

## Submersible pumps in stainless steel

-  Sewage water
-  Domestic use
-  Civil use
-  Industrial use



### PERFORMANCE RANGE

- Flow rate up to **700 l/min** (42 m<sup>3</sup>/h)
- Head up to **21.5 m**

### APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of solids:
  - up to **Ø 40 mm** for VX /35-ST
  - up to **Ø 50 mm** for VX /50-ST
- Minimum immersion depth for continuous service:
  - **290 mm** for VX 8-ST and VX 10-ST
  - **330 mm** for VX 15-ST
  - **360 mm** for VX 20-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



### CERTIFICATIONS

Company with management system certified DNV ISO 9001:  
QUALITY

### INSTALLATION AND USE

The **VX-ST** submersible pumps in stainless steel are recommended for draining **sewage water** in domestic, civil and industrial applications, in every case where there are solid bodies in suspension, for example water mixed with mud, groundwater, surface water. They are suitable for draining flooded areas such as cellars, underground car parks, car washes, for emptying cesspools and for sewage disposal. These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

### PATENTS - TRADE MARKS - MODELS

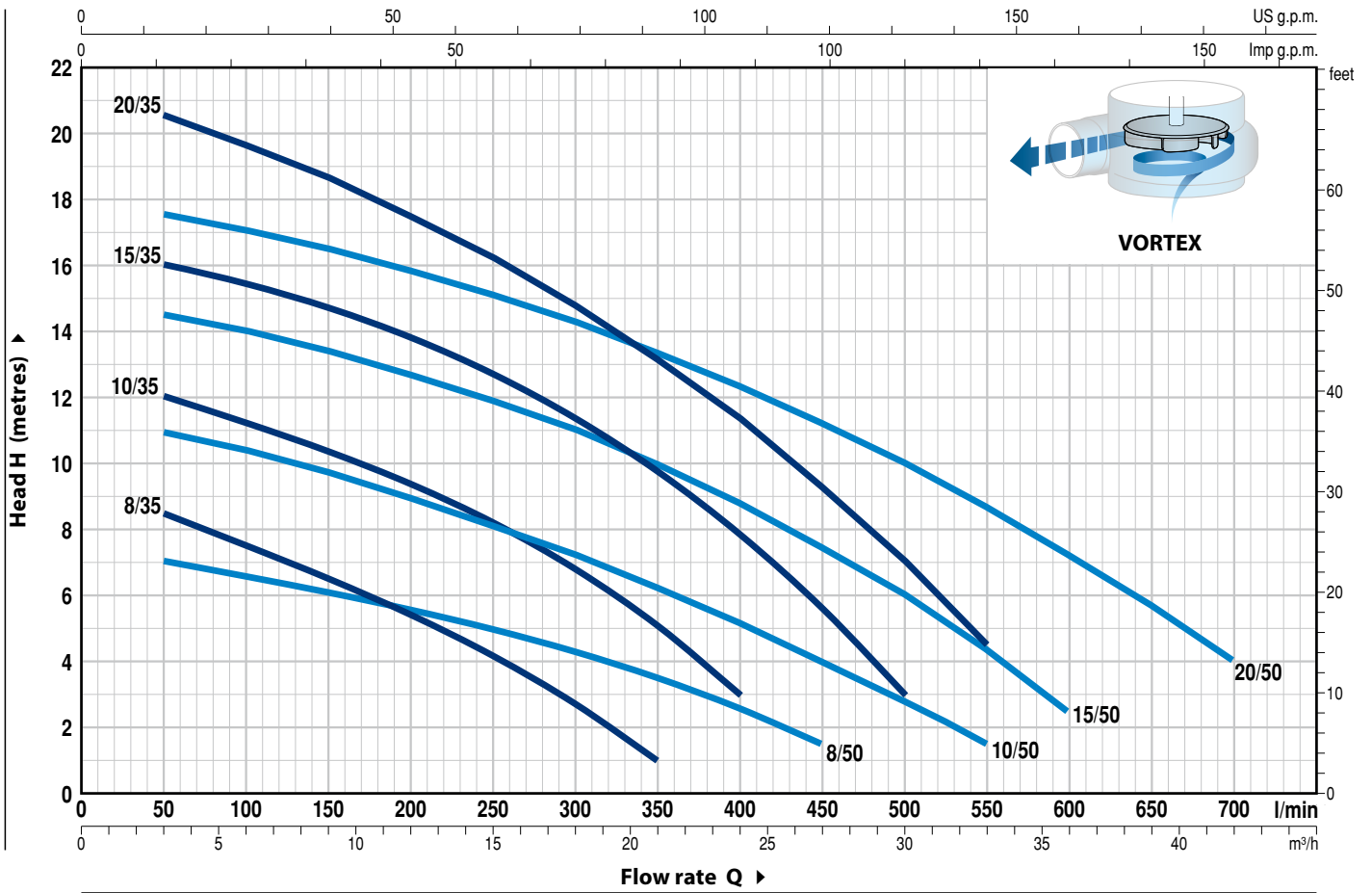
- Patent n. EP2313658
- Patent n. IT0001428923

### OPTIONS AVAILABLE ON REQUEST

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

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n= 3450 min<sup>-1</sup>



MODEL		POWER (P <sub>2</sub> )		Q	H metres															
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3	6	12	18	21	24	27	30	31.5	33	36	39	42	
				l/min	0	50	100	200	300	350	400	450	500	525	550	600	650	700		
VXm 8/35 -ST	VX 8/35 -ST	0.55	0.75	H metres	9.5	8.5	7.5	5.4	2.7	1										
VXm 10/35 -ST	VX 10/35 -ST	0.75	1		13	12	11.4	9.5	6.9	5.1	3									
VXm 15/35 -ST	VX 15/35 -ST	1.1	1.5		16.5	16	15.4	13.8	11.4	9.8	7.8	5.6	3							
VXm 20/35 -ST	VX 20/35 -ST	1.5	2		21.5	20.5	19.7	17.5	14.8	13.2	11.4	9.3	7	5.8	4.5					
VXm 8/50 -ST	VX 8/50 -ST	0.55	0.75		7.5	7	6.6	5.7	4.2	3.5	2.5	1.5								
VXm 10/50 -ST	VX 10/50 -ST	0.75	1		11.5	11	10.4	9	7.2	6.2	5.2	4	2.8	2.1	1.5					
VXm 15/50 -ST	VX 15/50 -ST	1.1	1.5		15	14.5	14	12.7	11	10	8.8	7.5	6	5.2	4.3	2.5				
VXm 20/50 -ST	VX 20/50 -ST	1.5	2		18	17.5	17.1	15.9	14.3	13.4	12.3	11.2	10	9.3	8.7	7.2	5.7	4		

Q = Flow rate H = Total manometric head

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

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

<b>1 PUMP BODY</b>	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
<b>2 BASE</b>	Stainless steel AISI 304
<b>3 IMPELLER</b>	VORTEX type AISI 304 stainless steel. The VORTEX impeller allows pumping solids with a diameter of up to 50 mm and thanks to its special geometry it ensures safe operation against clogging
<b>4 MOTOR CASING</b>	Stainless steel AISI 304
<b>5 MOTOR CASING PLATE</b>	Stainless steel AISI 304 for <b>VX 8-10 ST</b> Cast iron with an Epoxy Electro Coating treatment for <b>VX 15-20 ST</b>
<b>6 MOTOR SHAFT</b>	Stainless steel AISI 431

### 7 DOUBLE MECHANICAL SEAL IN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
<b>MG1-14D SIC</b>	<b>Ø 14 mm</b>	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
<b>VX 8-10 ST</b>	<b>6203 ZZ / 6203 ZZ</b>
<b>VX 15-20 ST</b>	<b>6303 2RS - C3 / 6203 ZZ</b>

### 9 CAPACITOR

(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.

**VXm-ST:** single-phase 220 V - 60 Hz  
with thermal overload protector incorporated into the winding

**VX-ST:** three-phase 380 V - 60 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)

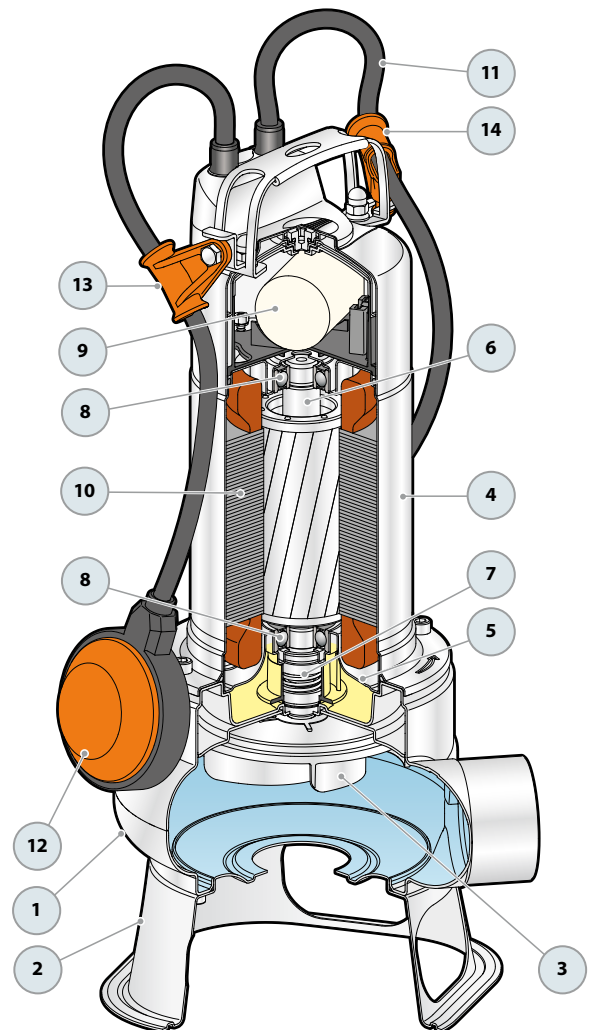
### 13 TILTING DEVICE FOR THE FLOAT CABLE

(only for single-phase versions)

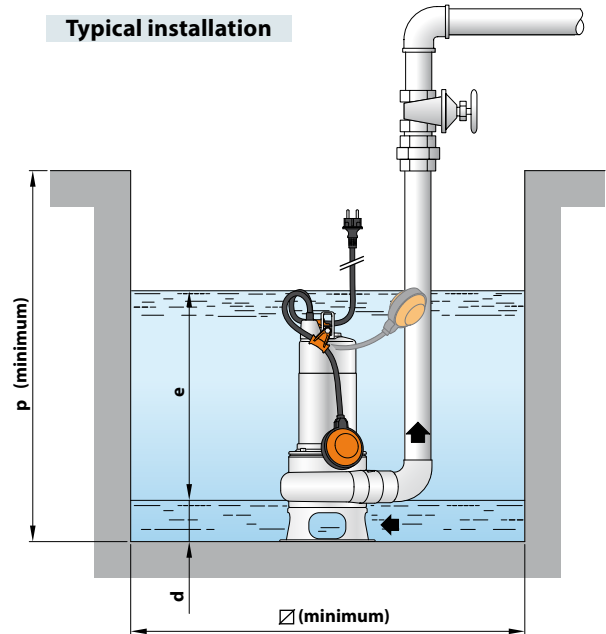
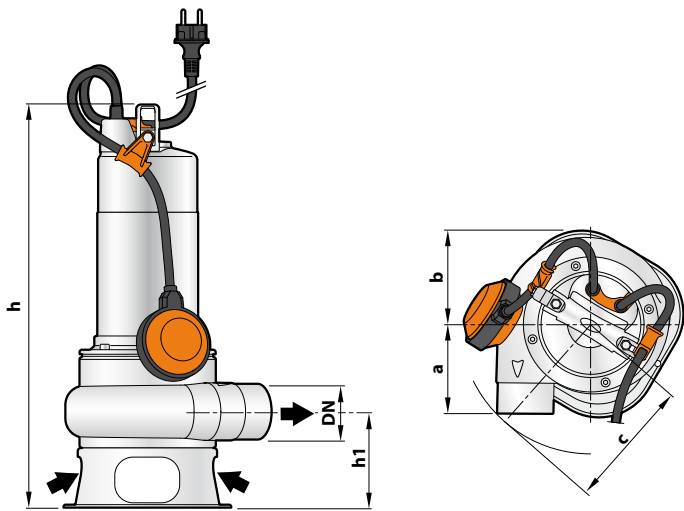
Patent n. IT0001428923

### 14 TEAR-PROOF DEVICE FOR THE POWER CABLE

Patent n. EP2313658



## DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~	
VXm 8/35 -ST	VX 8/35 -ST	1½"	Ø 40 mm	95	96	140	424	106	55	variable	500	500	11.0	10.1	
VXm 10/35 -ST	VX 10/35 -ST						439						12.7	11.5	
VXm 15/35 -ST	VX 15/35 -ST						472						15.5	13.8	
VXm 20/35 -ST	VX 20/35 -ST						502						17.7	15.6	
VXm 8/50 -ST	VX 8/50 -ST	2"	Ø 50 mm	102	96	145	435	107	60	variable	500	500	11.4	10.3	
VXm 10/50 -ST	VX 10/50 -ST						450						12.9	11.7	
VXm 15/50 -ST	VX 15/50 -ST						483						15.5	14.1	
VXm 20/50 -ST	VX 20/50 -ST						513						17.8	15.6	

## ABSORPTION

MODEL	VOLTAGE	
	220 V	110 V
<b>Single-phase</b>	220 V	110 V
VXm 8/35 -ST	4.0 A	8.0 A
VXm 10/35 -ST	6.3 A	13.5 A
VXm 15/35 -ST	8.5 A	-
VXm 20/35 -ST	11.5 A	-
VXm 8/50 -ST	4.0 A	8.0 A
VXm 10/50 -ST	6.3 A	13.5 A
VXm 15/50 -ST	8.0 A	-
VXm 20/50 -ST	11.5 A	-

MODEL	VOLTAGE		
	220 V	380 V	440 V
<b>Three-phase</b>	220 V	380 V	440 V
VX 8/35 -ST	2.8 A	1.6 A	1.4 A
VX 10/35 -ST	4.2 A	2.4 A	2.1 A
VX 15/35 -ST	5.7 A	3.3 A	2.9 A
VX 20/35 -ST	7.6 A	4.4 A	3.8 A
VX 8/50 -ST	2.8 A	1.6 A	1.4 A
VX 10/50 -ST	4.2 A	2.4 A	2.2 A
VX 15/50 -ST	5.7 A	3.3 A	2.9 A
VX 20/50 -ST	7.6 A	4.4 A	3.8 A

## CAPACITORS

MODEL	CAPACITANCE	
	220 V	110 V
<b>Single-phase</b>	220 V	110 V
VXm 8/35 -ST	20 µF 450 VL	30 µF 250 VL
VXm 10/35 -ST	25 µF 450 VL	30 µF 450 VL
VXm 15/35 -ST	35 µF 450 VL	-
VXm 20/35 -ST	35 µF 450 VL	-
VXm 8/50 -ST	20 µF 450 VL	30 µF 250 VL
VXm 10/50 -ST	25 µF 450 VL	30 µF 450 VL
VXm 15/50 -ST	35 µF 450 VL	-
VXm 20/50 -ST	35 µF 450 VL	-

## PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
VXm 8/35 -ST	VX 8/35 -ST	45	60
VXm 10/35 -ST	VX 10/35 -ST	45	60
VXm 15/35 -ST	VX 15/35 -ST	30	45
VXm 20/35 -ST	VX 20/35 -ST	30	45
VXm 8/50 -ST	VX 8/50 -ST	45	60
VXm 10/50 -ST	VX 10/50 -ST	45	60
VXm 15/50 -ST	VX 15/50 -ST	30	60
VXm 20/50 -ST	VX 20/50 -ST	30	45

# SEWAGE LIFTING SYSTEM VX-ST – BC-ST

## HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

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

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

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 <b>VX /35-ST</b>	Cod. ASSFL005
For <b>VX /50-ST , BC /50-ST</b>	Cod. ASSFL006

Complete with ring nut and seal



### INTERMEDIATE SUPPORT (on request)

For guide tubes Ø ¾"	Cod. 859SV340INTFA
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**In order to ensure stability, insert the intermediate support every 2 metres**



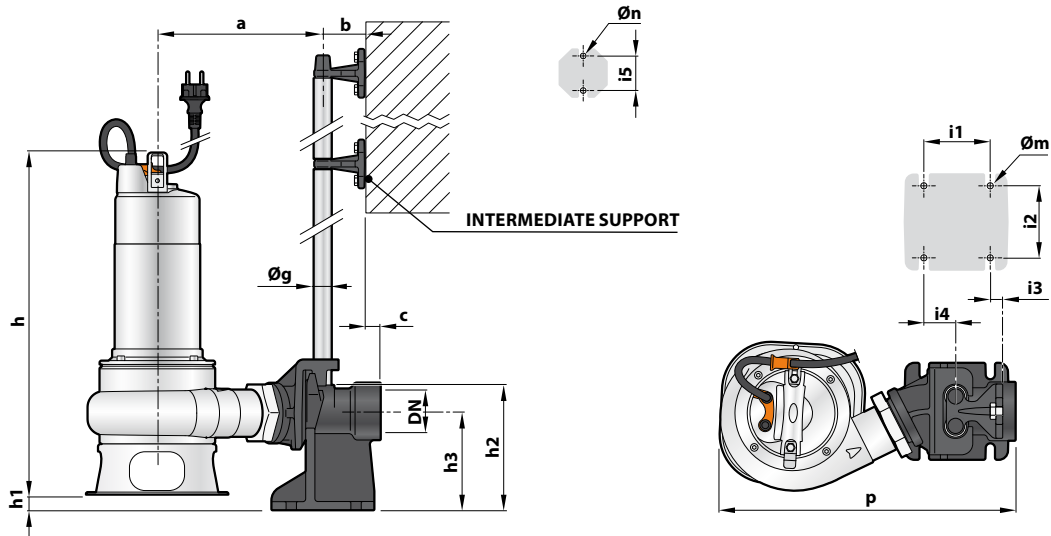
### GUIDE TUBES (AISI 304 stainless steel)

Guide tube Ø ¾"	Cod. 54SARTG005
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Maximum length of the tube plank: 6 metres

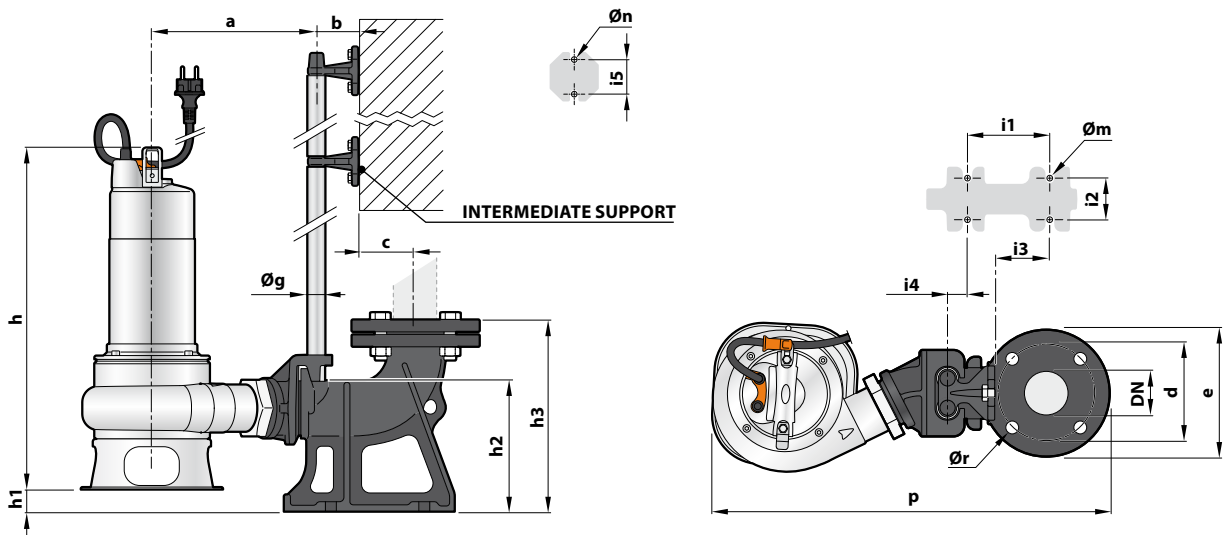


### DIMENSIONS (Horizontal delivery version)



MODEL		Passage of solids mm	PORT DN	DIMENSIONS mm															
Single-phase	Three-phase			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			386	424	24										
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	61	17	372	435	23	165	130	85	94	16	40	50	¾"	12	11
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 mm	PORT DN	DIMENSIONS mm																		
Single-phase	Three-phase			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				495	22													
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	61	52	125	165	501	26	164	215	120	72	62	3	50	¾"	14	11	18	
VXm 10/50 -ST	VX 10/50 -ST																					435
VXm 15/50 -ST	VX 15/50 -ST																					450
VXm 20/50 -ST	VX 20/50 -ST																					483
BCm 10/50 -ST	BC 10/50 -ST	50	2½"																			
BCm 15/50 -ST	BC 15/50 -ST																				450	
BCm 20/50 -ST	BC 20/50 -ST																				483	