

MBH[®] PUMPS

POLDER PUMPSET



ISO 9001:2008
Certified Company

A Mark of Quality

POLDER PUMPSET

APPLICATIONS :

- Irrigation and Dewatering
- Cooling - Water Supply
- Storm Water Pumping Station
- Retention Reservoirs
- Flood Prevention Pumping Station
- Dewatering from Canal and River Bed

DESIGN / CONSTRUCTION :

MBH Polder pump sets are portable pumping units, which have pump below and motor above construction with single/two stage mixed flow impeller design. These are powered by squirrel cage induction motor suitable for 400/440 volts, three phase, 50 Hz A.C. supply. The Motor windings are wet type, totally enclosed, water filled, water and oil resistant, robust in design and lightweight. The pump motor unit of close coupled and jacketed construction design provide an effective water cooling of the motor by liquid flowing around the motor casing up into the discharge main. The motor is sealed by special mechanical seal, so that the pumping water does not enter the motor chamber and damage the motor. Axial thrust is controlled by thrust bearing. All parts are made from specially material and processed to ensure long life under arduous operating condition.

ADVANTAGES :

- The Pumps are of robust construction and can work under flooded or partially submerged condition. The pump motors are water filled and water lubricated. The motor is cooled by the continues flowing liquid that is being pumped which prevents overheating of the motor.
- It can pump out liquid from the lowest level.
- Submersible installation, hence no need of foundation or pump house.
- Cuts civil cost by nearly 50 %.
- Can be installed in collection well.
- Being portable it can be shifted/handled easily.
- Silent in Operation.

MATERIAL SPECIFICATION :

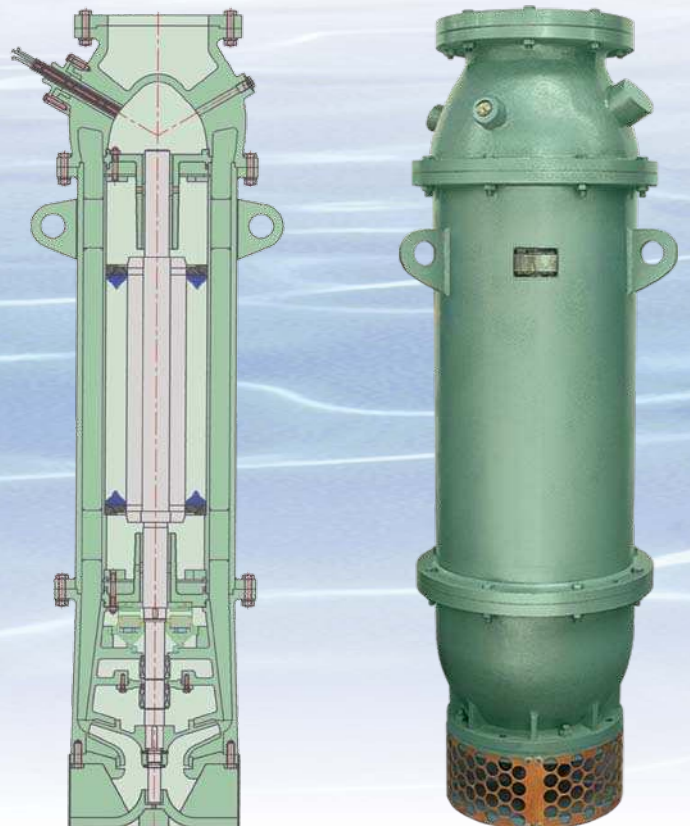
Volute Casing/Suction Housing	: Cast Iron IS 210 FG200
Impeller	: S.S / Bronze / C.I.
Shaft	: SS 410
Motor Body	: M.S. Fabricated
Bush bearing	: Bronze-LTB 4

Different material can be offered according to the application.

TECHNICAL SPECIFICATION :

Head	: upto 120 mtrs.
Capacity	: upto 3500 cu.mtr./hr.
Stage	: One / Two
Lubrication	: Water
HP	: 10 to 350
RPM	: 2900 / 1450

CROSS SECTION :



Highlight of Submersible Polder Pumps in Comparison with Centrifugal / Vertical Turbine Pumps

Submersible Polder Pumps	Centrifugal Pumps	Vertical Turbine Pumps
Could Completely / Partially be submerged in water.	Not Possible, since motor not sealed and is wound with enameled winding wire.	Pump is of course submerged, but needs pump house, in well, jack-well etc.
Since very much portable, no permanent structure is needed. A simple pit / tank filled with water is quite sufficient and could be discharged with flexible rubber / PVC pipe / M.S. pipe.	The nature of pump needs permanent structure, Suction pipe, foot valve etc. making it cumbersome.	Pumps needs permanent structure like pump house, pump foundation etc. and installation is quite cumbersome.
An absolutely trouble free Compact design pump.	<ul style="list-style-type: none"> a) Gland leakage b) Air locking c) Foot valve chocking (clogging) are regular and need constant attention. 	<ul style="list-style-type: none"> a) Needs column pipe assembly, shaft assembly and bowl assembly and because of lengthy column shaft assembly continues vibration occurs resulting in more wear and tear. As a result of this, there would be constant gland leakage from the shaft sleeve. b) Proper alignment is must.
Self priming (Submerged).	Priming is necessary.	Self-Priming (submerged) Constant attention is a must.
Needs no extra man-power.	Constant attention is a must.	Needs regular replacement of parts and repairing costs are quite exorbitant.
Quite a longer life.	Needs regular replacement of parts. Particularly, horizontal pumps need proper alignment and periodical check-up is must.	Bowl bearing bushes are regularly getting worn out as they are directly coming in to contact with water duly mixed with slit / mud / sludge.





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Manufacturing Facility at Ahmedabad (Gujarat) India



Our Other Products



*As improvements are made in design from time to time, specifications and performance are subject to change without prior notice.
Installation photographs shown in catalogue are for illustration only.*

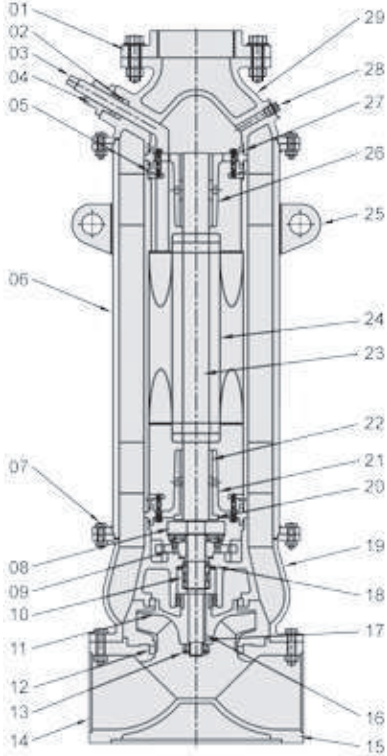
MBH PUMPS

® mbh pumps (gujarat) pvt. ltd.

Office & Factory :
Plot No. 14, G.I.D.C. Naroda Indl. Estate,
Ahmedabad - 382 330, India.
Phone : +91-79-2282 3066, 2282 1018
E-mail : marketing@mbhpumps.com
Website : www.mbhpumps.com

Authorised Dealer :

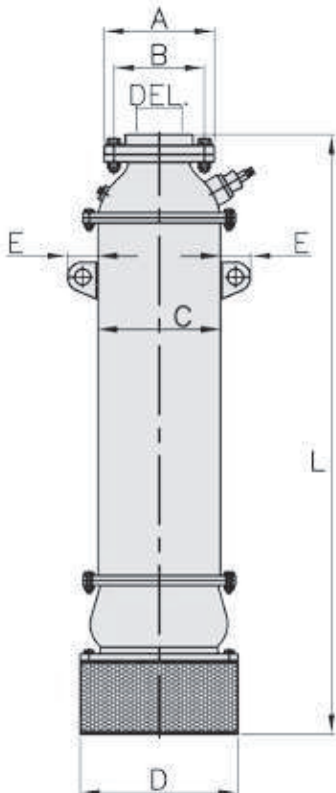
Cross Section



NO.	DESCRIPTION	MATERIAL
1	DELIVERY FLANGE	C.I.
2	CABLE GROMMET	NI. RUBBER
3	CABLE	PVC SHEATHED
4	GLAND COVER	C.I.
5	STATOR CIRCLIP	SPRING STEEL
6	MOTOR BODY	M.S. FABRICATED
7	HARDWARE SET	UNBREKO STEEL
8	REV. PLATE	CARBON / S.S.
9	THRUST BEARING	C.I./ S.S.
10	MECH. SEAL	TC
11	IMPELLER	C.I. / S.S.
12	NECK RING	C.I. / S.S. / G.M.
13	CHECK NUT	S.S.
14	STRAINER	S.S.
15	BASE	C.I.

NO.	DESCRIPTION	MATERIAL
16	IMPELLER KEY	S.S.
17	IMPELLER WASHER	S.S.
18	MECH. SEAL CIRCLIP	SPRING STEEL
19	BYPASS	C.I.
20	C.T. BEARING	G.M.
21	LOWER HOUSING	C.I.
22	BEARING BUSH	G.M.
23	ROTOR SHAFT	S.S. 410
24	ROTOR	--
25	HOLDING HOOK	M.S.
26	UPPER HOUSING	C.I.
27	'O' RING	NI. RUBBER
28	DRAIN PLUG	G.M.
29	DISCHARGE OUT LET	C.I.

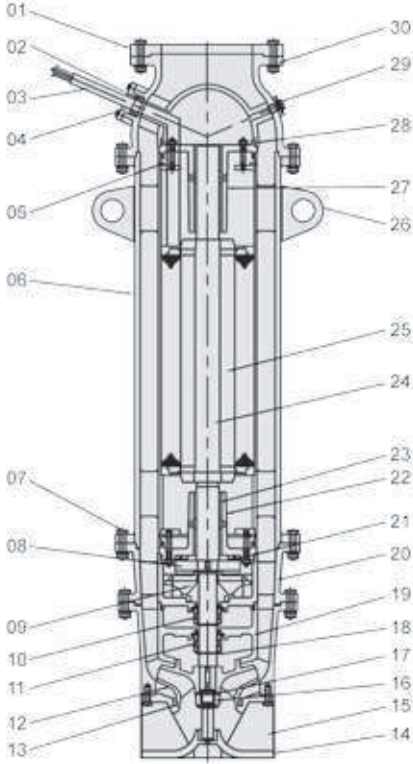
GA Drawing



All Dimension are in mm

MODEL	HP	DEL.	A	B	C	D	E	L	Weight in KG.
2PD3SM7.5C41M	7.5	100	220	180	245	315	80	1016	145
2PD3SM7.5C41H	7.5	100	220	180	245	335	80	970	145
2PD3SM10C41M	10	100	220	180	245	315	80	1056	159
2PD3SM10C41H	10	100	220	180	245	335	80	1010	159
2PD3SM15C41M	15	100	220	180	245	315	80	1126	169
2PD3SM15C41H	15	100	220	180	245	335	80	1080	169
2PD3SM20C41M	20	100	220	180	245	315	80	1196	179
2PD3SM20C41H	20	100	220	180	245	335	80	1150	179
2PD4SM25C61L	25	150	285	240	324	320	80	1295	290
2PD4SM25C61M	25	150	285	240	324	320	80	1295	290
2PD4SM25C61H	25	150	285	240	324	300	80	1295	290
2PD4SM30C61L	30	150	285	240	324	320	80	1345	303
2PD4SM30C61M	30	150	285	240	324	320	80	1345	303
2PD4SM30C61H	30	150	285	240	324	300	80	1345	303
2PD4SM45C61L	45	150	285	240	324	320	80	1470	330
2PD4SM45C61M	45	150	285	240	324	320	80	1470	330
2PD4SM45C61H	45	150	285	240	324	300	80	1470	322
2PD4SM50C61L	50	150	285	240	324	320	80	1525	375
2PD4SM50C61M	50	150	285	240	324	320	80	1525	375
2PD4SM50C61H	50	150	285	240	324	360	80	1499	375
2PD4SM60C61L	60	150	285	240	324	320	80	1655	392
2PD4SM60C61M	60	150	285	240	324	320	80	1655	392
2PD4SM60C61H	60	150	285	240	324	360	80	1629	392

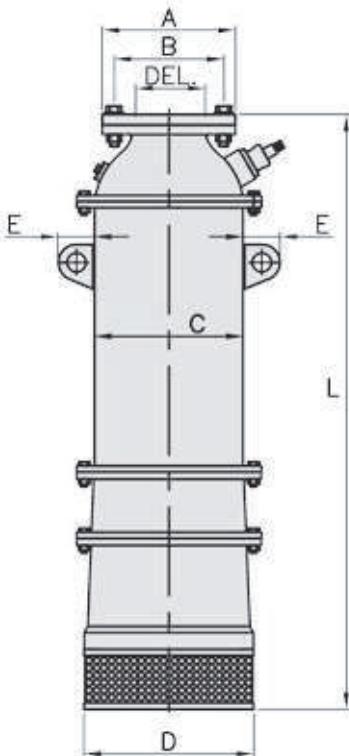
Cross Section



NO.	DESCRIPTION	MATERIAL
1	DELIVERY FLANGE	M.S.
2	CABLE GROMMET	Ni. RUBBER
3	CABLE	STD.
4	GLAND COVER	C.I. IS210 FG260
5	STATOR CIRCLIP	SPRING STEEL
6	STATOR	M.S. FAB. +SI STAMPING
7	HARDWARE SET	S.S.
8	REV. PLATE	CARBON + S.S.
9	THRUST BEARING	C.I. + S.S.
10	MECH. SEAL	TC / TC
11	MECH. SEAL	CARBON / SS & SIC / SIC
12	IMPELLER	S.S.
13	NECK RING	G.M.
14	SUCTION STRAINER	S.S.
15	BASE	C.I. IS210 FG260

NO.	DESCRIPTION	MATERIAL
16	LOCKING NUT	S.S.
17	IMPELLER WASHER	S.S.
18	ROTOR CIRCLIP	SPRING STEEL
19	PUMP BYPASS	C.I. IS210 FG260
20	MOTOR BYPASS	C.I. IS210 FG260
21	C.T. BEARING	G.M.
22	LOWER HOUSING	C.I. IS210 FG260
23	BEARING BUSH	G.M.
24	ROTOR SHAFT	S.S. 410
25	ROTOR	SS+SI STAMPING
26	HOLDING HOOK	M.S.
27	UPPER HOUSING	C.I. IS210 FG260
28	'O' RING	NI. RUBBER
29	DRAIN PLUG	G.M.
30	DELIVERY OUTLET	C.I. IS210 FG260

GA Drawing



All Dimension are in mm

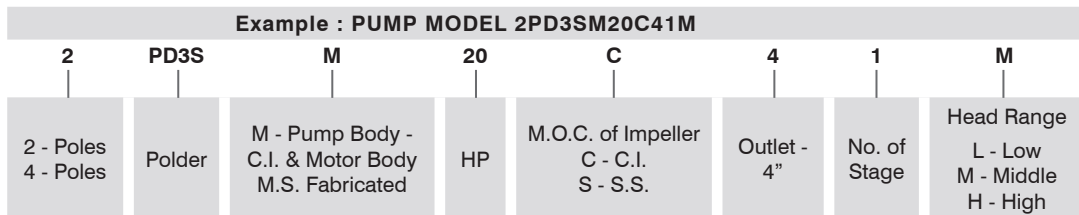
MODEL	HP	DEL.	A	B	C	D	E	L	Weight in KG.
2PD4M70S81L	70	200	340	295	357	320	80	1743	653
2PD4M70S81M	70	200	340	295	357	320	80	1743	653
2PD4M70S81H	70	200	340	295	357	360	80	1725	653
2PD4M80S81L	80	200	340	295	357	320	80	1813	725
2PD4M80S81M	80	200	340	295	357	320	80	1813	725
2PD4M80S81H	80	200	340	295	357	360	80	1795	725
2PD4M90S81L	90	200	340	295	357	320	80	1913	760
2PD4M90S81M	90	200	340	295	357	320	80	1913	760
2PD4M90S81H	90	200	340	295	357	360	80	1895	760
2PD4M100S81L	100	200	340	295	357	320	80	1913	760
2PD4M100S81M	100	200	340	295	357	320	80	1913	760
2PD4M100S81H	100	200	340	295	357	360	80	1895	760

Performance Chart • 2900 RPM

MODEL	HP	Del. Size mm	HEAD IN METERS																
			4	6	8	10	12	14	16	18	20	24	26	30	35	40	45	50	55
2PD3SM7.5C41M	7.5	100			2000	1850	1625	1400	1200	1000	800	500							
2PD3SM7.5C41H	7.5	100							1200	1150	1110	950	825	600	200				
2PD3SM10C41M	10	100				2000	1800	1500	1200	910	700								
2PD3SM10C41H	10	100									1400	1100	880	500					
2PD3SM15C41M	15	100					3080	2900	2400	2230	1950	1295	1020	450					
2PD3SM15C41H	15	100							3050	2800	2500	2400	1600	1400	1410	1270	1100	825	
2PD3SM20C41M	20	100													2015	1618	1320	965	
2PD3SM20C41H	20	100																	
2PD4SM25C61L	25	150			4900	4750	4500	4360	4200	4000	3600	3000	1500						
2PD4SM25C61M	25	150										3200	2900	2500	2000	1200			
2PD4SM25C61H	25	150												2000	1800	1500	1000	700	
2PD4SM30S61L	30	150				4900	4700	4640	4500	4300	4000	3800	3000	1500					
2PD4SM30S61M	30	150										3500	3200	2900	2500	2000	1200		
2PD4SM30S61H	30	150													2000	1800	1500	1000	700

MODEL	HP	Del. Size mm	HEAD IN METERS																
			16	18	20	24	26	30	35	40	45	50	55	60	65	70	80	85	90
2PD4SM45S61L	40/45	150	4800	4700	4600	4350	4150	3650	2900	1500									
2PD4SM45S61M	40/45	150				3500	3200	2900	2500	2000	1200	500							
2PD4SM45S61H	40/45	150								1200	1150	1100	1050	1000	950	800			
2PD4SM50S61L	50/55	150		5200	5100	4900	4800	4500	4000	3000	2000	700							
2PD4SM50S61M	50/55	150						3500	3200	2900	2500	2000	1200	500					
2PD4SM50S61H	50/55	150											1126	1100	1050	1025	1000		
2PD4SM60S61L	60/65	150			5500	5300	5200	5100	4700	4200	3200	2250	1000						
2PD4SM60S61M	60/65	150								3500	3200	2900	2500	2000	1200	500			
2PD4SM60S61H	60/65	150												1126	1100	1050	1025	800	
2PD4M70S81L	70/75	200						6150	5725	4750	2700	900							
2PD4M70S81M	70/75	200									4000	3500	3000	2300	1500	1000			
2PD4M70S81H	70/75	200									2700	2500	2400	2200	2000	1800	1400	1200	800
2PD4M80S81L	80/85	200						6450	6100	5600	4200	2500	1000						
2PD4M80S81M	80/85	200										4000	3500	3100	2500	1700	800		
2PD4M80S81H	80/85	200										2700	2500	2400	2200	2000	1800	1400	1000
2PD4M90S81L	90	200			8500	8200	7800	7500	7000	6200	4000	1200							
2PD4M90S81M	90	200							6700	6375	5700	4250	2500	900					
2PD4M90S81H	90	200									4650	4300	4250	3900	3300	3000	2500	2400	1300
2PD4M100S81L	100	200				8500	8200	7800	7500	7000	6200	4000	1200						
2PD4M100S81M	100	200									7045	6650	6025	4625	3000	1175			
2PD4M100S81H	100	200											4500	4200	3800	3500	3000	2500	1700

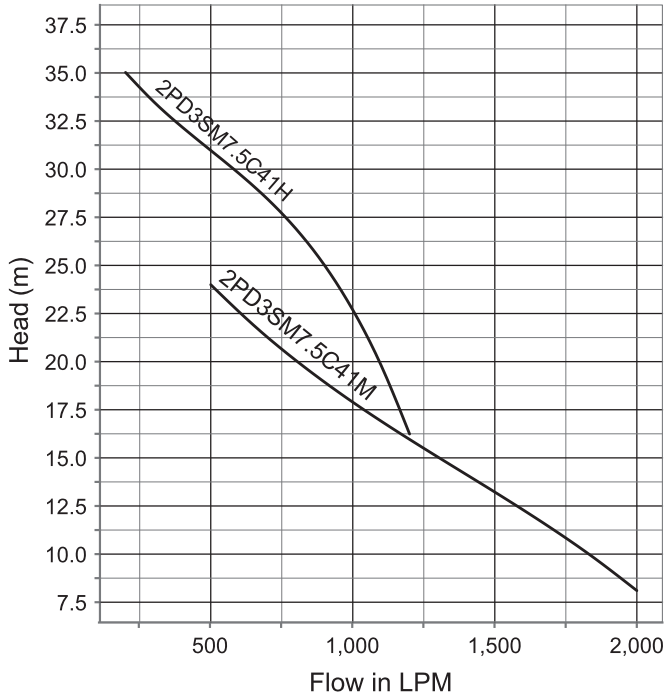
MODEL IDENTIFICATION



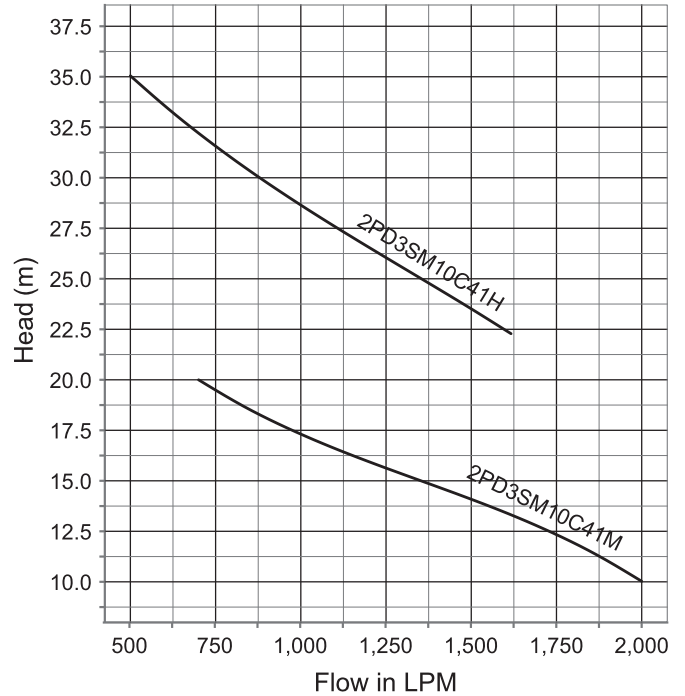
Submersible Polder Pumps

Performance Curves • 2900 RPM (400/440 V, 3 Phase, 50 Hz, A.C. Supply)

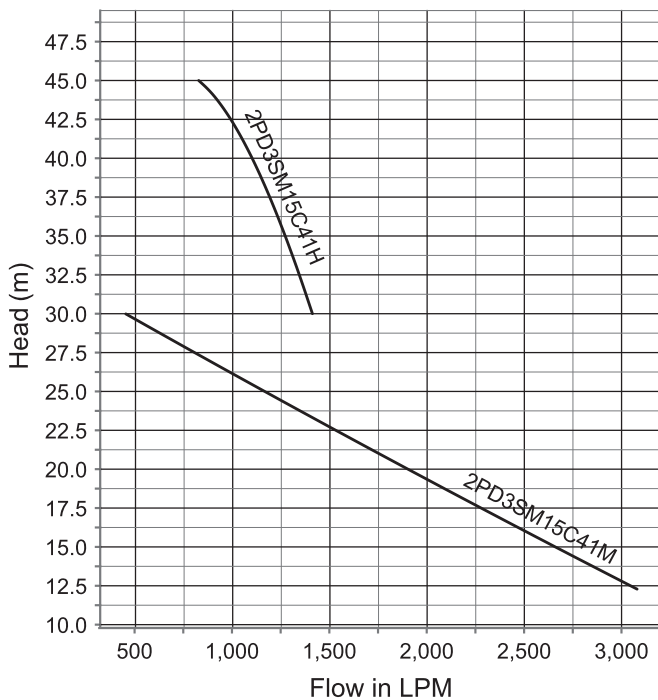
7.5 HP



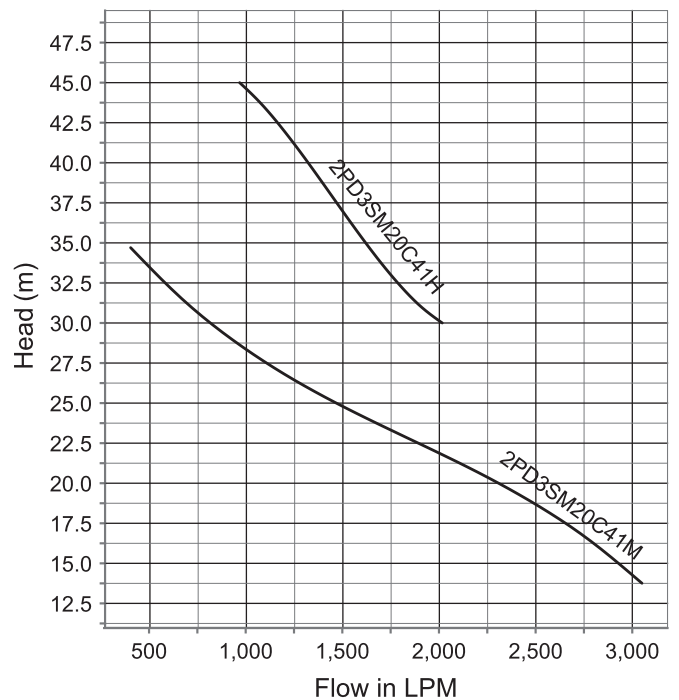
10 HP



15 HP



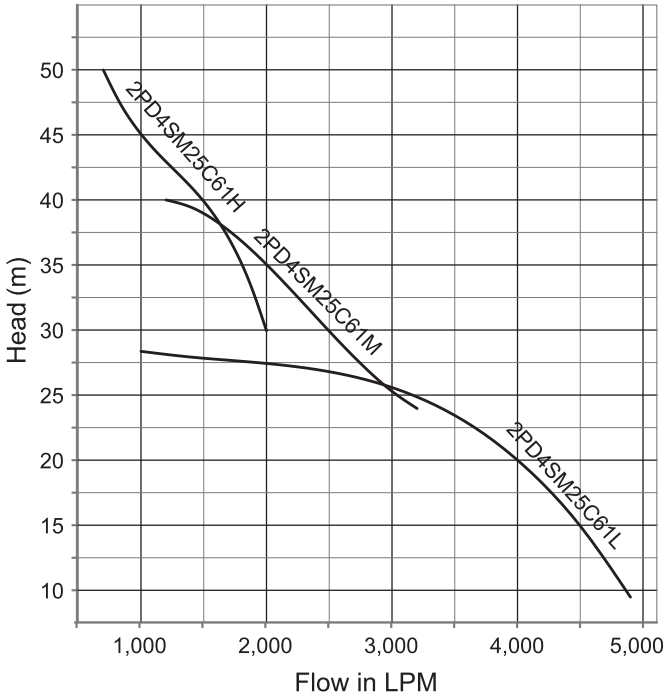
20 HP



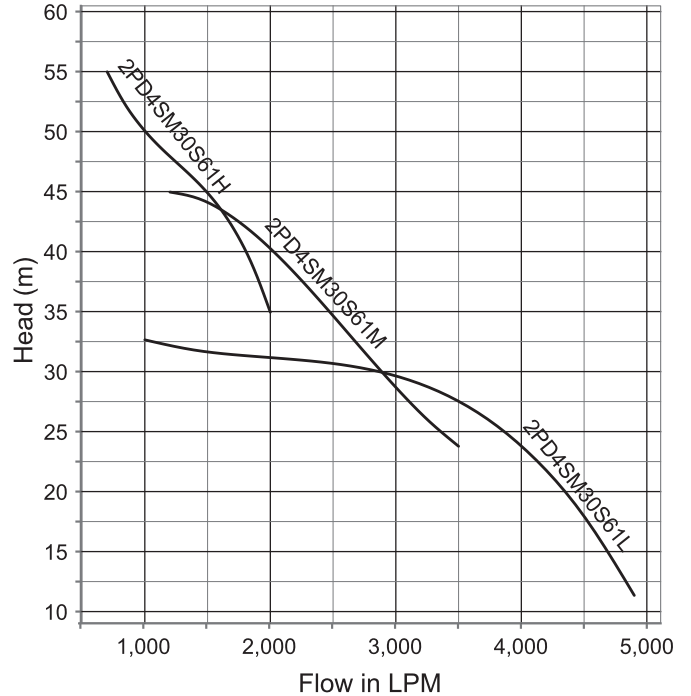
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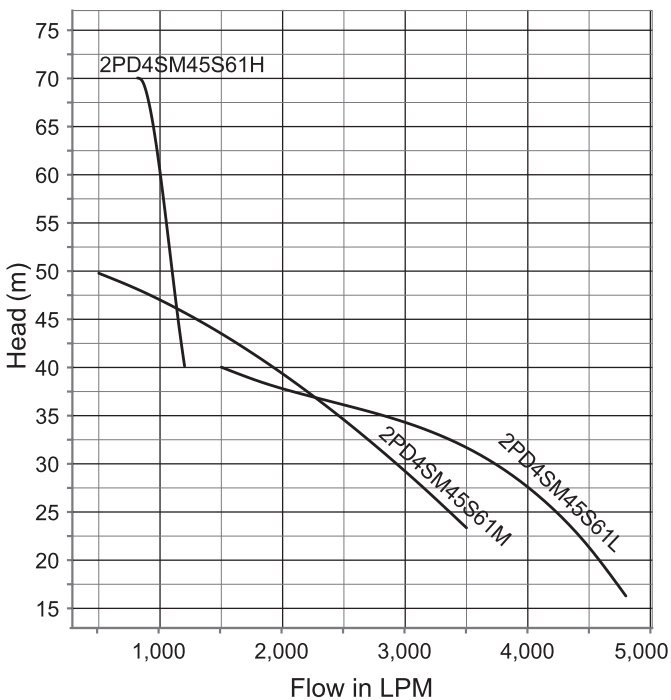
25 HP



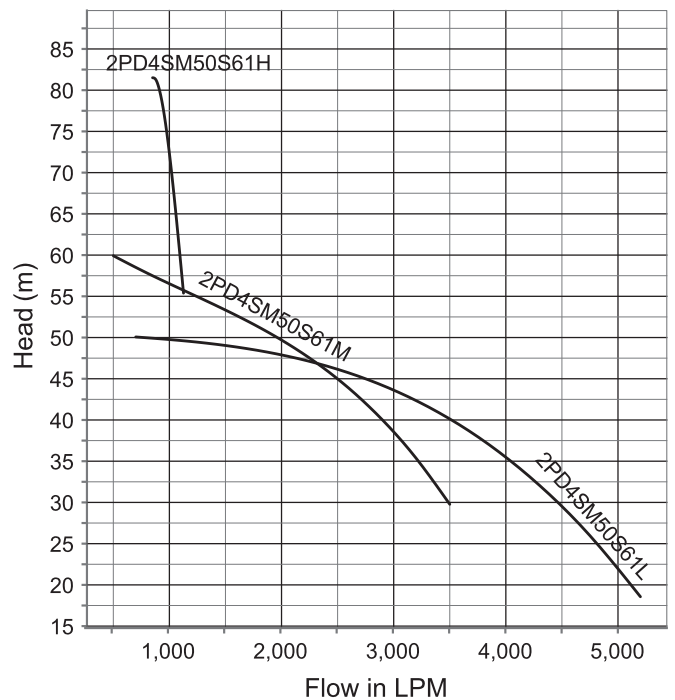
30 HP



45 HP



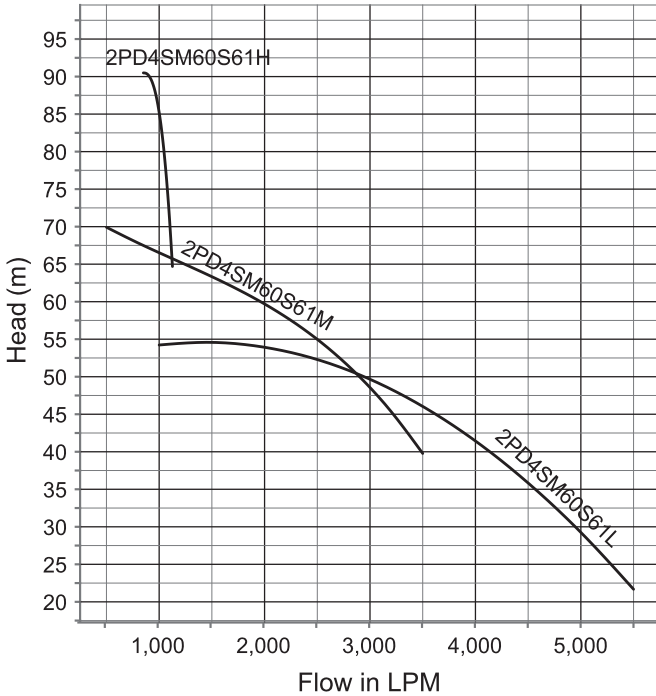
50 HP



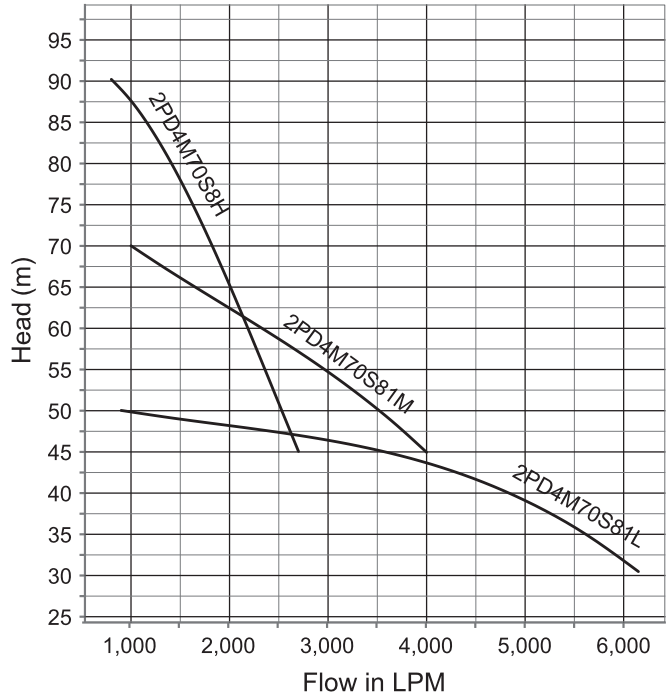
Submersible Polder Pumps

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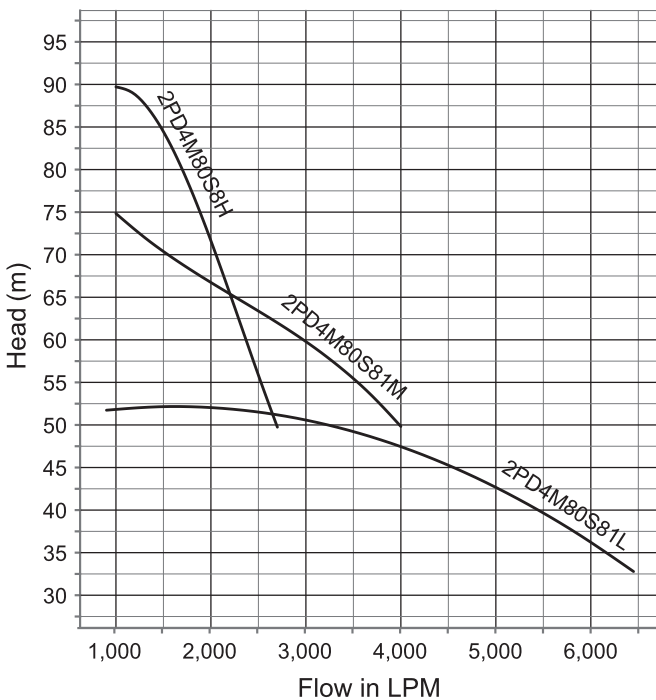
60 HP



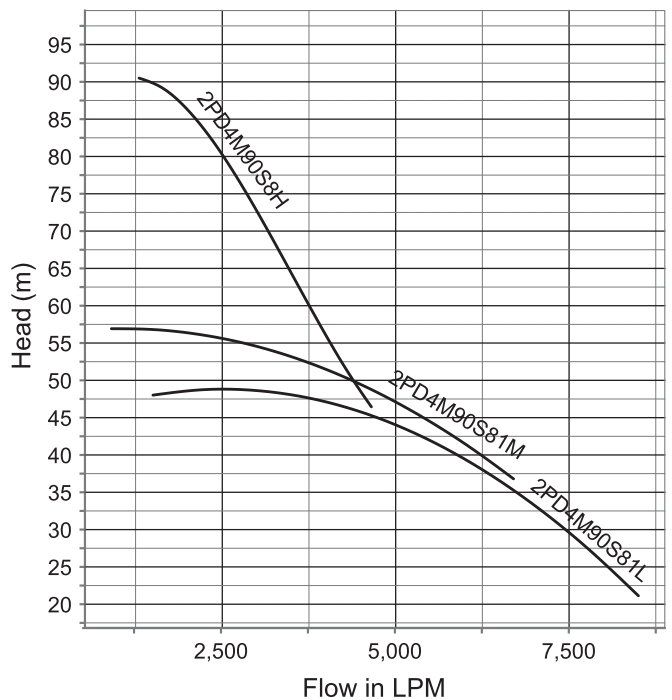
70 HP



80 HP



90 HP



Submersible Polder Pumps

Performance Curves • 2900 RPM (400/440 V, 3 Phase, 50 Hz, A.C. Supply)

100 HP

