

Handled Liquids

Domestic and industrial waste water, raw sewage, liquids with fibrous and solid substances.

Technical Data

Discharge Flange _____ DN 50.....DN 300 mm

Capacity _____ up to 1600 m³/h

Head _____ up to 95 m

Speed _____ up to 2900 rpm

Design Temperature _____ up to +40 °C*

Casing Pressure (Pmax) _____ 10 bar

(*) For higher temperatures, please contact with STANDART POMPA.

Design Features

- Vertical, wide volute casing, single stage, end suction submersible type centrifugal pump with enclosed, semi-open or vortex types impeller.
- 20 basic sizes covering wide range of operational area.
- Electric motor isolation class is IP 68.
- Discharge flanges conform to EN 1092-2 / PN 10 for pumps with DN 80 an DN 100 discharge diameter, flanges are manufactured as per EN 1092-2 (PN 6)

Pump Designation

Pump Type _____

Discharge Nozzle (DN-mm) _____

Impeller Nominal Diameter (mm) _____

Impeller Type _____

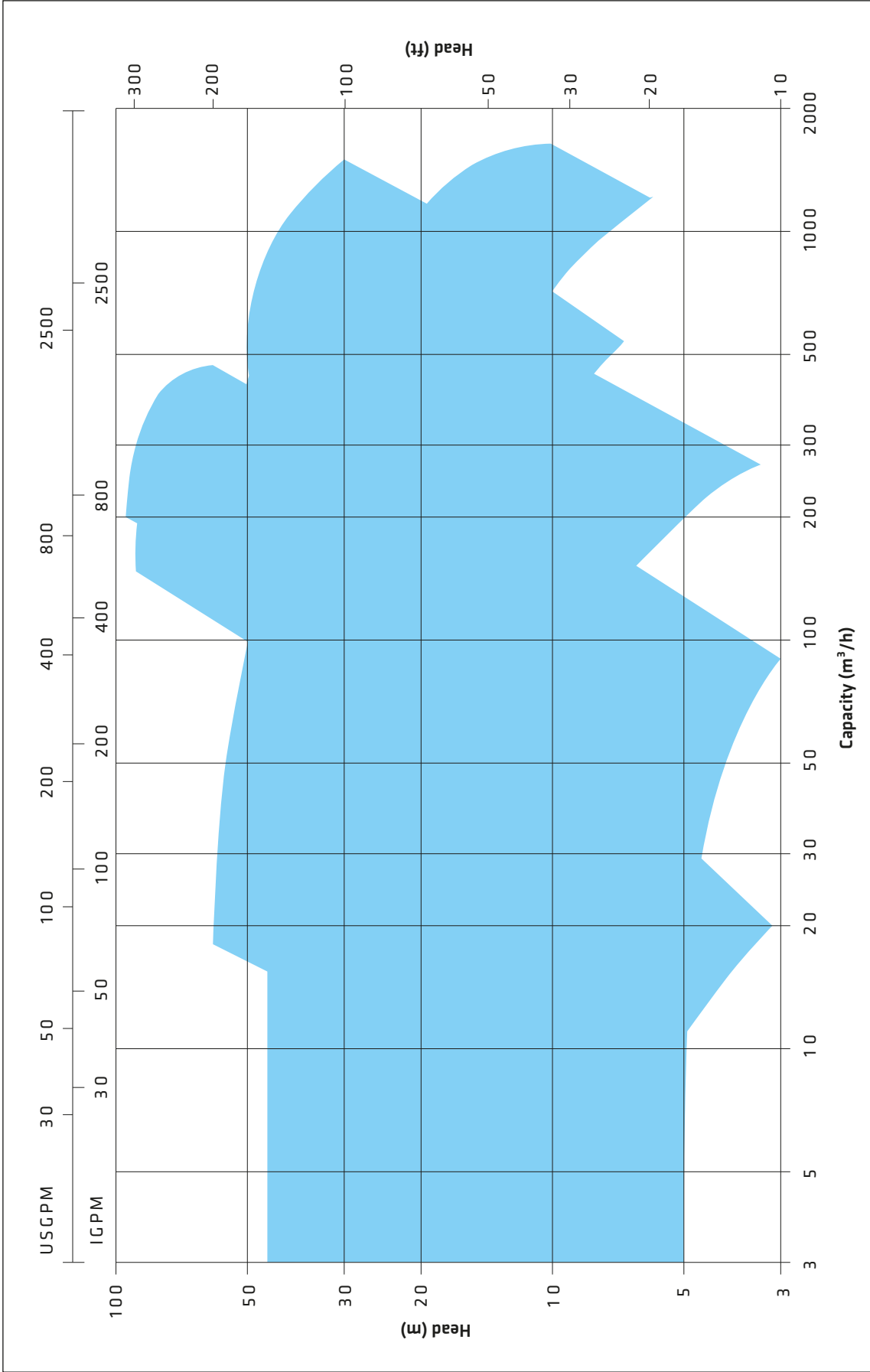
C 100 - 240 B

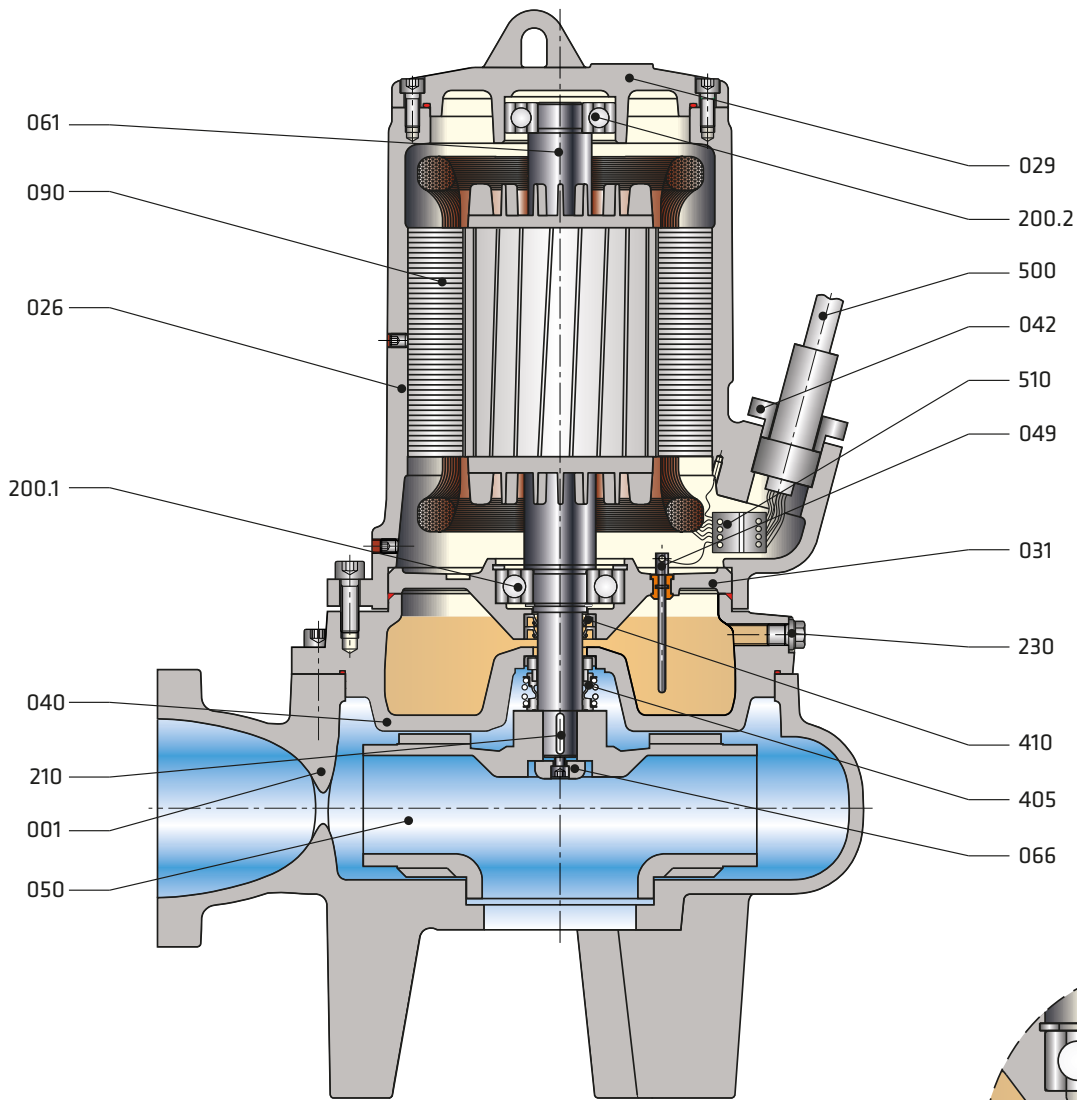


- All impellers are balanced dynamically or statically according to ISO 1940 class 6.3.
- Axial thrust is balanced by impeller back ribs.
- In case of request motor cooling jacket is also applicable (for pumps having bigger than 200 frame motor)
- Bearings of C type pumps are “life time grease lubricated” ball bearings.

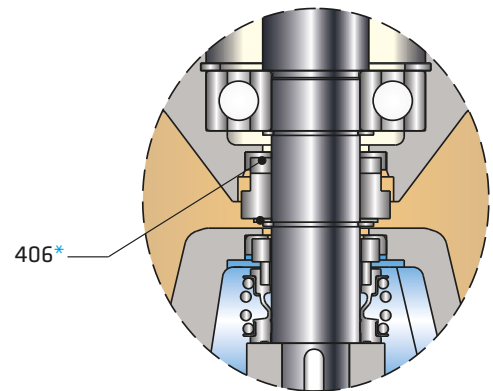
Shaft Sealing

- For pumps bigger than 12 HP, always double mechanical seal is applied while for pumps up to 12 HP, single mechanical seal is applied as standard.
- In case of request, double mechanical seal can also be applied for pumps up to 12HP.





Double Mechanical Seal Application

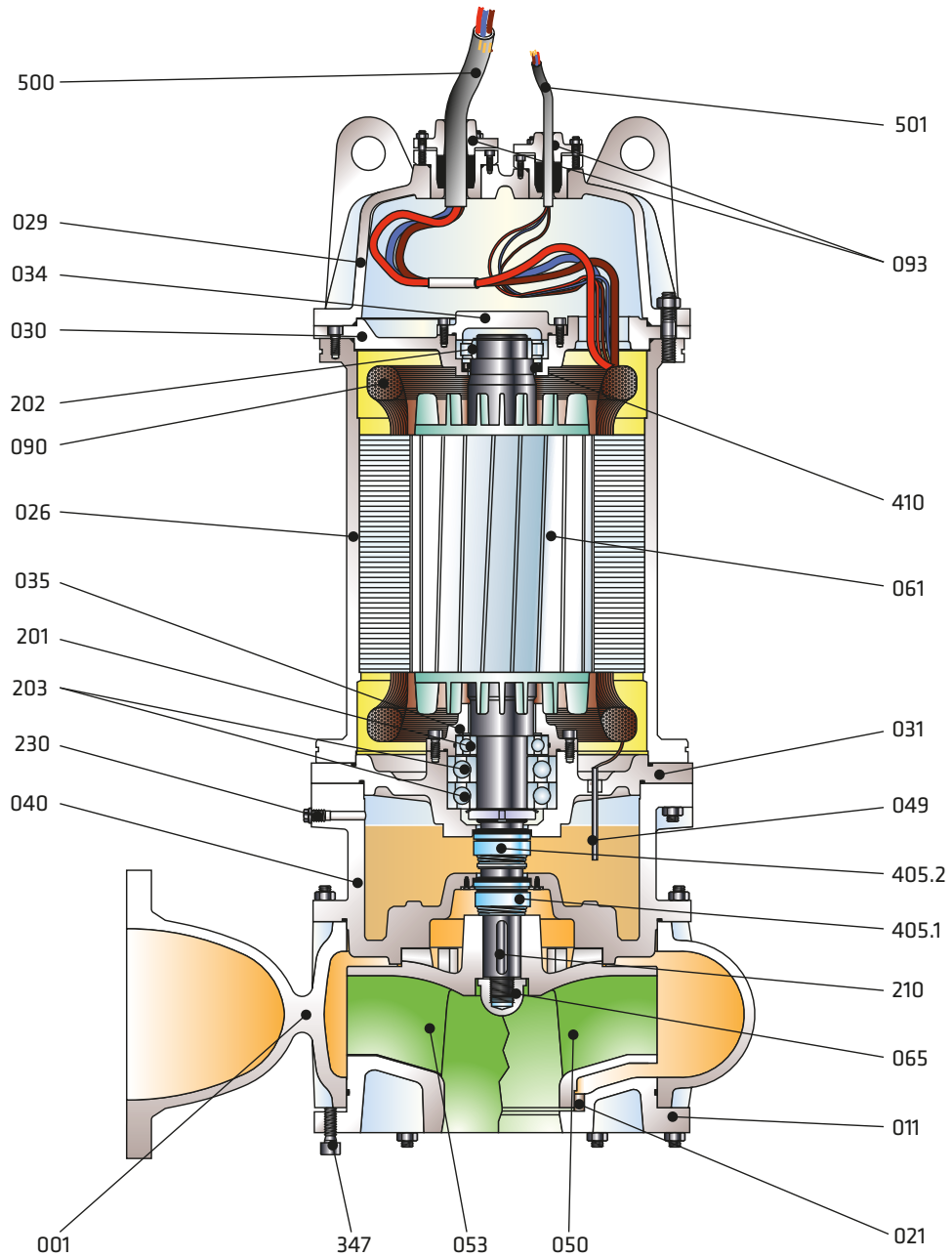


Part List

001	Volute Casing	090	Stator
026	Motor Casing	200.1	Bottom Bearing
029	Top Cover	200.2	Top Bearing
031	Bearing Housing	210	Impeller Key
040	Oil Chamber	230	Oil Plug
042	Gland	405	Mechanical Seal
049	Water Leakage Electrode	406*	Mechanical Seal
050	Impeller	410	Oil Seal
061	Rotor Shaft	500	Energy and Control Cable with Plug
066	Impeller Nut	510	Socket

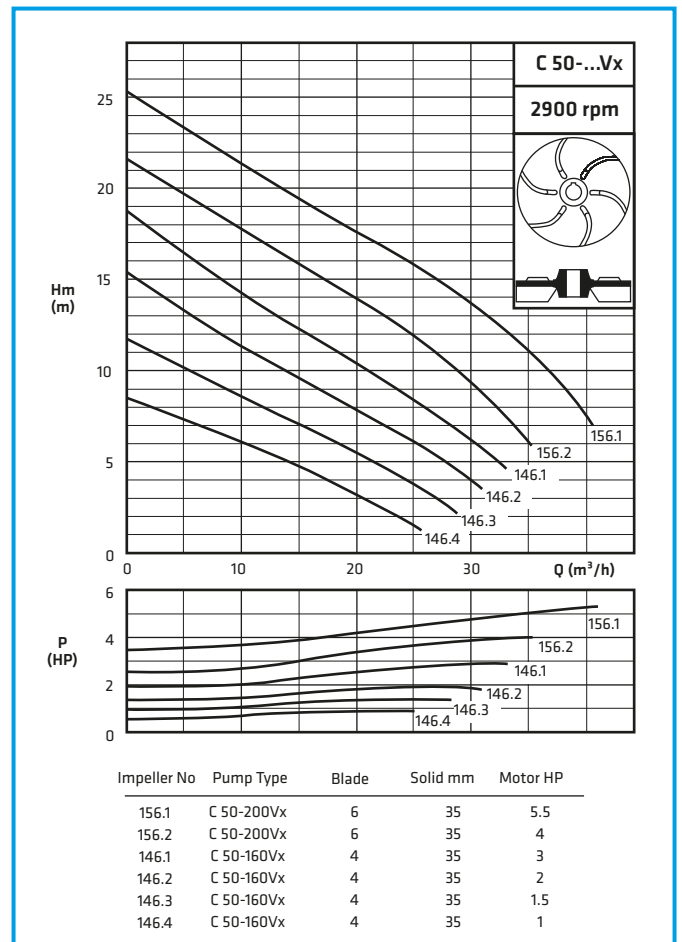
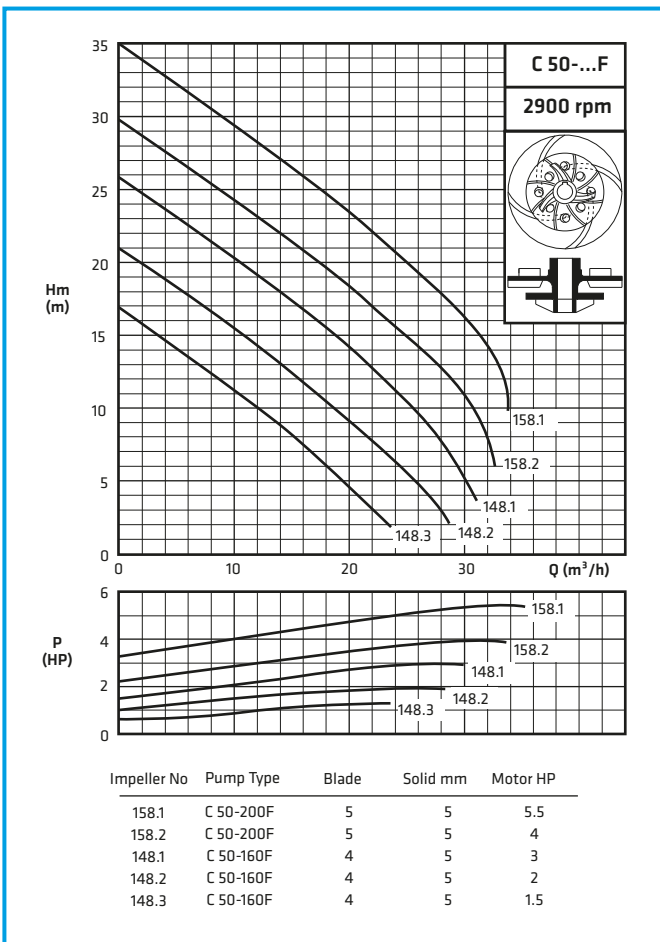
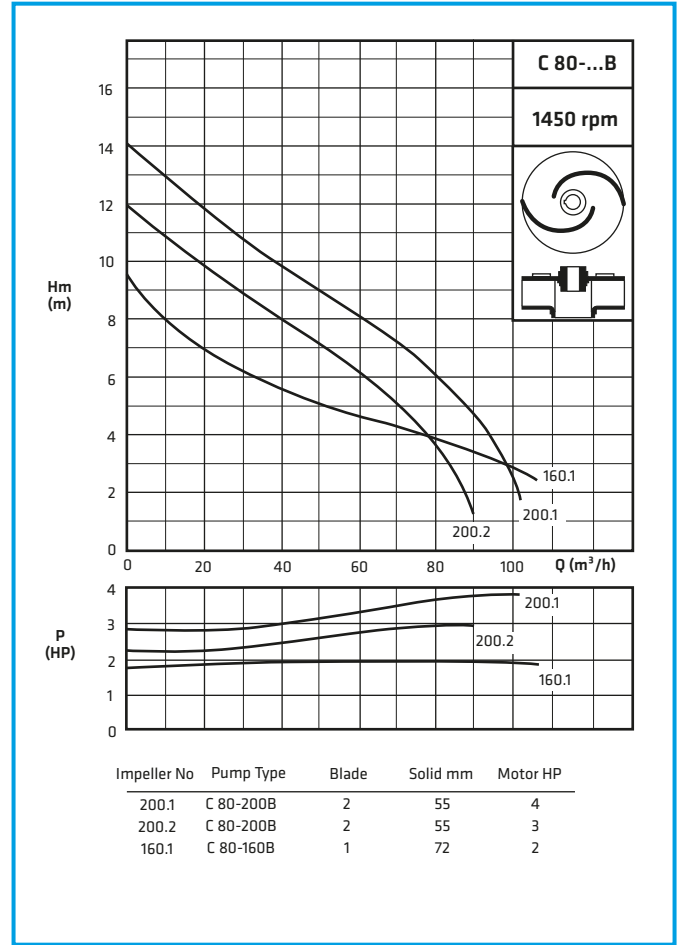
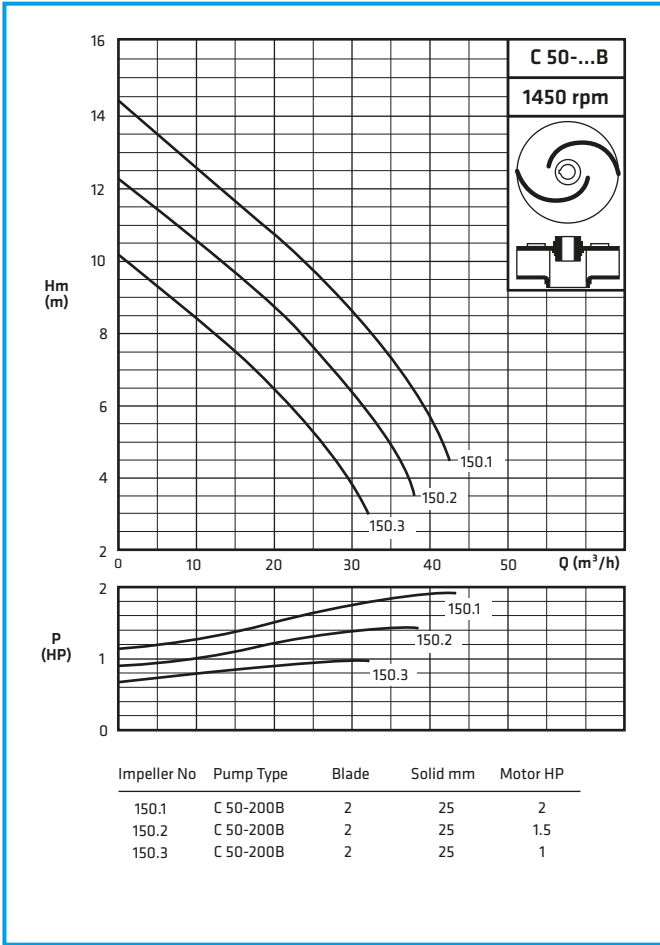
(*) Optional

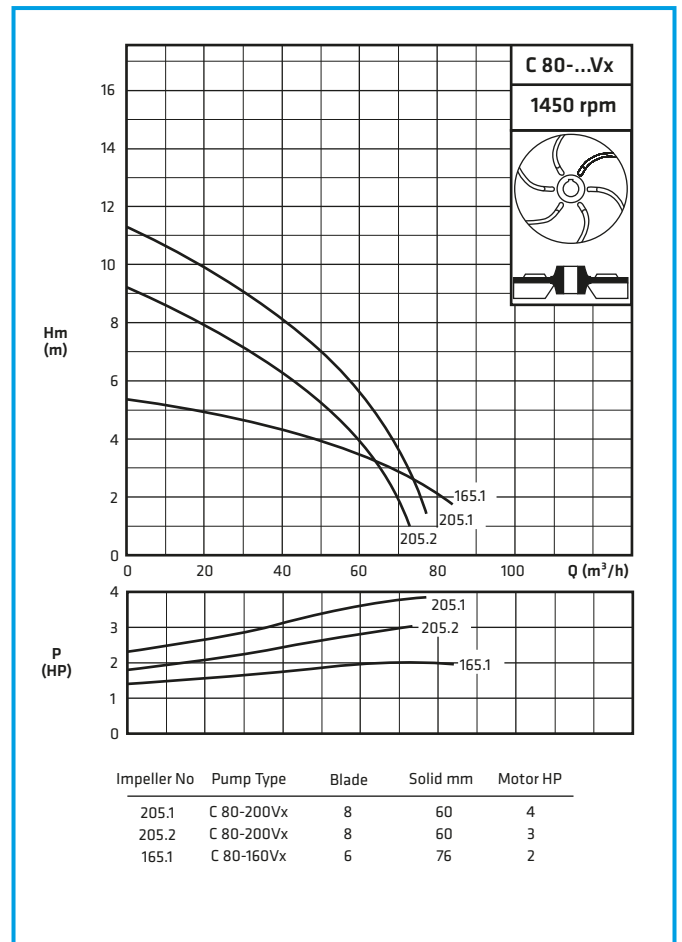
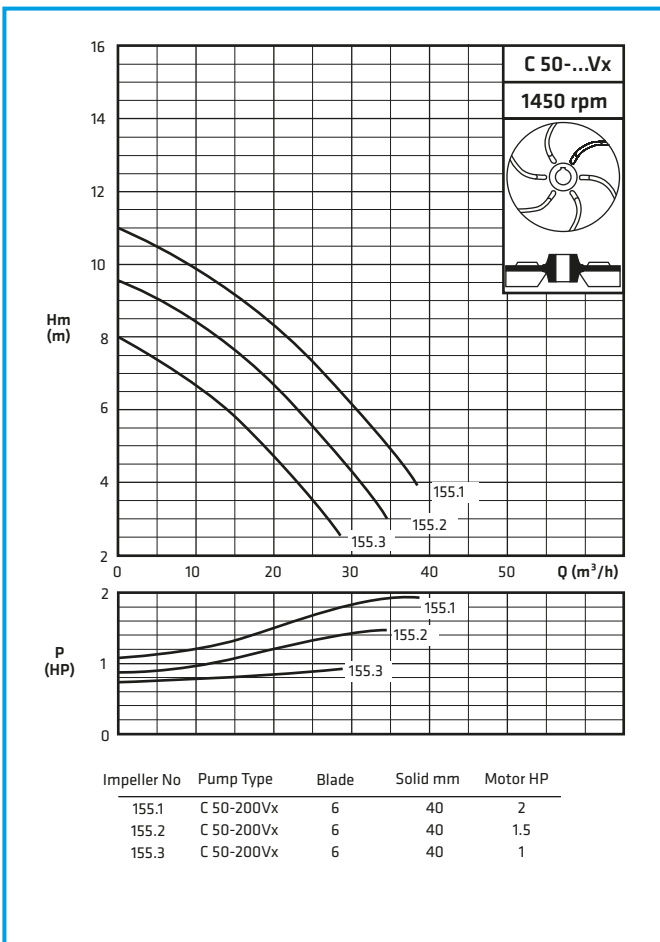
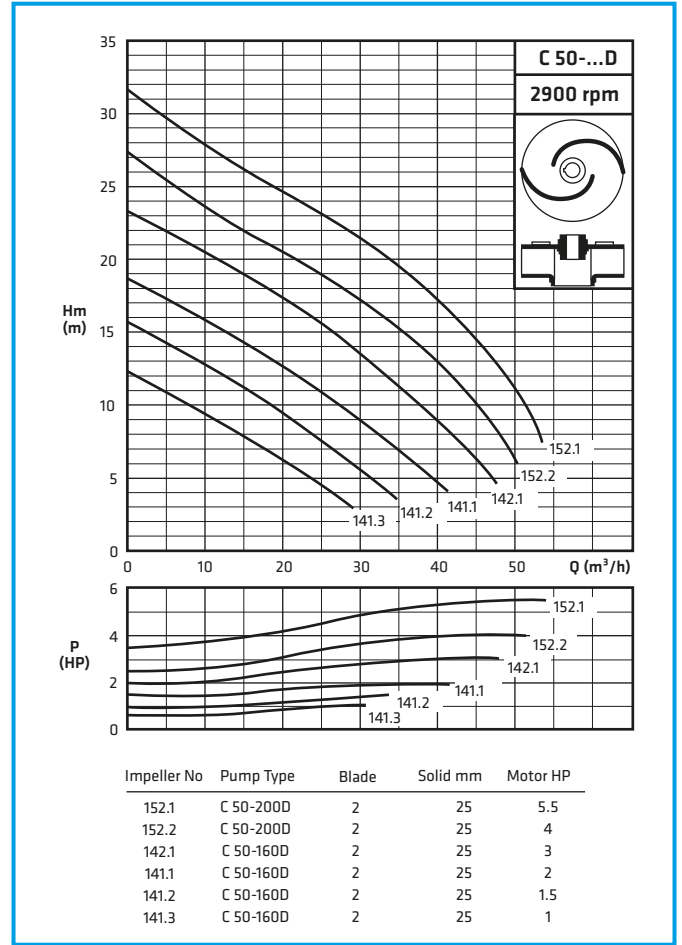
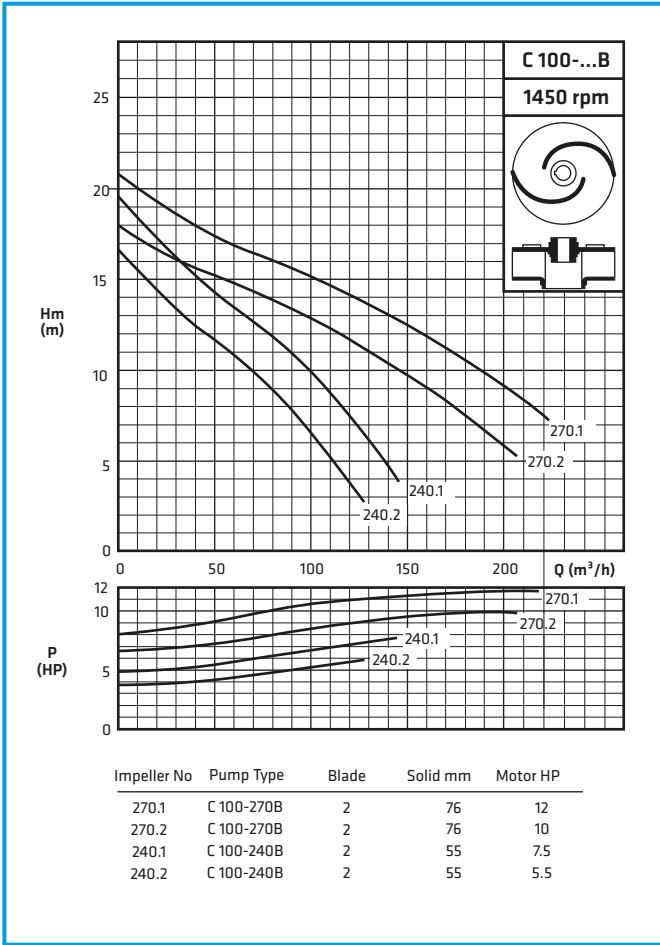
Sectional Drawing (bigger than 12 HP)



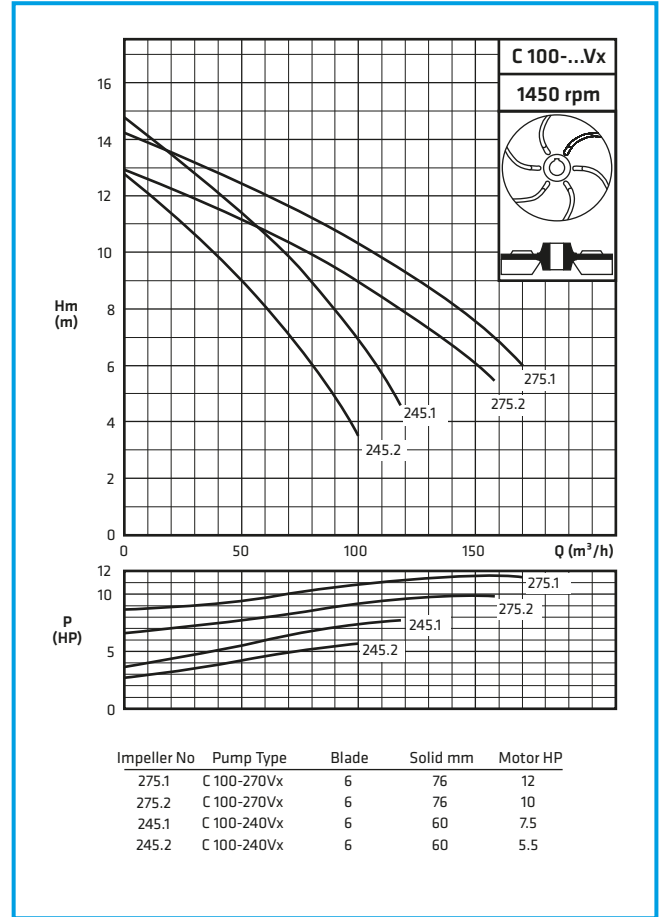
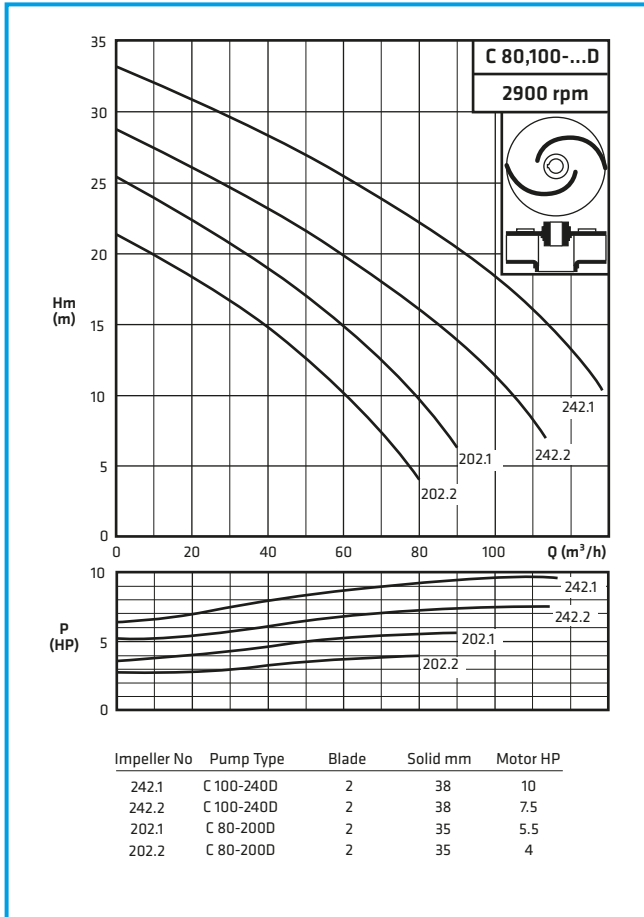
Part List

001	Volute Casing	049	Water Leakage Electrode	210	Impeller Key
011	Bottom Cover	050	Closed Impeller	230	Oil Plug
021	Wear Ring	053	Semi-open Impeller	347	Adjustment Bolt
026	Motor Casing	061	Rotor Shaft	405.1	Mechanical Seal (Product Side)
029	Top Cover	065	Impeller Nut	405.2	Mechanical Seal (Oil Side)
030	Top Bearing Housing	090	Stator	410	Oil Seal
031	Bottom Bearing Housing	093	Gasket Compress Cover	500	Energy Cable
034	Top Bearing Cover	201	Bottom Bearing	501	Control Cable
035	Bottom Bearing Cover	202	Bottom Bearing		
040	Oil Chamber	203	Angular Contact Ball Bearing		





Field Chart



Material Options

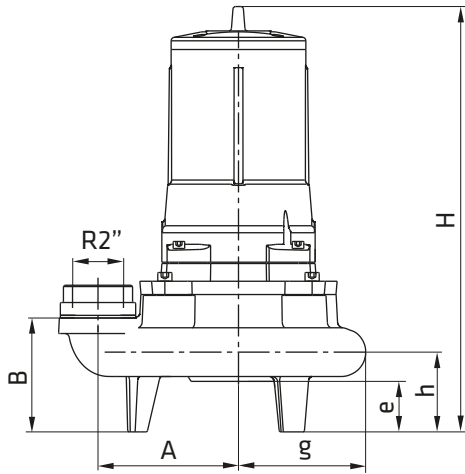
PART LIST	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4517	1.4317	2.1050.01	2.0975.01	1.4021
Volute Casing	●	○	○	○	○	○	○	○	○	○		
Motor Casing	●	○		○	○	○						
Impeller	●	○	○	○	○	○	○	○	○	○	○	
Rotor Shaft												●
Oil Chamber	●	○										

● Standard manufacturing
○ Optional

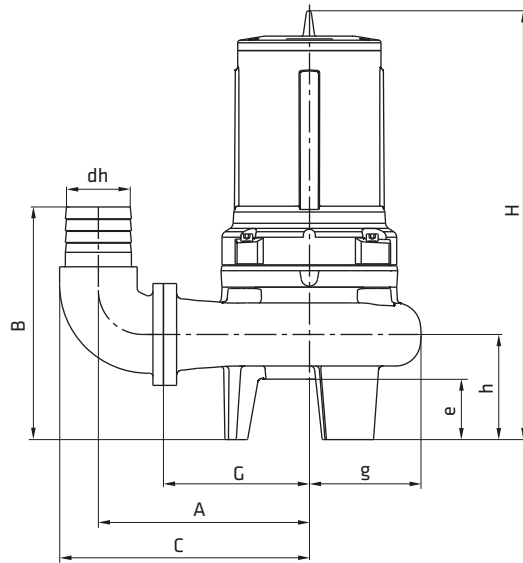
Material Equivalents

Description	DIN / EN		AISI / SAE / ASTM
Cast Iron	0.6025	EN-GJL-250 (GG25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG40)	A536 60-40-18
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Chrome Nickel Cast Steel	1.4308	GX5CrNi19-10	A351 CF8
Chrome Nickel Cast Steel (low carbon)	1.4309	GX2CrNi19-11	A351 CF3
Chrome Nickel Molybdenum Cast Steel	1.4408	GX5CrNiMo19-11-2	A351 CF8M
Chrome Nickel Molybdenum Cast Steel (low carbon)	1.4409	GX2CrNiMo19-11-2	A351 CF3M
Austenitic - Ferritic Cast Steel (duplex)	1.4517	GX2CrNiMoCuN25-6-3-3	A890 CD4MCuN
Martenzitic Stainless Cast Steel	1.4317	GX4CrNi13-4	A352 CA6NM
Cast Bronze (tin alloy)	2.1050.01	G-CuSn10	B427 C90700
Cast Bronze (nickel alloy)	2.0975.01	G-CuAl10Ni	B584 C83600
Chrome Steel	1.4021	X20Cr13	A276 Type 420

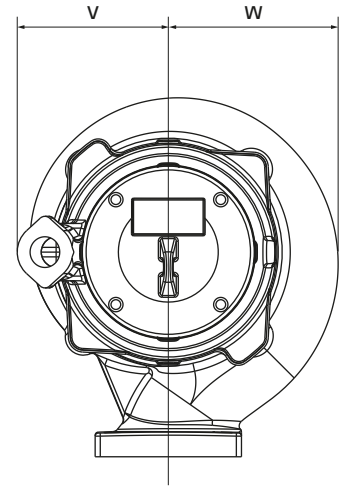
Dimensions



C 50 Hose Connection



C 80-100 Hose Connection



Pump Type	Impeller Type	MOTOR			DISCHARGE		PUMP DIMENSIONS (mm)										Oil (ml)	Weight (kg)
		Power - HP	2900	IEC No	DN	d	R"	A	B	C	h	H	G	g	v	w		
50-160	Vx	-	1	80	50	2"	139	131	-	90	430	185	114	130	125	750	29	
50-160	Vx	-	1,5	80	50	2"	139	131	-	90	430	185	114	130	125	750	34	
50-160	Vx	-	2	90	50	2"	139	131	-	90	475	185	114	138	125	750	38	
50-160	Vx	-	3	90	50	2"	139	131	-	90	475	185	114	138	125	750	41	
50-160	D	-	1	80	50	2"	139	131	-	90	430	185	114	130	125	750	32	
50-160	D	-	1,5	80	50	2"	139	131	-	90	430	185	114	130	125	750	34	
50-160	D	-	2	90	50	2"	139	131	-	90	475	185	114	138	125	750	39	
50-160	D	-	3	90	50	2"	139	131	-	90	475	185	114	138	125	750	41	
50-160	F	-	1,5	80	50	2"	139	131	-	90	412	185	114	130	125	750	33	
50-160	F	-	2	90	50	2"	139	131	-	90	457	185	114	138	125	750	38	
50-160	F	-	3	90	50	2"	139	131	-	90	457	185	114	138	125	750	40	
50-200	Vx	1	-	80	50	2"	160	129	-	90	438	205	144	130	152	750	41	
50-200	Vx	1,5	-	90	50	2"	160	129	-	90	483	205	144	138	152	750	45	
50-200	Vx	2	-	90	50	2"	160	129	-	90	483	205	144	138	152	750	47	
50-200	Vx	-	4	100	50	2"	160	129	-	90	524	205	144	148	152	1000	54	
50-200	Vx	-	5,5	100	50	2"	160	129	-	90	524	205	144	158	152	1000	59	
50-200	B	1	-	80	50	2"	160	129	-	90	438	205	144	130	152	750	41	
50-200	B	1,5	-	90	50	2"	160	129	-	90	483	205	144	138	152	750	46	
50-200	B	2	-	90	50	2"	160	129	-	90	483	205	144	138	152	750	48	
50-200	D	-	4	100	50	2"	160	129	-	90	524	205	144	148	152	1000	54	
50-200	D	-	5,5	100	50	2"	160	129	-	90	524	205	144	158	152	1000	60	
50-200	F	-	4	100	50	2"	160	129	-	90	496	205	144	138	152	1000	52	
50-200	F	-	5,5	100	50	2"	160	129	-	90	496	205	144	135	152	1000	58	
80-160	Vx	2	-	90	80	-	262	287	304	133	540	180	130	138	146	1000	58	
80-160	B	2	-	90	80	-	262	287	304	133	540	180	130	138	146	1000	58	
80-200	Vx	4	-	100	80	-	282	286	324	132	573	200	150	148	168	1000	62	
80-200	Vx	3	-	100	80	-	282	286	324	132	573	200	150	148	168	1000	58	
80-200	B	4	-	100	80	-	282	286	324	132	573	200	150	148	168	1000	64	
80-200	B	3	-	100	80	-	282	286	324	132	573	200	150	148	168	1000	60	
80-200	D	-	4	100	80	-	282	286	324	132	573	200	150	148	168	1000	59	
80-200	D	-	5,5	100	80	-	282	286	324	132	573	200	150	158	168	1000	65	
100-240	Vx	5,5	-	100	100	-	324	356	383	162	603	225	170	158	186	1000	80	
100-240	Vx	7,5	-	132	100	-	324	356	383	162	657	225	170	190	186	2000	101	
100-240	B	5,5	-	100	100	-	324	356	383	162	603	225	170	158	186	1000	82	
100-240	B	7,5	-	132	100	-	324	356	383	162	657	225	170	190	186	2000	104	
100-240	D	-	7,5	132	100	-	324	356	383	162	657	225	170	190	186	2000	94	
100-240	D	-	10	132	100	-	324	356	383	162	657	225	170	190	186	2000	103	
100-270	Vx	10	-	132	100	-	359	364	418	170	678	260	211	198	228	2000	123	
100-270	Vx	12	-	132	100	-	359	364	418	170	678	260	211	198	228	2500	123	
100-270	B	10	-	132	100	-	359	364	418	170	678	260	211	198	228	2500	126	
100-270	B	12	-	132	100	-	359	364	418	170	678	260	211	198	228	2500	126	

Technical Data

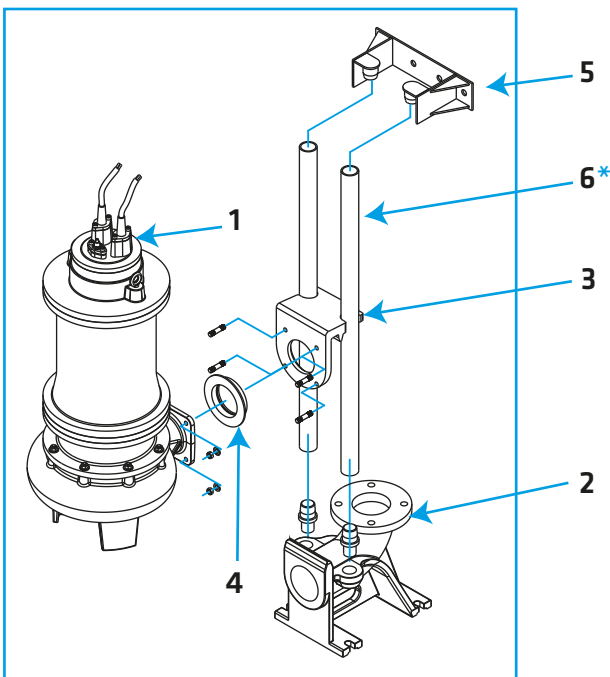
Pump Type	Impeller Type	Rated Power (kW)		
		1000 (rpm)	1500 (rpm)	3000 (rpm)
50-240	D	-	-	5,5
50-240	D	-	-	7,5
50-240	D	-	-	11
50-270	Vx	-	3	-
50-270	Vx	-	4	-
50-270	Vx	-	5,5	-
50-270	Vx	-	7,5	-
80-270	D	-	-	11
80-270	D	-	-	15
80-270	D	-	-	18,5
80-270	D	-	-	22
80-270	D	-	-	30
80-315	AB	7,5	11	-
80-315	AB	-	15	-
80-315	AB	-	18,5	-
100-270	D	-	-	11
100-270	D	-	-	15
100-270	D	-	-	18,5
100-270	D	-	-	22
100-270	D	-	-	30
100-270	B	-	11	-
100-270	B	-	15	-
100-270	B	-	18,5	-
100-315	AB	7,5	11	-
100-315	AB	11	15	-
100-315	AB	-	18,5	-
100-315	AB	-	22	-
100-315	AB	-	30	-
100-315	B	-	11	-
100-315	B	-	15	-
100-315	B	-	18,5	-
100-315	B	-	22	-
100-315	B	-	30	-

Pump Type	Impeller Type	Rated Power (kW)		
		1000 (rpm)	1500 (rpm)	3000 (rpm)
150-315	AB	7,5	11	-
150-315	AB	11	15	-
150-315	AB	15	18,5	-
150-315	AB	18,5	22	-
150-315	AB	-	30	-
150-315	AB	-	37	-
150-315	AB	-	45	-
150-315	AB	-	55	-
150-315	B	7,5	11	-
150-315	B	11	15	-
150-315	B	15	18,5	-
150-315	B	18,5	22	-
150-315	B	-	30	-
150-315	B	-	37	-
150-315	B	-	45	-
150-315	B	-	55	-
150-500	AB	45	75	-
150-500	AB	55	90	-
150-500	AB	-	110	-
150-500	AB	-	132	-
150-500	AB	-	160	-
150-500	AB	-	185	-
150-500	AB	-	200	-
200-315	AB	15	-	-
200-315	AB	18,5	30	-
200-315	AB	22	37	-
200-315	AB	-	45	-
200-315	AB	-	55	-
200-315	AB	-	75	-
200-315	G2K	15	22	-
200-315	G2K	18,5	30	-
200-315	G2K	22	37	-
200-315	G2K	-	45	-
200-315	G2K	-	55	-

Pump Type	Impeller Type	Rated Power (kW)		
		1000 (rpm)	1500 (rpm)	3000 (rpm)
200-400	B	30	-	-
200-400	B	37	55	-
200-400	B	45	75	-
200-400	B	55	90	-
200-400	B	-	110	-
200-400	B	-	132	-
200-400	B	-	160	-
200-500	AB	45	110	-
200-500	AB	55	132	-
200-500	AB	-	160	-
200-500	AB	-	185	-
250-315	AB	18,5	30	-
250-315	AB	22	37	-
250-315	AB	30	45	-
250-315	AB	37	55	-
250-315	AB	-	75	-
250-315	AB	-	90	-
300-400	AB	30	110	-
300-400	AB	37	132	-
300-400	AB	45	160	-
300-400	AB	55	185	-
300-400	AB	75	200	-
300-400	AB	90	250	-
300-400	B	30	110	-
300-400	B	37	132	-
300-400	B	45	160	-
300-400	B	55	185	-
300-400	B	75	200	-
300-400	B	-	250	-
300-500	B	90	-	-
300-500	B	110	-	-
300-500	B	132	-	-
300-500	B	160	-	-

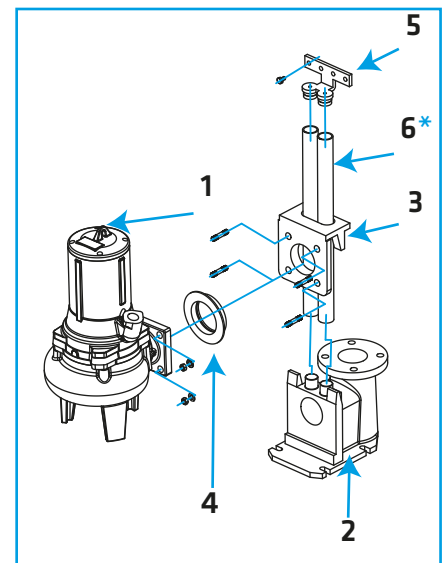
Note: Please contact for further information.

Guide Rail Pipe



Part List

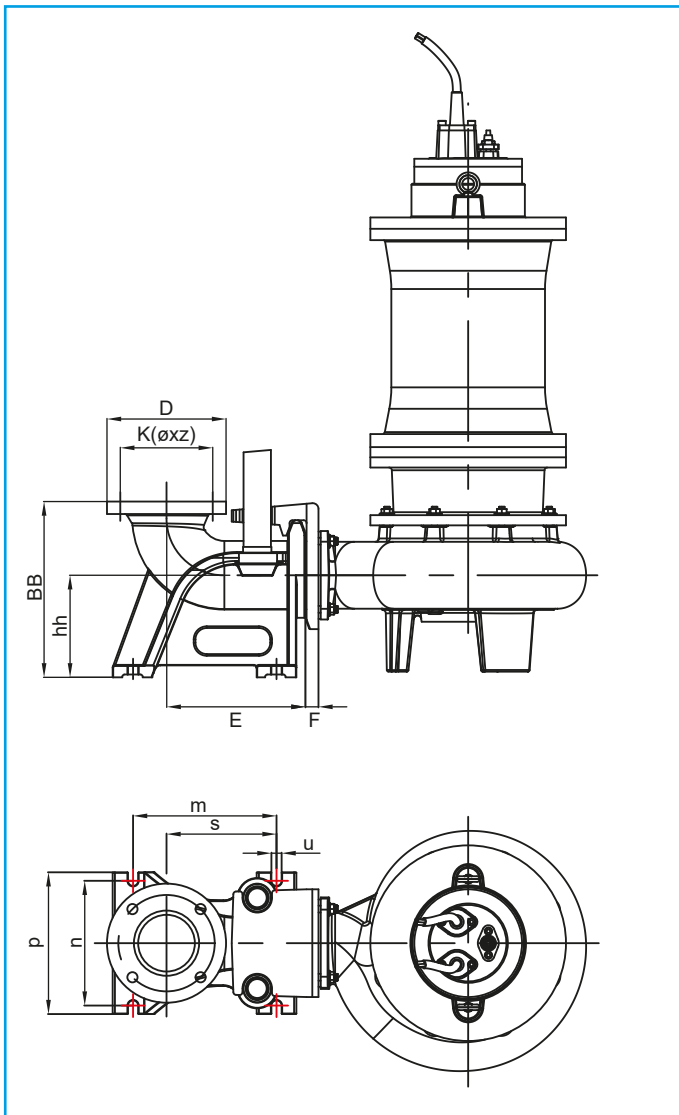
- 1- Pump
- 2- Elbow
- 3- Flange
- 4- Rubber
- 5- Upper Guide
- 6- Guide Rail Pipe*



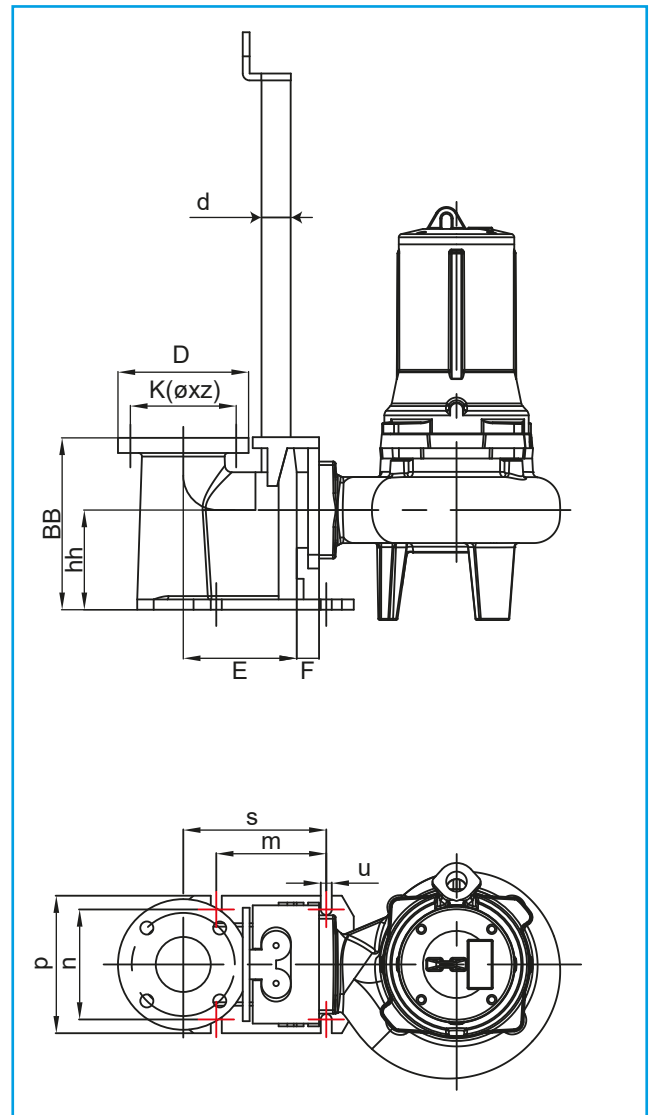
(*) Scope out of STANDART POMPA.

Dimensions

DN 100 and above



DN 50 and DN 80



Elbow No.	Guide Rail Pipe System Dimensions											Rail Pipe Diameter
	F	E	hh	BB	s	m	u	p	n	D	K	d
50	29	126	101	167	150	130	12	145	108	150	125(ø18/4 pcs.)	¾"
80	30	165	145	250	208	160	16	200	160	190	150(ø18/4 pcs.)	1 ¼"
100	21	245	180	310	193	253	18	250	220	190	170(ø18/4 pcs.)	1 ½"
150	33	371	270	466	295	385	27	375	330	285	240(ø22/8 pcs.)	2"
200	53	488	300	650	389	510	33	510	450	340	295(ø22/8 pcs.)	2"
250	55	610	365	800	485	635	41	640	565	395	350(ø23/12 pcs.)	2 ½"
300	65	730	445	965	580	760	46	750	660	445	400(ø23/12 pcs.)	2 ½"

Impeller Type

C

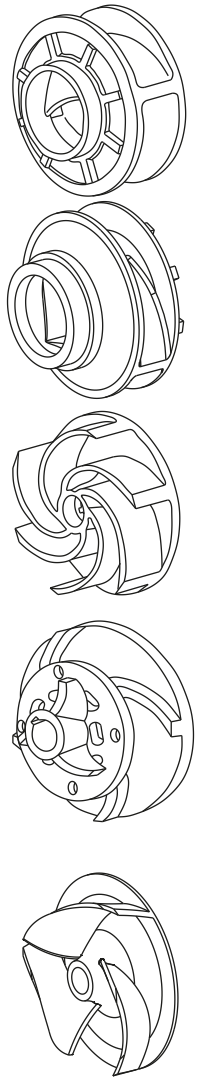
B and G2K Type Impeller: Enclosed type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is mainly used for 4 pole motors.

D Type Impeller: It is also enclosed type like B type but suitable for high speed motors (2 pole). It is convenient for high pressure, small capacity and smaller size solid particles.

VX Type Impeller: Semi-open free vortex type impeller is placed on top of the volute. It creates a forced vortex motion in the casing. It is mostly suitable for fibrous materials. They are suitable for low head applications but pump efficiency is lower compare to other impeller types. The increased clearances limit the head that can be generated and reduce the attainable efficiency. Recessed type impellers are also possible for some models. With this type of design solid particles up to pump flanges size can pass through the pump. Please ask for more information.

F Type Impeller: Semi-open type impeller with cutter. The cutting system is placed in front of the impeller and it breaks up the solid particles into smaller sizes that makes passing possible through the smaller pipes without sticking. F type impeller is suitable for small capacity, high pressure, but the pump efficiency is also low.

AB Type Impeller: Semi-open type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is more suitable for 4 pole motors. Designed for aggressive applications. Impeller works against a wear plate. Clearance between the wear plate and impeller blades is between 0.25 - 0.40 mm.



1 - Temperature **SENSOR** (130°C) in F class winding head protection for overheating.

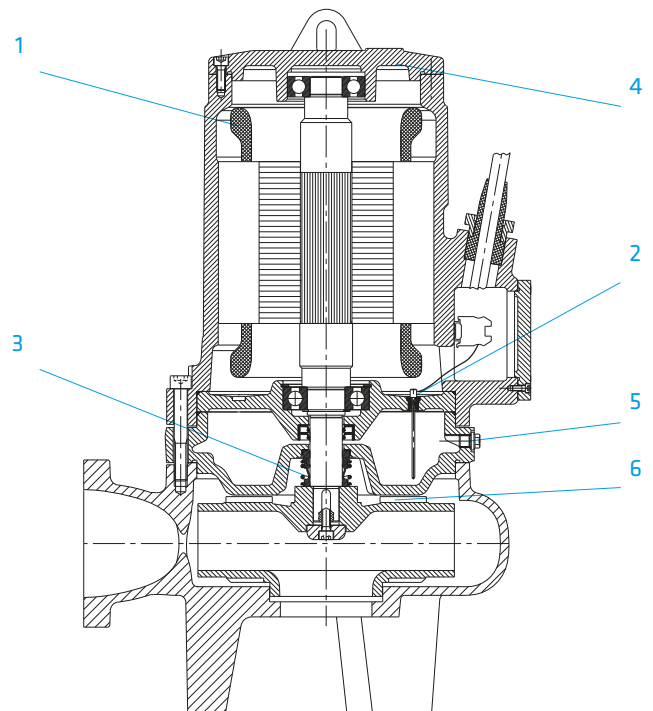
2 - Signaling **ELECTRODE** in case of leakage into the motor or into the oil chamber.

3 - **MECHANICAL SEAL** running in pumping liquid.

4 - Demountable **TOP COVER** for easy motor winding.

5 - Oil filling and inspection **PLUG**.

6 - **BACK VANES** for reducing axial load and sealing pressure.



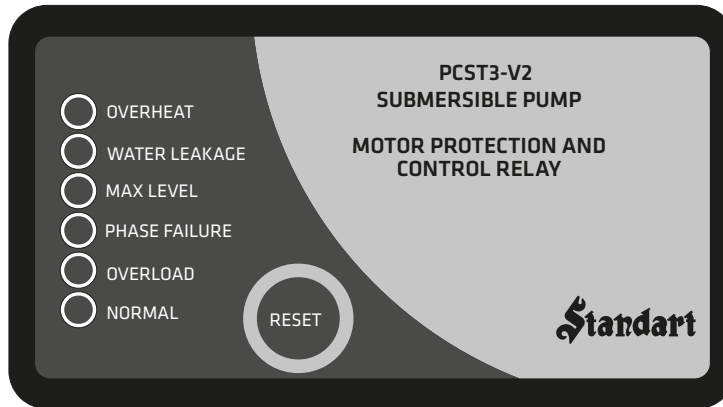
PCST3-V2 MOTOR PROTECTION AND CONTROL RELAY

C

Standart PCST3-V2 Motor Protection and Control Relay is an indispensable part of Standart C type pumps. It is supplied with the pump and it shall be used to secure smooth operation of motor and the pump.

FUNCTION:

When the device is switched on, all indicator lights blink in order and the control unit makes a self-check. If there is not any failure, NORMAL indicator light switches on in green indicating it is ready to run the motor.



OVER HEAT

In case of overheating of motor windings, in which the temperature exceeds 130°C, the red indicator light switches on and the relay shuts down the motor. Indicator light blinks in short periods at alarming position. When motor has cooled down, relay restarts the motor while alarming goes on until the RESET button is pressed. Pressing the RESET button disables the alarm relay and indicator light stops blinking.

WATER LEAKAGE

In case of water leakage into the motor casing or oil chamber, red indicator light switches on and the relay shuts down the motor. Alarm relay becomes activated and until the RESET button is pressed, alarming goes on by blinking of red indicator light in short periods. When this failure occurs, the pump needs to be overhauled.

MAX LEVEL

When water level reaches the maximum level, which is set by the user, float switch sends on alarm signal and yellow indicator light starts blinking. This alarm does not affect the current state (run or stop) of the pump. Pressing the RESET button disables the alarm relay and indicator light stops blinking.

PHASE FAILURE

An external phase protection relay, mounted in the control panel, is connected to PCST3-V2 for checking phase sequence and phase failures. When there is a failure in mains voltage or in phase sequence, the motor is shut down by the relay and red indicator light starts blinking. By the time the failure is fixed, the motor restarts automatically while alarming goes on until the RESET button is pressed.

OVERLOAD

The relay shuts down the motor, if the current overload limit is exceeded. Meanwhile, alarm relay becomes activated and red indicator light starts blinking. As the failure is fixed, pressing the RESET button will disable the overload and the alarm relay, so the system turns back to normal conditions.

NORMAL

By the time all red indicator lights on PCST3-V2 switch off, green indicator light switches on, meaning that it is ready to run the motor. In case of failure, green indicator light switches off and the relay shuts down the motor.

PCST3-V2 is an indispensable part of Standart C type pumps. If it is damaged, do not try to operate the motor without it.

Optional Motor Protections

- Humidity Sensor
- Bearing Thermal Sensor (PTC or/and PT100)