

Submersible pumps in stainless steel

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



PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15.5 m**

APPLICATION LIMITS

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

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

VX-MF 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

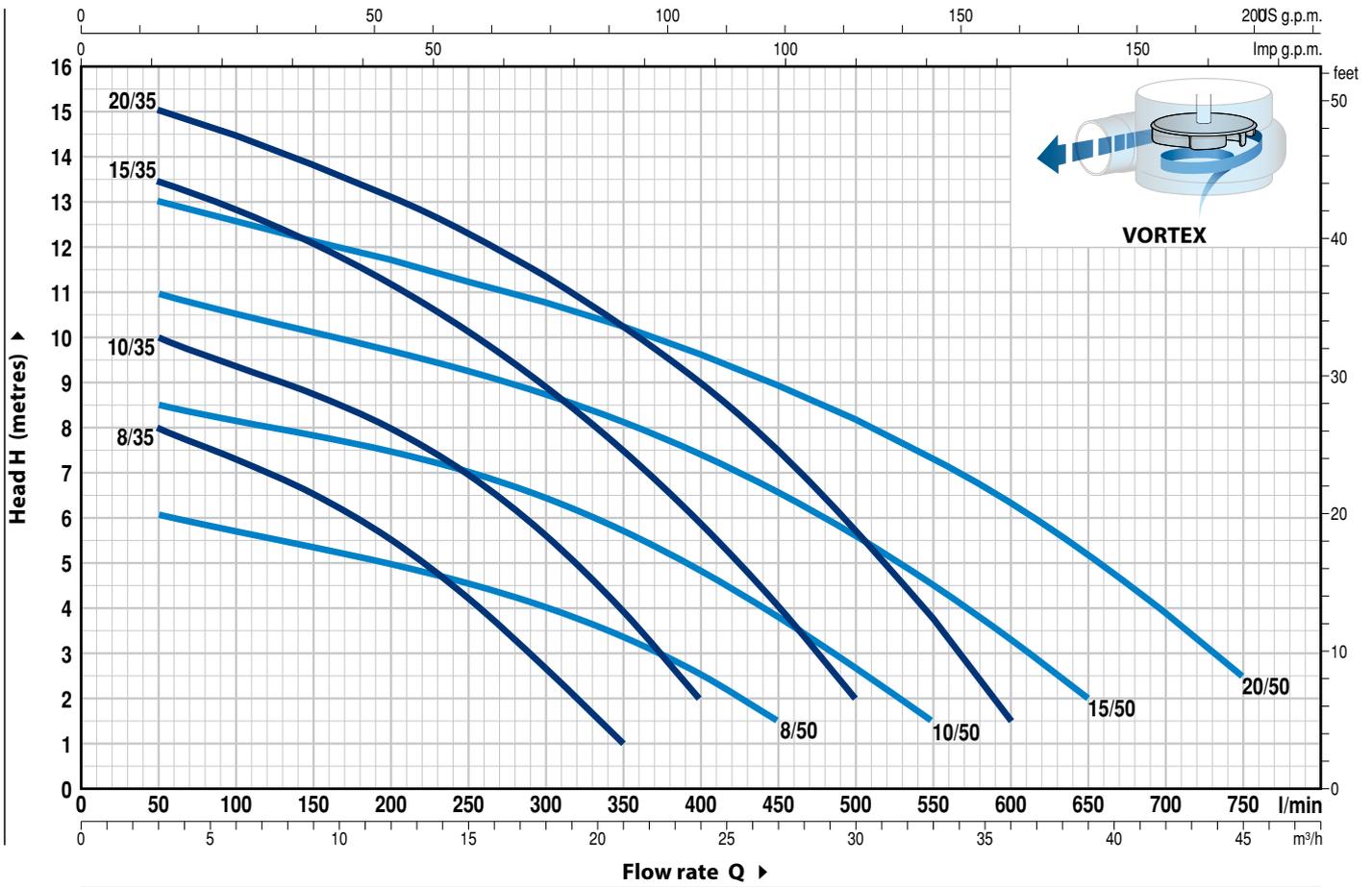
- Patent n. EP2313658
- Patent n. IT0001428923

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P ₂)		Q	Flow rate														
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	21	24	27	30	33	36	39	45	
				l/min	0	50	100	200	300	350	400	450	500	550	600	650	750		
VXm 8/35 -MF	VX 8/35 -MF	0.55	0.75	H metres	9	8	7.5	5.5	2.7	1									
VXm 10/35 -MF	VX 10/35 -MF	0.75	1		11	10	9.5	8	5.7	4	2								
VXm 15/35 -MF	VX 15/35 -MF	1.1	1.5		14	13.5	12.8	11.2	9	7.7	6	4	2						
VXm 20/35 -MF	VX 20/35 -MF	1.5	2		15.5	15	14.5	13	11.5	10.3	9	7.5	5.8	3.8	1.5				
VXm 8/50 -MF	VX 8/50 -MF	0.55	0.75		6.5	6	5.8	5	4	3.3	2.5	1.5							
VXm 10/50 -MF	VX 10/50 -MF	0.75	1		9	8.5	8.2	7.5	6.5	5.8	5	3.8	2.5	1.5					
VXm 15/50 -MF	VX 15/50 -MF	1.1	1.5		11.5	11	10.5	9.8	8.7	8	7.5	6.5	5.5	4.5	3.5	2			
VXm 20/50 -MF	VX 20/50 -MF	1.5	2		13.5	13	12.5	11.5	10.7	10	9.5	9	8	7.5	6.5	5	2.5		

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	Precision cast stainless steel AISI 316L with threaded port in compliance with ISO 228/1
2 BASE	Stainless steel AISI 304
3 IMPELLER	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
4 MOTOR CASING	Stainless steel AISI 304
5 MOTOR CASING PLATE	Stainless steel AISI 304 for VX 8-10 MF Cast iron with an Epoxy Electro Coating treatment for VX 15-20 MF
6 MOTOR SHAFT	Stainless steel AISI 316L

7 DOUBLE MECHANICAL SEAL IN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			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
VX 8-10 MF	6203 ZZ / 6203 ZZ
VX 15-20 MF	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.

VXm-MF: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

VX-MF: 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)

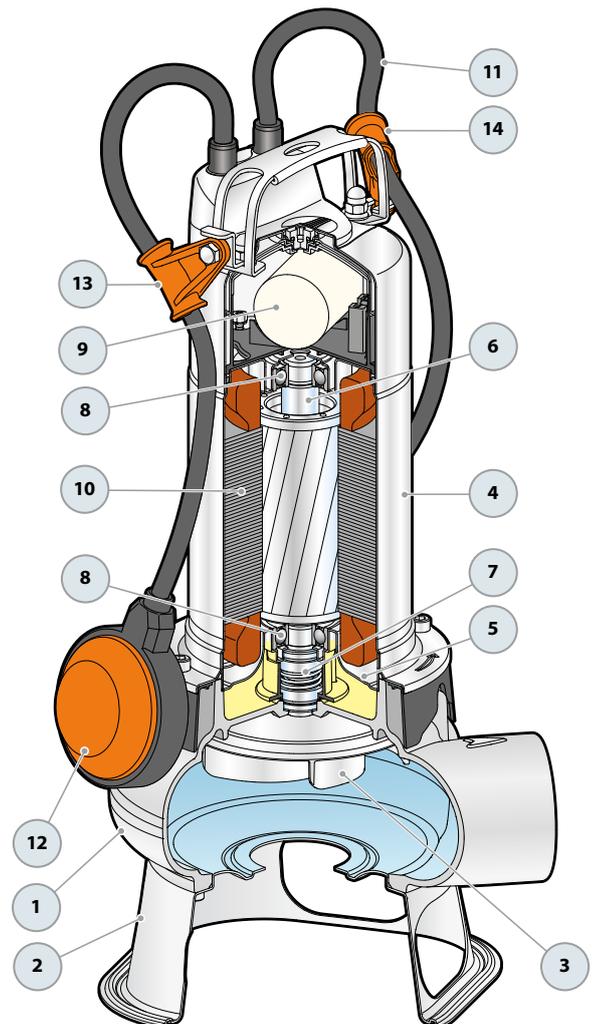
13 TILTING DEVICE FOR THE FLOAT CABLE

(only for single-phase versions)

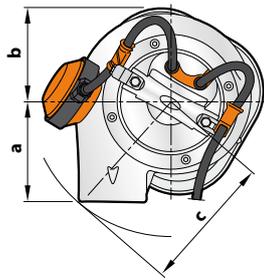
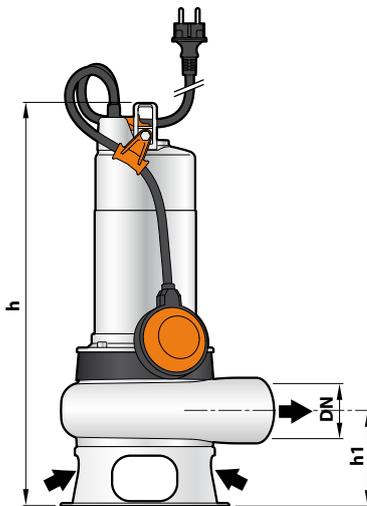
Patent n. IT0001428923

14 TEAR-PROOF DEVICE FOR THE POWER CABLE

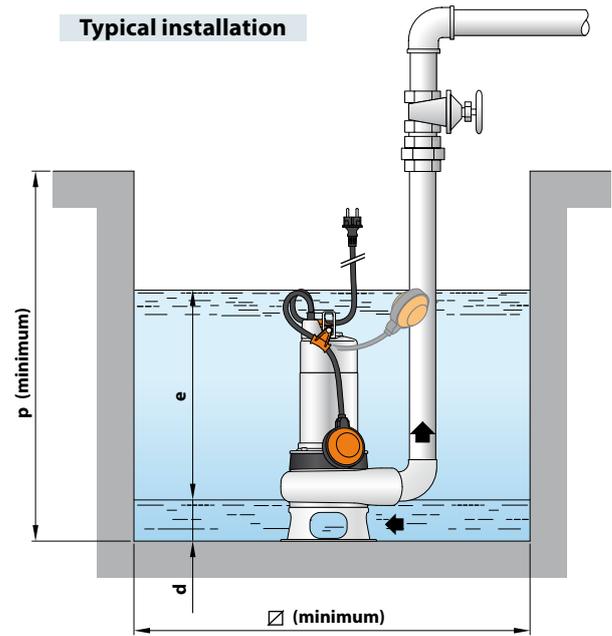
Patent n. EP2313658



DIMENSIONS AND WEIGHT



Typical installation



MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~	
VXm 8/35 -MF	VX 8/35 -MF	1½"	Ø 40 mm	107	97	148	424	105	55	regolabile	500	500	13.0	11.8	
VXm 10/35 -MF	VX 10/35 -MF						439						14.4	13.2	
VXm 15/35 -MF	VX 15/35 -MF						472						17.2	15.6	
VXm 20/35 -MF	VX 20/35 -MF						502						19.4	17.2	
VXm 8/50 -MF	VX 8/50 -MF	2"	Ø 50 mm	112	97	149	435	107	60	regolabile	500	500	13.2	12.1	
VXm 10/50 -MF	VX 10/50 -MF						450						14.7	13.5	
VXm 15/50 -MF	VX 15/50 -MF						483						17.5	16.0	
VXm 20/50 -MF	VX 20/50 -MF						513						19.8	17.5	

ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
Single-phase	230 V	240 V
VXm 8/35 -MF	4.3 A	4.2 A
VXm 10/35 -MF	5.5 A	5.4 A
VXm 15/35 -MF	7.0 A	6.9 A
VXm 20/35 -MF	9.6 A	9.4 A
VXm 8/50 -MF	4.1 A	4.0 A
VXm 10/50 -MF	5.5 A	5.4 A
VXm 15/50 -MF	7.0 A	6.9 A
VXm 20/50 -MF	9.6 A	9.4 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
VX 8/35 -MF	2.8 A	2.7 A	1.6 A	1.6 A
VX 10/35 -MF	3.8 A	3.6 A	2.2 A	2.1 A
VX 15/35 -MF	4.7 A	4.5 A	2.7 A	2.6 A
VX 20/35 -MF	6.4 A	6.1 A	3.7 A	3.5 A
VX 8/50 -MF	2.8 A	2.7 A	1.6 A	1.6 A
VX 10/50 -MF	3.8 A	3.6 A	2.2 A	2.1 A
VX 15/50 -MF	4.7 A	4.5 A	2.7 A	2.6 A
VX 20/50 -MF	6.4 A	6.1 A	3.7 A	3.5 A

CAPACITORS

TIPO	CAPACITANCE
Single-phase	(230 V or 240 V)
VXm 8/35 -MF	20 µF 450 VL
VXm 10/35 -MF	25 µF 450 VL
VXm 15/35 -MF	35 µF 450 VL
VXm 20/35 -MF	35 µF 450 VL
VXm 8/50 -MF	20 µF 450 VL
VXm 10/50 -MF	25 µF 450 VL
VXm 15/50 -MF	35 µF 450 VL
VXm 20/50 -MF	35 µF 450 VL

PALLETIZATION

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

SEWAGE LIFTING SYSTEM VX-MF – BC-MF

HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For VX /35-MF	Cod. ASSPVX35ST	DN 2"
For VX /50-MF , BC /50-MF	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-MF	Cod. ASSPVX35STV	DN 2½"
For VX /50-MF, BC /50-MF	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-MF	Cod. ASSFL005
For VX /50-MF , BC /50-MF	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



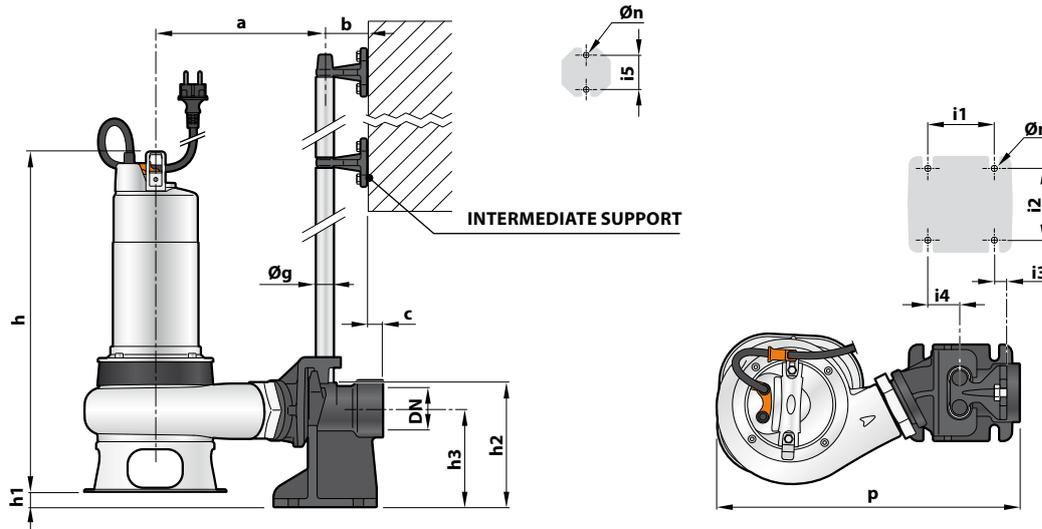
GUIDE TUBES (AISI 304 stainless steel)

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

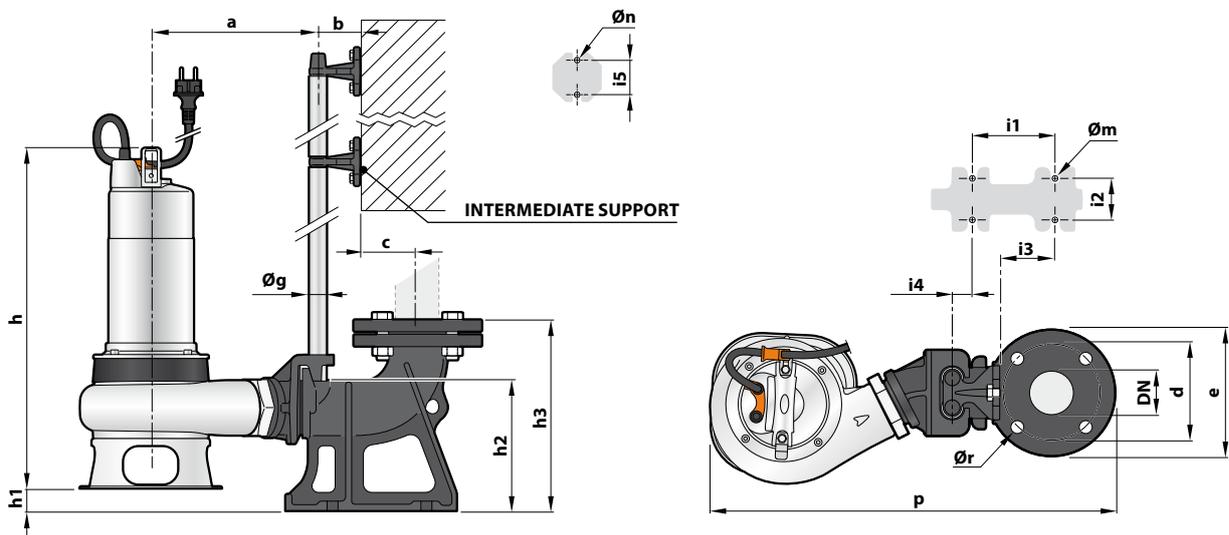


DIMENSIONS (Horizontal delivery version)



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 -MF	VX 8/35 -MF	40	2"	222				424	25										
VXm 10/35 -MF	VX 10/35 -MF							439											
VXm 15/35 -MF	VX 15/35 -MF							472											
VXm 20/35 -MF	VX 20/35 -MF							502											
VXm 8/50 -MF	VX 8/50 -MF							435											
VXm 10/50 -MF	VX 10/50 -MF	50	2"	226	61	17		450	23	165	130	85	94	16	40	50	¾"	12	11
VXm 15/50 -MF	VX 15/50 -MF							483											
VXm 20/50 -MF	VX 20/50 -MF							513											
BCm 10/50 -MF	BC 10/50 -MF							450											
BCm 15/50 -MF	BC 15/50 -MF							483											
BCm 20/50 -MF	BC 20/50 -MF	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
VXm 8/35 -MF	VX 8/35 -MF	40	2½"	215					424	23											
VXm 10/35 -MF	VX 10/35 -MF								439												
VXm 15/35 -MF	VX 15/35 -MF								472												
VXm 20/35 -MF	VX 20/35 -MF								502												
VXm 8/50 -MF	VX 8/50 -MF								435												
VXm 10/50 -MF	VX 10/50 -MF	50	2½"	217	61	52	125	165	450	21	164	215	120	72	62	3	50	¾"	14	11	18
VXm 15/50 -MF	VX 15/50 -MF								483												
VXm 20/50 -MF	VX 20/50 -MF								507												
BCm 10/50 -MF	BC 10/50 -MF								450												
BCm 15/50 -MF	BC 15/50 -MF								483												
BCm 20/50 -MF	BC 20/50 -MF	513																			