the efficiency of the pump, the efficiency of the motor and the sizing of the pump with respect to the working point of the system.

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 1.3 – 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. This makes it possible to regulate the pump to various operating points within the performance curve array, allowing the pump to be optimally matched to your specific application.

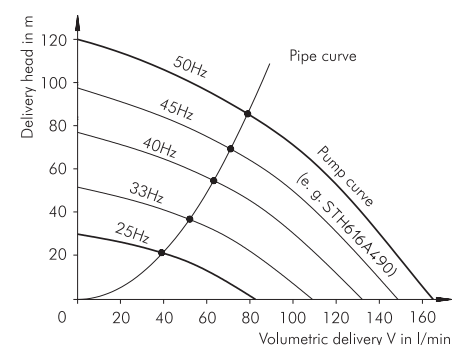


Fig. 1: Performance map



Pump Regulation

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

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

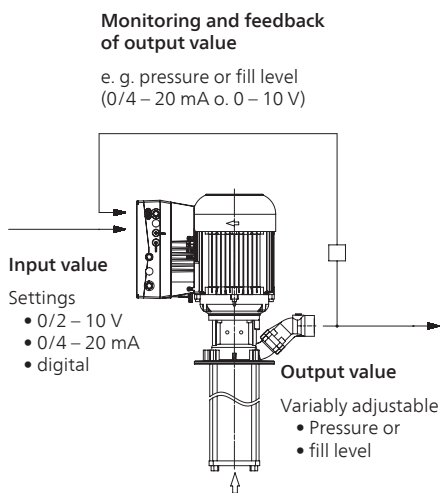


Fig. 2: Scheme of regulation

Pump control

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

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

Pumps with integrated frequency converter are always supplied pre-programmed by the manufacturer.

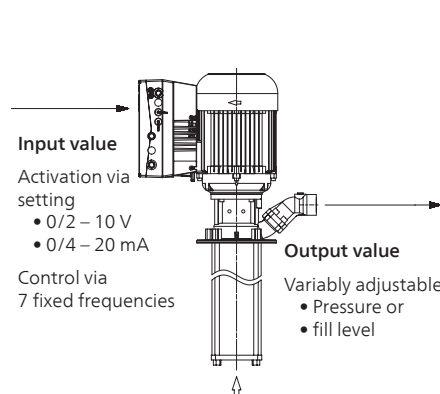


Fig. 4: Control scheme

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.

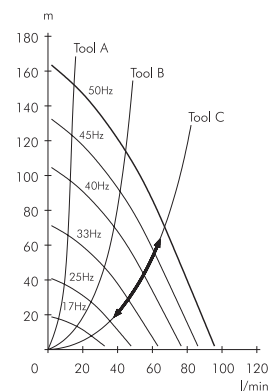


Fig. 5: Analog signal (infinite)

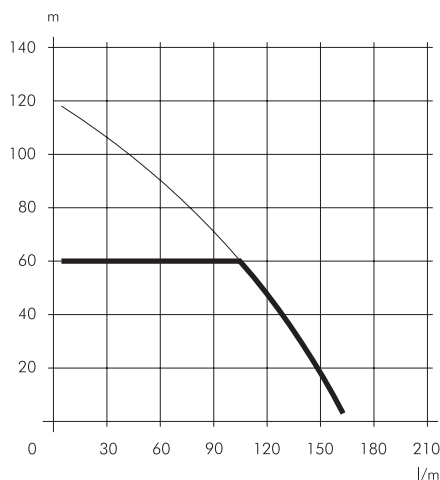


Fig. 3: Pressure regulation limited to max. 6 bar

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.

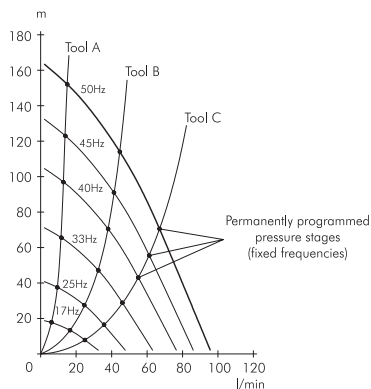
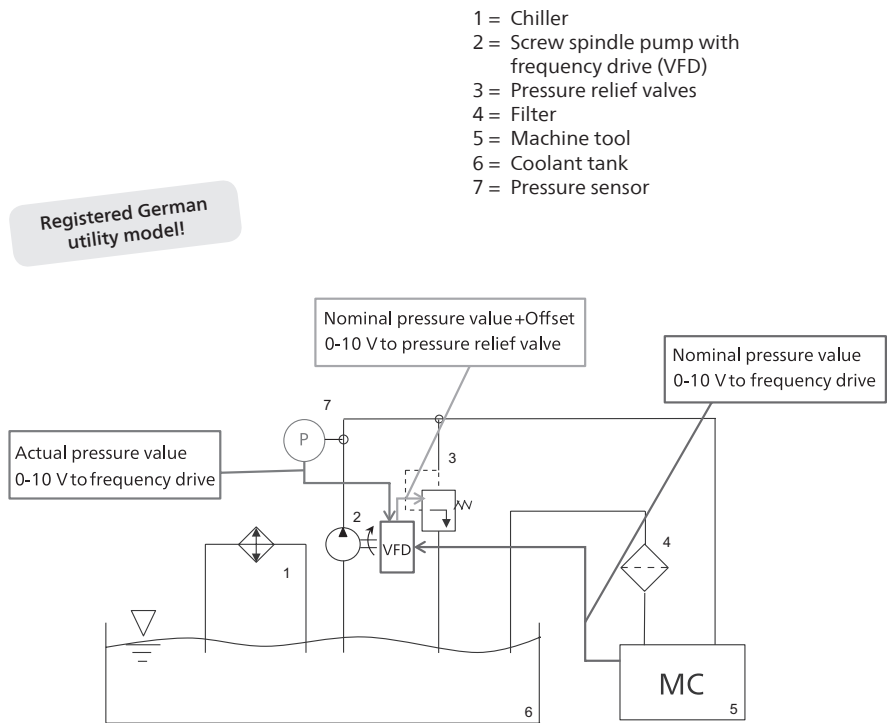


Fig. 6: Fixed frequencies

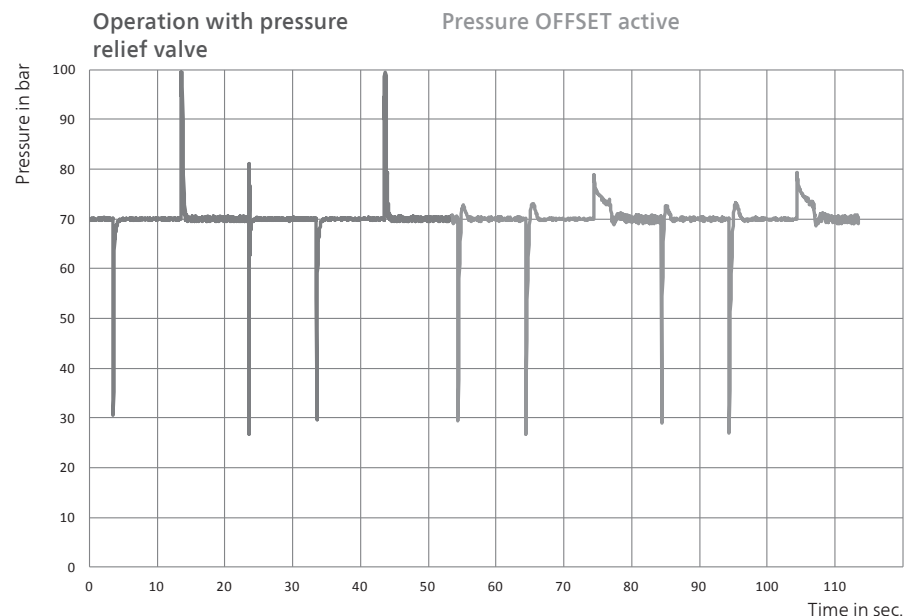
Brinkmann Pumps Offset Regulation for High Pressure Pumps

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.



Minimizing pressure peaks during tool change

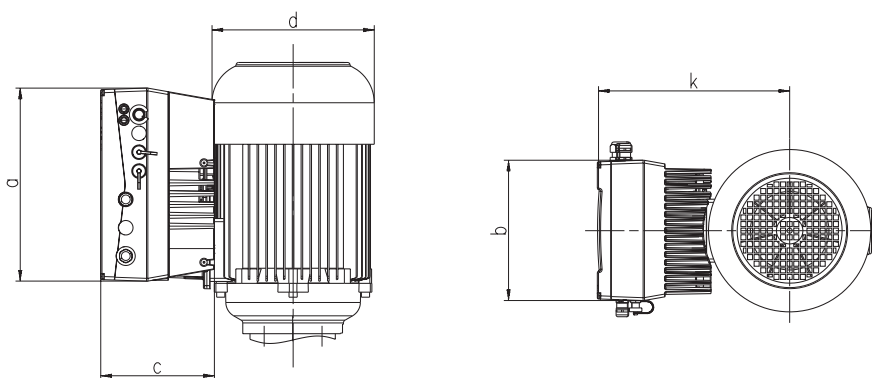




TECHNICAL DATA Frequency converter FKO (1.5 – 22 kW)

Function	Specification
Rated voltage	3 AC 400 V -10 % ... 480 V +10 %
Rated frequency	50/60 Hz
Output ranges	... 1.5 kW 2.2 – 4 kW 5.5 – 7.5 kW 11 – 22 kW
Housing size	A B C D
Protective system	IP 65 IP 55
EMV approvals acc. to EN61800-3US	C2
Temperature range	-10 °C ... +50 °C
Overload capability	1.5 times rated output current
Protective functions	undervoltage, overvoltage, I ² t-restriction, short circuit, motor temperature, converter temperature, anti-tilt protection
Output frequency range	according to layout at factory
Digital inputs	4
Fixed frequencies	7
Digital outputs	2
Analog inputs	2 analog inputs (0/2 – 10 V, 0/4 – 20 mA)
Analog outputs	0 – 10 V (-I _{max} = 10 mA) or 0 – 20 mA (burden R = 500 Ω)
Process control	PID
Relay outputs	2 x NO contacts 250 V AC 2 A
USB interface	USB on plug M12 (RS485/RS232)
Manual control unit (optional)	MMI with cable
Bus modules (optional)	Profibus DP, CANopen, EtherCAT
UL approval	yes

Dimensions with Brinkmann motor



Motor power kW	housing size	a mm	b mm	c mm	d mm	k mm
1.1	A	223	153	120	138	199
1.3 – 1.7	A	223	153	120	176	209
1.9 – 2.6	B	270	189	140	176	223
3.0 – 4.0	B	270	189	140	218	243
5.0 – 5.5	C	307	233	181	218	287
6.0 – 9.0	C	307	233	181	258	306
11.0 – 13.0	D	414	294	233	314	404

DESINA

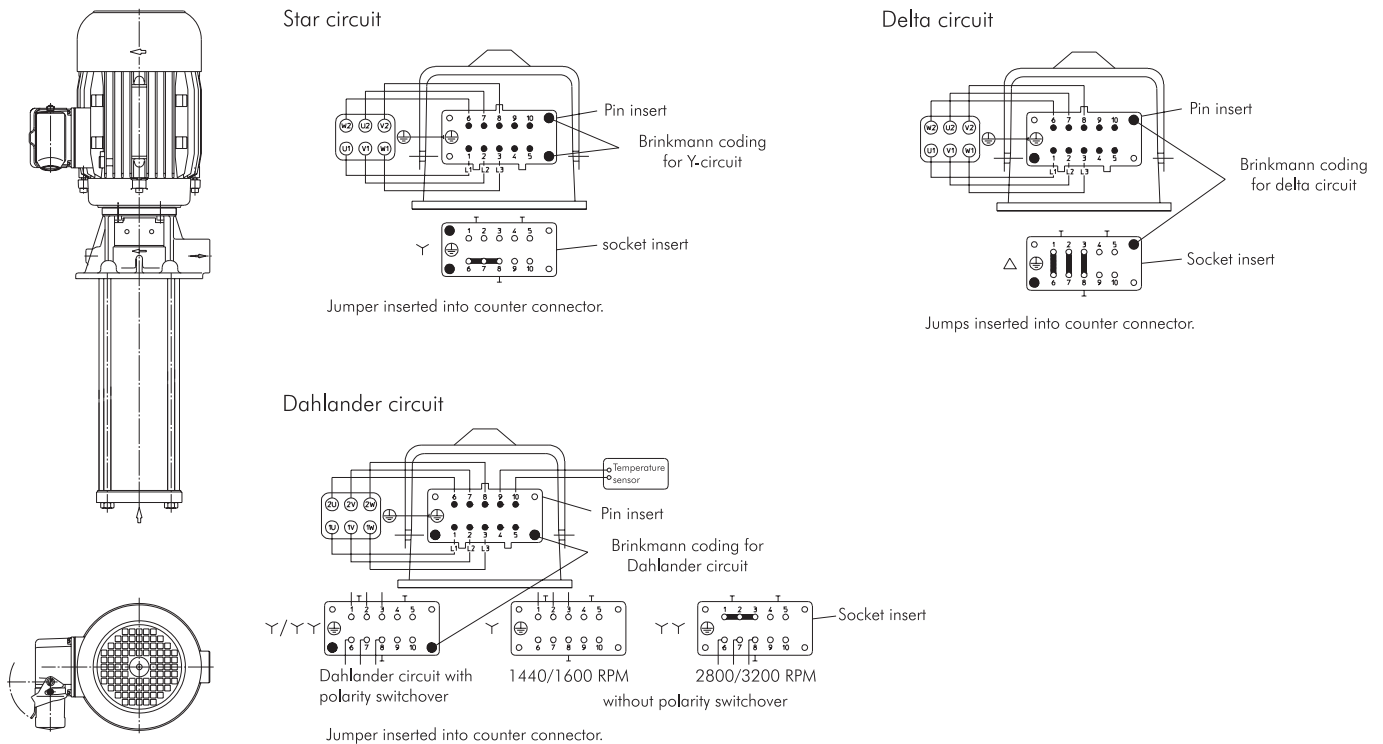


DESINA – DEcentral and Standardized INstAlliation technology

DESINA includes a complete concept for standardization and decentralization of the electronic and fluid technical installation of machines and systems. The specifications for the required components were defined in cooperation between the machine tool industry, automotive and supplier industry. DESINA considers proven solutions such as open bus systems, industrial standards for connectors, etc.

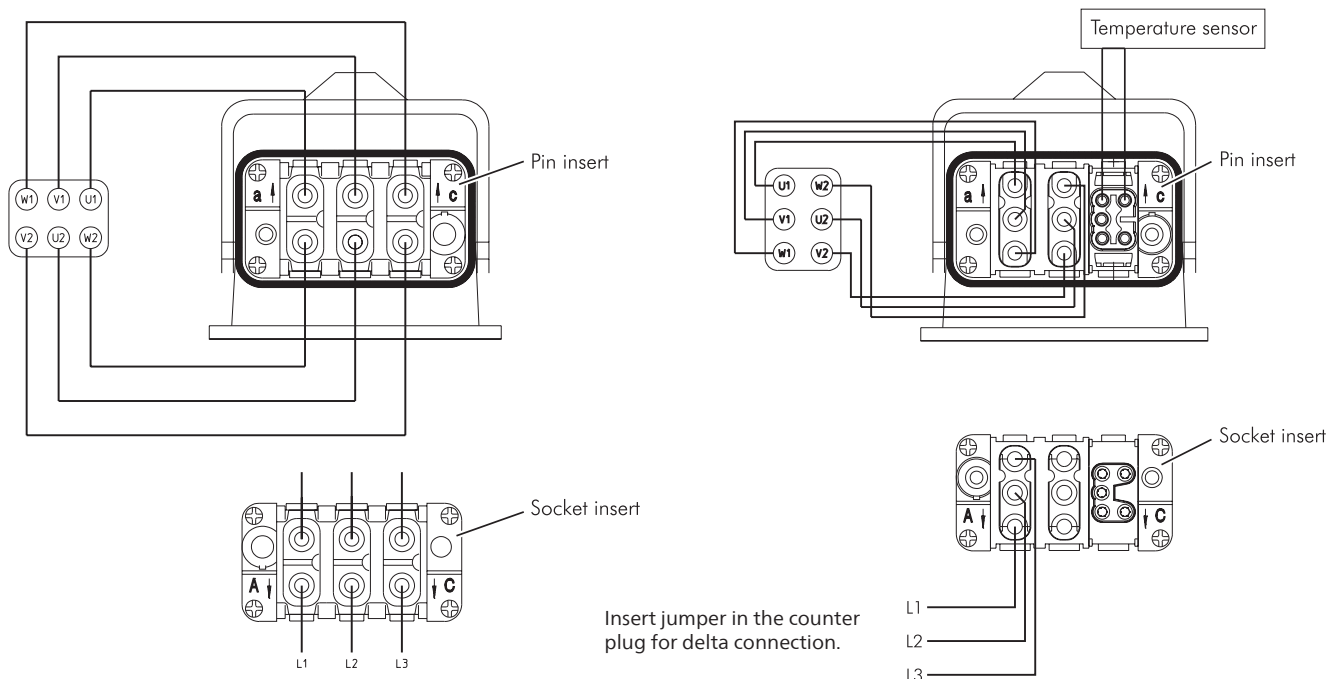
By standardizing components, interfaces and connection elements it is possible to achieve highly varying field bus systems on a common physical basis.

Pin assignment for HAN 10-pin connector for pumps with motors up to 5.5 kW



Assignment for HAN modular plug connector for pumps with motors from 6 kW to 13 kW

Version with thermistor:



Hydraulic Features

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

Based upon the **centrifugal pump system**, we offer **immersed 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 brochure, apply to water at 20 °C (1 mm²/s). Higher viscosities need larger motors. Coolants with specific weight of less than 1 need less power and more

than 1 need more power.

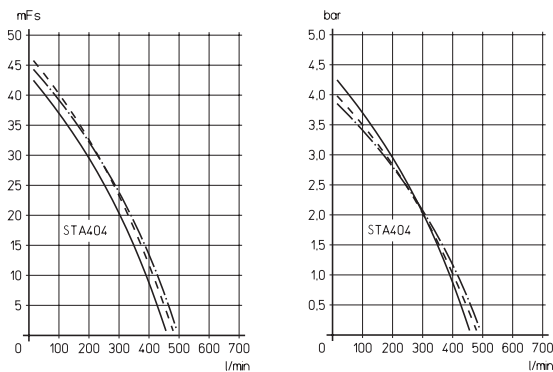
Centrifugal pump pressure is stated as delivery head in metres (m).

The diagrams of immersion pump types STA404; with semi-open impellers, and STC63/560, with closed impellers, show the rates for coolants of different viscosities and different specific weights in m and bar respectively.

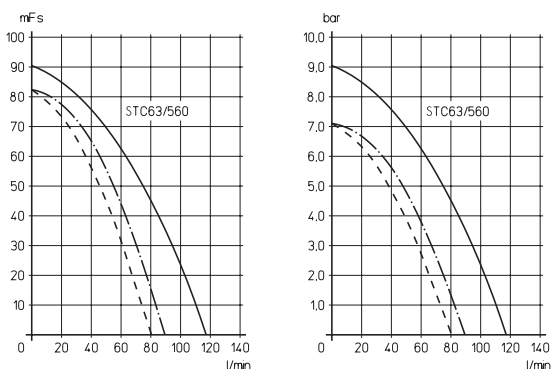
Noise levels refer to 50 Hz operation.

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

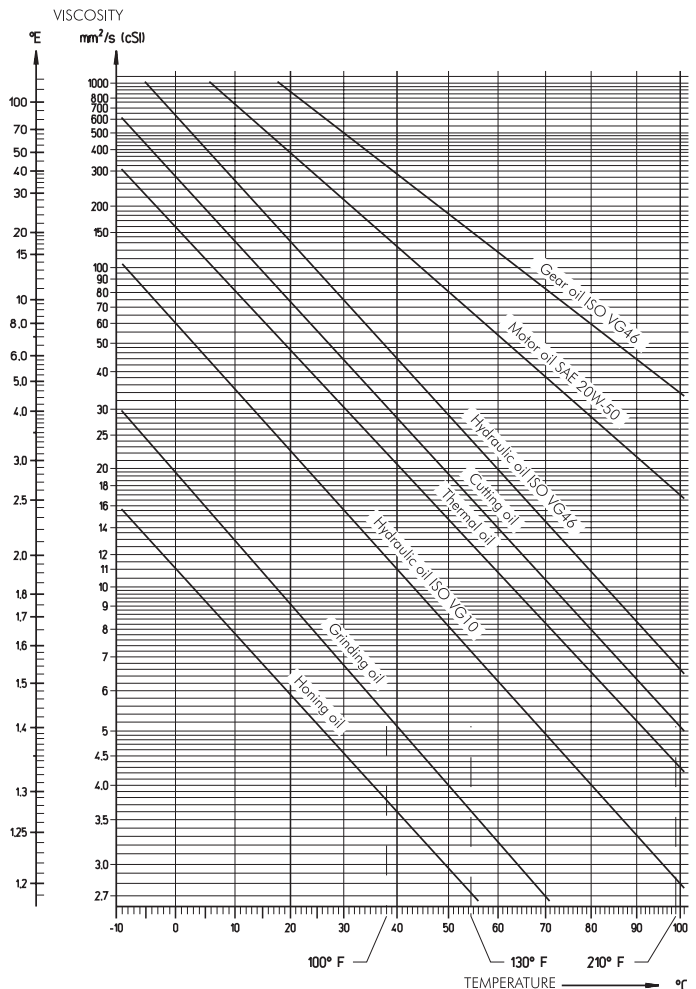
STA404
with semi-open impellers



STC63
with closed impellers



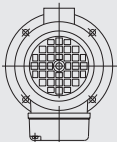
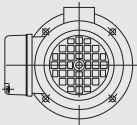
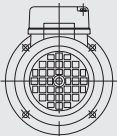
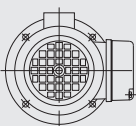
Water ————
Oil - - - - - 45 mm²/s spec. weight
Oil - - - - - 90 mm²/s 0,87





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 top view
1	 <p>Terminal box opposite to pump discharge. Standard set-up for immersion pumps.</p>
2	 <p>Terminal box to the left of the pump discharge. Standard set-up for suction pumps. For Horizontal End-Suction pumps please refer to page 15.</p>
3	 <p>Terminal box over the pump discharge. Standard set-up for miniature centrifugal pumps.</p>
4	 <p>Terminal box on the right of the pump discharge.</p>

Lacquering

Standard
Upon request

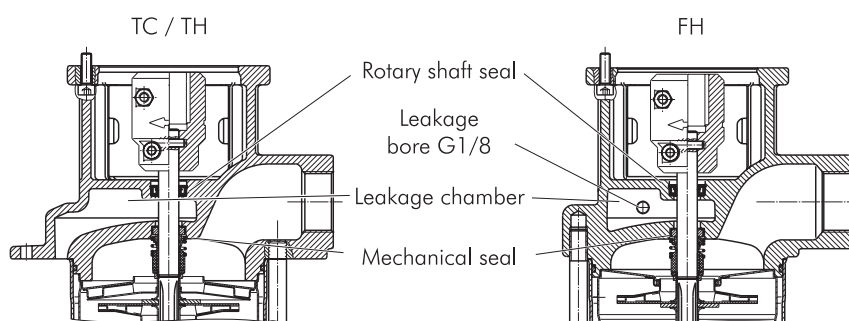
RAL 9005
Other colors
and unpainted or
primed available on
request.

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 TC63/350 pump is required at an immersion depth of 750 mm.
Solution: TC63/350 – 750

Leakage chamber / Leakage connections



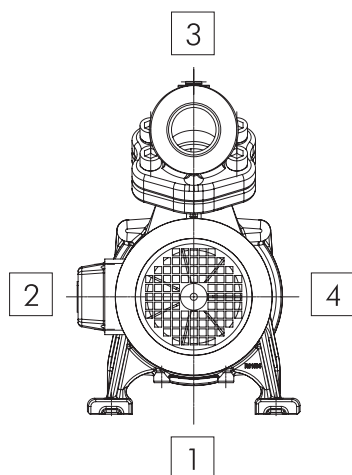
Small leaks flow back through the leakage chamber into the tank without reaching the outside.

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

Mechanical Features



Horizontal End-Suction Pumps – Terminal box and foot location

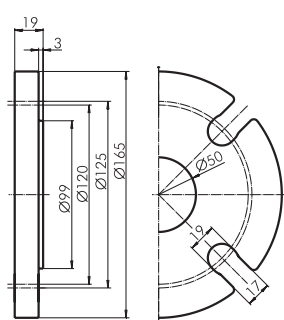


Location	Series SBA, SBG and SBF	
	Terminal box location	Foot location
1	–	Standard
2	Standard	●
3	□	–
4	●	●

- available
- available upon request
- not available

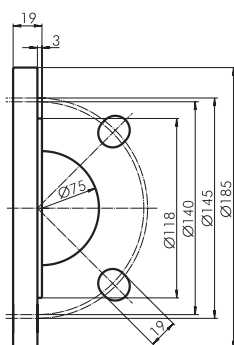
Attention:
Terminal box location and foot location cannot be facing in the same direction!

Horizontal End-Suction Pumps – Suction port



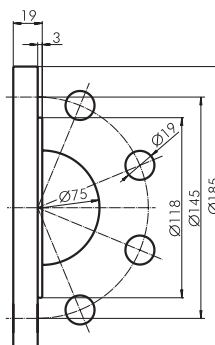
DN50, 4 hole flange connection
size 140

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

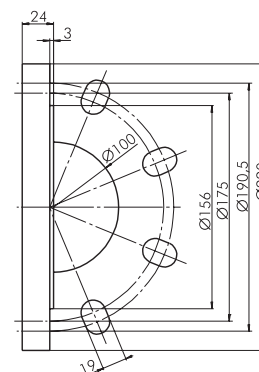


DN65, 4 hole flange connection
sizes 400, 550, 600
sizes 650, 850, 1150, 800, 900,
1300

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

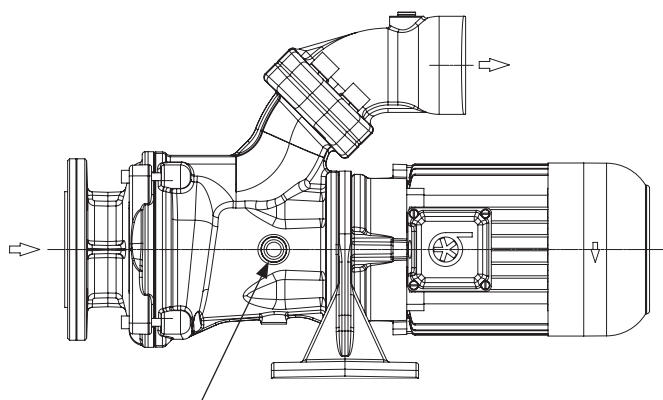


DN65, 8 hole flange connection
sizes 850, 1150, 1100, 1300
Available upon request



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 moni-
toring window.

SAE / 45 Degree Flanges

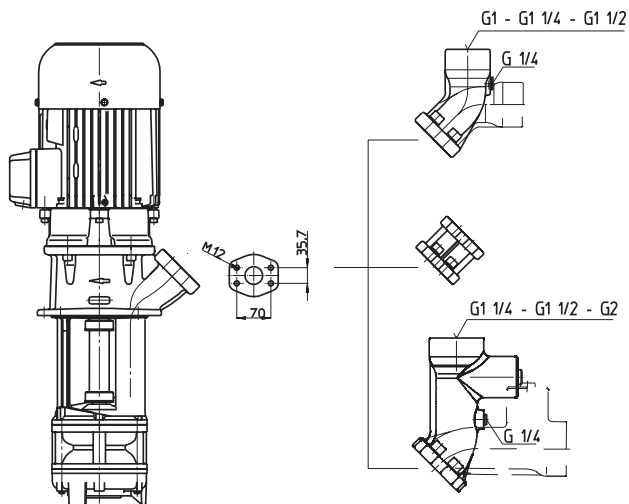


Brinkmann Pumps with SAE flanges or 45 degree flanges

Most Brinkmann pumps with motors larger than 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 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 140 mm)



SAE flange G1, G1¼, G1½, G2

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

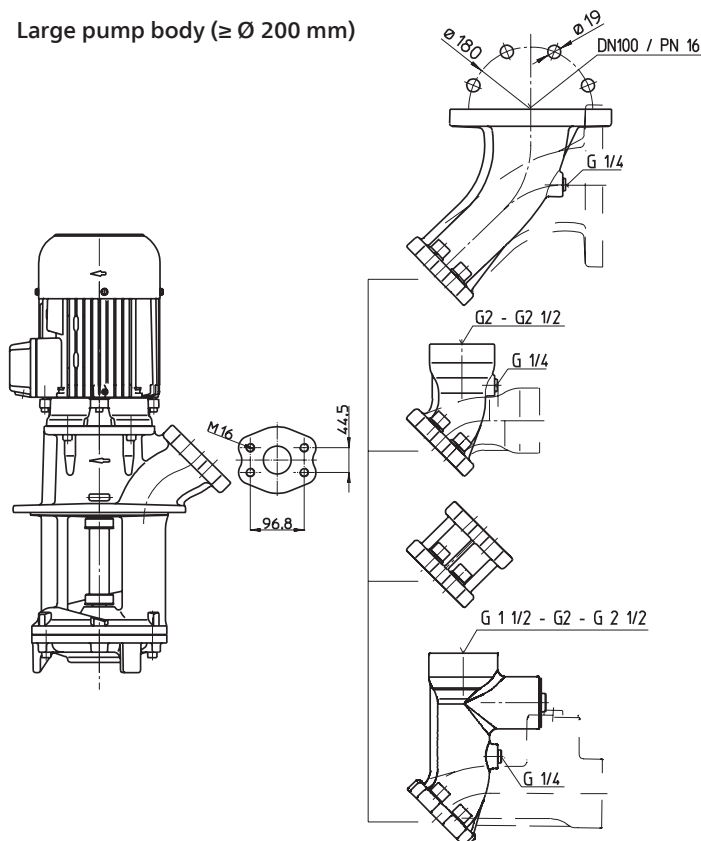
SAE Extension Port

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

Regulating Valve for SAE flange G1, G1¼, G1½, G2

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 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 G2, G2½

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

Extension Port for 45 degree flange

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

Regulating Valve for 45 degree flange G1½, G2, G2½

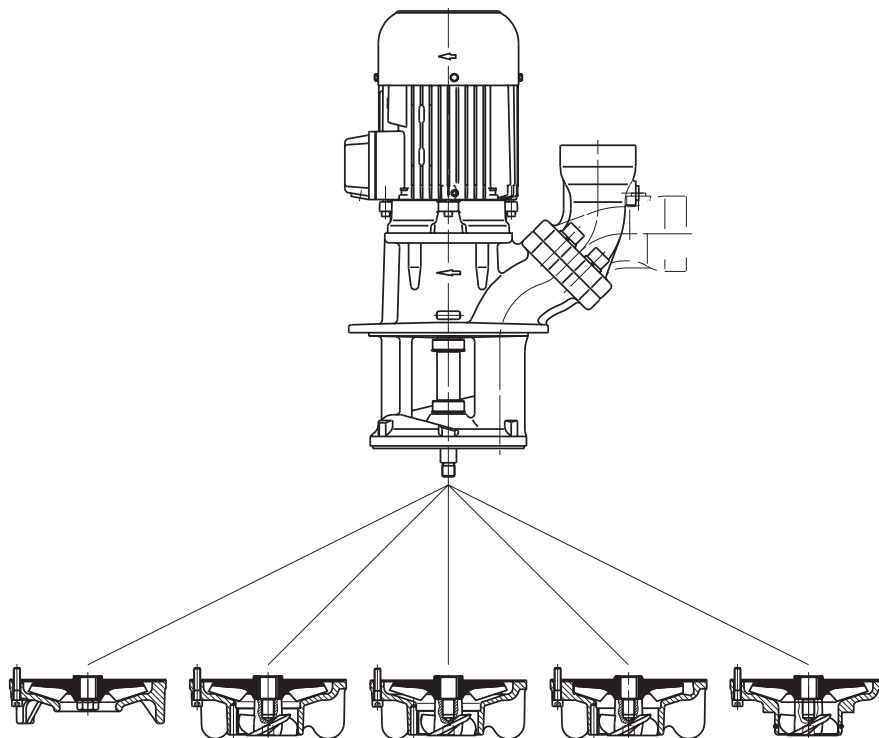
This regulating valve allows to adjust the flow rate of the pump even during regular operation. This valve has no complete shut off function. An additional check valve is available upon request.



Hydraulic modular system

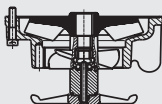
The comprehensive hydraulic modular system ensures best adaptation to your specific application requirements. Depending on whether emulsion or oil is used as coolant during mechanical processing, the features described below can be implemented as selected; if desired even with integrated frequency converter.

The range includes standard lifting pumps such as the STA900 with 10 mm sphere size passage as well as the classic Vortex pumps such as the SFT1100 with a 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 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 pump
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 with high percentage of air (fine machining)	Pump for vacuum filter, e.g. on split sieve basis for vacuums from -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.

Machine tool coolant supply

Low Pressure Pumps

Semi-open impellers are a central feature for this range of pumps. The pumps are resistant to dirt and are suitable for various applications. In the patented version with suction de-aeration system, they are the right solution, particularly for inflated emulsions and grinding oils. Horizontal end-suction pumps are a compact, space-saving alternative.

Coolant pumps, that's us!



TB | TA | TE | STE | STA



Impellers
Fluids
Volumetric delivery
Delivery head

semi-open coolants, emulsions, oils
up to 5000 l/min
up to 115 m

Immersion Pumps

- Easy mounting on top of the tank
- Simple pipe connection with 45 degree SAE flange
- Long lifetime, seal-less or low wear anti-friction bearing
- Multi-stage version (steep performance curves)
- Immersion depth up to 1.5 m possible

TL | STL | TAL | SAL | TGL | SGL



Impellers
Fluids
Volumetric delivery
Delivery head

axial / semi-open coolants, emulsions, oils
up to 2600 l/min
up to 115 m

Quick Suctioning Immersion Pumps

- Easy mounting on top of the tank
- Simple pipe connection with 45 degree SAE flange
- Long lifetime due to low wear anti-friction bearing
- Patented BRINKMANN 's Suction De-aeration System
- Multi-stage version (steep performance curves)
- Immersion depth up to 1.5 m possible
- Available with additional agitator at the pump suction for breaking up clusters of grinding sludge

SBA | SBA-V | SBG | SBG-V | SBM



Impellers
Fluids
Volumetric delivery
Delivery head

axial / semi-open coolants, emulsions, oils
up to 2250 l/min
up to 62 m

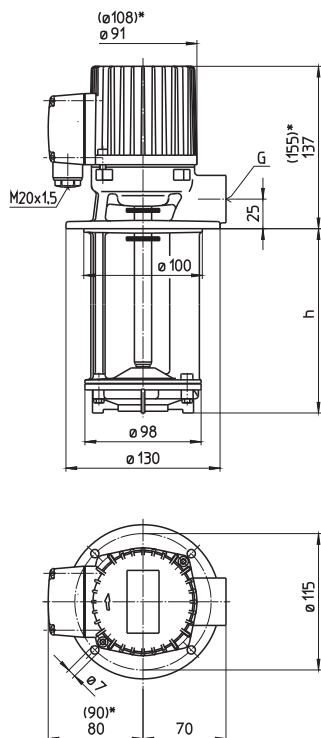
Horizontal End-Suction Pumps

- Foot mounted inline pumps; gravity fed
- Simple pipe connection with 45 degree SAE flange
- Vertical (space saving) design available
- Long lifetime due to low wear anti-friction bearing
- Multi-stage version (steep performance curves)
- Available in a version resistant to dry running (-GD)

TB16...100

Semi-open impellers

TB16, 25, 40
TB63, 100



*) Dimensions for TB63, TB100

Type	Vol. del. at manom. del. head l/min / m	Depth of immersion h mm	Pipe connection	Weight kg	Power kW	Voltage 3~ V	Frequency Hz	Current A	Speed 1/min
TB16/90	16/2	90	G 1/2	4.3	0.07	220-240	50	0.35	2800
	120	115		4.5		380-420	50	0.20	2800
	170	165		5.0		460	60	0.20	3300
	220	215		5.5					
TB25/90	30/2	90	G 1/2	4.3	0.1	220-240	50	0.38	2700
	120	115		4.5		380-420	50	0.22	2700
	170	165		5.0		460	60	0.22	3200
	220	215		5.5					
	270	265	G 3/4	6.0					
	350	345		6.5					
TB40/90	50/2	95	G 3/4	4.3	0.12	220-240	50	0.44	2700
	120	120		4.5		380-420	50	0.25	2700
	170	170		5.0		460	60	0.25	3200
	220	220		5.5					
	270	270		6.0					
	350	350		6.5					
TB63/90	75/2	105	G 3/4	5.0	0.21	220-240	50	0.71	2800
	120	130		5.5		380-420	50	0.41	2800
	170	180		6.0		460	60	0.41	3300
	220	230		6.5					
	270	280		7.0					
	350	360		7.5					
TB100/120	100/2	130	G 3/4	5.5	0.24	220-240	50	0.76	2750
	170	180		6.0		380-420	50	0.44	2750
	220	230		6.5		460	60	0.44	3250
	270	280		7.0					
	350	360		7.5					

Immersion Pumps

are plain 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 dimensions are based on standard specification **EN 12157**.

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

Applications

Types of fluid
coolants
cooling/cutting oils
other fluids on request

Kinematic viscosity
...45 mm²/s (45 cSt)

Pumping temperature
0...60° C

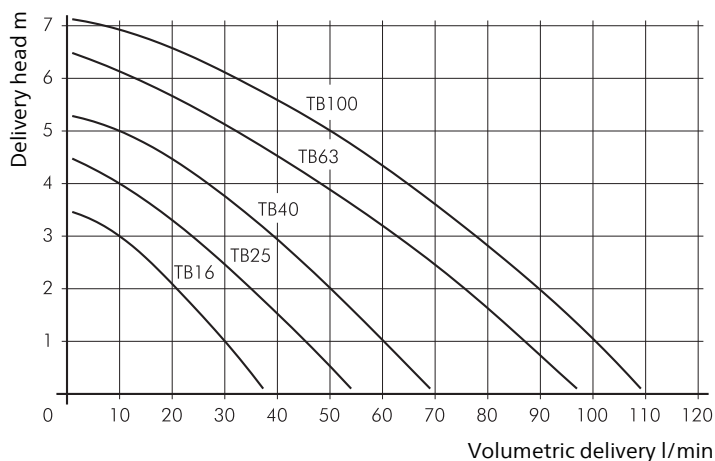
Construction

Pump body	cast iron
Cover	POM
Impeller	POM
Shaft	steel

Optional:	
Cover	cast iron cast iron with thread
Impeller	brass cast iron

Optional:
These models are also available with **single phase motor**.

Noise level	
TB16...TB100	45 dBA

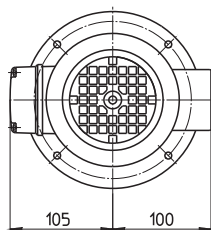
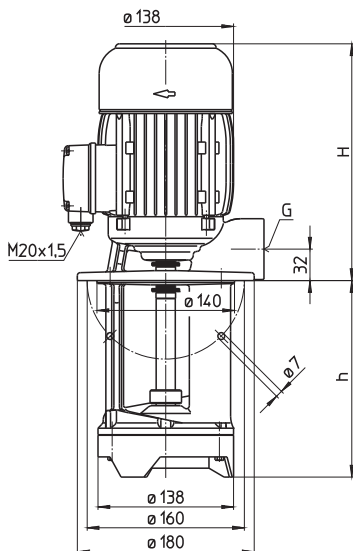


Immersion Pumps

TA160...600

Semi-open impellers

TA160, 250, 400 TA600



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Pipe con- nection	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TA160/200	220/2	223	200	G 1 ¼	12.5	0.5	220-240	50	2.42	2800
	270		270		13.5		380-420	50	1.40	2800
	350		350		14.5		460	60	1.40	3300
	440		440		16.0					
	550		550		17.5					
TA250/200	280/2	223	200	G 1 ¼	12.5	0.63	220-240	50	2.6	2750
	270		270		13.5		380-420	50	1.5	2750
	350		350		14.5		460	60	1.5	3250
	440		440		16.0					
	550		550		17.5					
TA400/200	380/2	264	200	G 1 ½	14.5	0.85	220-240	50	3.64	2850
	270		270		16.0		380-415	50	2.10	2850
	350		350		17.5	0.98	460	60	2	3450
	440		440		19.0					
	550		550		20.5					
TA600/210	500/2	291	210	G 1 ½	17.0	1.1	220-240	50	4.33	2850
	280		280		18.5		380-415	50	2.50	2850
	360		360		19.5	1.27	460	60	2.4	3440
	450		450		21.0					
	560		560		22.5					

Immersion Pumps

are plain 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 dimensions are based on standard specification EN 12157.

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

Applications

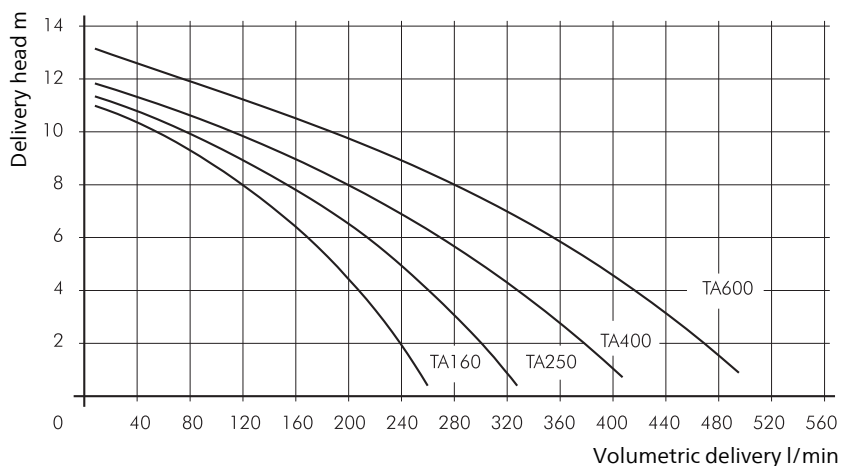
- Types of fluid
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...45 mm²/s (45 cSt)
- Pumping temperature
 - 0...60° C
 - higher temperatures upon request

Construction

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

Noise level

- TA160...TA250 60 dBA
- TA400...TA600 62 dBA

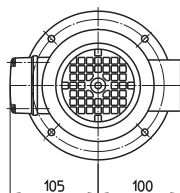
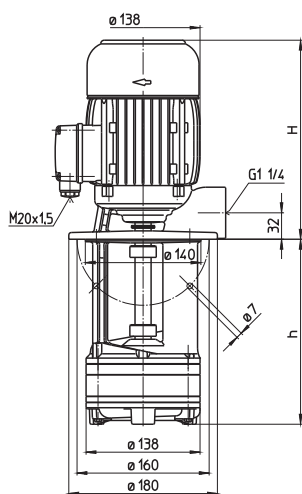


Immersion Pumps

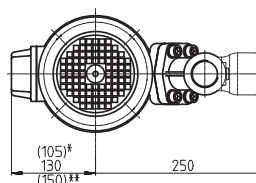
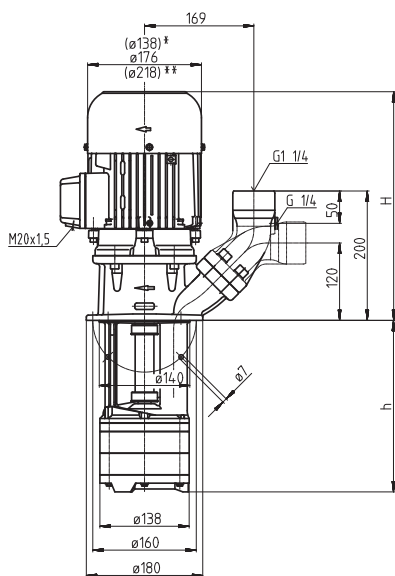
TE/STE141...146

Semi-open impellers

TE141, 142



STE141...146



*) Dimensions for STE141, 142
 **) Dimensions for STE146

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TE141/200	80/11	223	200	13.5	0.5	220-240	50	2.42	2800
270			270	14.5					
350			350	15.5		380-420	50	1.40	2800
440			440	17.0					
550			550	18.5					
TE142/150	80/20	291	150	16.5	1.1	220-240	50	4.33	2850
230			230	18.0					
300			300	18.5	1.27	460	60	2.4	3440
380			380	19.5					
470			470	21.0					
580			580	23.0					
STE141/120	80/11	293	120	17.5					
200			200	18.5					
270			270	19.5	380-420	50	1.40	2800	
350			350	20.5					
440			440	22.0					
550			550	23.5					
STE142/150	80/20	361	150	21.5	1.1	220-240	50	4.33	2850
230			230	23.0					
300			300	23.5	1.27	460	60	2.4	3440
380			380	24.5					
470			470	26.0					
580			580	28.0					
STE143/190	80/33	406	185	32					
270			265	33					
340			335	34	1.95	460	60	3.5	3480
420			415	35					
510			505	36					
620			615	38					
STE144/220	80/45	439	220	36					
300			300	37					
370			370	38	2.55	460	60	4.4	3480
450			450	39					
540			540	41					
650			650	42					
STE145/270	80/56	439	270	40					
350			350	41					
420			420	42	2.94	460	60	5.1	3480
500			500	43					
590			590	44					
700			700	46					
STE146/300	80/70	478	305	52					
380			385	53					
450			455	54	4.55	460	60	7.9	3520
530			535	55					

Immersion Pumps

are plain 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 dimensions are based on standard specification **EN 12157**.

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

The STE serie offers a **(SAE) flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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

Applications

Types of fluid
coolants
cooling/cutting oils

Kinematic viscosity
...45 mm²/s (45 cSt)

Pumping temperature
0...60° C

Construction

Pump body cast iron
Cover cast iron

PPS (TE141, STE141)

Impellers PPS
Shaft steel

Optional:
Cover cast iron (TE141, STE141)

Suction cover with threaded inlet
Impellers brass

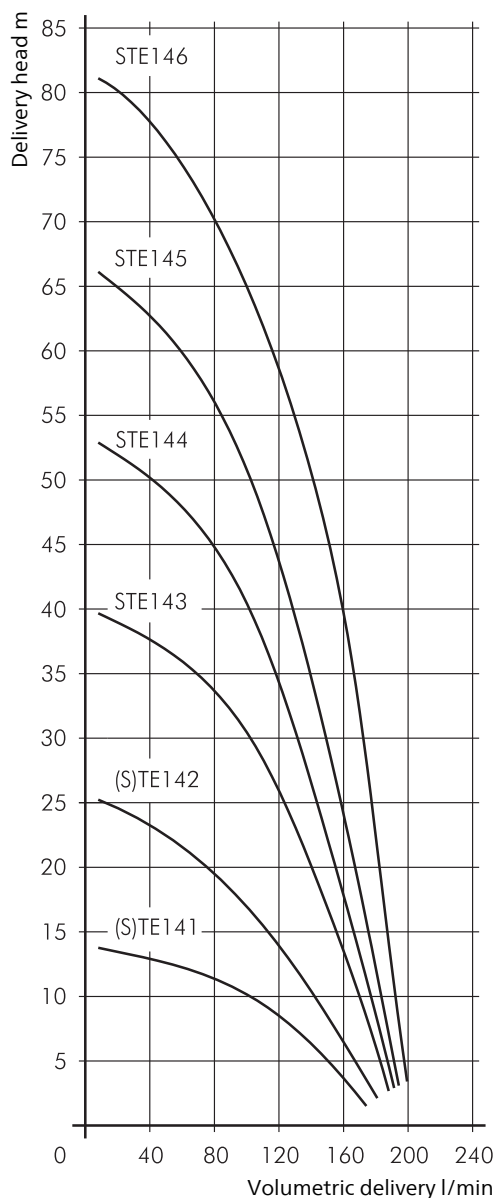
Other materials cast steel on request

Noise level

TE141...STE142 60 dBA

STE143...STE145 68 dBA

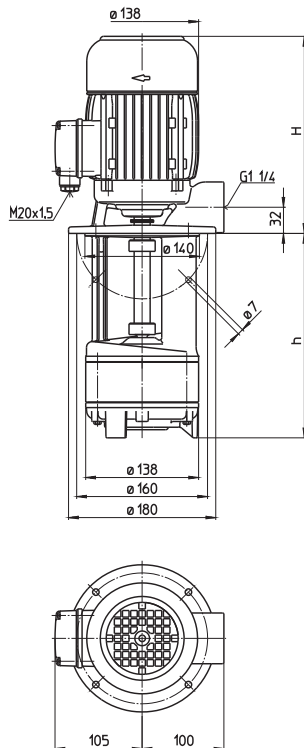
STE146 73 dBA



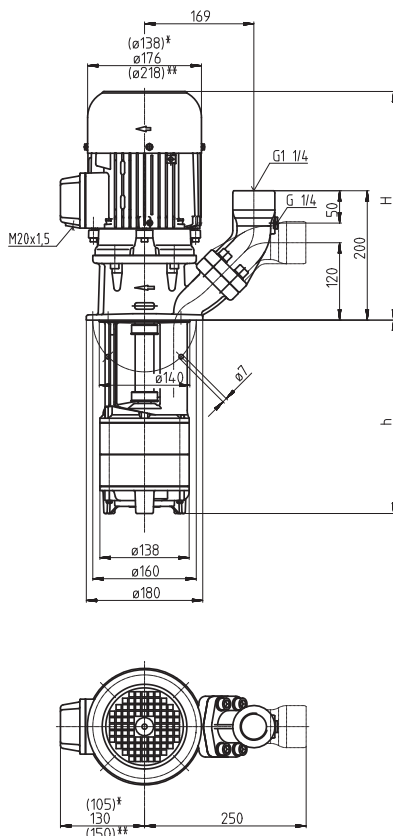
Immersion Pumps TA/STA301...306

Semi-open impellers

TA302



STA301...306



*) Dimensions for STA301, 302
**) Dimensions for STA306

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TA302/170	160/12	291	170	18	1.1	220-240	50	4.33	2850
250			250	19					
320			320	20					
400			400	21	1.27	460	60	2.4	3440
490			490	22					
600			600	24					
STA301/120	160/7	293	120	19.5	0.54	220-240	50	2.42	2800
200			200	20.5					
270			270	21.5					
350			350	22.5	1.27	460	60	1.40	3300
440			440	24.0					
550			550	25.5					
STA302/170	160/12	361	170	26	1.1	220-240	50	4.33	2850
250			250	27					
320			320	28					
400			400	29	1.27	460	60	2.4	3440
490			490	31					
600			600	33					
STA303/220	160/18	380	220	36	1.5	220-240	50	5.5	2880
300			300	37					
370			370	38					
450			450	39	1.75	460	60	3.1	3470
540			540	40					
650			650	42					
850			850	48	2.18	460	60	3.9	3500
1000			1000	50					
STA304/270	160/24	439	270	45					
350			350	46	1.9	220-240	50	6.84	2900
420			420	47					
500			500	49					
590			590	50	2.18	460	60	3.9	3500
700			700	52					
900			900	58					
1050			1050	60	2.6	220-240	50	9.30	2880
STA305/320	160/29	439	320	50					
400			400	51					
470			470	52	2.94	460	60	5.1	3480
550			550	53					
640			640	54					
750			750	56	3.3	220-240	50	11.6	2930
950			950	63					
1100			1100	65					
STA306/370	160/37	478	370	63	3.8	460	60	6.4	3520
450			450	64					
520			520	65					
600			600	66	3.8	460	60	6.4	3520
690			690	67					
800			800	69					
1000			1000	76					


Immersion Pumps


are plain 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 mm/inches below the mounting flange.

The STA serie offers a **(SAE) flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

 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 pump with a connection to the vacuum filters on the suction side. See series STS.

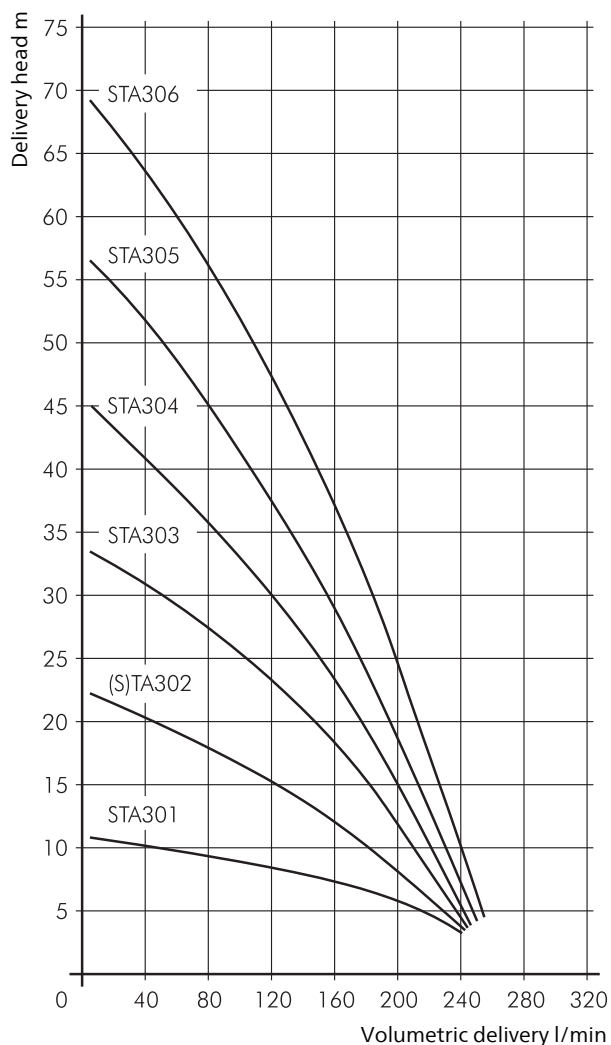
Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C
0...60° C (TA302)
higher temperatures upon request

Construction

Pump body	cast iron
Cover	cast iron POM (TA302)
Impellers	brass POM (TA302)
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impeller	cast steel
Other materials	on request

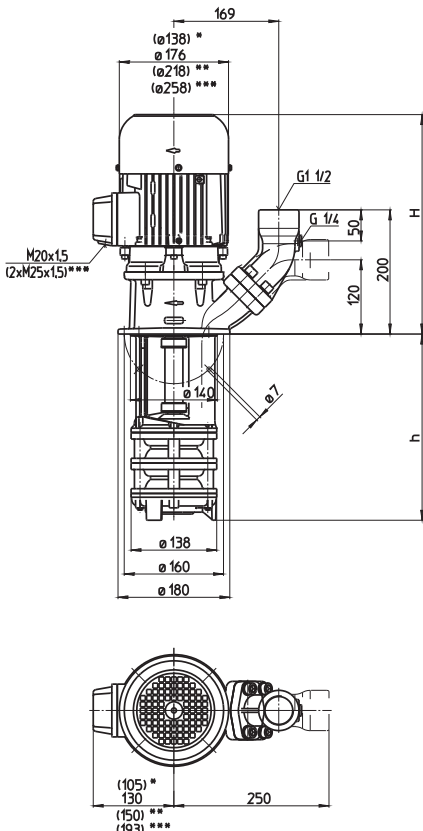
Noise level	
TA302...STA302	60 dBA
STA303...STA305	66 dBA
STA306	71 dBA



STA401...409

Semi-open impellers

STA401...409



- *) Dimensions for STA401
- **) Dimensions for STA405, 406, 407
- ***) Dimensions for STA409

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA401/120	250/5	334	120	21.5	0.85	220-240	50	3.64	2850
200			200	22.5		380-415	50	2.10	2850
270			270	23.5					
350			350	24.5					
440			440	25.5	0.98	460	60	2	3450
550			550	27.5					
750			750	34.0					
900			900	36.0					
STA402/170	250/12	380	170	31.0	1.3	220-240	50	4.85	2900
250			250	32.5		380-415	50	2.80	2900
320			320	33.5					
400			400	34.5	1.49	460	60	2.7	3500
490			490	35.5					
600			600	37.0					
800			800	44.0					
950			950	46.0					
STA403/220	250/20	439	220	40	1.9	220-240	50	6.84	2900
300			300	41		380-415	50	3.95	2900
370			370	42					
450			450	43	2.18	460	60	3.9	3500
540			540	44					
650			650	46					
850			850	52					
1000			1000	55					
STA404/270	250/27	439	270	44	2.6	220-240	50	9.30	2880
350			350	45		380-415	50	5.35	2880
420			420	46					
500			500	48	2.94	460	60	5.1	3480
590			590	49					
700			700	51					
900			900	57					
1050			1050	59					
STA405/320	250/33	478	320	57	3.3	220-240	50	11.6	2930
400			400	58		380-415	50	6.7	2930
470			470	59					
550			550	60	3.8	460	60	6.4	3520
640			640	61					
750			750	64					
950			950	70					
1100			1100	72					
STA406/370	250/39	478	370	59	4.0	220-240	50	14.50	2920
450			450	61		380-415	50	8.35	2920
520			520	62					
600			600	63	4.55	460	60	7.9	3520
690			690	64					
800			800	66					
1000			1000	73					
STA407/420	250/45	508	420	71	5.0	220-240	50	17.3	2920
500			500	72		380-415	50	10.0	2920
570			570	73					
650			650	75	5.75	460	60	9.5	3520
740			740	76					
850			850	78					
STA409/520	250/52	549	520	97	6.0	380-415	50	11.2	2950
600			600	98					
670			670	99	6.9	460	60	10.7	3550
750			750	100					
840			840	102					
950			950	104					


Immersion Pumps


are plain 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 mm/inches below the mounting flange.

The STA serie offers a **(SAE) flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

 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 pump with a connection to the vacuum filters on the suction side. See series STS.

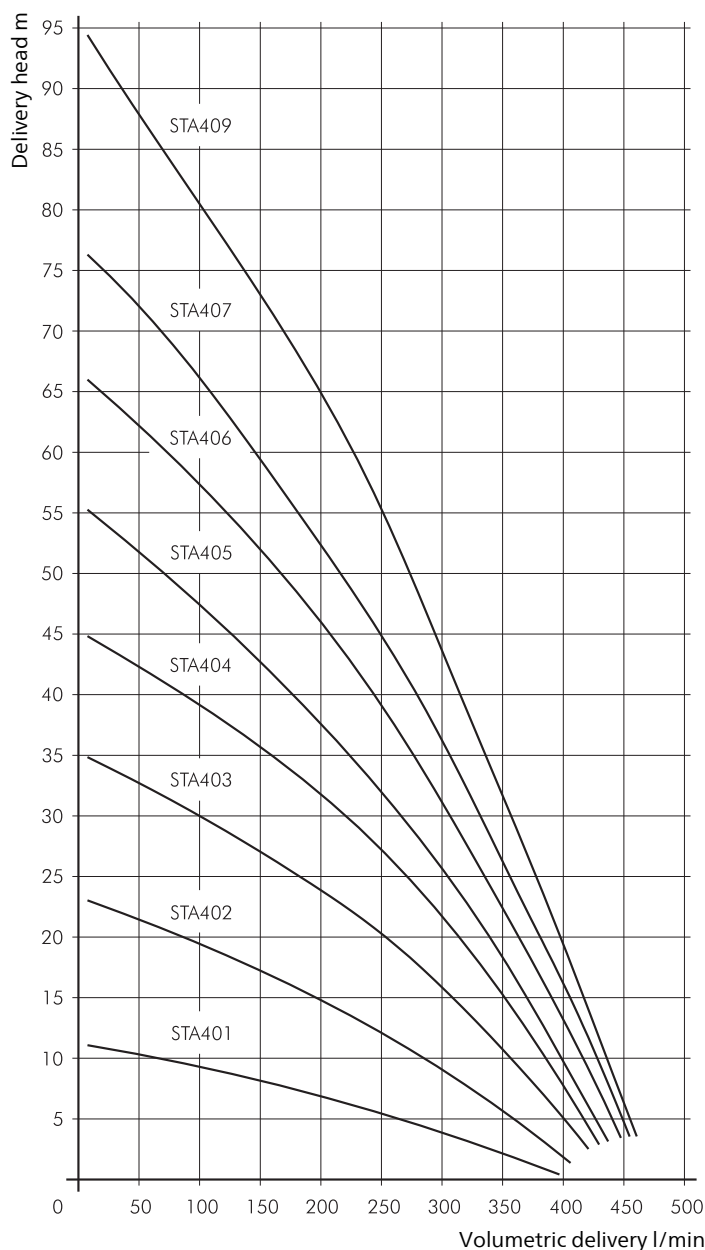


Applications

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

Construction

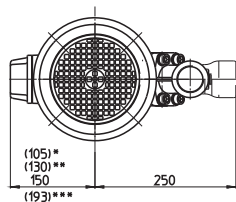
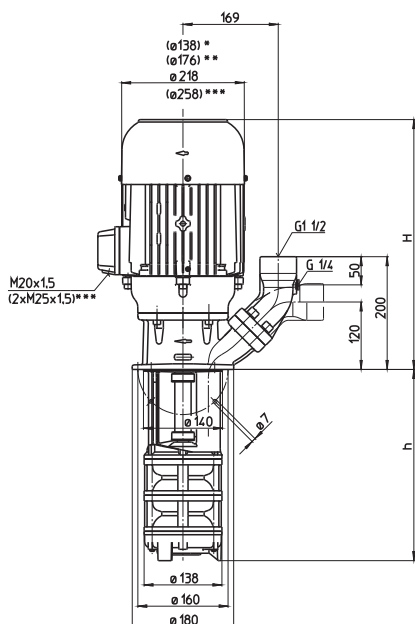
Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impellers	cast steel
Noise level	
STA401	62 dBA
STA402...STA404	66 dBA
STA405...STA407	71 dBA
STA409	74 dBA



STA601...608

Semi-open impellers

STA601...608



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

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA601/130	400/4	361	130	23	1.1	220-240	50	4.33	2850
210			210	24					
280			280	25					
360			360	26	1.27	460	60	2.4	3440
450			450	27					
560			560	29					
760			760	35					
910			910	36					
STA602/200	400/11	439	195	39	2.2	220-240	50	7.8	2890
280			275	40					
350			345	41	2.55	460	60	4.4	3480
430			425	42					
520			515	44					
630			625	46					
830			825	53					
980			975	54					
STA603/260	400/17	478	260	53	3.3	220-240	50	11.6	2930
340			340	54					
410			410	55	3.8	460	60	6.4	3520
490			490	56					
580			580	58					
690			690	59					
890			890	66					
1040			1040	68					
STA604/330	400/23	508	325	62	5.0	220-240	50	17.3	2920
410			405	63					
480			475	65	5.75	460	60	9.5	3520
560			555	66					
650			645	67					
760			755	68					
960			955	75					
1110			1105	77					
STA605/390	400/32	508	390	65	5.5	220-240	50	18.9	2915
470			470	66					
540			540	67	6.3	460	60	10.4	3510
620			620	68					
710			710	70					
820			820	72					
1020			1020	78					
STA607/520	400/45	587	520	102	7.5	380-415	50	13.8	2950
600			600	103					
670			670	104	8.6	460	60	13.5	3550
750			750	106					
840			840	107					
950			950	109					
STA608/580	400/60	587	580	112	9.0	380-415	50	16.6	2955
660			660	113					
730			730	114	10.3	460	60	16.1	3550
810			810	115					
900			900	116					
1010			1010	119					

Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **(SAE) flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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



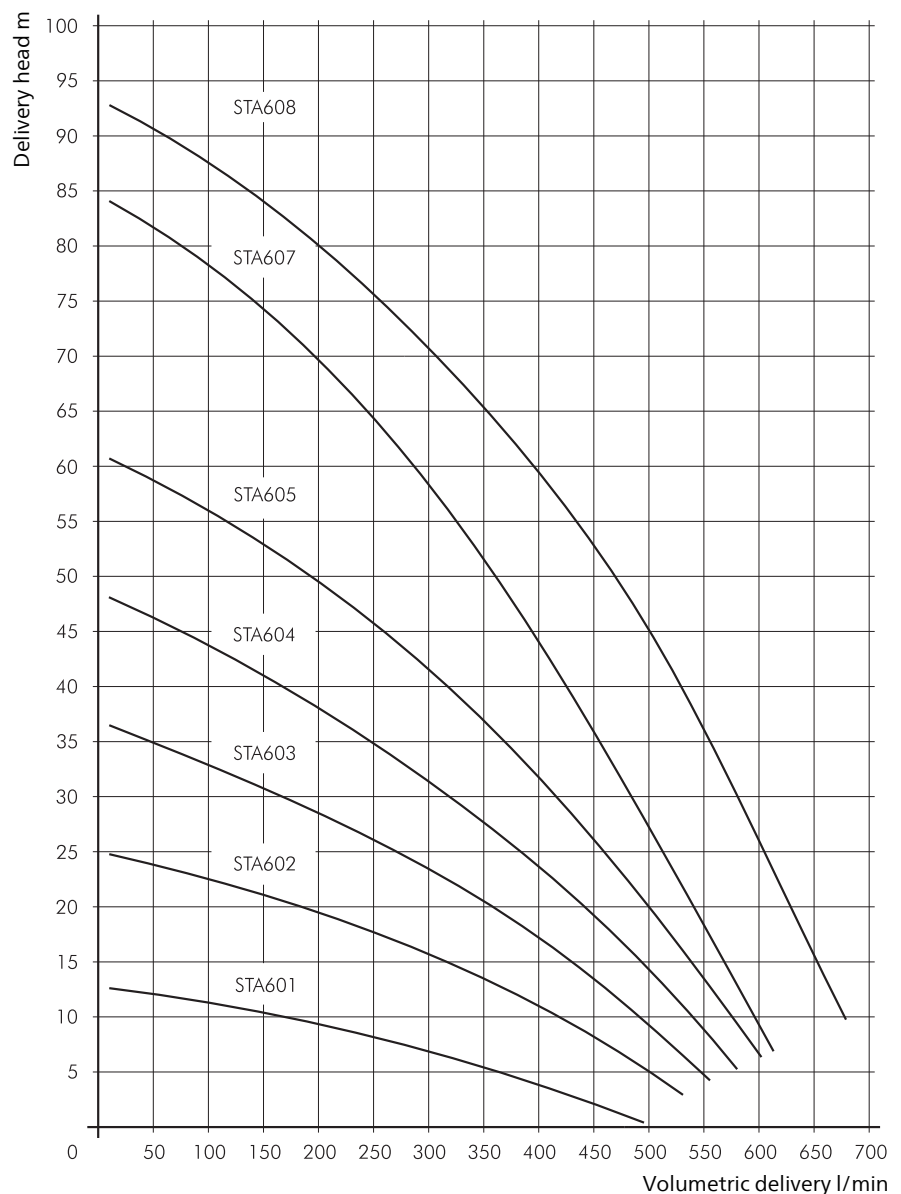
All types are also available as suction immersion pump with a connection to the vacuum filters on the suction side. See series STS.

Applications

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

Construction

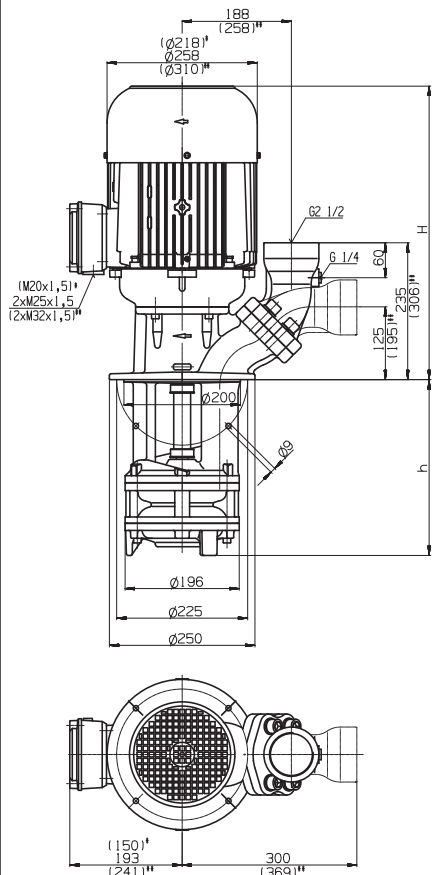
Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Impellers	cast steel
Noise level	
STA601	62 dBA
STA602	66 dBA
STA603...STA605	71 dBA
STA607...STA608	74 dBA



STA901...904

Semi-open impellers

STA901, 902 STA903, 904



*) Dimensions for STA901

**) Dimensions for STA904

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA901/200	600/12	503	200	61	3.3	220-240	50	11.6	2930
300			300	65					
430			430	68	3.8	460	60	6.4	3520
550			550	72					
750			750	85					
980			980	91					
1100			1100	95					
STA902/270	600/24	574	270	98	6.0	380-415	50	11.2	2950
370			370	102	6.9	460	60	10.7	3550
500			500	105					
620			620	108					
820			820	121					
1050			1050	127					
1170			1170	133					
STA903/340	600/38	612	340	119	9.0	380-415	50	16.6	2955
440			440	122	10.3	460	60	16.1	3550
570			570	126					
690			690	130					
890			890	143					
1120			1120	149					
STA904/410	600/55	620	410	150	11.0	380-415	50	20.1	2960
510			510	153	12.6	460	60	19.5	3560
640			640	157					
760			760	161					
960			960	176					
1190			1190	180					

Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



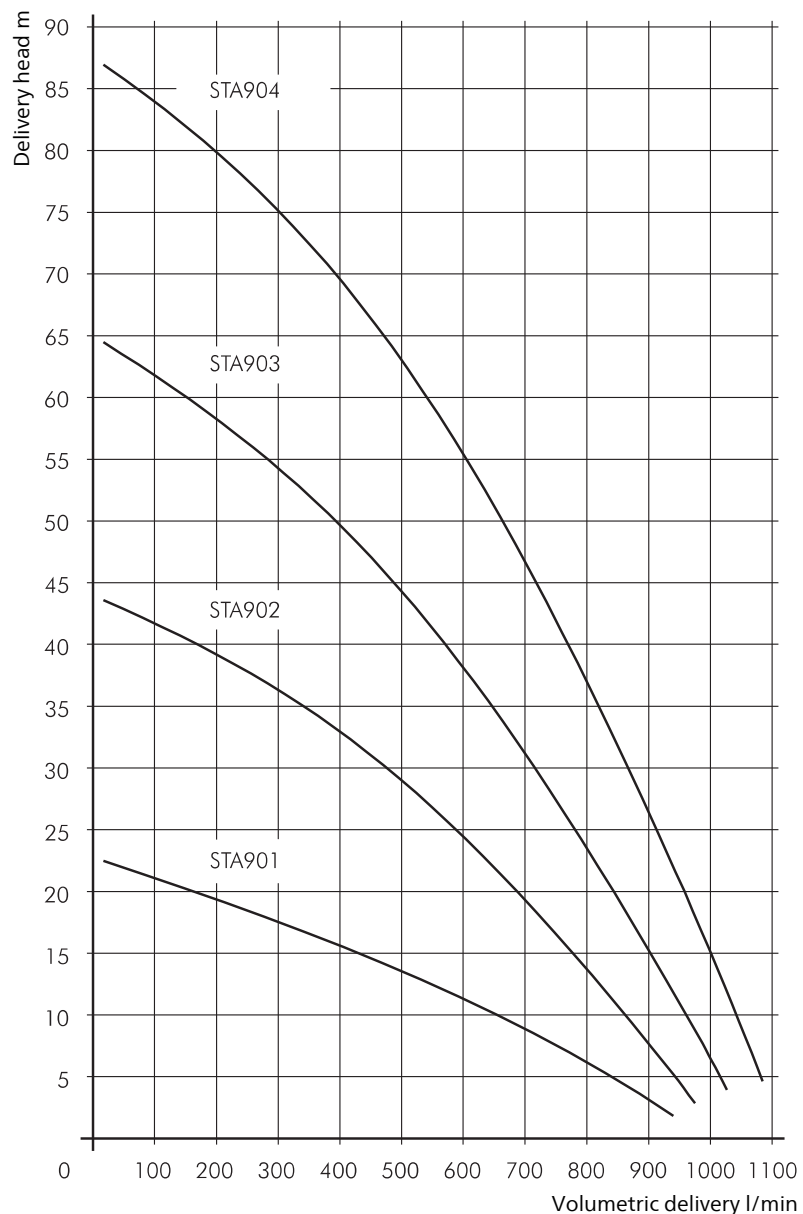
All types are also available as quick-suctioning immersion pumps equipped with "BRINKMANN's Suction De-aeration System". See series SAL.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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...STA904	74 dBA

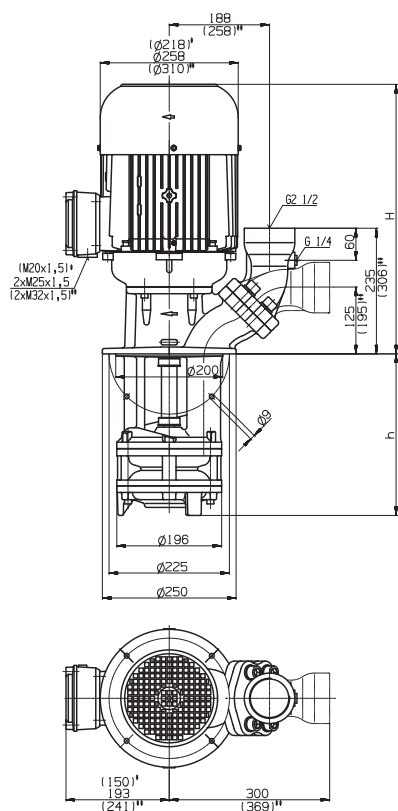


Immersion Pumps

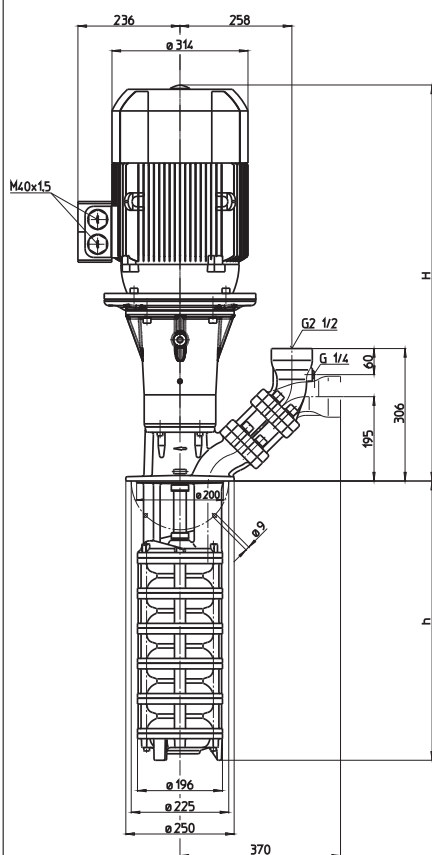
STA1001...1006

Semi-open impellers

STA1001...1004



STA1006



*) Dimensions for STA1001
 **) Dimensions for STA1004

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA1001/210	600/15	503	210	61	3.3	220-240	50	11.6	2930
310			310	64					
440			440	69					
560			560	73	3.8	460	60	6.4	3520
760			760	85					
990			990	91					
1110			1110	95					
STA1002/290	600/26	574	290	99	6.0	380-415	50	11.2	2950
390			390	102	6.9	460	60	10.7	3550
520			520	106					
640			640	110					
840			840	122					
1070			1070	129					
1190			1190	133					
STA1003/370	600/40	612	370	121	9.0	380-415	50	16.6	2955
470			470	124	10.3	460	60	16.1	3550
600			600	128					
720			720	132					
920			920	145					
1150			1150	151					
STA1004/450	600/57	620	450	153	13.0	380-415	50	24.2	2960
550			550	157	15.0	460	60	23.6	3560
680			680	160					
800			800	163					
1000			1000	175					
1230			1230	178					
STA1006/610	600/86	974	610	202	18.5	400	50	32	2955
710			710	206	21.3	460	60	32	3555
840			840	211					
960			960	215					

Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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 pump with a connection to the vacuum filters on the suction side. See series STS.

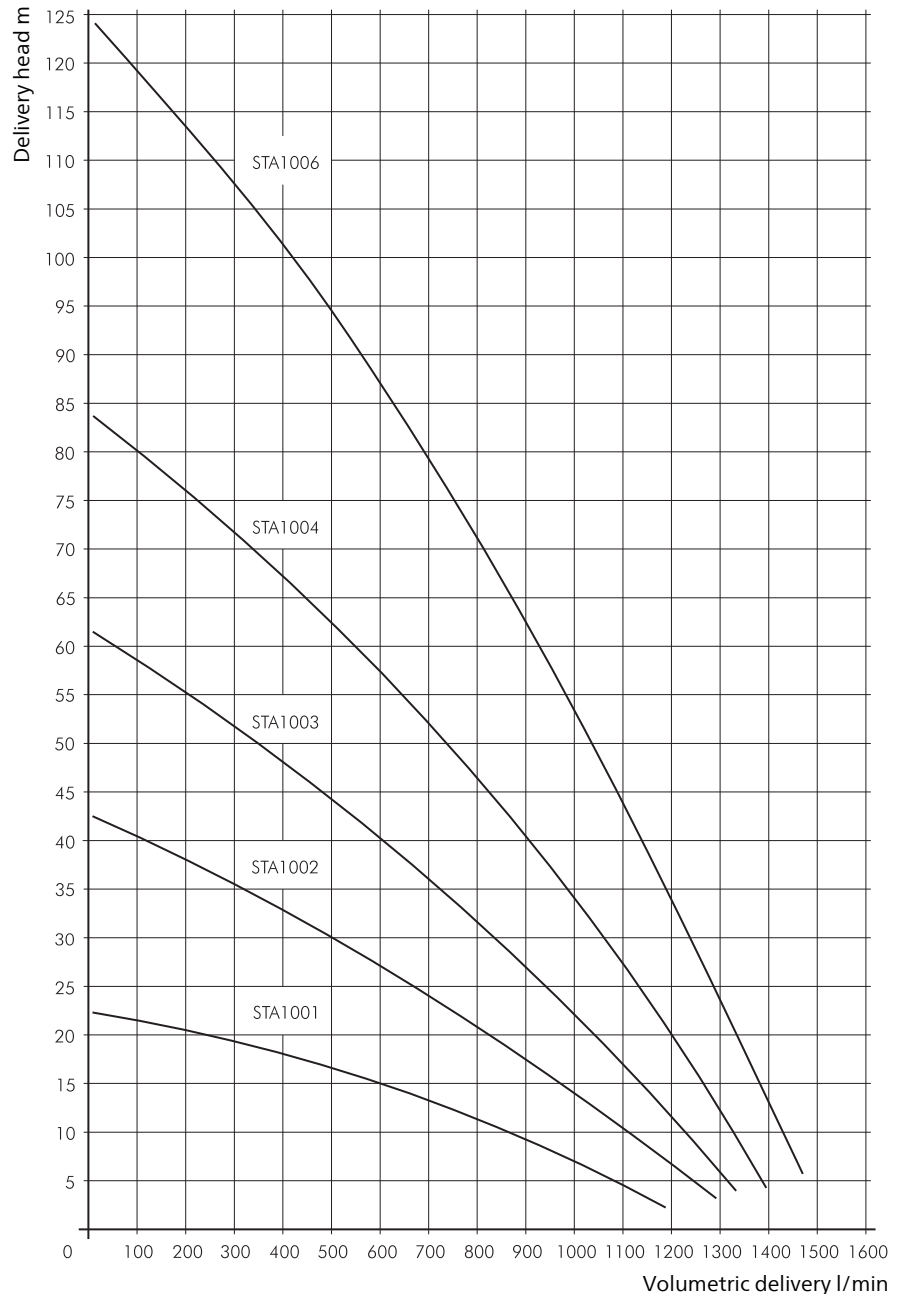


Applications

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

Construction

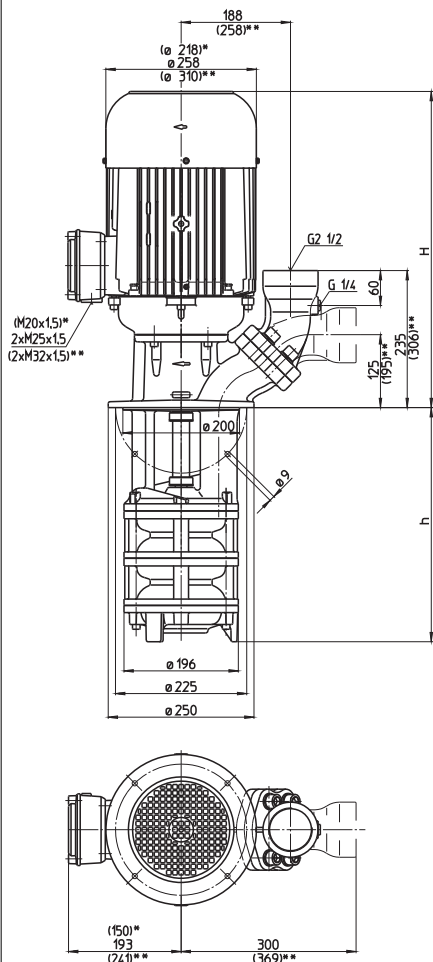
Pump body	cast iron
Cover	cast iron
Impellers	cast steel
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Other materials	on request
Noise level	
STA1001	71 dBA
STA1002...STA1004	74 dBA
STA1006	78 dBA



STA1301...1303

Semi-open impellers

STA1301, 1302 STA1303



*) Dimensions for STA1301
**) Dimensions for STA1303

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA1301/210	900/12	533	210	68	5.0	220-240	50	17.3	2920
310			310	71					
440			440	75					
560			560	80	5.75	460	60	9.5	3520
760			760	90					
990			990	97					
1110			1110	100					
STA1302/290	900/27	612	290	108	7.5	380-415	50	13.8	2950
390			390	110	8.6	460	60	13.5	3550
520			520	113					
640			640	118					
840			840	130					
1070			1070	137					
STA1303/370	900/40	620	370	143	11.0	380-415	50	20.1	2960
470			470	146	12.6	460	60	19.5	3560
600			600	151					
720			720	155					
920			920	167					
1150			1150	174					

Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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

Applications

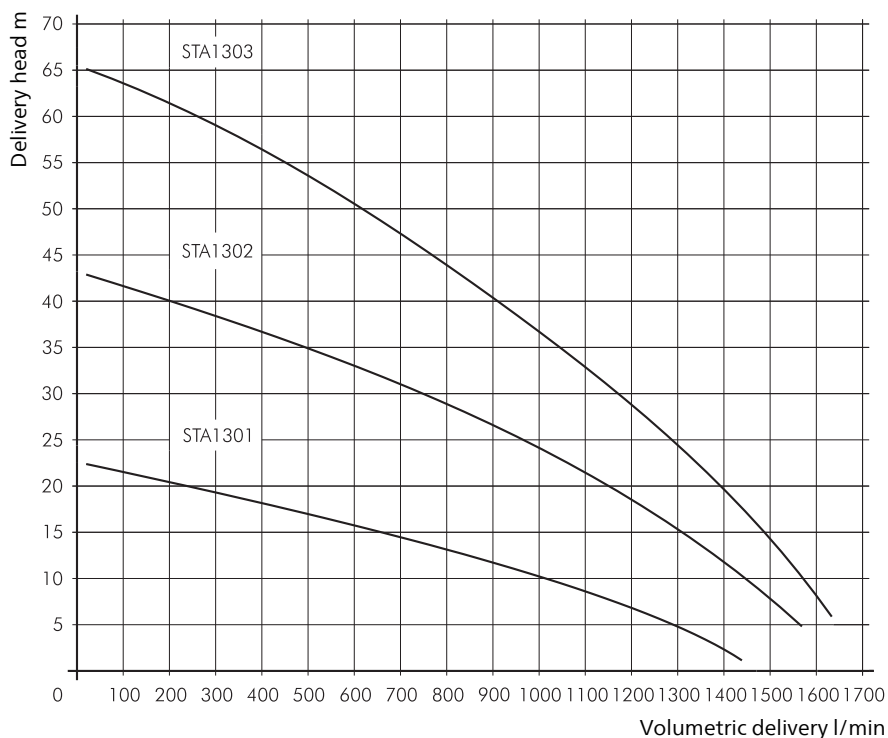
Types of fluid
coolants
cooling/cutting oils

Kinematic viscosity
...45 mm²/s (45 cSt)

Pumping temperature
0...80° C
higher temperatures upon request

Construction

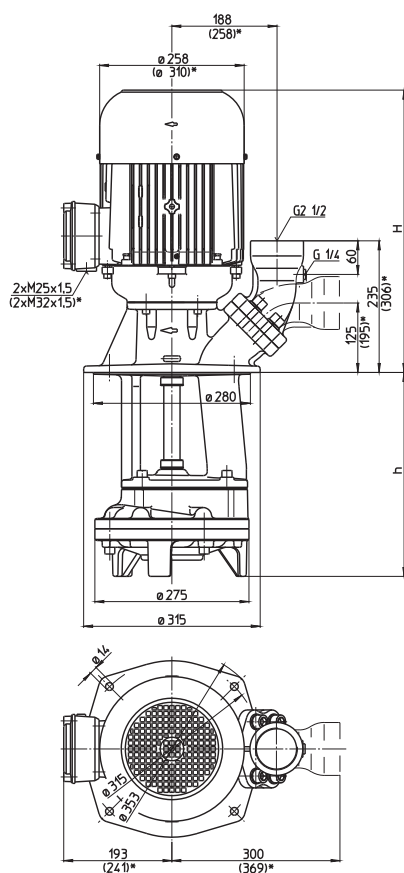
Pump body	cast iron
Cover	cast iron
Impellers	cast steel
Shaft	steel
Optional:	
Suction cover	with threaded inlet
Other materials	on request
Noise level	
STA1301	71 dBA
STA1302...STA1303	74 dBA



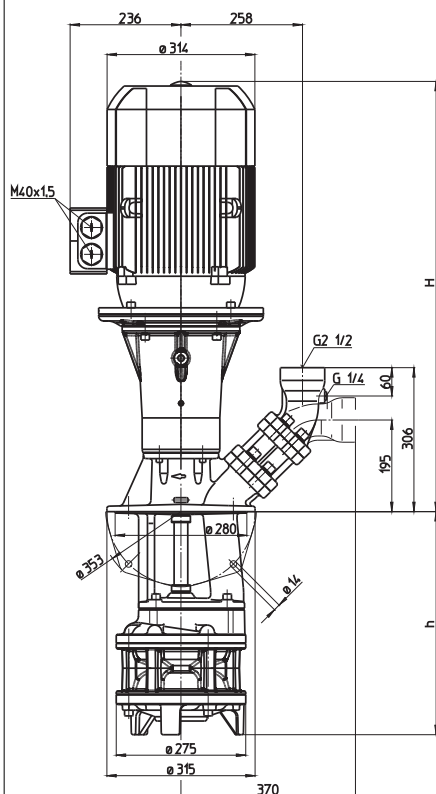
Immersion Pumps STA1600...2500

Semi-open impellers

STA1600, 2000



STA1602...2500



*) Dimensions for STA2000

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA1600/300	1300/15	612	300	133	9.0	380-415	50	16.6	2955
	430		430	135					
	550		550	142					
	800		800	159					
	1050		1050	169					
STA2000/300	1600/15	620	300	157	11.0	380-415	50	20.1	2960
	430		430	159					
	550		550	166					
	800		800	183					
	1050		1050	186					
STA1602/410	1300/37	974	410	229	18.5	400	50	32	2955
	540		540	235					
	660		660	239					
	910		910	246					
	1160		1160	250					
STA2002/410	1600/47	978	410	249	22.0	400	50	38.5	2950
	540		540	255					
	660		660	259					
	910		910	266					
	1160		1160	270					
STA2500/330	2200/20	974	330	200	18.5	400	50	32	2955
	460		460	205					
	580		580	210					
	830		830	227					
	1080		1080	230					


Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

 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

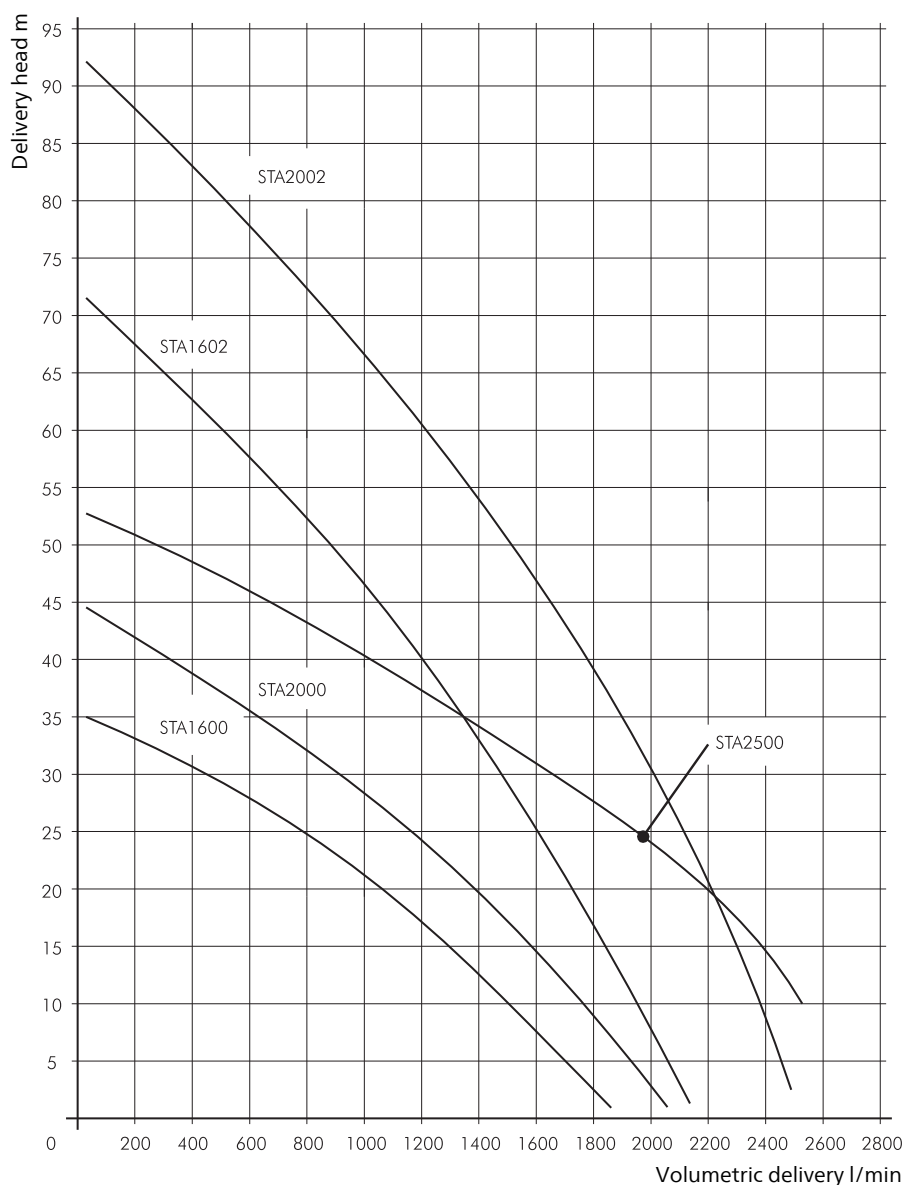
Kinematic viscosity
...45 mm²/s (45 cSt)

Pumping temperature
0...80° C

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Other materials	on request

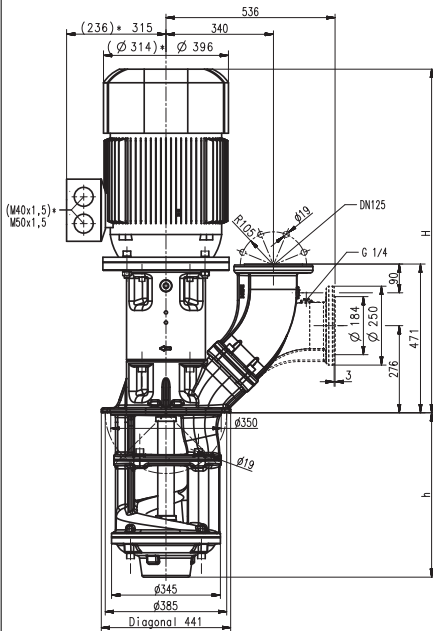
Noise level	
STA1600...STA2000	74 dBA
STA1602...STA2500	78 dBA



Immersion Pumps STA3600...4500

Semi-open impellers

STA3600, 4500



*) Dimensions for STA3600

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
STA3600/520	3500/20	1041	521	331	22.0	400	50	38.5	2950
	720		721	346					
	920		921	361	25.3	460	60	38.9	3550
	1270		1271	426					
STA4500/520	4500/30	1115	521	428	37.0	400	50	65	2955
	720		721	443					
	920		921	458	41.5	460	60	63	3555
	1270		1271	523					

Immersion Pumps

are plain 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 mm/inches below the mounting flange.

The STA serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

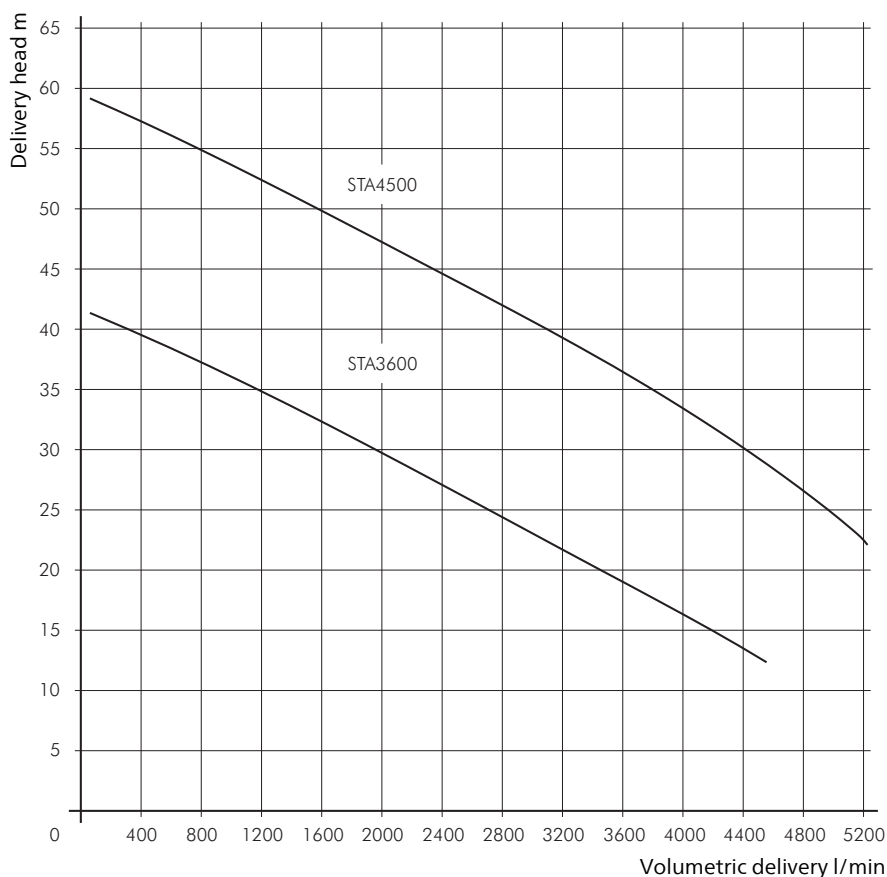
Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Other materials	on request

Noise level	
STA3600	82 dBA
STA4500	84 dBA

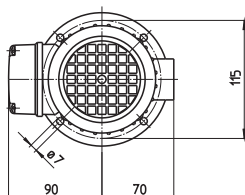
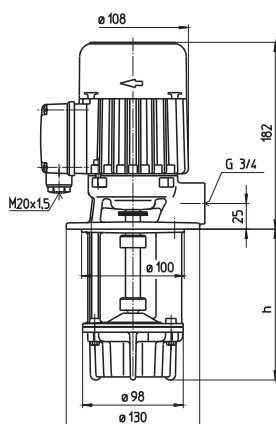


Quick Suctioning Immersion Pumps

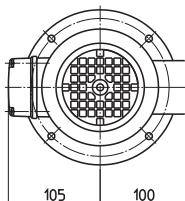
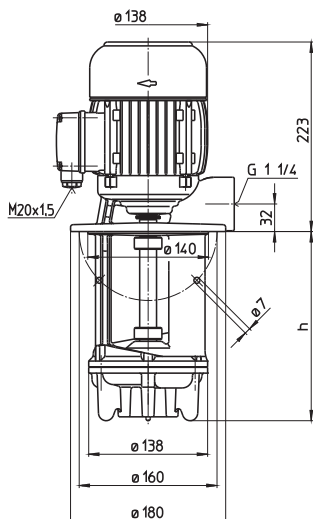
TL50...TAL200

Axial/semi-open impellers

TL50



TAL200



Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TL50/110	40/2	182	120	6.0	0.22	220-240	50	0.95	2700
140			145	6.4		380-420	50	0.55	2700
190			195	6.6		460	60	0.55	3200
240			245	7.0					
290			295	7.3					
370			375	8.0					
TAL200/140	200/4	223	140	13.5	0.55	220-240	50	2.50	2750
220			220	14.0		380-420	50	1.45	2750
290			290	15.0		460	60	1.45	3250
370			370	16.0					
460			460	17.0					
570			570	19.0					

Quick Suctioning Immersion Pumps

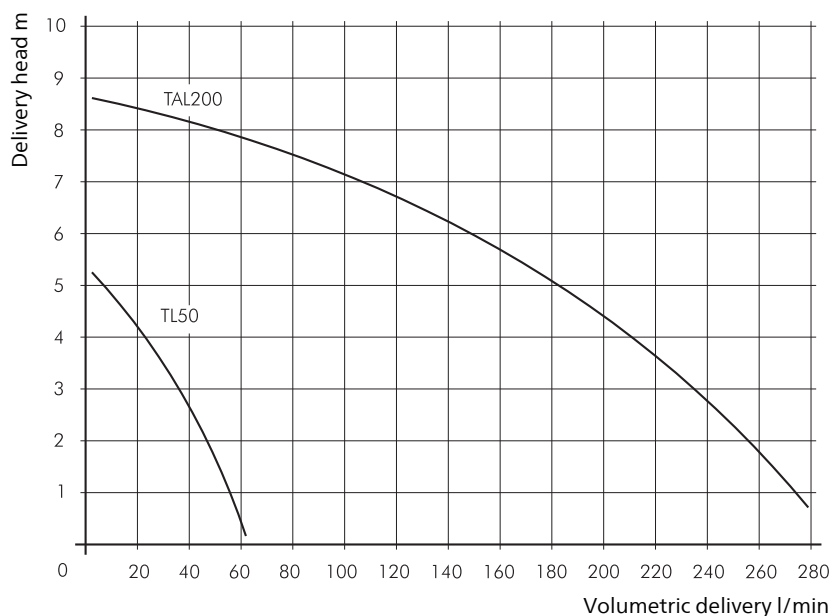
equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to pumping **extremely inflated fluids** (emulsions resp. cooling/cutting oils) as they occur in heavy cutting when turning, milling or grinding. The quick suctioning immersion pumps reach stable working conditions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

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a (SAE) flange with pressure gauge connection port.

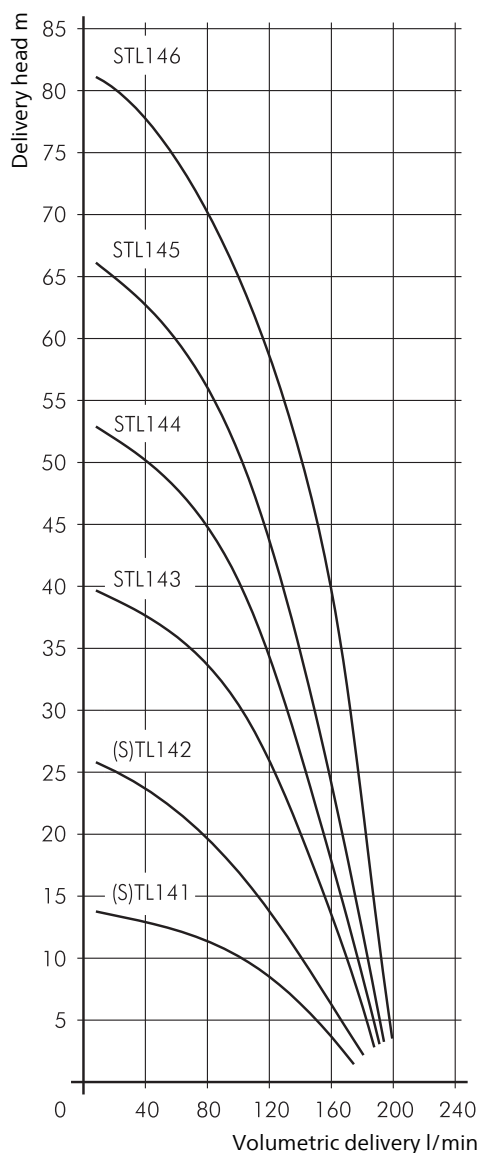
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

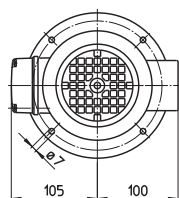
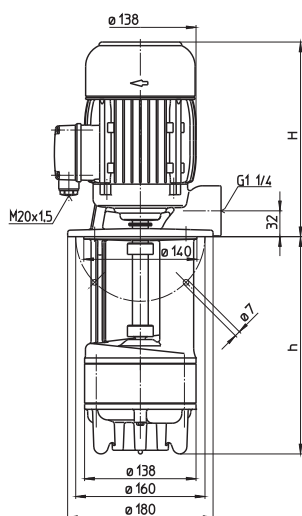


Quick Suctioning Immersion Pumps

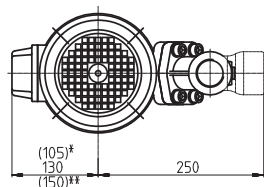
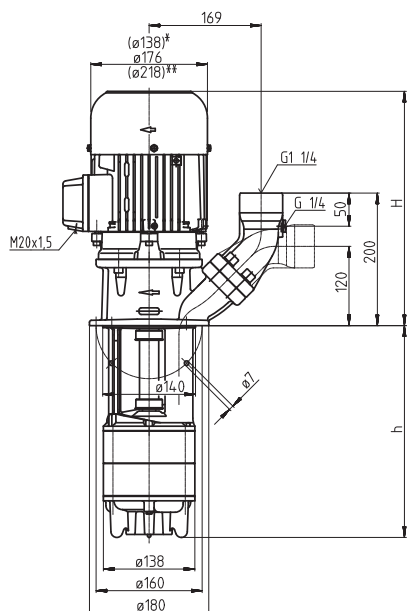
TAL/SAL301...306

Axial/semi-open impellers

TAL302



SAL301...306



*) Dimensions for SAL301, 302

**) Dimensions for SAL306

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TAL302/190	160/12	291	190	20.5	1.1	220-240	50	4.33	2850
270			270	21.0		380-415	50	2.50	2850
340			340	21.5	1.27	460	60	2.4	3440
420			420	22.5					
510			510	24.0					
620			620	25.5					
SAL301/140	160/7	293	140	20	0.54	220-240	50	2.42	2800
220			220	21		380-420	50	1.40	2800
290			290	22	1.27	460	60	1.40	3300
370			370	23					
460			460	25					
570			570	29	1.1	220-240	50	4.33	2850
SAL302/190	160/12	361	190	26.5					
270			270	27.5					
340			340	28.5					
420			420	30.0					
510			510	31.5					
620			620	33.5	1.27	460	60	2.4	3440
SAL303/240	160/18	380	240	37					
320			320	38	1.5	220-240	50	5.5	2880
390			390	39					
470			470	40	1.75	460	60	3.1	3470
560			560	41					
670			670	43					
870			870	49					
1020			1020	51					
SAL304/290	160/24	439	290	46	1.9	220-240	50	6.84	2900
370			370	47					
440			440	48	2.18	460	60	3.9	3500
520			520	50					
610			610	51					
720			720	53					
920			920	59					
1070			1070	61					
SAL305/340	160/29	439	340	51	2.6	220-240	50	9.30	2880
420			420	52					
490			490	53	2.94	460	60	5.1	3480
570			570	54					
660			660	55					
770			770	57					
970			970	64					
1120			1120	66	3.3	220-240	50	11.6	2930
SAL306/390	160/37	478	390	64					
470			470	65					
540			540	66					
620			620	67					
710			710	68					
820			820	70	3.8	460	60	6.4	3520
1020			1020	77					

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a (SAE) flange with pressure gauge connection port.

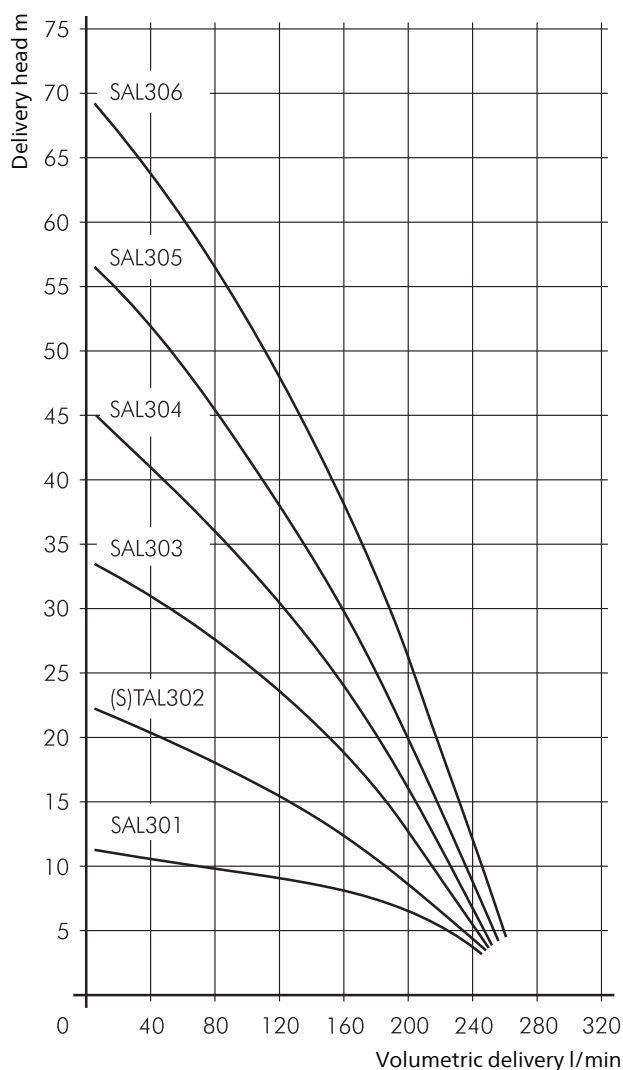
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

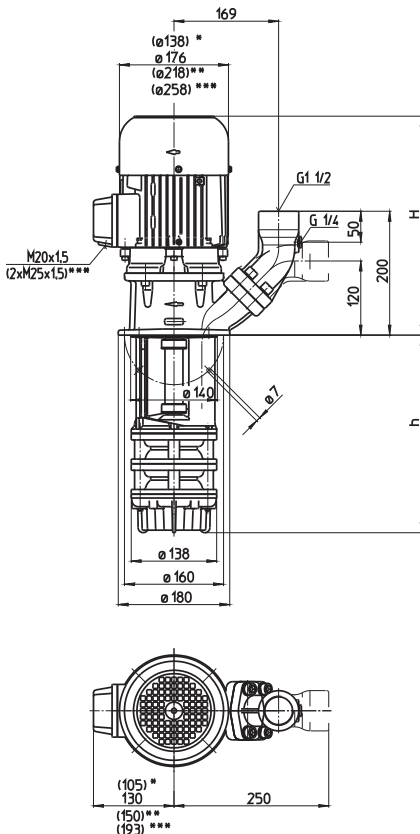


Quick Suctioning Immersion Pumps

SAL401...409

Axial/semi-open impellers

SAL401...409



- *) Dimensions for SAL401
- **) Dimensions for SAL405, 406, 407
- ***) Dimensions for SAL409

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min					
SAL401/140	250/5	334	140	22	0.85	220-240	50	3.64	2850					
220			220	23										
290			290	24										
370			370	25	0.98	460	60	2	3450					
460			460	27										
570			570	28										
770			770	35										
920			920	37										
SAL402/190	250/11	380	190	32	1.3	220-240	50	4.85	2900					
270			270	33										
340			340	34	1.49	460	60	2.7	3500					
420			420	35										
510			510	37										
620			620	38										
820			820	45										
970			970	47										
SAL403/240	250/19	439	240	41						1.9	220-240	50	6.84	2900
320			320	42										
390			390	43	2.18	460	60	3.9	3500					
470			470	44										
560			560	45										
670			670	47										
870			870	53										
1020			1020	56										
SAL404/290	250/25	439	290	45						2.6	220-240	50	9.30	2880
370			370	46										
440			440	47	2.94	460	60	5.1	3480					
520			520	49										
610			610	50										
720			720	52										
920			920	58										
1070			1070	60										
SAL405/340	250/30	478	340	58						3.3	220-240	50	11.6	2930
420			420	59										
490			490	60	3.8	460	60	6.4	3520					
570			570	61										
660			660	62										
770			770	65										
970			970	71										
1120			1120	73										
SAL406/390	250/38	478	390	60						4.0	220-240	50	14.50	2920
470			470	62										
540			540	63	4.55	460	60	7.9	3520					
620			620	64										
710			710	65										
820			820	67										
1020			1020	74										
SAL407/440	250/44	508	440	72						5.0	220-240	50	17.3	2920
520			520	73										
590			590	74	5.75	460	60	9.5	3520					
670			670	76										
760			760	77										
870			870	79										
SAL409/540	250/53	549	540	98						6.0	380-415	50	11.2	2950
620			620	99										
690			690	100	6.9	460	60	10.7	3550					
770			770	101										
860			860	103										
970			970	105										

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a (SAE) flange with pressure gauge connection port.

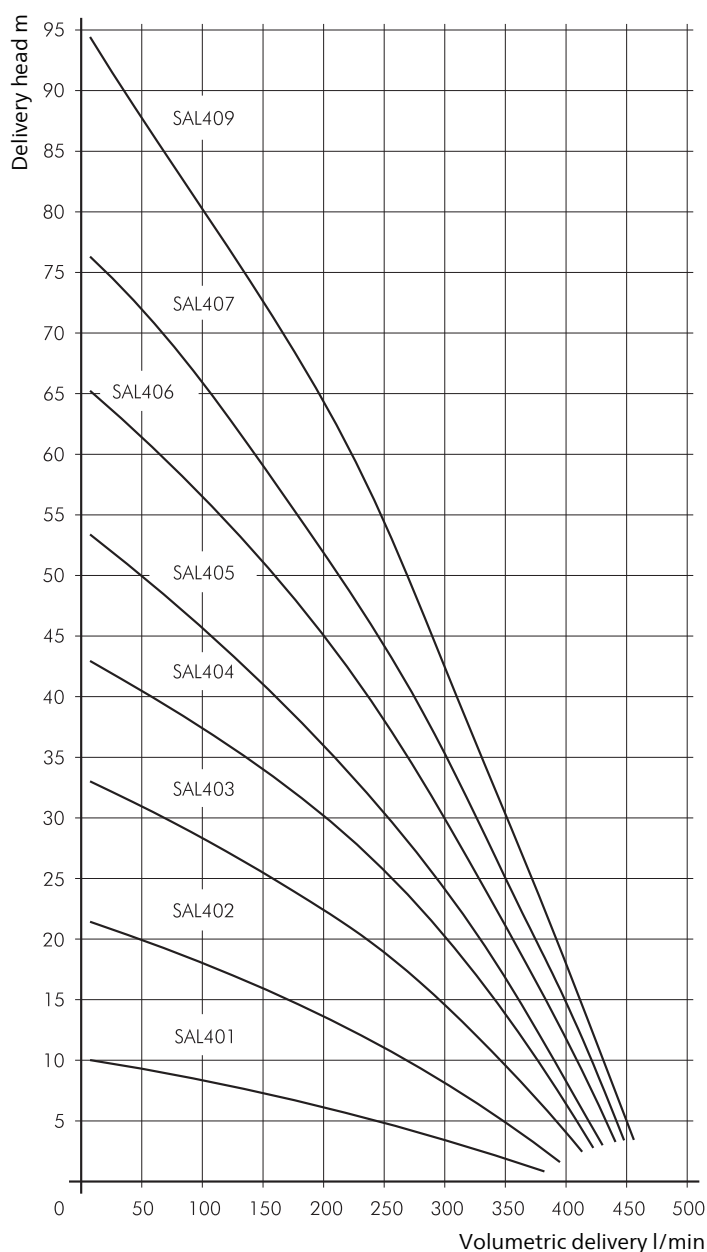
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

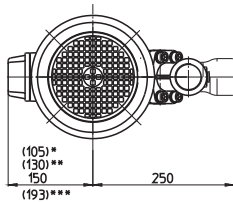
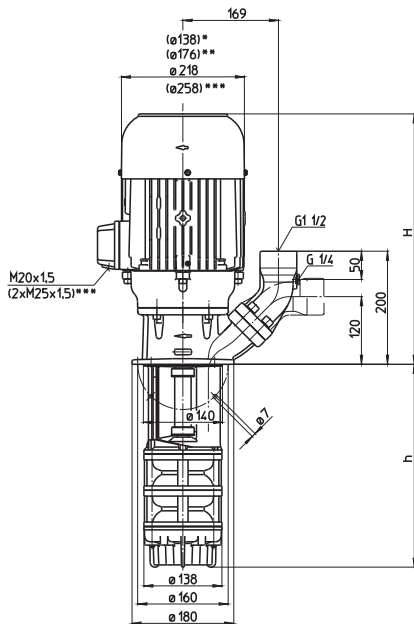


Quick Suctioning Immersion Pumps

SAL601...608

Axial/semi-open impellers

SAL601...608



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

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min					
SAL601/150	400/3	361	150	23.5	1.1	220-240	50	4.33	2850					
230			230	24.5										
300			300	25.5	1.27	460	60	2.4	3440					
380			380	27.0										
470			470	28.0										
580			580	30.0										
780			780	36.0										
930			930	38.0										
SAL602/220	400/10	439	215	40						2.2	220-240	50	7.8	2890
300			295	41										
370			365	42	2.55	460	60	4.4	3480					
450			445	43										
540			535	45										
650			645	47										
850			845	54										
1000			995	55										
SAL603/280	400/16	478	280	54						3.3	220-240	50	11.6	2930
360			360	55										
430			430	56	3.8	460	60	6.4	3520					
510			510	57										
600			600	59										
710			710	61										
910			910	67										
1060			1060	69										
SAL604/350	400/23	508	345	63						5.0	220-240	50	17.3	2920
430			425	64										
500			495	65	5.75	460	60	9.5	3520					
580			575	67										
670			665	68										
780			775	69										
980			975	76										
1130			1125	78										
SAL605/410	400/32	508	410	66						5.5	220-240	50	18.9	2915
490			490	67										
560			560	68	6.3	460	60	10.4	3510					
640			640	69										
730			730	71										
840			840	73										
1040			1040	79										
SAL607/540	400/44	587	540	103						7.5	380-415	50	13.8	2950
620			620	104										
690			690	105	8.6	460	60	13.5	3550					
770			770	106										
860			860	108										
970			970	109										
SAL608/600	400/57	587	600	113	9.0	380-415	50	16.6	2955					
680			680	114										
750			750	115	10.3	460	60	16.1	3550					
830			830	116										
920			920	117										
1030			1030	120										

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN" s Suction De-aeration System" are excellently suited to 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 serie offers a (SAE) flange with pressure gauge connection port.

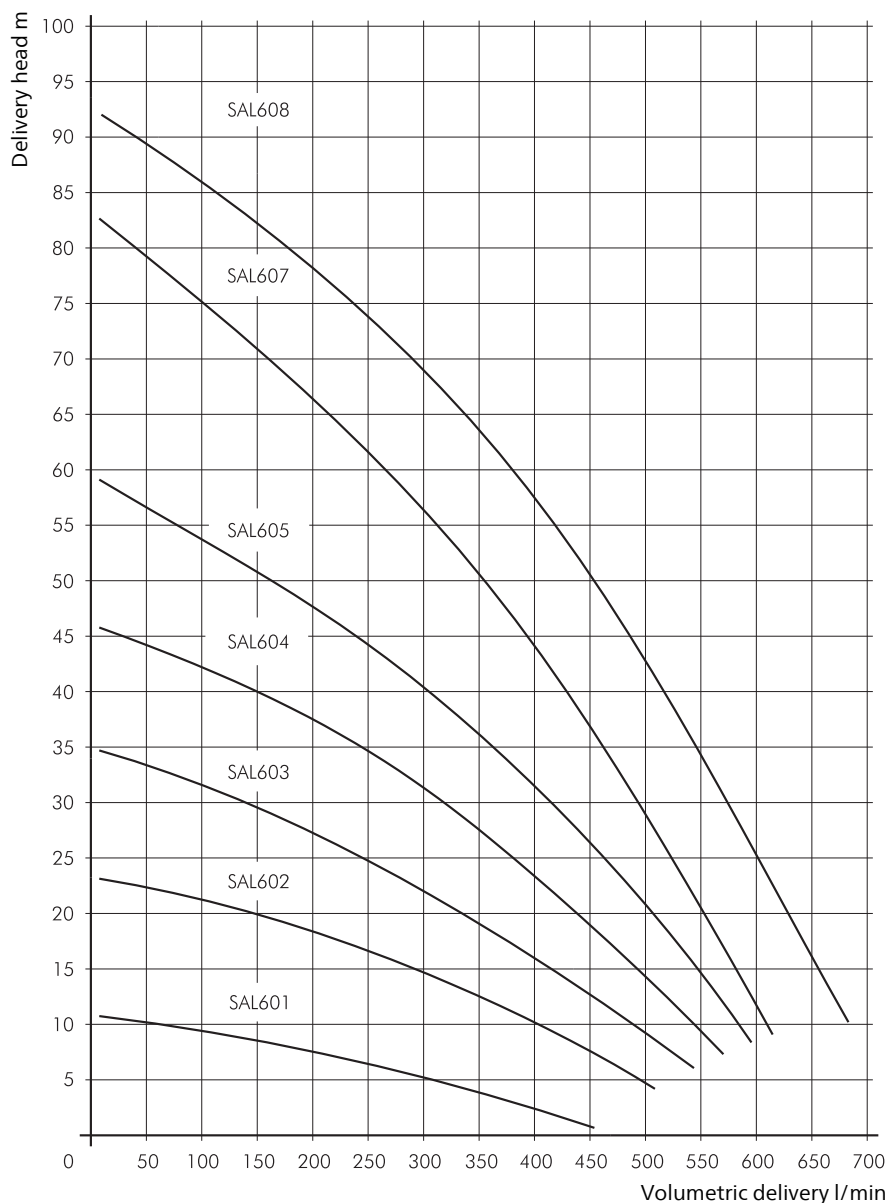
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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

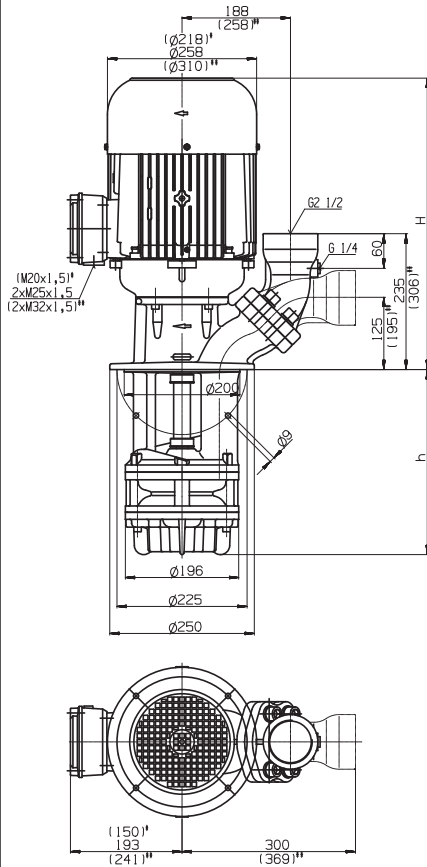


Quick Suctioning Immersion Pumps

SAL901...904

Axial/semi-open impellers

SAL901, 902 SAL903, 904



*) Dimensions for SAL901
**) Dimensions for SAL904

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SAL901/220	600/12	503	220	62	3.3	220-240	50	11.6	2930
	320		320	66					
	450		450	69	3.8	460	60	6.4	3520
	570		570	73					
	770		770	86					
	1000		1000	92					
1120		1120	97						
SAL902/290	600/21	574	290	99	6.0	380-415	50	11.2	2950
	390		390	103	6.9	460	60	10.7	3550
	520		520	106					
	640		640	109					
	840		840	122					
	1070		1070	128					
1190		1190	134						
SAL903/360	600/33	612	360	121	9.0	380-415	50	16.6	2955
	460		460	124	10.3	460	60	16.1	3550
	590		590	127					
	710		710	131					
	910		910	144					
	1140		1140	150					
SAL904/430	600/48	620	430	151	11.0	380-415	50	20.1	2960
	530		530	154	12.6	460	60	19.5	3560
	660		660	159					
	780		780	162					
	980		980	177					
	1210		1210	181					

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

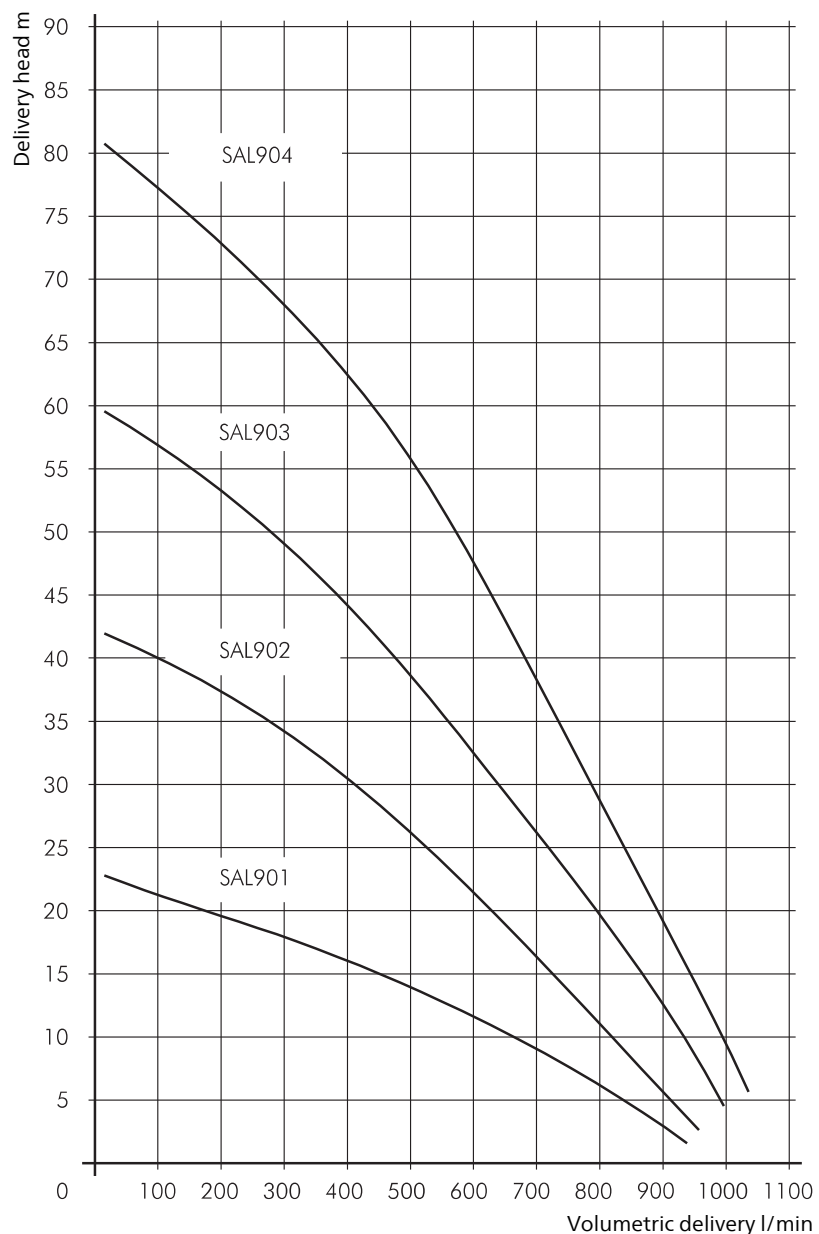
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

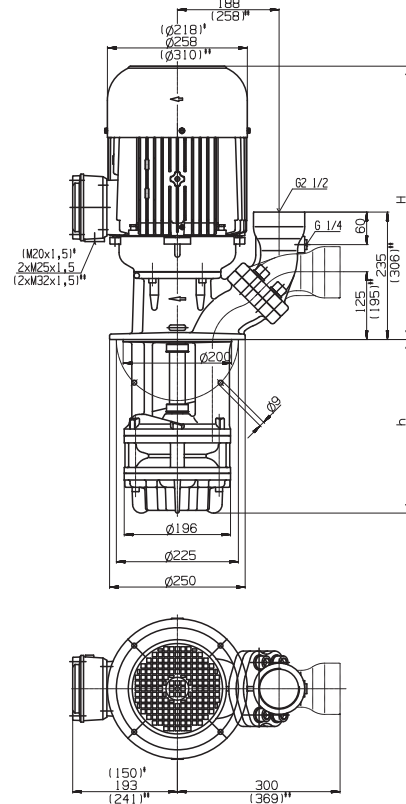


Quick Suctioning Immersion Pumps

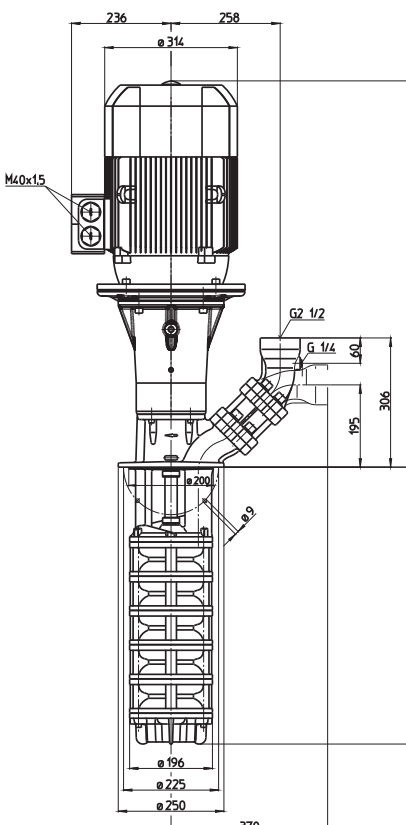
SAL1001...1006

Axial/semi-open impellers

SAL1001...1004



SAL1006



*) Dimensions for SAL1001
**) Dimensions for SAL1004

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SAL1001/230	600/14	503	230	64	3.3	220-240	50	11.6	2930
330			330	67		380-415	50	6.7	2930
460			460	70					
580			580	74	3.8	460	60	6.4	3520
780			780	86					
1010			1010	92					
1130			1130	96					
SAL1002/310	600/27	574	310	100	6.0	380-415	50	11.2	2950
410			410	103					
540			540	107	6.9	460	60	10.7	3550
660			660	111					
860			860	123					
1090			1090	130					
1210			1210	134					
SAL1003/390	600/40	612	390	122	9.0	380-415	50	16.6	2955
490			490	125					
620			620	129	10.3	460	60	16.1	3550
740			740	133					
940			940	146					
1170			1170	152					
SAL1004/470	600/55	620	470	154	13.0	380-415	50	24.2	2960
570			570	158					
700			700	160	15.0	460	60	23.6	3560
820			820	164					
1020			1020	176					
1250			1250	179					
SAL1006/630	600/85	974	630	203	18.5	400	50	32	2955
730			730	207					
860			860	211	21.3	460	60	32	3555
980			980	215					

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

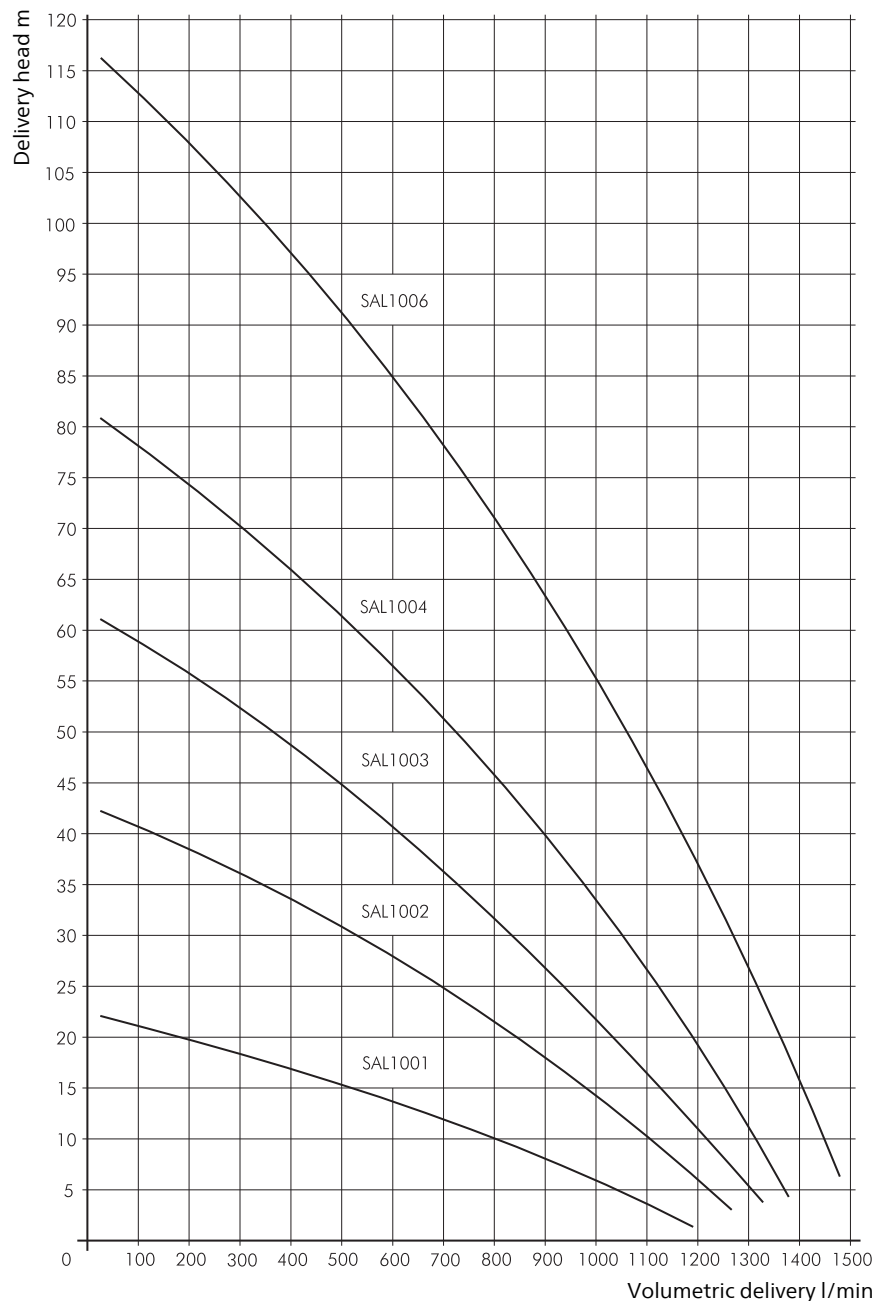
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

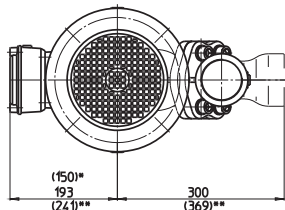
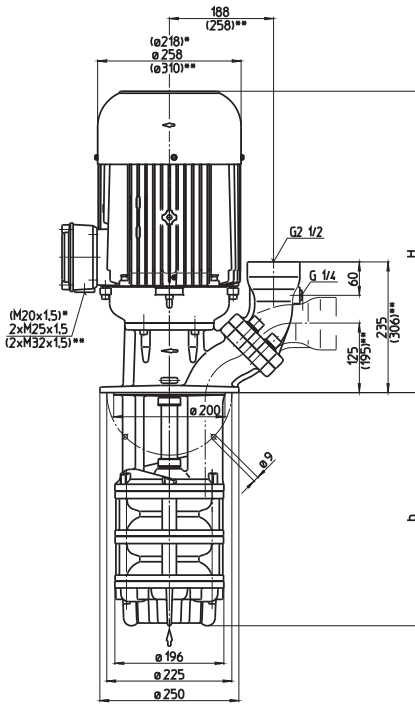


Quick Suctioning Immersion Pumps

SAL1301...1303

Axial/semi-open impellers

SAL1301, 1302 SAL1303



*) Dimensions for SAL1301
**) Dimensions for SAL1303

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SAL1301/230	900/11	533	230	69	5.0	220-240	50	17.3	2920
	330		330	72					
	460		460	76	5.75	460	60	9.5	3520
	580		580	81					
	780		780	91					
	1010		1010	98					
1130		1130	101						
SAL1302/310	900/25	612	310	108	7.5	380-415	50	13.8	2950
	410		410	110	8.6	460	60	13.5	3550
	540		540	113					
	660		660	118					
	860		860	130					
	1090		1090	138					
SAL1303/390	900/39	620	390	143	11.0	380-415	50	20.1	2960
	490		490	147	12.6	460	60	19.5	3560
	620		620	151					
	740		740	155					
	940		940	167					
	1170		1170	174					

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

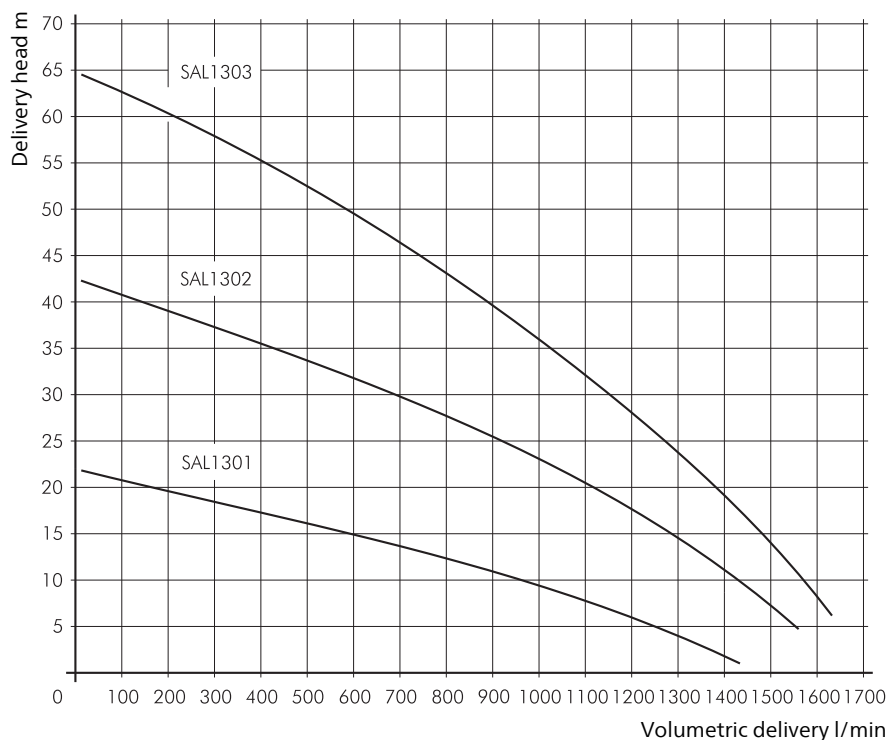
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

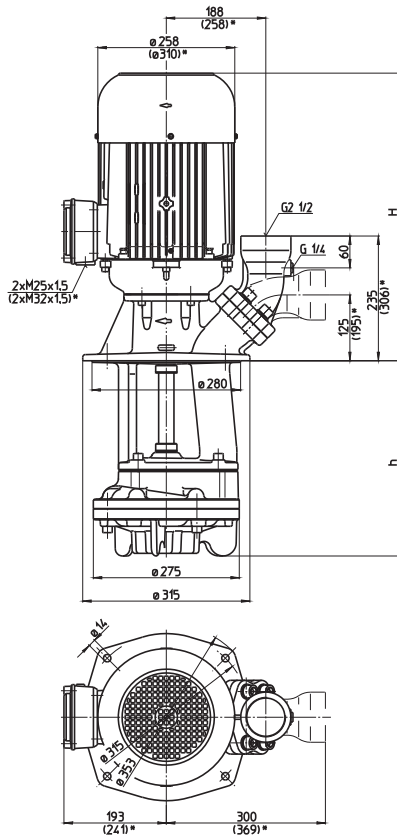


Quick Suctioning Immersion Pumps

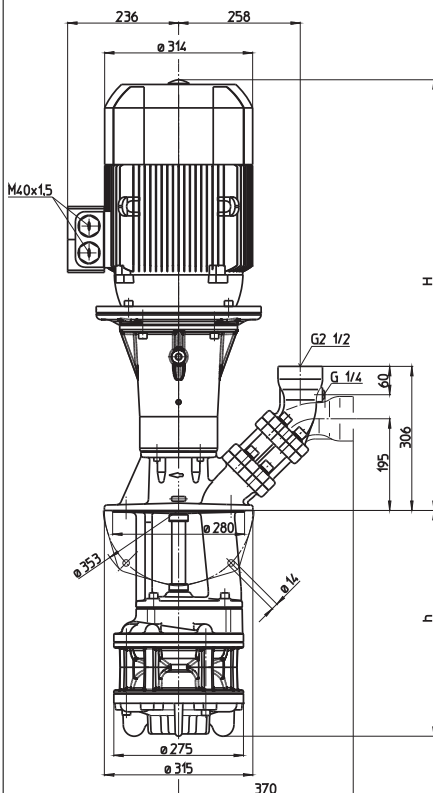
SAL1600...2500

Axial/semi-open impellers

SAL1600, 2000



SAL1602, 2500



*) Dimensions for SAL2000

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SAL1600/310	1300/15	612	310	134	9.0	380-415	50	16.6	2955
	440		440	136					
	560		560	143					
	810		810	160					
	1060		1060	170					
SAL2000/310	1600/15	620	310	158	11.0	380-415	50	20.1	2960
	440		440	160					
	560		560	167					
	810		810	184					
	1060		1060	190					
SAL1602/420	1300/37	974	420	230	18.5	400	50	32	2955
	550		550	236					
	670		670	240					
	920		920	247					
	1170		1170	251					
SAL2002/420	1600/45	978	420	250	22.0	400	50	38.5	2950
	550		550	256					
	670		670	260					
	920		920	267					
	1170		1170	271					
SAL2500/340	2200/20	974	340	201	18.5	400	50	32	2955
	470		470	206					
	590		590	211					
	840		840	228					
	1090		1090	231					

Quick Suctioning Immersion Pumps

equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

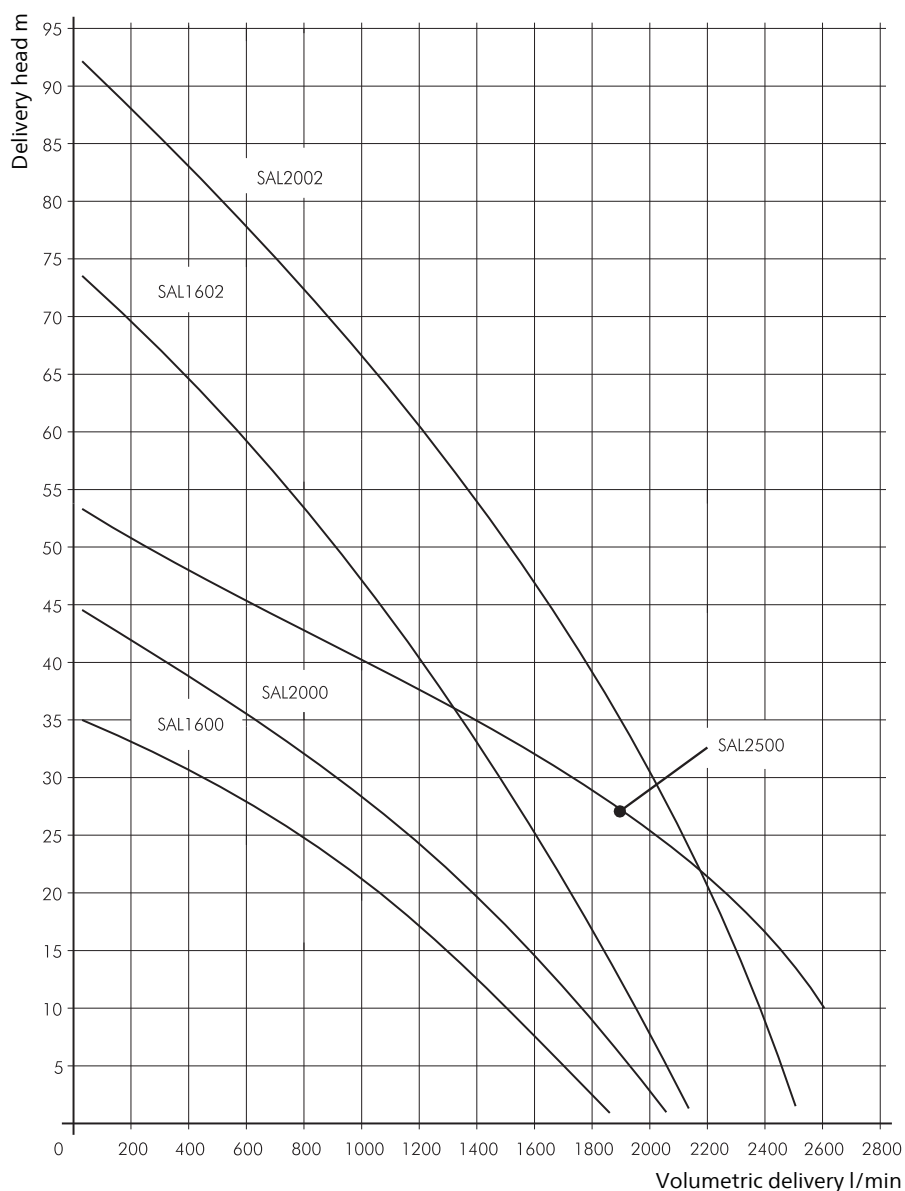
The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

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

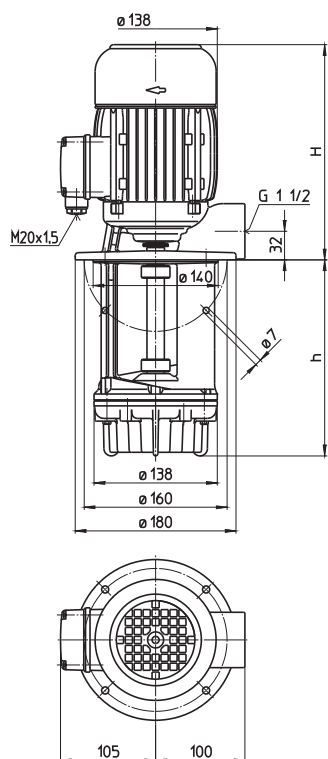


Quick Suctioning Immersion Pumps

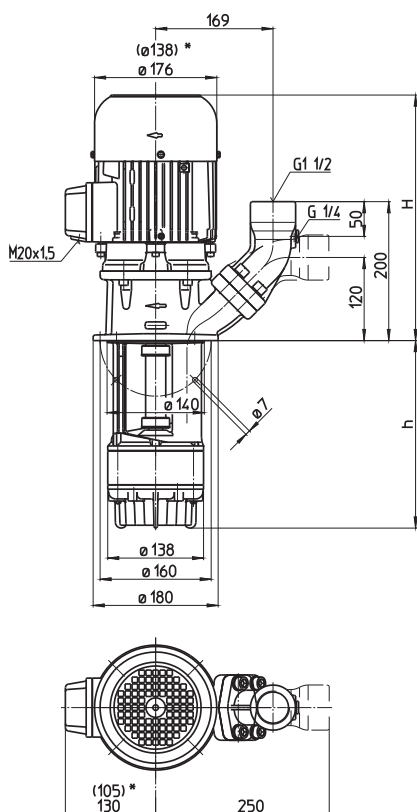
TGL/SGL331...333

Axial/semi-open impellers

TGL331



SGL331...333



*) Dimensions for SGL331

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TGL331/140	200/5	264	140	16.0	0.85	220-240	50	3.64	2850
220			220	17.0					
290			290	17.5	0.98	460	60	2	3450
370			370	18.5					
460			460	20.0					
570			570	21.0					
SGL331/140	200/5	334	140	22					
220			220	23					
290			290	24	0.98	460	60	2	3450
370			370	25					
460			460	27					
570			570	28					
770			770	35					
920			920	37					
SGL332/190	200/12	406	190	34	1.7	220-240	50	6.24	2890
270			270	35					
340			340	36	1.95	460	60	3.5	3480
420			420	37					
510			510	38					
620			620	40					
820			820	47					
970			970	49					
SGL333/240	200/19	439	240	40	2.2	220-240	50	7.8	2890
320			320	41					
390			390	42	2.55	460	60	4.4	3480
470			470	43					
560			560	45					
670			670	47					
870			870	53					
1020			1020	55					

Quick Suctioning Immersion Pumps

series TGL/SGL equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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.

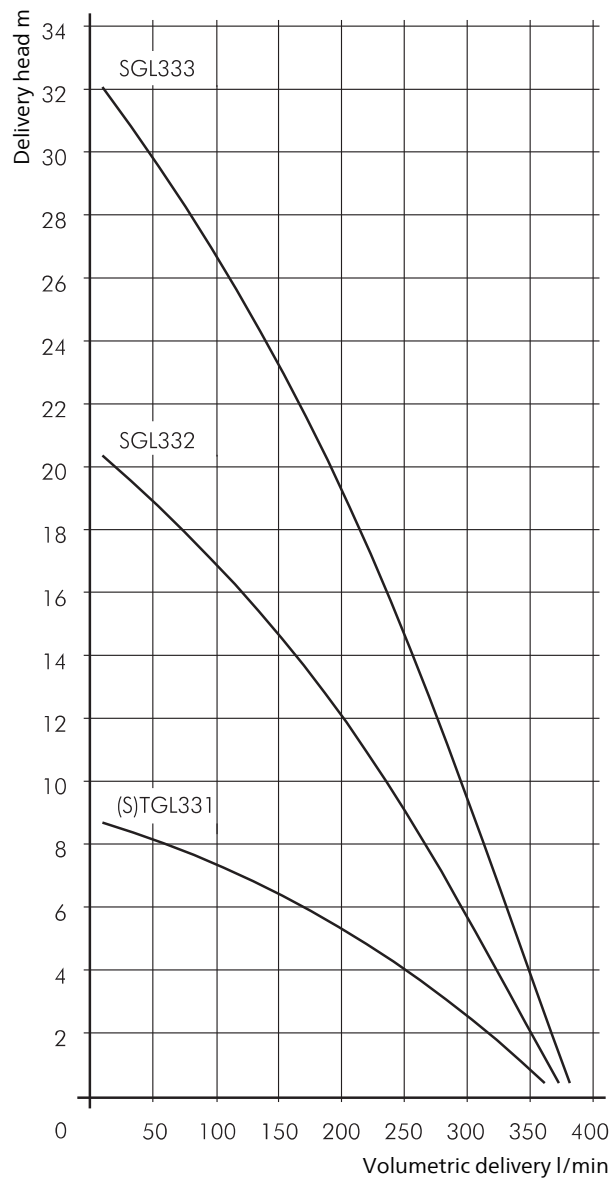
The SGL serie offers a (SAE) flange with pressure gauge connection port. The flange can be rotated for either horizontal or vertical pipe connections.

Applications

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

Construction

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

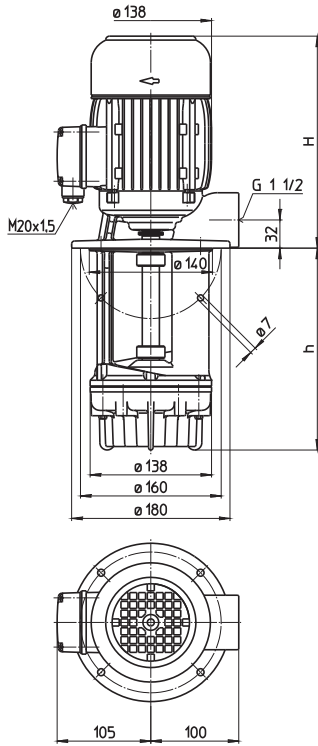


Quick Suctioning Immersion Pumps

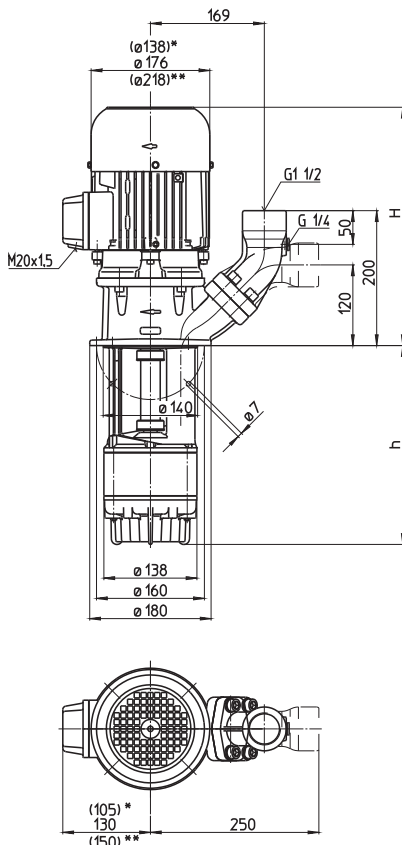
TGL/SGL501...503

Axial/semi-open impellers

TGL501



SGL501...503



*) Dimensions for SGL501
 **) Dimensions for SGL503

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TGL501/150	250/6	291	150	17.0	1.1	220-240	50	4.33	2850
230			230	18.5					
300			300	19.5	1.27	460	60	2.4	3440
380			380	20.5					
470			470	21.5					
580			580	22.5					
SGL501/150	250/6	361	150	23.5					
230			230	24.5	1.1	220-240	50	4.33	2850
300			300	25.5					
380			380	27.0	1.27	460	60	2.4	3440
470			470	28.0					
580			580	30.0					
780			780	36.0					
930			930	38.0					
SGL502/220	250/15	439	215	40	2.2	220-240	50	7.8	2890
300			295	41					
370			365	42	2.55	460	60	4.4	3480
450			445	43					
540			535	45					
650			645	47					
850			845	54					
1000			995	55					
SGL503/280	250/23	478	280	54	3.3	220-240	50	11.6	2930
360			360	55					
430			430	56	3.8	460	60	6.4	3520
510			510	57					
600			600	59					
710			710	61					
910			910	67					
1060			1060	69					

Quick Suctioning Immersion Pumps

series TGL/SGL equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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.

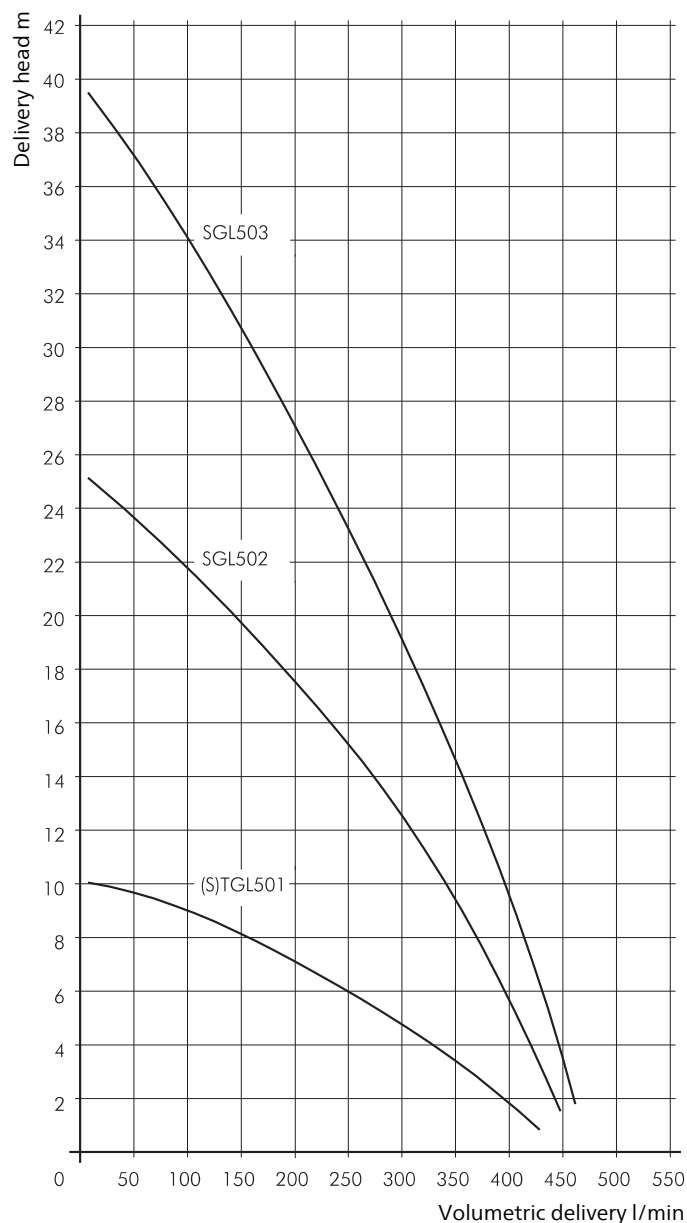
The SGL serie offers a (SAE) flange with pressure gauge connection port. The flange can be rotated for either horizontal or vertical pipe connections.

Applications

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

Construction

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

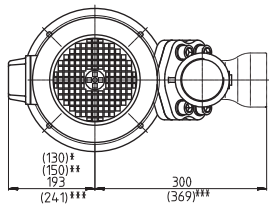
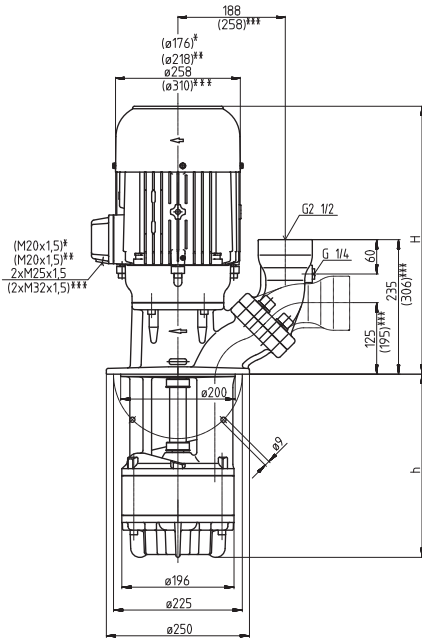


Quick Suctioning Immersion Pumps

SGL801...804

Axial/semi-open impellers

SGL801, 802 SGL803, 804



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

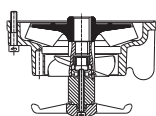
Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SGL801/220	500/12	464	220	51	2.6	220-240	50	9.30	2880
320			320	54					
450			450	58					
570			570	62	2.94	460	60	5.1	3480
770			770	74					
1000			1000	81					
SGL802/290	500/25	533	290	76	5.5	220-240	50	18.9	2915
390			390	80					
520			520	83					
640			640	86	6.3	460	60	10.4	3510
840			840	99					
1070			1070	105					
SGL803/360	500/35	612	360	121	9.0	380-415	50	16.6	2955
460			460	124					
590			590	127					
710			710	131	10.3	460	60	16.1	3550
910			910	144					
SGL804/430	500/46	620	430	151	13.0	380-415	50	24.2	2960
530			530	154					
660			660	159					
780			780	162	15.0	460	60	23.6	3560
980			980	177					

Quick Suctioning Immersion Pumps

series SGL equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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

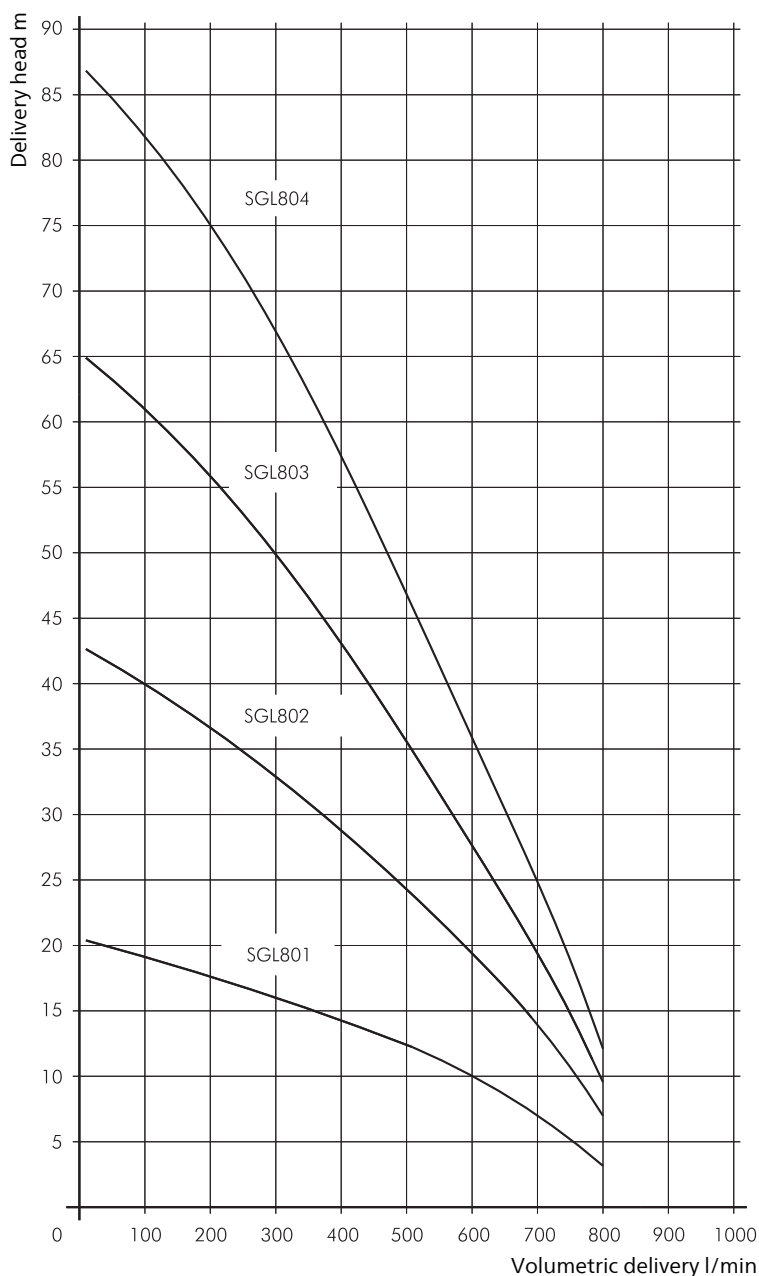


Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 0...80° C

Construction

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

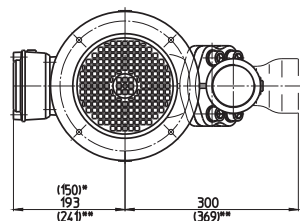
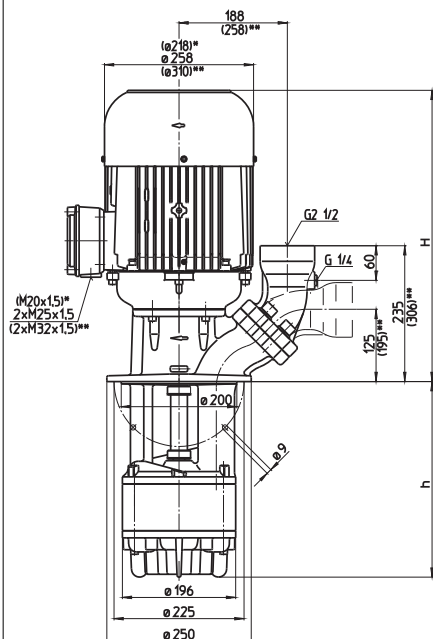


Quick Suctioning Immersion Pumps

SGL1101...1103

Axial/semi-open impellers

SGL1101, 1102 SGL1103



*) Dimensions for SGL1101

**) Dimensions for SGL1103

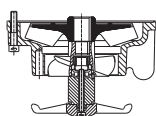
Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SGL1101/230	900/10	533	230	69	5.0	220-240	50	17.3	2920
	330		330	72					
	460		460	76	5.75	460	60	9.5	3520
	580		580	81					
	780		780	91					
	1010		1010	98					
SGL1102/310	900/21	612	310	108	9.0	380-415	50	16.6	2955
	410		410	110	10.3	460	60	16.1	3550
	540		540	113					
	660		660	118					
	860		860	130					
	1090		1090	138					
SGL1103/390	900/33	620	390	143					
	490		490	147	15.0	460	60	23.6	3560
	620		620	151					
	740		740	155					
	940		940	167					

Quick Suctioning Immersion Pumps

series SGL equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



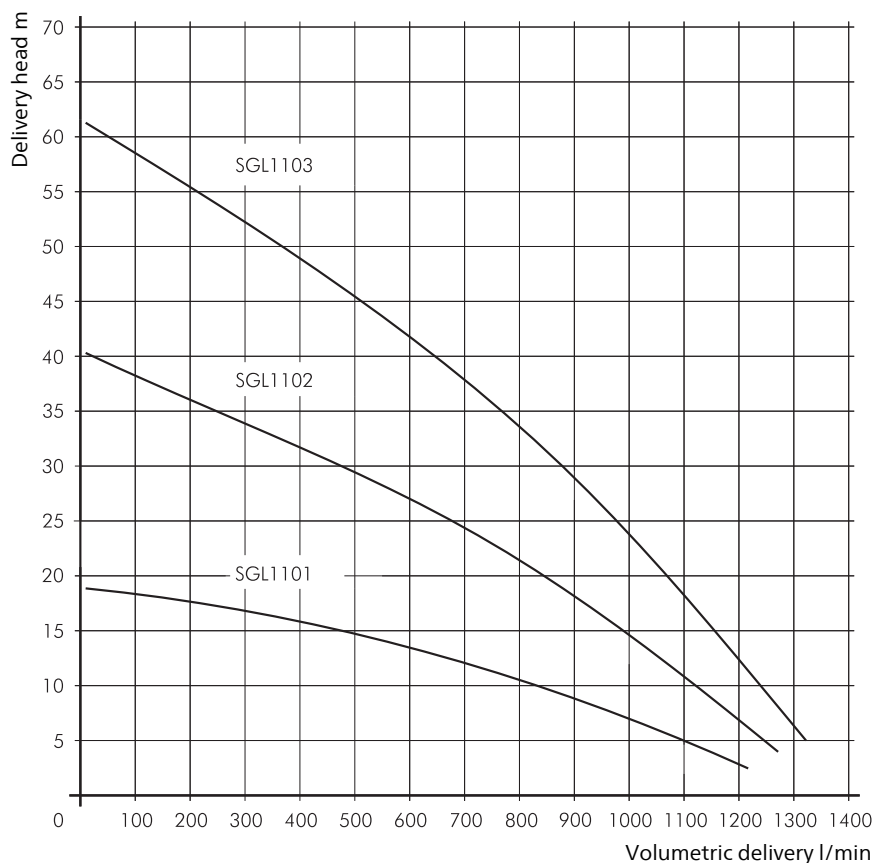
The pump SGL1101 is available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips or birds nests.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 0...80° C

Construction

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

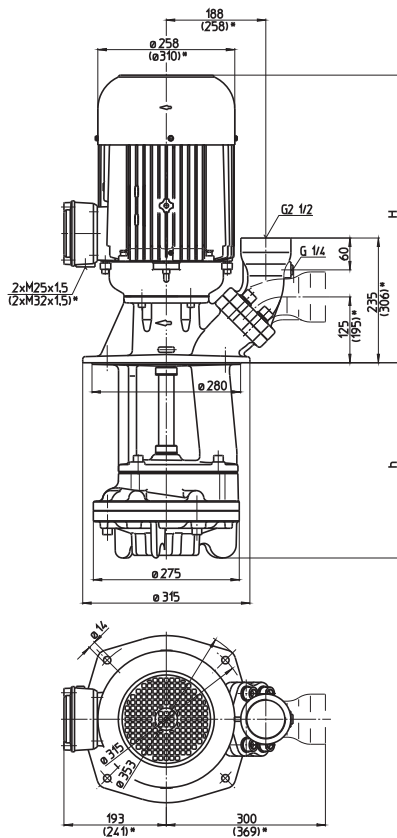


Quick Suctioning Immersion Pumps

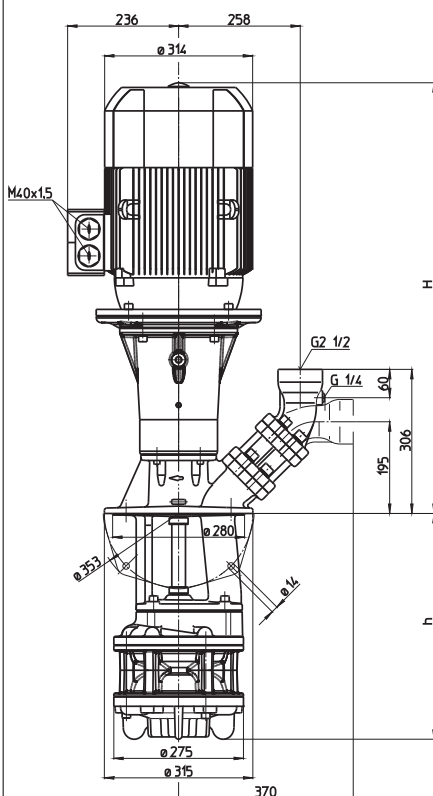
SGL1400...2200

Axial/semi-open impellers

SGL1400...1700



SGL1402...2200



*) Dimensions for SGL1700

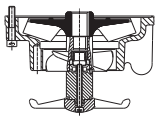
Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SGL1400/310	1200/15	612	310	134	9.0	380-415	50	16.6	2955
	440		440	136					
	560		560	143					
	810		810	160					
	1060		1060	170					
SGL1700/310	1500/15	620	310	158	13.0	380-415	50	24.2	2960
	440		440	160					
	560		560	167					
	810		810	184					
	1060		1060	190					
SGL1402/420	1200/35	974	420	230	18.5	400	50	32	2955
	550		550	236					
	670		670	240					
	920		920	247					
	1170		1170	251					
SGL1702/420	1500/42	978	420	250	22.0	400	50	38.5	2950
	550		550	256					
	670		670	260					
	920		920	267					
	1170		1170	271					
SGL2200/340	1800/25	974	340	201	18.5	400	50	32	2955
	470		470	206					
	590		590	211					
	840		840	228					
	1090		1090	231					

Quick Suctioning Immersion Pumps

series SGL equipped with the patented "BRINKMANN`s Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



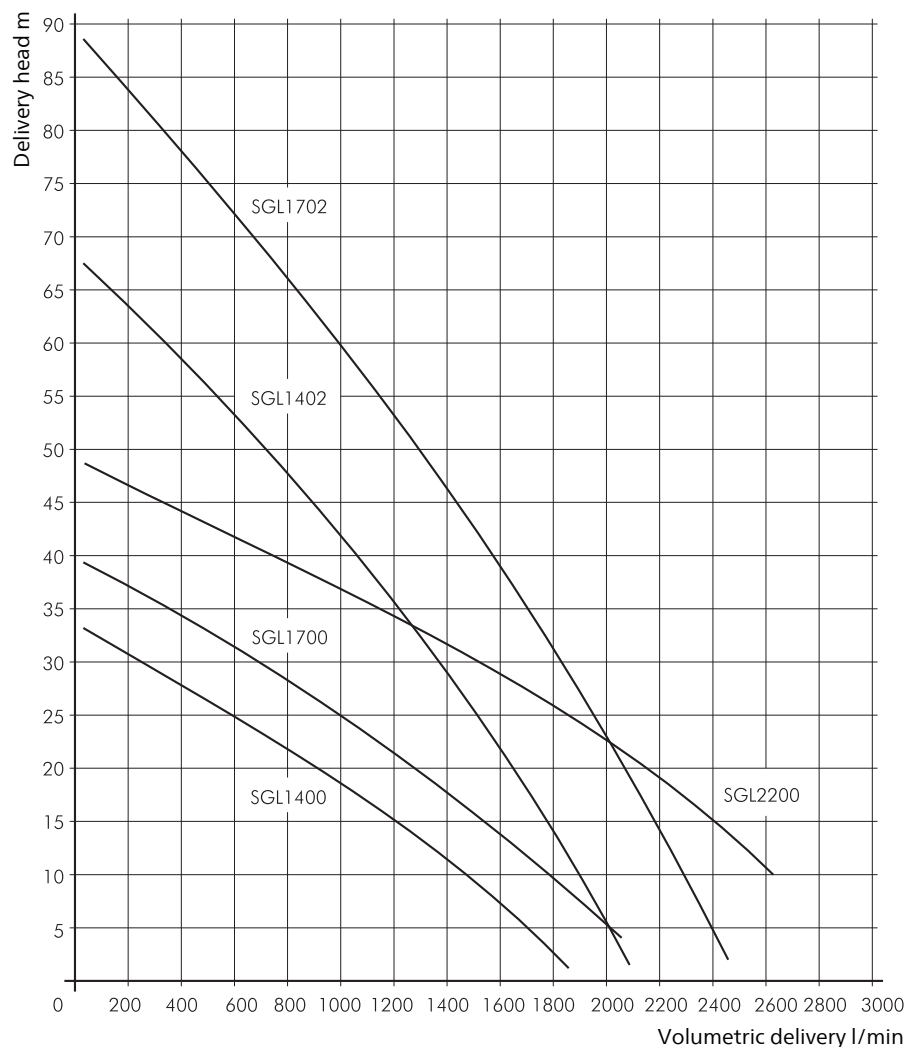
The pumps SGL1400, SGL1700 and SGL2200 are available (upon request) with an additional agitator at the pump suction for breaking up and separating large bundles of chips or birds nests.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 0...80° C

Construction

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

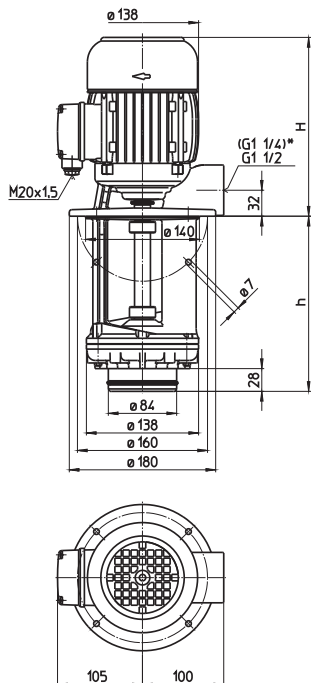


Suction Immersion Pumps

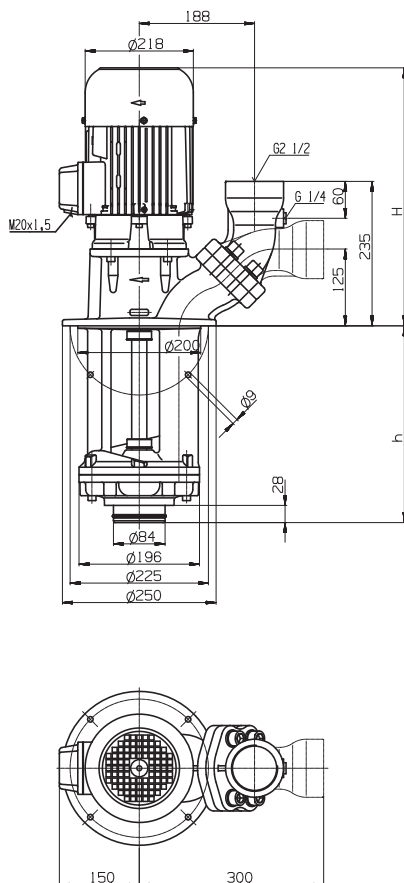
TAS/STS301...1001

Axial/semi-open impellers

TAS301, 401 TAS601



STS1001



*) Dimensions for TAS301

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min	
TAS301/140	200/5	223	136	13.5	0.55	220-240	50	2.50	2750	
220			216	14.0						
290			286	14.5		380-420	50	1.45		2750
370			366	15.0						
460			456	17.0		460	60	1.45		3250
570			566	18.5						
TAS401/140	250/5	264	136	14.5	0.85	220-240	50	3.64	2850	
220			216	15.5						
290			286	16.5	0.98	460	60	2	3450	
370			366	17.5						
460			456	18.5						
570			566	19.5						
TAS601/150	400/4	291	144	17.5	1.1	220-240	50	4.33	2850	
230			224	18.0						
300			294	19.0	1.27	460	60	2.4	3440	
380			374	20.0						
470			464	21.5						
580			574	22.5						
STS1001/230	600/14	503	216	65	3.3	220-240	50	11.6	2930	
330			316	67						
460			446	70	3.8	460	60	6.4	3520	
580			566	74						
780			766	86						
1010			996	92						

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 tank.

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

The STS serie offers a flange with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



All types specified are also available as multistage pumps e.g. STS304/610.

See series TA/STA.

Applications

Types of fluid
coolants
cooling/cutting oils

Kinematic viscosity
...45 mm²/s (45 cSt)

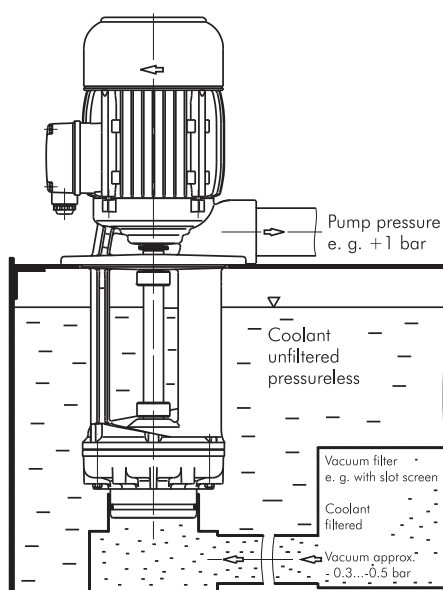
Pumping temperature
0...60° C

Construction

Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	brass
	cast steel (STS1001)
Shaft	steel

Optional:
Impeller radial cast steel
(TAS301...TAS601)

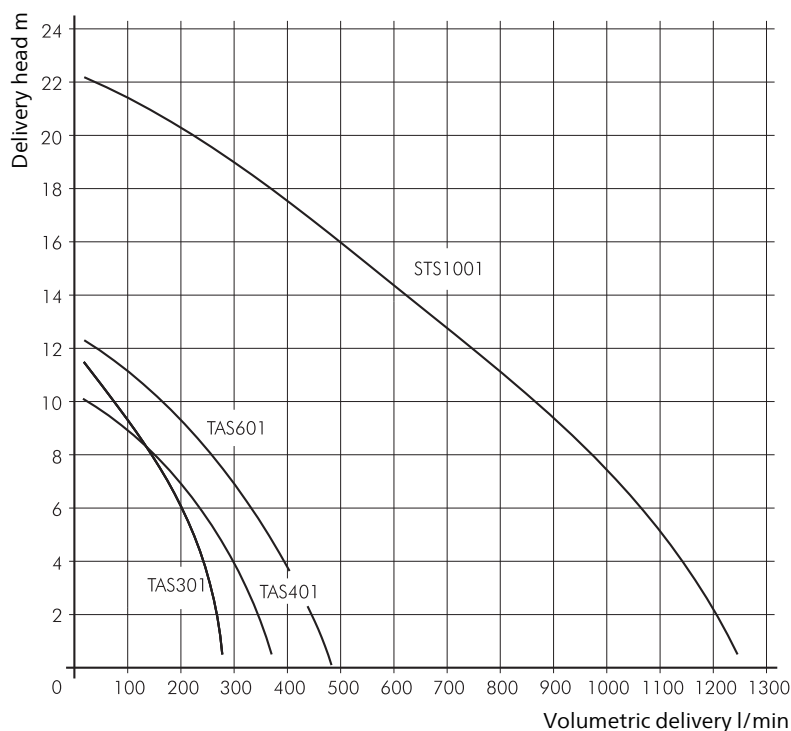
Noise level	
TAS301	60 dBA
TAS401...TAS601	62 dBA
STS1001	71 dBA



Suction connection

Intake cover cast iron
with O-Ring 78 x 4 mm Viton

for
Connecting pipe
86.0...86.8 mm inner-Ø

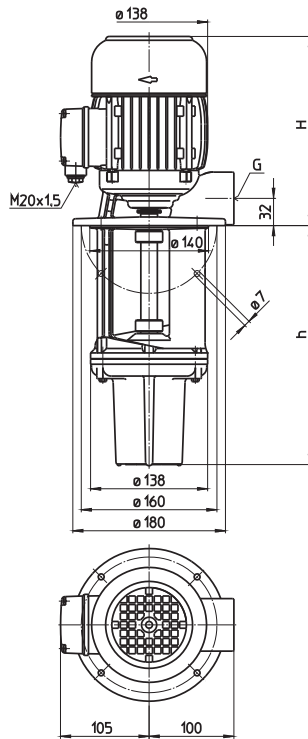


Lifting Pumps

TAA14...280

Axial impellers

TAA140, 280



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Pipe con- nection	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TAA140/200	180/2	223	200	G 1 ¼	15	0.42	220-240	50	1.4	2800
	280		280		16		380-420	50	0.8	2800
	350		350		17		460	60	0.8	3300
TAA280/200	360/2	264	200	G 1 ½	17	0.92	220-240	50	3.8	2840
	280		280		18		380-415	50	2.2	2840
	350		350		19		460	60	2.1	3440

Lifting Pumps

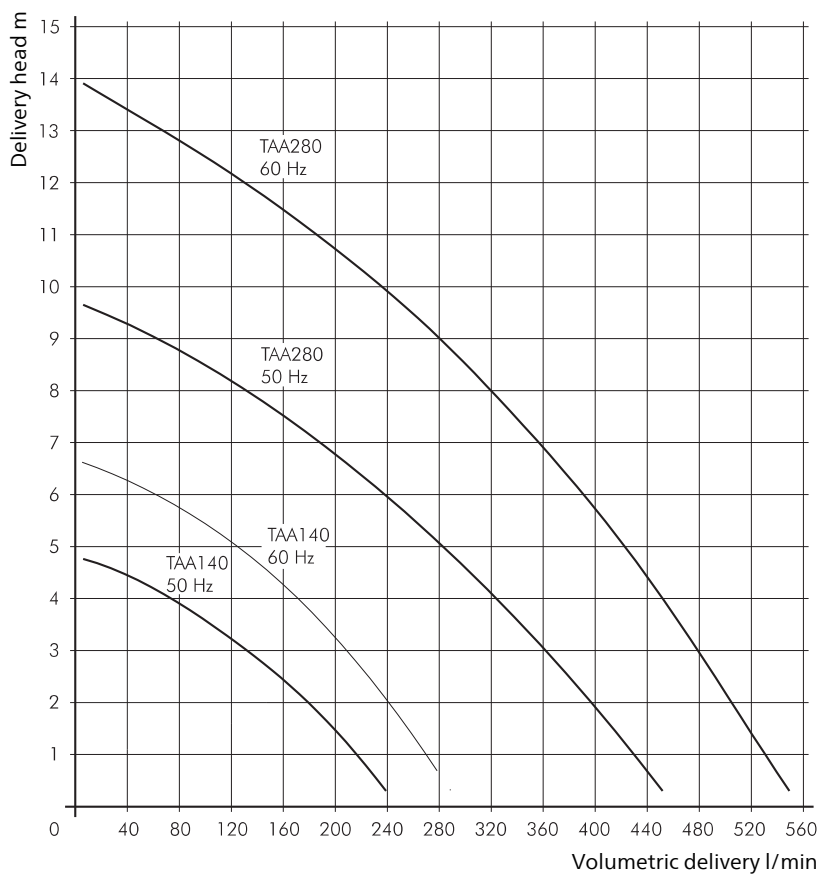
series TAA gently pump foam-sensitive cooling lubricants (emulsions or cooling and cutting oils) or highly inflated cooling lubricants such as occur with a high degree of machining in lathing, milling or grinding.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...60° C

Construction

Pump body	cast iron
Cover	cast iron
Impellers	cast iron
Shaft	steel
Noise level	
TAA140...TAA280	62 dBA

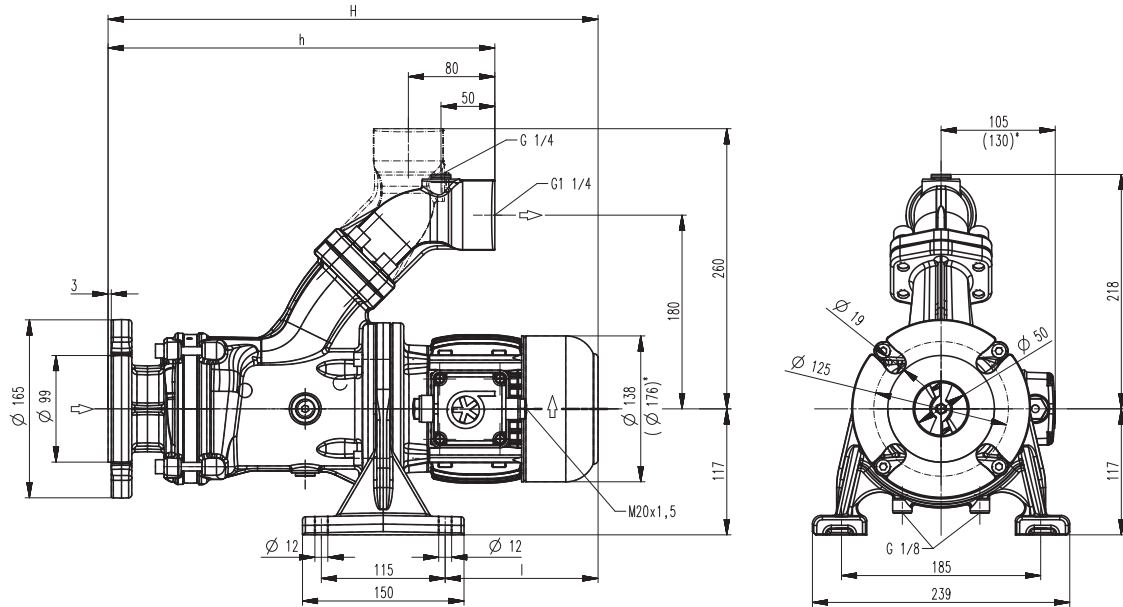


Horizontal End-Suction Pumps

SBA141...143

Axial/semi-open impellers

SBA141...143



*) Dimensions for SBA143

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBA141	100/8	456	359	143	26.5	0.54	220-240 380-420 460	50 50 60	2.42 1.40 1.40	2800 2800 3300
SBA142	100/13	575	410	211	32	1.1	220-240 380-415	50 50	4.33 2.50	2850 2850
SBA143	100/20	653	444	256	42	1.27 1.7 1.95	460	60	2.4 6.24 3.60	3440 2890 2890 3480

Horizontal End-Suction Pumps

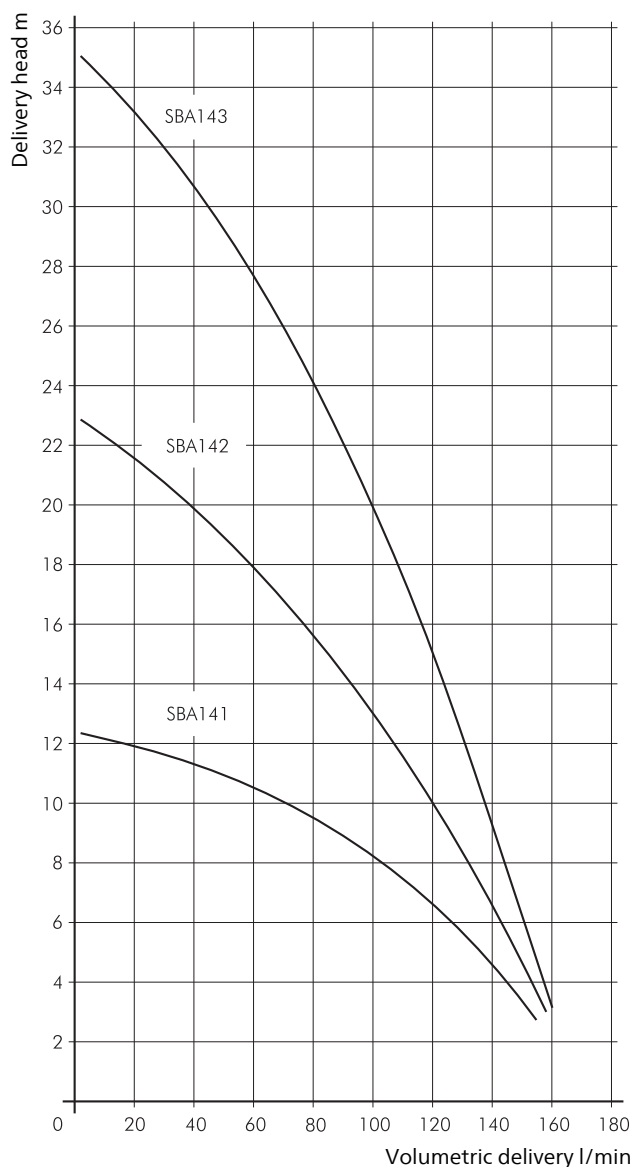
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD).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

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA141...SBA142	64 dBA
SBA143	68 dBA

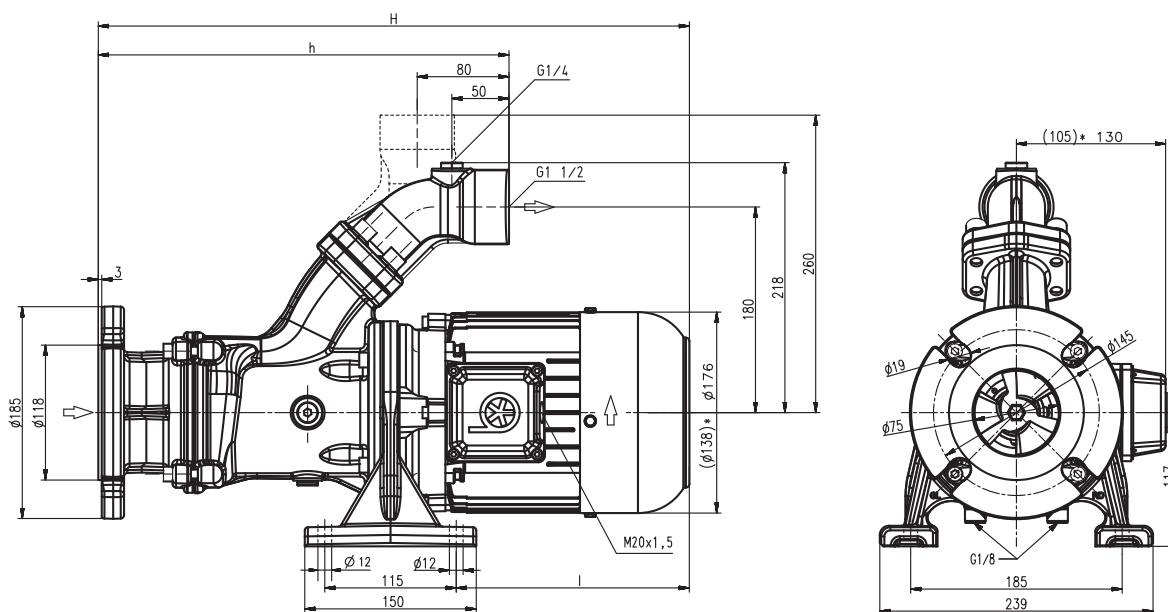


Horizontal End-Suction Pumps

SBA401...403

Axial/semi-open impellers

SBA401...403



*) Dimensions for SBA401

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBA401	200/6	497	360	184	31	0.92	220-240	50	3.8	2840
							380-415	50	2.2	2840
						1.06	460	60	2.1	3440
SBA402	200/14	592	409	230	39	1.5	220-240	50	5.5	2880
							380-415	50	3.2	2880
						1.75	460	60	3.1	3470
SBA403	200/20	700	458	289	47	2.2	220-240	50	7.8	2890
							380-415	50	4.5	2890
						2.55	460	60	4.4	3480

Horizontal End-Suction Pumps

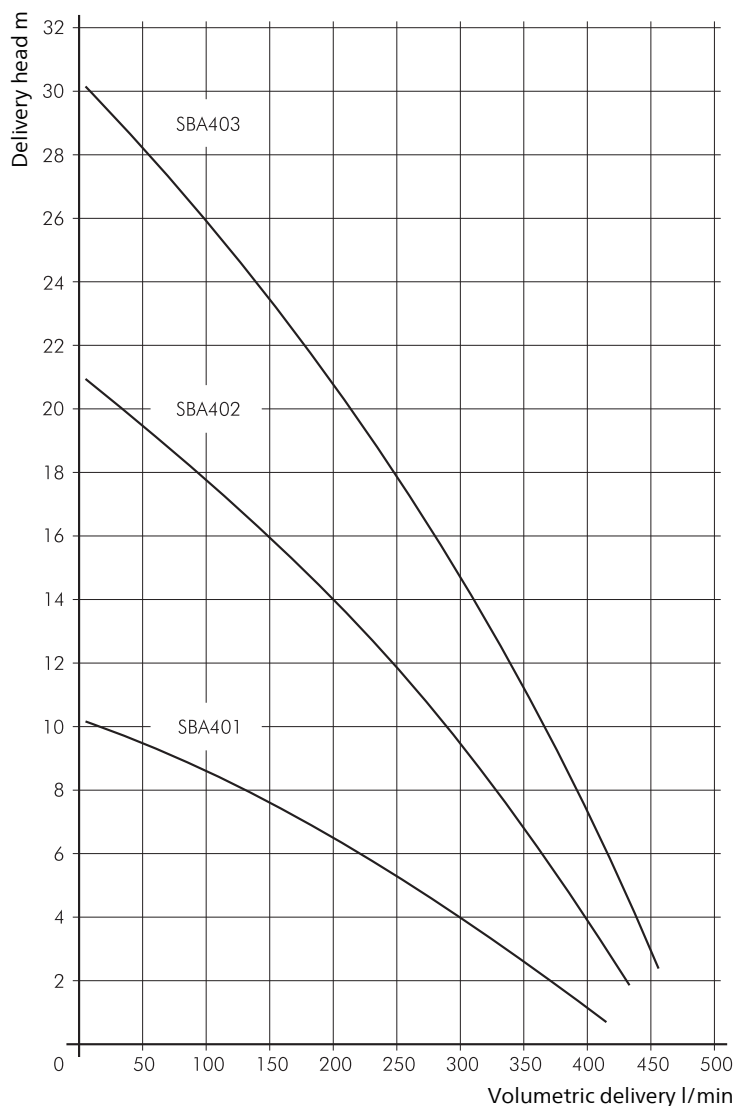
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD).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

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA401	62 dBA
SBA402...SBA403	66 dBA

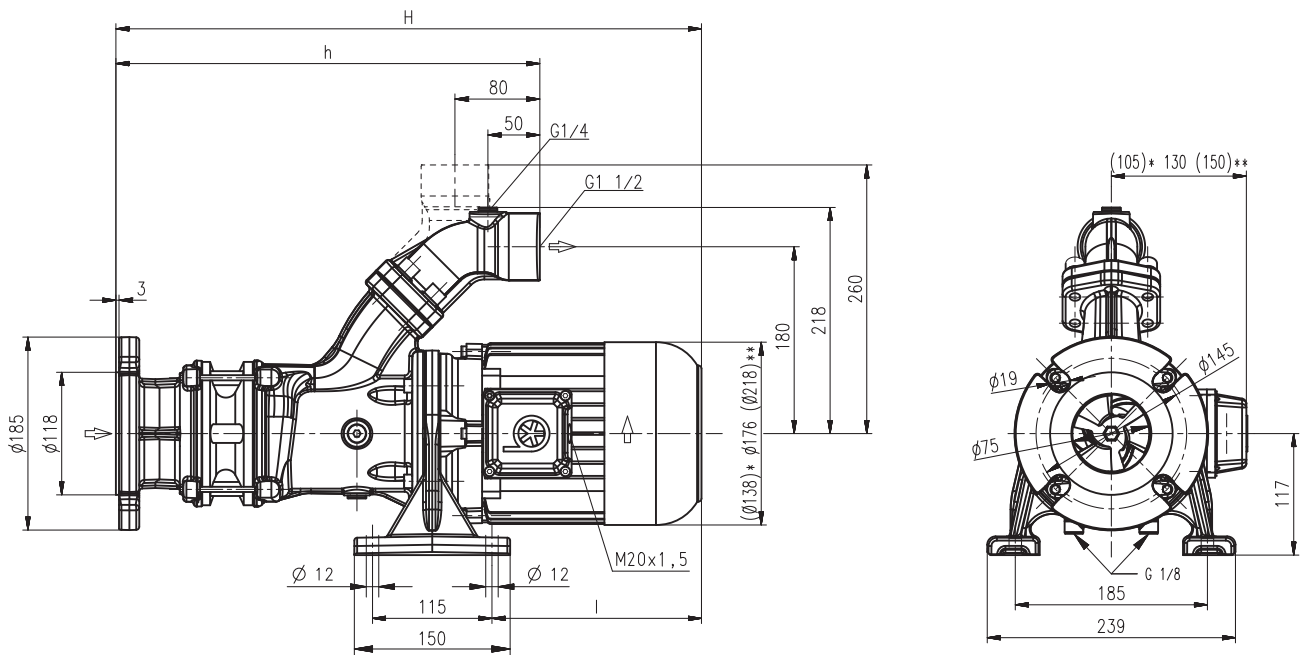


Horizontal End-Suction Pumps

SBA601...604

Axial/semi-open impellers

SBA601...604



*) Dimensions for SBA601
 **) Dimensions for SBA603, 604

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBA601	300/6	524	360	211	32	1.1	220-240 380-415	50 50	4.33 2.50	2850 2850
SBA602	300/16	666	424	289	46	1.27	460	60	2.4	3440
SBA603	300/25	769	488	328	61	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
SBA604	300/35	863	552	358	70	2.55	460	60	4.4	3480
						3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
						3.8	460	60	6.4	3520
						5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
						5.75	460	60	9.5	3520

Horizontal End-Suction Pumps

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

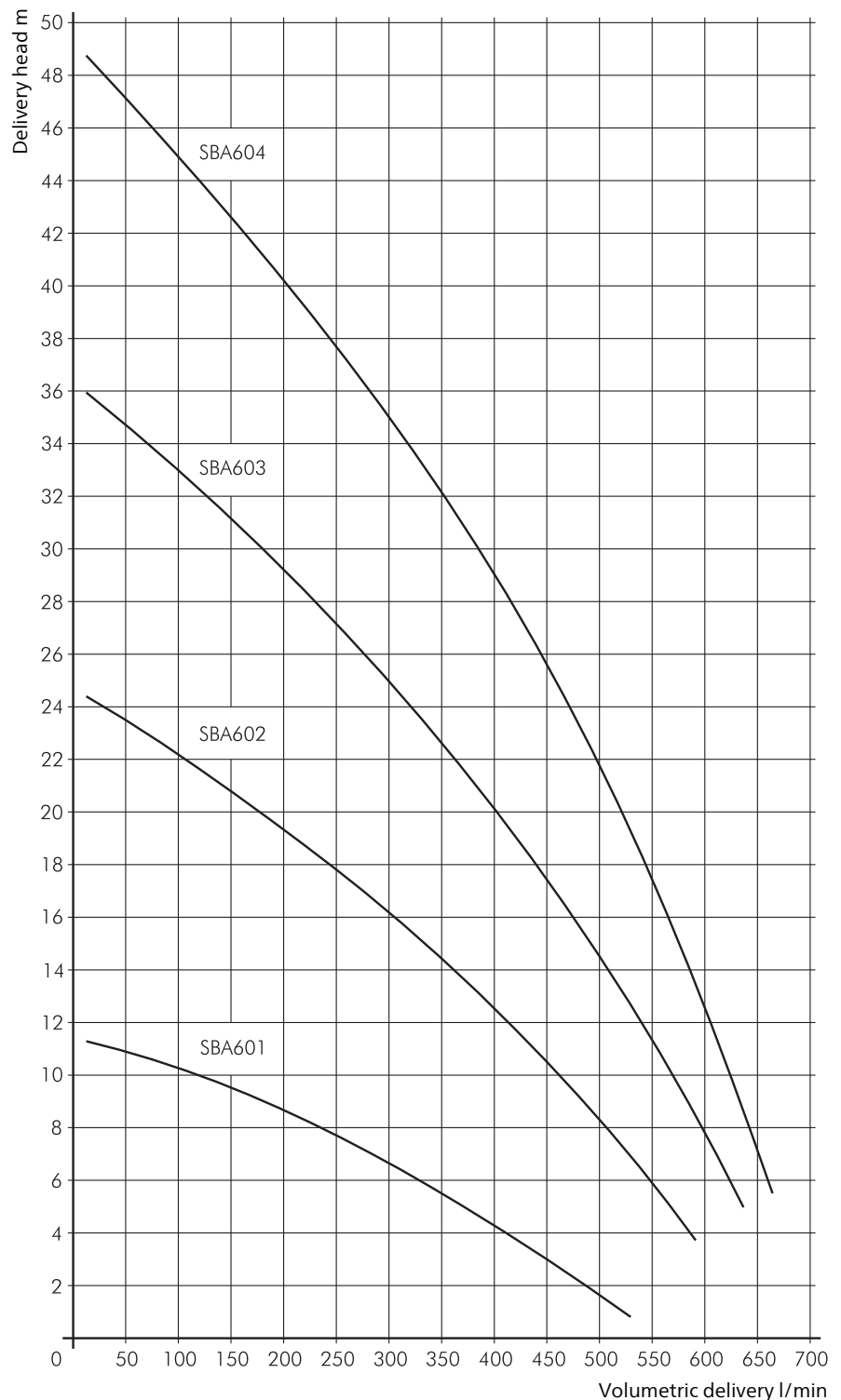


Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA601	62 dBA
SBA602	66 dBA
SBA603...SBA604	71 dBA

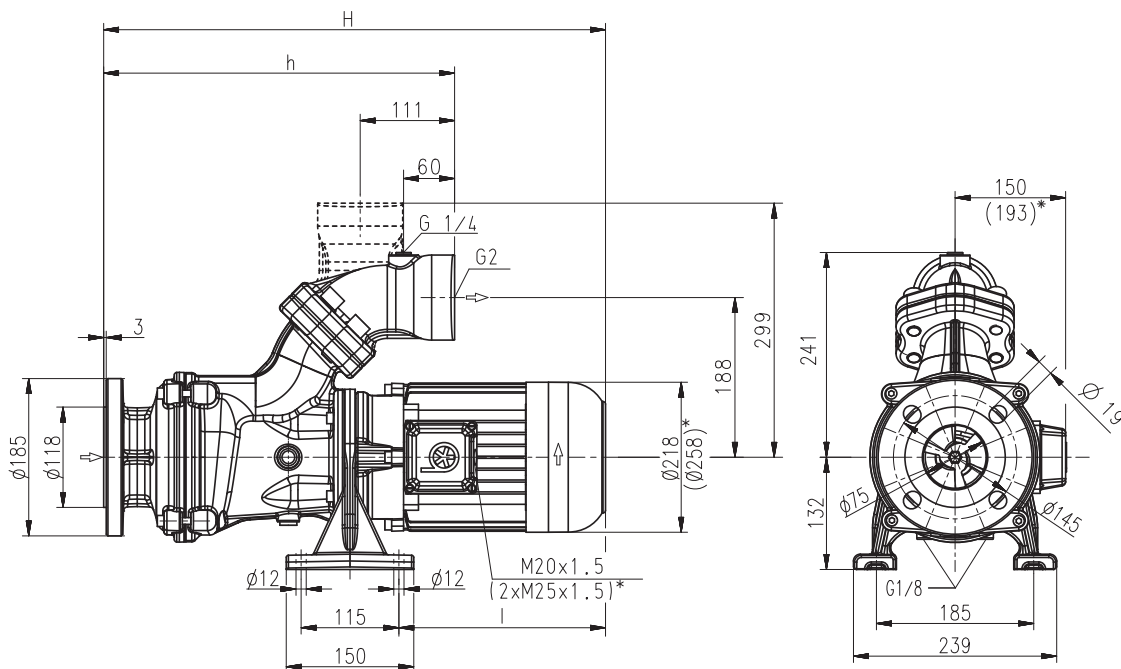


Horizontal End-Suction Pumps

SBA901...903

Axial/semi-open impellers

SBA901...903



*) Dimensions for SBA902, 903

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBA901	600/11	671	409	328	66	3.3	220-240	50	11.6	2930
							380-415	50	6.7	2930
						3.8	460	60	6.4	3520
SBA902	600/22	812	479	399	103	6.0	380-415	50	11.2	2950
						6.9	460	60	10.7	3550
SBA903	600/36	919	548	437	124	9.0	380-415	50	16.6	2955
						10.3	460	60	16.1	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 G 1/4.

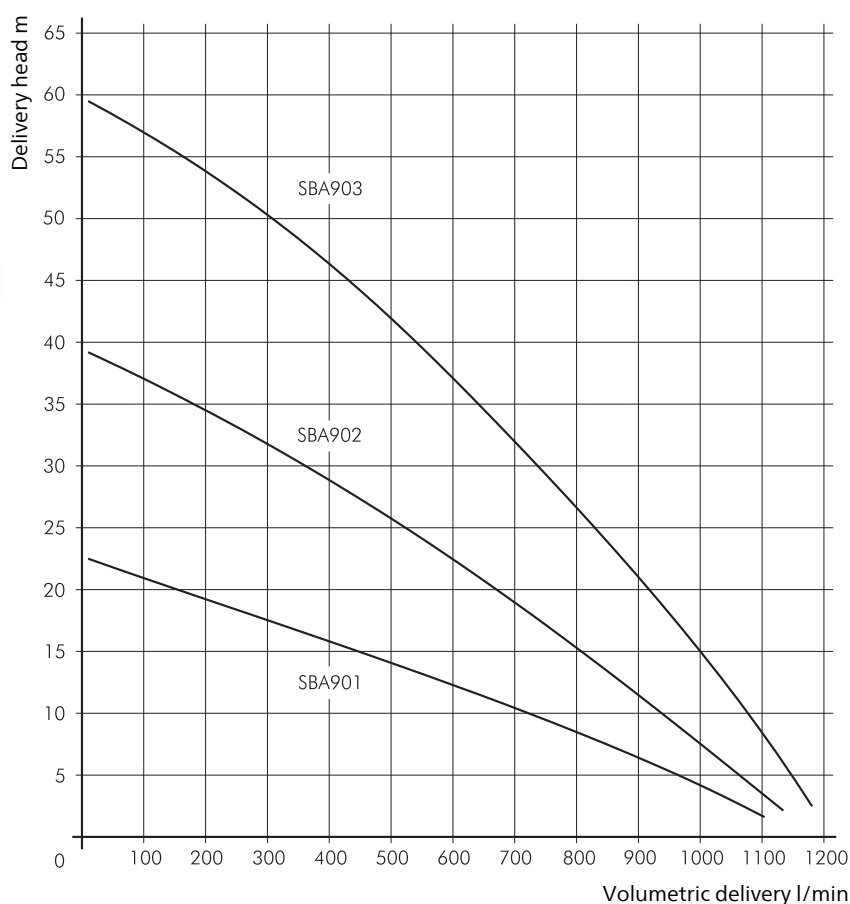
For more information see mechanical features within the technical information section.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA901	71 dBA
SBA902...SBA903	74 dBA

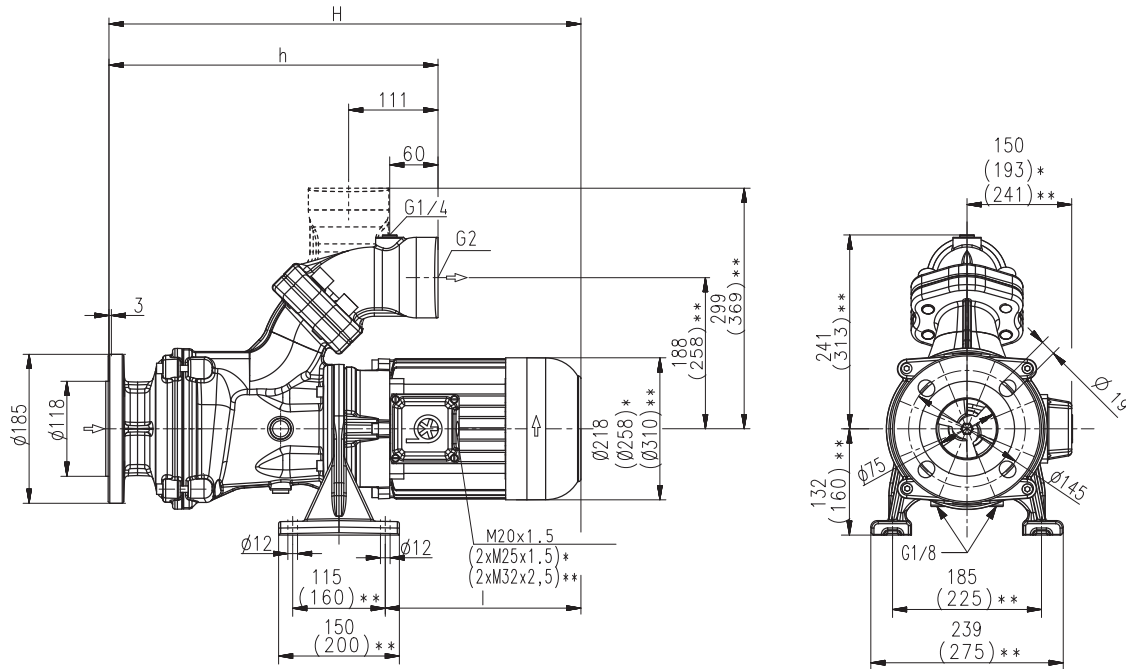


Horizontal End-Suction Pumps

SBA1301...1303

Axial/semi-open impellers

SBA1301...1303



*) Dimensions for SBA1302

**) Dimensions for SBA1303

Type	Vol. del. at manom. del. head	Dimensions		Length	Weight	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
	l/min / m	H mm	h mm	l mm	kg					
SBA1301	900/12	705	413	358	73	5.0	220-240	50	17.3	2920
							380-415	50	10.0	2920
						5.75	460	60	9.5	3520
SBA1302	900/24	863	492	437	117	7.5	380-415	50	13.8	2950
						8.6	460	60	13.5	3550
SBA1303	900/35	951	643	422	142	11.0	380-415	50	20.1	2960
						12.6	460	60	19.5	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 G 1/4.

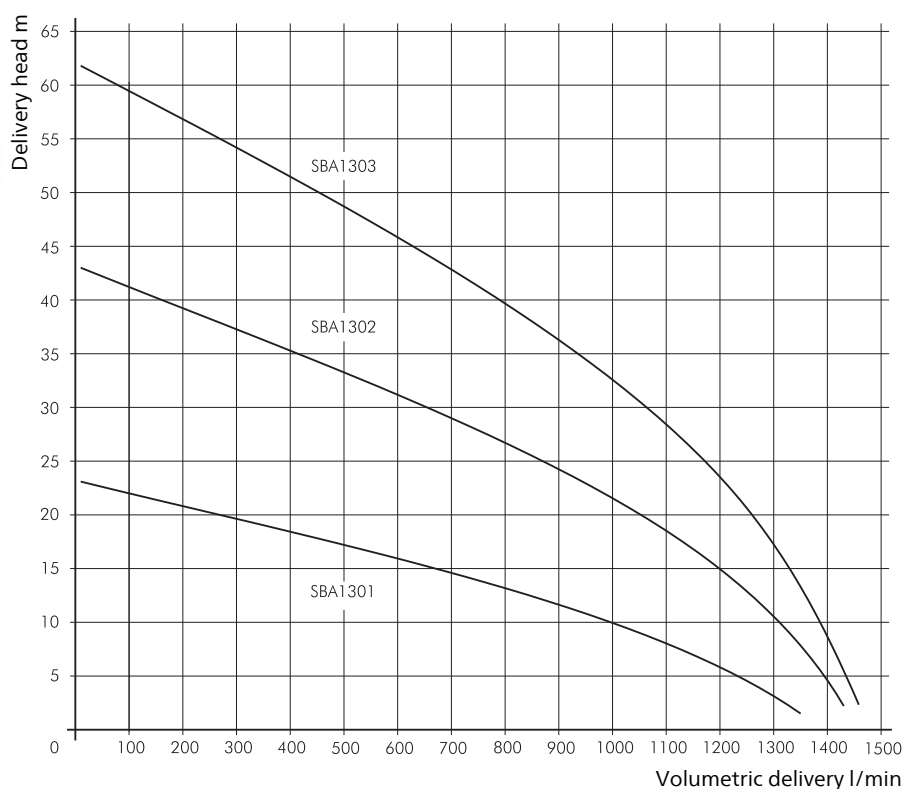
For more information see mechanical features within the technical information section.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA1301	71 dBA
SBA1302...SBA1303	74 dBA

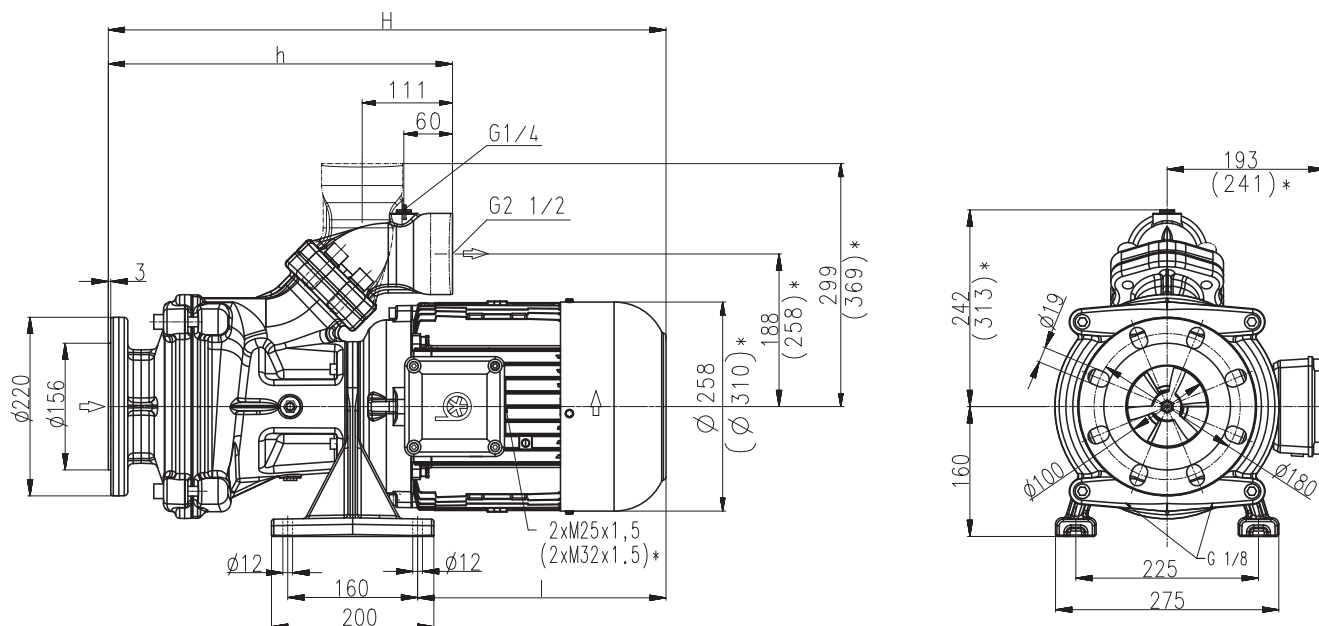


Horizontal End-Suction Pumps

SBA1600...2000

Axial/semi-open impellers

SBA1600...2000



*) Dimensions for SBA2000

Type	Vol. del. at manom. del. head l/min /m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBA1600	1400/15	793	424	414	120	9.0	380-415	50	16.6	2955
						10.3	460	60	16.1	3550
SBA2000	1600/19	802	495	422	147	11.0	380-415	50	20.1	2960
						12.6	460	60	19.5	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 G 1/4.

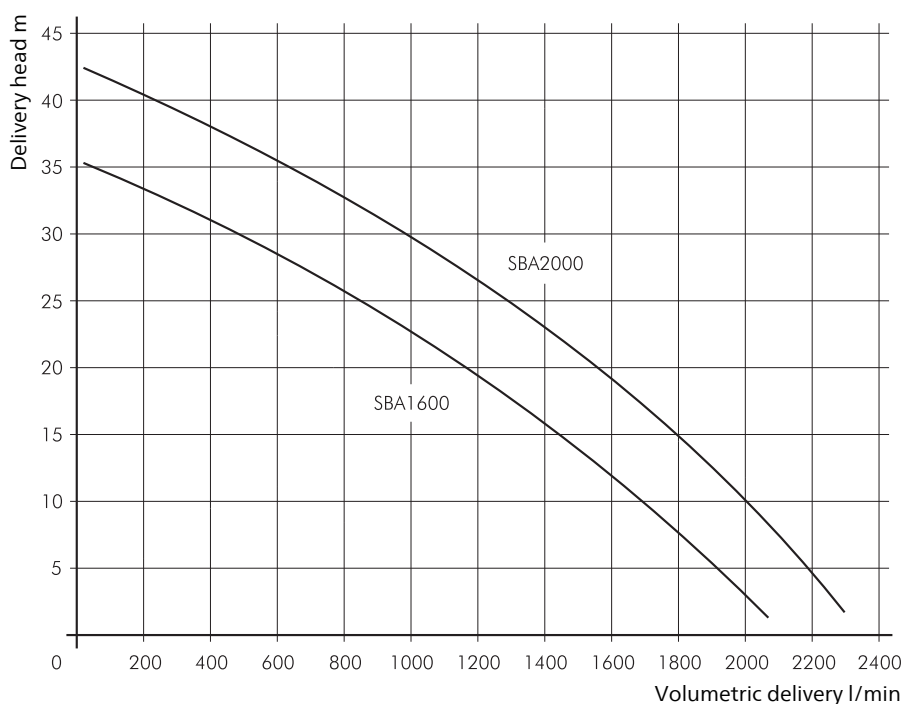
For more information see mechanical features within the technical information section.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA1600...SBA2000	74 dBA

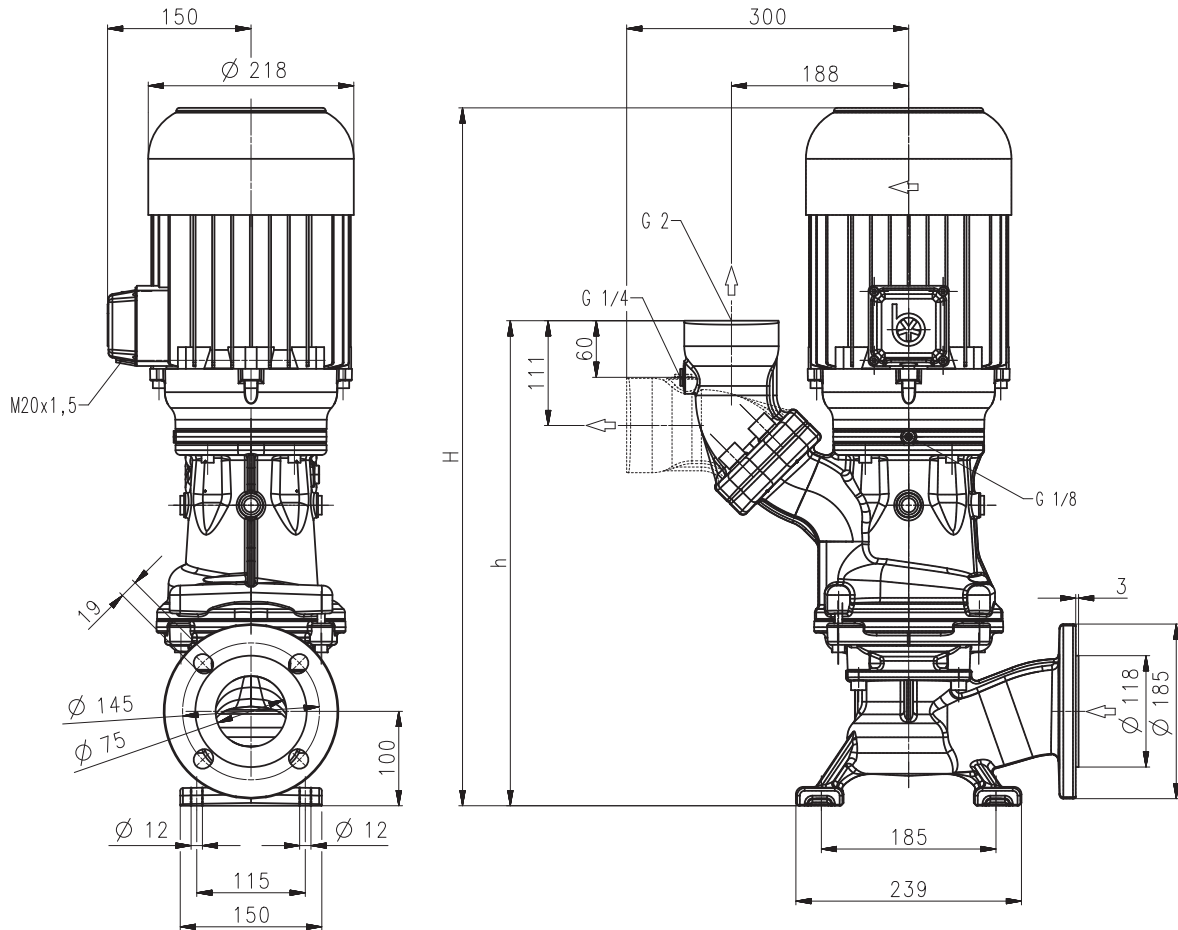


Vertical End Suction Pumps

SBA901...1301-V

Axial/semi-open impellers

SBA901...1301-V



Type	Vol. del. at manom. del. head l/min / m	Dimensions		Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm						
SBA901-V	600/11	776	514	70	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
					3.8	460	60	6.4	3520
SBA1301-V	900/11	806	515	77	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
					5.75	460	60	9.5	3520

Vertical End Suction Pumps

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

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

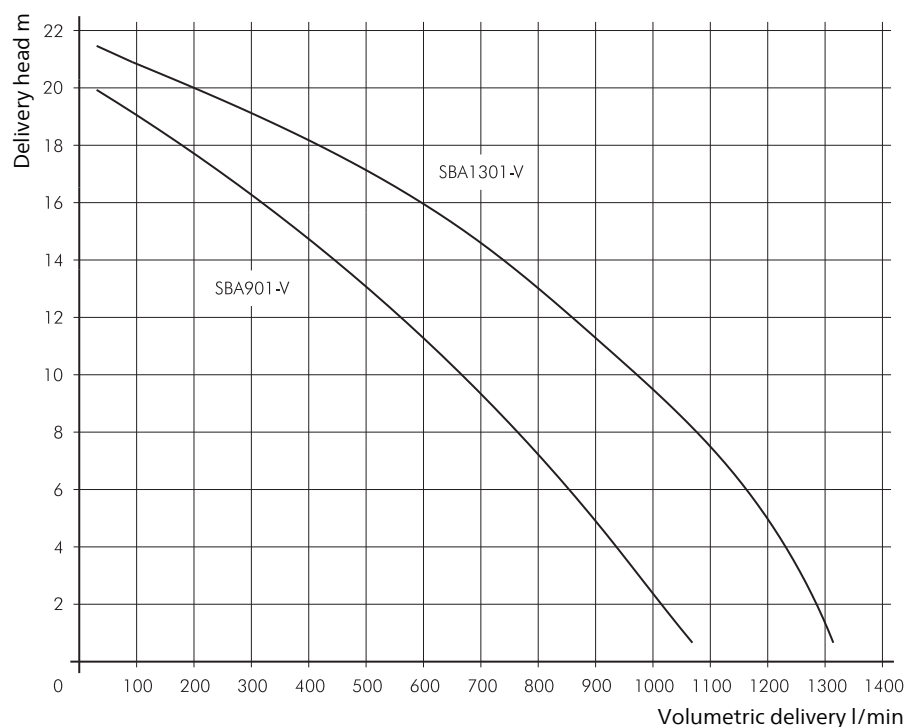
For more information see mechanical features within the technical information section.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBA901-V...SBA1301-V	72 dBA

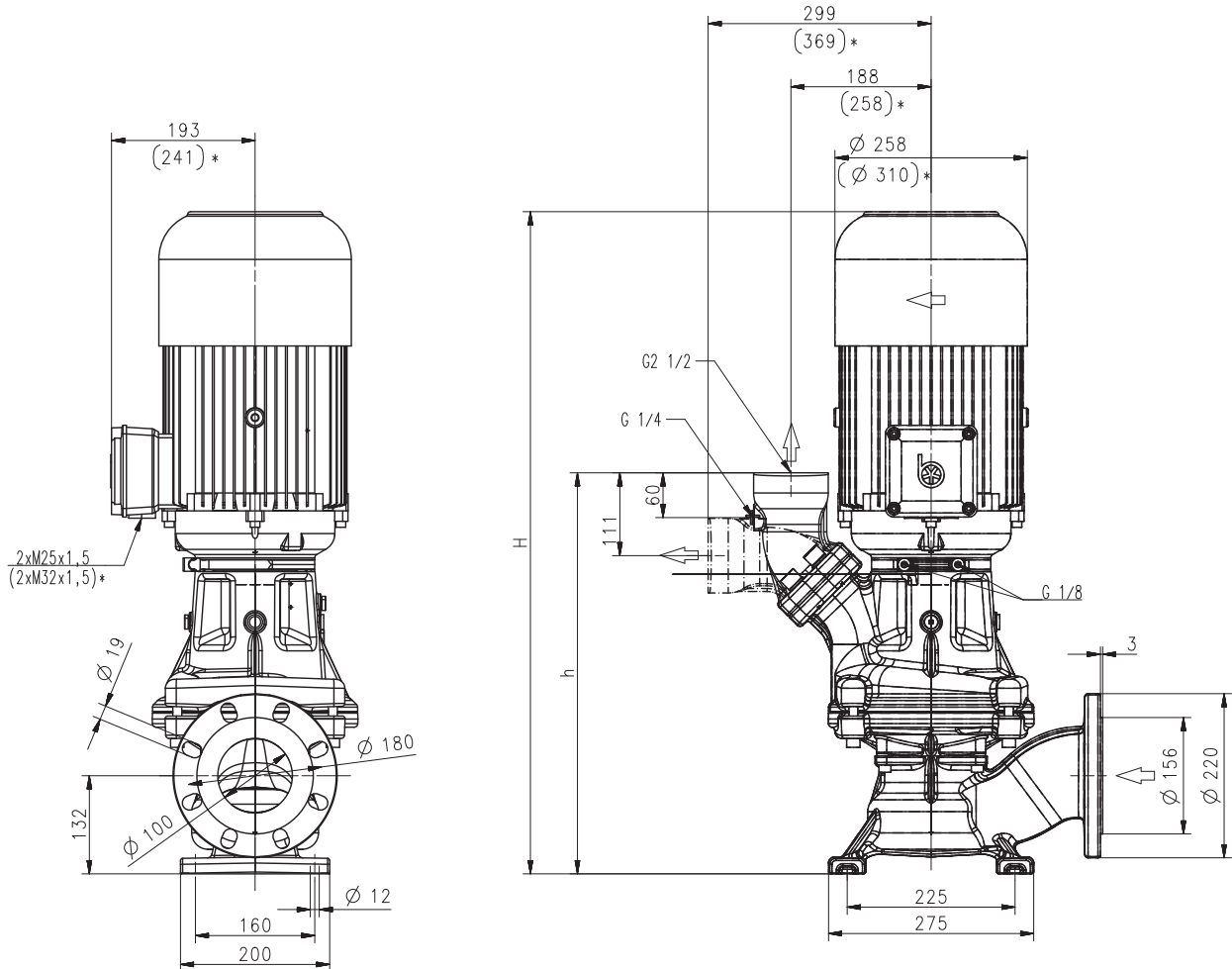


Vertical End Suction Pumps

SBA1600...2000-V

Axial/semi-open impellers

SBA1600...2000-V



*) Dimensions for SBA2000-V

Type	Vol. del. at manom. del. head l/min /m	Dimensions		Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm						
SBA1600-V	1400/15	907	538	132	9.0	380-415	50	16.6	2955
					10.3	460	60	16.1	3550
SBA2000-V	1600/15	916	609	159	11.0	380-415	50	20.1	2960
					12.6	460	60	19.5	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 G 1/4.

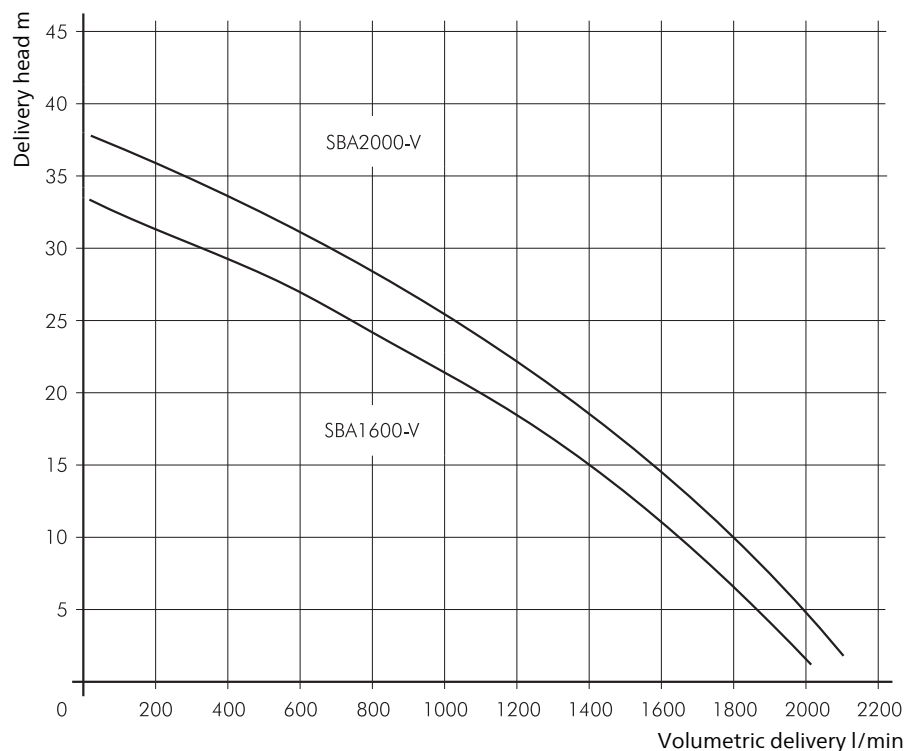
For more information see mechanical features within the technical information section.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

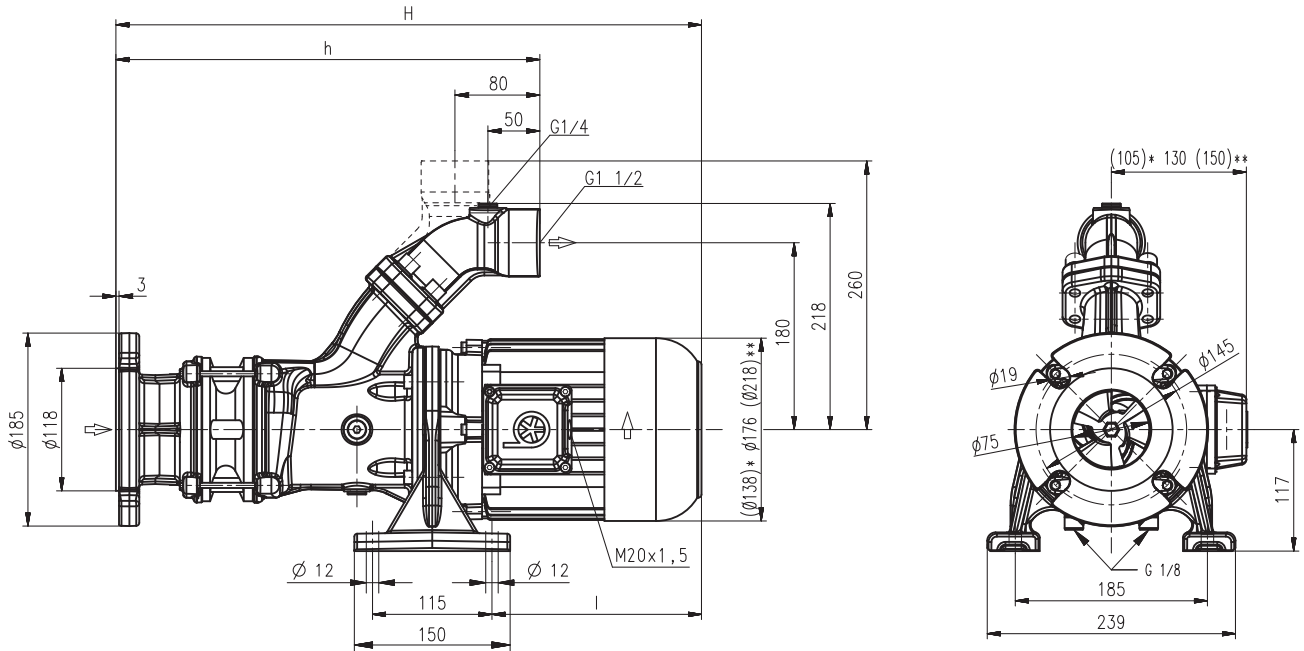
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBA1600-V...SBA2000-V	74 dBA



Horizontal End-Suction Pumps SBG501...503

Axial/semi-open impellers

SBG501...503



*) Dimensions for SBG501
**) Dimensions for SBG503

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBG501	250/6	524	360	211	31	1.1	220-240 380-415	50 50	4.33 2.50	2850 2850
SBG502	250/15	666	424	289	46	1.27	460	60	2.4	3440
SBG503	250/22	769	488	328	60	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
						2.55	460	60	4.4	3480
						3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
						3.8	460	60	6.4	3520

Horizontal End-Suction Pumps

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

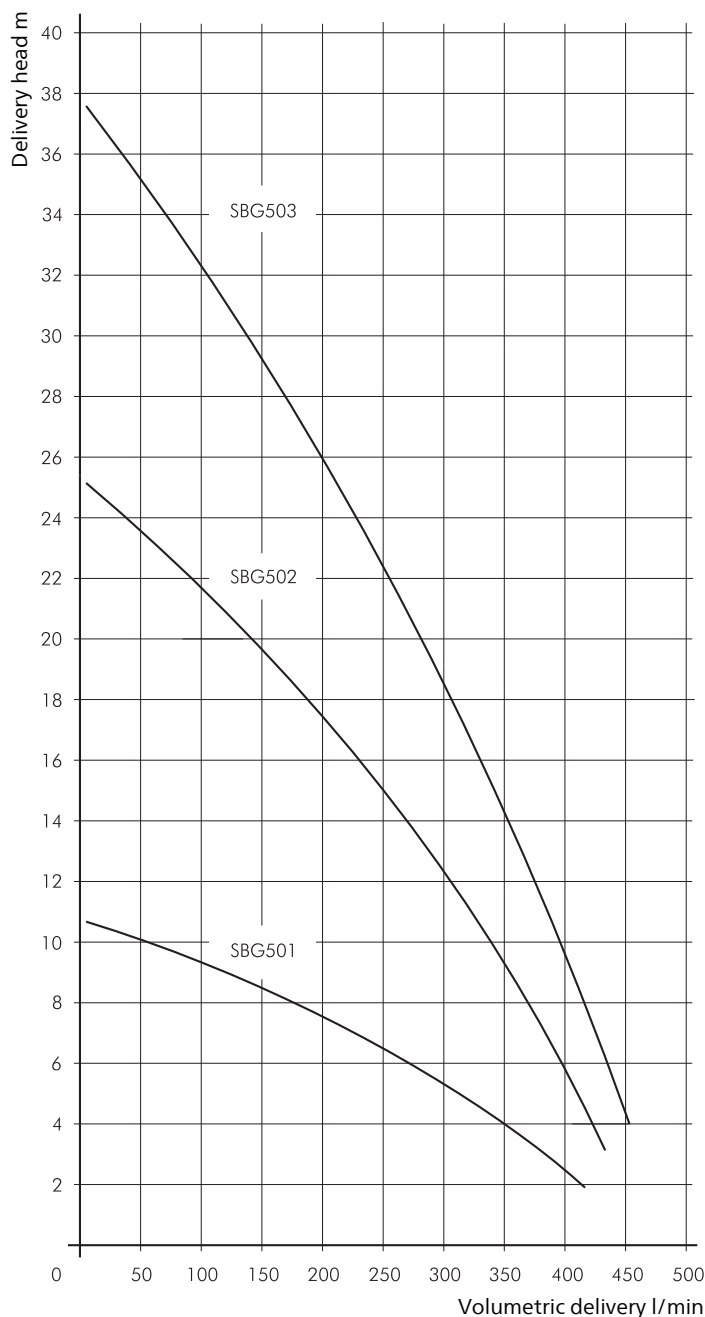


Applications

Types of fluid
coolants
cooling/cutting oils
grinding oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBG501	67 dBA
SBG502	70 dBA
SBG503	72 dBA

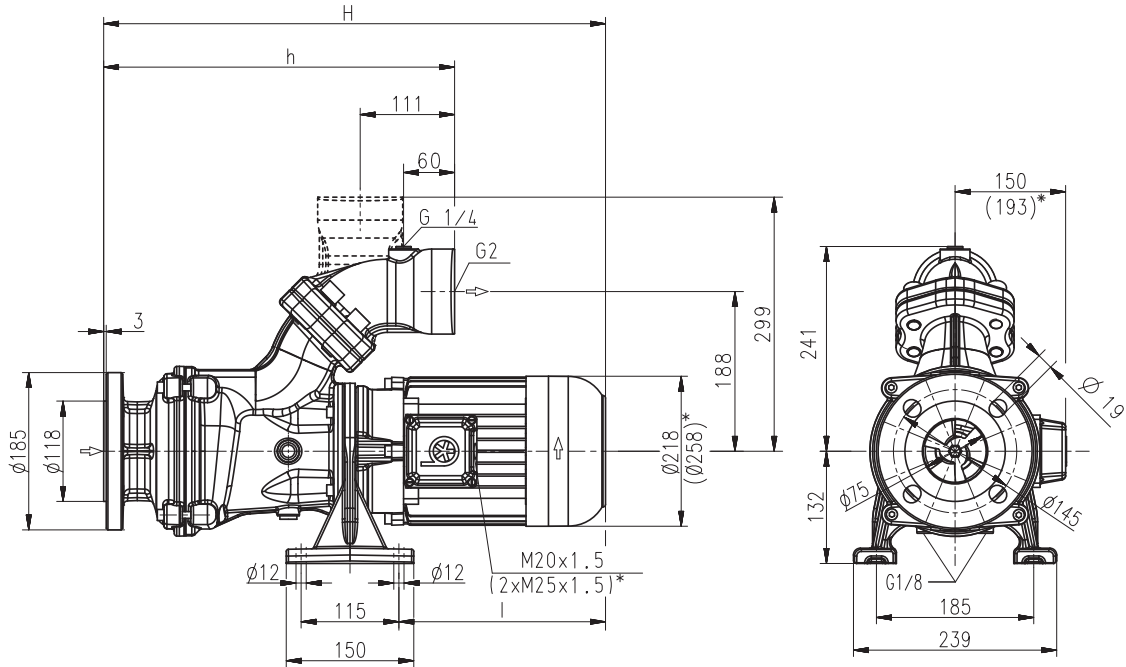


Horizontal End-Suction Pumps

SBG801...803

Axial/semi-open impellers

SBG801...803



*) Dimensions for SBG802, 803

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBG801	600/11	671	409	328	66	3.3	220-240	50	11.6	2930
							380-415	50	6.7	2930
						3.8	460	60	6.4	3520
SBG802	600/24	812	479	399	103	6.0	380-415	50	11.2	2950
						6.9	460	60	10.7	3550
SBG803	600/30	919	548	437	124	9.0	380-415	50	16.6	2955
						10.3	460	60	16.1	3550

Horizontal End-Suction Pumps

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

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

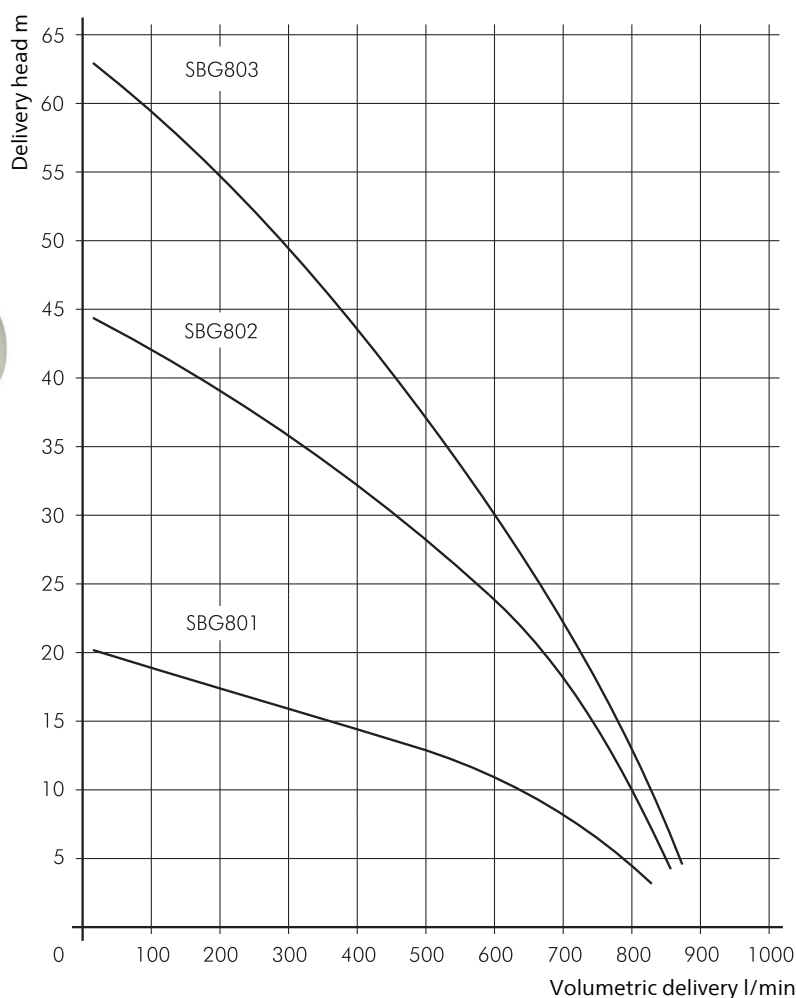
For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 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	
SBG801	72 dBA
SBG802...SBG803	75 dBA

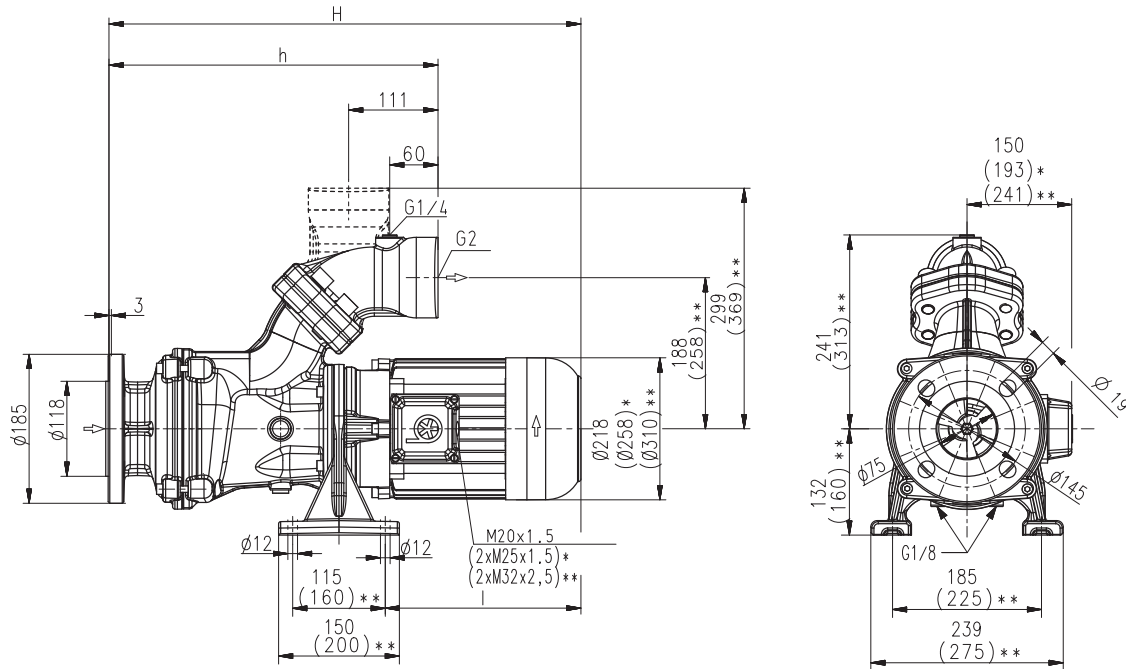


Horizontal End-Suction Pumps

SBG1101...1103

Axial/semi-open impellers

SBG1101...1103



*) Dimensions for SBG1102

**) Dimensions for SBG1103

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBG1101	900/12	705	413	358	73	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
SBG1102	900/21	863	492	437	117	5.75	460	60	9.5	3520
SBG1103	900/35	951	643	422	142	9.0	380-415	50	16.6	2955
						10.3	460	60	16.1	3550
						13.0	380-415	50	24.2	2960
						15.0	460	60	23.6	3560

Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **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 G 1/4.

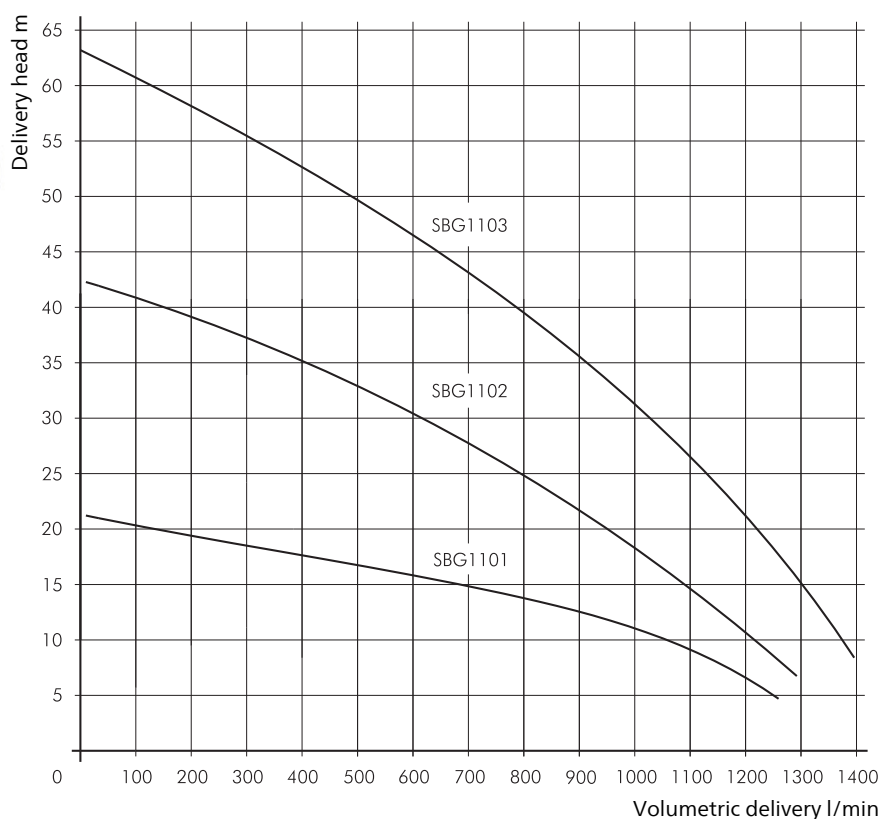
For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 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	
SBG1101	72 dBA
SBG1102...SBG1103	75 dBA

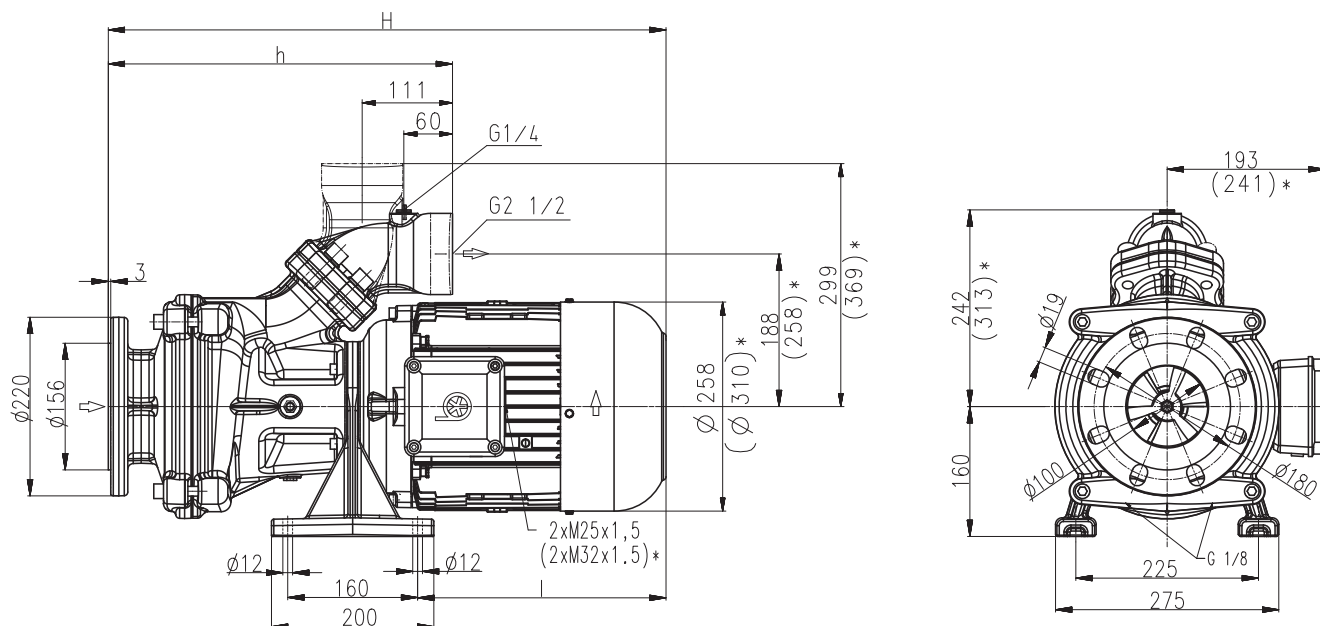


Horizontal End-Suction Pumps

SBG1400...1700

Axial/semi-open impellers

SBG1400...1700



*) Dimensions for SBG1700

Type	Vol. del. at manom. del. head l/min /m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBG1400	1200/17	793	424	414	120	9.0	380-415	50	16.6	2955
						10.3	460	60	16.1	3550
SBG1700	1500/20	802	495	422	147	13.0	380-415	50	24.2	2960
						15.0	460	60	23.6	3560

Horizontal End-Suction Pumps

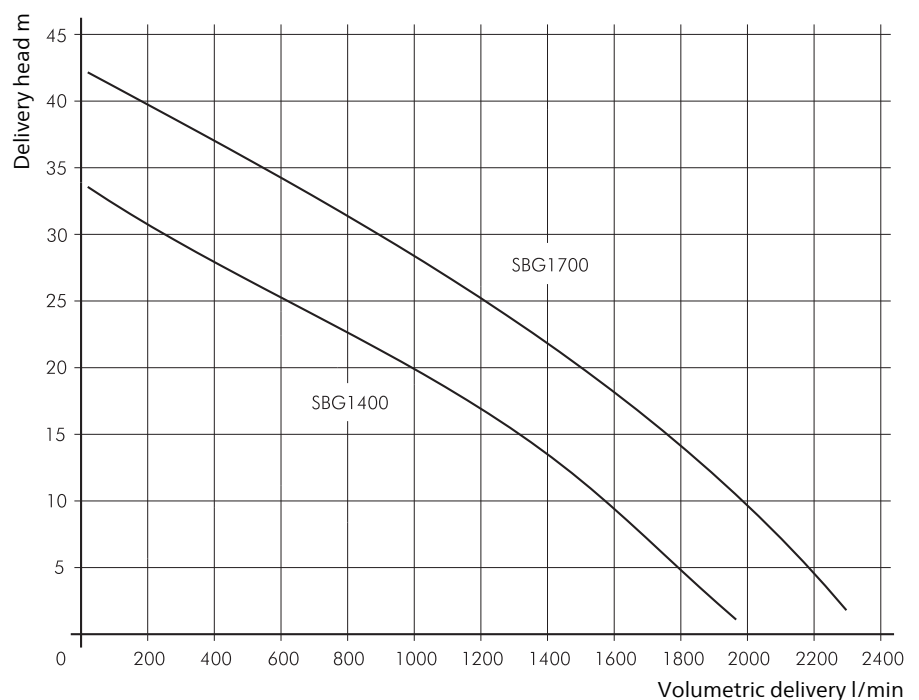
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD). This pump series is designed for horizontal installations next to a tank and for pumping **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 G 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
 ...45 mm²/s (45 cSt)
 Pumping temperature
 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	
SBG1400...SBG1700	74 dBA

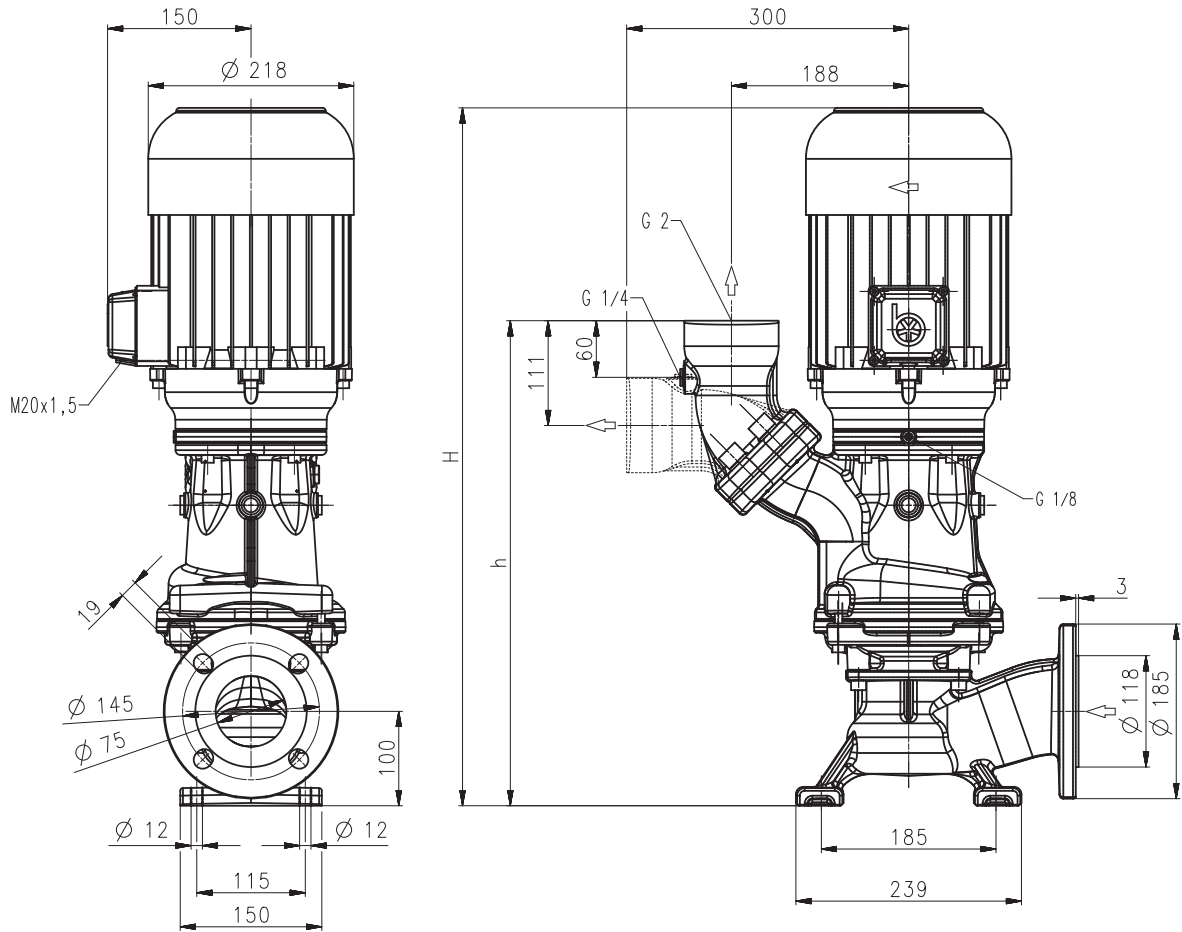


Vertical End Suction Pumps

SBG801...1101-V

Axial/semi-open impellers

SBG801...1101-V



Type	Vol. del. at manom. del. head l/min / m	Dimensions		Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm						
SBG801-V	600/12	769	507	70	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
					3.8	460	60	6.4	3520
SBG1101-V	800/11.5	792	514	77	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
					5.75	460	60	9.5	3520

Vertical End Suction Pumps

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

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

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

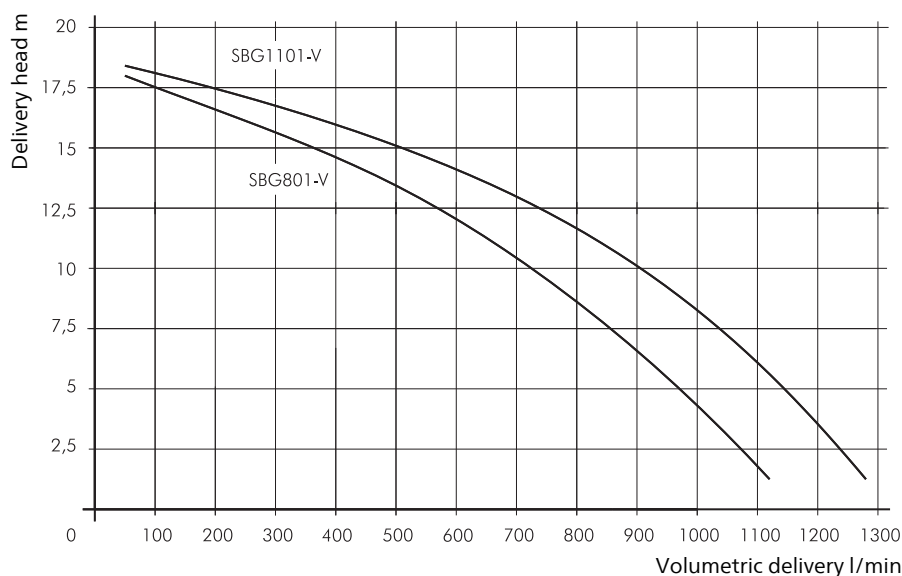
All types specified are also available as multistage pumps e.g. SBG802-V, SBG1103-V.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 0...80° C

Construction

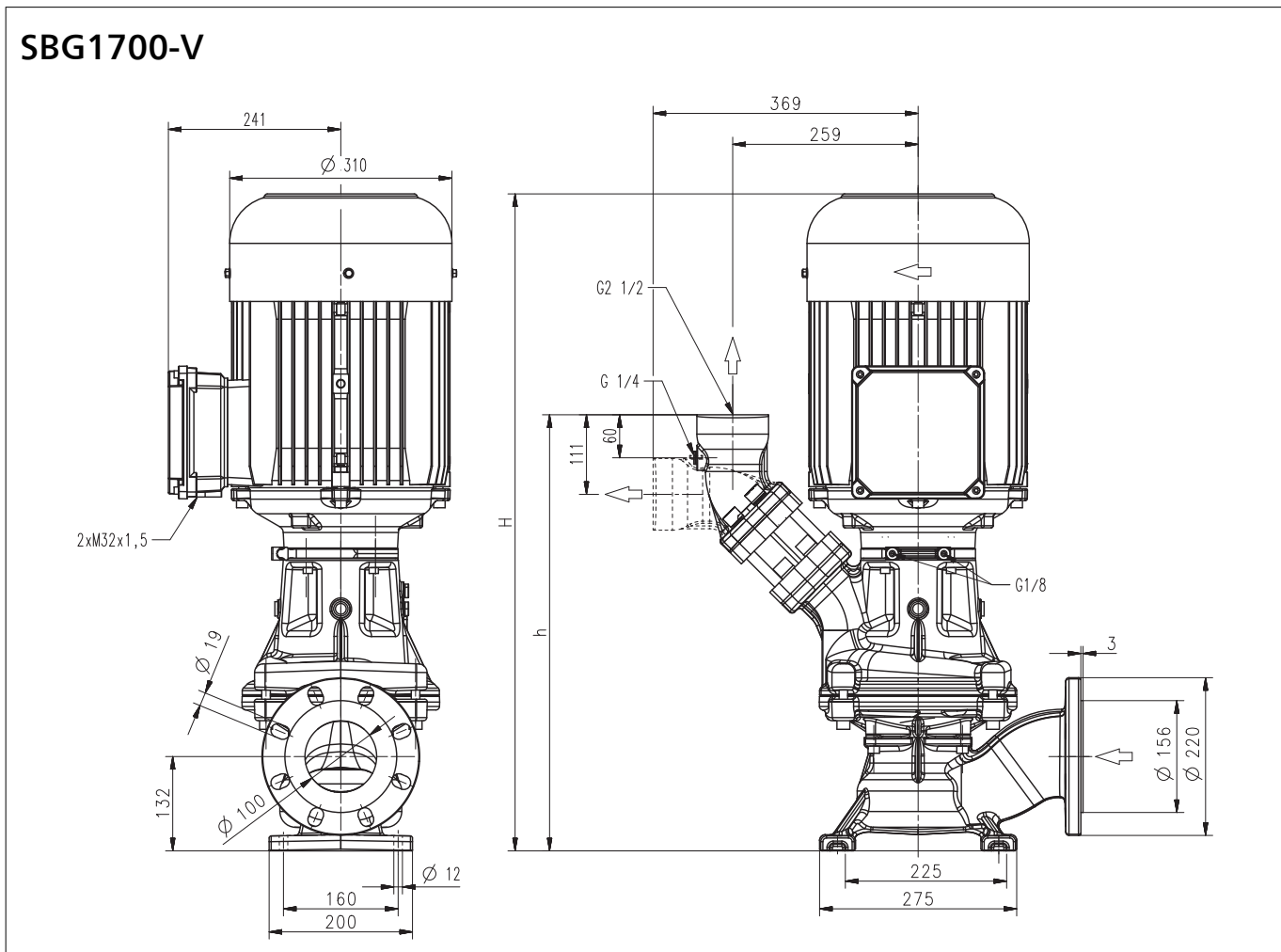
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBG801-V...SBG1101-V	72 dBA



Vertical End Suction Pumps

SBG1700-V

Axial/semi-open impellers



Type	Vol. del. at manom. del. head	Dimensions		Weight	Power	Voltage 3 ~	Fre- quen- cy	Current	Speed
	l/min /m	H mm	h mm	kg	kW	V	Hz	A	1/min
SBG1700-V	1500/20	916	609	159	13.0	380-415	50	24.2	2960
					15.0	460	60	23.6	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 G 1/4.

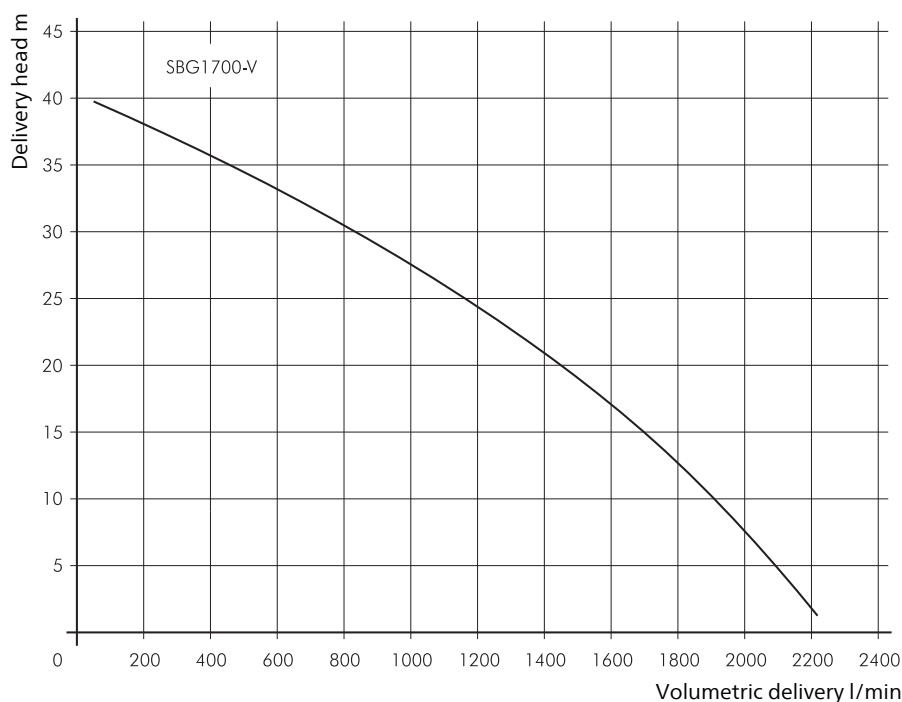
For more information see mechanical features within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 grinding oils
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 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 SBG1700-V	74 dBA

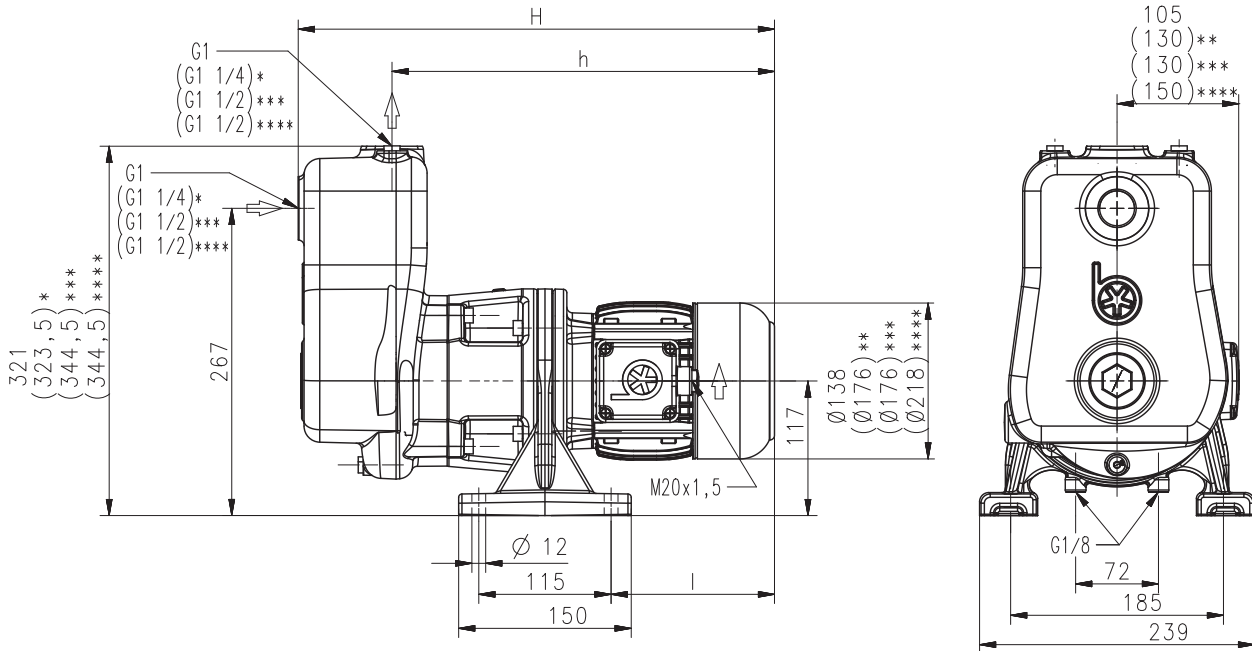


Horizontal End-Suction Pumps

SBM140...450

Semi-open impellers

SBM140...450



- *) Dimensions for SBM315, SBM315/60 Hz
- **) Dimensions for SBM315/60Hz
- ***) Dimensions for SBM450
- ****) Dimensions for SBM450/60Hz

Type	Vol. del. at manom. del. head l/min / m	Dimensions		Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
SBM140	100/8	419	332	142	27	0.54	220-240 380-420	50 50	2.42	2800
									1.40	2800
SBM140/60Hz	120/12	461	375	184	29	1.06	460	60	2.1	3440
SBM315	200/9	497	399	211	32	1.1	220-240 380-415	50 50	4.33	2850
									2.50	2850
SBM315/60Hz	240/14	542	444	256	46	1.95	460	60	3.5	3480
SBM450	240/15	586	476	289	48	1.9	220-240 380-415	50 50	6.84	2900
									3.95	2900
SBM450/60Hz	270/24	625	515	328	55	3.8	460	60	6.4	3520

Horizontal End-Suction Pumps

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

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

All pumps are equipped with a single mechanical seal.

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

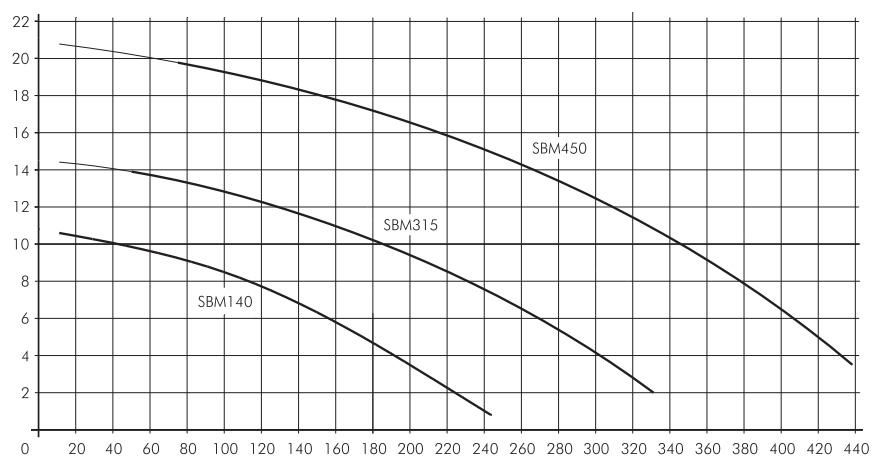
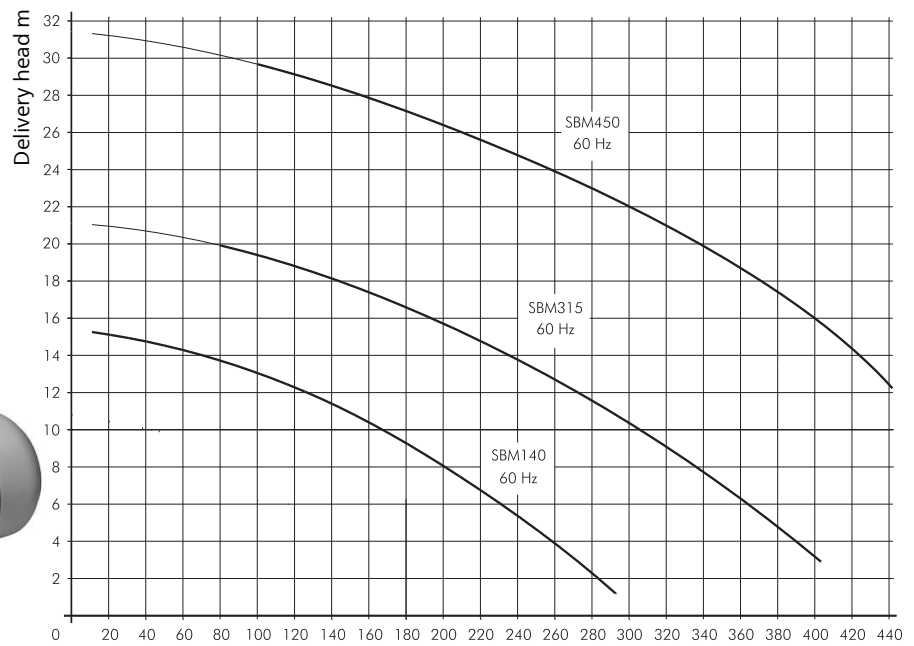
For more information see mechanical features within the technical information section.

Applications

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

Construction

- | | |
|-----------------|------------|
| Cover | cast iron |
| Impeller radial | cast steel |
| Shaft | steel |
| Mechanical seal | SiC |

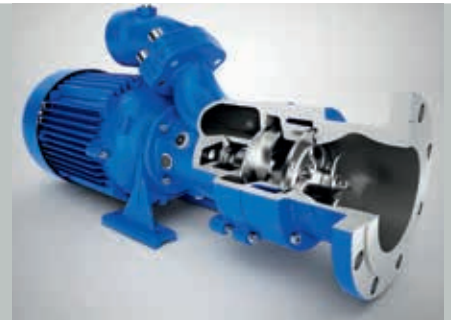


Volumetric delivery l/min

Chip handling Lifting Pumps

Chip handling with lifting pumps from Brinkmann Pumps – as versatile and flexible as your requirement. Whether you need lifting pumps, wear-optimized pumps for pump back systems to the central filtration system or cutter pumps to replace the chip breaker. Pumps are available for vertical or horizontal installation.

Coolant pumps, that's us!



SFL | SBF



Impellers
Fluids
Volumetric delivery
Delivery head

axial / semi-open
coolants,
emulsions, oils
up to 2500 l/min
up to 46 m

Quick Suctioning Immersion Pumps

- Easy mounting on top of the tank
- Simple pipe connection with 45 degree SAE flange
- Long lifetime due to low wear anti-friction bearing or cartridge shaft bushing available
- Patented BRINKMANN's Suction De-aeration System
- Chip to coolant ratio of up to 1 % by weight
- Available with additional agitator at the pump suction for breaking up bundles of chips
- Wear resistant wetted parts

Horizontal End-Suction Pumps

- Foot mounted inline pumps; gravity fed
- Simple pipe connection with 45 degree SAE flange
- Long lifetime due to low wear anti-friction bearing
- Chip to coolant ratio of up to 1 % by weight
- Available in a version resistant to dry running (-GD)
- Wear resistant wetted parts

SFC | SXC | SPC | SBC



Impellers
Fluids
Volumetric delivery
Delivery head

axial / semi-open
coolants,
emulsions,
oils (on request)
up to 1700 l/min
up to 45 m

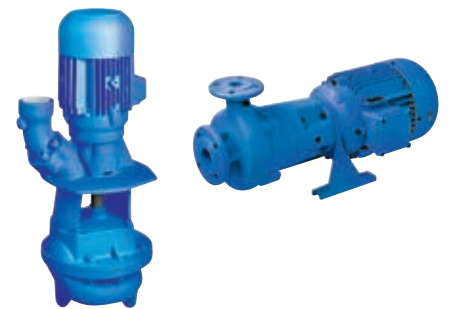
Cutter Pumps, vertical

- Easy mounting on top of the tank
- Simple piping connection with 45 degree SAE flange
- Long lifetime due to cartridge bushing
- Chip to coolant ratio of up to 1 % by weight, aluminium of up to 1.5 % by weight
- Cutting of aluminum chips (SFC), defined, low alloyed steel chips (SXC) and plastic chips (SPC)

Cutter Pumps, horizontal

- Foot mounted inline pumps; gravity fed
- Simple piping connection with 45 degree SAE flange
- Long lifetime due to cartridge bushing
- Chip to coolant ratio of up to 1.5 % by weight
- Cutting of aluminum chips
- Flange mounting to the machine
- Dry-running capability

FT | FTA | SFT | BFT



Impellers
Fluids
Volumetric delivery
Delivery head

semi-open
coolants,
emulsions, oils
up to 2350 l/min
up to 28 m

Vortex Pumps

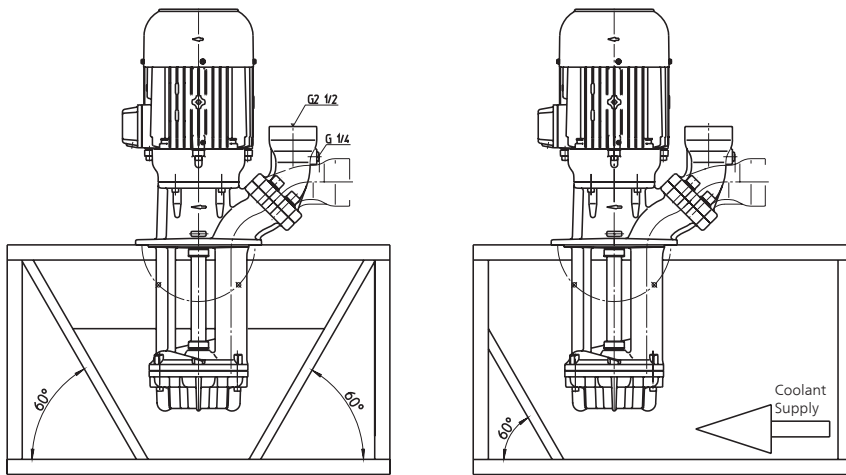
- Easy mounting on top of the tank
- Simple piping connection with 45 degree SAE flange
- Volute integrated in pump body allows for very compact design
- Long lifetime due to low wear anti-friction bearing or cartridge shaft bushing available
- Sphere size passage up to 50 mm
- Chip to coolant ratio of up to 1.5 % by weight

Vortex Horizontal End-Suction Pumps

- Foot mounted inline pumps; gravity fed
- Simple piping connection with 45 degree SAE flange
- Long lifetime due to low wear anti-friction bearing or cartridge shaft bushing available
- Sphere size passage up to 35 mm
- Chip to coolant ratio of up to 1.5 % by weight
- Available in a version resistant to dry running (-GD)



Lifting Pumps SFL



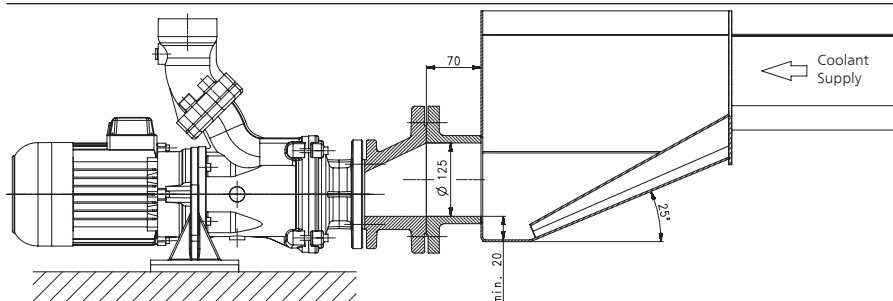
The SFL pump series represents an innovative lift pump concept which has found many pumpback applications world wide. The SFL pumps series can be customized through various options and upgrades.

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 %

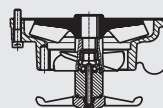
Type	Chip diameter mm	Chip length mm
SFL650	8	15
SFL850	10	20
SFL1150	15	30
SFL1350	15	30
SFL1550	15	30
SFL1850	15	30
SFL2350	25	50

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:

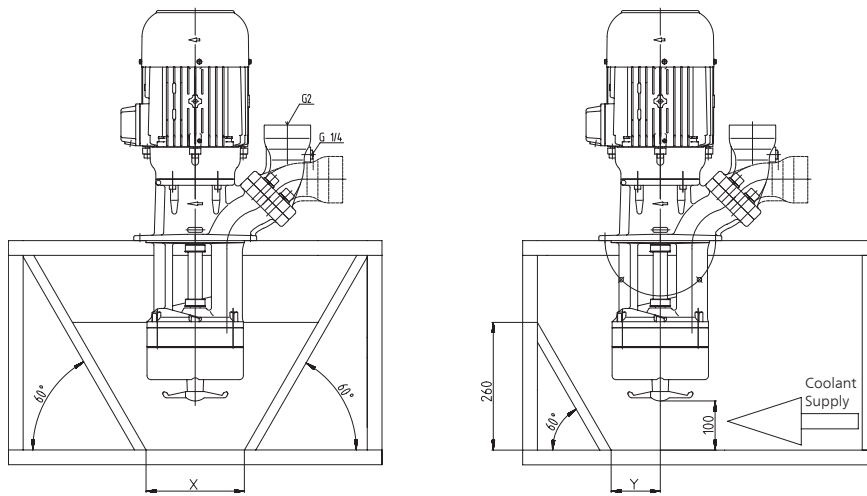


SFL and **SBF pumps** are also available with an additional agitator at the pump suction. The agitator can either be supplied directly with the pump assembly or is available as a separate component for installation in the field at a later date.

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.



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 mm	Y mm
SFC820 SFC1120	200	100
SFC1520 SFC1820 SFC2320	275	140

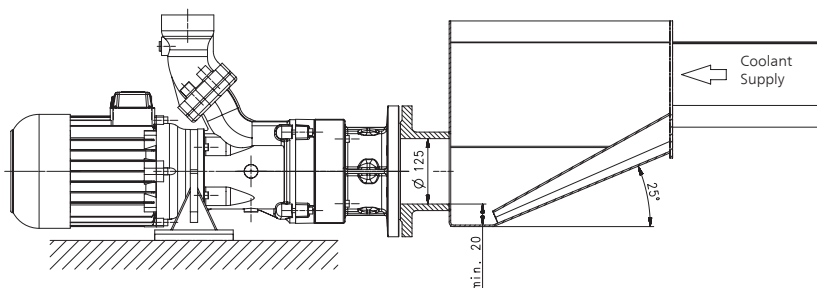
The SFC series cutter pumps are capable of cutting aluminum chips and similar materials and pumping of these materials along with the coolant fluid. An agitator located at the pump suction helps to break up and separate any large bundles of chips or birds nests which reach the pump suction.

The hardened cutting unit (>60HRC) is cutting chips and other materials 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 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 minimum distance of 100 mm between the bottom of the tank and the agitator must always be maintained in order to prevent unwanted foreign objects, such as broken tool parts, from entering pump and damaging the cutting mechanism. The tank bottom must be checked and any foreign objects must be removed regularly.

The walls of the tank around the pump should be sloped at a 60 degree angle to avoid chips from gathering inside the tank. The coolant supply should be aimed directly at the pump to ensure that also large bundles of chips reach the pump suction (please refer to the above tank design as a guide line for your tank layout).

Cutter Pumps SBC



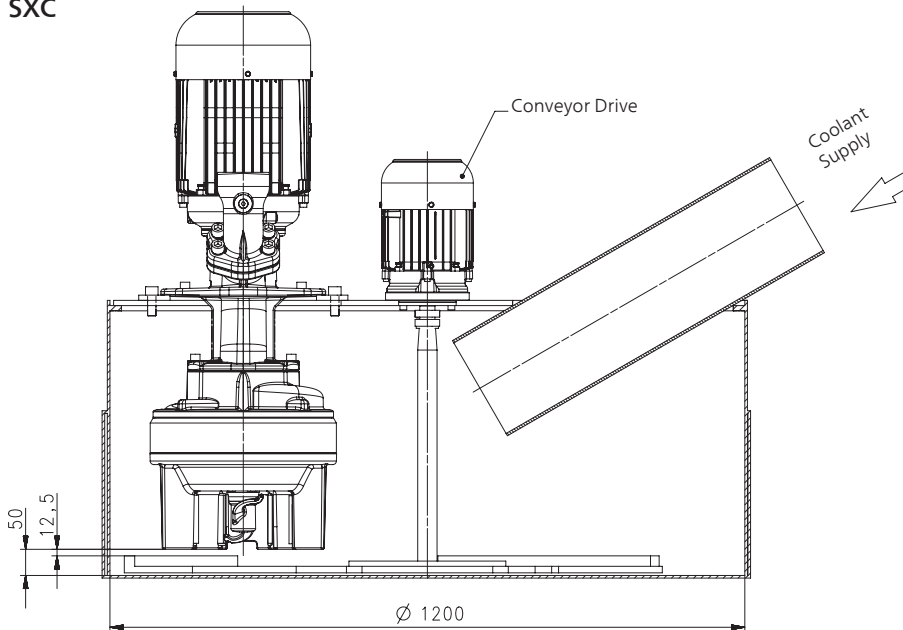
SBC pumps are comparable to SFC pumps from a technical standpoint. When directly mounted to the tank or to the machine tool preventive actions must be taken in order to avoid unwanted foreign objects, such as broken tooling pieces, from reaching the pump suction.

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.



Cutter Pumps SXC | SXC-R

SXC



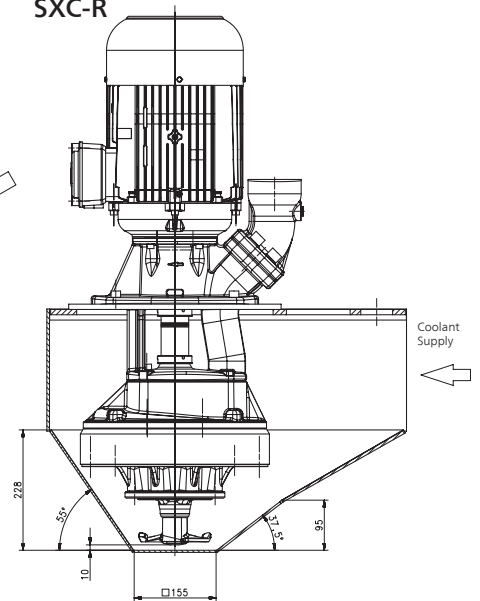
The cutter pumps of the series SXC are designed to handle low alloyed steels, machining steel and cast iron / aluminum combinations. Chips can also be in the shape of birds nests or chip bundles.

The chips must be supplied to the suction inlet of the pump, which are then picked

up by the agitator broken up if necessary, and then cut and delivered by the pump.

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

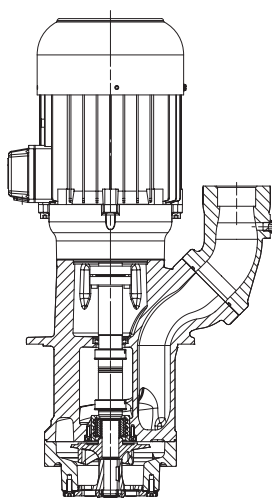
SXC-R



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



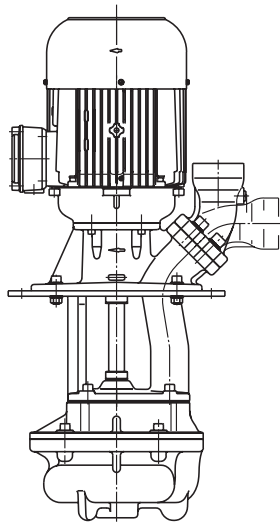
The cutter pumps of the series SPC are designed to handle and reliably cut long, stringy plastic chips.

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.



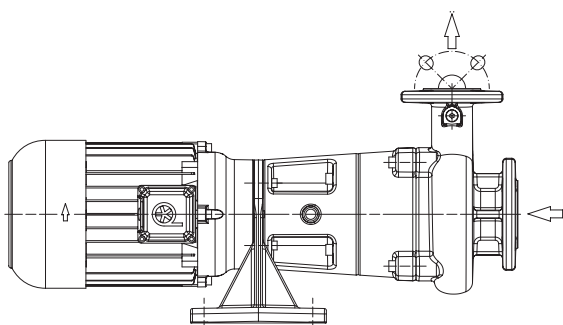
Vortex Pumps SFT



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

	Impeller material	Inlet cover material	Shaft bushing	Max. chip to coolant ratio by weight	sphere size passage mm	Chip handling capabilities
SFT450 SFT710 SFT1100	Cast steel	Special cast iron	SIC/SIC	1.5 %	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 %	45	
SFT1554-C	Cast steel	Special cast iron	–	1.5 %	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 mm	Chip handling capabilities
BFT750 BFT1250	Cast steel	Special cast iron	–	1.5 %	35	colored metal aluminium cast iron steel alloyed steel hardened steel forged steel

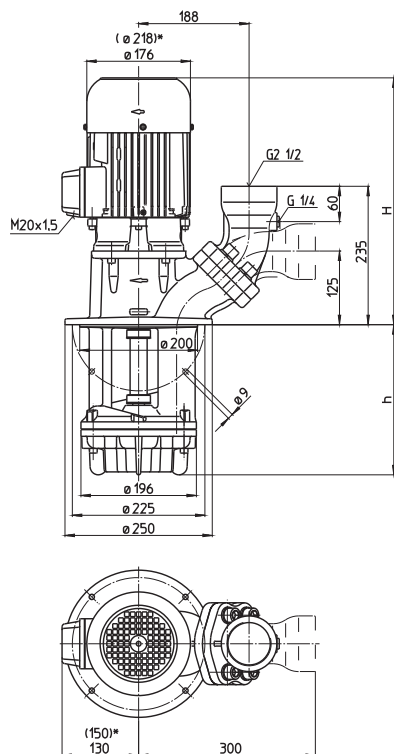
All information stated above is only intended as a general guide line for your system layout. Prior to placing your order please consult with our highly skilled sales force regarding your specific application in order to ensure proper pump selection.

Quick Suctioning Immersion Pumps

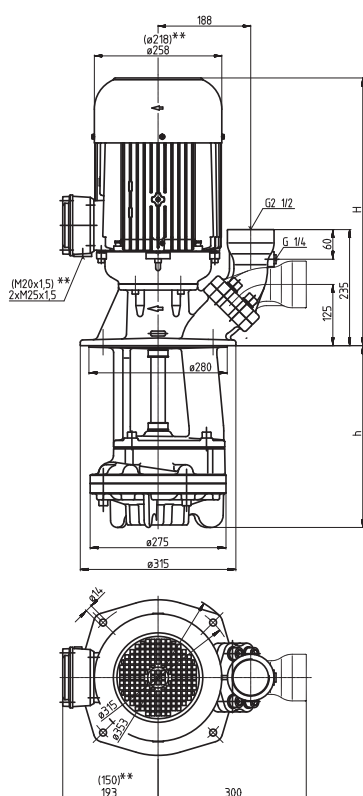
SFL650...2350

Axial/semi-open impellers

SFL650, 850 SFL1150



SFL1350...2350



*) Dimensions for SFL1150
 **) Dimensions for SFL1350
 Dimensions SFL2350 above flange as with SGL1402

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SFL650/220	400/8	464	220	51	2.2	220-240	50	7.8	2890
320			320	54					
450			450	57					
570			570	62	2.55	460	60	4.4	3480
770			770	73					
1000			1000	76					
SFL850/230	500/10	464	230	52	2.6	220-240	50	9.30	2880
330			330	55					
460			460	58	2.94	460	60	5.1	3480
580			580	65					
780			780	75					
1010			1010	78					
SFL1150/230	600/10	503	230	62	4.0	220-240	50	14.50	2920
330			330	66					
460			460	73	4.55	460	60	7.9	3520
580			580	76					
780			780	85					
1010			1010	88					
SFL1350/310	700/13	533	310	95	5.5	220-240	50	18.9	2915
440			440	99					
560			560	106	6.3	460	60	10.4	3510
810			810	122					
1060			1060	131					
SFL1550/310	900/15	612	310	127	7.5	380-415	50	13.8	2950
440			440	132					
560			560	135	8.6	460	60	13.5	3550
810			810	154					
1060			1060	163					
SFL1850/310	1150/15	612	310	134	9.0	380-415	50	16.6	2955
440			440	138					
560			560	142	10.3	460	60	16.1	3550
810			810	161					
1060			1060	169					
SFL2350/340	1400/28	974	340	196	18.5	400	50	32	2955
470			470	201					
590			590	207	21.3	460	60	32	3555
840			840	222					
1090			1090	231					

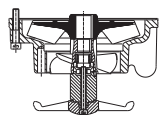
Quick Suctioning Immersion Pumps

series SFL equipped with the patented "BRINKMANN's Suction De-aeration System" are excellently suited to 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 serie offers a **flange** with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.



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

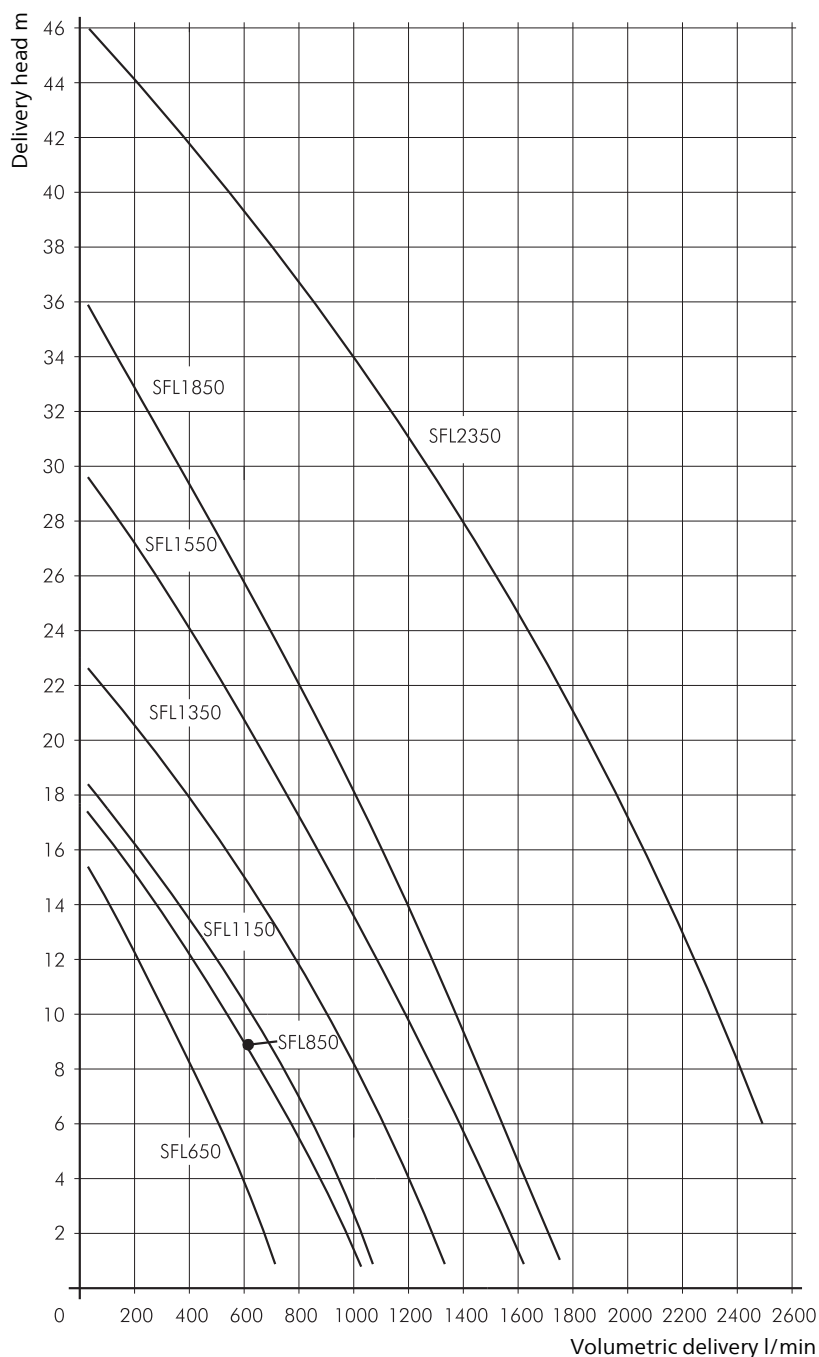


Applications

Types of fluid
coolants
cooling/cutting oils
Max. chip to coolant ratio by weight:
1.0 %
Chip material:
Aluminium, steel, coloured steels
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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

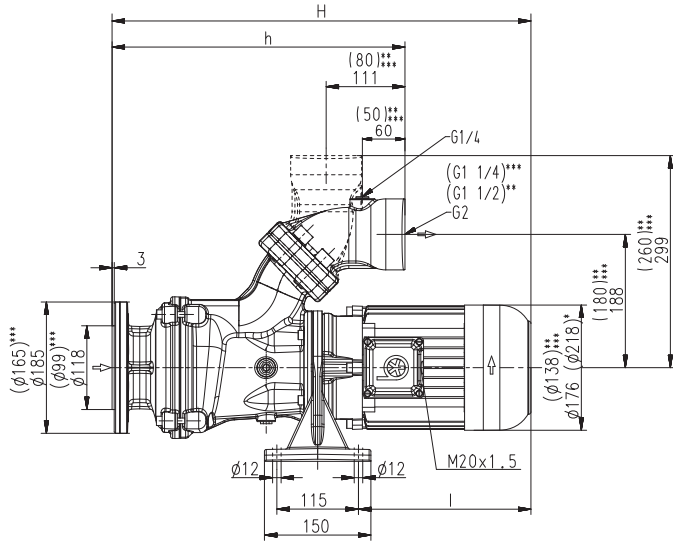


Horizontal End-Suction Pumps

SBF125...1150

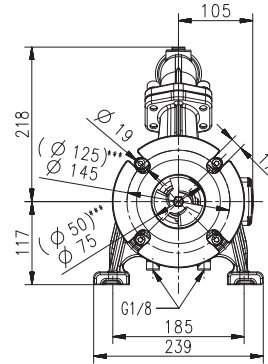
Axial/semi-open impellers

SBF125...1150

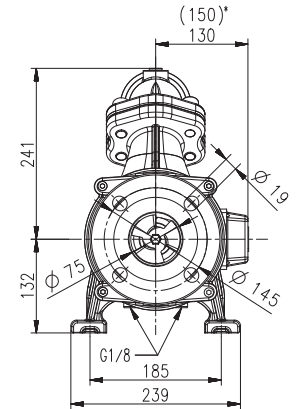


- *) Dimensions for SBF850,1150
- **) Dimensions for SBF550
- ***) Dimensions for SBF125

SBF125, 550



SBF650, 850, 1150



Type	Vol. del. at manom. del. head	Dimensions		Length	Weight	Power	Voltage 3~	Frequency	Current	Speed
	l/min / m	H mm	h mm	l mm	kg	kW	V	Hz	A	1/min
SBF125	80/5.5	456	359	143	27	0.54	220-240	50	2.42	2800
							380-420	50	1.40	2800
							460	60	1.40	3300
SBF550	250/4	524	360	211	30	1.1	220-240	50	4.33	2850
							380-415	50	2.50	2850
						1.27	460	60	2.4	3440
SBF650	400/7	632	409	289	55	2.2	220-240	50	7.8	2890
							380-415	50	4.5	2890
						2.55	460	60	4.4	3480
SBF850	500/10	675	413	328	67	3.3	220-240	50	11.6	2930
							380-415	50	6.7	2930
						3.8	460	60	6.4	3520
SBF1150	600/13	675	413	328	72	4.0	220-240	50	14.50	2920
							380-415	50	8.35	2920
						4.55	460	60	7.9	3520



Horizontal End-Suction Pumps

are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. The SBF125 pumps are equipped with double mechanical seal. The SBF550...1150 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 G 1/4.

*) SBF125...550 with SAE flange.

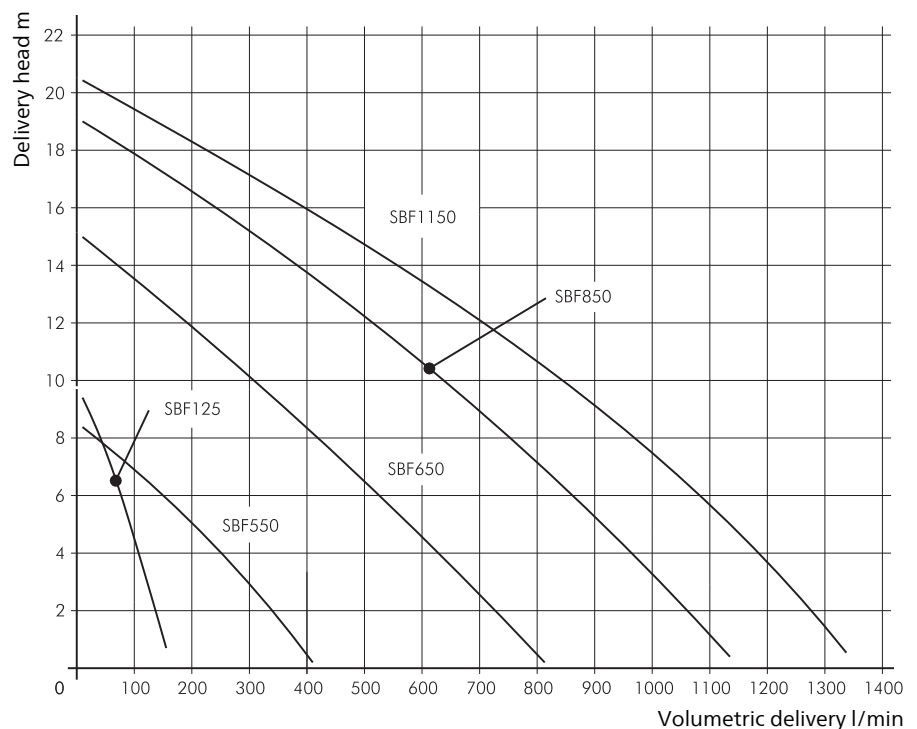
For more information see lifting pumps features SFL/SBF within the technical information section.

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
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBF550	62 dBA
SBF125	64 dBA
SBF650	66 dBA
SBF850...SBF1150	71 dBA

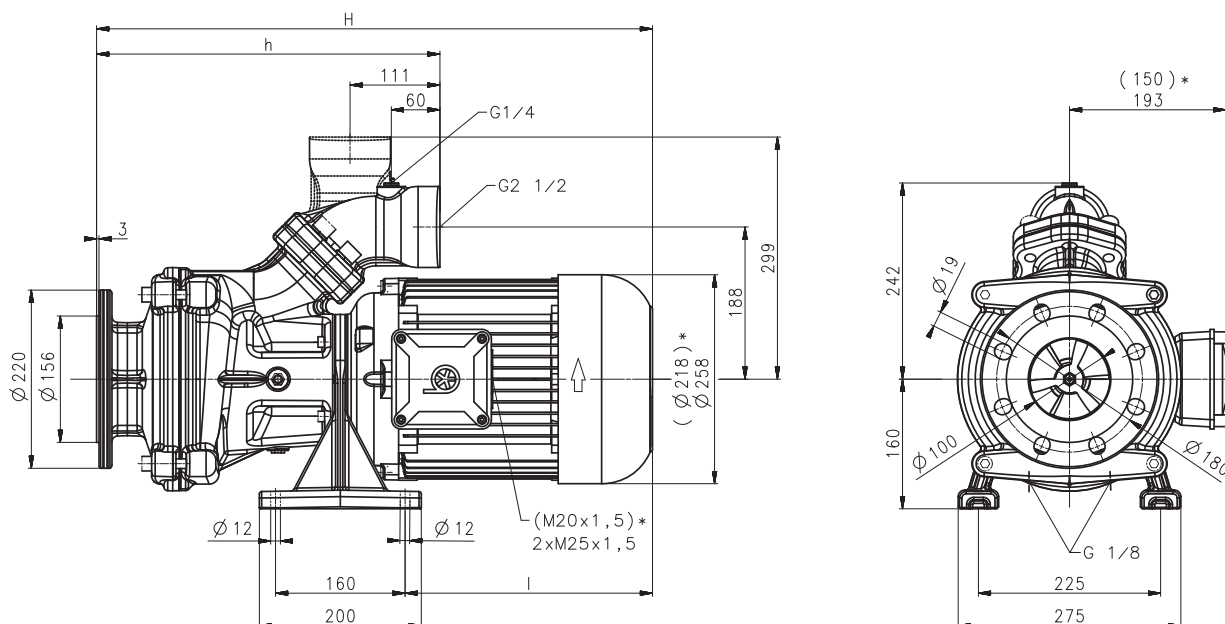


Horizontal End-Suction Pumps

SBF1350...1850

Axial/semi-open impellers

SBF1350...1850



*) Dimensions for SBF1350



Type	Vol. del. at manom. del. head	Dimensions		Length	Weight	Power kW	Voltage 3 ~ V	Frequency Hz	Current A	Speed 1/min
	l/min / m	H mm	h mm	l mm	kg					
SBF1350	600/15	716	424	335	86	5.5	220-240	50	18.9	2915
							380-415	50	10.9	2915
						6.3	460	60	10.4	3510
SBF1550	850/18	793	424	414	113	7.5	380-415	50	13.8	2950
						8.6	460	60	13.5	3550
						SBF1850	1100/18	843	424	414
10.3	460	60	16.1	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 G 1/4.

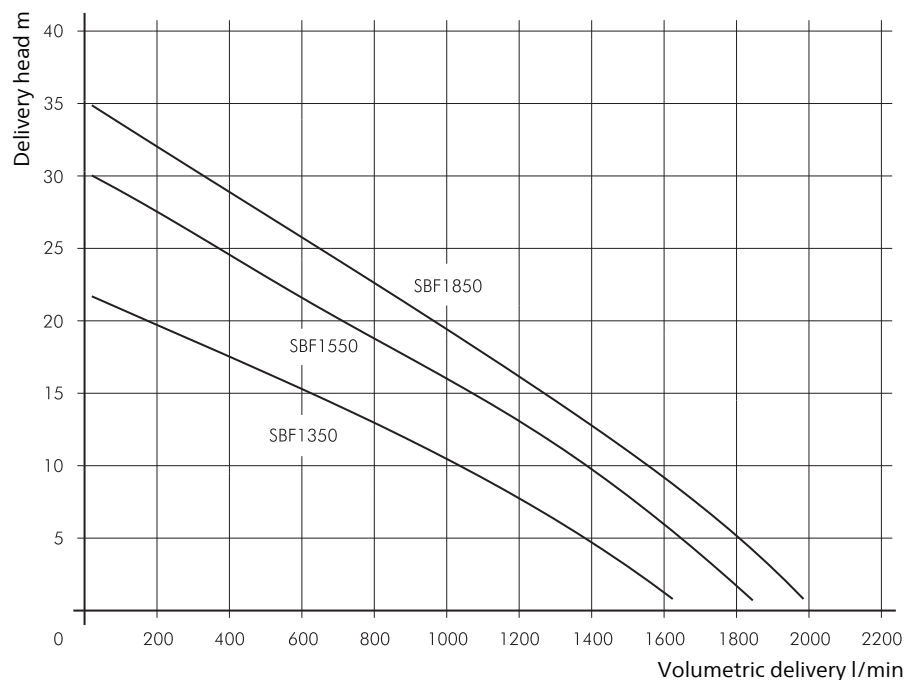
For more information see lifting pumps features SFL/SBF within the technical information section.

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
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C

Construction

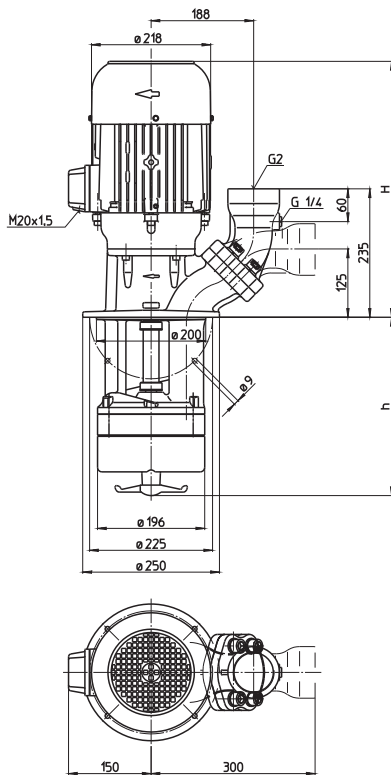
Pump body	cast iron
Cover	cast iron
Impeller axial	cast steel
Impeller radial	cast steel
Shaft	steel
Mechanical seal	SiC
Noise level	
SBF1350	71 dBA
SBF1550...SBF1850	74 dBA



Cutter Pumps SFC820...2320

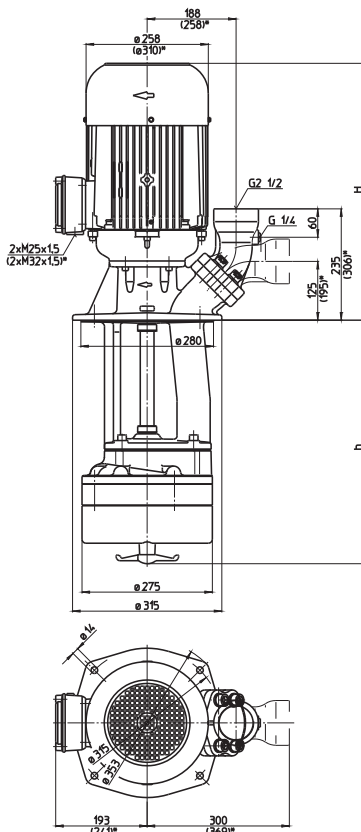
Axial/semi-open impellers

SFC820...1120



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SFC820/290	400/10	503	292	73	4.0	220-240	50	14.50	2920
390			392	76					
520			522	78					
640			642	81	4.55	460	60	7.9	3520
SFC1120/290	500/12	533	292	78	5.5	220-240	50	18.9	2915
390			392	81					
520			522	85					
640			642	88	6.3	460	60	10.4	3510
SFC1520/370	700/16	612	372	144	7.5	380-415	50	13.8	2950
500			502	149					
620			622	153					
SFC1820/370	800/20	620	372	173	11.0	380-415	50	20.1	2960
500			502	176					
620			622	180					
SFC2320/400	900/28	974	400	223	18.5	400	50	32	2955
530			530	227					
650			650	233					

SFC1520...2320



*) Dimensions for SFC1820
Dimensions SFC2320 above flange as with
SGL1420

Cutter Pumps

The cutter pumps of the **series SFC** 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 specially made cutting unit (> 60HRC) 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 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 with G 1/4. For more information see lifting pumps features SFC/SBC within the technical information section.

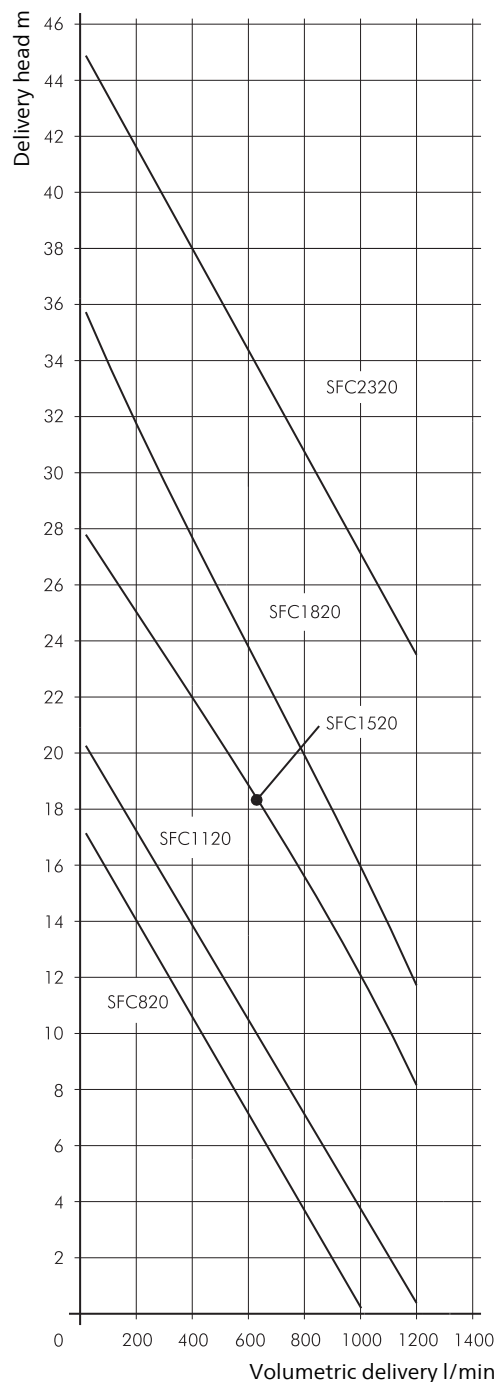


Applications

Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 1.5 %
 Chip material:
 Aluminium
 Kinematic viscosity
 ...45 mm²/s (45 cSt)
 Pumping temperature
 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

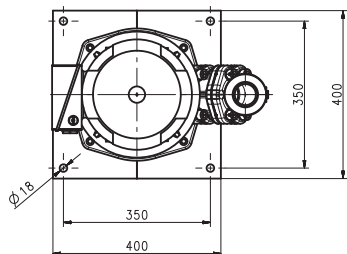
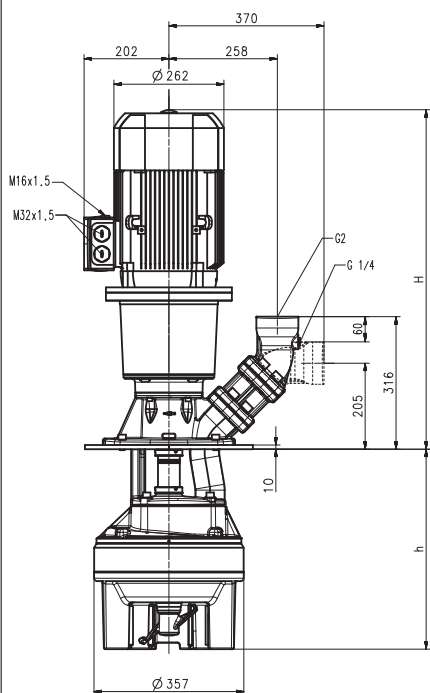


Cutter Pumps

SXC2824

Axial/semi-open impellers

SXC2824



Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power (4-pole) kW	Voltage 3~ V	Frequency Hz	Current A	Speed 1/min
SXC2824/480	750/13	809	476	194	7.5	400	50	14.3	1465
	610		606	196					
	730		726	199	8.6	460	60	13.8	1765



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. The chips must be supplied to the suction mouth of the pump. The chips are being picked up by the agitator then broken up, if necessary, and then cut and 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 with G 1/4.

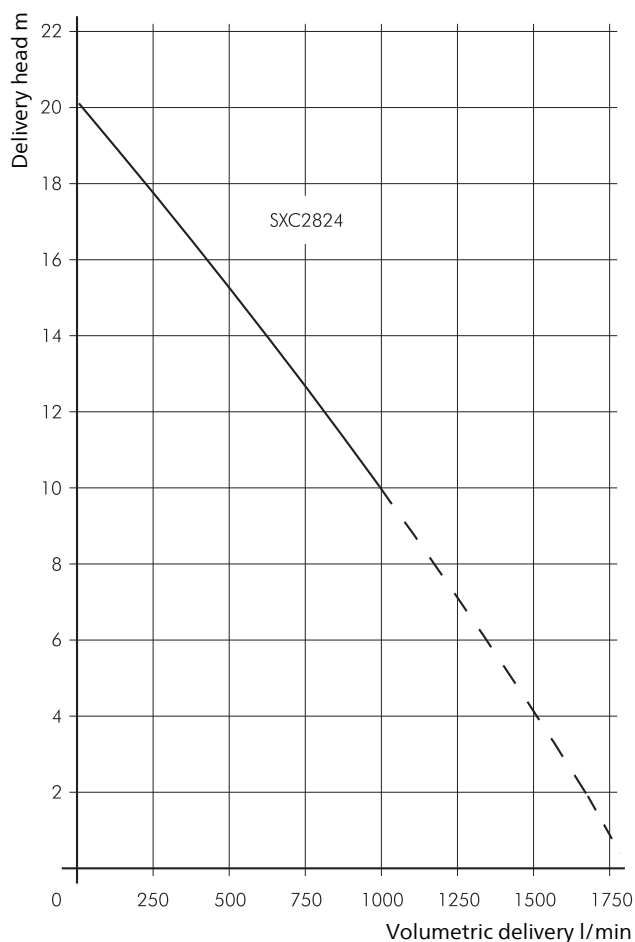
For more information see lifting pumps features SXC/SPC within the technical information section.

Applications

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

Construction

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

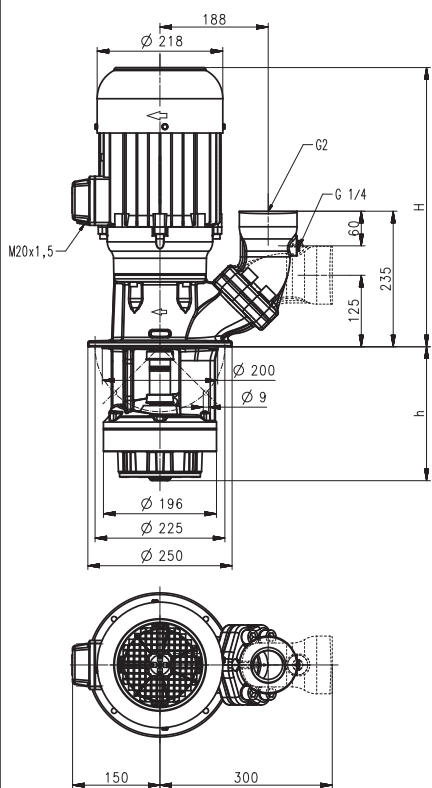


Cutter Pumps

SPC820

Axial/semi-open impellers

SPC820



Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SPC820/230	400/10.5	503	232	71	3.3	220-240	50	11.6	2930
330			332	73					
460			462	75					
					3.8	460	60	6.4	3520



Cutter Pumps

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.

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 with G 1/4.

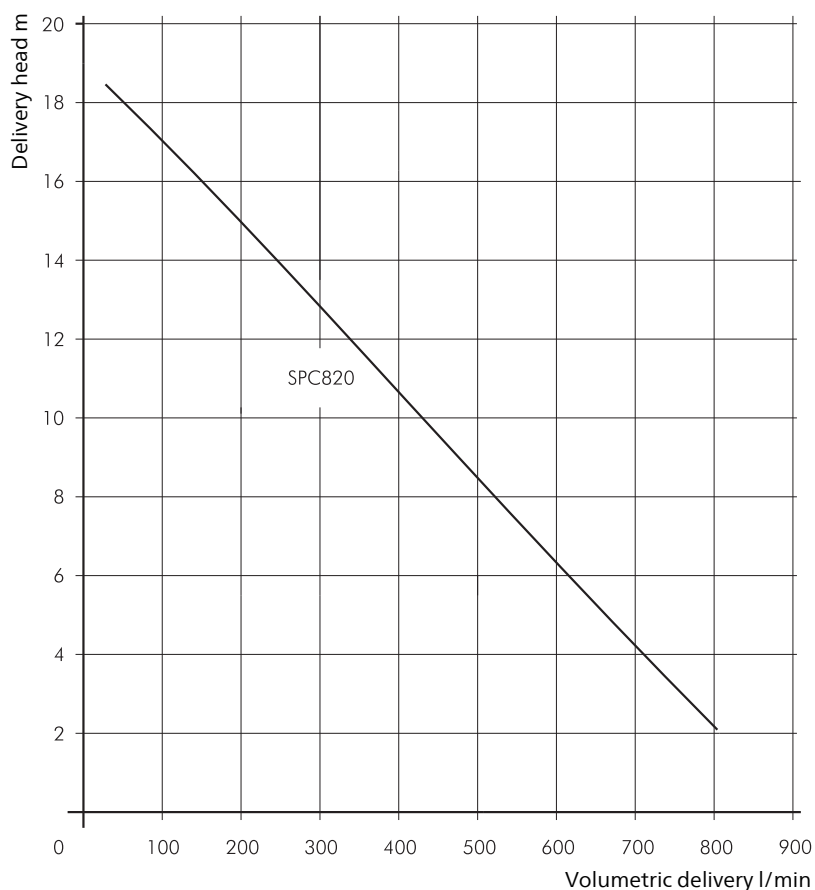
For more information see lifting pumps features SXC/SPC within the technical information section.

Applications

Types of fluid
 coolants
 cooling/cutting oils
 Max. chip to coolant ratio by weight:
 0.3 %
 Chip material:
 Plastic
 Kinematic viscosity
 ...30 mm²/s (30 cSt)
 Pumping temperature
 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

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 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 specially made 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 G 1/4.

For more information see lifting pumps features SFC/SBC within the technical information section.

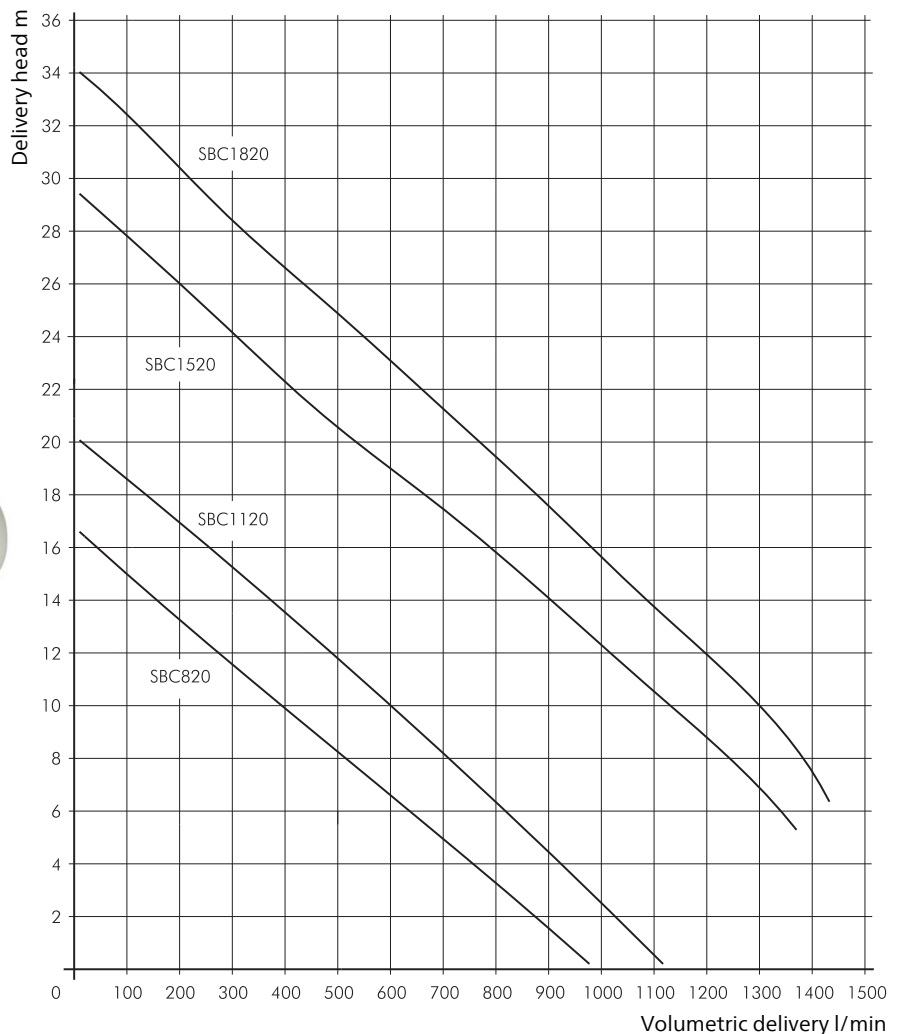


Applications

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 100 mm
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
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	
SBC820...SBC1120	71 dBA
SBC1520...SBC1820	74 dBA

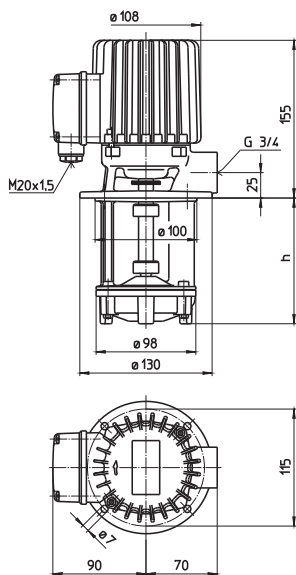


Free Flow-Immersion Pumps

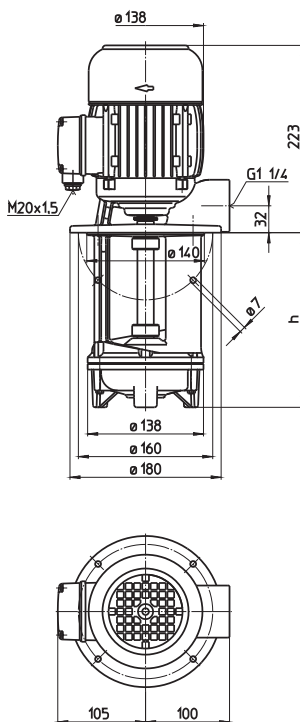
FT35...FTA140

Semi-open impellers

FT35



FTA140



Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FT35/100	40/2	155	100	5.5	0.21	220-240	50	0.71	2800
130			130	5.8		380-420	50	0.41	2800
180			180	6.0		460	60	0.41	3300
230			230	6.5					
280			280	7.0					
360			360	7.5					
FTA140/130	150/2	223	130	13.5	0.55	220-240	50	2.50	2750
210			210	14.0		380-420	50	1.45	2750
280			280	15.0		460	60	1.45	3250
360			360	16.0					
450			450	17.5					
560			560	19.0					



Free Flow-Immersion Pumps

series FT/FTA are provided to lift coolant for filtering.

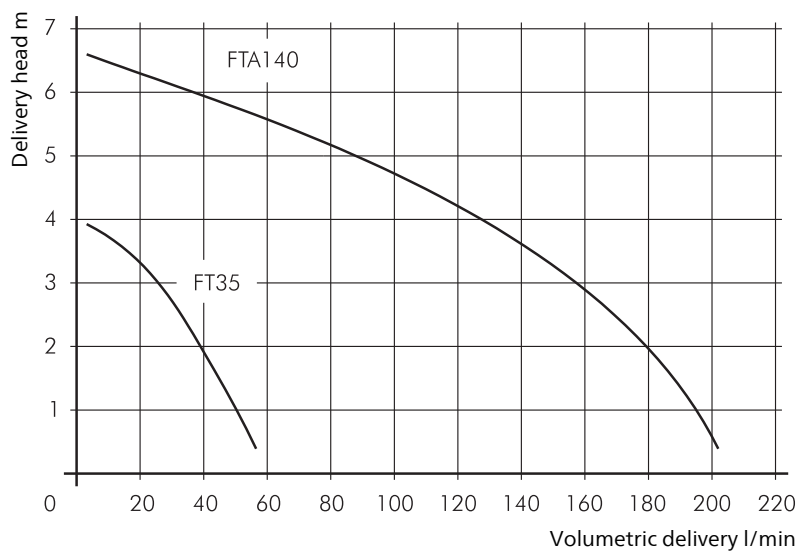
Middle shreds can be transported together with liquids.

Applications

Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...60° C

Construction

Pump body	cast iron
Cover	cast iron
Impeller	brass
Shaft	steel
Optional:	
Cover	POM (FT35)
Impeller	POM
	cast iron
Noise level	
FT35	45 dBA
FTA140	60 dBA

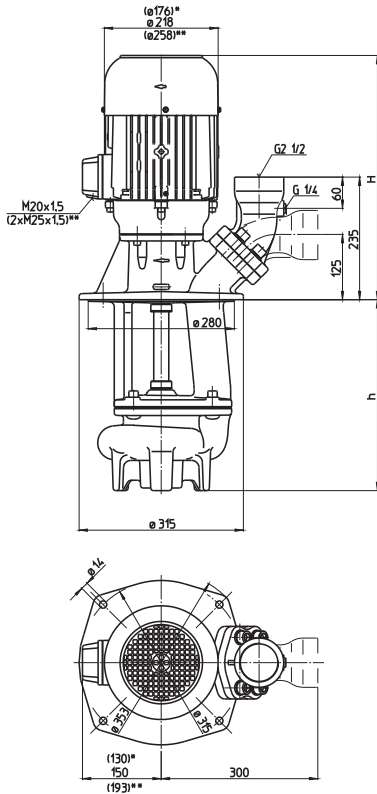


Free Flow-Immersion Pumps

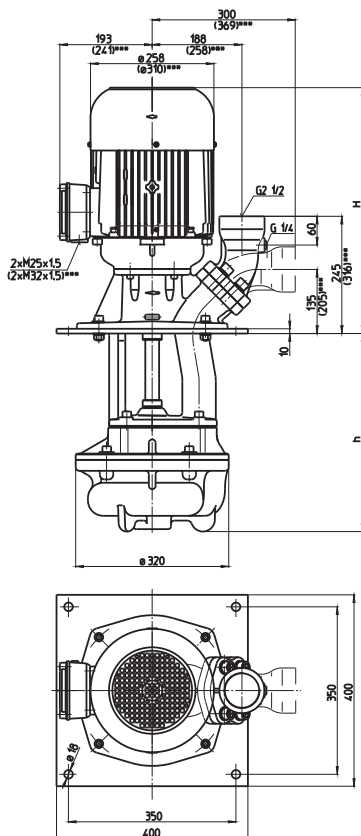
SFT450...1400

Semi-open impellers

SFT450...1100



SFT1300...1400



*) Dimensions for SFT450
 **) Dimensions for SFT1100
 ***) Dimensions for SFT1400

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SFT450/300	600/5	464	300	65	2.6	220-240	50	9.30	2880
	430		430	70					
	550		550	74	2.94	460	60	5.1	3480
	800		800	97					
	1050		1050	102					
SFT710/300	800/5	503	300	81	4.0	220-240	50	14.50	2920
	430		430	84					
	550		550	86	4.55	460	60	7.9	3520
	800		800	109					
	1050		1050	129					
SFT1100/300	1100/5	574	300	104	6.5	380-415	50	12	2945
	430		430	109					
	550		550	115	7.48	460	60	11.5	3545
	800		800	138					
	1050		1050	148					
SFT1300/360	800/11	574	363	155	6.5	380-415	50	12	2945
	490		493	160					
	610		613	164	7.48	460	60	11.5	3545
SFT1350/360	800/15	612	363	166	9.0	380-415	50	16.6	2955
	490		493	171					
	610		613	175	10.3	460	60	16.1	3550
SFT1400/360	800/19	620	363	190	11.0	380-415	50	20.1	2960
	490		493	195					
	610		613	199	12.6	460	60	19.5	3560

Free Flow-Immersion Pumps

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

The SFT serie offers a flange with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants

Max. chip to coolant ratio by weight:
1.5 %

Chip material:

Aluminium, steel, coloured steels

Chip geometry:

Flow chips up until 80 mm long

Kinematic viscosity

...30 mm²/s (30 cSt)

higher viscosity upon request

Pumping temperature

0...60° C

Construction

Pump body

cast iron

Cover

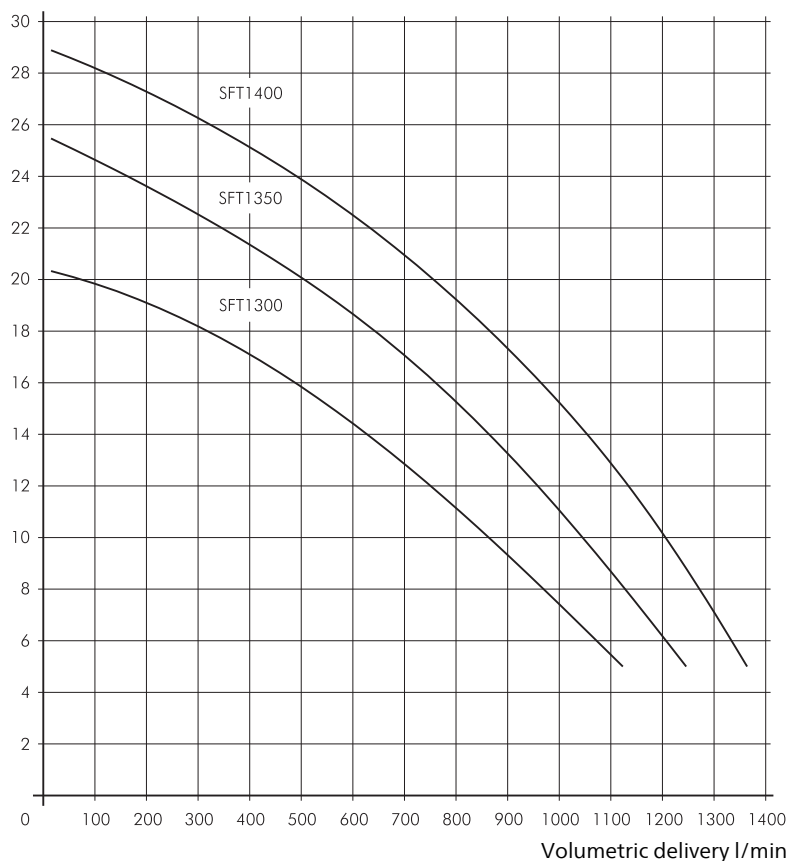
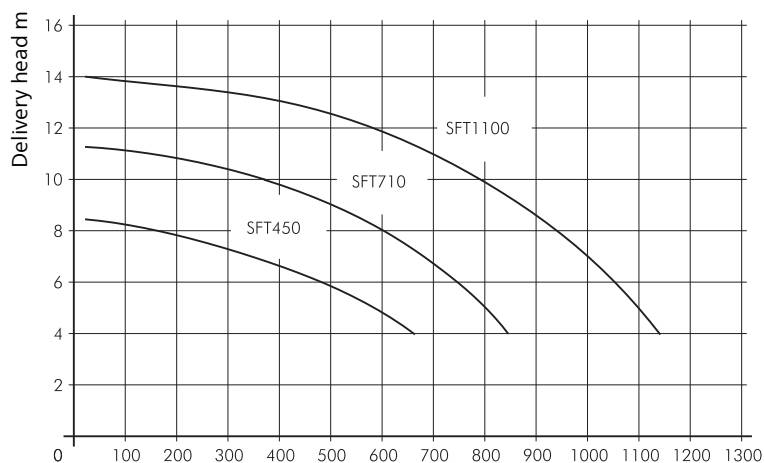
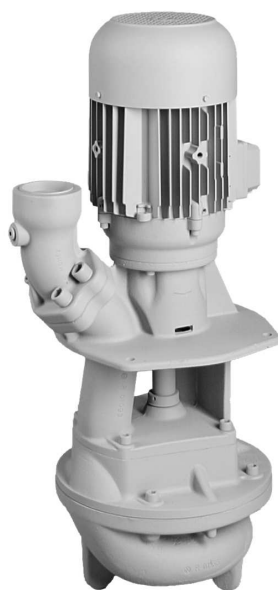
special cast iron

Impeller

cast steel

Shaft

steel

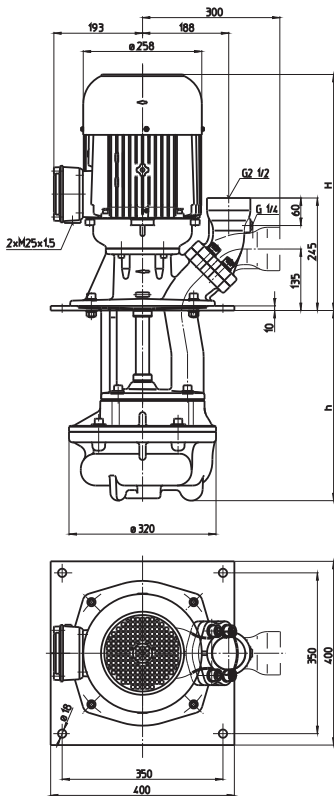


Free Flow-Immersion Pumps

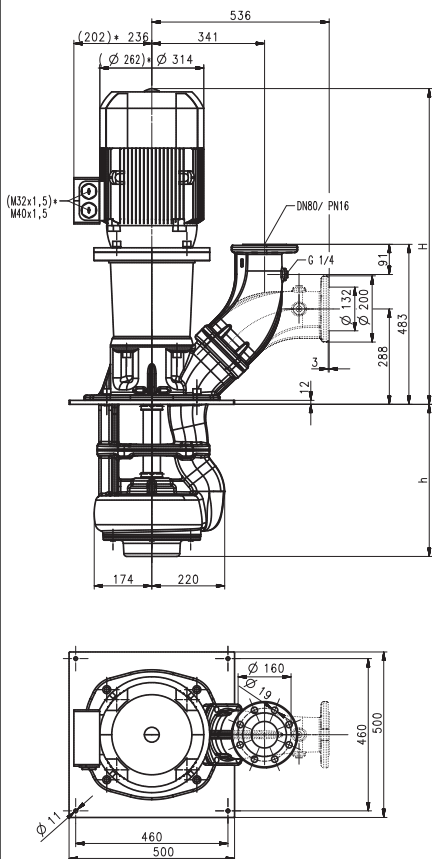
SFT1554...3554

Semi-open impellers

SFT1554-C



SFT2254...3554



*) Dimensions for SFT2254

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power (4-pole) kW	Voltage 3~ V	Frequency Hz	Current A	Speed 1/min
SFT1554/360-C	600/10	574	363	109	4.0	400	50	8.2	1450
490-C			493	113	4.55	460	60	7.9	1755
SFT2254/460	1100/12	851	460	218	7.5	400	50	14.3	1465
660			660	228	8.6	460	60	13.8	1765
860			860	238					
1210			1210	293					
1610			1610	313					
SFT3054/460	1600/12	964	460	236	11.0	400	50	20.5	1475
660			660	246	12.6	460	60	20	1775
860			860	256					
1210			1210	311					
1610			1610	331					
SFT3554/460	2100/12	1004	460	267	15.0	400	50	28.5	1475
660			660	277	17.3	460	60	28	1775
860			860	287					
1210			1210	342					
1610			1610	362					

Free Flow-Immersion Pumps

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

Half speed.

The SFT serie offers a flange with pressure gauge connection port.

The flange can be rotated for either horizontal or vertical pipe connections.

Applications

Types of fluid
coolants

Max. chip to coolant ratio by weight:
1.5 %

Chip material:

Aluminium, steel, coloured steels

Chip geometry:

Flow chips up until 80 mm long
The max. ball diameter is 45 mm

Kinematic viscosity

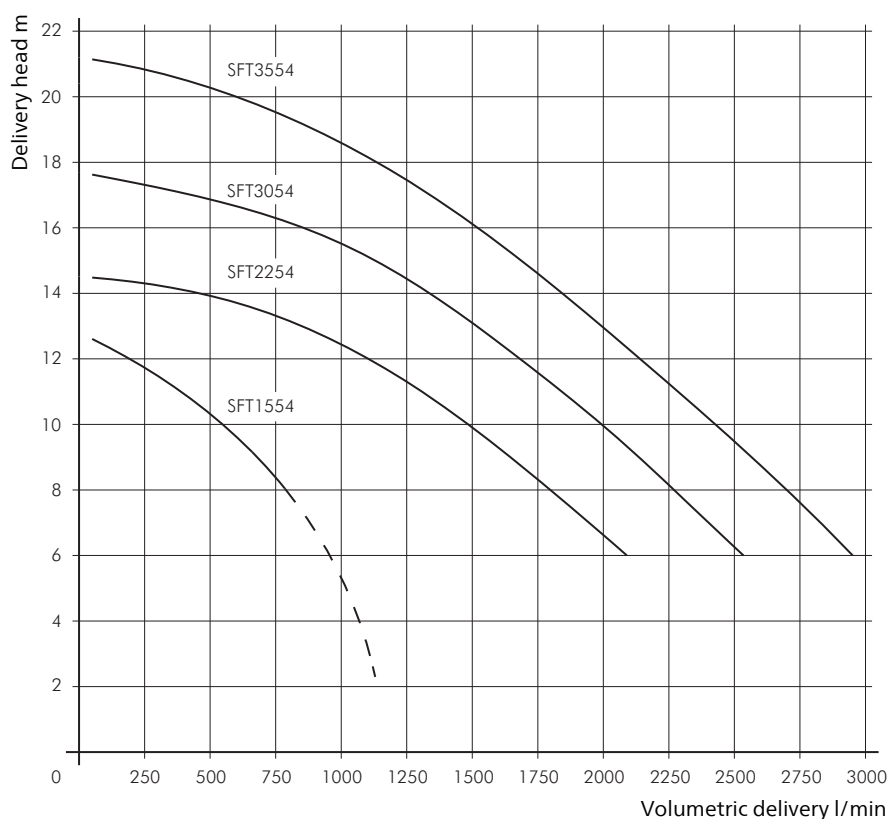
...12 mm²/s (12 cSt)

Pumping temperature

0...60° C

Construction

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

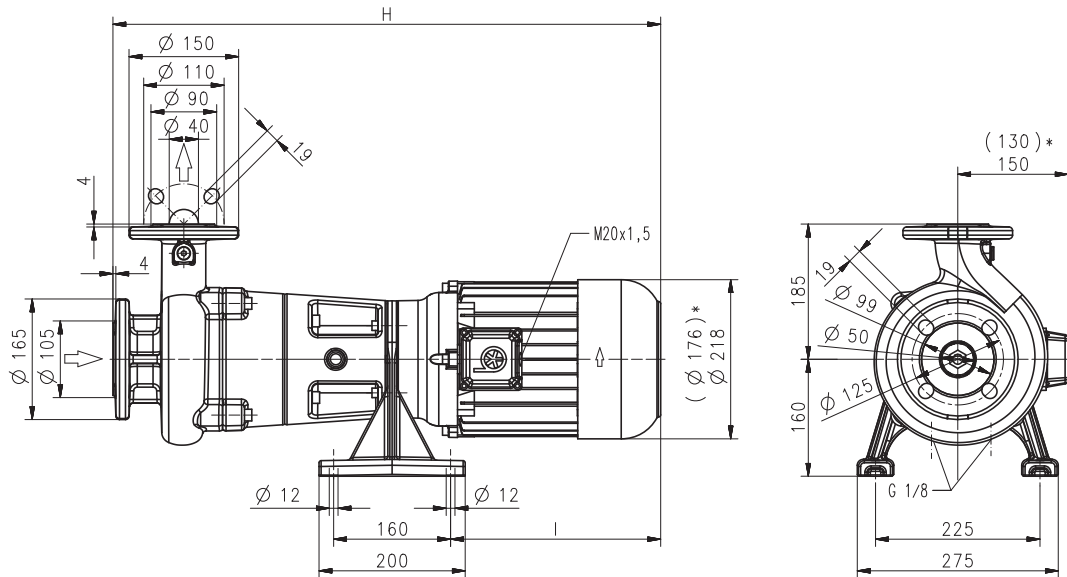


Horizontal End-Suction Pumps

BFT750...1250

Semi-open impellers

BFT750...1250



*) Dimensions for BFT750

Type	Vol. del. at manom. del. head l/min / m	Dimensions H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
BFT750	400/11	728	266	61	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
					2.94	460	60	5.1	3480
BFT1250	600/12	767	305	72	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
					4.55	460	60	7.9	3520



Horizontal End-Suction Pumps

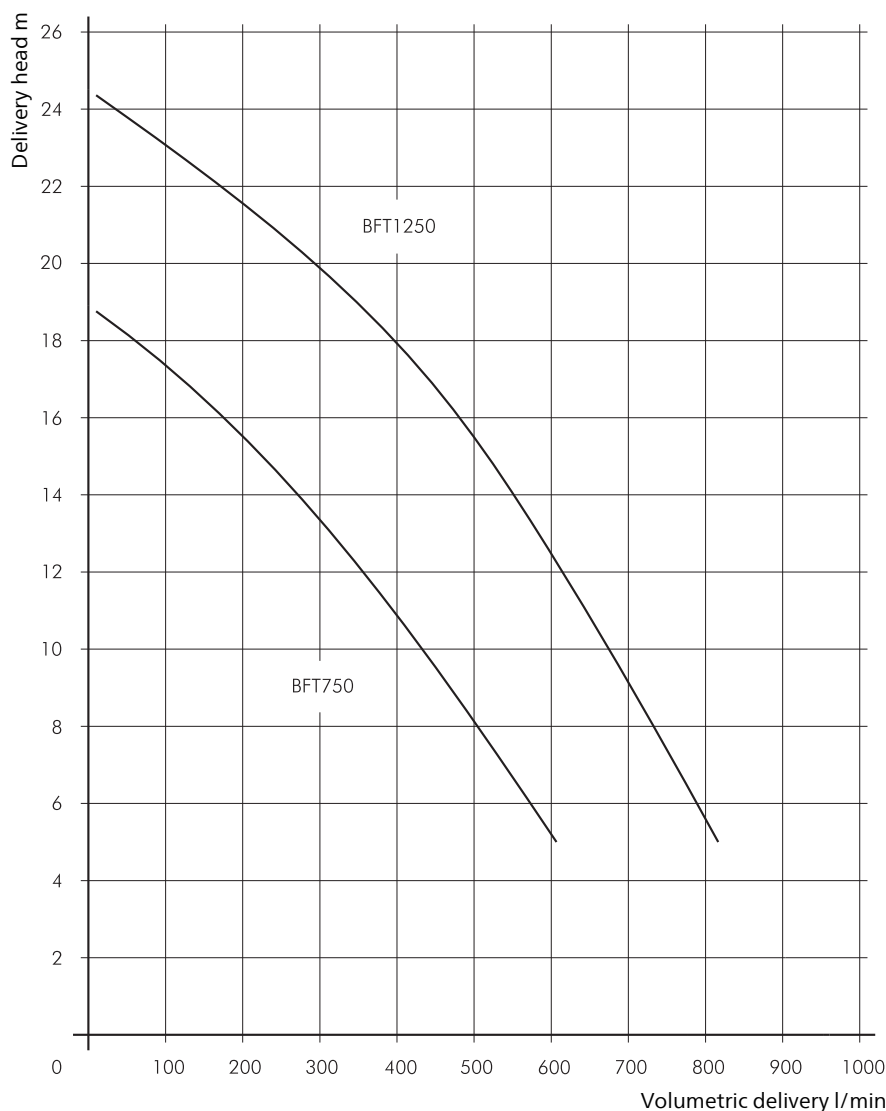
are centrifugal inline pumps with a compact design where the impeller is mounted onto the extended motor shaft. These pumps are not self-priming and must be gravity fed. All pumps are equipped with a single mechanical seal. Upon request a second mechanical seal is available to allow for dry-running (-GD).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

Applications

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

Construction

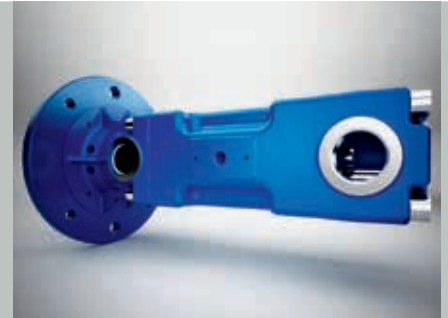
Pump body	cast iron
Cover	cast iron
Impeller	cast steel
Shaft	steel
Mechanical seal	SiC



Machine tool coolant supply Medium and High Pressure Pumps

Very diverse requirements in terms of machine supply require different pump concepts. Small and compact for external cooling, medium pressure requirements up to 50 bar for internal cooling or high pressure of up to 200 bar. Uncontrolled or controlled, designed for optimum energy usage.

Coolant pumps, that's us!



TS | (S)TC



Impellers peripheral / closed
Fluids coolants, emulsions, oils
Volumetric delivery up to 600 l/min
Delivery head up to 225 m

Immersion Pumps (TS)

- Easy mounting on top of the tank
- Compact design
- Short immersion depths
- Special execution for tempering units available

Immersion Pumps ((S)TC)

- Easy mounting on top of the tank
- Simple piping connection with optional SAE flange
- Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption
- Pump performance curves can be regulated using an adapted frequency converter

(S)TH | FH



Impellers closed
Fluids coolants, emulsions, oils
Volumetric delivery up to 640 l/min
Delivery head up to 520 m

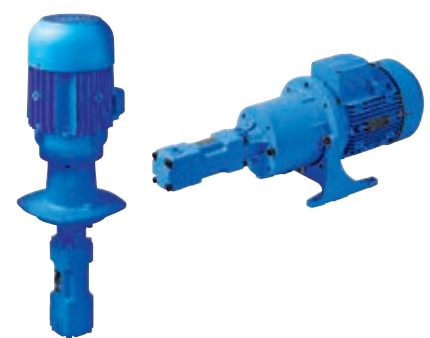
Immersion Pumps

- Easy mounting on top of the tank
- Simple piping connection with optional SAE flange
- Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption
- Pump performance curves can be regulated using an adapted frequency converter
- Grinding version available
- An even wider range of performance curves

Pressure Boosting Pumps

- Foot mounted inline pumps; gravity fed
- Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption
- Pump performance curves can be regulated using an adapted frequency converter
- An even wider range of performance curves
- As a booster pump for inlet pressures of up to 26 bar

BFS | TFS | FFS



Spindles hardened, precision ground
Fluids coolants, emulsions, oils
Volumetric delivery up to 878 l/min
Delivery pressure up to 200 bar

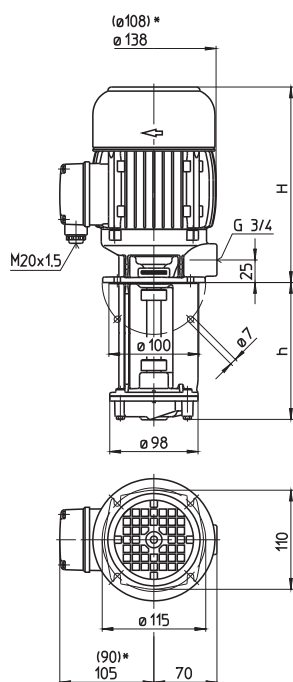
High Pressure Immersion Pumps

- Highly wear-resistant silicon carbide housings and specially hardened spindles
- Excellent efficiencies
- 6 sizes for optimum operating point selection
- Available fully assembled with mounting plate, valve and piping
- Available with adapted frequency converter for optimum adaptation to the operating point
- Energy efficient solution in combination with the Brinkmann Pumps Offset regulation while at the same time minimizing pressure peaks during tool changes

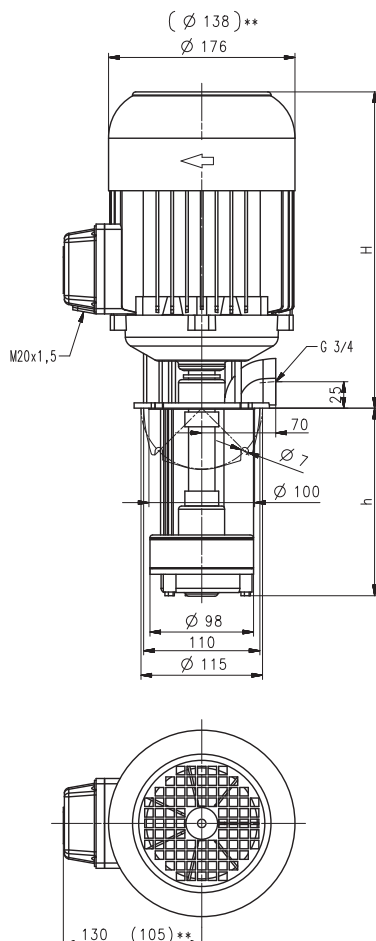
TS12...TS24

Peripheral impellers

TS12, 13, 21, 22



TS15, TS24



*) Dimensions for TS12, 13
 **) Dimensions for TS15

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TS12/110	20/10	178	110	5.4	0.27	220-240	50	1.10	2800
150			150	5.6					
190			190	6.0					
250			250	6.5					
300			300	7.0					
TS13/110	20/15	211	110	6.5	0.4	220-240	50	1.55	2700
150			150	6.8					
190			190	7.2					
250			250	7.5					
300			300	7.8					
TS15/190	20/35	285	190	12.5	1.1	220-240	50	4.33	2850
220			220	13.0					
					1.27	460	60	2.4	3440
TS21/110	40/15	217	110	8.2	0.63	220-240	50	2.6	2750
150			150	8.5					
190			190	9.0					
250			250	9.5					
300			300	10.0					
350			350	10.5					
TS22/110	40/25	285	110	11.8	1.1	220-240	50	4.33	2850
150			150	12.2					
190			190	12.5	1.27	460	60	2.4	3440
250			250	13.0					
300			300	13.4					
350			350	13.7					
TS24/140	40/35	360	140	26	1.9	220-240	50	6.84	2900
180			180	27					
220			220	28					
					2.18	460	60	3.9	3500


Immersion Pumps

Models TS12 to TS24 are suitable for **CNC machine tools** featuring coolant supply through the tool holder or driving spindle or equipped with internally cooled tool.

These 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, models TS22 to TS24 are also available with an optional Y/YY (Dahlander) motor configuration for 4 pole operation at half speed.

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



Applications

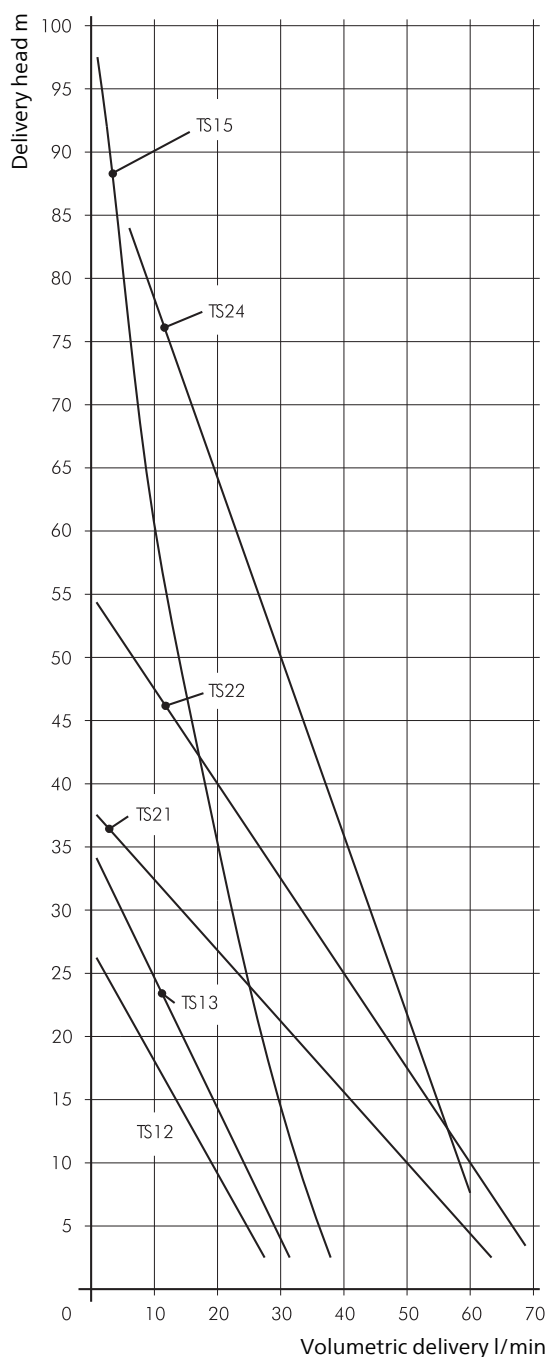
Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...45 mm²/s (45 cSt)
Pumping temperature
0...80° C
...150° C (200° C) as special make (TS)

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

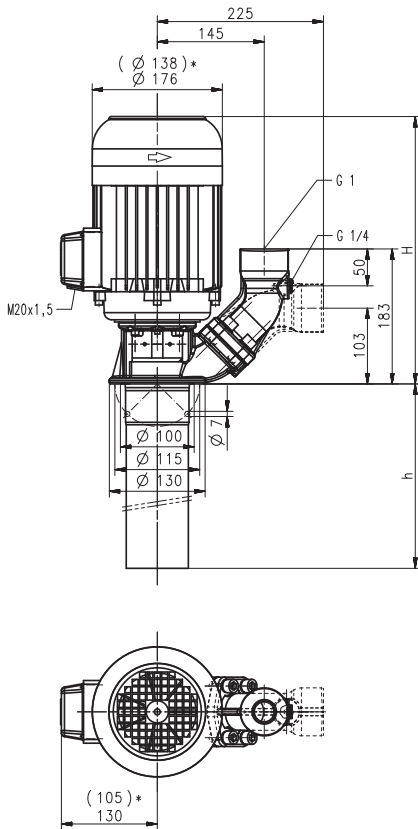
TS12...TS13	54 dBA
TS21...TS22	64 dBA
TS15	66 dBA
TS24	67 dBA



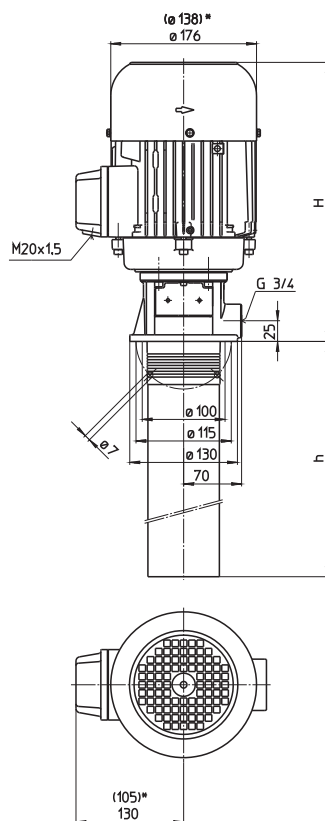
Immersion Pumps (S)TC25

Closed impellers

STC25/260...810



TC25/260...810



*) Dimensions for (S)TC25/260...805

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TC25/260	10/28	276	260	10.5	0.38	220-240	50	1.75	2750
						380-420	50	1.00	2750
						460	60	1.00	3250
(S)TC25/340	10/45	276	335	11.5	0.5	220-240	50	2.42	2800
						380-420	50	1.40	2800
						460	60	1.40	3300
(S)TC25/430	10/63	276	430	12.5	0.63	220-240	50	2.6	2750
						380-420	50	1.5	2750
						460	60	1.5	3250
(S)TC25/550	10/85	345	565	16.5	1.1	220-240	50	4.33	2850
						380-415	50	2.50	2850
					1.27	460	60	2.4	3440
(S)TC25/805	10/110	345	810	18.5	1.1	220-240	50	4.33	2850
						380-415	50	2.50	2850
					1.27	460	60	2.4	3440
(S)TC25/810	10/140	367	810	25	1.5	220-240	50	5.5	2880
						380-415	50	3.2	2880
					1.75	460	60	3.1	3470

Immersion Pumps

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

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 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.

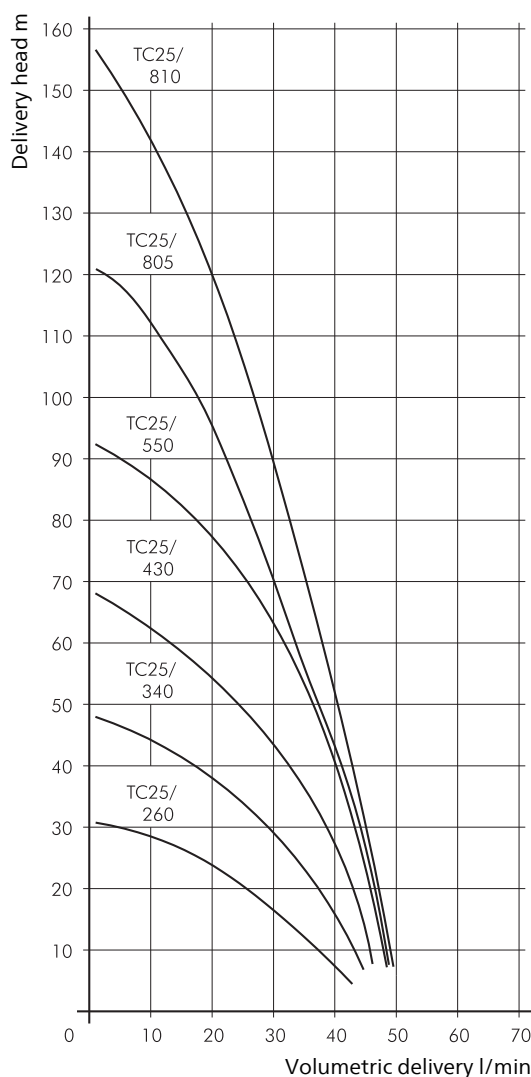
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

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

Construction

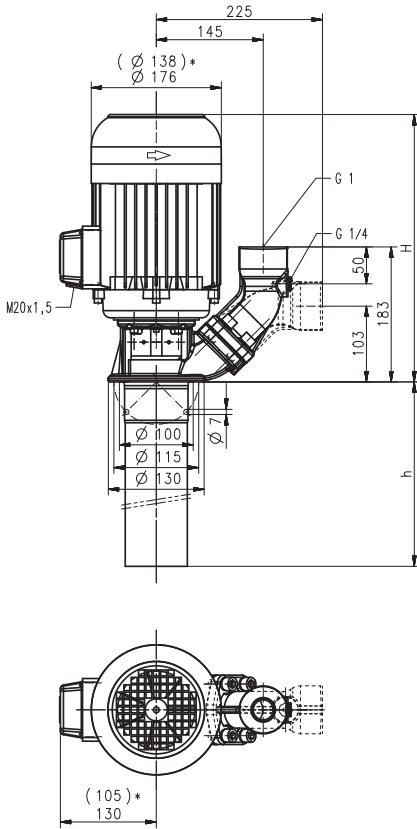
Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pump body	bronze
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC25/260...(S)TC25/805	58 dBA
(S)TC25/810	63 dBA



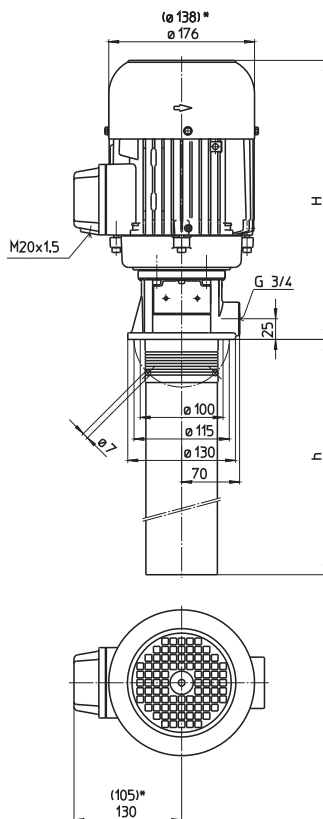
Immersion Pumps (S)TC40

Closed impellers

STC40/260...720



TC40/260...720



*) Dimensions for (S)TC40/260...550

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TC40/260	25/27	276	260	11	0.42	220-240	50	1.4	2800
						380-420	50	0.8	2800
						460	60	0.8	3300
(S)TC40/340	25/40	276	335	12	0.5	220-240	50	2.42	2800
						380-420	50	1.40	2800
						460	60	1.40	3300
(S)TC40/430	25/60	318	430	15	0.85	220-240	50	3.64	2850
						380-415	50	2.10	2850
					0.98	460	60	2	3450
(S)TC40/550	25/80	345	550	16.5	1.1	220-240	50	4.33	2850
						380-415	50	2.50	2850
					1.27	460	60	2.4	3440
(S)TC40/715	25/95	367	720	24	1.5	220-240	50	5.5	2880
						380-415	50	3.2	2880
					1.75	460	60	3.1	3470
(S)TC40/720	25/120	393	720	26.5	1.7	220-240	50	6.24	2890
						380-415	50	3.60	2890
					1.95	460	60	3.5	3480

Immersion Pumps

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

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 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.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

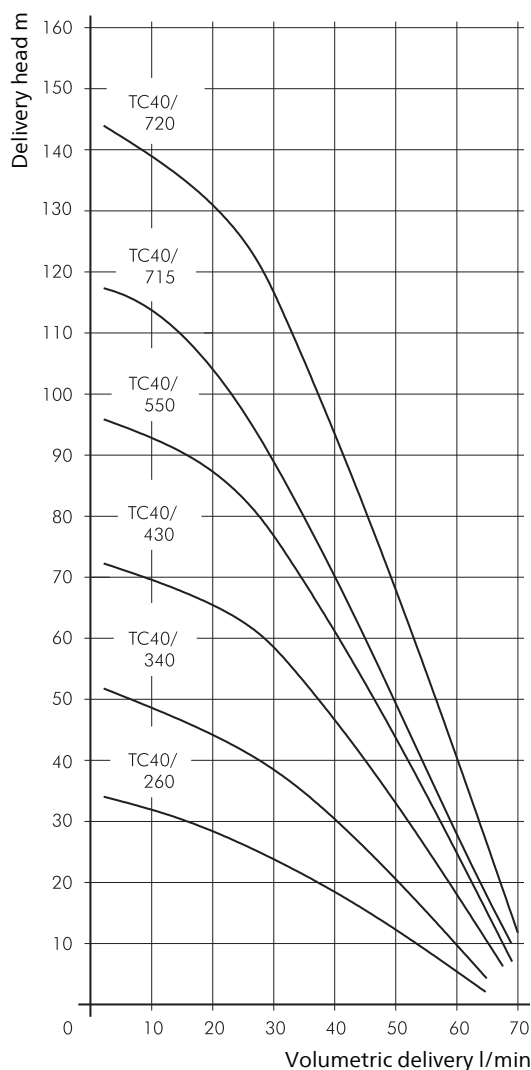


Applications

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

Construction

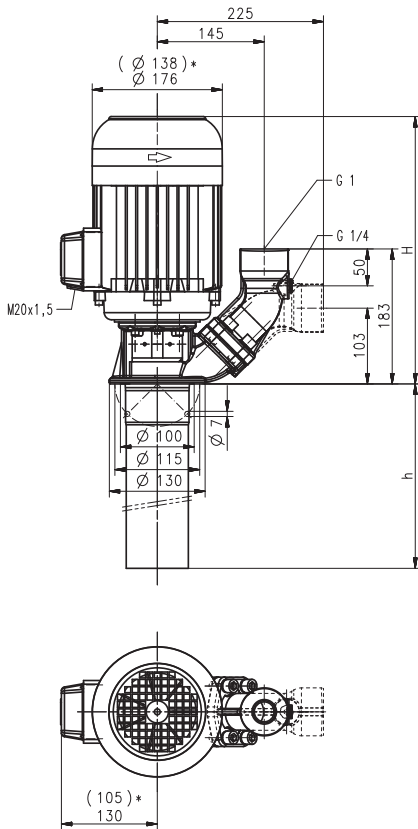
Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pump body	bronze
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC40/260...(S)TC40/550	58 dBA
(S)TC40/715...(S)TC40/720	63 dBA



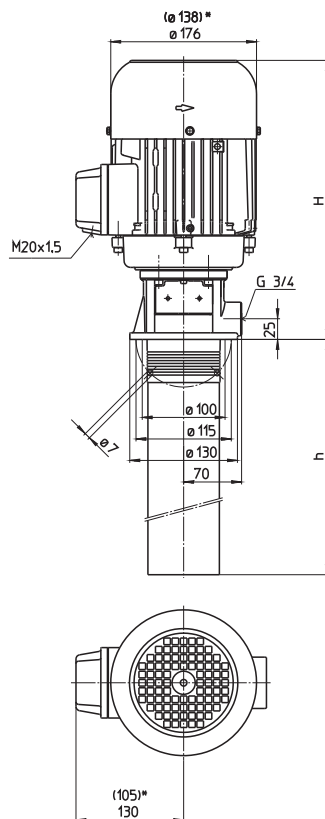
Immersion Pumps (S)TC63

Closed impellers

STC63/270...750



TC63/270...750



*) Dimensions for (S)TC63/270...350

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TC63/270	60/20	276	275	11	0.63	220-240	50	2.6	2750
						380-420	50	1.5	2750
						460	60	1.5	3250
(S)TC63/350	60/30	318	340	15	0.92	220-240	50	3.8	2840
						380-415	50	2.2	2840
					1.06	460	60	2.1	3440
(S)TC63/440	60/40	367	440	22	1.3	220-240	50	4.85	2900
						380-415	50	2.80	2900
					1.49	460	60	2.7	3500
(S)TC63/560	60/55	425	565	28	1.9	220-240	50	6.84	2900
						380-415	50	3.95	2900
					2.18	460	60	3.9	3500
(S)TC63/745	60/77	425	755	30	2.2	220-240	50	7.8	2890
						380-415	50	4.5	2890
					2.55	460	60	4.4	3480
(S)TC63/750	60/90	425	755	31	2.6	220-240	50	9.30	2880
						380-415	50	5.35	2880
					2.94	460	60	5.1	3480

Immersion Pumps

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

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 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.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

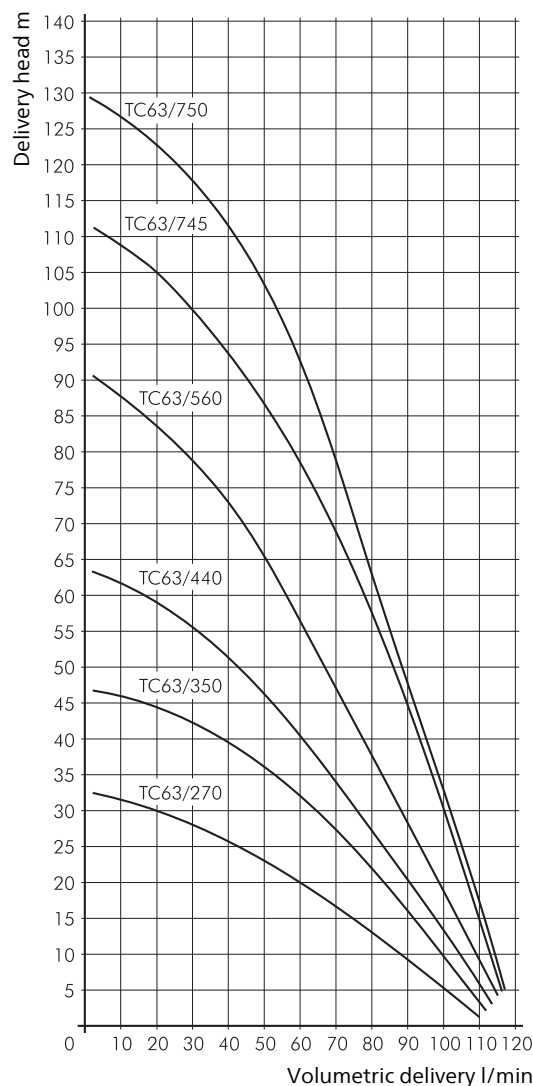


Applications

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

Construction

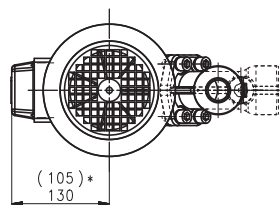
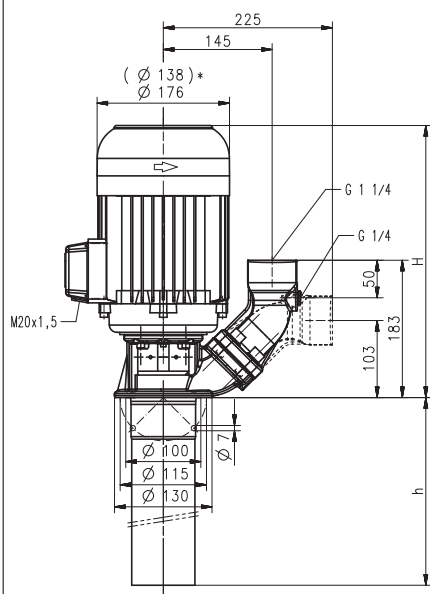
Pump body	cast iron
Pump shell	steel
Cover	PBTP
Intake strainer	steel
Impellers	PBTP
Shaft	steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pump body	bronze
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TC63/270...(S)TC63/350	58 dBA
(S)TC63/440...(S)TC63/750	63 dBA



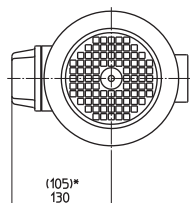
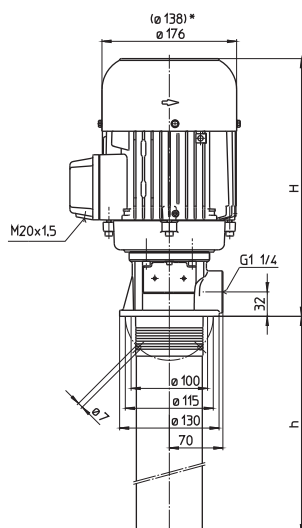
Immersion Pumps (S)TC160

Closed impellers

STC160/330...740



TC160/330...740



*) Dimensions for (S)TC160/330

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TC160/330	160/15	345	325	15	1.1	220-240	50	4.33	2850
						380-415	50	2.50	2850
(S)TC160/430	160/27	393	425	23	1.27	460	60	2.4	3440
					1.7	220-240	50	6.24	2890
(S)TC160/580	160/40	425	580	29		380-415	50	3.60	2890
					1.95	460	60	3.5	3480
(S)TC160/740	160/52	425	735	30	2.2	220-240	50	7.8	2890
						380-415	50	4.5	2890
(S)TC160/740	160/52	425	735	30	2.55	460	60	4.4	3480
					2.6	220-240	50	9.30	2880
						380-415	50	5.35	2880
					2.94	460	60	5.1	3480

Immersion Pumps

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

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 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.

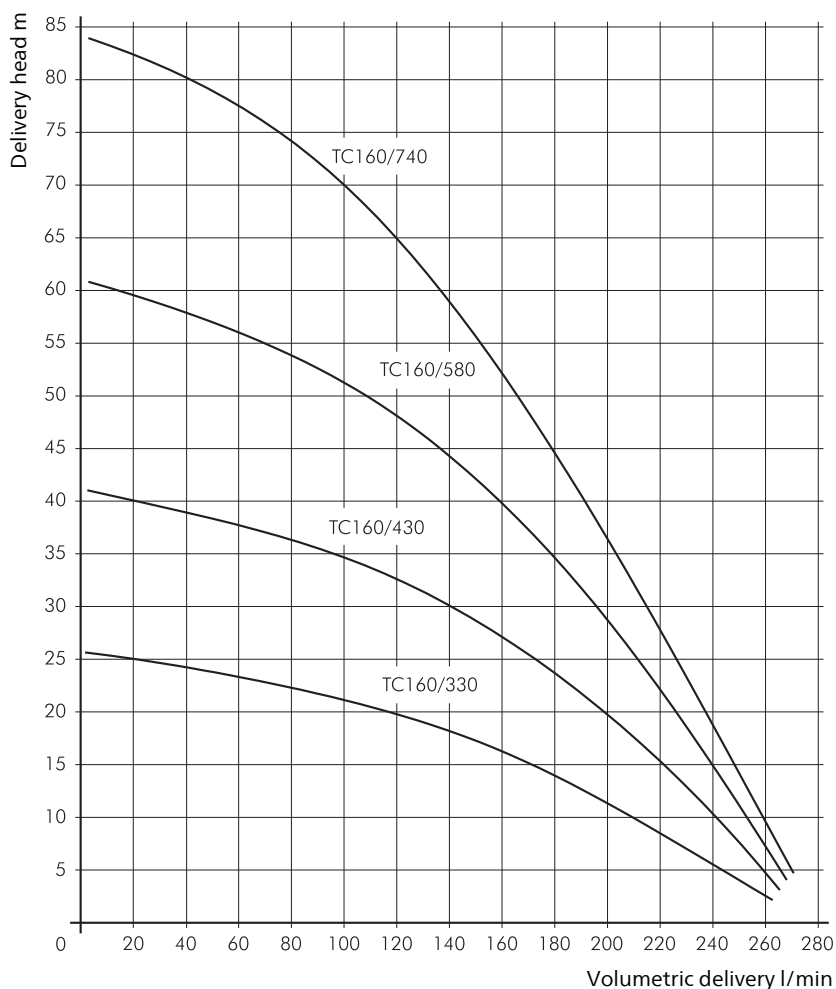
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...45 mm²/s (45 cSt)
- Pumping temperature
 - 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)TC160/330	58 dBA
(S)TC160/430...(S)TC160/740	63 dBA



Immersion Pumps (S)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 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
 1 mm²/s (1 cSt) (S)TH/FH 2,4,6
 25 mm²/s (25 cSt) (S)TH/FH 11,14,17
 higher viscosity upon request and
 with motor size adjustments

Pumping temperature
 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.

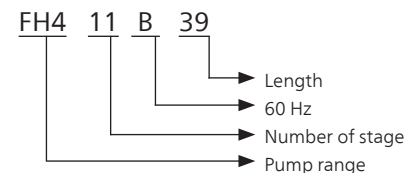
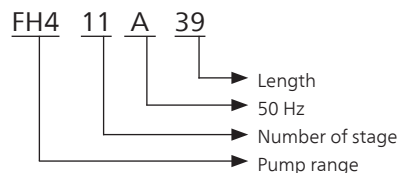
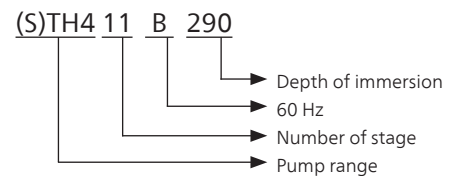
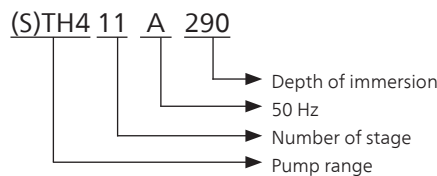
SAE Flange for TH Pumps

Upon request all TH pumps are available
 with an SAE flange (STH). The flange al-
 lows for either vertical or horizontal pipe
 connection and offers a G ¼ pressure
 gauge connection port. A surcharge ap-
 plies 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/mo-
 tor combinations can be reviewed and a
 smaller motor size might be applicable.

Type Designation



Immersion Pumps (S)TH

Pressure Boosting Pumps FH

Closed impellers

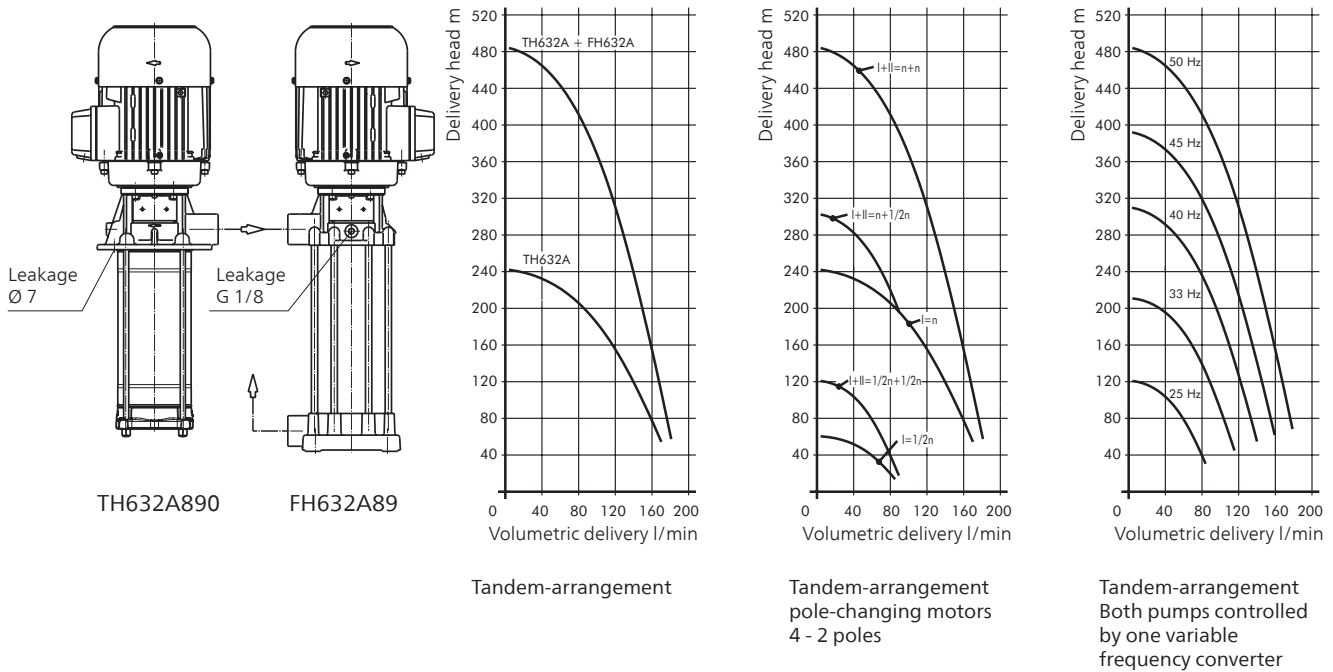
Applying (S)TH/FH pumps in grinding applications

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

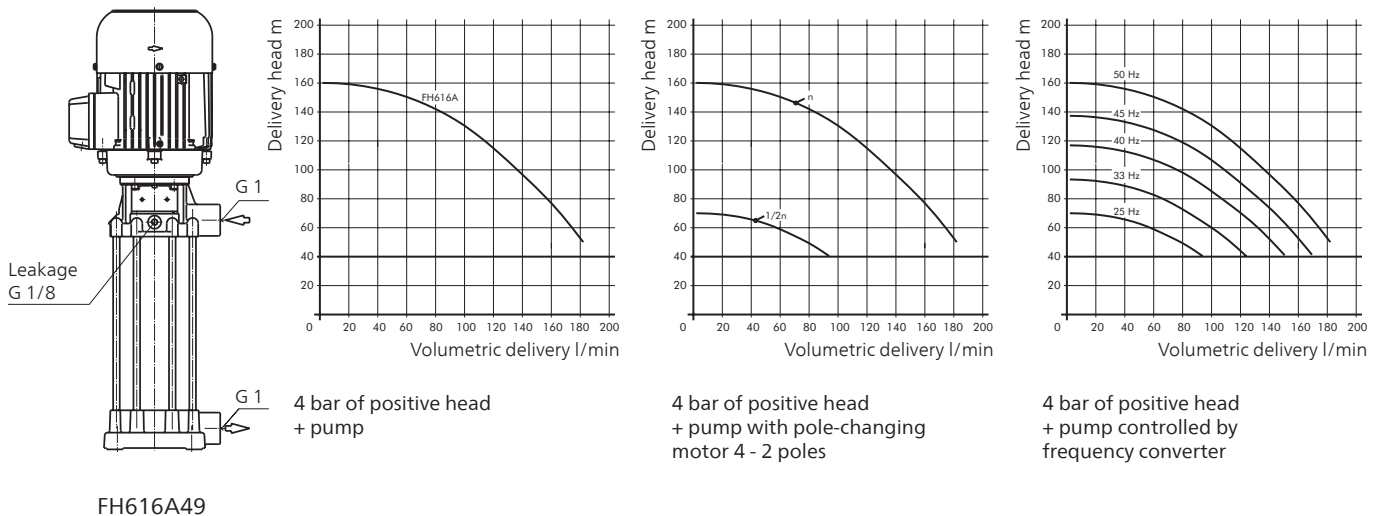
In this version pumps are supplied without internal diffusor gaskets in order to prevent increased wear caused by the abrasive particles in the fluid. As a result, however, the internal losses of the pump increase and the pump curves are reduced.

The grinding version cause lower pump curves. These curves are available upon request.

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



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

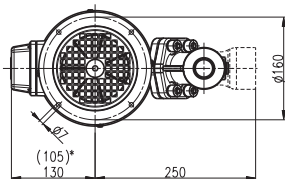
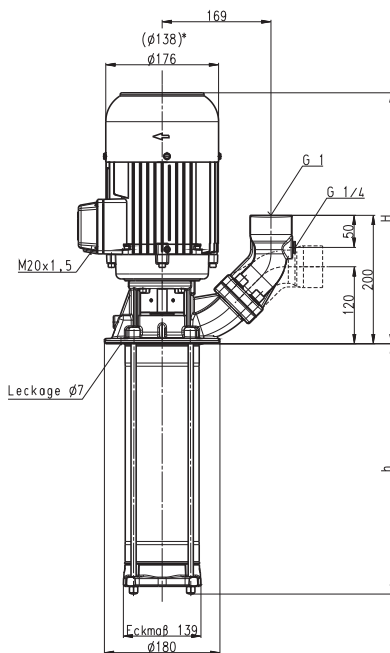


Immersion Pumps (S)TH2

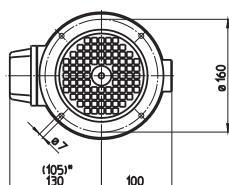
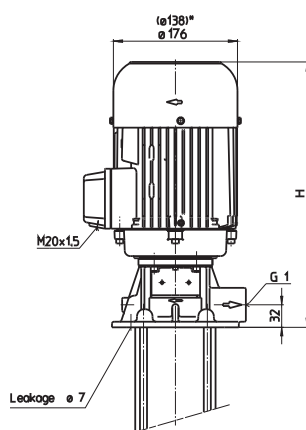
50 Hz

Closed impellers

STH203...241



TH203...241



* Dimensions for (S)TH203...(S)TH222

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH203A190	20/15	291	190	14.4	0.45	220-240	50	1.9	2800
(S)TH204A190	20/20			14.5					
(S)TH205A190	20/25			14.6					
(S)TH206A190	20/30			14.7					
(S)TH207A290	20/35		290	15.2	0.54	220-240	50	2.42	2800
(S)TH208A290	20/40	291	290	15.6					
(S)TH209A290	20/45			15.7					
(S)TH210A290	20/50			15.8					
(S)TH211A290	20/56			15.9	0.75	220-240	50	3.24	2850
(S)TH212A390	20/60	332	390	19.9					
(S)TH213A390	20/68			20.0					
(S)TH214A390	20/75			20.1					
(S)TH215A390	20/82	332	390	21.4	0.92	220-240	50	3.8	2840
(S)TH216A390	20/88			21.5					
(S)TH217A490	20/93		490	22.1	1.1	220-240	50	4.33	2850
(S)TH218A490	20/98			22.2					
(S)TH219A490	20/102	359	490	24.1					
(S)TH220A490	20/108			24.2					
(S)TH221A490	20/112			24.3	1.3	220-240	50	4.85	2900
(S)TH222A590	20/118		590	24.9					
(S)TH223A590	20/125	381	590	31.0					
(S)TH224A590	20/130			31.2					
(S)TH225A590	20/135			31.3	1.5	220-240	50	5.5	2880
(S)TH226A590	20/142	381	590	31.5					
(S)TH227A690	20/150		690	32.4					
(S)TH228A690	20/155			32.5					
(S)TH229A690	20/160	407	690	34.3	1.7	220-240	50	6.24	2890
(S)TH230A690	20/166			34.4					
(S)TH231A690	20/172			34.5					
(S)TH232A790	20/178		790	36.4	1.9	220-240	50	6.84	2900
(S)TH233A790	20/182			36.5					
(S)TH234A790	20/190	439	790	41.0					
(S)TH235A790	20/195			41.1					
(S)TH236A790	20/200			41.2	2.2	220-240	50	7.8	2890
(S)TH237A890	20/205	439	890	43.0					
(S)TH238A890	20/210			43.1					
(S)TH239A890	20/215			43.2					
(S)TH240A890	20/220			43.3	(S)TH241A890	20/225			43.4

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 26 bar.

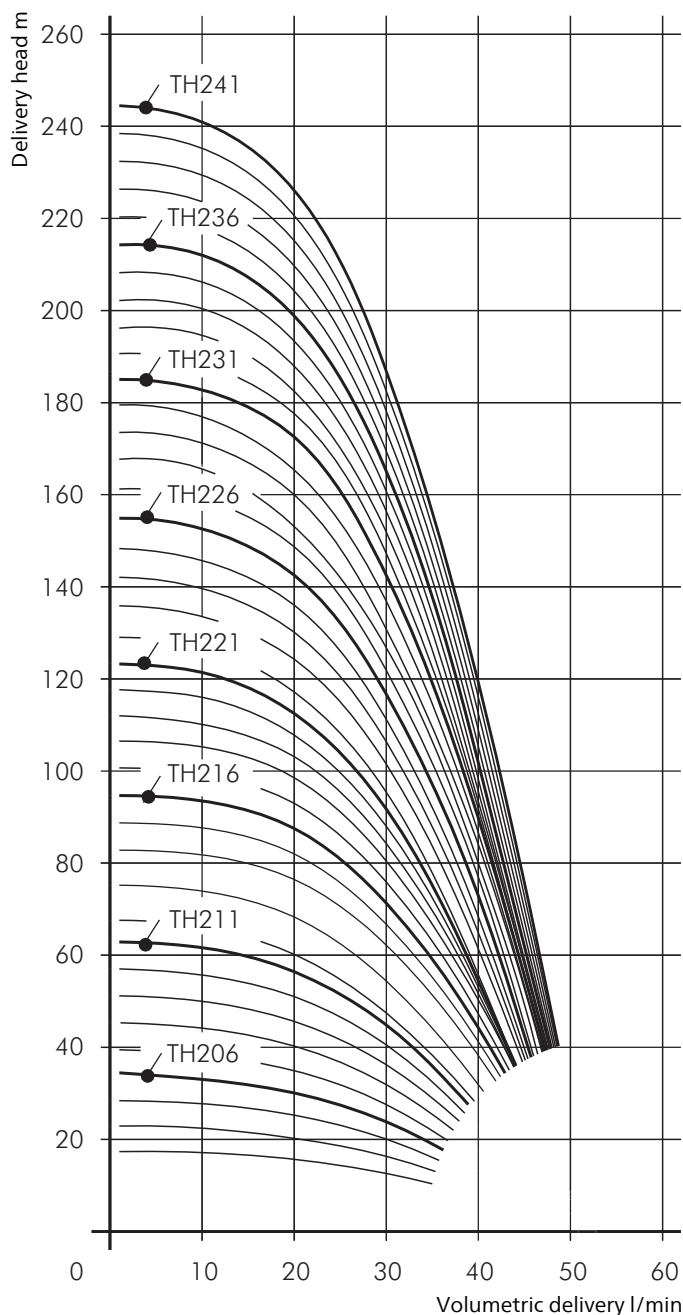
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH203...(S)TH222	58 dBA
(S)TH223...(S)TH241	63 dBA

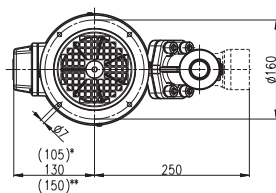
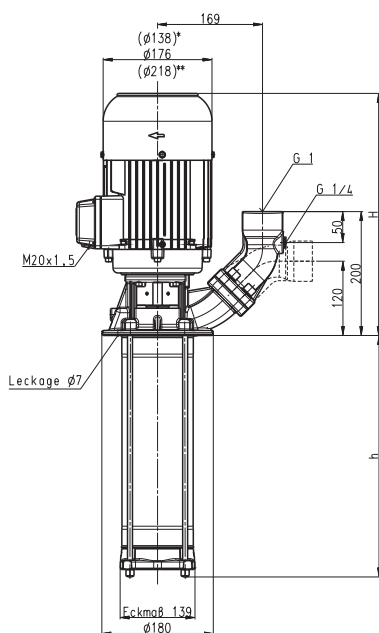


(S)TH4

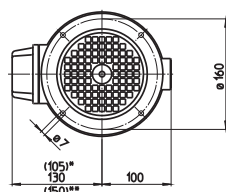
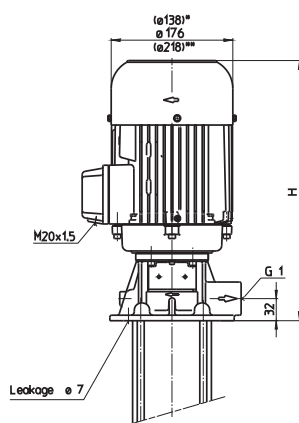
Closed impellers

50 Hz

STH403...436



TH403...436



*) Dimensions for (S)TH403...(S)TH412
 **) Dimensions for (S)TH428...(S)TH436

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH403A190	40/18	291	190	14.4	0.45	220-240	50	1.9	2800
(S)TH404A190	40/25			14.5		380-420	50	1.1	2800
(S)TH405A190	40/30	291	190	14.9	0.54	220-240	50	2.42	2800
(S)TH406A190	40/36			15.0		380-420	50	1.40	2800
(S)TH407A290	40/42	332	290	17.9	0.75	220-240	50	3.24	2850
(S)TH408A290	40/50			18.0		380-415	50	1.87	2850
(S)TH409A290	40/56	332	290	18.5	0.85	220-240	50	3.64	2850
						380-415	50	2.10	2850
(S)TH410A290	40/62	332	290	19	0.92	220-240	50	3.8	2840
						380-415	50	2.2	2840
(S)TH411A290	40/68	359	290	20.1	1.1	220-240	50	4.33	2850
						380-415	50	2.50	2850
(S)TH412A390	40/74		390	20.6					
(S)TH413A390	40/80	381	390	27.6	1.3	220-240	50	4.85	2900
						380-415	50	2.80	2900
(S)TH414A390	40/86	381	390	28.1	1.5	220-240	50	5.5	2880
(S)TH415A390	40/95			28.2		380-415	50	3.2	2880
(S)TH416A390	40/104			28.3					
(S)TH417A490	40/112	407	490	31.4	1.7	220-240	50	6.24	2890
(S)TH418A490	40/118			31.5		380-415	50	3.60	2890
(S)TH419A490	40/125	439	490	35.9	1.9	220-240	50	6.84	2900
						380-415	50	3.95	2900
(S)TH420A490	40/130	439	490	36.0	2.2	220-240	50	7.8	2890
(S)TH421A490	40/136			36.1		380-415	50	4.5	2890
(S)TH422A590	40/142		590	36.6					
(S)TH423A590	40/150	439	590	37.2	2.6	220-240	50	9.30	2880
(S)TH424A590	40/156			37.3		380-415	50	5.35	2880
(S)TH425A590	40/162			37.4					
(S)TH426A590	40/168			37.5					
(S)TH427A690	40/175		690	38.0					
(S)TH428A690	40/182	432	690	50.0	3.0	220-240	50	10.7	2930
(S)TH429A690	40/190			50.2		380-415	50	6.2	2930
(S)TH430A690	40/198	432	690	50.4	3.3	220-240	50	11.6	2930
(S)TH431A690	40/208			50.6		380-415	50	6.7	2930
(S)TH432A790	40/216		790	51.4					
(S)TH433A790	40/220	432	790	52.6	4.0	220-240	50	14.50	2920
(S)TH434A790	40/230			52.7		380-415	50	8.35	2920
(S)TH435A790	40/240			52.8					
(S)TH436A790	40/248			53.0					

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 26 bar.

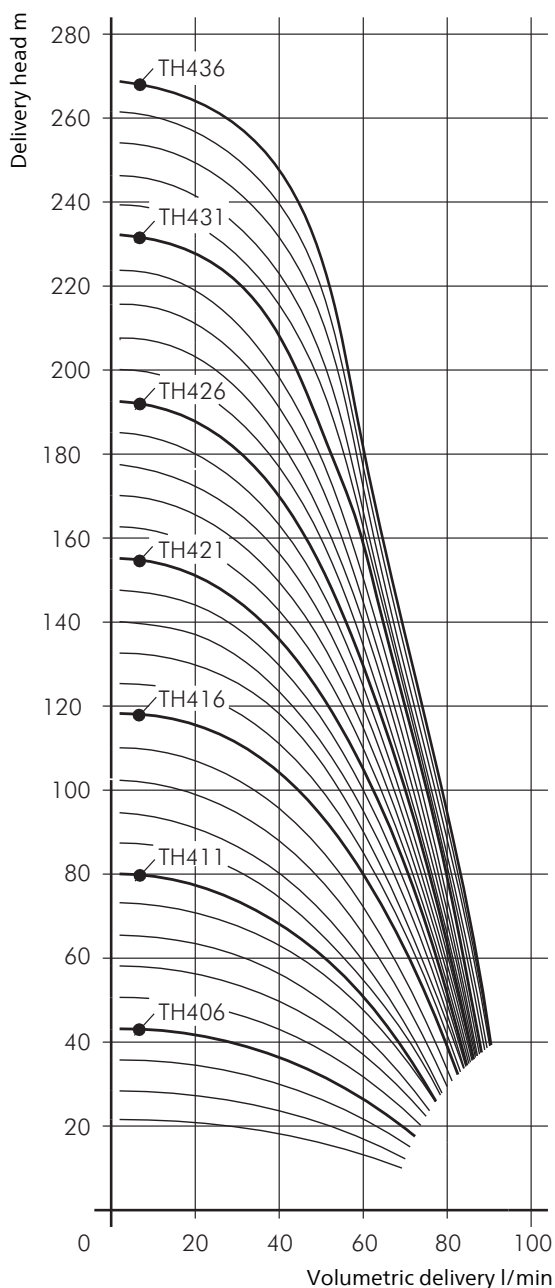
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH403...(S)TH412	58 dBA
(S)TH413...(S)TH427	63 dBA
(S)TH428...(S)TH436	71 dBA

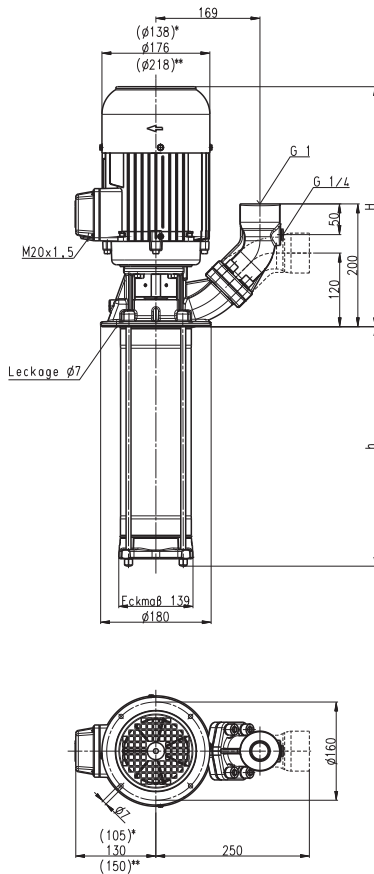


Immersion Pumps (S)TH6

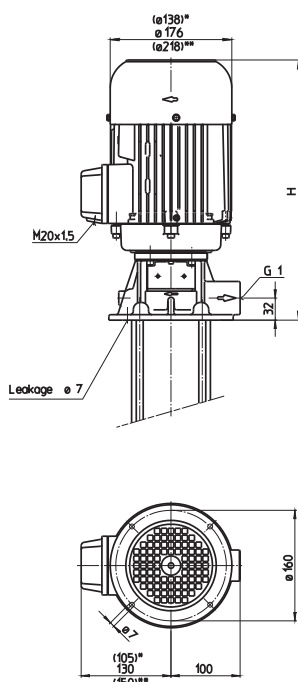
50 Hz

Closed impellers

STH603...632



TH603...632



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH603A190	80/18	291	190	14.8	0.54	220-240 380-420	50 50	2.42 1.40	2800 2800
(S)TH604A190	80/24	332	190	17.5	0.75	220-240 380-415	50 50	3.24 1.87	2850 2850
(S)TH605A240	80/30		240	17.8					
(S)TH606A240	80/36	332	240	18	0.92	220-240 380-415	50 50	3.8 2.2	2840 2840
(S)TH607A290	80/41	359	290	19.5	1.1	220-240 380-415	50 50	4.33 2.50	2850 2850
(S)TH608A290	80/48	381	290	26.2	1.3	220-240 380-415	50 50	4.85 2.80	2900 2900
(S)TH609A340	80/56	381	340	26.8	1.5	220-240 380-415	50 50	5.5 3.2	2880 2880
(S)TH610A340	80/61			27.0					
(S)TH611A390	80/71	407	390	29.5	1.7	220-240 380-415	50 50	6.24 3.60	2890 2890
(S)TH612A390	80/76	439	390	34	1.9	220-240 380-415	50 50	6.84 3.95	2900 2900
(S)TH613A490	80/82	439	490	35.0	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
(S)TH614A490	80/90			35.2					
(S)TH615A490	80/96			35.5					
(S)TH616A490	80/101	439	490	36.3	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
(S)TH617A590	80/108		590	36.8					
(S)TH618A590	80/114			37.0					
(S)TH619A590	80/120	432	590	48.3	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
(S)TH620A590	80/128			48.5					
(S)TH621A690	80/136		690	49.5					
(S)TH622A690	80/142	432	690	50.1	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
(S)TH623A690	80/150			50.3					
(S)TH624A690	80/155			50.5					
(S)TH625A790	80/160		790	51.2					
(S)TH626A790	80/166			51.4					
(S)TH627A790	80/172	462	790	58.8	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
(S)TH628A790	80/180			59.0					
(S)TH629A890	80/186		890	60.0					
(S)TH630A890	80/192			60.2					
(S)TH631A890	80/200			60.4					
(S)TH632A890	80/206			60.6					

*) Dimensions for (S)TH603...(S)TH607
**) Dimensions for (S)TH619...(S)TH632

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 26 bar.

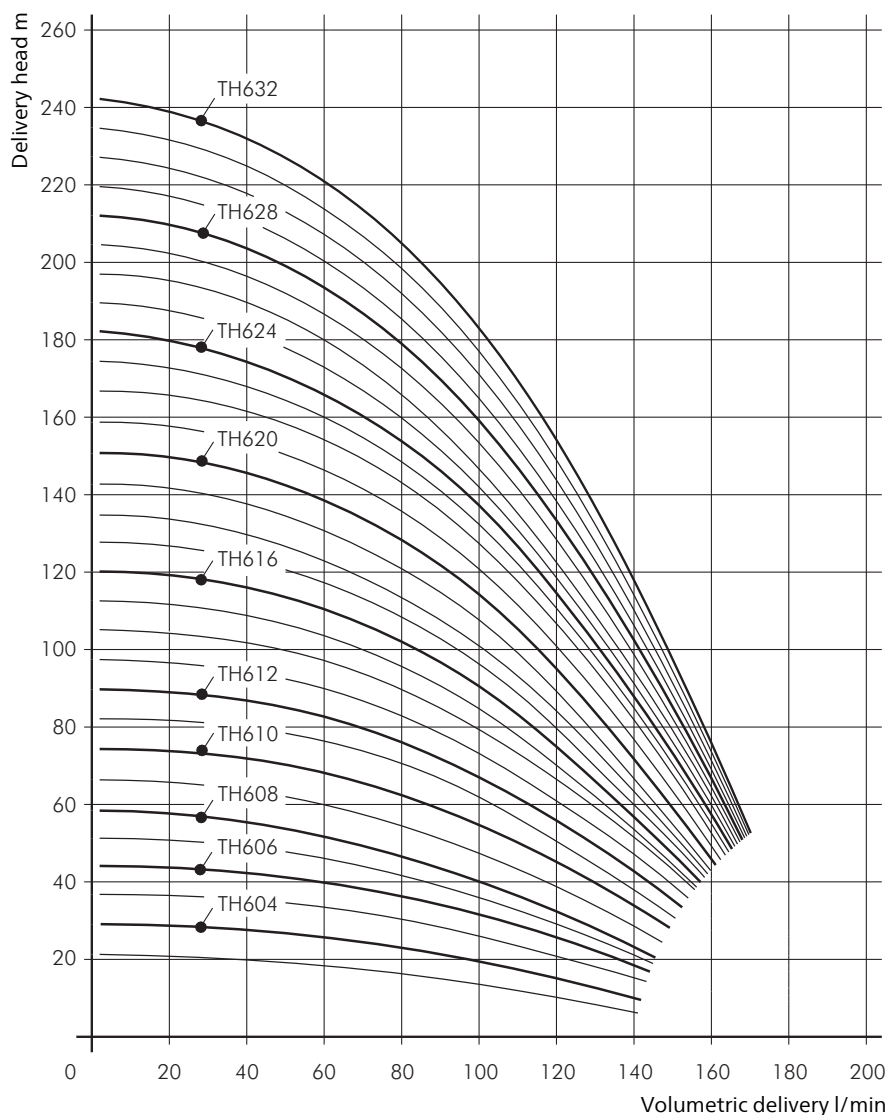
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH603...(S)TH607	58 dBA
(S)TH608...(S)TH618	63 dBA
(S)TH619...(S)TH632	71 dBA

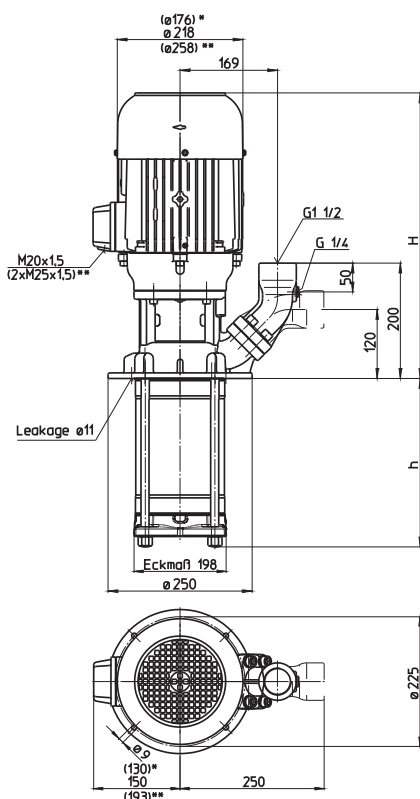


(S)TH11

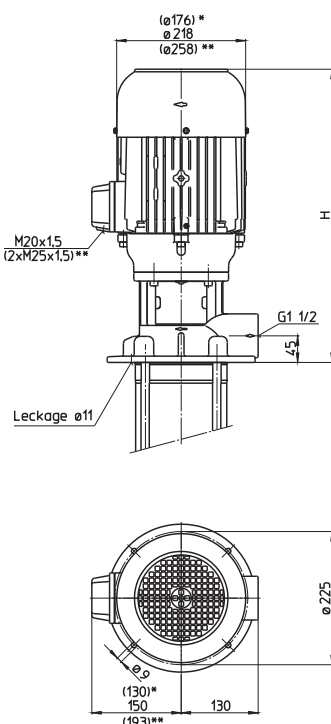
50 Hz

Closed impellers

STH1102...1121



TH1102...1121



*) Dimensions for (S)TH1102...1106
 **) Dimensions for (S)TH1115...1121

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH1102A180	150/19	433	182	34	1.3	220-240 380-415	50 50	4.85 2.80	2900 2900
(S)TH1103A180	150/29	433	182	35	1.5	220-240 380-415	50 50	5.5 3.2	2880 2880
(S)TH1104A280	150/38	459	278	39	1.7	220-240 380-415	50 50	6.24 3.60	2890 2890
(S)TH1105A280	150/48	492	278	43	1.9	220-240 380-415	50 50	6.84 3.95	2900 2900
(S)TH1106A280	150/58	492	278	45	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
(S)TH1107A310	150/67	531	310	55	3.0	220-240 380-415	50 50	10.7 6.2	2930 2930
(S)TH1108A380	150/78	531	374	58	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
(S)TH1109A380	150/88	531	374	59	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
(S)TH1110A470	150/98		470	60					
(S)TH1111A470	150/106	561	470	67	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
(S)TH1112A470	150/118			68					
(S)TH1113A500	150/128	561	502	69	5.5	220-240 380-415	50 50	18.9 10.9	2915 2915
(S)TH1114A570	150/138		566	71					
(S)TH1115A570	150/149	640	566	101	7.5	380-415	50	13.8	2950
(S)TH1116A660	150/158		662	103					
(S)TH1117A660	150/168			104					
(S)TH1118A660	150/178			105					
(S)TH1119A760	150/188	640	758	110	9.0	380-415	50	16.6	2955
(S)TH1120A760	150/198			112					
(S)TH1121A760	150/206			115					

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 26 bar.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

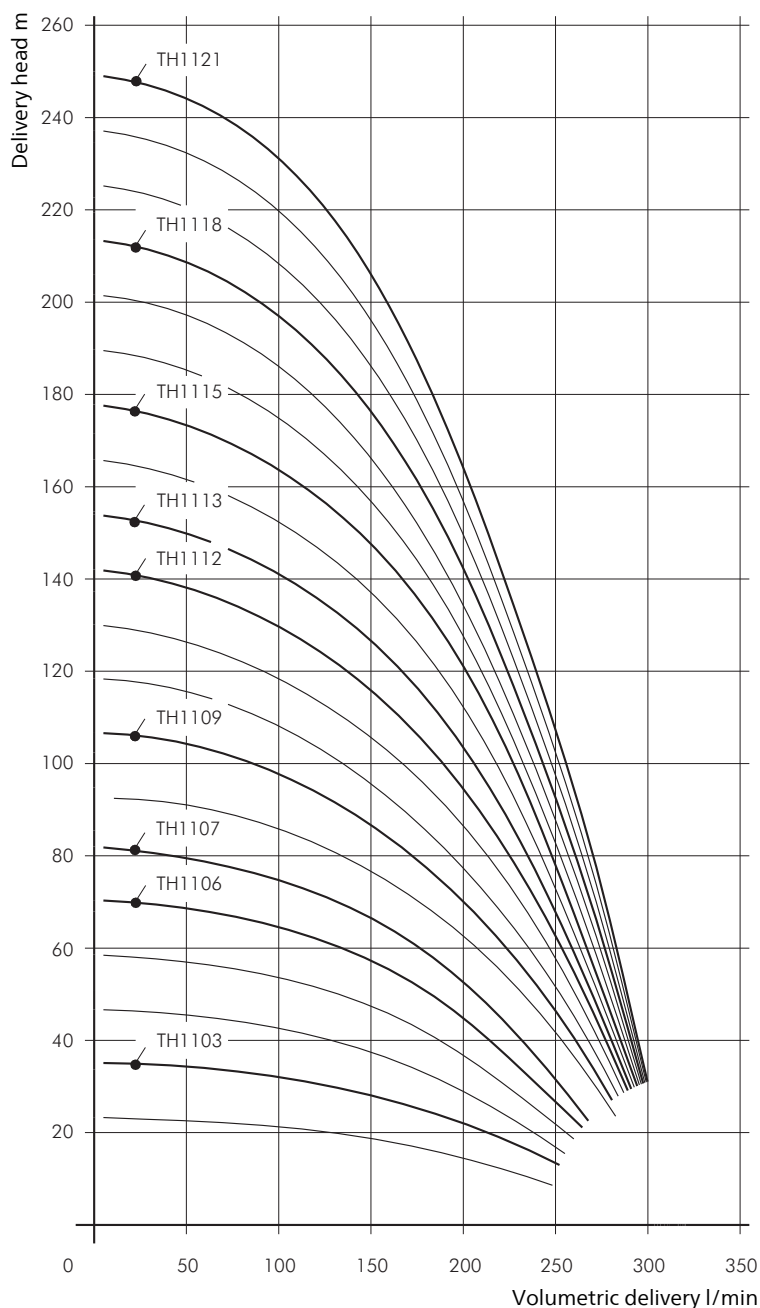
Applications

Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 0...80° C

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Pole-changing motor	4 - 2 poles

Noise level	
(S)TH1102...(S)TH1106	63 dBA
(S)TH1107...(S)TH1114	71 dBA
(S)TH1115...(S)TH1121	74 dBA

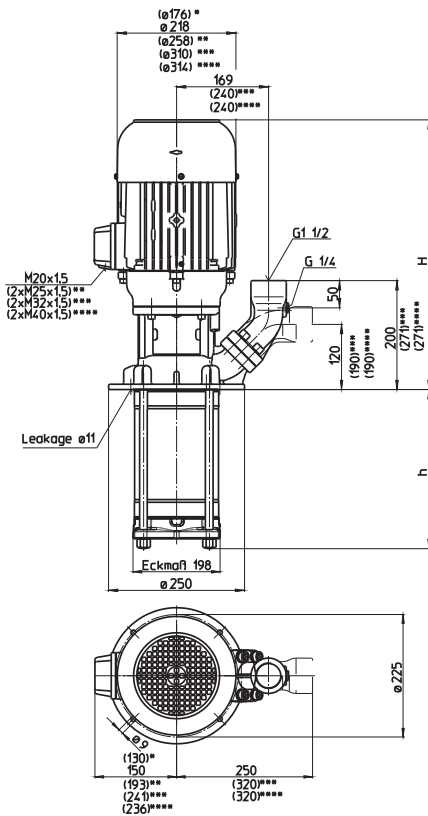


Immersion Pumps (S)TH14

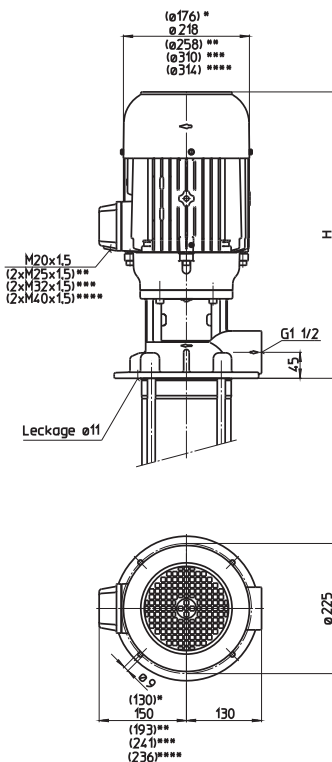
50 Hz

Closed impellers

STH1402...1417



TH1402...1417



- *) Dimension for (S)TH1402...1403
- **) Dimension for (S)TH1408...1411
- ***) Dimension for (S)TH1412...1413
- ****) Dimension for (S)TH1414...1417

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH1402A180	250/21	459	182	37	1.7	220-240 380-415	50 50	6.24 3.60	2890 2890
(S)TH1403A280	250/38	492	278	43	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
(S)TH1404A280	250/48	531	278	55	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
(S)TH1405A380	250/60	531	374	57	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
(S)TH1406A380	250/74	561	374	64	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
(S)TH1407A470	250/85	561	470	66	5.5	220-240 380-415	50 50	18.9 10.9	2915 2915
(S)TH1408A470	250/98	640	470	98	7.5	380-415	50	13.8	2950
(S)TH1409A570	250/110		566	102					
(S)TH1410A570	250/120	640	566	110	9.0	380-415	50	16.6	2955
(S)TH1411A660	250/134		662	115					
(S)TH1412A660	250/144	647	662	131	11.0	380-415	50	20.1	2960
(S)TH1413A760	250/159		758	135					
(S)TH1414A760	250/170	952	758	155	15.0	400	50	27	2960
(S)TH1415A900	250/180		902	157					
(S)TH1416A900	250/190			159					
(S)TH1417A900	250/200			161					

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 26 bar.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

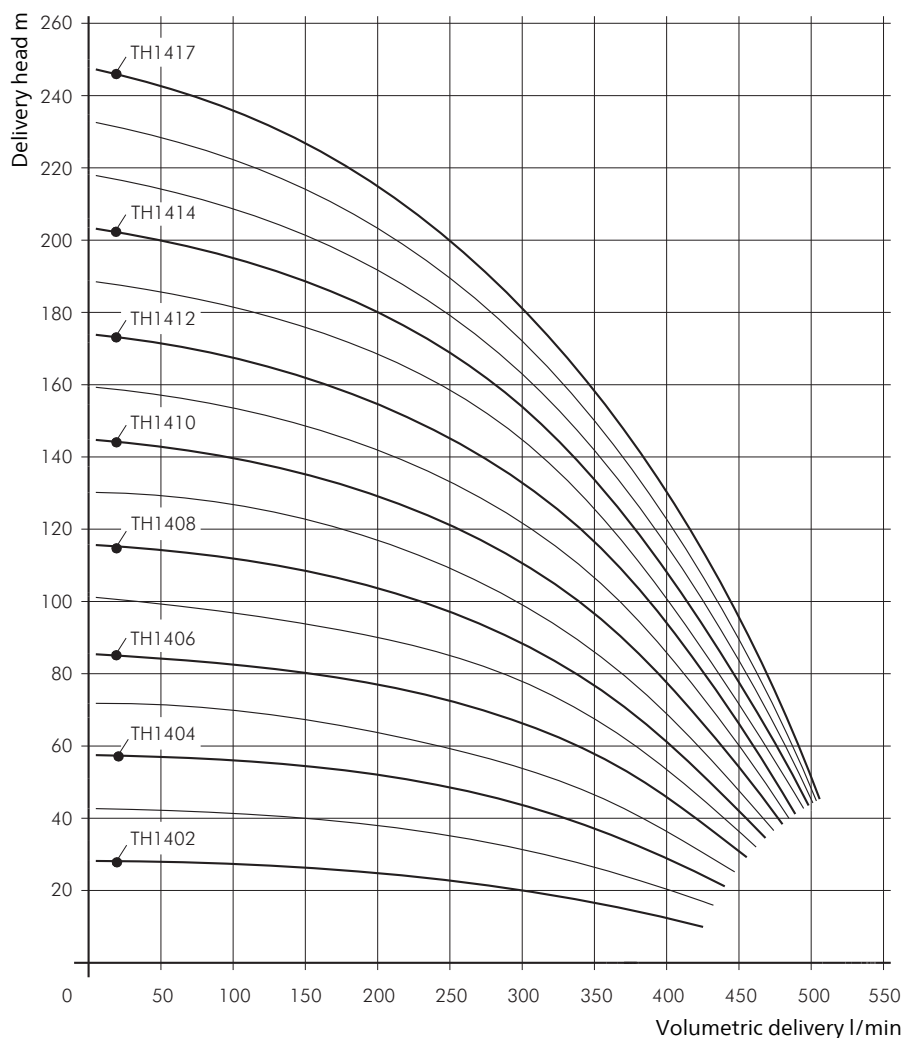
Applications

Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 0...80° C

Construction

Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Pole-changing motor	4 - 2 poles

Noise level	
(S)TH1402...(S)TH1403	63 dBA
(S)TH1404...(S)TH1407	71 dBA
(S)TH1408...(S)TH1413	74 dBA
(S)TH1414...(S)TH1417	78 dBA

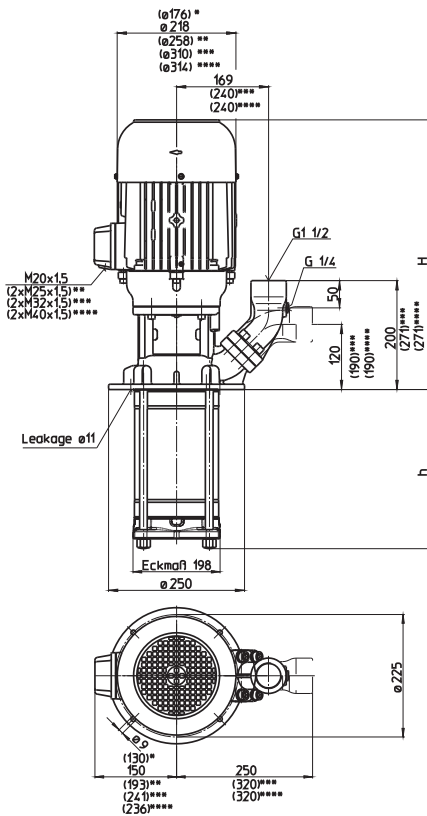


Immersion Pumps (S)TH17

50 Hz

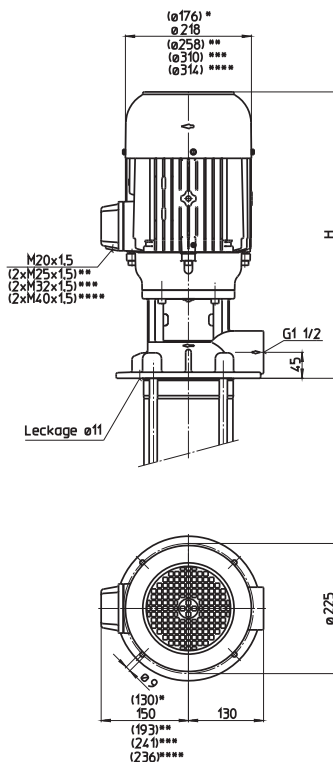
Closed impellers

STH1702...1717



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH1702A180	300/24	492	182	42	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
(S)TH1703A280	300/37	531	278	55	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
(S)TH1704A280	300/51	561	278	61	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
(S)TH1705A380	300/66	561	374	64	5.5	220-240 380-415	50 50	18.9 10.9	2915 2915
(S)TH1706A380	300/77	640	374	87	7.5	380-415	50	13.8	2950
(S)TH1707A470	300/90		470	97					
(S)TH1708A470	300/103	640	470	116	9.0	380-415	50	16.6	2955
(S)TH1709A570	300/116	647	566	124	11.0	380-415	50	20.1	2960
(S)TH1710A570	300/130			126					
(S)TH1711A660	300/143	952	662	147	15.0	400	50	27	2960
(S)TH1712A660	300/157			148					
(S)TH1713A760	300/172		758	150					
(S)TH1714A760	300/186	1002	758	168	18.5	400	50	32	2955
(S)TH1715A900	300/200		902	170					
(S)TH1716A900	300/212			172					
(S)TH1717A900	300/227			175					

TH1702...1717



- *) Dimension for (S)TH1702
- **) Dimension for (S)TH1706...1708
- ***) Dimension for (S)TH1709...1710
- ****) Dimension for (S)TH1711...1717

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 26 bar.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

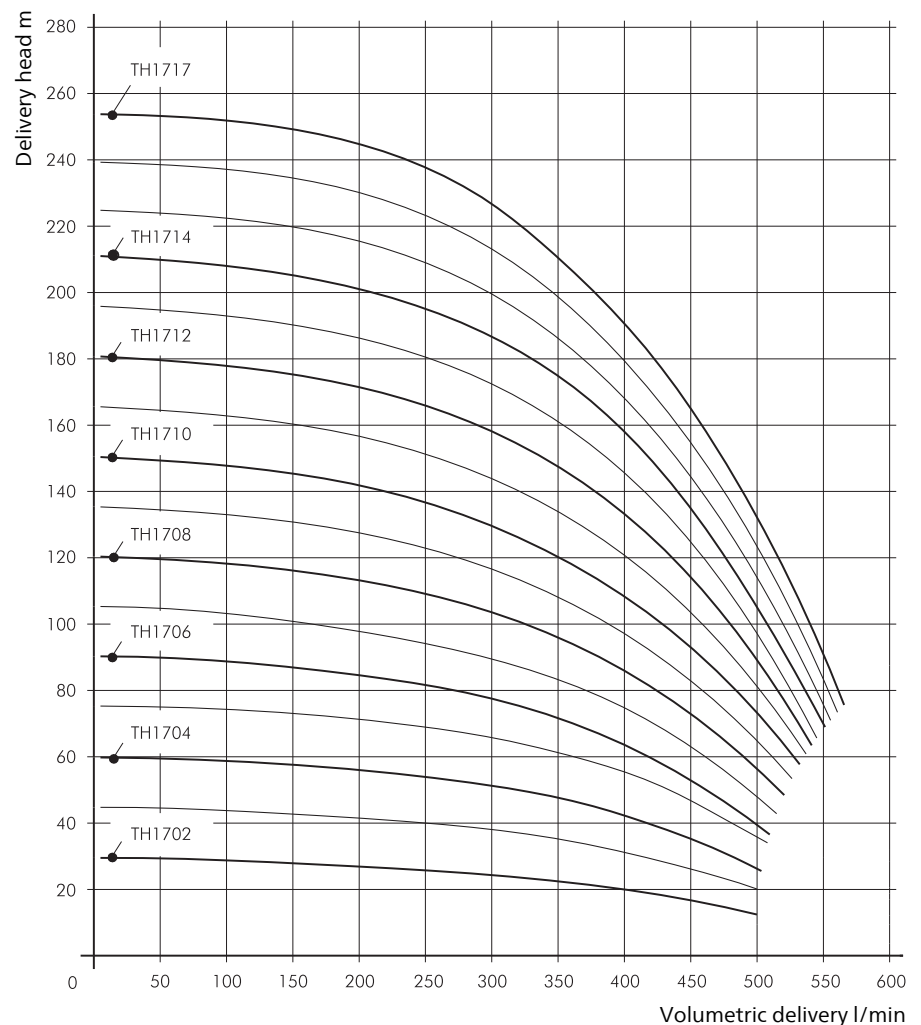
Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 0...80° C

Construction

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

Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
Pole-changing motor	4 - 2 poles

Noise level	
(S)TH1702	63 dBA
(S)TH1703...(S)TH1705	71 dBA
(S)TH1706...(S)TH1710	74 dBA
(S)TH1711...(S)TH1717	78 dBA



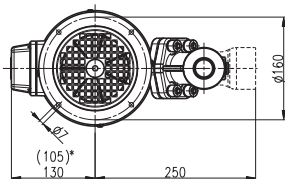
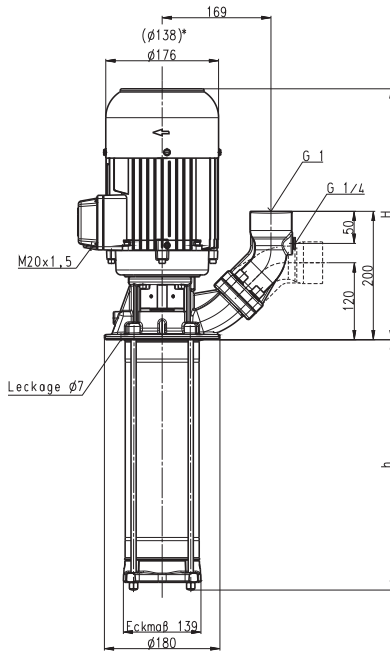
Immersion Pumps

(S)TH2

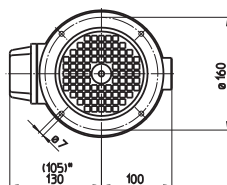
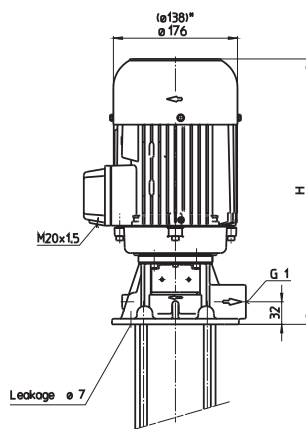
Closed impellers



STH203...231



TH203...231



*) Dimensions for (S)TH203...(S)TH215

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH203B190	20/25	291	190	14.4	0.45	460	60	1.1	3200
(S)TH204B190	20/30			14.5					
(S)TH205B190	20/40	291	190	14.9	0.54	460	60	1.4	3300
(S)TH206B190	20/50			15.0					
(S)TH207B290	20/57	332	290	19.0	0.86	460	60	1.75	3440
(S)TH208B290	20/64			19.1					
(S)TH209B290	20/74			19.2					
(S)TH210B290	20/81	332	290	20.1	0.98	460	60	2	3450
(S)TH211B290	20/90	332	290	20.3	1.06	460	60	2.1	3440
(S)TH212B390	20/98		390	20.4					
(S)TH213B390	20/106			20.5					
(S)TH214B390	20/113	359	390	21.7	1.27	460	60	2.4	3440
(S)TH215B390	20/119			21.8					
(S)TH216B390	20/127	381	390	28	1.49	460	60	2.7	3500
(S)TH217B490	20/136	381	490	30.2	1.75	460	60	3.1	3470
(S)TH218B490	20/146			30.3					
(S)TH219B490	20/156			30.4					
(S)TH220B490	10/164	407	490	32.5	1.95	460	60	3.5	3480
(S)TH221B490	20/172			32.6					
(S)TH222B590	20/182	439	590	37.4	2.18	460	60	3.9	3500
(S)TH223B590	20/191			37.5					
(S)TH224B590	20/200	439	590	38.2	2.55	460	60	4.4	3480
(S)TH225B590	20/208			38.4					
(S)TH226B590	20/216			38.5					
(S)TH227B690	20/224		690	39.1					
(S)TH228B690	20/231	439	690	40.2	2.94	460	60	5.1	3480
(S)TH229B690	20/238			40.3					
(S)TH230B690	20/245			40.4					
(S)TH231B690	20/252			40.5					

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 26 bar.

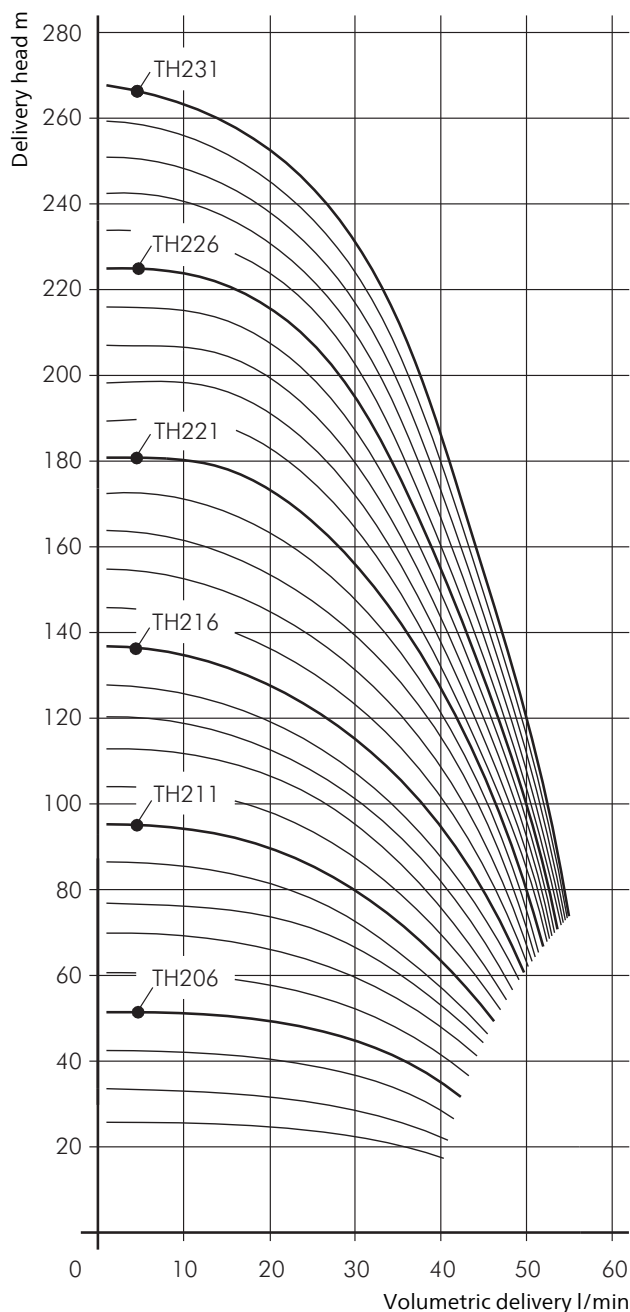
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH203...(S)TH215	61 dBA
(S)TH216...(S)TH231	66 dBA



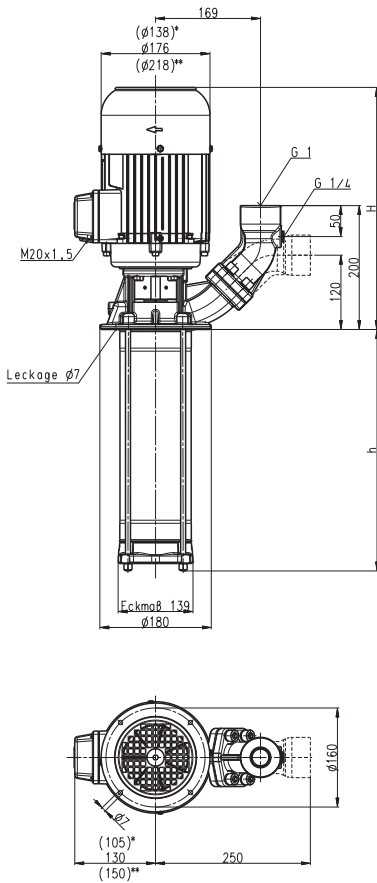
Immersion Pumps

(S)TH4

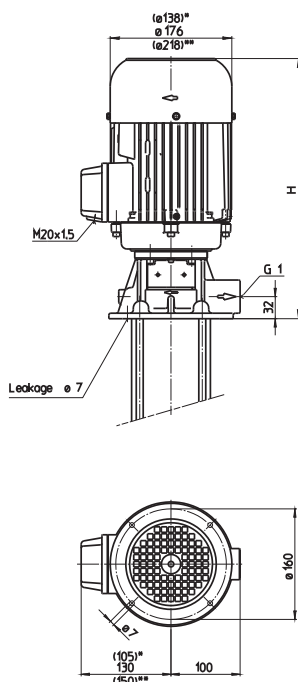
Closed impellers



STH403...424



TH403...424



*) Dimensions for (S)TH403...(S)TH408
 **) Dimensions for (S)TH419...(S)TH424

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH403B190	40/29	291	190	14.9	0.54	460	60	1.4	3300
(S)TH404B190	40/39	332	190	17.1	0.86	460	60	1.75	3440
(S)TH405B190	40/49			17.2					
(S)TH406B190	40/58	332	190	18.2	1.06	460	60	2.1	3440
(S)TH407B290	40/68	359	290	19.4	1.27	460	60	2.4	3440
(S)TH408B290	40/78			19.5					
(S)TH409B290	40/88	381	290	27	1.49	460	60	2.7	3500
(S)TH410B290	40/100	381	290	27.2	1.75	460	60	3.1	3470
(S)TH411B290	40/110	407	290	29.4	1.95	460	60	3.5	3480
(S)TH412B390	40/119		390	30.0					
(S)TH413B390	40/129	439	390	35	2.18	460	60	3.9	3500
(S)TH414B390	40/139	439	390	35.5	2.55	460	60	4.4	3480
(S)TH415B390	40/150			35.6					
(S)TH416B390	40/159	439	390	36.0	2.94	460	60	5.1	3480
(S)TH417B490	40/170		490	36.1					
(S)TH418B490	40/179			36.2					
(S)TH419B490	40/192	432	490	47.9	3.8	460	60	6.4	3520
(S)TH420B490	40/202			48.0					
(S)TH421B490	40/214			48.1					
(S)TH422B590	40/224		590	48.3					
(S)TH423B590	40/233	432	590	49.5	4.55	460	60	7.9	3520
(S)TH424B590	40/242			49.7					

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 26 bar.

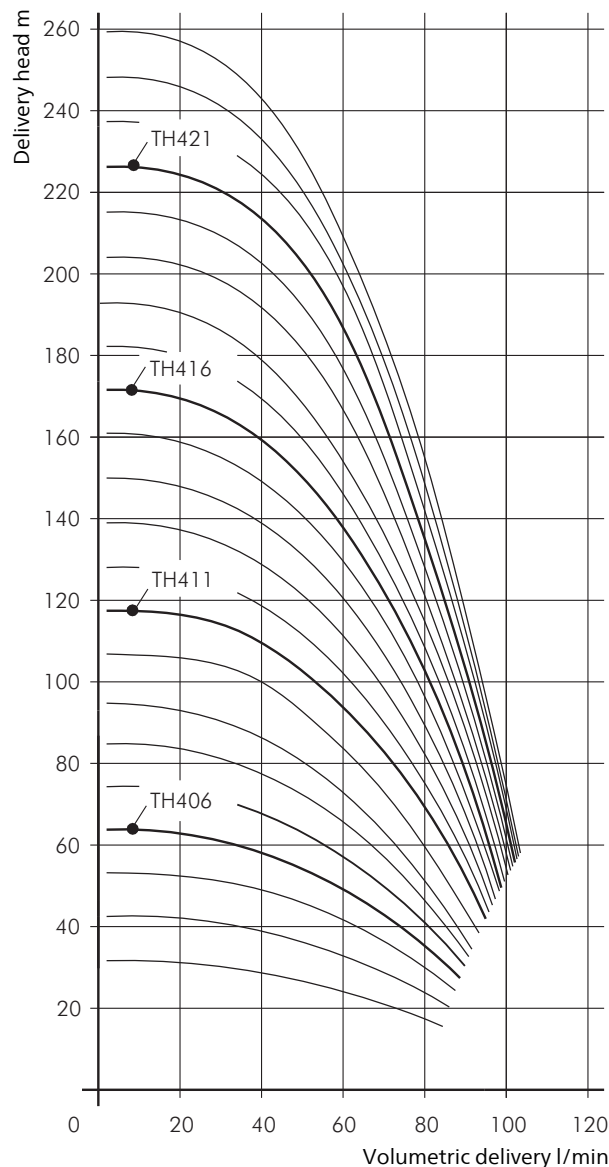
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
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



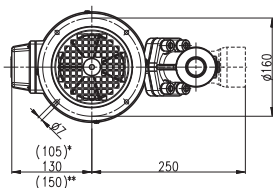
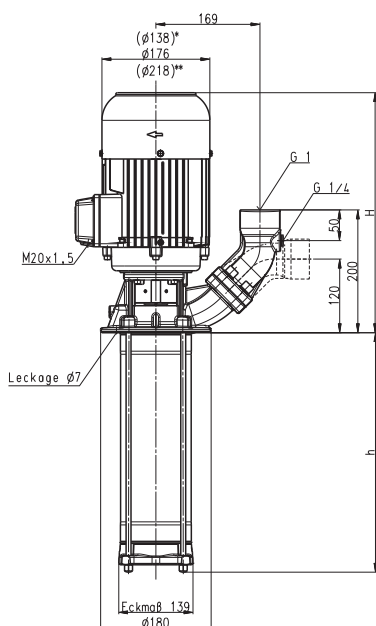
Immersion Pumps

(S)TH6

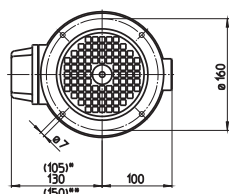
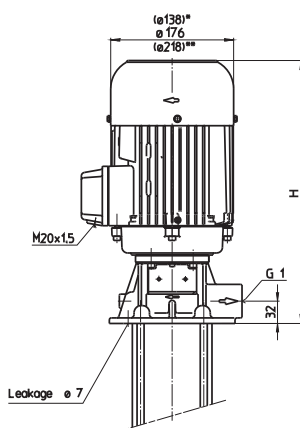
Closed impellers



STH603...624



TH603...624



*) Dimensions for (S)TH603...(S)TH605
 **) Dimensions for (S)TH612...(S)TH624

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH603B190	80/28	332	190	16.8	0.86	460	60	1.75	3440
(S)TH604B190	80/38	332	190	17.5	1.06	460	60	2.1	3440
(S)TH605B240	80/48	359	240	18.5	1.27	460	60	2.4	3440
(S)TH606B240	80/58	381	240	25	1.75	460	60	3.1	3470
(S)TH607B290	80/68	407	290	29	1.95	460	60	3.5	3480
(S)TH608B290	80/78	439	290	32	2.18	460	60	3.9	3500
(S)TH609B340	80/88	439	340	35	2.55	460	60	4.4	3480
(S)TH610B340	80/98	439	340	36.0	2.94	460	60	5.1	3480
(S)TH611B390	80/108		390	36.6					
(S)TH612B390	80/118	432	390	48	3.45	460	60	6	3520
(S)TH613B490	80/128	432	490	49.9	3.8	460	60	6.4	3520
(S)TH614B490	80/139			50.1					
(S)TH615B490	80/149	432	490	51.8	4.55	460	60	7.9	3520
(S)TH616B490	80/159			52.3					
(S)TH617B590	80/168		590	52.8					
(S)TH618B590	80/178	462	590	56.8	5.75	460	60	9.5	3520
(S)TH619B590	80/188			56.9					
(S)TH620B590	80/198			57.0					
(S)TH621B690	80/206		690	57.2					
(S)TH622B690	80/214			57.3					
(S)TH623B690	80/222	462	690	61.0	6.3	460	60	10.4	3510
(S)TH624B690	80/232			61.2					

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 26 bar.

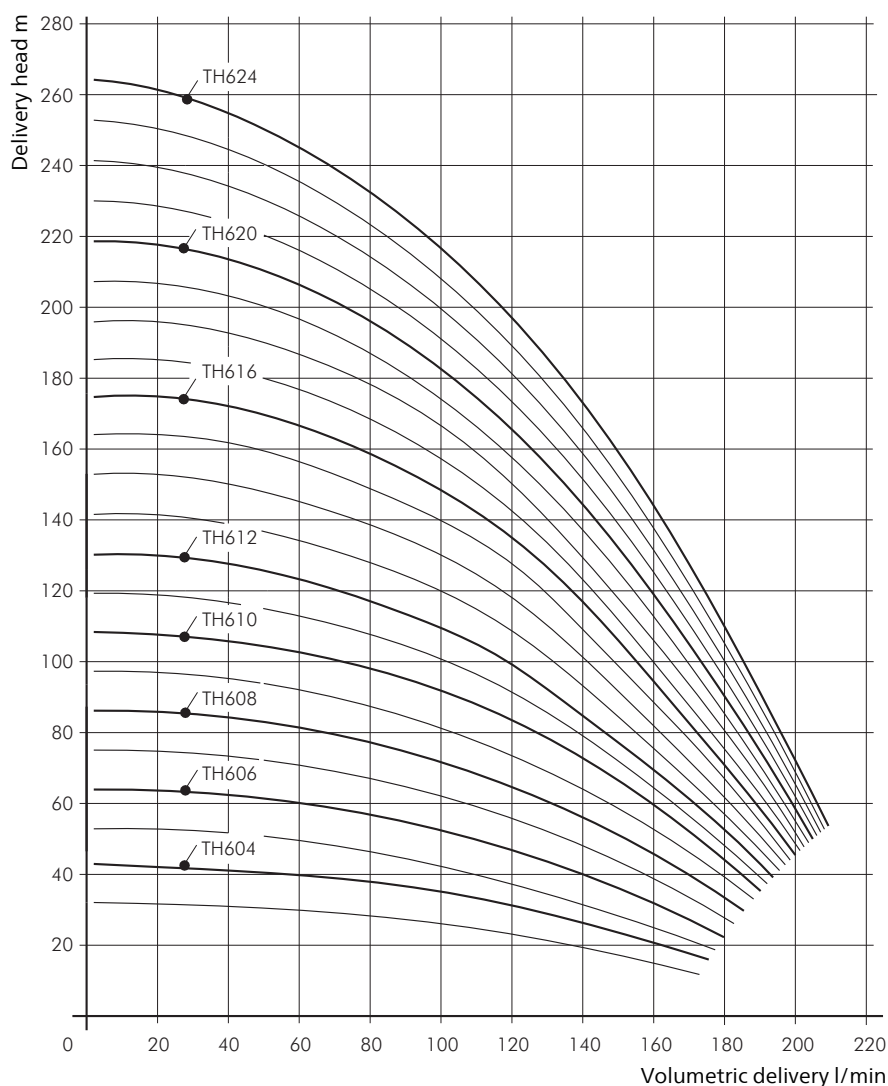
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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
	CrNi-steel
Pole-changing motor	4 - 2 poles
Noise level	
(S)TH603...(S)TH605	61 dBA
(S)TH606...(S)TH611	66 dBA
(S)TH612...(S)TH624	75 dBA



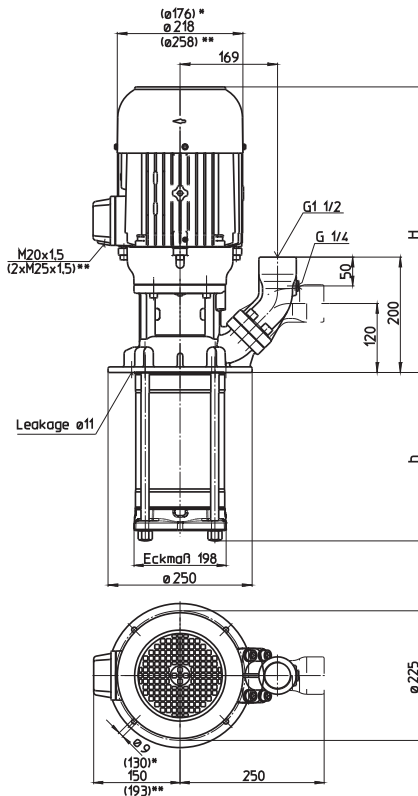
Immersion Pumps

(S)TH11

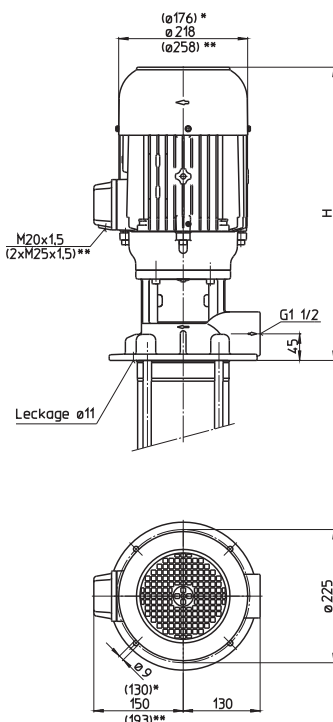
Closed impellers

60 Hz

STH1102...1115



TH1102...1115



*) Dimensions for (S)TH1102...1104
**) Dimensions for (S)TH1110...1115

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH1102B180	150/30	433	182	34	1.49	460	60	2.7	3500
(S)TH1103B180	150/45	492	182	43	2.18	460	60	3.9	3500
(S)TH1104B280	150/59	492	278	44	2.94	460	60	5.1	3480
(S)TH1105B280	150/77	531	278	57	3.8	460	60	6.4	3520
(S)TH1106B280	150/90	531	278	58	4.55	460	60	7.9	3520
(S)TH1107B310	150/106	561	310	62	5.75	460	60	9.5	3520
(S)TH1108B380	150/121		374	64					
(S)TH1109B380	150/138	561	374	65	6.3	460	60	10.4	3510
(S)TH1110B470	150/152	640	470	97	8.6	460	60	13.5	3550
(S)TH1111B470	150/166			98					
(S)TH1112B470	150/180			99					
(S)TH1113B500	150/198	640	502	108	10.3	460	60	16.1	3550
(S)TH1114B570	150/212		566	109					
(S)TH1115B570	150/230			110					

Immersion Pumps

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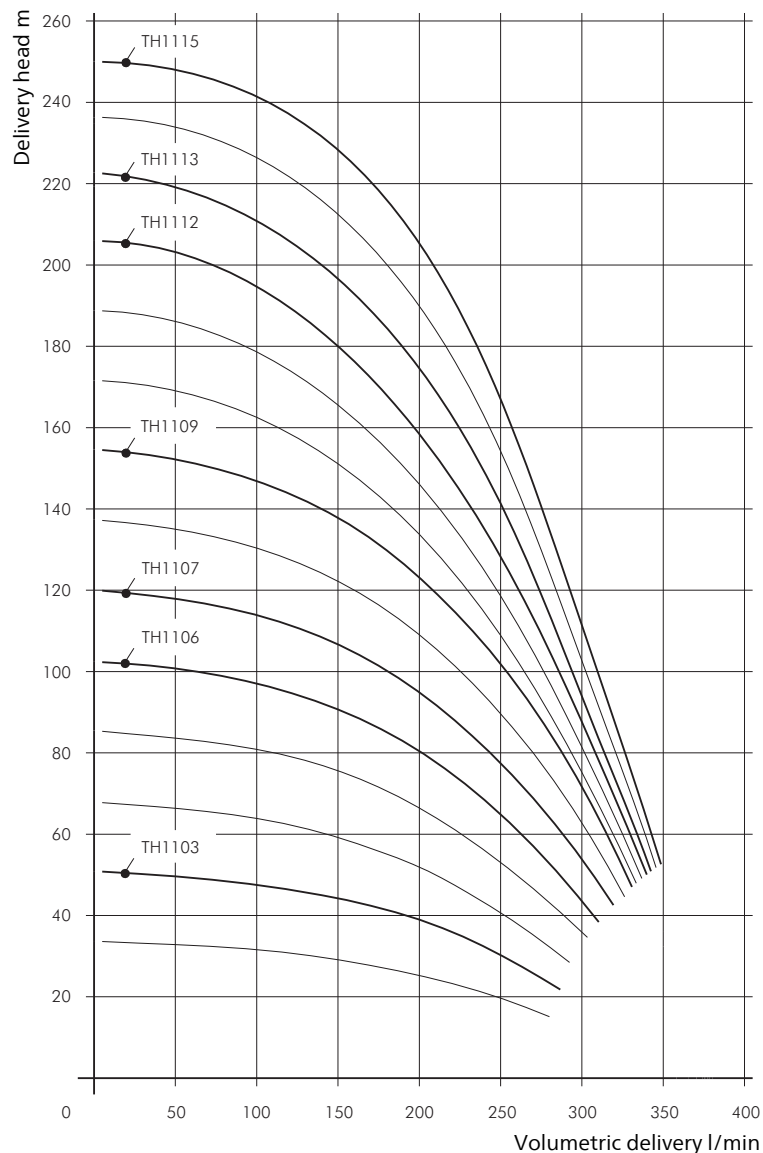
Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

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

Construction

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



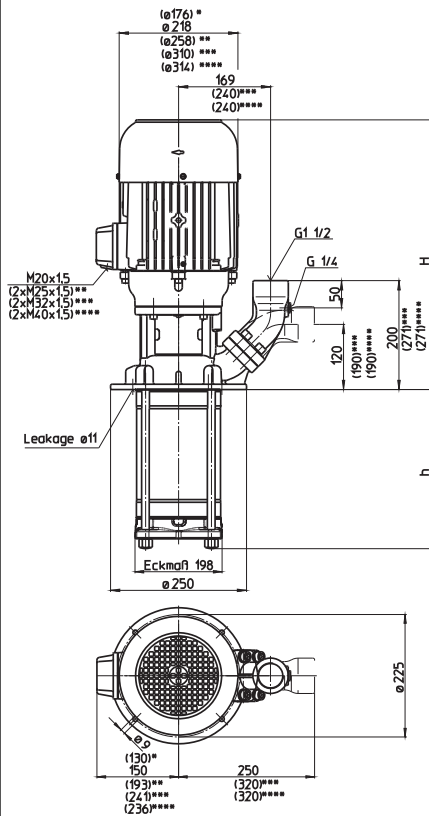
Immersion Pumps

(S)TH14

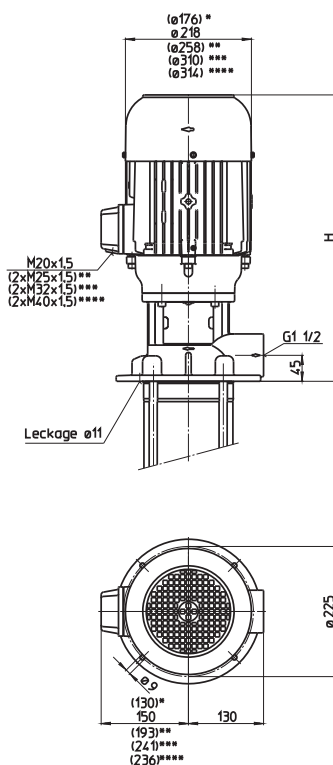
Closed impellers



STH1402...1412



TH1402...1412



- *) Dimensions for (S)TH1402
- **) Dimensions for (S)TH1405...1407
- ***) Dimensions for (S)TH1408
- ****) Dimensions for (S)TH1409...1412

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
(S)TH1402B180	250/38	492	182	47	2.94	460	60	5.1	3480
(S)TH1403B280	250/58	531	278	58	4.55	460	60	7.9	3520
(S)TH1404B280	250/77	561	278	65	6.3	460	60	10.4	3510
(S)TH1405B380	250/96	640	374	94	8.6	460	60	13.5	3550
(S)TH1406B380	250/111			95					
(S)TH1407B470	250/128	640	470	108	10.3	460	60	16.1	3550
(S)TH1408B470	250/147	647	470	123	12.6	460	60	19.5	3560
(S)TH1409B570	250/165	952	566	150	17.3	460	60	27	3555
(S)TH1410B570	250/184			152					
(S)TH1411B660	250/203		662	157					
(S)TH1412B660	250/222			160					

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 26 bar.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

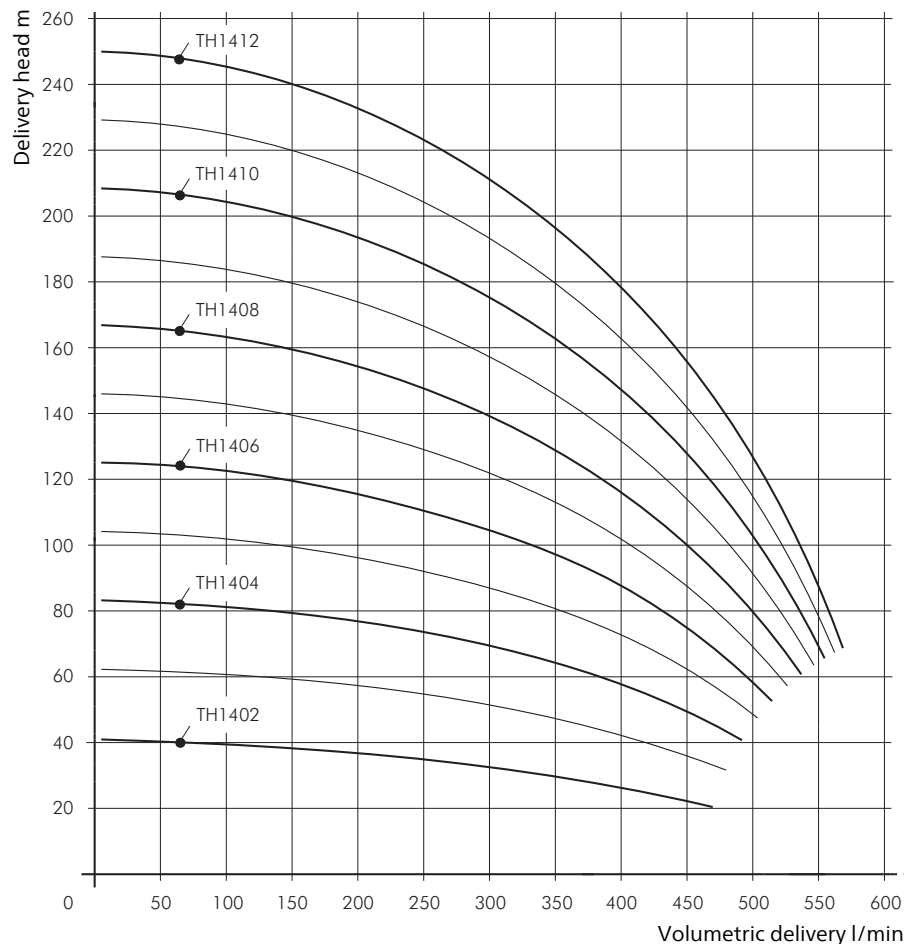
- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...25 mm²/s (25 cSt)
- Pumping temperature
 - 0...80° C

Construction

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

Optional:	
Pump body	CrNi-steel
Cover	CrNi-steel
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



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 26 bar.

Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

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

Construction

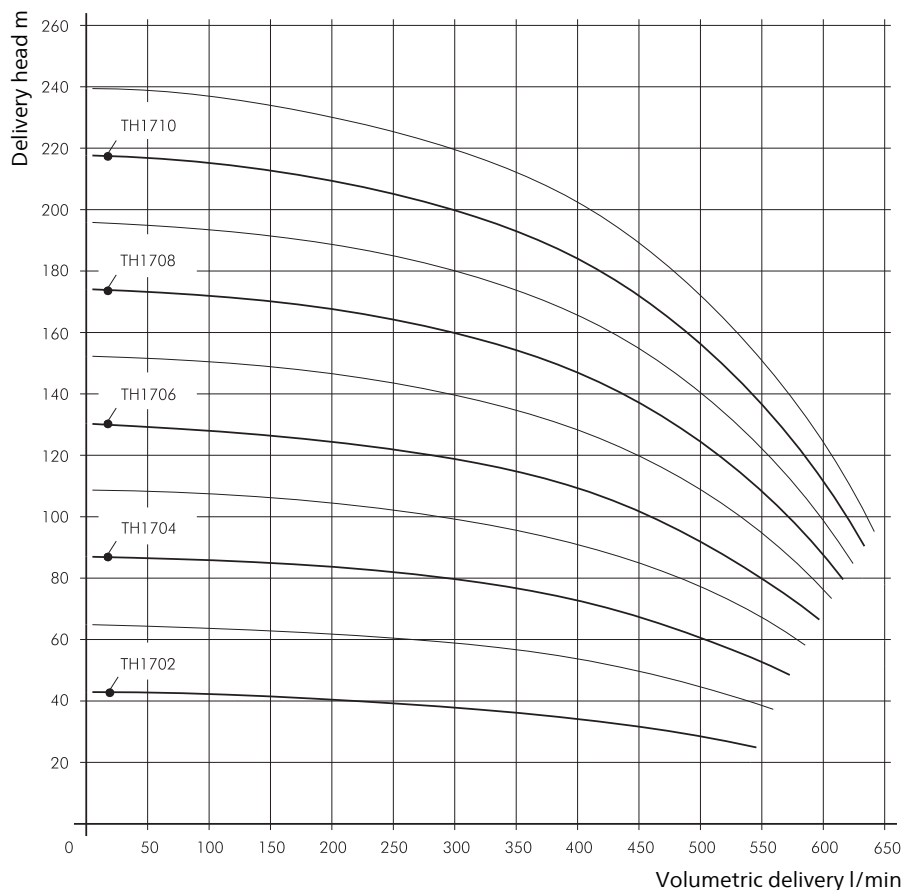
Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton

Optional:

Pump body	CrNi-steel
Cover	CrNi-steel
Pole-changing motor	4 - 2 poles

Noise level

(S)TH1702...(S)TH1703	74 dBA
(S)TH1704...(S)TH1705	77 dBA
(S)TH1706	79 dBA
(S)TH1707...(S)TH1711	81 dBA

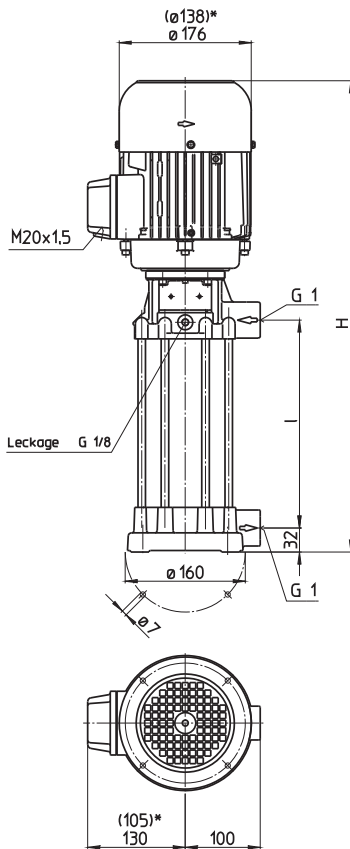


FH2

50 Hz

Closed impellers

FH203...240



*) Dimensions for FH203...FH222

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH203A19	20/15	488	197	16.9	0.45	220-240	50	1.9	2800
FH204A19	20/20			17.0					
FH205A19	20/25			17.1					
FH206A29	20/30	588	297	17.6	0.54	220-240	50	2.42	2800
FH207A29	20/35			17.7					
FH208A29	20/40	588	297	19.0					
FH209A29	20/45			19.5	0.75	220-240	50	3.24	2850
FH210A29	20/50			19.7					
FH211A39	20/56	688	397	20.4					
FH212A39	20/60	729	397	22.9	0.92	220-240	50	3.8	2840
FH213A39	20/68			23.0					
FH214A39	20/75			23.1					
FH215A39	20/82	729	397	23.5	1.1	220-240	50	4.33	2850
FH216A49	20/88	829	497	24.1					
FH217A49	20/93			24.2					
FH218A49	20/98			24.3	1.3	220-240	50	4.85	2900
FH219A49	20/102	856	497	28.1					
FH220A49	20/108			28.2					
FH221A59	20/112	956	597	28.8	1.5	220-240	50	5.5	2880
FH222A59	20/118			28.9					
FH223A59	20/125	978	597	34.8					
FH224A59	20/130			34.9	1.7	220-240	50	6.24	2890
FH225A59	20/135			35.0					
FH226A69	20/142	1078	697	35.9					
FH227A69	20/150			36.0	1.9	220-240	50	6.84	2900
FH228A69	20/155			36.1					
FH229A69	20/160	1104	697	38.9					
FH230A69	20/166			39.0	2.2	220-240	50	7.8	2890
FH231A79	20/172	1204	797	39.5					
FH232A79	20/178			39.6					
FH233A79	20/182			39.8	1.9	220-240	50	3.95	2900
FH234A79	20/190	1236	797	44.1					
FH235A79	20/195			44.2					
FH236A89	20/200	1336	897	44.8	2.2	220-240	50	4.5	2890
FH237A89	20/205	1336	897	46.7					
FH238A89	20/210			46.8					
FH239A89	20/215			46.9					
FH240A89	20/220			47.0					

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 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 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.

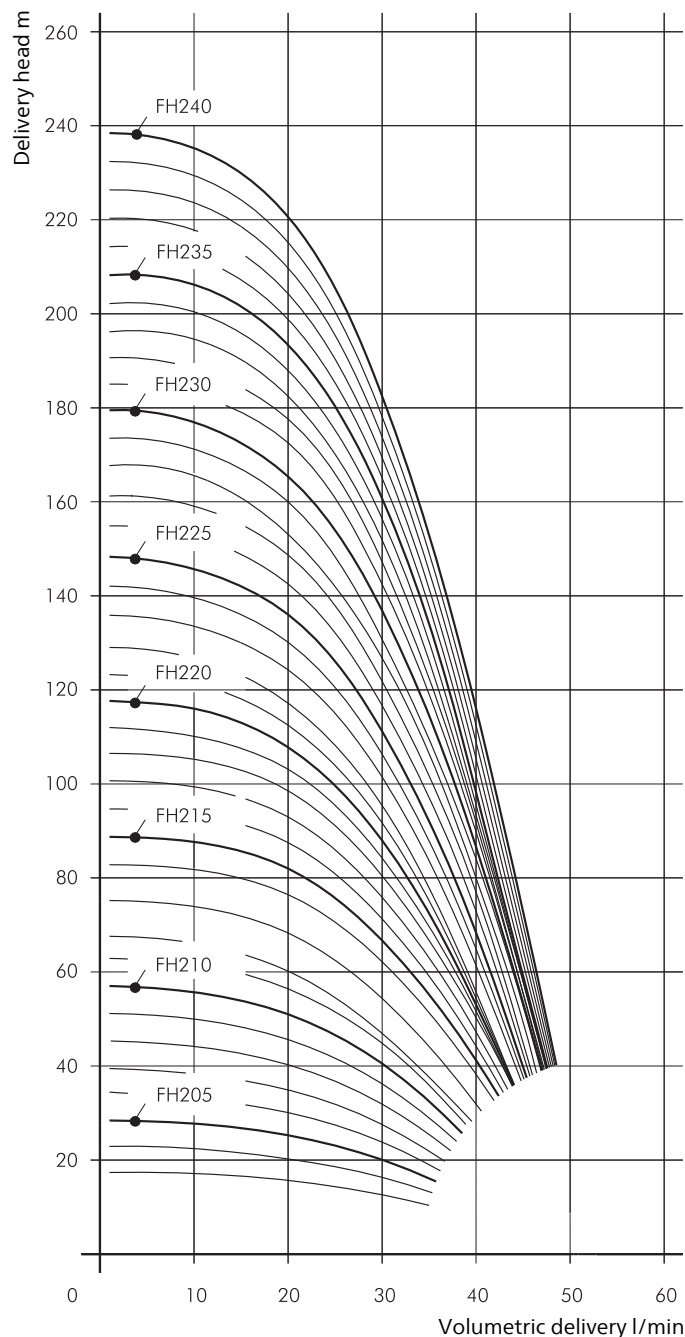


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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...FH222	58 dBA
FH223...FH240	63 dBA

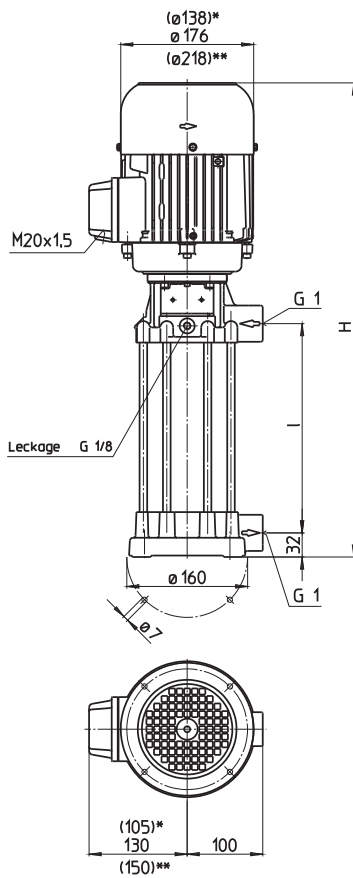


FH4

50 Hz

Closed impellers

FH403...435



*) Dimensions for FH403...FH412

**) Dimensions for FH428...FH435

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH403A19	40/18	488	197	17.4	0.45	220-240	50	1.9	2800
FH404A19	40/25			17.5		380-420	50	1.1	2800
FH405A19	40/30	488	197	17.9	0.54	220-240	50	2.42	2800
						380-420	50	1.40	2800
FH406A29	40/36	588	297	18.0					
FH407A29	40/42	629	297	20.9	0.75	220-240	50	3.24	2850
FH408A29	40/50			21.0		380-415	50	1.87	2850
FH409A29	40/56	629	297	22.5	0.85	220-240	50	3.64	2850
						380-415	50	2.10	2850
FH410A29	40/62	629	297	23	0.92	220-240	50	3.8	2840
						380-415	50	2.2	2840
FH411A39	40/68	756	397	24.6	1.1	220-240	50	4.33	2850
FH412A39	40/74			24.8		380-415	50	2.50	2850
FH413A39	40/80	778	397	31	1.3	220-240	50	4.85	2900
						380-415	50	2.80	2900
FH414A39	40/86	778	397	31.5	1.5	220-240	50	5.5	2880
FH415A39	40/95			32.1		380-415	50	3.2	2880
FH416A49	40/104	878	497	32.4					
FH417A49	40/112	904	497	34.9	1.7	220-240	50	6.24	2890
FH418A49	40/118			35.0		380-415	50	3.60	2890
FH419A49	40/125	936	497	38.9	1.9	220-240	50	6.84	2900
						380-415	50	3.95	2900
FH420A49	40/130	936	497	39.5	2.2	220-240	50	7.8	2890
						380-415	50	4.5	2890
FH421A59	40/136	1036	597	41.0					
FH422A59	40/142			41.3					
FH423A59	40/150	1036	597	41.7	2.6	220-240	50	9.30	2880
FH424A59	40/156			42.0		380-415	50	5.35	2880
FH425A59	40/162			42.8					
FH426A69	40/168	1136	697	43.0					
FH427A69	40/175			43.3					
FH428A69	40/182	1129	697	54.2	3.0	220-240	50	10.7	2930
FH429A69	40/190			54.3		380-415	50	6.2	2930
FH430A69	40/198	1129	697	55.8	3.3	220-240	50	11.6	2930
						380-415	50	6.7	2930
FH431A79	40/208	1229	797	56.6					
FH432A79	40/216			57.0					
FH433A79	40/220	1229	797	58.1	4.0	220-240	50	14.50	2920
FH434A79	40/230			58.3		380-415	50	8.35	2920
FH435A79	40/240			58.5					

Pressure Boosting Pumps

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

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

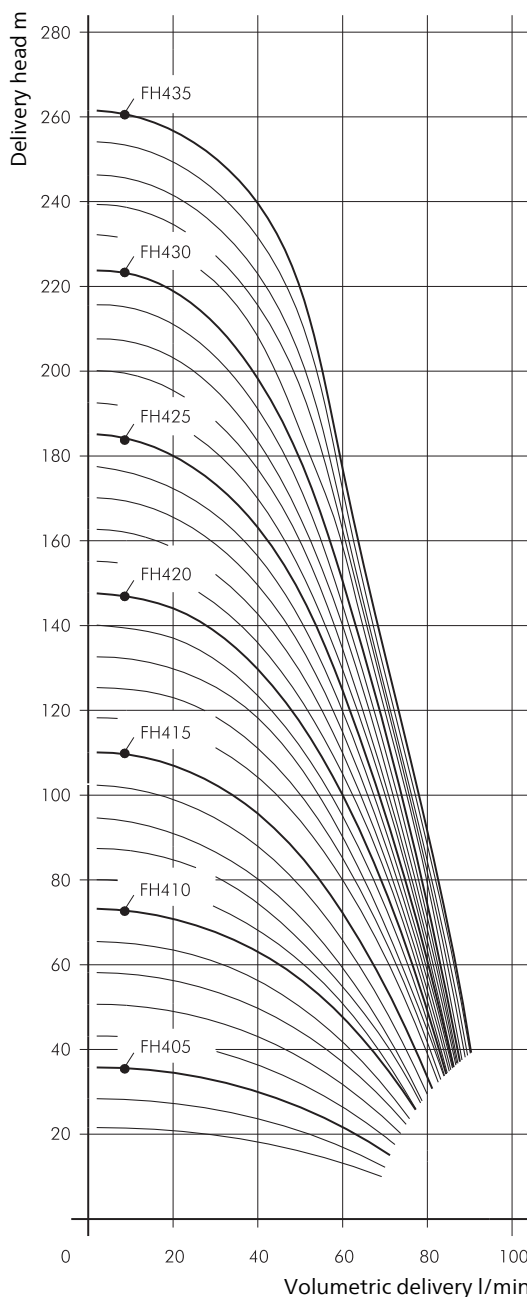


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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...FH412	58 dBA
FH413...FH427	63 dBA
FH428...FH435	71 dBA

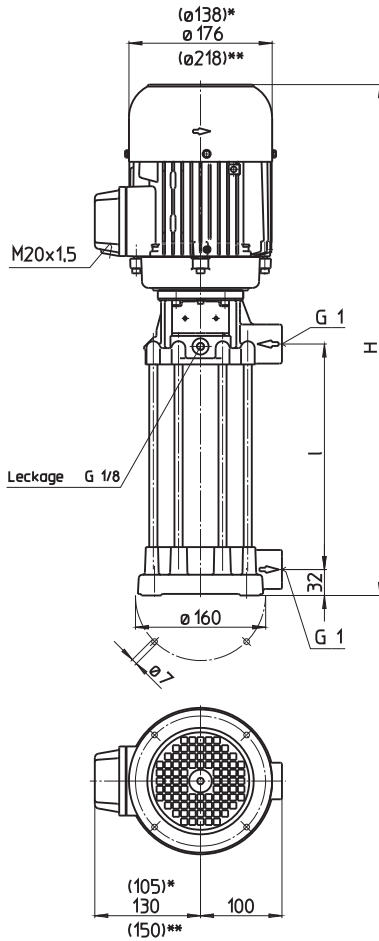


FH6

50 Hz

Closed impellers

FH603...632



*) Dimensions for FH603...FH607

**) Dimensions for FH619...FH632

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH603A19	80/18	488	197	17.5	0.54	220-240 380-420	50 50	2.42 1.40	2800 2800
FH604A19	80/24	529	197	20.5	0.75	220-240 380-415	50 50	3.24 1.87	2850 2850
FH605A24	80/30	579	247	20.8					
FH606A24	80/36	579	247	21.4	0.92	220-240 380-415	50 50	3.8 2.2	2840 2840
FH607A29	80/41	656	297	22.5	1.1	220-240 380-415	50 50	4.33 2.50	2850 2850
FH608A29	80/48	678	297	29	1.3	220-240 380-415	50 50	4.85 2.80	2900 2900
FH609A34	80/56	728	347	30.0	1.5	220-240 380-415	50 50	5.5 3.2	2880 2880
FH610A34	80/61			30.2					
FH611A39	80/71	804	397	33	1.7	220-240 380-415	50 50	6.24 3.60	2890 2890
FH612A39	80/76	836	397	37	1.9	220-240 380-415	50 50	6.84 3.95	2900 2900
FH613A49	80/82	936	497	39.0	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
FH614A49	80/90			39.1					
FH615A49	80/96			39.2					
FH616A49	80/101	936	497	39.8	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
FH617A59	80/108	1036	597	40.4					
FH618A59	80/114			40.6					
FH619A59	80/120	1029	597	52.0	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
FH620A59	80/128			52.1					
FH621A69	80/136	1129	697	53.5					
FH622A69	80/142	1129	697	54.6	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
FH623A69	80/150			54.8					
FH624A69	80/155			55.0					
FH625A79	80/160	1229	797	56.2					
FH626A79	80/166			56.4					
FH627A79	80/172	1259	797	63.0	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
FH628A79	80/180			63.2					
FH629A89	80/186	1359	897	64.9					
FH630A89	80/192			65.1					
FH631A89	80/200			65.3					
FH632A89	80/206			65.5					

Pressure Boosting Pumps

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

In addition, the TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as **boosting pumps** if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 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 converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

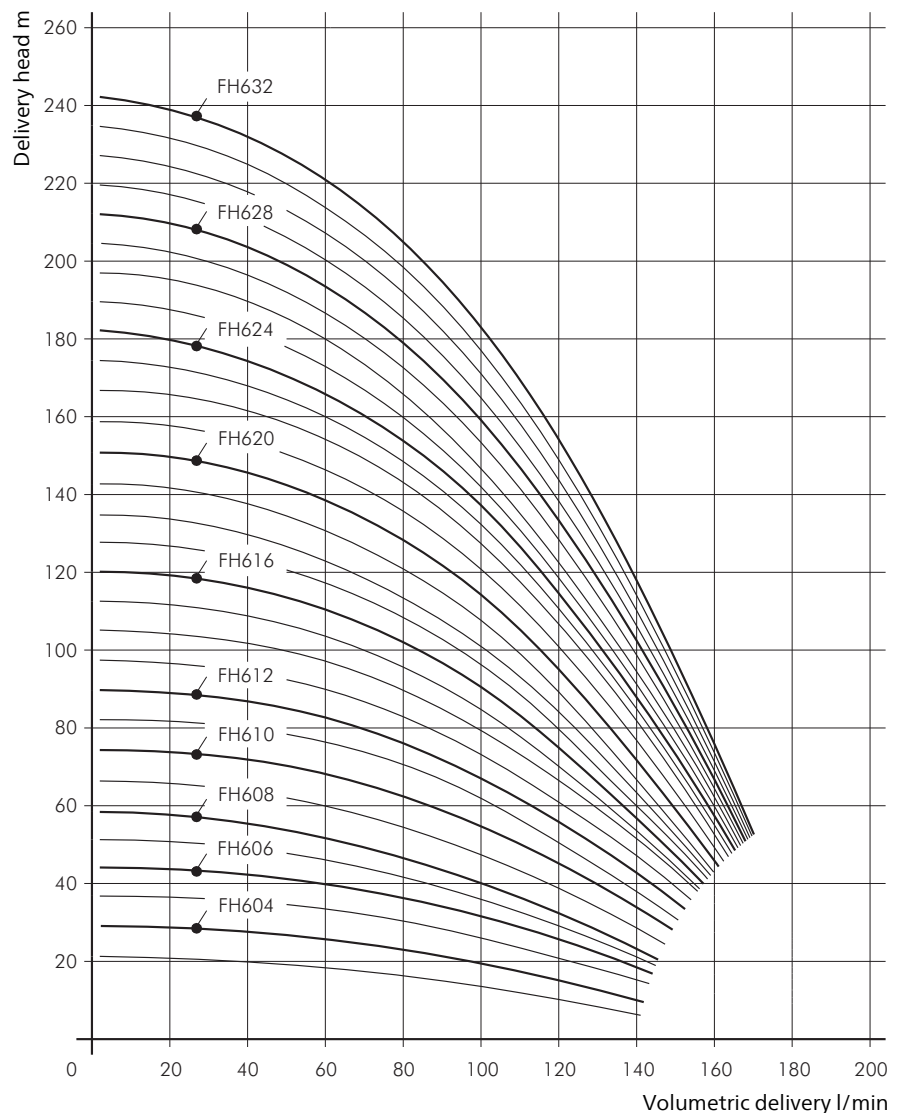
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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...FH607	58 dBA
FH608...FH618	63 dBA
FH619...FH632	71 dBA

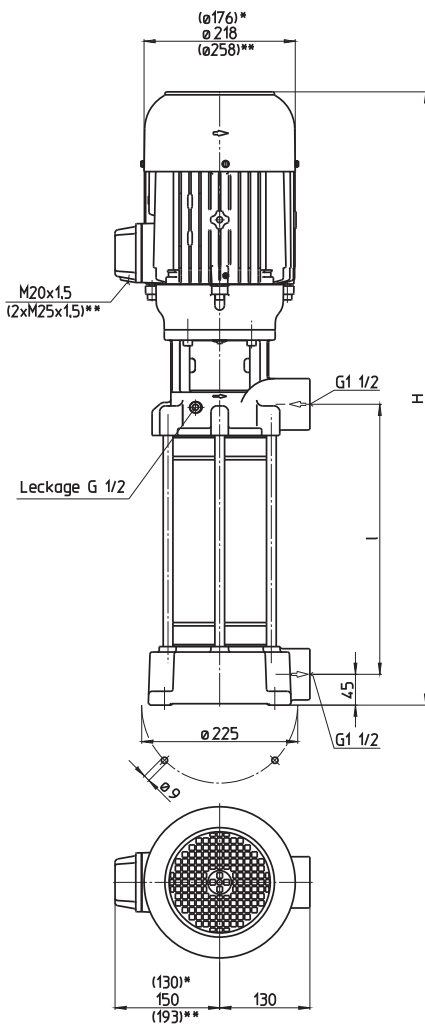


FH11

50 Hz

Closed impellers

FH1102...1121



*) Dimensions for FH1102...1106

***) Dimensions for FH1115...1121

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1102A18	150/19	643	212	39	1.3	220-240	50	4.85	2900
						380-415	50	2.80	2900
FH1103A18	150/29	643	212	40	1.5	220-240	50	5.5	2880
						380-415	50	3.2	2880
FH1104A28	150/38	765	308	44	1.7	220-240	50	6.24	2890
						380-415	50	3.60	2890
FH1105A28	150/48	798	308	48	1.9	220-240	50	6.84	2900
						380-415	50	3.95	2900
FH1106A28	150/58	798	308	50	2.6	220-240	50	9.30	2880
						380-415	50	5.35	2880
FH1107A31	150/67	869	340	60	3.0	220-240	50	10.7	2930
						380-415	50	6.2	2930
FH1108A38	150/78	933	404	63	3.3	220-240	50	11.6	2930
						380-415	50	6.7	2930
FH1109A38	150/88	933	404	64	4.0	220-240	50	14.50	2920
						380-415	50	8.35	2920
FH1110A47	150/98	1028	500	66					
FH1111A47	150/106	1058	500	72	5.0	220-240	50	17.3	2920
FH1112A47	150/118			73		380-415	50	10.0	2920
FH1113A50	150/128	1090	532	74	5.5	220-240	50	18.9	2915
						380-415	50	10.9	2915
FH1114A57	150/138	1154	596	75					
FH1115A57	150/149	1232	596	107	7.5	380-415	50	13.8	2950
FH1116A66	150/158	1328	682	109					
FH1117A66	150/168			110					
FH1118A66	150/178			113					
FH1119A76	150/188	1424	788	117	9.0	380-415	50	16.6	2955
FH1120A76	150/198			118					
FH1121A76	150/206			119					

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 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 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.



Applications

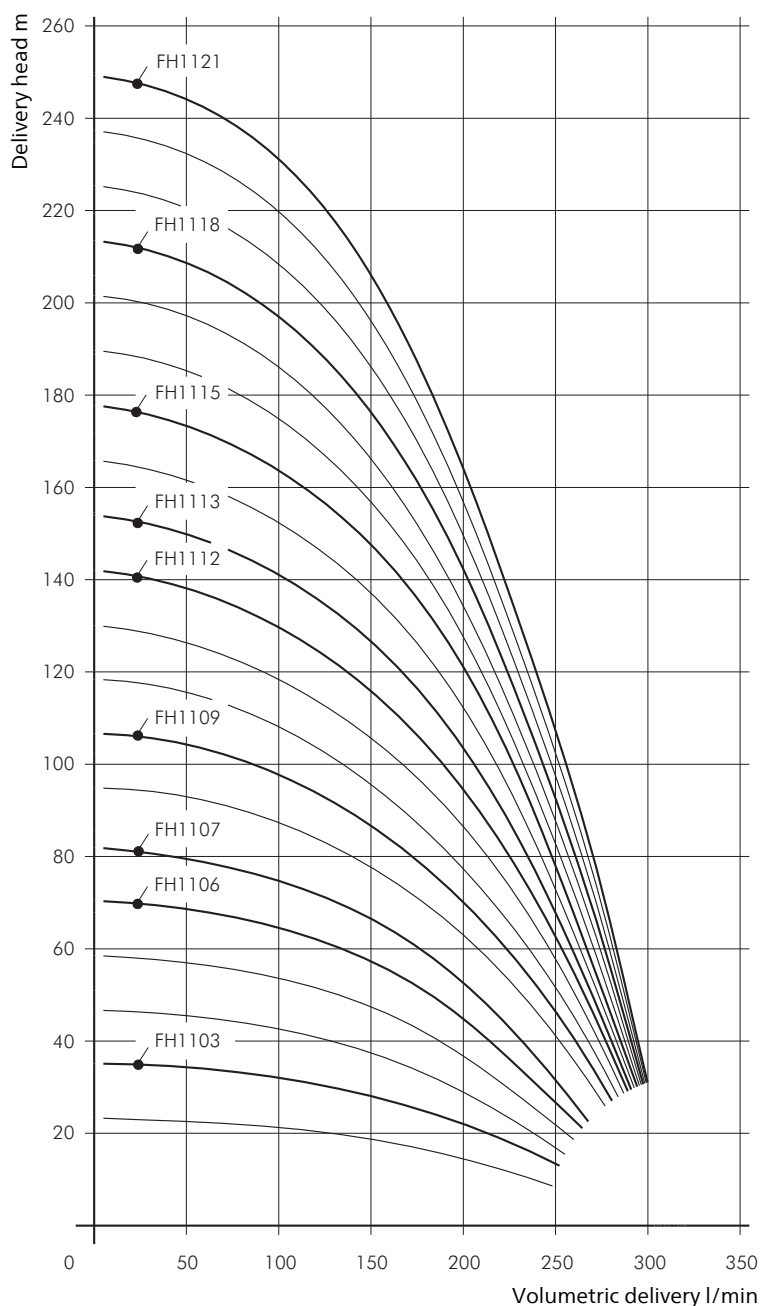
Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 0...80° C

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...FH1106	63 dBA
FH1107...FH1114	71 dBA
FH1115...FH1121	74 dBA

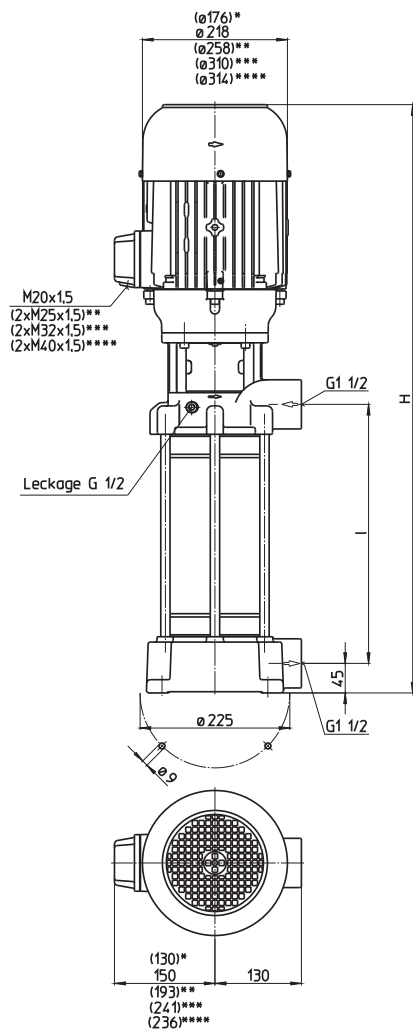


FH14

50 Hz

Closed impellers

FH1402...1417



- *) Dimensions for FH1402...1403
- **) Dimensions for FH1408...1411
- ***) Dimensions for FH1412...1413
- ****) Dimensions for FH1414...1417

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1402A18	250/21	669	212	42	1.7	220-240 380-415	50 50	6.24 3.60	2890 2890
FH1403A28	250/38	798	308	49	2.6	220-240 380-415	50 50	9.30 5.35	2880 2880
FH1404A28	250/48	837	308	61	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
FH1405A38	250/60	933	404	63	4.0	220-240 380-415	50 50	14.50 8.35	2920 2920
FH1406A38	250/74	963	404	69	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
FH1407A47	250/85	1058	500	72	5.5	220-240 380-415	50 50	18.9 10.9	2915 2915
FH1408A47	250/98	1136	500	103	7.5	380-415	50	13.8	2950
FH1409A57	250/110	1232	596	105					
FH1410A57	250/120	1232	596	112	9.0	380-415	50	16.6	2955
FH1411A66	250/134	1328	692	128					
FH1412A66	250/144	1336	692	137	11.0	380-415	50	20.1	2960
FH1413A76	250/159	1432	788	140					
FH1414A76	250/170	1737	788	163	15.0	400	50	27	2960
FH1415A90	250/180	1881	932	164					
FH1416A90	250/190			166					
FH1417A90	250/200			167					

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 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 converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

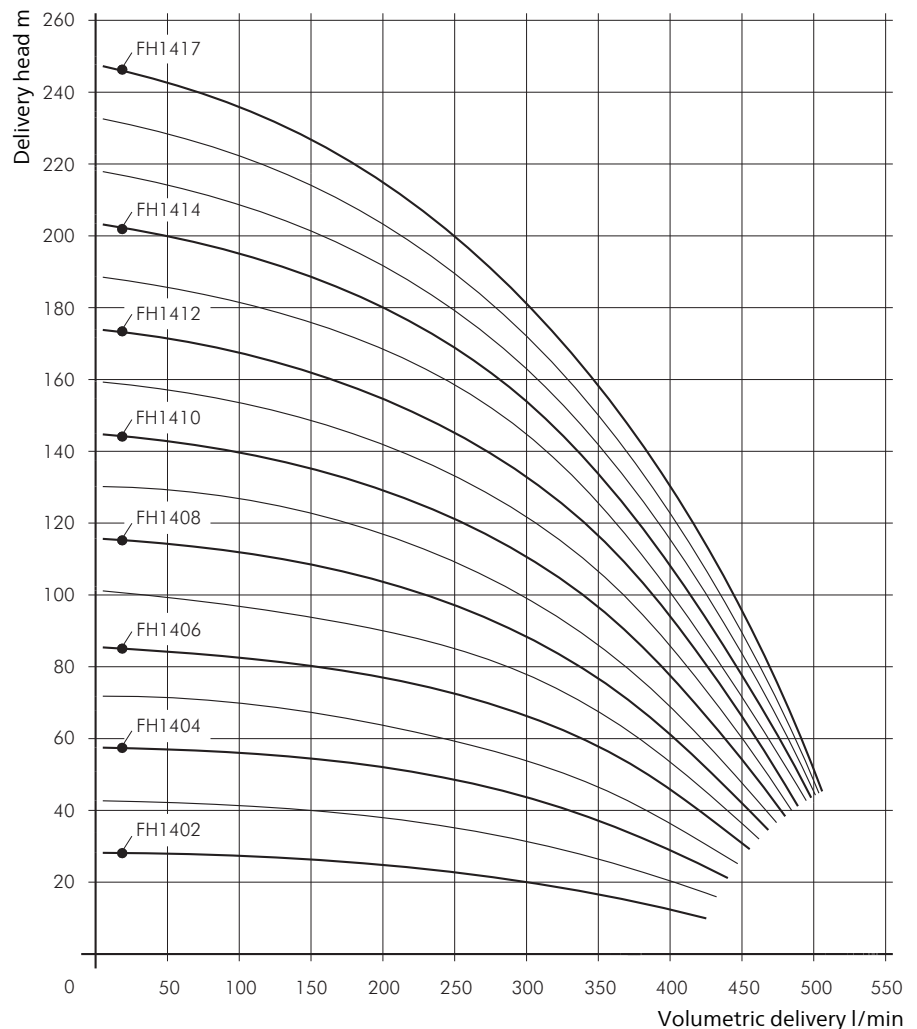
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 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...FH1403	63 dBA
FH1404...FH1407	71 dBA
FH1408...FH1413	74 dBA
FH1414...FH1417	78 dBA

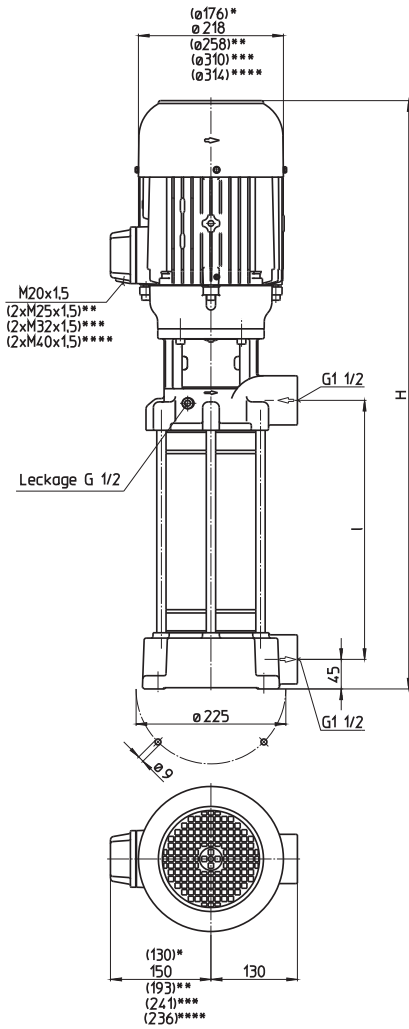


FH17

50 Hz

Closed impellers

FH1702...1717



- *) Dimensions for FH1702
- **) Dimensions for FH1706...1708
- ***) Dimensions for FH1709...1710
- ****) Dimensions for FH1711...1717

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1702A18	300/24	702	212	48	2.2	220-240 380-415	50 50	7.8 4.5	2890 2890
FH1703A28	300/37	837	308	61	3.3	220-240 380-415	50 50	11.6 6.7	2930 2930
FH1704A28	300/51	867	308	67	5.0	220-240 380-415	50 50	17.3 10.0	2920 2920
FH1705A38	300/66	963	404	70	5.5	220-240 380-415	50 50	18.9 10.9	2915 2915
FH1706A38	300/77	1040	404	93	7.5	380-415	50	13.8	2950
FH1707A47	300/90	1136	500	103	9.0	380-415	50	16.6	2955
FH1708A47	300/103	1136	500	122					
FH1709A57	300/116	1240	596	130	11.0	380-415	50	20.1	2960
FH1710A57	300/130			132					
FH1711A66	300/143	1641	692	153	15.0	400	50	27	2960
FH1712A66	300/157			154					
FH1713A76	300/172	1737	788	156	18.5	400	50	32	2955
FH1714A76	300/186	1787	788	174					
FH1715A90	300/200	1930	932	176					
FH1716A90	300/212			178					
FH1717A90	300/227			183					

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 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 converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

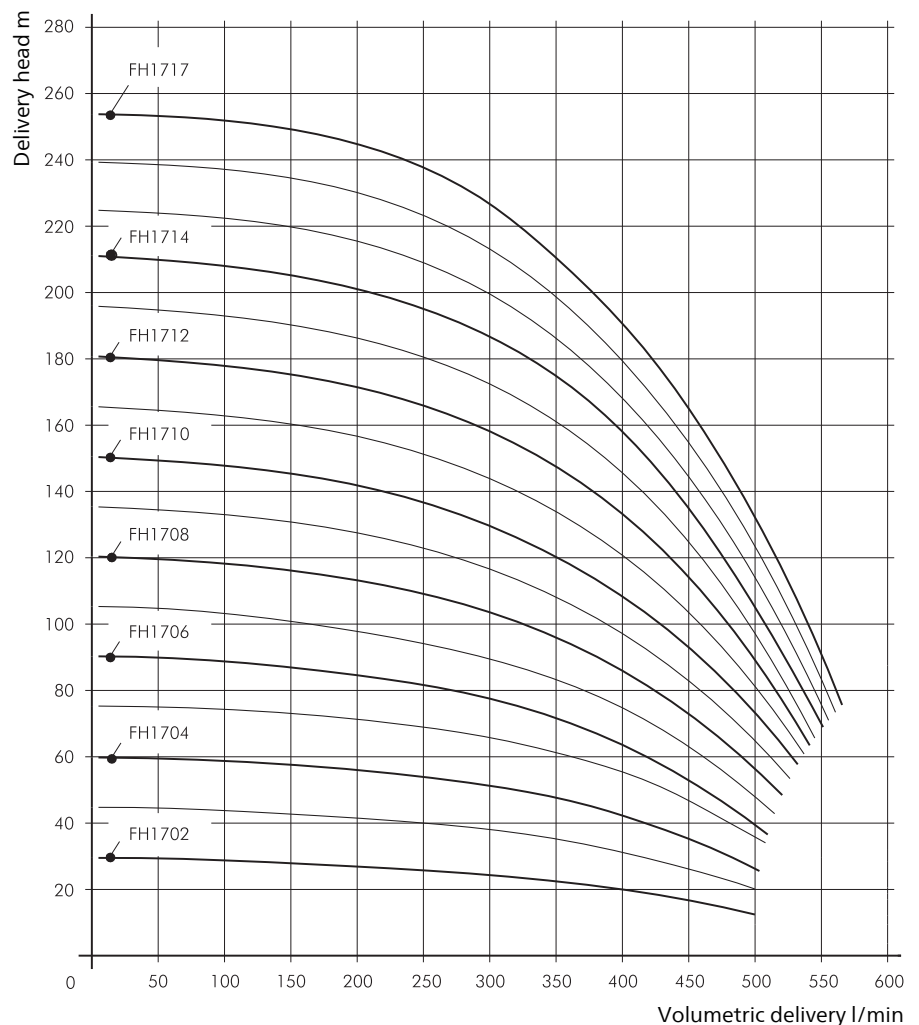
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 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	63 dBA
FH1703...FH1705	71 dBA
FH1706...FH1710	74 dBA
FH1711...FH1717	78 dBA



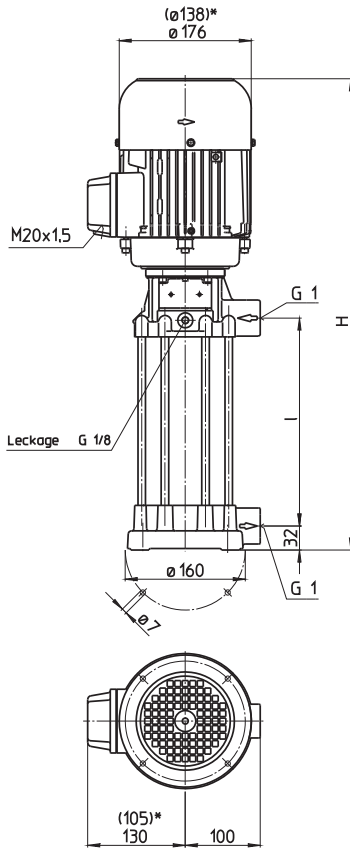
Pressure Boosting Pumps

FH2

Closed impellers



FH203...230



*) Dimensions for FH203...FH215

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH203B19	20/25	488	197	16.9	0.45	460	60	1.1	3200
FH204B19	20/30			17.0					
FH205B19	20/40	488	197	17.4	0.54	460	60	1.4	3300
FH206B29	20/50	588	297	17.9					
FH207B29	20/57	629	297	22.0	0.86	460	60	1.75	3440
FH208B29	20/64			22.1					
FH209B29	20/74			22.2					
FH210B29	20/81	629	297	23.3	0.98	460	60	2	3450
FH211B39	20/90	729	397	24.0	1.06	460	60	2.1	3440
FH212B39	20/98			24.1					
FH213B39	20/106			24.2					
FH214B39	20/113	756	397	25.4	1.27	460	60	2.4	3440
FH215B39	20/119			25.5					
FH216B49	20/127	878	497	31	1.49	460	60	2.7	3500
FH217B49	20/136	878	497	33.2	1.75	460	60	3.1	3470
FH218B49	20/146			33.3					
FH219B49	20/156			33.4					
FH220B49	20/164	904	497	35.5	1.95	460	60	3.5	3480
FH221B59	20/172	1004	597	36.5					
FH222B59	20/182	1036	597	40.4	2.18	460	60	3.9	3500
FH223B59	20/191			40.5					
FH224B59	20/200	1036	597	41.2	2.55	460	60	4.4	3480
FH225B59	20/208			41.4					
FH226B69	20/216	1136	697	42.0					
FH227B69	20/224			42.1					
FH228B69	20/231	1136	697	43.1	2.94	460	60	5.1	3480
FH229B69	20/238			43.3					
FH230B69	20/245			43.5					

Pressure Boosting Pumps

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

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

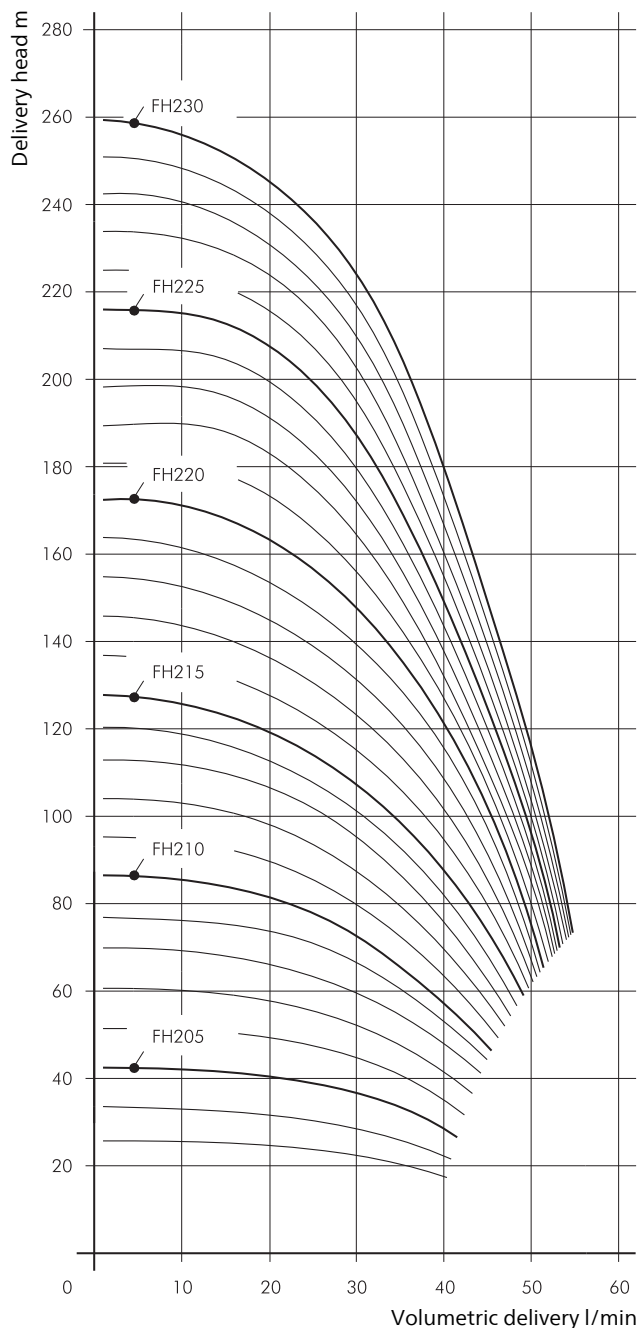


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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



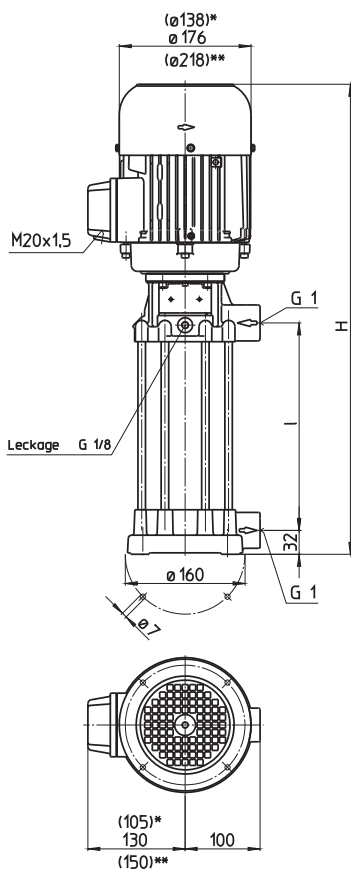
Pressure Boosting Pumps

FH4

Closed impellers



FH403...423



*) Dimensions for FH403...FH408
 **) Dimensions for FH419...FH423

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH403B19	40/29	488	197	17.9	0.54	460	60	1.4	3300
FH404B19	40/39	529	197	20.2	0.86	460	60	1.75	3440
FH405B19	40/49			20.3					
FH406B29	40/58	629	297	21.2	1.06	460	60	2.1	3440
FH407B29	40/68	656	297	22.4	1.27	460	60	2.4	3440
FH408B29	40/78			22.5					
FH409B29	40/88	678	297	30	1.49	460	60	2.7	3500
FH410B29	40/100	678	297	30.2	1.75	460	60	3.1	3470
FH411B39	40/110	804	397	32.4	1.95	460	60	3.5	3480
FH412B39	40/119			33.0					
FH413B39	40/129	836	397	38	2.18	460	60	3.9	3500
FH414B39	40/139	836	397	38.5	2.55	460	60	4.4	3480
FH415B39	40/150			38.6					
FH416B49	40/159	936	497	39.0	2.94	460	60	5.1	3480
FH417B49	40/170			39.1					
FH418B49	40/179			39.2					
FH419B49	40/192	929	497	50.9	3.8	460	60	6.4	3520
FH420B49	40/202			51.0					
FH421B59	40/214	1029	597	51.1					
FH422B59	40/224			51.3					
FH423B59	40/233	1029	597	55.5	4.55	460	60	7.9	3520

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 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 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.

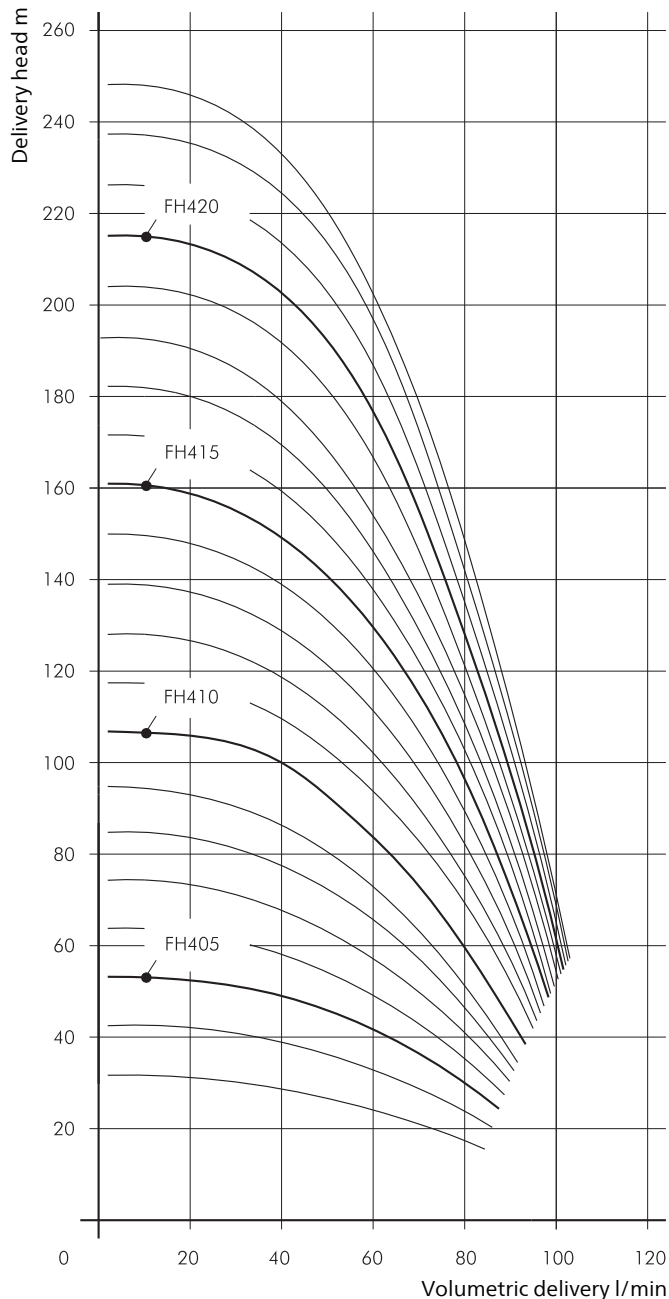


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - 1 mm²/s (1 cSt)
 - higher viscosity upon request
- Pumping temperature
 - 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



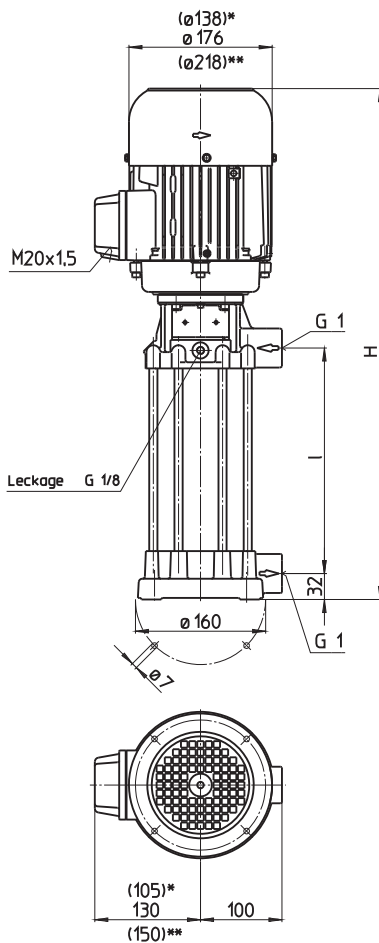
Pressure Boosting Pumps

FH6

Closed impellers



FH603...624



*) Dimensions for FH603...FH605
 **) Dimensions for FH612...FH624

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH603B19	80/28	529	197	19.9	0.86	460	60	1.75	3440
FH604B19	80/38	529	197	21	1.06	460	60	2.1	3440
FH605B24	80/48	606	247	22	1.27	460	60	2.4	3440
FH606B24	80/58	628	247	28	1.75	460	60	3.1	3470
FH607B29	80/68	704	297	32	1.95	460	60	3.5	3480
FH608B29	80/78	736	297	35	2.18	460	60	3.9	3500
FH609B34	80/88	786	347	38	2.55	460	60	4.4	3480
FH610B34	80/98	786	347	39.0	2.94	460	60	5.1	3480
FH611B39	80/108	836	397	39.6					
FH612B39	80/118	829	397	52.3	3.45	460	60	6	3520
FH613B49	80/128	929	497	53.2	3.8	460	60	6.4	3520
FH614B49	80/139			53.5					
FH615B49	80/149	929	497	55.6	4.55	460	60	7.9	3520
FH616B49	80/159			55.8					
FH617B59	80/168	1029	597	56.3					
FH618B59	80/178	1059	597	60.3	5.75	460	60	9.5	3520
FH619B59	80/188			60.4					
FH620B59	80/198			60.5					
FH621B69	80/206	1159	697	61.2					
FH622B69	80/214			61.3					
FH623B69	80/222	1159	697	64.5	6.3	460	60	10.4	3510
FH624B69	80/232			64.7					

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 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 converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

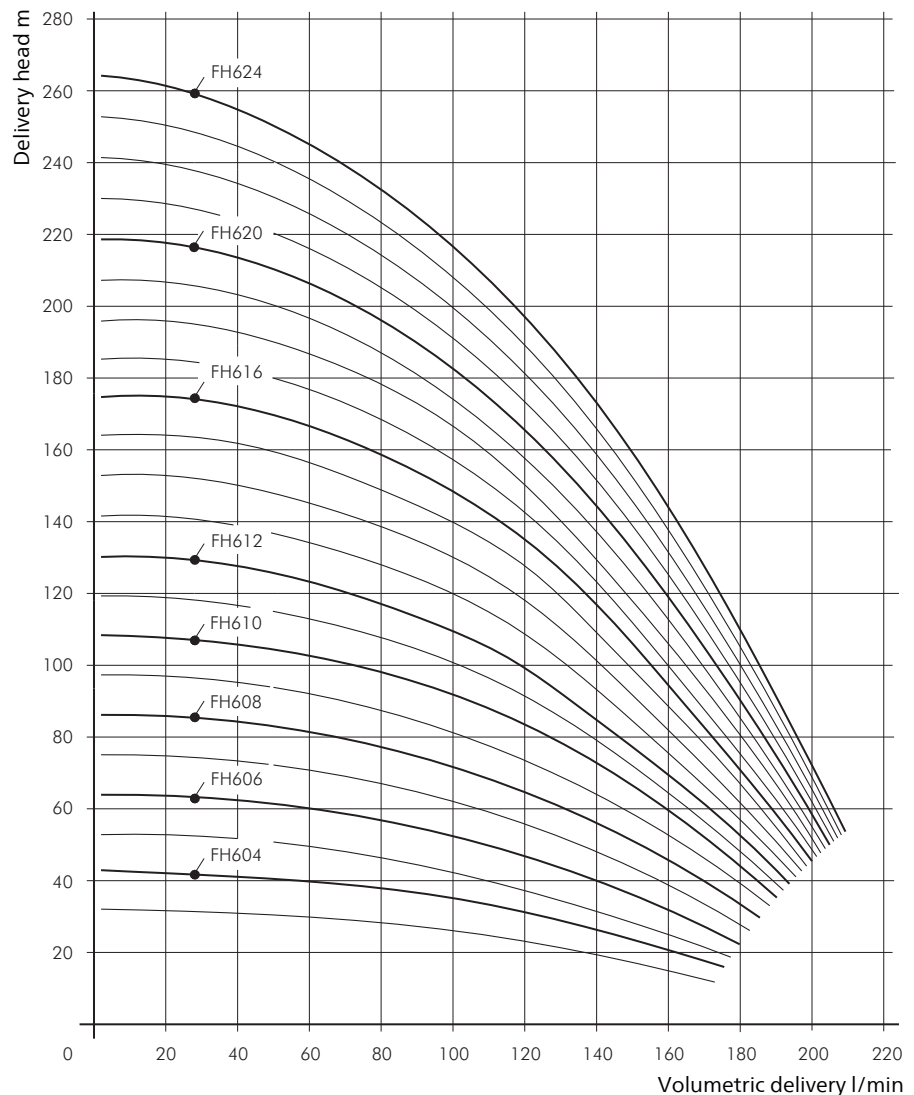
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

- Types of fluid
 Industry water
 coolants
 cooling/cutting oils
- Kinematic viscosity
 1 mm²/s (1 cSt)
 higher viscosity upon request
- Pumping temperature
 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...FH611	66 dBA
FH612...FH624	75 dBA



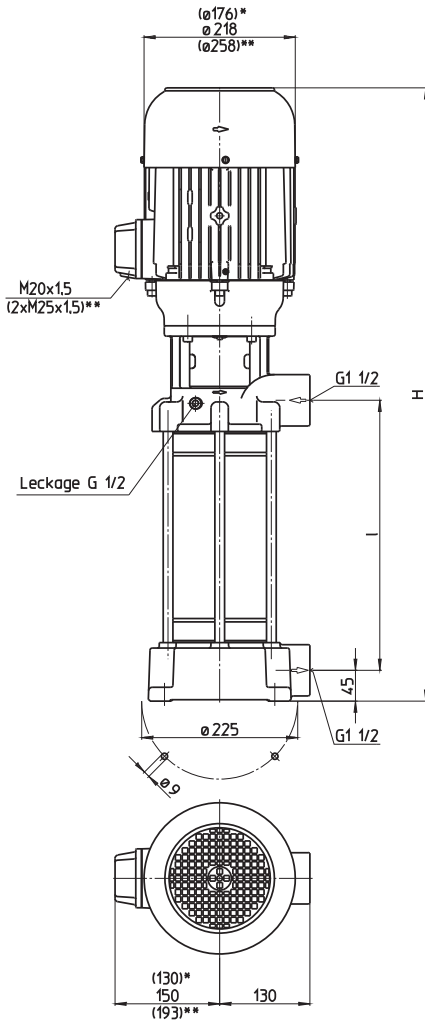
Pressure Boosting Pumps

FH11

Closed impellers



FH1102...1115



*) Dimensions for FH1102...1104
 **) Dimensions for FH1110...1115

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1102B18	150/30	643	212	39	1.49	460	60	2.7	3500
FH1103B18	150/45	702	212	46	2.18	460	60	3.9	3500
FH1104B28	150/59	798	308	47	2.94	460	60	5.1	3480
FH1105B28	150/77	837	308	60	3.8	460	60	6.4	3520
FH1106B28	150/90	837	308	62	4.55	460	60	7.9	3520
FH1107B31	150/106	899	340	67	5.75	460	60	9.5	3520
FH1108B38	150/121	963	404	69					
FH1109B38	150/138	963	404	71	6.3	460	60	10.4	3510
FH1110B47	150/152	1136	500	102	8.6	460	60	13.5	3550
FH1111B47	150/166			103					
FH1112B47	150/180			104					
FH1113B50	150/198	1168	532	112	10.3	460	60	16.1	3550
FH1114B57	150/212	1232	596	113					
FH1115B57	150/230			114					

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 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 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.

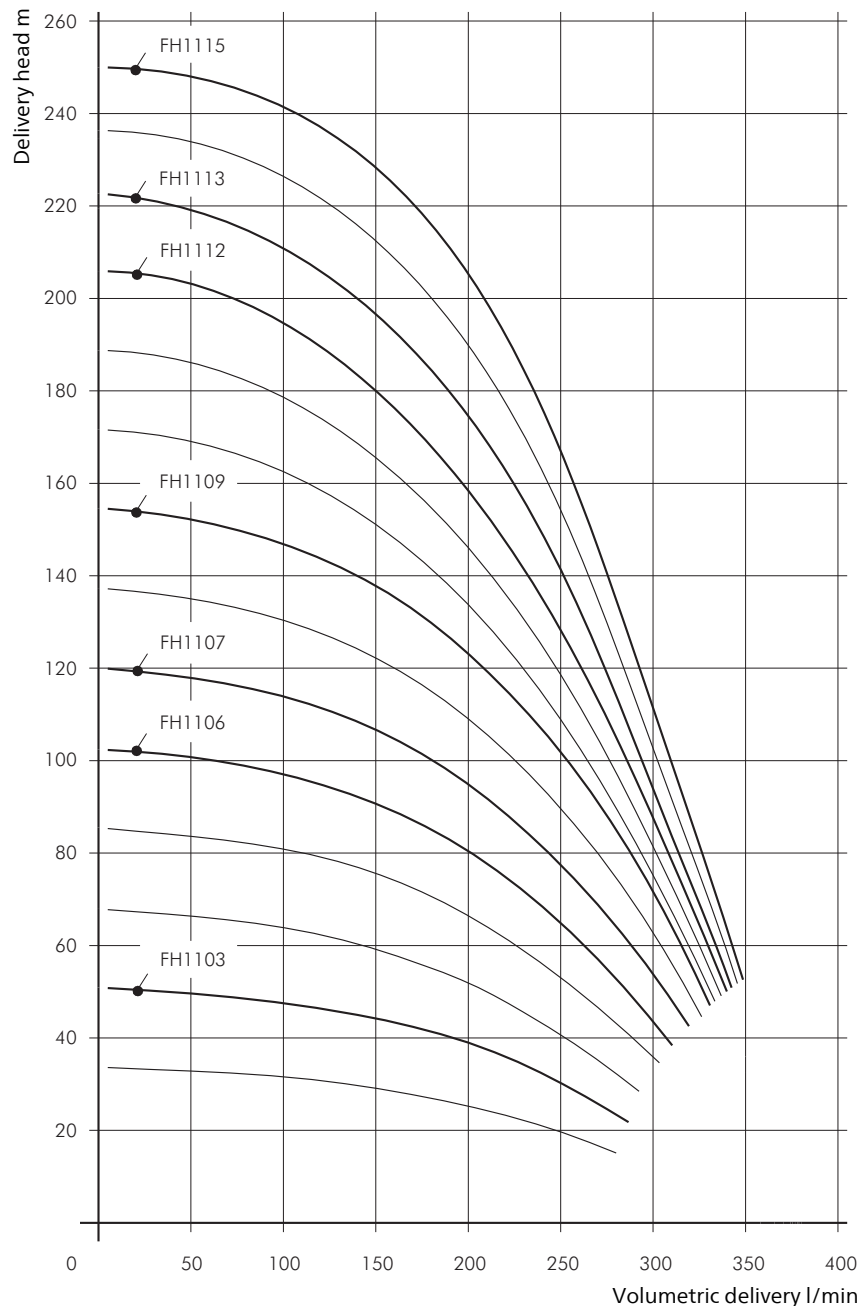


Applications

- Types of fluid
 - Industry water
 - coolants
 - cooling/cutting oils
- Kinematic viscosity
 - ...25 mm²/s (25 cSt)
- Pumping temperature
 - 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

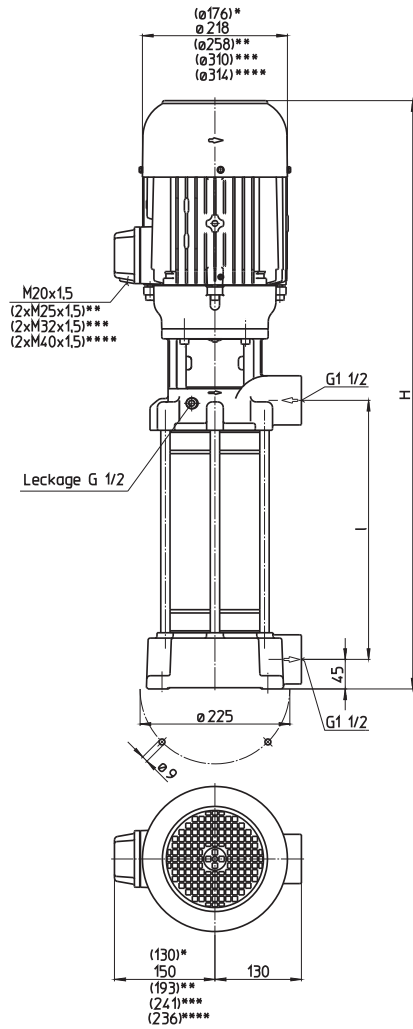


FH14

Closed impellers



FH1402...1412



- *) Dimensions for FH1402
- **) Dimensions for FH1405...1407
- ***) Dimensions for FH1408
- ****) Dimensions for FH1409...1412

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1402B18	250/38	702	212	48	2.94	460	60	5.1	3480
FH1403B28	250/58	837	308	62	4.55	460	60	7.9	3520
FH1404B28	250/77	867	308	68	6.3	460	60	10.4	3510
FH1405B38	250/96	1040	404	98	8.6	460	60	13.5	3550
FH1406B38	250/111			99					
FH1407B47	250/128	1136	500	109	10.3	460	60	16.1	3550
FH1408B47	250/147	1144	500	127	12.6	460	60	19.5	3560
FH1409B57	250/165	1545	596	154	17.3	460	60	27	3555
FH1410B57	250/184			156					
FH1411B66	250/203	1641	692	161					
FH1412B66	250/222			164					

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 26 bar.

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A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

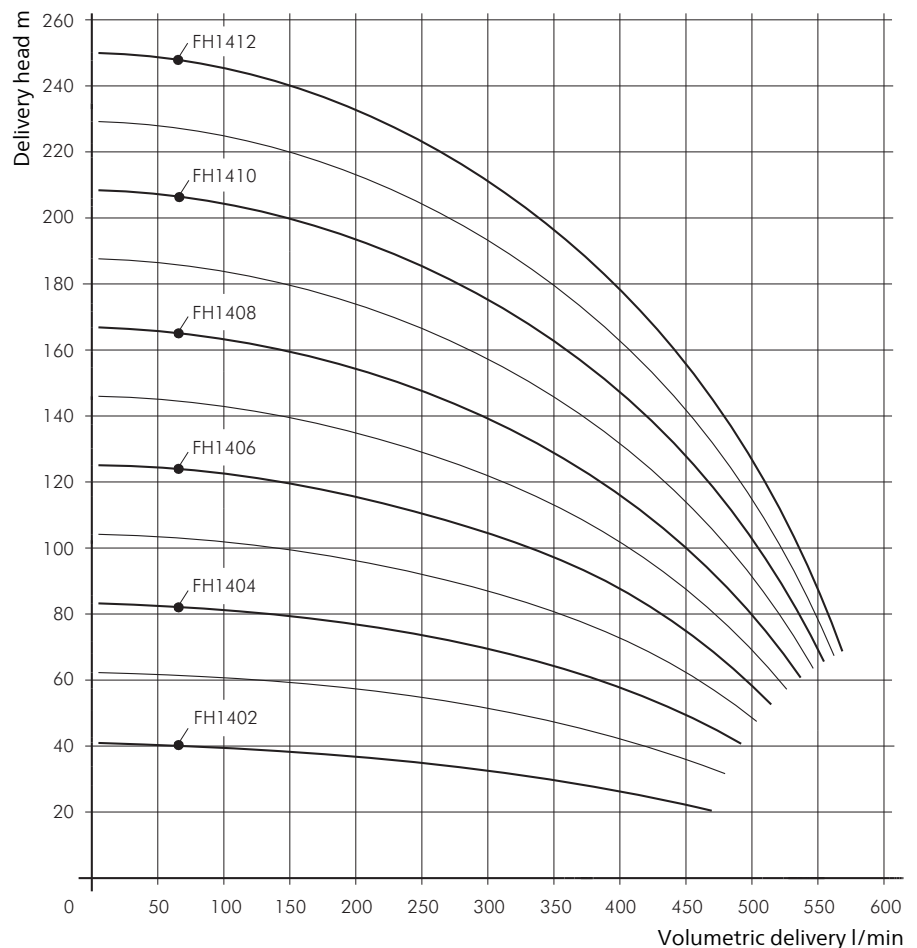
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

Types of fluid
 Industry water
 coolants
 cooling/cutting oils
 Kinematic viscosity
 ...25 mm²/s (25 cSt)
 Pumping temperature
 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



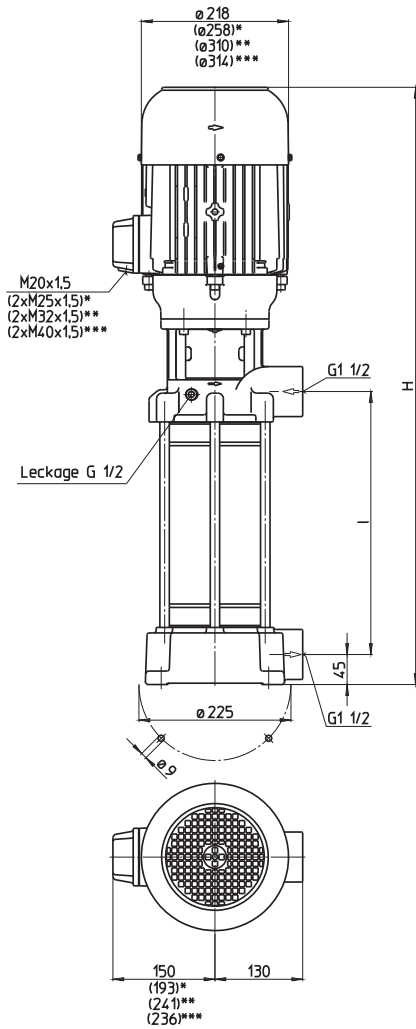
Pressure Boosting Pumps

FH17

Closed impellers



FH1702...1711



- *) Dimensions for FH1704...1705
- **) Dimensions for FH1706
- ***) Dimensions for FH1707...1711

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Length l mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
FH1702B18	300/37	741	212	60	3.8	460	60	6.4	3520
FH1703B28	300/58	867	308	66	5.75	460	60	9.5	3520
FH1704B28	300/80	943	308	91	8.6	460	60	13.5	3550
FH1705B38	300/99	1040	404	115	10.3	460	60	16.1	3550
FH1706B38	300/118	1048	404	118	12.6	460	60	19.5	3560
FH1707B47	300/140	1449	500	151	17.3	460	60	27	3555
FH1708B47	300/160			152					
FH1709B57	300/180	1545	596	154					
FH1710B57	300/200	1594	596	173	21.3	460	60	32	3555
FH1711B66	300/219	1690	692	175					

Pressure Boosting Pumps

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

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A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point.

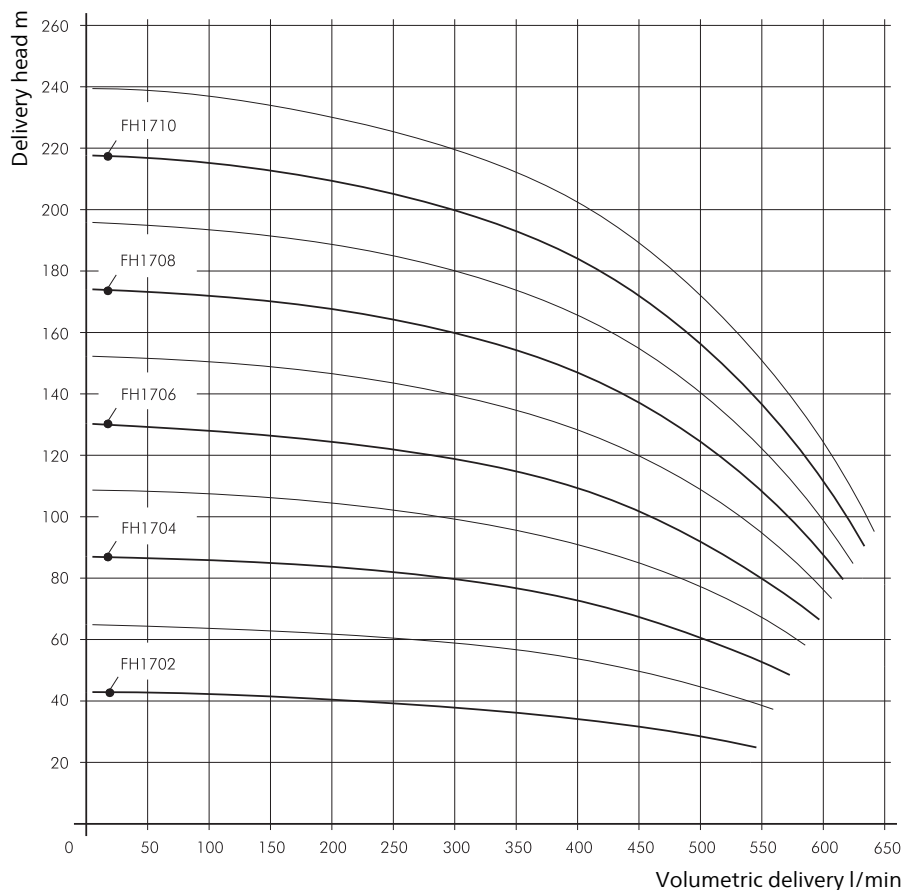
See page "Control/Regulation" in the Technical Information section of this catalog for further information.

Applications

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

Construction

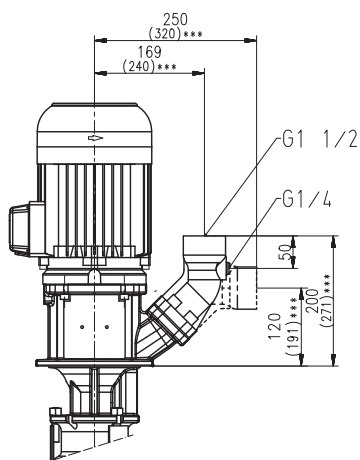
Pump body	cast iron
Cover	cast iron
Impellers	CrNi-steel
Shaft	CrNi-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
O-rings	Viton
Optional:	
Pole-changing motor	4 - 2 poles
Noise level	
FH1702...FH1703	74 dBA
FH1704...FH1705	77 dBA
FH1706	79 dBA
FH1707...FH1711	81 dBA



(S)TC260...460

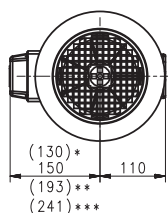
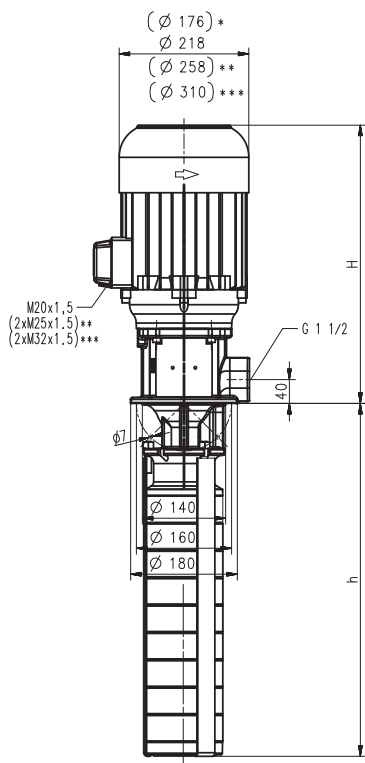
Closed impellers

(S)TC260, (S)TC460



TC260/460...1150

TC460/320...870



*) Dimensions for (S)TC260/460, (S)TC460/320

**) Dimensions for (S)TC260/690 - 920, (S)TC460/530 - 740

***) Dimensions for (S)TC260/1150, (S)TC460/870

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Frequency Hz	Current A	Speed 1/min
(S)TC260/460	250/30	504	455	54	3.3	220-240	50	11.6	2930
						380-415	50	6.7	2930
(S)TC260/600	250/50	534	593	64	3.8	460	60	6.4	3520
						5.0	220-240	50	17.3
(S)TC260/690	250/65	575	685	88	5.75	460	60	9.5	3520
						6.0	380-415	50	11.2
(S)TC260/920	250/95	613	915	112	6.9	460	60	10.7	3550
						9.0	380-415	50	16.6
(S)TC260/1150	250/130	621	1145	137	10.3	460	60	16.1	3550
						11.0	380-415	50	20.1
(S)TC460/320	450/15	465	317	40	12.6	460	60	19.5	3560
						2.2	220-240	50	7.8
(S)TC460/390	450/24	504	386	53	4.0	380-415	50	4.5	2890
						2.55	460	60	4.4
(S)TC460/460	450/34	534	455	61	4.55	220-240	50	14.50	2920
						380-415	50	8.35	2920
(S)TC460/530	450/42	575	524	85	5.75	460	60	7.9	3520
						6.0	380-415	50	11.2
(S)TC460/740	450/69	613	731	103	6.9	460	60	10.7	3550
						9.0	380-415	50	16.6
(S)TC460/870	450/90	621	869	127	10.3	460	60	16.1	3550
						13.0	380-415	50	24.2
					15.0	460	60	23.6	3560

Immersion Pumps

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

Extended length is possible. See mechanical/hydraulic features within the technical information section.

Applications

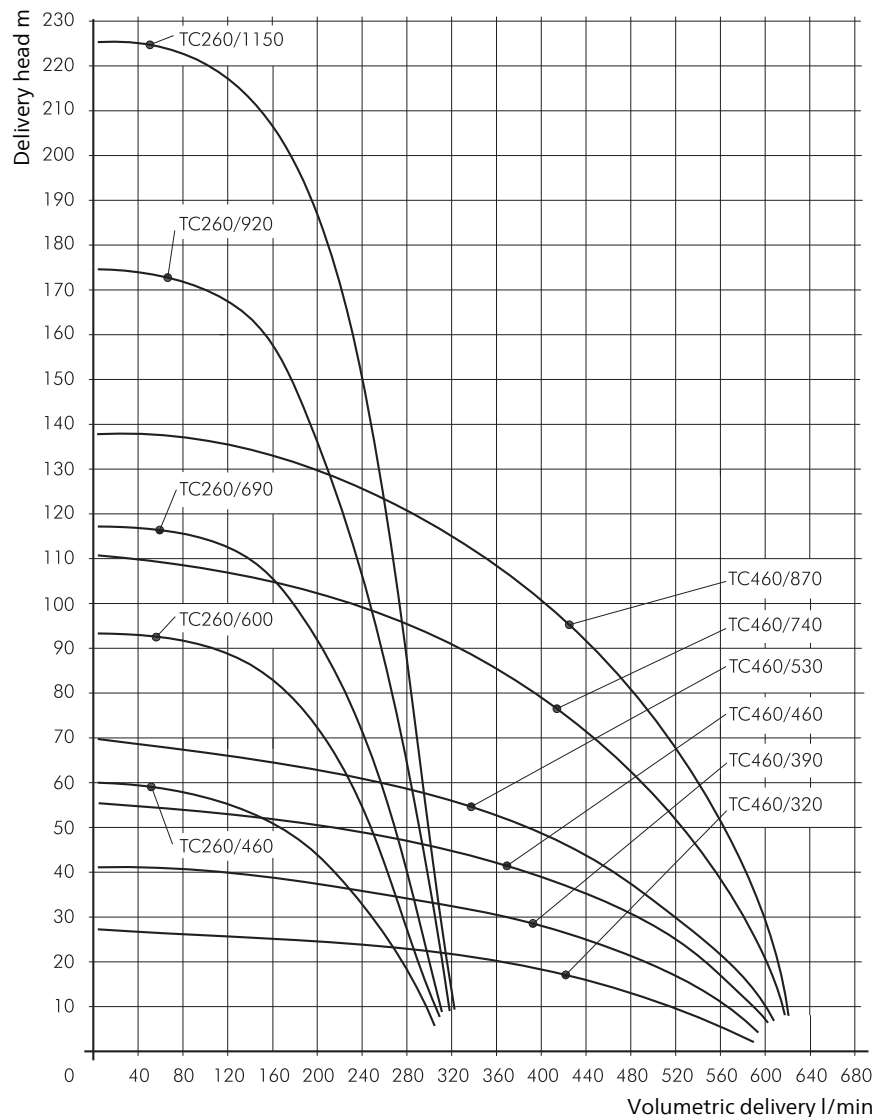
Types of fluid
coolants
cooling/cutting oils
Kinematic viscosity
...30 mm²/s (30 cSt)
Pumping temperature
0...80° C

Construction

Pump body	cast iron
Intake strainer	CrNi-steel
Impellers	CrNi-steel
Shaft	Cr-steel
Diffusers	CrNi-steel
Mechanical seal	SiC
Optional: Pole-changing motor	4 - 2 poles

Noise level

(S)TC460/320	63 dBA
(S)TC260/460...(S)TC260/600	70 dBA
(S)TC460/390...(S)TC460/460	74 dBA
(S)TC260/690...(S)TC260/1150	74 dBA
(S)TC460/530...(S)TC460/870	74 dBA



High Pressure Pumps

BFS1 ... TFS6145

Screw spindles

Screw spindle pumps with their silicon carbide housing and highly wear resistant spindles are capable of achieving extremely high pressures.

Brinkmann high pressure screw pumps are designed for pumping filtered and lubricating fluids such as coolant oils and water soluble coolants. High pressure screw spindle pumps are not designed for dry-running.

Screw spindle pumps are positive displacement pumps which always require the installation of a pressure relief valve in order to prevent bursting.

For more information, please refer to the „Application guide lines“.

Applications

Types of fluid

- Oils
- Cooling / cutting oils
- Coolants

Kinematic viscosity

- 1...45 mm²/s (45 cSt)
- over 45 mm²/s on request

Pumping temperature

- max. 60 °C *, * over 60 °C on request

Recommended filtration levels:

- General Machining (Turning, milling, drilling) < 50 µm
- Grinding and machining of aluminum (CBN etc.) < 20 µm

For further information please see page 13 in the separate Screw Spindle Pumps catalogue.

Construction

- Pressure and suction housing: Cast iron, Silicone carbide, highly wear resistance and precision machined
- Screw spindles: Hardened tool steel, specially treated, highly wear resistance and precision ground
- Seal: Viton



For more information, please request our separate "Screw Spindle Pumps" catalogue or visit our website at www.brinkmannpumps.de

Version	Model Index	Immersion Style						Inline Style for inline installation – horizontal or vertical with mechanical seal; positive suction pressure of up to 7 bar					
		BFS1	BFS2	TFS3	TFS4	TFS5	TFS6	FFS1	FFS2	FFS3	FFS4	FFS5	FFS6
Highly wear resistant SIC-bushing around labyrinth seal and coated driving male spindle	-KBT5	○	○	○	●	●	●	○	○	○	●	●	●
Specially coated outer female spindles	-N	○	○	○	○	○	●	○	○	○	○	○	●
Axial thrust compensation through radial slide bushing inside the suction cover	-A	○	○	●	●	●	●	○	○	●	●	●	●
Inline installation – vertical Mechanical seal and internal leakage return; positive suction pressure of up to 7 bar	-G	○	○	○	○	○	●	●	●	●	●	●	●
Positive suction pressure of 7 – 20 bar (With leakage port, please see catalogue Screw Spindle Pumps)	-G4	○	○	○	○			○	○	○	○		
Viscosity > 45 mm ² /s		○	○	○	○	○	○	○	○	○	○	○	○
4-pole motor	-4	○	○	○	○	○	○	○	○	○	○	○	○

- Available upon request
- Standard

Order code for:

Inline style for vertical installation (without footmount bracket):

BFS1...2 / Pressure-G
TFS3...6 / Pressure-G
e.g. TFS376/40-G

Order code for:

Inline style for horizontal or vertical installation (with footmount bracket):

FFS1...6 / Pressure
e.g. FFS260/40

With an operating pressures of 120 bar and higher the pumps are supplied in special -KBT5NA execution.

Plastic and Miniature Centrifugal Pumps

The Brinkmann range is supplemented by compact plastic pumps and small centrifugal pumps (as high temperature versions for up to 150° C), even outside of typical machine tool applications. With semi-open and peripheral, turbine impellers, these pump series have developed their specific application range.

Coolant pumps, that's us!



KTF | KTB



Impellers semi-open
Fluids industrial water; warm, cold, with and without chemical admixtures, distilled, deionized
Volumetric delivery up to 400 l/min
Delivery head up to 42 m

Immersion Pumps in Plastics

- Easy mounting on top of the tank
- Compact design
- Single phase version available
- Seal-less
- Low-wear anti-friction bearing

KC | SB



Impellers open / peripheral
Fluids industrial water, coolants, cooling/cutting oils, fuel oil
Volumetric delivery up to 60 l/min
Delivery head up to 45 m

Miniature Centrifugal Pumps / Suction Pumps

- Foot mounted, self-priming
- Compact design
- Available with lip seal or mechanical seal

B | BMK | TB-M



Impellers peripheral / semi-open
Fluids industrial water
Volumetric delivery up to 55 l/min
Delivery head up to 70 m

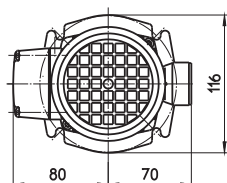
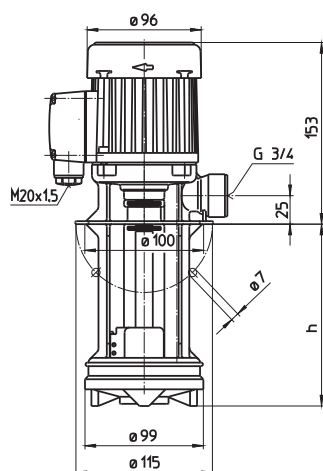
Miniature Centrifugal Pumps / Immersion Pumps

- Foot mounted, inline pump; gravity fed suction (B / BMK)
- Compact design
- For high fluid temperatures
- With magnetic coupling (BMK)

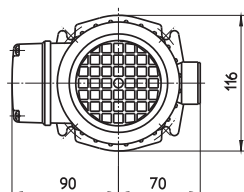
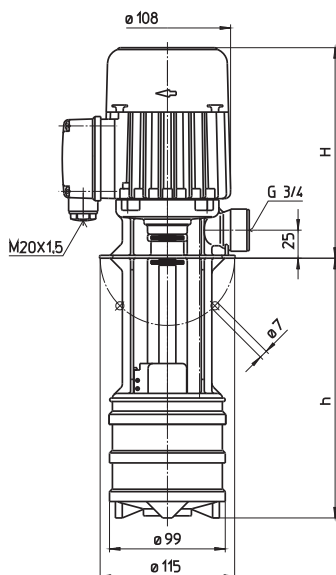
KTF25...54, KTF81...83

Semi-open impellers

KTF25, 40, 51



KTF52, 53, 54 KTF81, 82, 83



Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
KTF25/120	25/2	153	118	2.6	0.045	220-240	50	0.33	2800
	170		168	2.7					
	220		218	2.9					
	270		268	3.0					
KTF40/120	25/3	153	118	2.6	0.055	220-240	50	0.35	2800
	170		168	2.7					
	220		218	2.9					
	270		268	3.0					
KTF51/120	25/5	153	118	2.7	0.075	220-240	50	0.38	2700
	170		168	2.8					
	220		218	2.9					
	270		268	3.0					
KTF52/150	25/8	181	151	3.0	0.14	220-240	50	0.71	2700
	200		201	3.2					
	250		251	3.3					
	300		301	3.5					
KTF53/190	25/12	181	184	4.0	0.22	220-240	50	0.95	2700
	240		234	4.2					
	290		284	4.4					
	340		334	4.6					
KTF54/220	25/17	214	217	5.0	0.28	220-240	50	1.4	2700
	270		267	5.3					
	320		317	5.5					
KTF81/120	30/6	181	118	2.9	0.14	220-240	50	0.71	2700
	170		168	3.1					
	220		218	3.3					
	270		268	3.5					
KTF82/150	30/11	181	151	3.6	0.22	220-240	50	0.95	2700
	200		201	3.8					
	250		251	4.0					
	300		301	4.2					
KTF83/190	30/15	214	184	4.8	0.28	220-240	50	1.4	2700
	240		234	5.0					
	290		284	5.2					
	340		334	5.4					

Immersion Pumps in Plastics

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

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

...12 mm²/s (12 cSt)

Pumping temperature

-10...+60° C

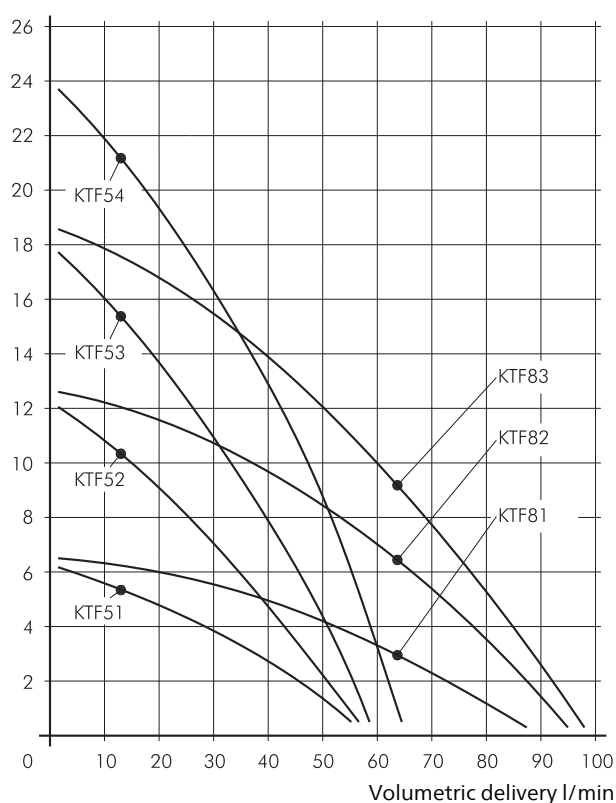
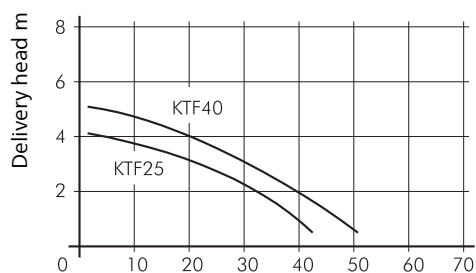
Construction

Pump body	PPS
Cover	PP
Impellers	PPS
Shaft	1.4104

Optional: Shaft	CrMo
--------------------	------

Optional:
These models are also available with **single phase motor**.

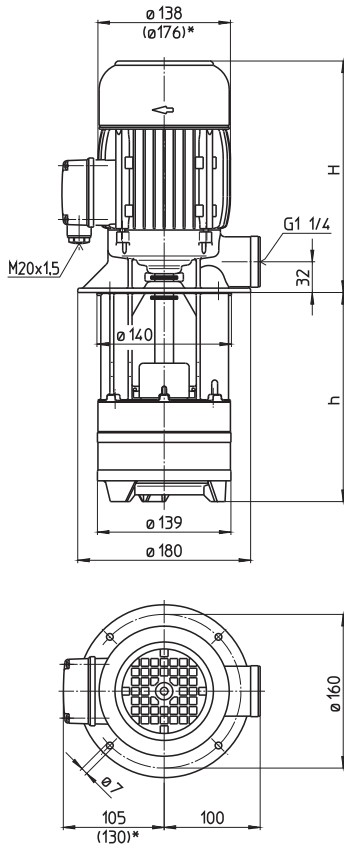
Noise level	
KTF25...KTF51	47 dBA
KTF52...KTF83	48 dBA



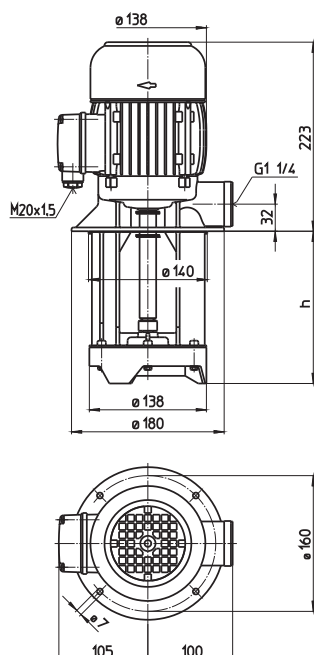
KTF151...303, KTB200

Semi-open impellers

KTF151...153 KTF301...303



KTB200



*) Dimensions for KTF153, KTF302, 303

Type	Vol. del. at manom. del. head l/min /m	Height H mm	Depth of im- mersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
KTF151/140	100/10	223	140	7.2	0.53	220-240	50	2.25	2750
	220		220	7.5					
	290		290	8.0					
	370		370	8.2					
KTF152/180	100/20	291	180	10.5	1.1	220-240	50	4.33	2850
	260		260	11.0					
	330		330	11.5					
	410		410	12.0					
KTF153/220	100/32	346	220	20.5	1.7	220-240	50	6.24	2890
	300		300	21.0					
	370		370	21.5					
	450		450	22.0					
KTF301/140	180/10	291	140	10.0	1.1	220-240	50	4.33	2850
	220		220	10.5					
	290		290	11.0					
	370		370	11.5					
KTF302/180	180/20	346	180	20.0	1.7	220-240	50	6.24	2890
	260		260	20.5					
	330		330	21.0					
	410		410	21.5					
KTF303/220	180/33	378	220	25.0	2.6	220-240	50	9.30	2880
	300		300	25.5					
	370		370	26.0					
	450		450	26.5					
KTB200/120	210/2	223	120	6.5	0.55	220-240	50	2.50	2750
	200		200	7.0					
	270		270	7.5					
	350		350	8.5					

Immersion Pumps in Plastics

series KTF and KTB are suitable for various **water supply problems**. These pumps are also suitable for a wide range of **chemical liquids**. No shaft seal is required, due to the construction.

Applications

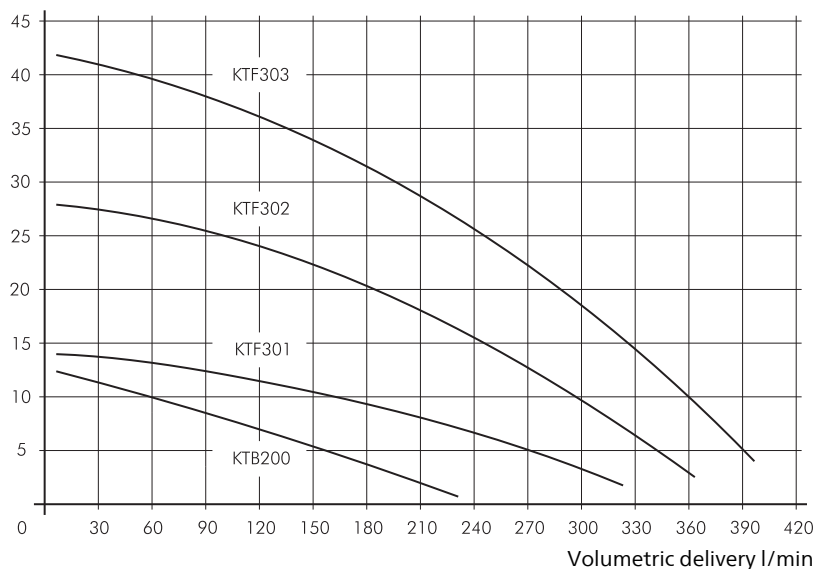
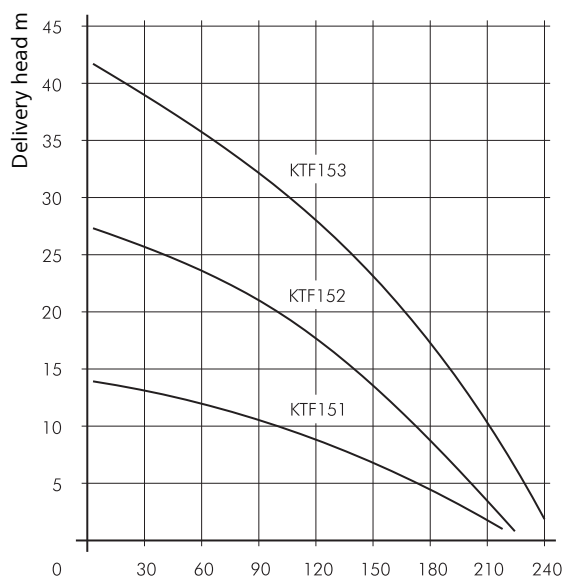
Types of fluid
Industry water; warm, cold, with and without chemical admixtures, distilled, de-ionnized

Kinematic viscosity
...12 mm²/s (12 cSt)

Pumping temperature
-10...+60° C

Construction

Pump body	POM
Cover	PP
Impellers	POM (KTB200) PPS
Shaft	POM (KTB200) 1.4104
Optional: Shaft	CrMo
Noise level	
KTF151...KTF152 KTF301 KTB200 KTF153	60 dBA
KTF302...KTF303	65 dBA

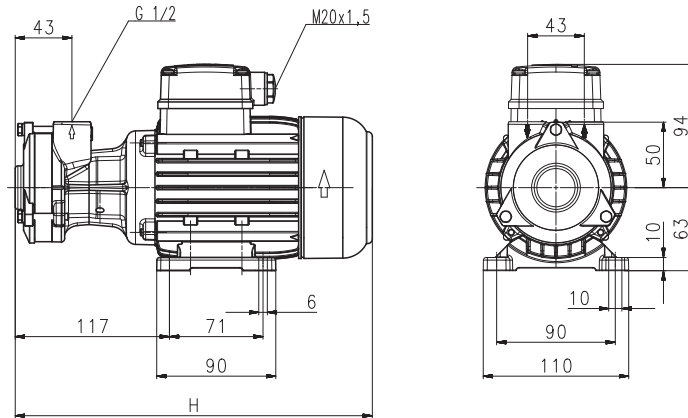


Miniature Centrifugal Pumps

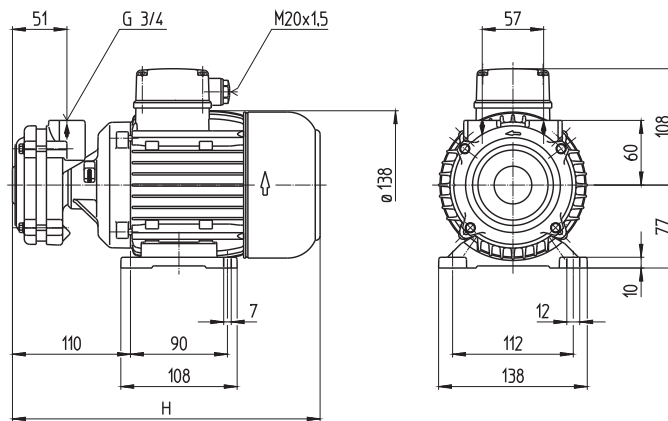
KC21...45 / KC60

Open/peripheral impellers

KC21, 31, 35, 45 self-priming



KC60 self-priming



Type	Vol. del. at	Dimensions	Weight	Power	Voltage	Fre-	Current	Speed
	manom. del. head	H mm		kg	3 ~			
	l/min / m			kW	V	Hz	A	1/min
KC21	2/17	236	5.5	0.25	220-240	50	1.2	2700
					380-420	50	0.7	2700
KC31	2/27	270	6	0.3	220-240	50	1.55	2700
					380-420	50	0.90	2700
KC35	2/28	236	5.5	0.25	220-240	50	1.2	2700
					380-420	50	0.7	2700
KC45	2/38	270	6.5	0.3	220-240	50	1.55	2700
					380-420	50	0.90	2700
KC60	2/45	309	11	0.92	220-240	50	3.8	2840
					380-415	50	2.2	2840
				1.06	460	60	2.1	3440



Miniature Centrifugal Pumps

series KC are suitable for pumping thin-bodied fluids.

They operate according to the bypass duct principle, with self-priming function following initial priming.

Applications

Types of fluid

Industry water
coolants
fuel oil

Kinematic viscosity

...12 mm²/s (12 cSt)

Pumping temperature

0...80° C

Suction height

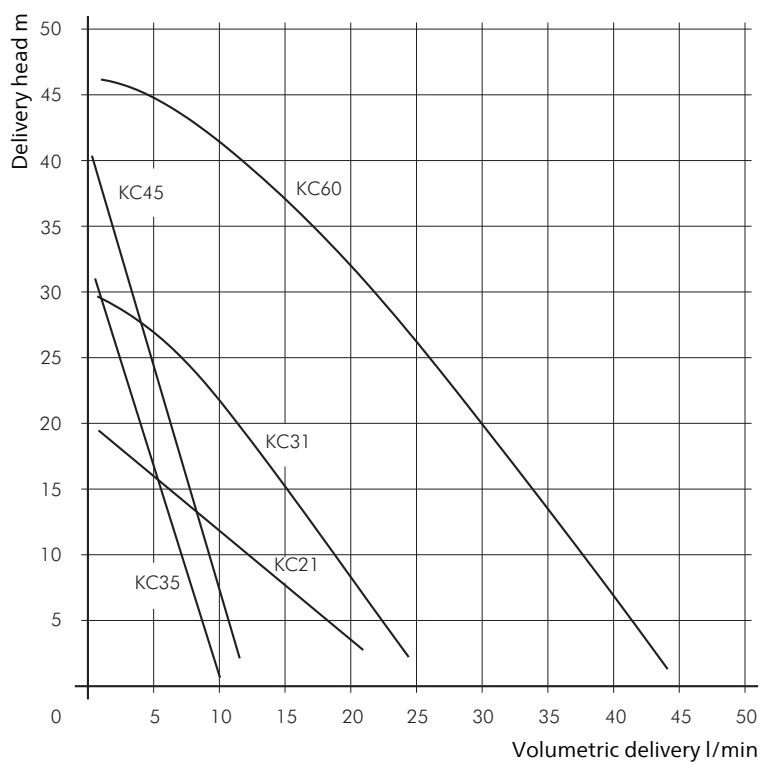
2 m without foot-located valve
6 m with foot-located valve

Construction

Cover	bronze
Impeller	brass
Shaft	Cr-steel
Gasket	Viton

Noise level

KC35	57 dBA
KC45	60 dBA
KC21...KC31	63 dBA
KC60	65 dBA

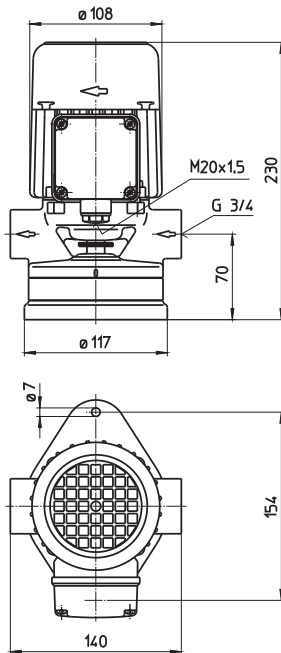


Suction Pumps

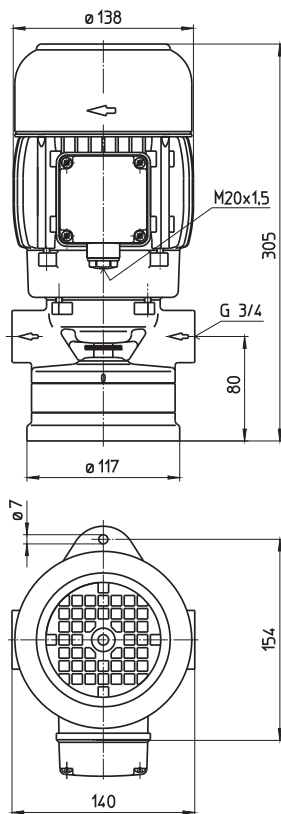
SB20...60

Open impellers

SB20, 40



SB60



Type	Vol. del. at manom. del. head l/min /m	Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
SB20	20/2	5.5	0.14	220-240	50	0.71	2700
				380-420	50	0.41	2700
				460	60	0.41	3200
SB40	40/2	6.5	0.22	220-240	50	0.95	2700
				380-420	50	0.55	2700
				460	60	0.55	3200
SB60	47/2	10	0.63	220-240	50	2.6	2750
				380-420	50	1.5	2750
				460	60	1.5	3250



Suction Pumps

are self-priming following the initial priming, and operate according to the bypass duct principle. We recommend pump models featuring bronze body elements for pumping water without anti-corrosion 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
 ...60 mm²/s (60 cSt)

Pumping temperature
 0...80° C

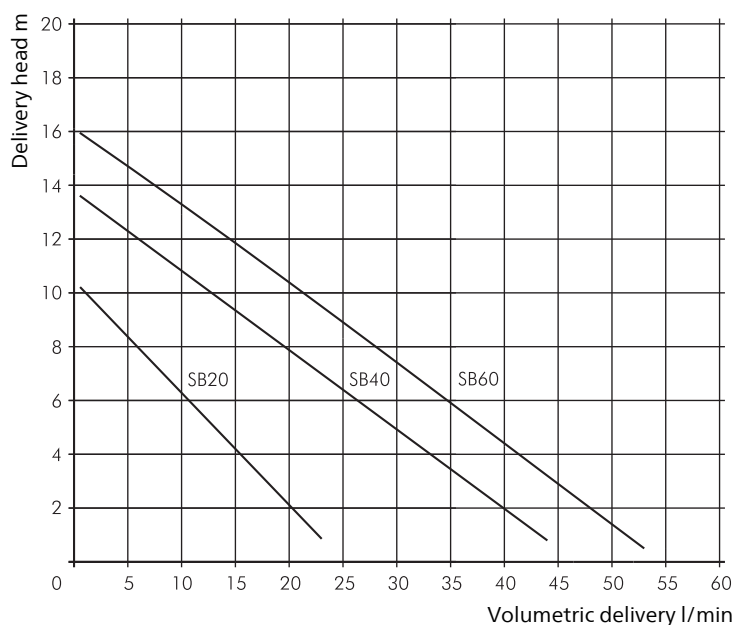
Suction height
 1 - 2 m without foot-located valve
 4 - 6 m with foot-located valve

Construction

Pump body	cast iron
Cover	cast iron
Impeller	brass
Shaft	steel
Mechanical seal	graphite based
O-rings	Viton

Optional:	
Pump body	bronze (SB20...SB40)
Cover	bronze (SB20...SB40)
Impeller	CrNi-steel

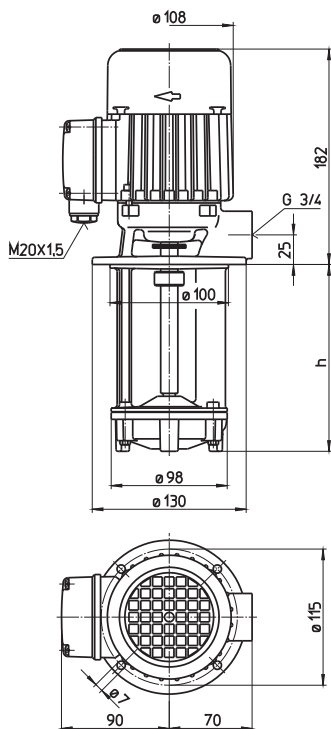
Noise level	
SB20...SB40	54 dBA
SB60	64 dBA



TB...-M

Semi-open impellers

TB40-M, TB63-M TB100-M



Type	Vol. del. at manom. del. head l/min / m	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Current A	Speed 1/min
TB40/120-M	40/2	120	5.0	0.14	220-240	50	0.71	2700
170-M		170	5.4		380-420	50	0.41	2700
220-M		220	5.8		460	60	0.41	3200
270-M		270	6.2					
350-M		350	7.0					
TB63/120-M	63/2	130	5.0	0.14	220-240	50	0.71	2700
170-M		180	5.5		380-420	50	0.41	2700
220-M		230	6.0		460	60	0.41	3200
270-M		280	6.5					
350-M		360	7.0					
TB100/120-M	75/2	130	6.0	0.22	220-240	50	0.95	2700
170-M		180	6.3		380-420	50	0.55	2700
220-M		230	6.6		460	60	0.55	3200
270-M		280	6.9					
350-M		360	7.5					

Immersion Pumps

are plain 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 dimensions are based on standard specification **EN 12157**.

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

Applications

Types of fluid
freezing medium, cooling oils
other fluids on request

Kinematic viscosity
...45 mm²/s (45 cSt)

Pumping temperature
...+ 130° C

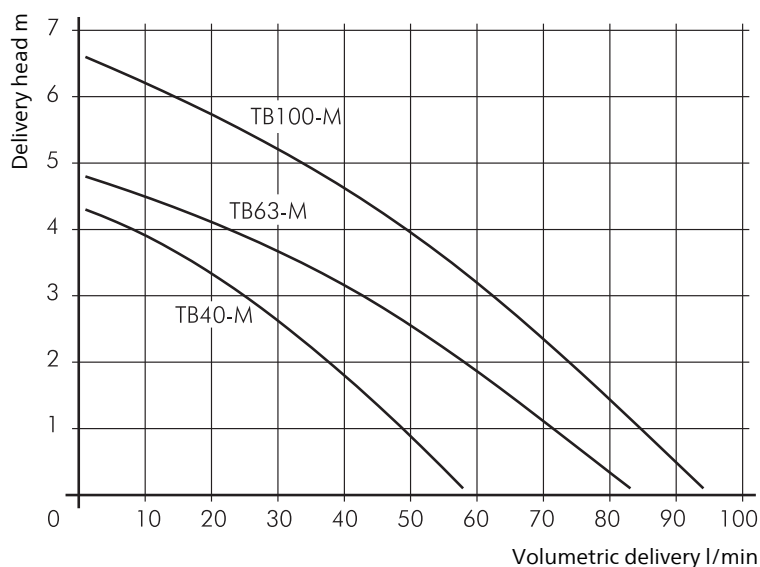
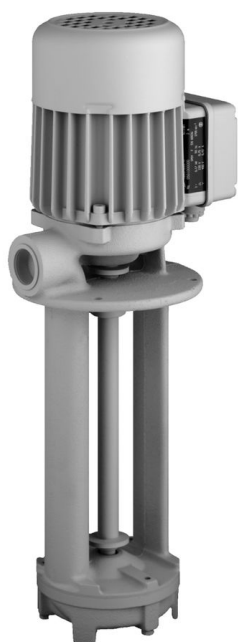
Construction

Pump body	cast iron
Cover	cast iron
Impeller	brass
Shaft	steel
Optional:	
Cover	cast iron with thread
Impeller	cast iron

On request:
All parts having contact with the fluid are made of bronze.

Optional:
The models of TB...-M are also available with **single phase motor**.

Noise level	
TB40-M...TB100-M	54 dBA

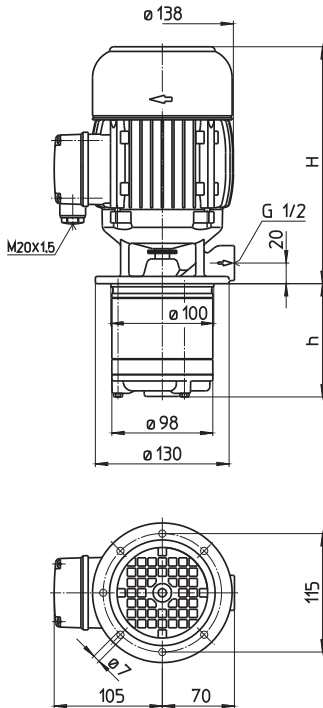


Miniature Centrifugal Pumps

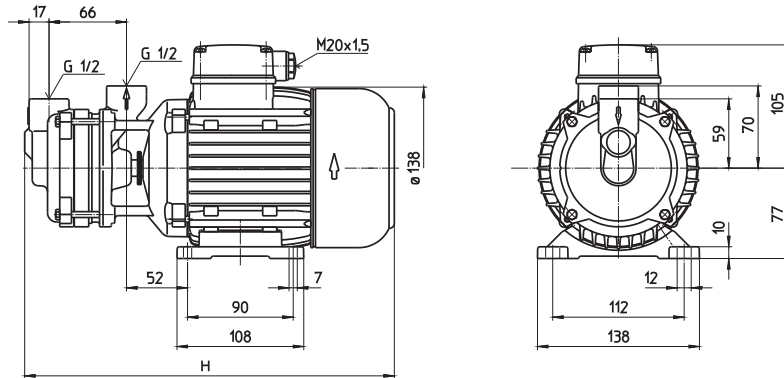
B401...501

Peripheral impellers

B401...501
Immersion Version



B401...501
Base-mounted Version



Type	Vol. del. at manom. del. head l/min / m	Dimensions		Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm						
B401/110	10/30	230	110	9.5	0.63	220-240	50	2.6	2750
B401-F		297	67	9.8		380-420	50	1.5	2750
B501/110	10/45	271	110	11.5	0.92	220-240	50	3.8	2840
B501-F		341	67	11.8		380-415	50	2.2	2840
					1.06	460	60	2.1	3440



Miniature Centrifugal Pumps

Series B401 ...501 are suitable for pumping **clean fluids** up to 140° C temperature and 5 bar system-pressure.

For open circuits see immersion pumps TS12...24.

The minimum liquid level for immersion pumps of the B-series installed vertically must reach the lower impeller.

Applications

Types of fluid

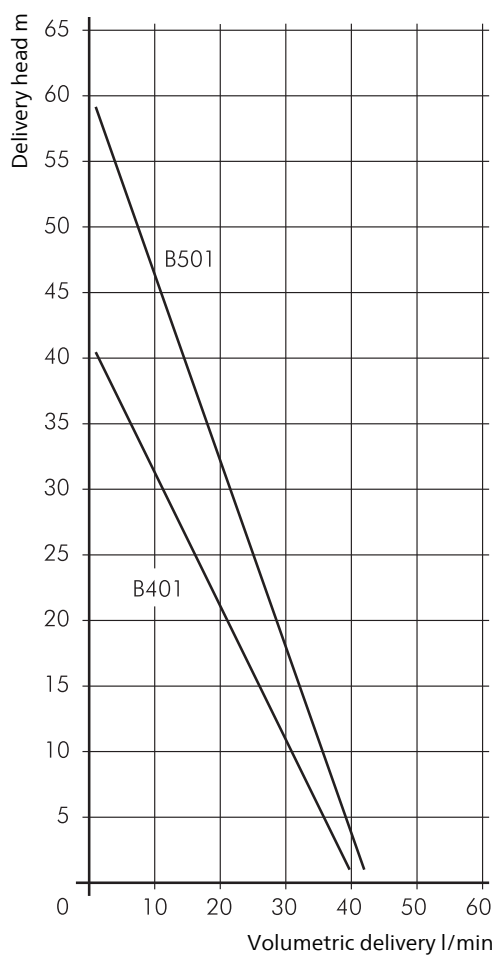
Industry water up to 140° C at 5 bar system-pressure

Pumping temperature

...+ 140° C

Construction

Pump body	bronze
Cover	bronze
Impeller	brass
Shaft	Cr-steel
Optional:	
Cover	CrNi-steel
Impeller	CrNi-steel
Noise level	
B401...B501	65 dBA

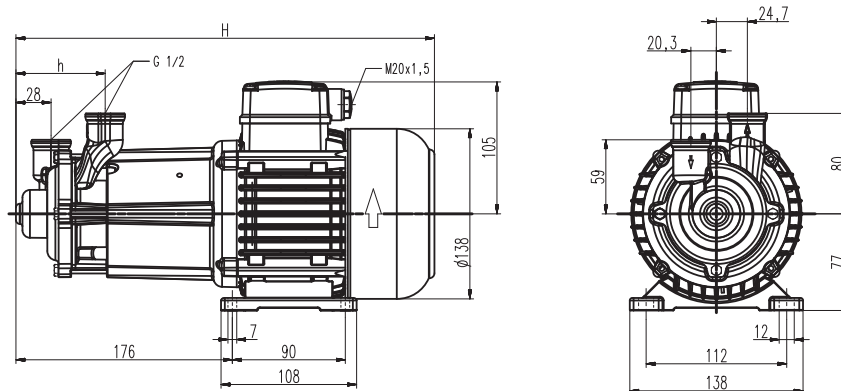


Miniature Centrifugal Pumps

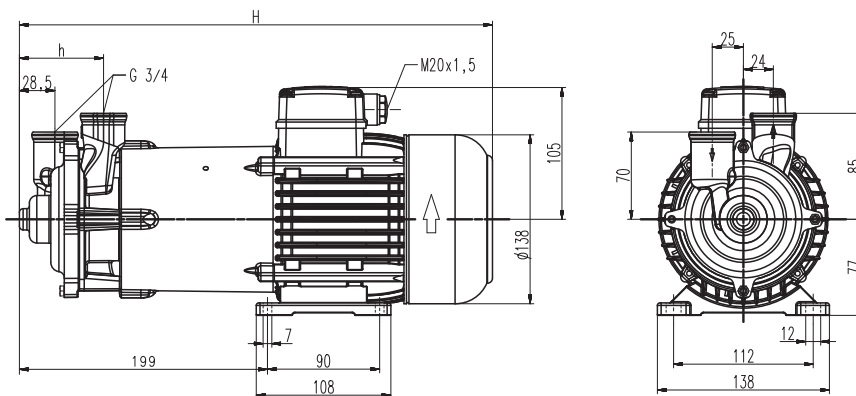
BMK3...BMK4

Peripheral impellers

BMK3



BMK4



Type	Vol. del. at manom. del. head l/min / m	Dimensions			Weight kg	Power kW	Voltage 3 ~ V	Fre- quen- cy Hz	Current A	Speed 1/min
		H mm	h mm							
BMK3	10/35	333	71	9.3	0.52	220-240	50	2.30	2750	
						380-420	50	1.34	2750	
						460	60	1.34	3400	
BMK4	10/48	430	67.5	14	1.1	220-240	50	4.33	2850	
						380-415	50	2.50	2850	
						1.27	460	60	2.4	3440



Miniature Centrifugal Pumps

of the **BMK series** have been desined for **clean water circuits** of up to 160 degree C fluid temperature and up to **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 wear poor.

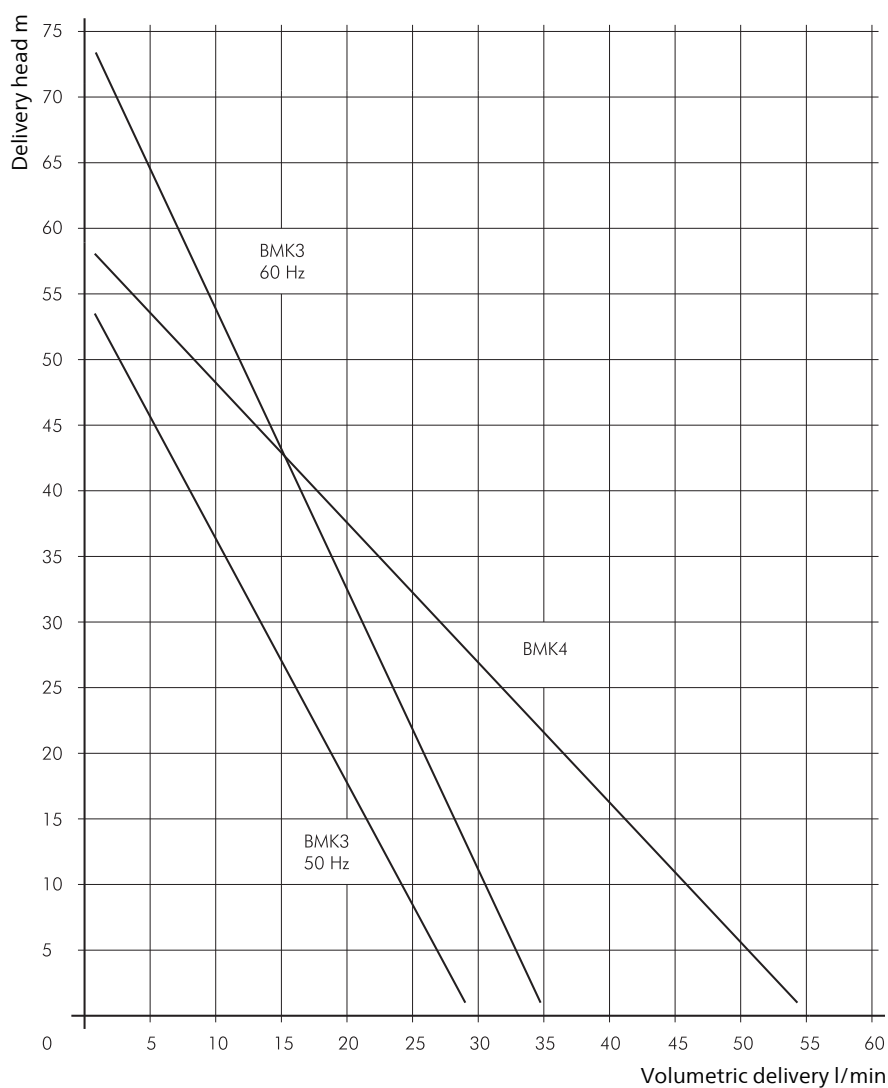
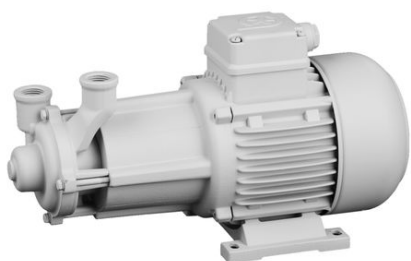
Applications

Types of fluid
Industry water up to 160° C at 7 bar system-pressure

Construction

Pump body	CrNi-steel
Cover	CrNi-steel
Impeller	CrNi-steel
Shaft	Ceramic
Gasket	Split-case

Noise level	
BMK3	65 dBA
BMK4	67 dBA





Questionnaire



Fax	+49 2392 5006-180	Date	
E-Mail	sales@brinkmannpumps.de		

Contact details	
Company	
Address	
Contact partner	
Telephone	
E-Mail	

Pump	
Application	
Requirement per year (each)	

Pumping data	
Flow rate (l/min.)	
Pressure (bar)	
Delivery head (m)	

Dimensions	
Immersion depth	

Medium to be pumped	
Type	
Temperature (°C)	
Viscosity at pumping temperature (mm ² /s, cSt)	
Density (kg/l)	
Percentage of solids (g/l)	
Size of solids (mm/mm)	
pH value	
Percentage of air in medium	

Pump materials	
Pump body	
Cover	
Impeller	
Shaft	
Seals	

Drive			
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 (°C)	
Frequency control (Hz)	from <input type="text"/> to <input type="text"/>
Switch-on operations (per min)	
Motor connection plug HAN	<input type="checkbox"/> yes

Other



A series of horizontal dotted lines for writing notes.

The combination of state of the art production equipment, along with lean manufacturing processes and a highly skilled and motivated workforce allows for the highest flexibility and availability of parts at the manufacturing site in Werdohl, Germany. The US subsidiary located in Wixom, Michigan was founded in 1997 and the Japanese subsidiary in Kanagawa near Tokyo opened its doors in 2008.



Production



It has always been a core philosophy of BRINKMANN PUMPS to be able to provide the highest level of service worldwide. In order to achieve this goal, all BRINKMANN PUMPS employees globally go through rigorous training programs focusing on various areas, such as, pump applications, proper selection, consulting, service and repair.



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



BRINKMANN PUMPS has a global presence and direct representation throughout Europe, Asia and North America. 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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