BC-ST

DOUBLE-CHANNEL

Submersible pumps in stainless steel

Sewage water

Domestic use

Civil use

Industrial use

PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **17 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 50 mm**
- Minimum immersion depth for continuous service:
  - **290 mm** for BC 10/50-ST
  - **330 mm** for BC 15/50-ST
  - **360 mm** for BC 20/50-ST

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3

CE

CERTIFICATIONS

Company with management system certified DNV ISO 9001: QUALITY

UK CA EAC

INSTALLATION AND USE

BC-ST submersible pumps in stainless steel are recommended for draining **dirty and sewage water** in domestic, civil and industrial applications. They come equipped with a DOUBLE-CHANNEL impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm. They are ideal for pumping sewage, waste water, surface water and water mixed with mud in locations such as blocks of flats and detached houses.
These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

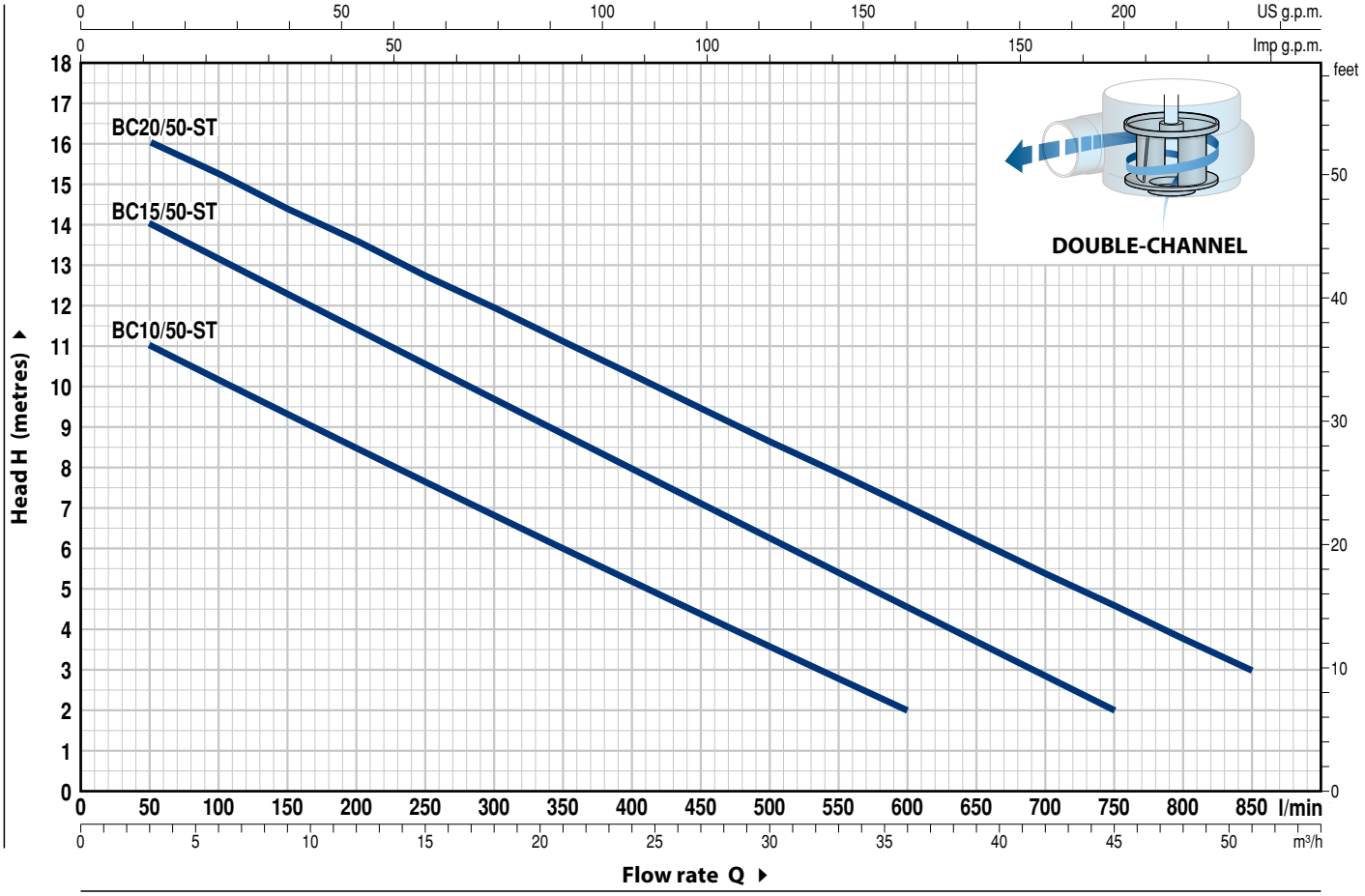
- Patent n. EP2313658
- Patent n. IT0001428923

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- AISI 316L stainless steel pump shaft
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	3	6	12	18	24	30	36	42	45	51
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**50**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**750**	**850**
BCm 10/50-ST	**BC 10/50-ST**	0.75	1			12	11	10	8.5	7	5	3.6	2			
BCm 15/50-ST	**BC 15/50-ST**	1.1	1.5	**H**	metres	15	14	13	11.5	9.7	8	6.3	4.6	2.9	2	
BCm 20/50-ST	**BC 20/50-ST**	1.5	2			17	16	15.3	13.5	12	10.3	8.6	7.0	5.3	4.5	3

Q = Flow rate **H** = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
2	**BASE**	Stainless steel AISI 304
3	**IMPELLER**	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type. The double-channel impeller produces excellent performance and high energy efficiency, developing higher pressure and ensuring the pumping of solids up to 50 mm in diameter. Definitely the most highly performing solution for draining wastewater.
4	**MOTOR CASING**	Stainless steel AISI 304
5	**MOTOR CASING PLATE**	Stainless steel AISI 304 for **BC 10/50-ST** Cast iron with an Epoxy Electro Coating treatment for **BC 15/50-ST, BC 20/50-ST**
6	**MOTOR SHAFT**	Stainless steel AISI 431

7 DOUBLE MECHANICAL SEAL IN OIL CHAMBER

Seal	*Shaft*	*Position*	*Materials*		
Model	*Diameter*		*Stationary ring*	*Rotational ring*	*Elastomer*
MG1-14D SIC	**Ø 14** mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

Double mechanical seal in oil chamber, with silicon carbide chute slides for a greater resistance to abrasion and wear and for a longer life of the pump.

8 BEARINGS

Pump	*Model*
BC 10/50-ST	**6203 ZZ / 6203 ZZ**
BC 15/50-ST **BC 20/50-ST**	**6303 2RS - C3 / 6203 ZZ**

9 CAPACITOR **EN 60252-1/A1**

(only for single-phase versions)

10 ELECTRIC MOTOR

Electric motors produced to a high quality standard, subjected to the most rigorous checks to ensure excellent insulation. The impregnation of the winding, achieved with high quality resins, is followed by treatment in an oven for up to eight hours, thus ensuring the long working life of the motor.

BCm-ST: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
BC-ST: three-phase 400 V - 50 Hz

– Insulation: class F
– Protection: IP X8

11 POWER CABLE

Power cable encapsulated in epoxy resin both in the area of the grommets and at the point where the wires exit the sheath, resulting in an absolute insulation from moisture and water infiltration.

H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

12 EXTERNAL FLOAT SWITCH

(only for single-phase versions)

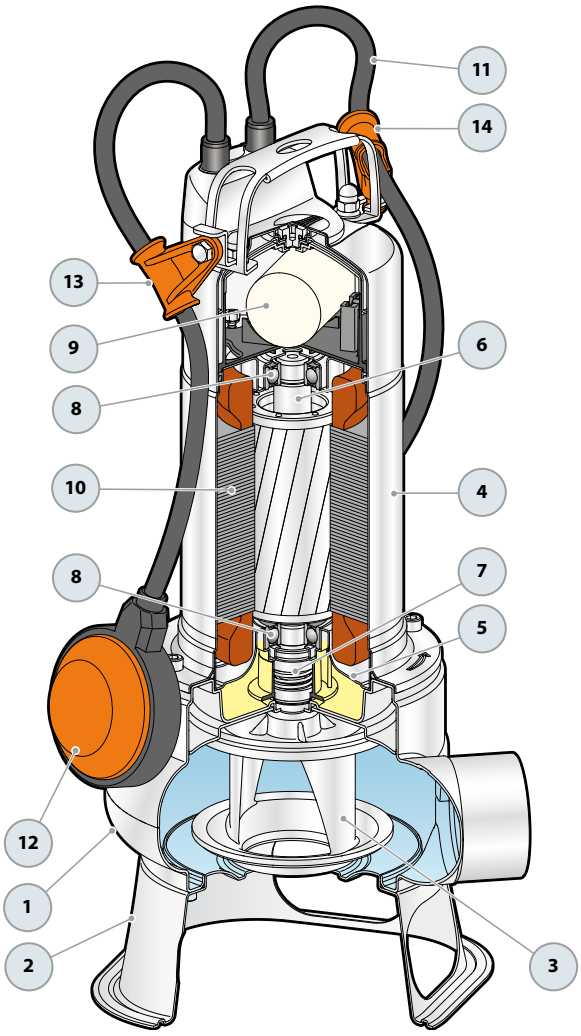
13 TILTING DEVICE FOR THE FLOAT CABLE

(only for single-phase versions)

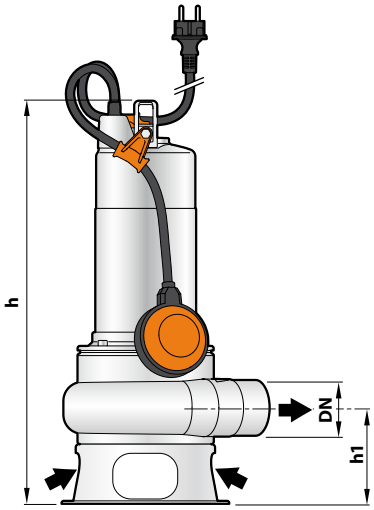
Patent n. IT0001428923

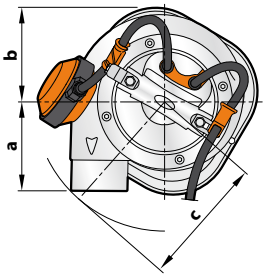
14 TEAR-PROOF DEVICE FOR THE POWER CABLE

Patent n. EP2313658

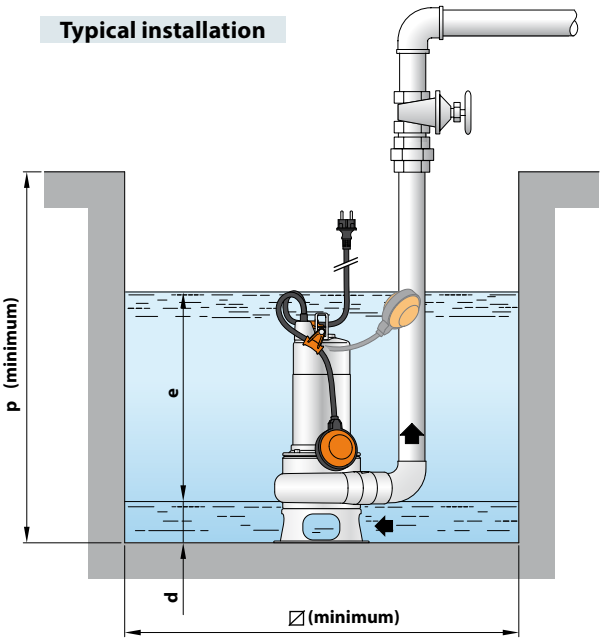


DIMENSIONS AND WEIGHT





Typical installation



MODEL		PORT	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN		a	b	c	h	h1	d	e	p	⍁	1~	3~
BCm 10/50-ST	**BC 10/50-ST**						450						**13.4**	**12.2**
BCm 15/50-ST	**BC 15/50-ST**	**2"**	Ø 50 mm	102	95	145	483	107	60	variable	500	500	**16.0**	**14.4**
BCm 20/50-ST	**BC 20/50-ST**						513						**18.2**	**16.0**

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
BCm 10/50-ST	**5.5** A	**5.4** A
BCm 15/50-ST	**8.0** A	**7.8** A
BCm 20/50-ST	**10.0** A	**9.8** A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
BC 10/50-ST	**3.8** A	**2.2** A	**3.6** A	**2.1** A
BC 15/50-ST	**5.3** A	**3.1** A	**5.1** A	**2.9** A
BC 20/50-ST	**6.7** A	**3.9** A	**6.5** A	**3.7** A

CAPACITORS

MODEL	CAPACITANCE
Single-phase	(230 V or 240 V)
BCm 10/50-ST	**25** µF 450 VL
BCm 15/50-ST	**35** µF 450 VL
BCm 20/50-ST	**35** µF 450 VL

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
BCm 10/50-ST	**BC 10/50-ST**	**45**	**60**
BCm 15/50-ST	**BC 15/50-ST**	**30**	**45**
BCm 20/50-ST	**BC 20/50-ST**	**30**	**45**

SEWAGE LIFTING SYSTEM VX-ST – BC-ST

HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-ST**	Cod. ASSPVX35ST	DN **2"**
For **VX /50-ST , BC /50-ST**	Cod. ASSPVX50ST	DN **2"**

Kit consisting of:
1) footing connection
2) slide guide with ring nut and seal
3) support for the guide tubes

VERTICAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-ST**	Cod. ASSPVX35STV	DN **2½"**
For **VX /50-ST, BC /50-ST**	Cod. ASSPVX50STV	DN **2½"**

Kit consisting of:
1) footing connection complete with counterflange
2) slide guide with ring nut and seal
3) support for the guide tubes

ACCESSORIES CAN BE ORDERED

SLIDE GUIDE (also to be ordered separately)

For **VX /35-ST**	Cod. ASSFL005
For **VX /50-ST , BC /50-ST**	Cod. ASSFL006

Complete with ring nut and seal

INTERMEDIATE SUPPORT (on request)

For guide tubes Ø **¾"**	Cod. 859SV340INTFA

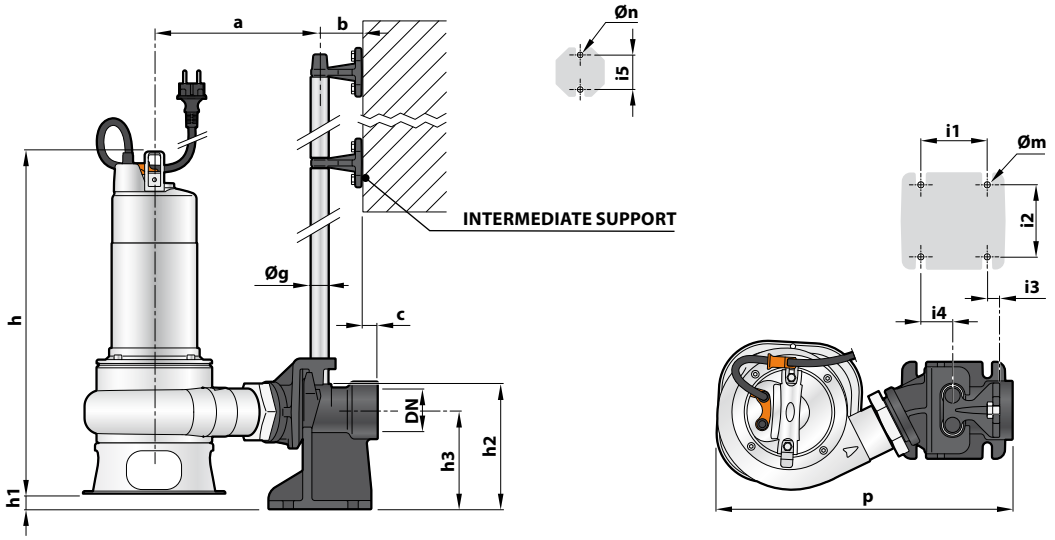
In order to ensure stability, insert the intermediate support every 2 metres

GUIDE TUBES (AISI 304 stainless steel)

Guide tube Ø **¾"**	Cod. 54SARTG005

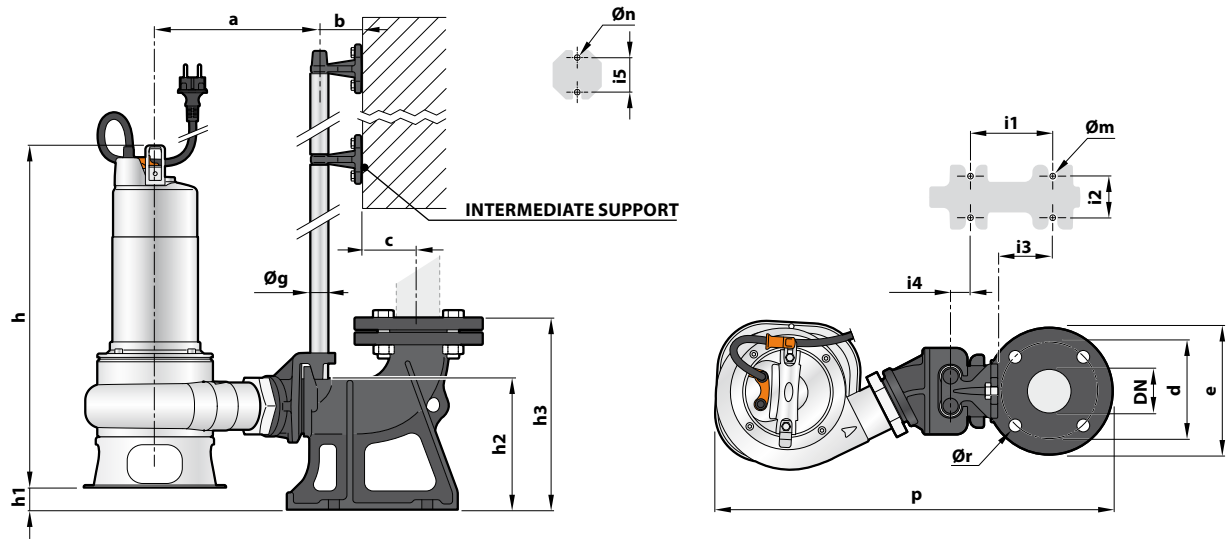
Maximum length of the tube plank: 6 metres

DIMENSIONS (Horizontal delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm															
Single-phase	Three-phase	mm	DN	a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn
VXm 8/35 -ST	VX 8/35 -ST	40	2"	214	61	17	386	424	24	165	130	85	94	16	40	50	¾"	12	11
VXm 10/35 -ST	VX 10/35 -ST							439											
VXm 15/35 -ST	VX 15/35 -ST							472											
VXm 20/35 -ST	VX 20/35 -ST							502											
VXm 8/50 -ST	VX 8/50 -ST	50	2"	221			372	435	23										
VXm 10/50 -ST	VX 10/50 -ST							450											
VXm 15/50 -ST	VX 15/50 -ST							483											
VXm 20/50 -ST	VX 20/50 -ST							513											
BCm 10/50 -ST	BC 10/50 -ST	50	2"					450											
BCm 15/50 -ST	BC 15/50 -ST							483											
BCm 20/50 -ST	BC 20/50 -ST							513											

DIMENSIONS (Vertical delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																		
Single-phase	Three-phase	mm	DN	a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
VXm 8/35 -ST	VX 8/35 -ST	40	2½"	207	61	52	125	165	495	424	22	164	215	120	72	62	3	50	¾"	14	11	18
VXm 10/35 -ST	VX 10/35 -ST									439												
VXm 15/35 -ST	VX 15/35 -ST									472												
VXm 20/35 -ST	VX 20/35 -ST									502												
VXm 8/50 -ST	VX 8/50 -ST	50	2½"	212					501	435	26											
VXm 10/50 -ST	VX 10/50 -ST									450												
VXm 15/50 -ST	VX 15/50 -ST									483												
VXm 20/50 -ST	VX 20/50 -ST									513												
BCm 10/50 -ST	BC 10/50 -ST	50	2½"							450												
BCm 15/50 -ST	BC 15/50 -ST									483												
BCm 20/50 -ST	BC 20/50 -ST									513												