



SUBMERSIBLE PUMP RANGE





VXM / VX SUBMERSIBLE PUMP.....	4
PERFORMANCE DATA.....	5
V RANGE SCREENED SWAGE SUBMERSIBLE PUMP.....	6
PERFORMANCE DATA.....	7
DIMENSIONAL DRAWING.....	9
C-SERIES RAW SEWAGE PUMP.....	10
PERFORMANCE DATA 50C.....	11
PERFORMANCE DATE 80C.....	12
TECHNICAL INFORMATION.....	13
B-SERIES RAW SEWAGE PUMPS.....	15
PERFORMANCE DATA 150B.....	16
PERFORMANCE DATA 200B.....	17
TECHNICAL INFORMATION.....	18

*This document contains hyperlinks. If you are using the electronic pdf copy you do not need to go through the entire document to get to the required page, you can simply click on the required page on your index page.
Click on the logo on the top of the page to return to the index page.*

WORKING PRINCIPLES

The VX series vortex pump is designed for automatic use (single phase version). The suction opening is in direct contact with the liquid which is to be pumped. The rotating impeller transmits kinetic energy to the liquid, which is centrifuged in the ring chamber, where part of the kinetic energy is transformed into pressure energy. The particular shape of the impeller optimizes efficiency and ensures maximum solids handling ability.



PUMP INSTALLATION AND APPLICATIONS

This pump is designed to handle dirty water and sewage in domestic and industrial applications. It is fitted with a stainless steel vortex impeller and is suitable for pumping liquids containing suspended solids (including short fibres). It is particularly recommended for the transfer of domestic sludge, effluent, surface water and water mixed with mud such as in; household, industrial applications and underground car parks. This pump is particularly dependable in fixed installations intended for automatic use. A purposefully built pit with minimum dimensions 600x600x500mm is recommended for fixed installations, to provide total drainage and to allow for correct operation of the automatic float switch (which automatically starts the pump when the fluid reaches a preset level, stopping it once the chamber has been emptied).

WORKING CONDITIONS

Max. liquid temperature:	40°C
Max. immersion:	10m
Max. passage of solids:	35mm
PH:	4-10

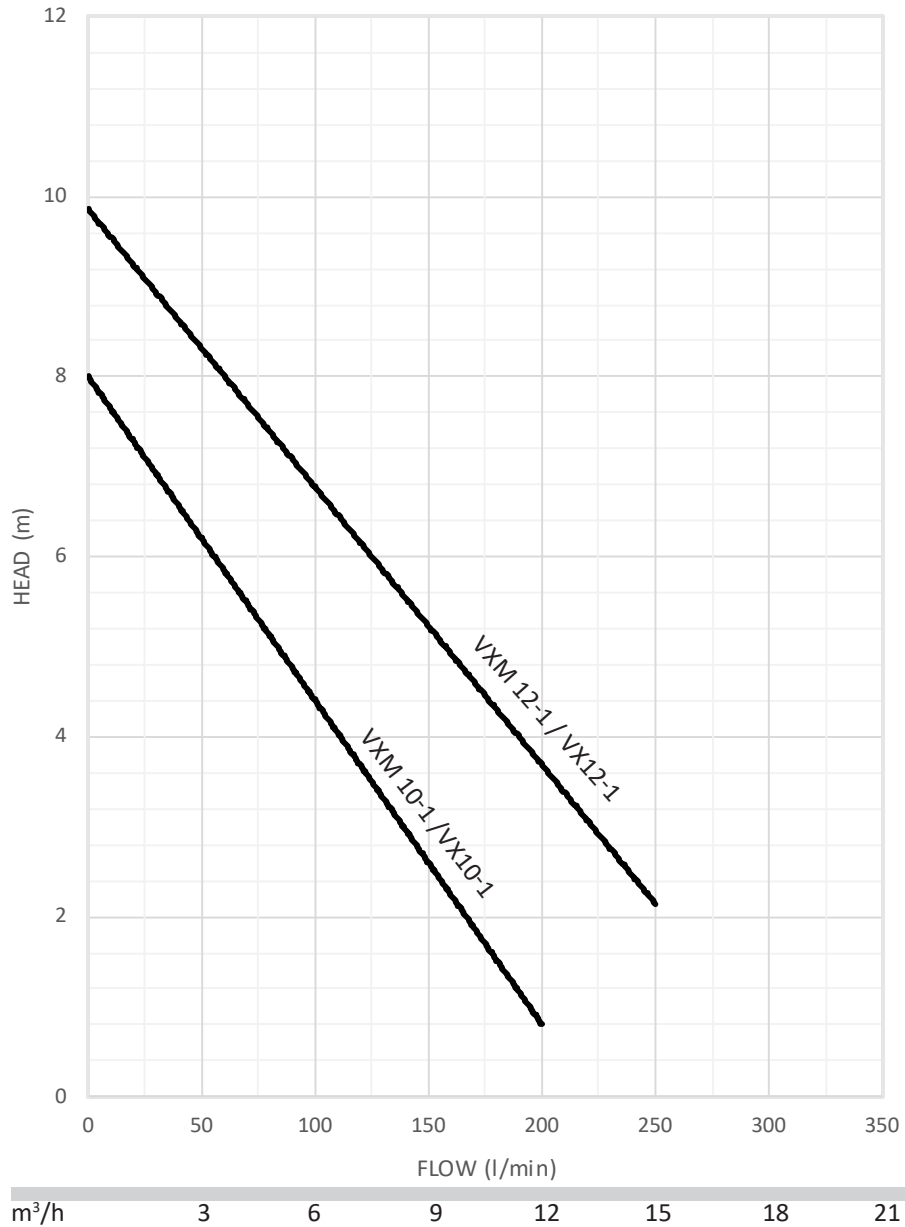
MATERIALS/FEATURES:

Pump casing, impeller, cover, casing cover and motor casing - AISI304.

Shaft - AISI316

Double mechanical seal with intermediate oil chamber.





TECHNICAL FEATURES

MODEL	POWER		MAX. HEAD	MAX. FLOW	VOLTAGE/ FREQUENCY	DISCHARGE SIZE	PACKING SIZE	WEIGHT
	HP	kW	m	m³/h	V/Hz	mm	mm	kg
VXM 10-1 / VX10-1	0.75	0.55	8	13	*220V/50Hz, 380V/50Hz	50	92 X 200 X 415	8.4
VXM 12-1 / VX12-1	1	0.75	10	16		50	92 X 250 X 415	12.1

*Single phase fitted with float level switch

Specification at n=2900rpm

PERFORMANCE

MODEL		P ₂		DELIVERY								
1 ~ 220 ~240	3 ~ 380 ~415	kW	HP	m³/h	0	3	6	9	12	15	18	21
				l/min	0	50	100	150	200	250	300	350
VXM 10-1	VX 10-1	0.55	0.75	H (m)	8	6	5	2	1	-	-	-
VXM 12-1	VX 12-1	0.75	1		10	8	7	5	4	2	-	-



WQSD RANGE SCREENED SEWAGE SUBMERSIBLE PUMP

APPLICATIONS

The WQSD Range pumps are fitted with open vane impellers. The units are designed for screened sewage pumping applications, but supplied with removable suction screen for dual purpose use in dewatering applications.

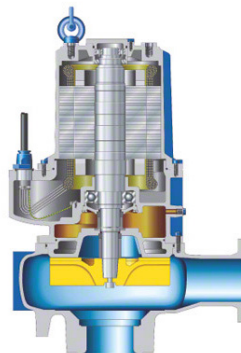
The WQSD Range finds application in screened sewage and dewatering for building services, mining, garden/domestic and construction industries.

OPERATING CONDITIONS

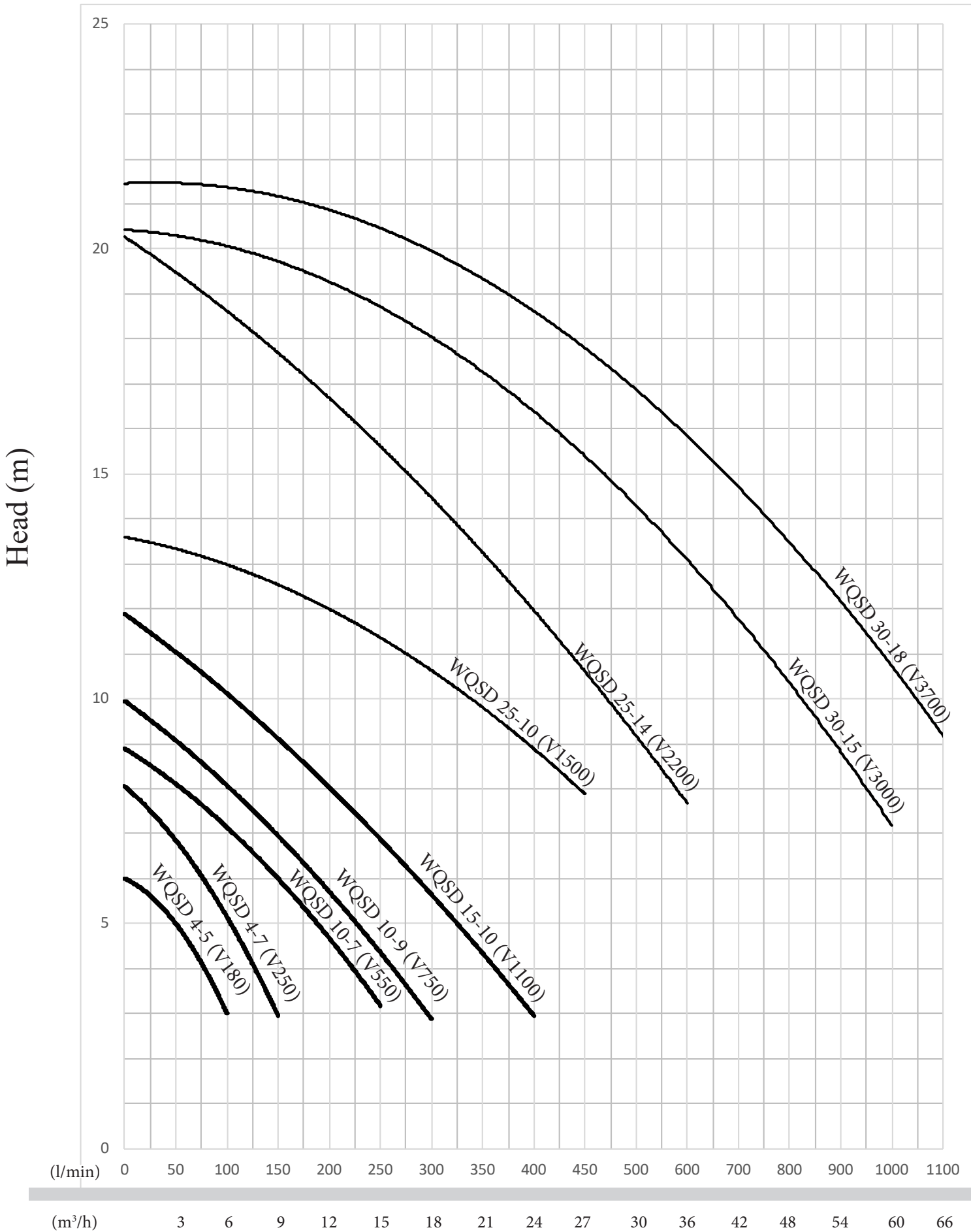
Liquid temperature:	up to 40°C
Maximum operating depth:	10m below water level
Maximum density of the pumped liquid:	1kg/l

MATERIALS OF CONSTRUCTION

- Cast-iron pump body.
- Double stainless steel mechanical seal (graphite/ceramic and graphite/silicon carbide). Nitrile elastomer.
- Float level control with single phase pumps.
- Cast iron open vane impeller.
- Thermal overload protection for single-phase motor.

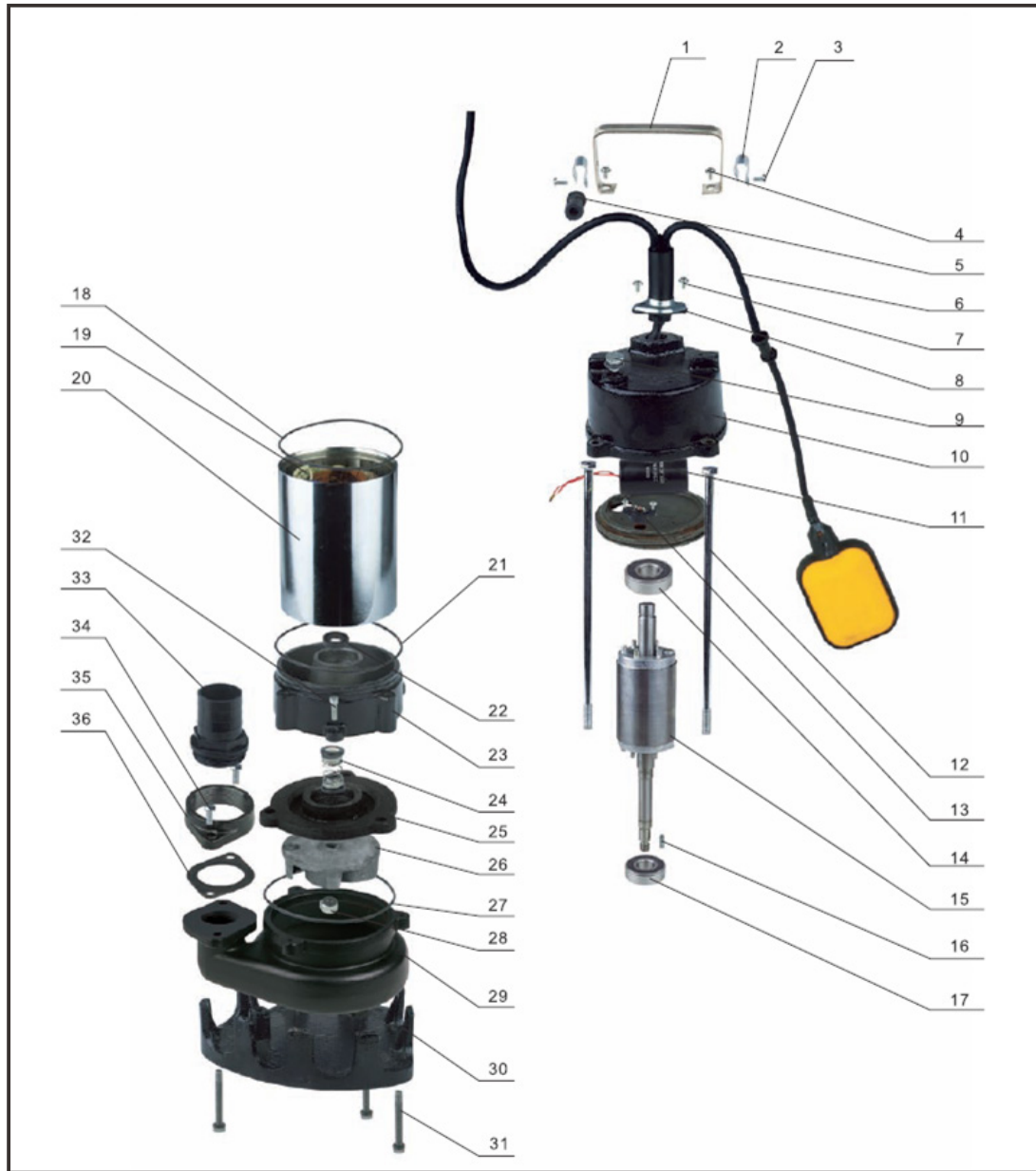


MODEL	POWER		OUTLET DIAMETER	VOLTAGE	MAX. FLOW	MAX. HEAD	WEIGHT	DIMENSIONS
	(kW)	(Hp)	(mm)	(V)	(m ³ /h)	(m)	(kg)	(mm)
WQSD 4-5	0.18	0.25	40	220~ 240 & 380 ~ 415	6	6	12	65 x 170 x 400
WQSD 4-7	0.25	0.35	40	220~ 240 & 380 ~ 415	9	8	12.8	65 x 170 x 400
WQSD 10-7	0.55	0.75	50	220~ 240 & 380 ~ 415	15	9	14.5	85 x 242 x 420
WQSD 10-9	0.75	1	50	220~ 240 & 380 ~ 415	18	10	15.7	85 x 242 x 430
WQSD 15-10	1.1	1.5	50	220~ 240 & 380 ~ 415	24	12	17.3	85 x 242 x 450
WQSD 25-10	1.5	2	50	220~ 240 & 380 ~ 415	27	14	20	95 x 260 x 470
WQSD 25-14	2.2	3	50	220~ 240 & 380 ~ 415	36	20	27	95 x 260 x 510
WQSD 30-15	3.0	4	75	380 ~ 415	60	22	31	102 x 305 x 550
WQSD 30-18	3.7	5	75	380 ~ 415	66	23	35.5	102 x 305 x 580



MODEL	P ₂	DELIVERY										
		m ³ /h	0	3	6	9	12	15	18	21	24	27
220~240 380 ~415	kW	l/min	0	50	100	150	200	250	300	350	400	450
		H (m)	6	5	3							
WQSD 4-5	0.18		8	7	5	3						
WQSD 4-7	0.25		9	8	7	6	5	3				
WQSD 10-7	0.55		10	9	8	7	6	4	3			
WQSD 10-9	0.75		12	11	10	9	8	7	6	4	3	
WQSD 15-10	1.1		14	12.9	12.8	12.5	12.1	11.5	10.6	9.9	9	7.7
WQSD 25-10	1.5											

MODEL	P ₂	DELIVERY												
		m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66
WQSD 25-14	2.2	l/min	0	100	200	300	400	500	600	700	800	900	1000	1100
		H(m)	20	19	17	14	12	10	7					
WQSD 30-15	3.0		22	19.6	18.4	17.5	16.6	15.6	13.8	12.2	10.5	8.7	6	
WQSD 30-18	3.7		23	21	20.5	19.5	18.5	17	16.5	14.5	13.5	12	10	7.6



DIAGRAM

No.	Description	No.	Description	No.	Description	No.	Description	No.	Description
1	Handle	9	Exhaust Plug	17	Bearing	25	Oil Tank Cover	33	Outlet Pipe
2	Fairlead	10	Top Cover	18	O-Ring	26	Impeller	34	Screw
3	Screw	11	Capacitor	19	Stator	27	O-Ring	35	Flange
4	Screw	12	Screw	20	Canister	28	Impeller Nut	36	Washer
5	Guard	13	Over-Load Protector	21	O-Ring	29	Pump Body		
6	Flow Switch	14	Bearing	22	Oil Seal	30	Pump Base		
7	Screw	15	Rotor	23	Oil Tank	31	Screw		
8	Seal Pressure Block	16	Key	24	Mechanical Seal	32	Screw		



C-SERIES RAW SEWAGE PUMP

DESIGN

The C Range of raw sewage / sludge pumps feature an adjustable bottom plate to maintain efficiency by maintaining the preferred clearance in relation to the channel impeller. The inlet opening is shaped like a star and grabs stringy solids entering the pump. As the open vane impeller rotates, it effectively cuts all stringy solids (held by the inlet plate) to manageable sizes, before allowing access to the pump volute.

PERFORMANCE RANGE

Maximum Head: 30m
 Maximum Flow: 120m³/h
 Power: 1.1 - 7.5kW
 Motor Speed: 2 Pole



OPERATING CONDITIONS

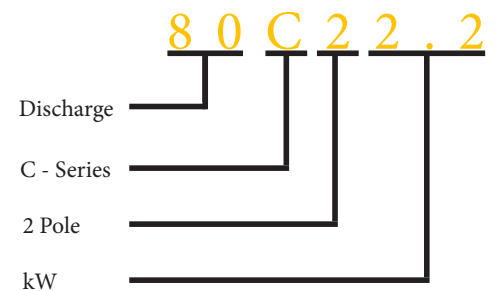
Liquid temperature: up to 40°C
 Density of liquid: 1.3g/cm³
 PH: 6 to 10
 Protection class: P68, Class B
 Maximum immersion depth: 10m
 Cable length: 8m



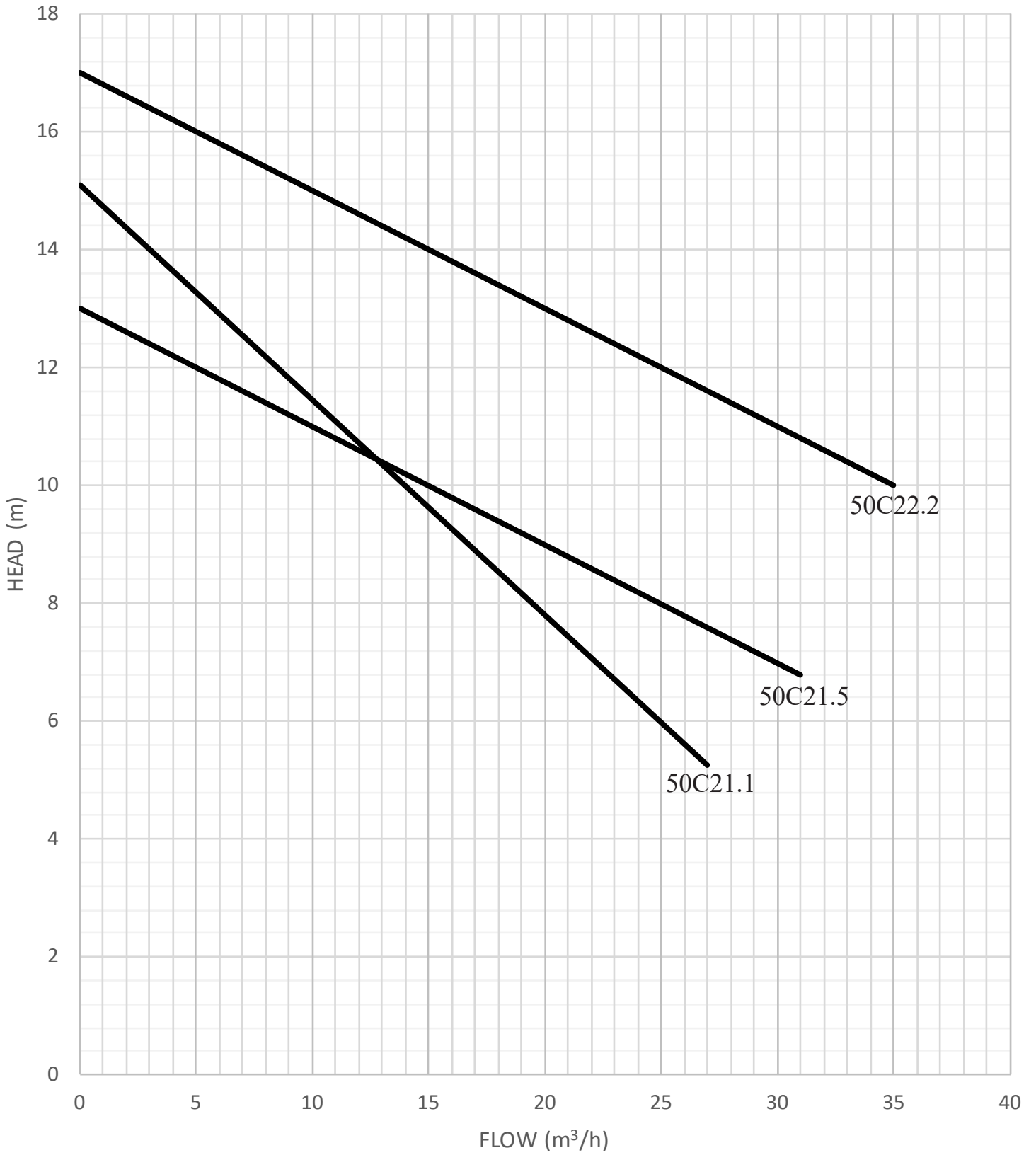
Static Ripper Plate

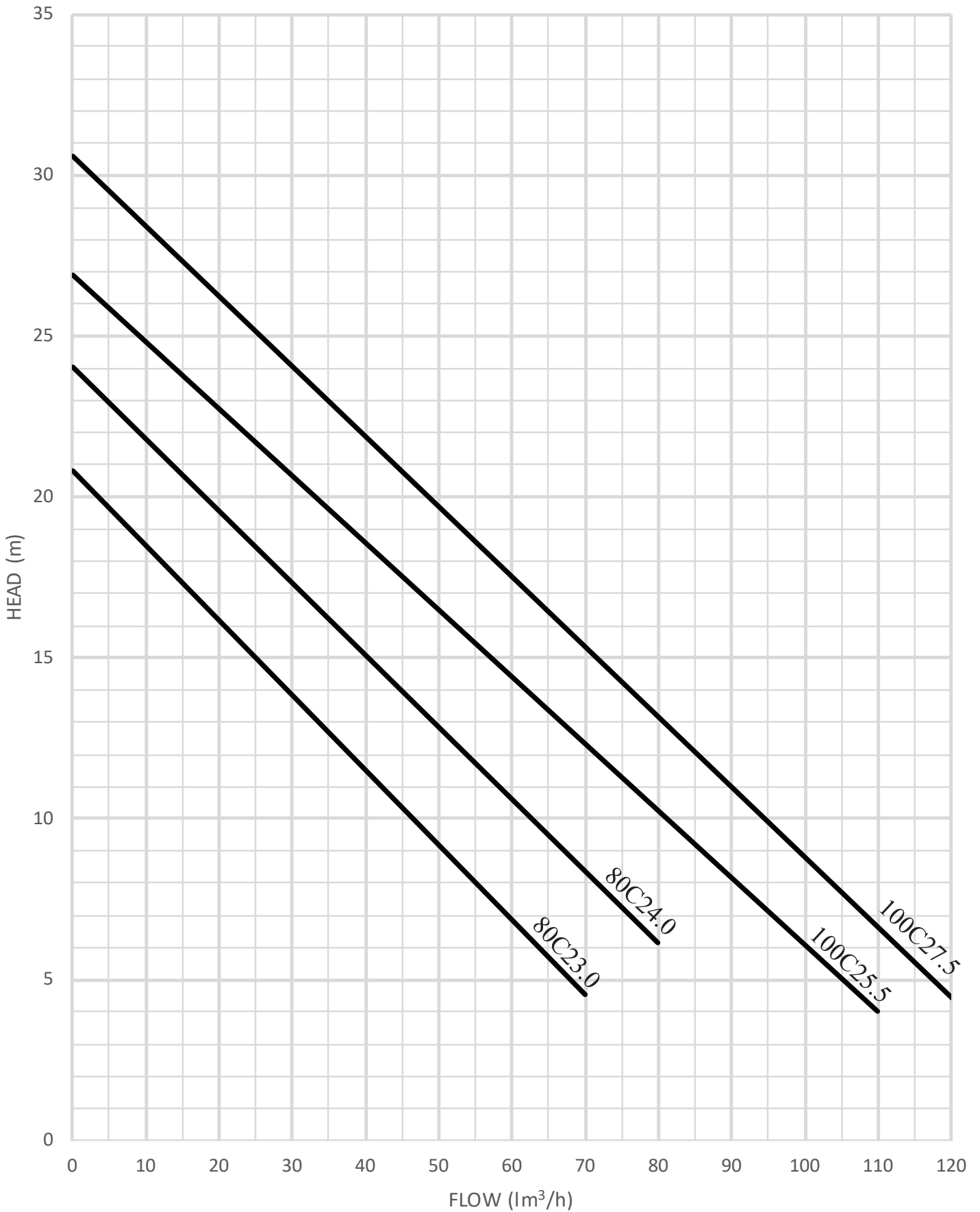
MATERIALS OF CONSTRUCTION

Cast iron pump construction.
 Cast iron impeller construction, open type single channel.
 Integrated cutter mechanism located on pump inlet.
 Double mechanical shaft seal (silicon carbide-silicon carbide/carbon graphite-ceramic).

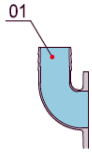


MODEL	VOLTAGE	CURRENT	MOTOR POWER		OUTLET		MAX FLOW	MAX HEAD	IMPELLER PASSAGE	CABLE
	V	A	kW	HP	INCH	MM	m ³ /h	m	mm	mm ²
50C21.1S	220	7.2	1.1	1.5	2	50	27	15	20	4G1.0
50C21.1	380	2.8	1.1	1.5	2	50	27	15	20	4G1.0
50C21.5	380	3.2	1.5	2	2	50	31	13	25	4G1.0
50C22.2	380	5	2.2	3	3	50	35	17	25	4G1.0
80C23.0	380	6.5	3.0	4	3	80	67	21	30	4G1.5
80C24.0	380	8.9	4.0	5.5	3	80	79	24	30	4G1.5
100C25.5	380	11.7	5.5	7.5	4	100	107	27	35	4G2.5
100C27.5	380	15.7	7.5	10	4	100	120	30	35	4G2.5

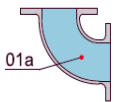




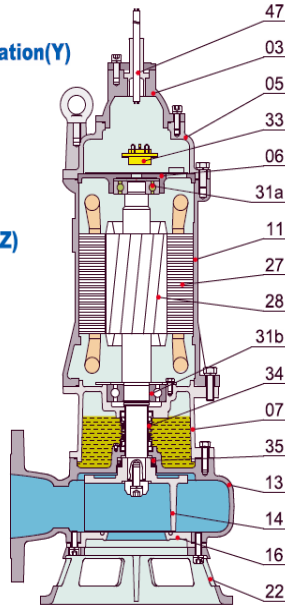
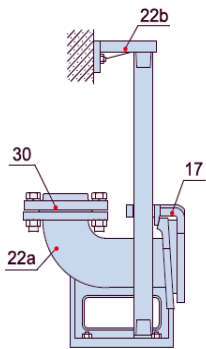
Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation (Y)



Auto-coupled Installation (Z)

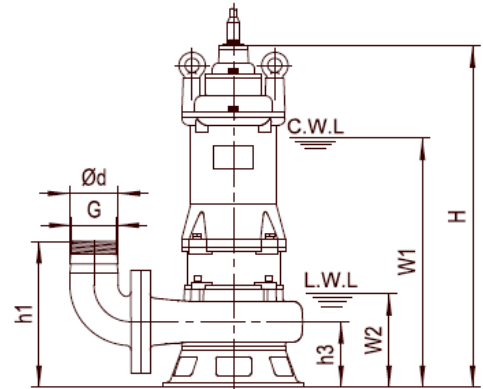
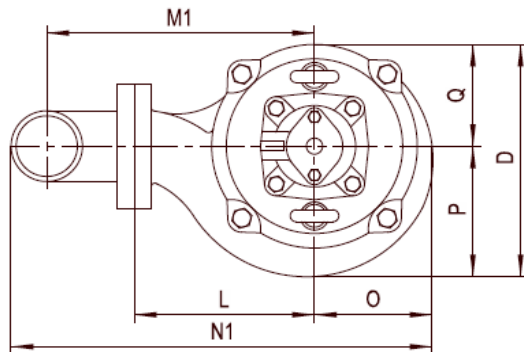


ITEM No.	PART NAME	MATERIAL
01	HOSE COUPLING	CAST IRON
01a	HOSE COUPLING	CAST IRON
03	TERMINAL BOX	CAST IRON
05	UPPER COVER	CAST IRON
06	UP-BEARING HOUSE	CAST IRON
07	BEARING HOUSE	CAST IRON
11	MOTOR BODY	CAST IRON
13	PUMP BODY	CAST IRON
14	IMPELLER	CAST IRON
16	INLET PLATE	CAST IRON
17	COUPLING ADAPTER	CAST IRON
22	SEAT ASSEMBLY	CAST IRON
22a	COUPLING SEAT	CAST IRON
22b	UPPER GUIDE SUPPORT	CAST IRON
27	STATOR	
28	ROTOR	SHAFT: AISI304SS
30	FLANGE	CAST IRON
31a	BEARING	BALL BEARING
31b	BEARING	BALL BEARING
33	MOTOR PROTECTOR	
34	MECHANICAL SEAL	SIC-SIC/CARBON-CERAMIC
35	OIL SEAL	
47	CABLE	

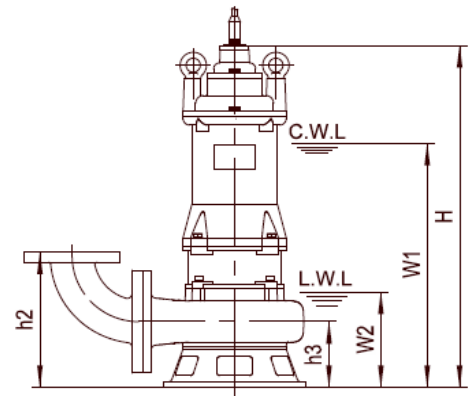
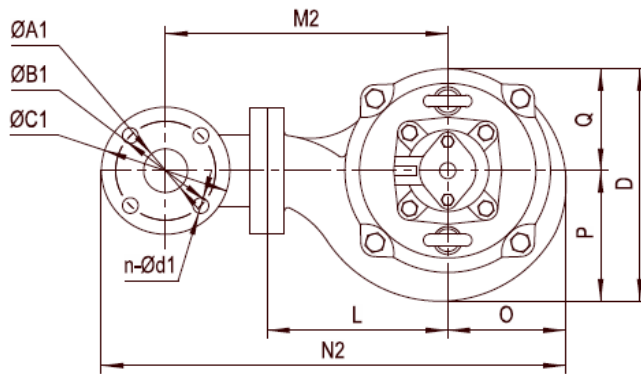
Weights & Packing Dimensions

MODEL	N.W	G.W	PACKING DIMENSIONS
	kg	kg	mm
80C22.2	46	50.5	700*250*325
80C23.0	56	62	760*300*355
80C24.0	64	70	800*300*355
100C25.5	83	89	830*320*355
100C27.5	98	105	834*314*400

Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation (Y)



C.W.L : Continuous running water level
L.W.L : Lowest running water level

Model	Ød	G	ØA1	ØB1	ØC1	n-Ød1	h1	h2	h3	W1	W2	H	O	P	Q	L	D	M1	M2	N1	N2
80C22.2	80	2.5"	80	150	190	4-Ø18	255	250	110	420	170	585	107	110	107	165	217	255	305	400	510
80C23.0	50	2.5"	80	150	190	4-Ø18	265	260	120	455	185	640	130	138	130	170	268	263	313	430	538
80C24.0	50	2.5"	80	150	190	4-Ø18	265	260	120	485	185	675	130	138	130	170	268	263	313	430	538
100C25.5	100	-	100	170	210	4-Ø18	300	280	130	510	200	710	135	147	135	200	282	302	352	487	592
100C27.5	100	-	100	170	210	4-Ø18	310	280	140	525	210	675	125	150	135	200	285	302	352	487	592



B-SERIES RAW SEWAGE PUMP 4 POLE

PERFORMANCE RANGE

Maximum Head:	26m
Maximum Flow:	550m ³ /h
Power:	11-22kW
Motor Speed:	4 Pole

OPERATING CONDITIONS

Liquid temperature:	up to 40°C
Density of liquid:	1.3g/cm ³
PH:	6 to 10
Protection class:	IP68, Class F
Maximum immersion depth:	20m
Cable length:	8m



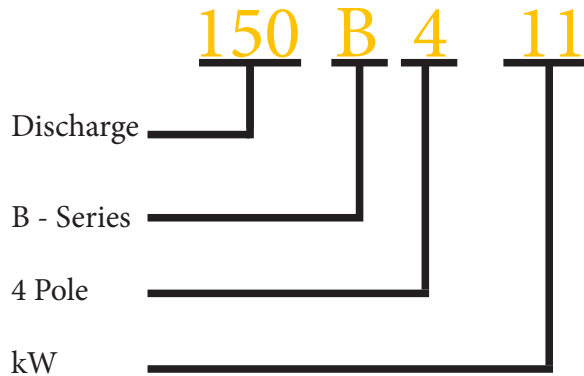
MATERIALS OF CONSTRUCTION

Cast iron pump construction.

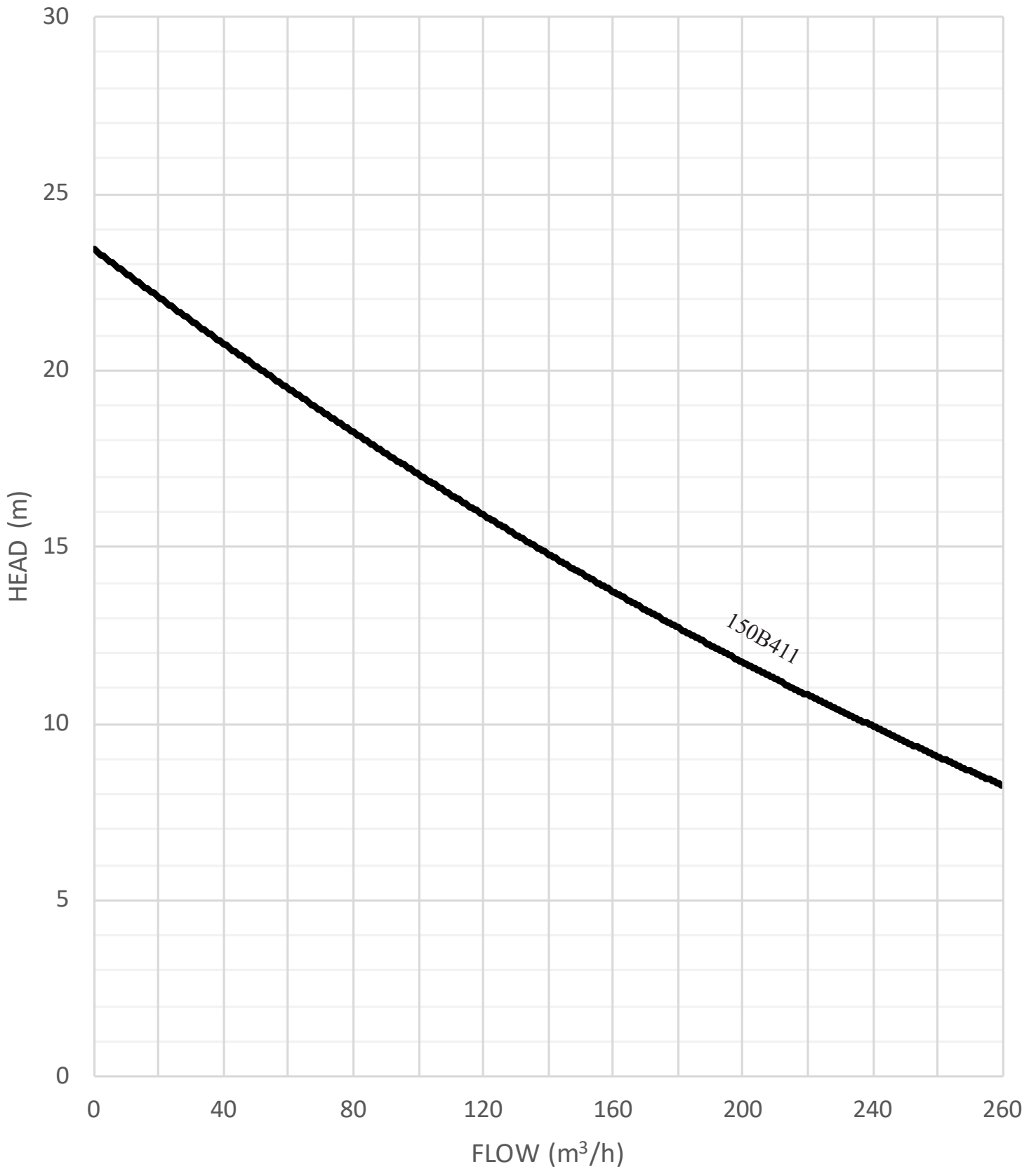
Cast iron impeller construction, open type single channel.

Integrated cutter mechanism located on pump inlet.

Double mechanical shaft seal (silicon carbide-silicon carbide/carbon graphite-ceramic).

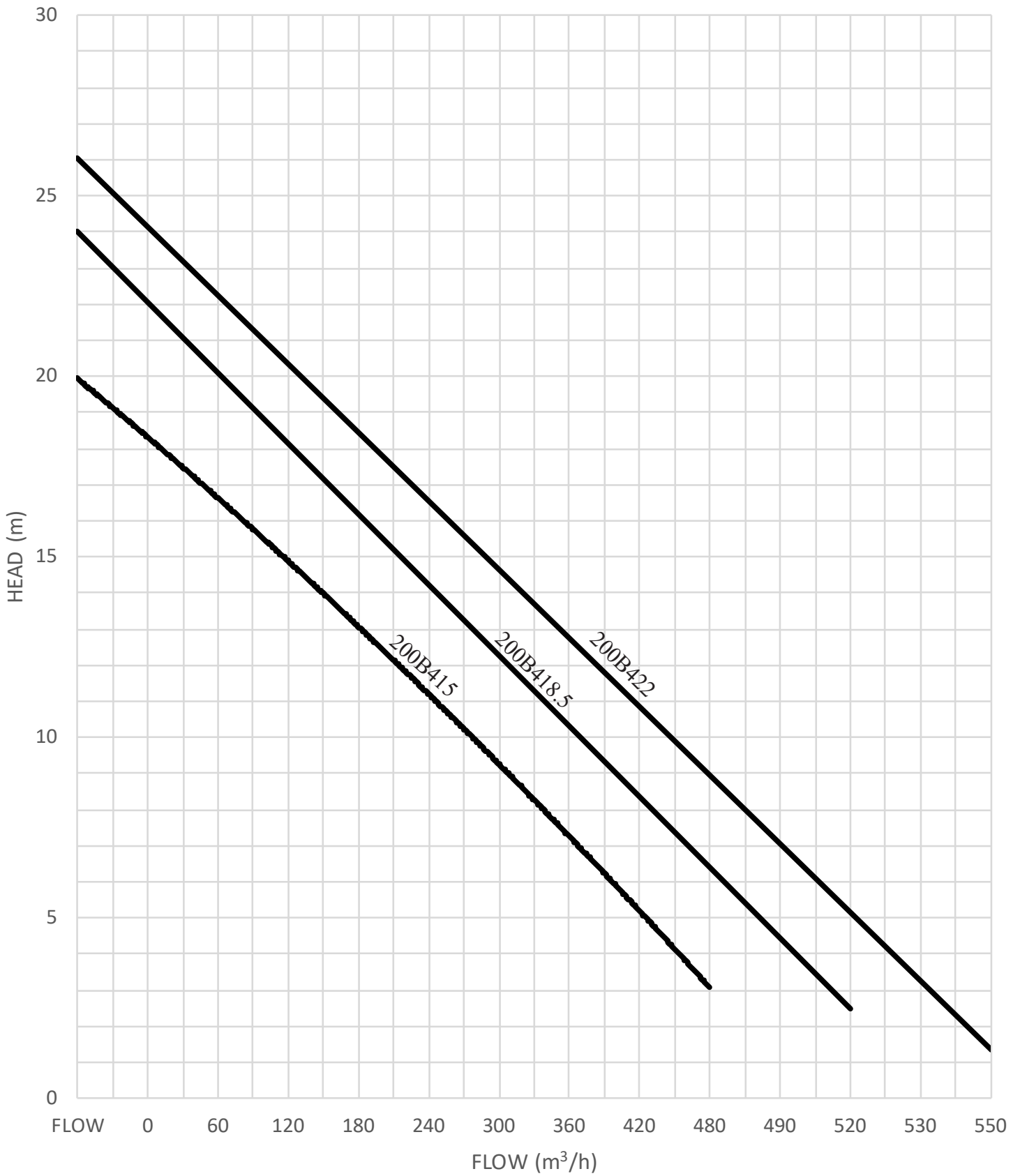


MODEL	VOLTAGE	CURRENT	MOTOR POWER		OUTLET		MAX FLOW	MAX HEAD	IMPELLER PASSAGE	CABLE
	V	A	kW	HP	INCH	MM	m ³ /h	m	mm	mm ²
150B411	380	22	11	15	6	150	260	24	60	4G4.0
200B415	380	30.1	15	20	8	200	490	21	70	4G6.0
200B4185	380	38	18.5	25	8	200	550	27	70	4G10.0
200B422	380	45	22	30	8	200	550	27	70	4G10.0

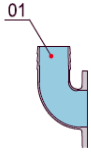




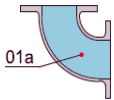
PERFORMANCE CURVE 200B



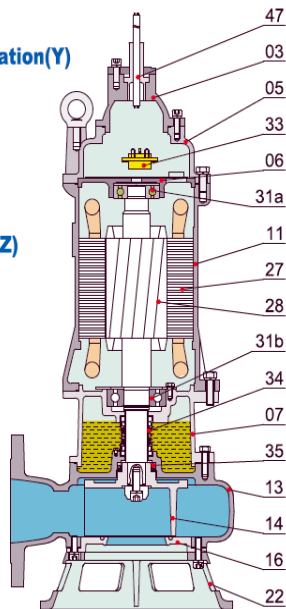
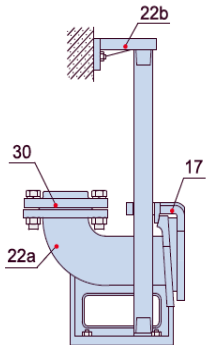
Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation (Y)



Auto-coupled Installation (Z)

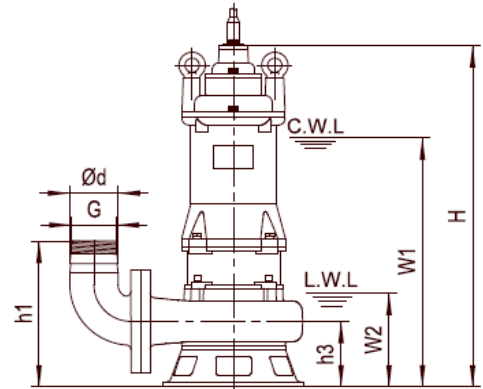
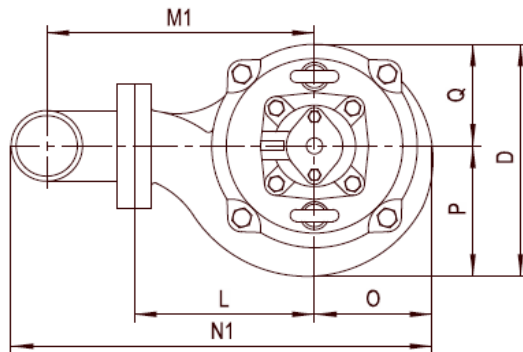


ITEM No.	PART NAME	MATERIAL
01	HOSE COUPLING	CAST IRON
01a	HOSE COUPLING	CAST IRON
03	TERMINAL BOX	CAST IRON
05	UPPER COVER	CAST IRON
06	UP-BEARING HOUSE	CAST IRON
07	BEARING HOUSE	CAST IRON
11	MOTOR BODY	CAST IRON
13	PUMP BODY	CAST IRON
14	IMPELLER	CAST IRON
16	INLET PLATE	CAST IRON
17	COUPLING ADAPTER	CAST IRON
22	SEAT ASSEMBLY	CAST IRON
22a	COUPLING SEAT	CAST IRON
22b	UPPER GUIDE SUPPORT	CAST IRON
27	STATOR	
28	ROTOR	SHAFT: AISI304SS
30	FLANGE	CAST IRON
31a	BEARING	BALL BEARING
31b	BEARING	BALL BEARING
33	MOTOR PROTECTOR	
34	MECHANICAL SEAL	SIC-SIC/CARBON-CERAMIC
35	OIL SEAL	
47	CABLE	

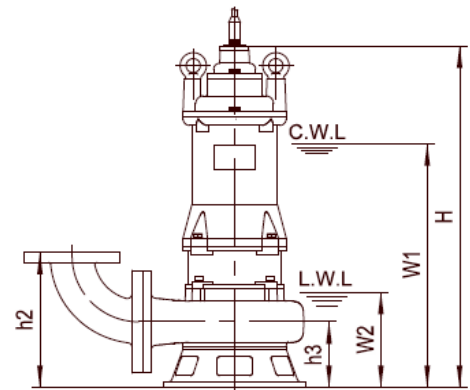
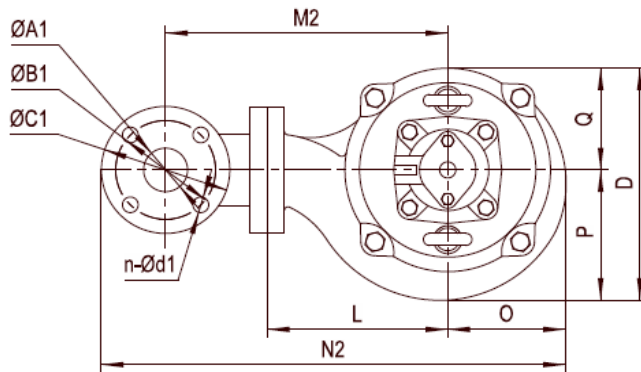
Weights & Packing Dimensions

MODEL	N.W	G.W	PACKING DIMENSIONS
	kg	kg	mm
150B411	256	274	700*470*1130
200B415	302	321	700*500*1220
200B4185	354	373	720*510*1280
200B422	374	394	720*510*1280

Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation (Y)



C.W.L : Continuous running water level
L.W.L : Lowest running water level

Model	Ød	G	ØA1	ØB1	ØC1	n-Ød1	h1	h2	h3	W1	W2	H	O	P	Q	L	D	M1	M2	N1	N2
150B411	150		150	225	265	8 Ø18	440	415	215	680	285	940	210	225	210	320	435	472	522	757	865
200B415	200		200	295	340	8 Ø22	545	465	235	765	625	1025	225	253	210	340	463	542	572	868	968
200B4185	200		200	295	340	8 Ø22	545	465	235	785	625	1080	233	260	210	350	470	552	582	885	985
200B422	200		200	295	340	8 Ø22	545	465	235	805	625	1100	233	260	210	350	470	552	582	885	985

www.vegapumps.co.za