

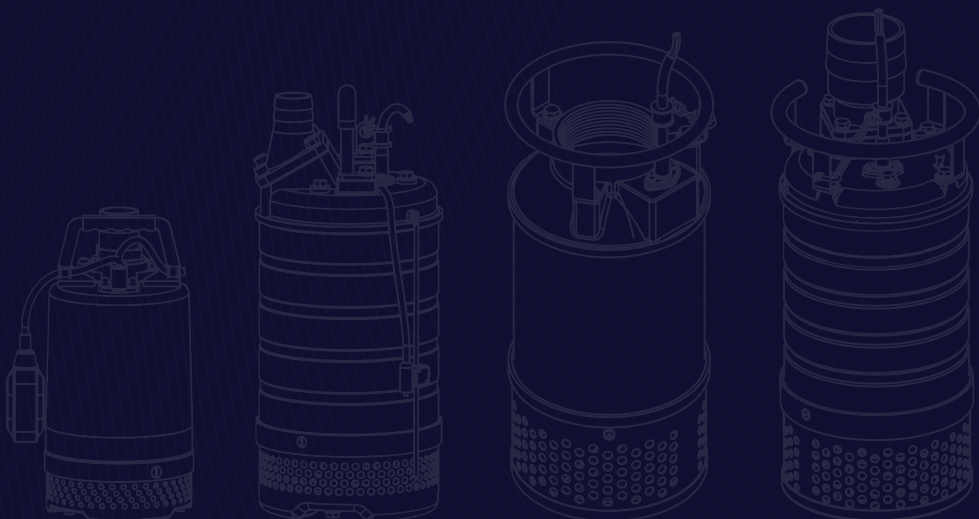
pump & abrasion®
TECHNOLOGIES

battlesub®

SUBMERSIBLE DE-WATERING PUMPS

pabtglobel.com

Pump System Specialists



+ Submersible Range Summer 2022

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Introduction

At Pump & Abrasion Technologies (PABT) we see our business as symbiotic to that of our Customers. To that end, we offer products that always add value to our customers.

The Battlesub range of pumps can widely be classified as drainage pumps, stainless pumps, and sand/sludge pumps.

To that end, we also strive for excellence in the humble Submersible Range offered. Submersibles are offered in a size range from 1.5kW to 110kW (2HP to 148HP) and across numerous applications and industries such as Construction, Mining, Quarries, Coal Ore, Ash Ponds, Power Stations, etc.

Each submersible is specifically selected to ensure suitability and longevity. Designed to work in harsh and abrasive conditions, the materials of construction range from high chrome cast iron to stainless steel.



Battlesubs

We designed our Submersibles to handle multiple applications in different industries, from construction, mining, quarrying and coal ore, ash ponds, power stations and more.

With an array of pumps ranging in power from 1.5kW to 110kW (2hp to 148hp), we'll help you select one that is fit for purpose and combined with longevity. We've used high chrome, cast iron and stainless steel to ensure that our Submersibles will continue to function under extremely harsh and abrasive conditions.

When energy efficiency is an important factor, some of our larger pumps have optional built-in intelligent control systems that not only save you energy but also protect your pump against phasing (reverse and open) and impeller jamming. The system shuts the pump down in the event of an overload or high temperatures.

Don't hesitate to contact our Submersible Pump Product Specialist for advice on which Battlesub is best suited to your needs.

Submersible Client _____

"These Submersibles are a game changer for us".



Size Availability

The table below lists the current Battlesubs pumps sizes we have available with their respective pump codes.

BATTLESUB SIZE AVAILABILITY			
BSD-RANGE (DRAINAGE)	BNS-RANGE (SAND)	BS-RANGE (BATTLESUB)	SBS-RANGE (STAINLESS)
BSD422V550	BNS32.2V550	BS21.5V550	SBS67.5V550
BSD622V550	BNS33.7V550	BS22.2V550	SBS411V550
BSD630V550	BNS411V550	BS31.5V550	SBS611V550
BSD637V550	BNS415V550	BS32.2V550	
BSD655V550	BNS45.5V550	BS33.7V550	
BSD675V550	BNS47.5V550	BS35.5V550	
BSD690V550	BNS611V550	BS47.5V550	
BSD855V550	BNS615V550	BS411V550	
	BNS618.5V550	BS611V550	
	BNS622V550		
	BNS818.5V550		
	BNS822V550		

DID YOU KNOW

When it comes to De-watering and Slurry Submersibles, Pump & Abrasion Technologies™ is your go to SERVICE PARTNER, with a large stockholding of pumps available off shelf, we will PARTNER with you to ensure SMOOTH OPERATIONAL ABILITY 24/7/365.



Battlesub Pumps Range

Pump selection criteria



Battlesub Submersible (BS) Range

Pg 07

- + Ground, raw, or spillage water with SG ≤ 1.1
 - + Fluids with a pH of 6-10
 - + Medium flowrate and head requirements
-



Battlesub Stainless Submersible (SBS) Range

Pg 07

- + Corrosive fluids with SG up to 1.1
 - + Fluids with a pH of 2-10
 - + Medium flowrate and head requirements
-



Battlesub Sand Submersible (BNS) Range

Pg 10

- + Sand, light to medium slurries, mud, sludge, with an SG up to 1.3
 - + Medium head and high flowrate requirements
-



Battlesub High Head Drainage Submersible (BSD) Range

Pg 14

- + Ground/Dirty/raw water
 - + High head and high flowrate requirements
-

Specifications

BATTLESUB SPECIFICATION			
PUMP	BS RANGE	BNS RANGE	BSD RANGE
MATERIAL	Stainless steel, or Cast iron	Cast iron	Cast iron
pH	2-10 (Stainless) 6-10 (Cast iron)	06 - 10	06 - 10
DISCHARGE PIPE Ø	50-150 mm 2-6"	80-200 mm 3-8"	100-200 mm 4-8"
MOTOR SIZE	0.25-11kW 0.35-15HP	2.2-22kW 3-30HP	22-110kW 30-150HP
MOTOR POLE	2	4	2
SUBMERSION	10m (0.25-0.75kW)		
DEPTH	25m (1.5-11kW)	15m	30m
MAX CAPACITY	150m³/hr	350m³/hr	408m³/hr
MAX HEAD	50m	35m	184m
DENSITY	1.1	1.3	1.1
USAGE TYPE DESCRIPTION	<u>Stainless pumps (SBS):</u> ✓ Corrosive fluids <u>Standard pumps (BS):</u> Ground / Dirty / Raw water with: ✓ medium flow rate ✓ medium head	Water with higher content abrasive solids, including: ✓ Sand, light to medium slurries, mud, sludge ✓ Sedimentation ✓ Silt water	Ground/Dirty/ raw water with: ✓ High head ✓ High flow rate
MAX WATER TEMPERATURE	40°C	40°C	40°C

DID YOU KNOW

Battlesubs can be prepared for stringent working conditions at temperatures up to 125°C (257°F) incl. Viton Seals.



Battlesub 1.1kW portable single phase



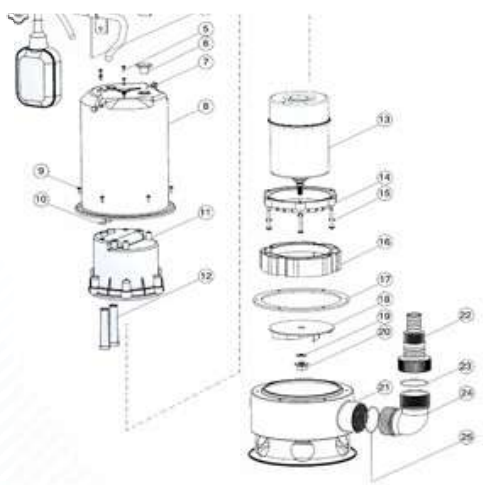
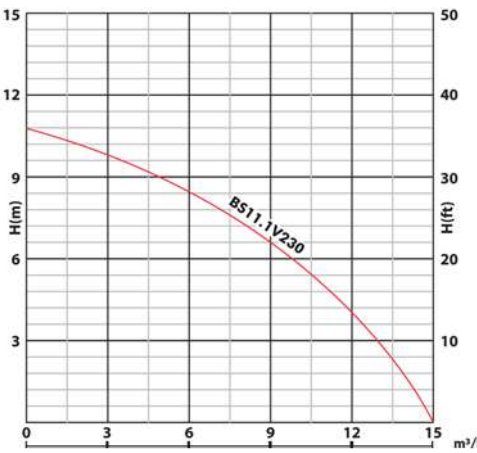
This stainless steel BattleSub (BS11.1V230) pump is lightweight and corrosion-resistant. This very compact pump is ideally suited to small areas or pits. The pump's greatest advantage is that it is a single-phase unit and has the same durability performance of the BS/SBS range.

DID YOU KNOW

Our 1.1kW handheld submersible delivers up to 15m³/hr. Single phase, so you can use it virtually anywhere.

?

1.1kW 230V Battlesub® (BS11.1v230)



PERFORMANCE TABLE: BS1.1						
Model	Outlet	Motor Power	Max Submersion Depth	Max capacity	Max head	Max. Grain Size
50Hz	mm	kW	m	m³/hr	m	mm
BS11.1V230	50	1,1	5	15	11	35

DIMENSIONS: BS1.1					
Length of Cable	Cable	Inner Box/pcs	Master Carton/4pcs	NW	GW
m		mm	mm	kg	kg
10	H07RN-F 3G 1.0mm²	220x180x370	460x380x385	4,5	5

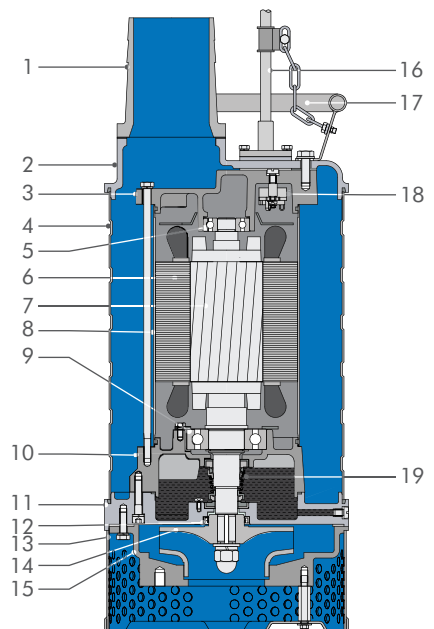
BS and SBS

These submersible drainage pumps are specifically designed to handle dirty water. It offers a compact design, high performance, and exceptional durability for handling ground/dirty/raw water with an SG of up to 1.1.

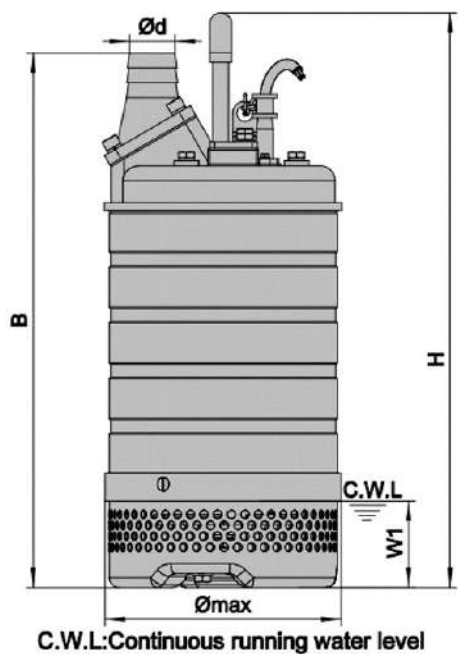
Widely used in general dewatering applications. The stainless steel variant of the BS range can handle pH values from 2-10 used in corrosive applications where the conventional cast-iron pumps do not last. The stainless pumps can also be used in applications where seawater is pumped.



SBS EXPLODED VIEW & MATERIALS		
Item no.	Part name	Material
1	House coupling	Cast Iron
2	Upper cover	Cast Iron
3	Upper cover	Cast Iron
4	Outer Casing	AISI304SS
5	Bearing	Ball Bearing
6	Stator	
7	Rotor	Shaft: AISI420SS
8	Motor Casing	Stainless Steel
9	Bearing	Ball Bearing
10	Bearing house	Cast Iron
11	Seal house	Cast Iron
12	Oil Seal	
13	Strainer	AISI304SS
14	Impeller	Chrome Steel
15	Diffuser	Cast iron
16	Cable	H07RN-F (8 meters)
17	Handle	Steel
18	Motor protector	
19	Mechanical Seal	Sic-Sic/Carbon-Sic (≤2.2kW) Sic-Sic/Sic-Sic(3.7-5.5kW)



Battlesub Dimensions and Weights



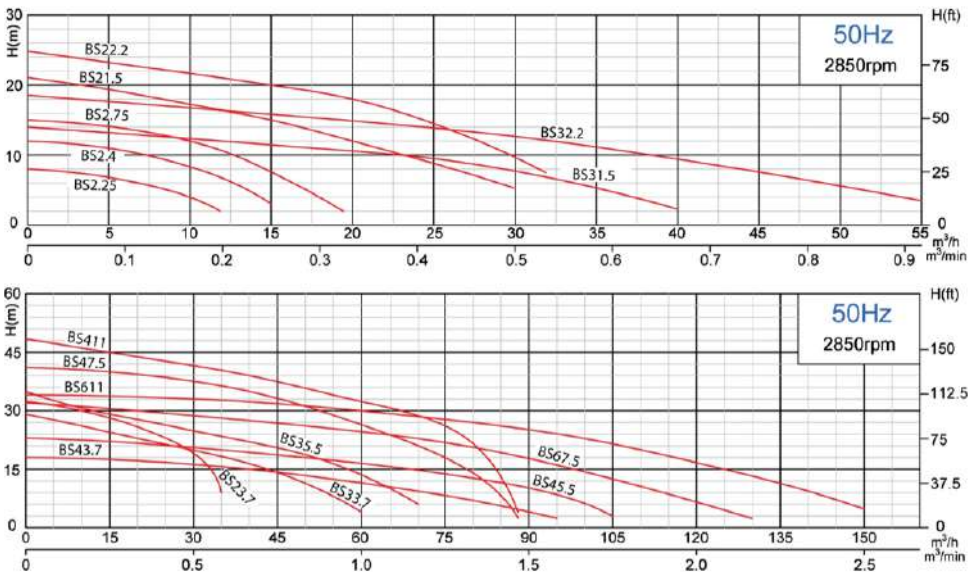
DIMENSIONS				
MODEL	H	B	Ømax	W1
-	mm	mm	mm	mm
BS21.5	563	540	240	87
BS31.5	563	547	240	87
BS22.2	563	540	240	87
BS32.2	563	547	240	87
BS23.7	515	591	300	76
BS33.7	515	591	300	76
BS43.7	515	616	300	76
BS35.5	555	631	300	76
BS45.5	555	656	300	76
BS47.5	700	810	355	142
BS67.5	700	810	355	142
BS411	745	855	355	142
BS611	745	855	355	142

DID YOU KNOW

Pump & Abrasion Technologies offers a 24/7 breakdown service, 365 days per year.



Battlesub Performance



PERFORMANCE TABLE: BS RANGE										
Model	Outlet	Motor Power	Rated Current	Rated capacity	Rated Head	Max capacity	Max head	Impeller passage	NW	GW
50Hz	mm	kW	A	m³/hr	m	m³/hr	m	mm	kg	kg
BS21.5	50	1,5	3,5	15	15	30	21	8,5	37	41
BS31.5	80	1,5	3,5	27	9	42	14	8,5	37	41
BS22.2	50	2,2	5	20	18	32	25	8,5	40	44
BS32.2	80	2,2	5	36	11	55	18,5	8,5	40	44
BS23.7	50	3,7	7,7	18	26	36	32	8,5	58	64
BS33.7	80	3,7	7,7	35	18,5	60	29	8,5	58	64
BS43.7	100	3,7	7,7	60	11,5	95	18	8,5	59	65
BS35.5	80	5,5	11,4	45	22	72	35	8,5	66	72
BS45.5	100	5,5	11,4	60	16	105	23	8,5	67	73
BS47.5	100	7,5	15	60	26	88	41	11,5	108	120
BS67.5	150	7,5	15	80	20,5	130	32	19,5	110	122
BS411	100	11	22	60	32	86,4	48,5	11,5	123	135
BS611	150	11	22	90	25	150	34	19,5	125	137

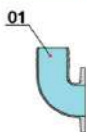
Battlesubs BNS Range

The BNS range offers the best durability to abrasive application and can handle light to medium slurries within SG of up to 1.3. This range offers a moderately high head with flow rates up to 350 m³/hr.

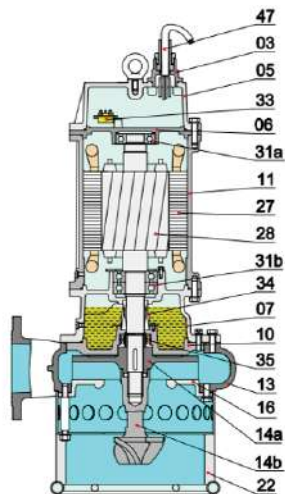


MATERIAL OF CONSTRUCTION		
Item No.	Part Name	Material
1	House coupling	Cast Iron
01a	House coupling	Cast Iron
3	Terminal box	Cast Iron
5	Upper cover	Cast Iron
6	Up-Bearing house	Cast Iron
7	Bearing House	Cast Iron
10	Seal bracket	Ductile Iron
11	Motor body	Cast Iron
13	Motor body	Cast Iron
14a	Impeller	High Chrome Alloy
14b	Agitator	High Chrome Alloy
16	Inlet plate	Ductile Iron
22	Seat assembly	Cast Iron
27	Stator	
28	Rotor	Shaft: AISI420SS
31a	Bearing	Ball Bearing
31b	Bearing	Ball Bearing
33	Motor protector	
34	Mechanical Seal	Sic-Sic/Sic-Sic
35	Oil Seal	
47	Cable	20m

Movable Soft Pipe Installation (R)



Movable Hard Pipe Installation(Y)



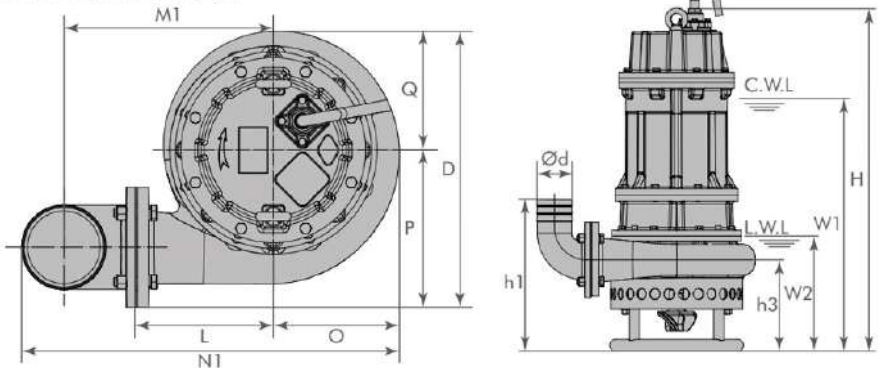
DID YOU KNOW

You can look to our BNS range to handle slurries with an SG of up to 1.3.

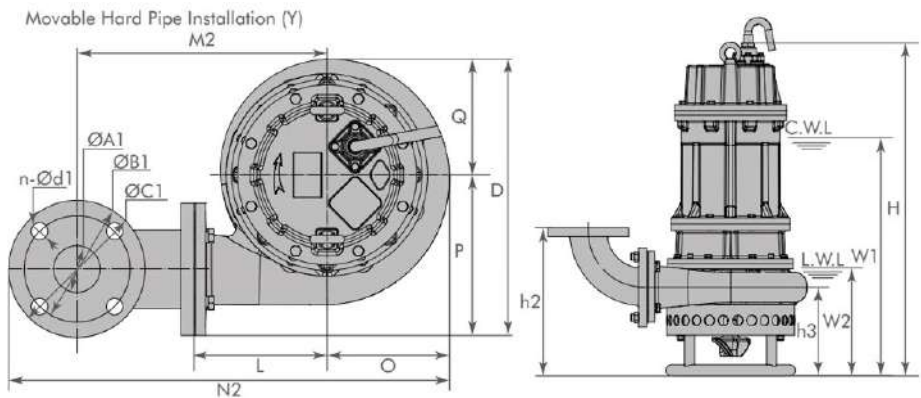


BNS Dimensions and Weights

Movable Soft Pipe Installation (R)



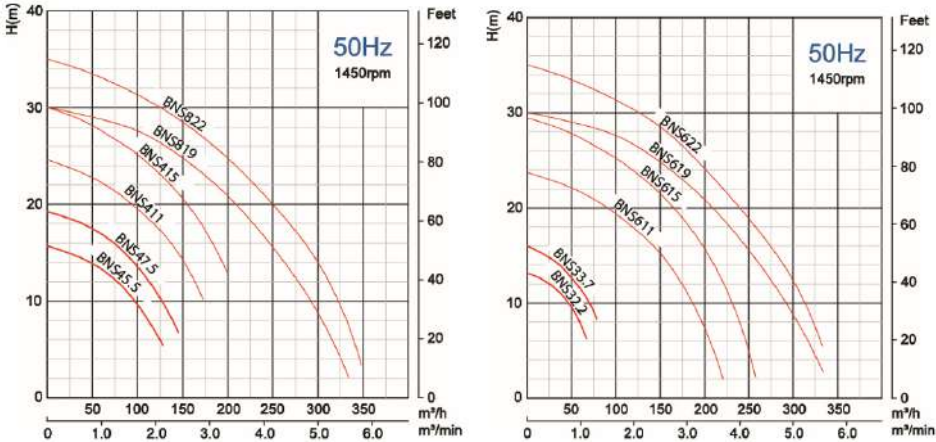
DIMENSIONS: BNS RANGE (MOVEABLE SOFT PIPE INSTALLATION)													
Model	Ød	h1	h3	W1	W2	H	O	P	Q	L	D	M1	N1
50/60Hz	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BNS32.2	80	328	183	474	233	635	168	223	157	210	380	302	507
BNS33.7	80	328	183	539	233	700	168	223	157	210	380	302	507
BNS45.5	100	426	256	616	309	850	205	265	188	250	438	332	587
BNS47.5	100	426	256	661	309	895	205	265	188	250	438	332	587
BNS411	100	425	255	691	308	956	221	275	208	240	483	342	613
BNS611	150	480	255	691	308	956	221	275	208	240	483	393	689
BNS415	100	425	255	736	308	1001	221	275	208	240	483	342	613
BNS615	150	480	255	736	308	1001	221	275	208	240	483	393	689
BNS618.5	150	521	296	808	360	1003	263	275	246	280	572	433	771
BNS818.5	200	606	296	808	360	1003	263	325	246	280	572	483	847
BNS622	150	521	296	828	360	1123	263	325	246	280	572	433	771
BNS822	200	606	296	828	360	1123	263	325	246	280	572	483	847



DIMENSIONS: BNS RANGE (MOVEABLE HARD PIPE INSTALLATION)

Model	ØA1	ØB1	ØC1	n-Ød1	h3	W1	W2	H	O	P	Q	L	D	M2	N2
50/60Hz	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BNS32.2	80	150	190	4-Ø18	183	474	233	635	168	223	157	210	380	352	615
BNS33.7	80	150	190	4-Ø18	183	539	233	700	168	223	157	210	380	352	615
BNS45.5	100	170	210	4-Ø18	256	616	309	850	205	265	188	250	438	382	693
BNS47.5	100	170	210	4-Ø18	256	661	309	895	205	265	188	250	438	382	693
BNS411	100	170	210	4-Ø18	255	691	308	956	221	275	208	240	483	392	718
BNS611	150	225	265	8-Ø18	255	691	308	956	221	275	208	240	483	443	797
BNS415	100	170	210	4-Ø18	255	736	308	1001	221	275	208	240	483	392	718
BNS615	150	225	265	8-Ø18	255	736	308	1001	221	275	208	240	483	443	797
BNS618.5	150	225	265	8-Ø18	296	808	360	1003	263	275	246	280	572	483	879
BNS818.5	200	295	340	8-Ø22	296	808	360	1003	263	325	246	280	572	513	947
BNS622	150	225	265	8-Ø18	296	828	360	1123	263	325	246	280	572	483	879
BNS822	200	295	340	8-Ø22	296	828	360	1123	263	325	246	280	572	513	947

BNS Performance



PERFORMANCE TABLE: BNS RANGE								
Model	Rated Current	Motor Power	Outlet	Rated capacity	Rated Head	Max capacity	Max Head	Impeller passage
50/60Hz	A	kW	mm	m3/hr	m	m3/hr	m	mm
BNS32.2	5	2,2	80	50	10	75	13	20
BNS33.7	8,5	3,7	80	60	12	85	16	20
BNS45.5	11,7	5,5	100	65	13	140	16	30
BNS47.5	15,7	7,5	100	100	14	160	19	30
BNS411	22	11	100	100	20	190	24	35
BNS611	22	11	150	100	20	220	24	35
BNS415	30,1	15	100	100	25	220	30	35
BNS615	30,1	15	150	100	25	255	30	35
BNS618.5	38	18,5	150	150	24	330	30	35
BNS818.5	38	18,5	200	150	24	330	30	35
BNS622	45	22	150	150	28	330	35	35
BNS822	45	22	200	150	28	350	35	35

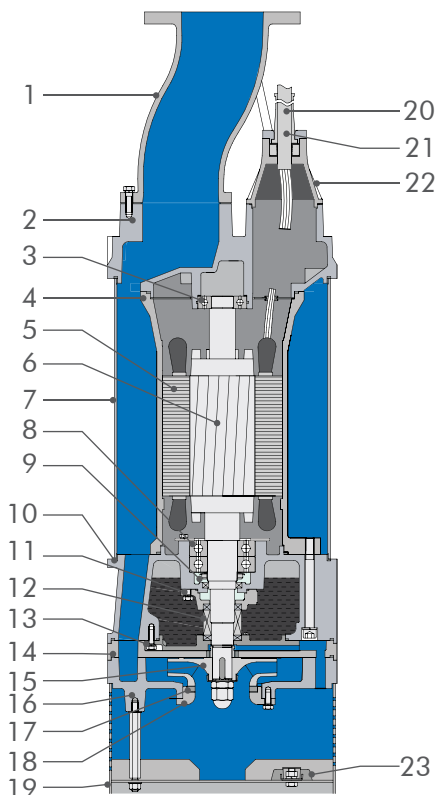
Battlesub BSD Range



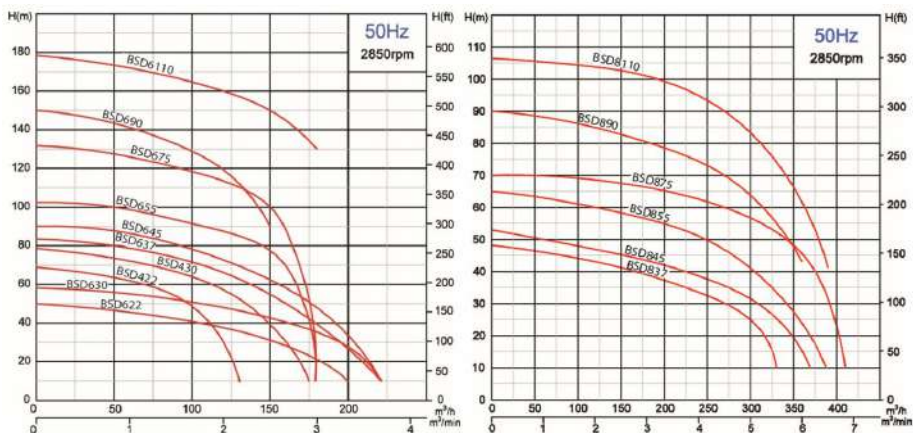
The BSD range of submersible pumps are used for ground/ dirty/raw water application which requires a high head or high flow. The BSD range offers the same durability and abrasive resistance as the BS range and can handle an SG of up to 1.1.

BSD EXPLODED VIEW & MATERIALS

Item no.	Part name	Material
1	Hose coupling	Ductile iron
2	Upper cover	Cast iron
3	Bearing	Ball bearing
4	Motor body	Cast iron
5	Stator	
6	Rotor	Shaft: AISI420SS
7	Outer casing	Steel
8	Bearing	Ball bearing
9	Oil seal	
10	Bearing house	Cast iron
11	Seal bracket	Cast iron
12	Mechanical seal	Tc-Sic/Sic-Sic
13	Seal bracket	Cast iron
14	Inlet plate	Ductile iron
15	Impeller	High chrome alloy
16	Diffuser	Ductile iron
17	Neck ring	High chrome alloy
18	Inlet plate	Cast iron
19	Strainer	AISI304SS
20	Cable	
21	Cable fixing plate	Cast iron
22	Terminal box	Cast iron
23	Cathodic protection plate	AL



BSD Performance

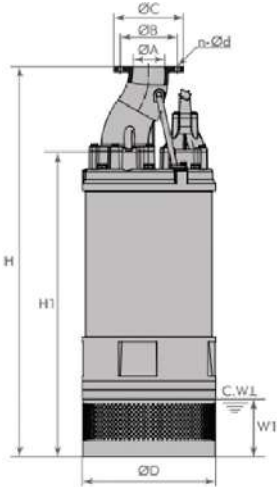


PERFORMANCE TABLE: BSD RANGE

Model	Outlet	Motor Power	Rated Current	Rated capacity	Rated Head	Max capacity	Max head	Impeller passage	N.W	G.W
50 Hz	mm	kW	A	m³/hr	m	m³/hr	m	mm	kg	kg
BSD422	100	22	41,5	66	60	130	68	6	370	410
BSD430	100	30	54	72	70	170	78	6	375	415
BSD622	150	22	41,5	120	37	200	50	15	385	425
BSD630	150	30	54	140	45	220	58	15	385	425
BSD637	150	37	66	60	80	220	83	6	570	615
BSD645	150	45	80	84	80	220	90	6	575	620
BSD837	200	37	66	216	35	330	48	20	575	625
BSD845	200	45	80	270	35	372	53	20	580	630
BSD655	150	55	100	90	90	180	102	8	830	880
BSD675	150	75	134	90	120	180	132	8	830	880
BSD855	200	55	100	240	50	390	65	20	880	930
BSD875	200	75	134	270	60	408	70	20	880	930
BSD690	150	90	162	120	120	150	155	10	1100	1160
BSD890	200	90	162	270	70	360	90	20	1120	1160
BSD6110	150	110	198	120	150	180	177	10	1130	1190
BSD8110	200	110	198	270	90	390	107	20	1150	1210

BSD Dimensions and Weight

DIMENSIONS & WEIGHTS: BSD RANGE											
Model	A	B	C	n-Ød	D	H	H1	W1	N.W	G.W	Packing Dimension
50/60Hz	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	mm
BSD422	100	180	220	8-Ø17.5	420	1374	1072	240	370	410	1495x490x700
BSD430	100	180	220	8-Ø17.5	420	1374	1072	240	375	415	1495x490x700
BSD622	150	240	285	8-Ø22	420	1434	1082	250	385	425	1565x490x700
BSD630	150	240	285	8-Ø22	420	1434	1082	250	385	425	1565x490x700
BSD637	150	240	285	8-Ø22	530	1424	1072	180	570	615	1555x600x850
BSD645	150	240	285	8-Ø22	530	1424	1072	180	575	620	1555x600x850
BSD837	200	295	340	12-Ø22	530	1474	1072	180	575	625	1605x600x850
BSD845	200	295	340	12-Ø22	530	1474	1072	180	580	630	1605x600x850
BSD655	150	240	285	8-Ø22	550	1630	1280	200	830	880	1765x620x910
BSD675	150	240	285	8-Ø22	550	1630	1280	200	830	880	1765x620x910
BSD855	200	295	340	12-Ø22	550	1680	1280	200	880	930	1815x620x910
BSD875	200	295	340	12-Ø22	550	1680	1280	200	880	930	1815x620x910
BSD690	150	250	300	8-Ø22	592	1687	1282	200	1100	1160	1825x665x965
BSD890	200	295	340	12-Ø22	592	1687	1282	200	1120	1160	1825x665x965
BSD6110	150	250	300	8-Ø22	592	1687	1282	200	1130	1190	1825x665x965
BSD8110	200	295	340	12-Ø22	592	1687	1282	200	1150	1210	1825x665x965



When Put To The Test, A Curve Slurry Pump Outperforms And Outlasts Any Other Slurry Pump On The Market.

We are a focused OEM, providing our customers with innovative pump system solutions & products that reduce the impact & extend the life of slurry pumps.



PUMPANDABRASIONTECHNOLOGIES



PABTGLOBAL



PUMPANDABRASION



PUMP AND ABRASION TECHNOLOGIES

Our Global Presence:

From east-coast of Australia to the west-coast of America, we have pump system specialists across the globe available to support your operation.

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