



Quality, Reliability, Life

Self Priming Sewage Pump



www.prakashpump.com

Applications

- Waste water treatment plant
- Washing, cooling, circulation
- Smoke scrubbing, civil engineering
- Marine ballasting & bilge, municipal project
- liquid transfer : clean or dirty water, mixed liquids, abrasive or corrosive liquids, low viscosity of petroleum products

Performance Range

- Capacity : up to 144 m³/h
- Head : up to 31 meters
- Speed : 1450 & 2900 RPM
- Power : 2.2 - 15kw

Application Limits

- Self priming head : 3-7 m
- Water temperature : up to 85 °C
- Liquid pH value : 4 to 10
- Viscosity : 50 mm²/sec
- Outlet : 50-100mm

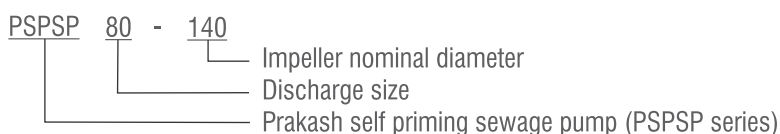
Motor Details

- 2 & 4 pole Induction motor
- Speed : 1450 & 2900 RPM
- Insulation class : F
- Voltage : Single Phase 220v-240v, 50Hz
Three Phase 380v-420v, 50Hz

Salient feature

PRAKASH PSPSP series are self-priming, solid handling, resistant to abrasion. These pumps can handle liquids up to a viscosity of about 50mm²/s. They are designed with the advanced device maintenance hole and wear plate, easy to clean and flush. PSPSP pumps have wide application in industry, marine and waste treatment.

Model Instruction



Design & Structure

Design	Performance and dimension referring to the European standard
Structure	Semi-open impeller, single suction, self-priming, maintenance hole, wear plate
Flange	Pump casing are casted with threaded flange, screw flange for discharge size <100mm

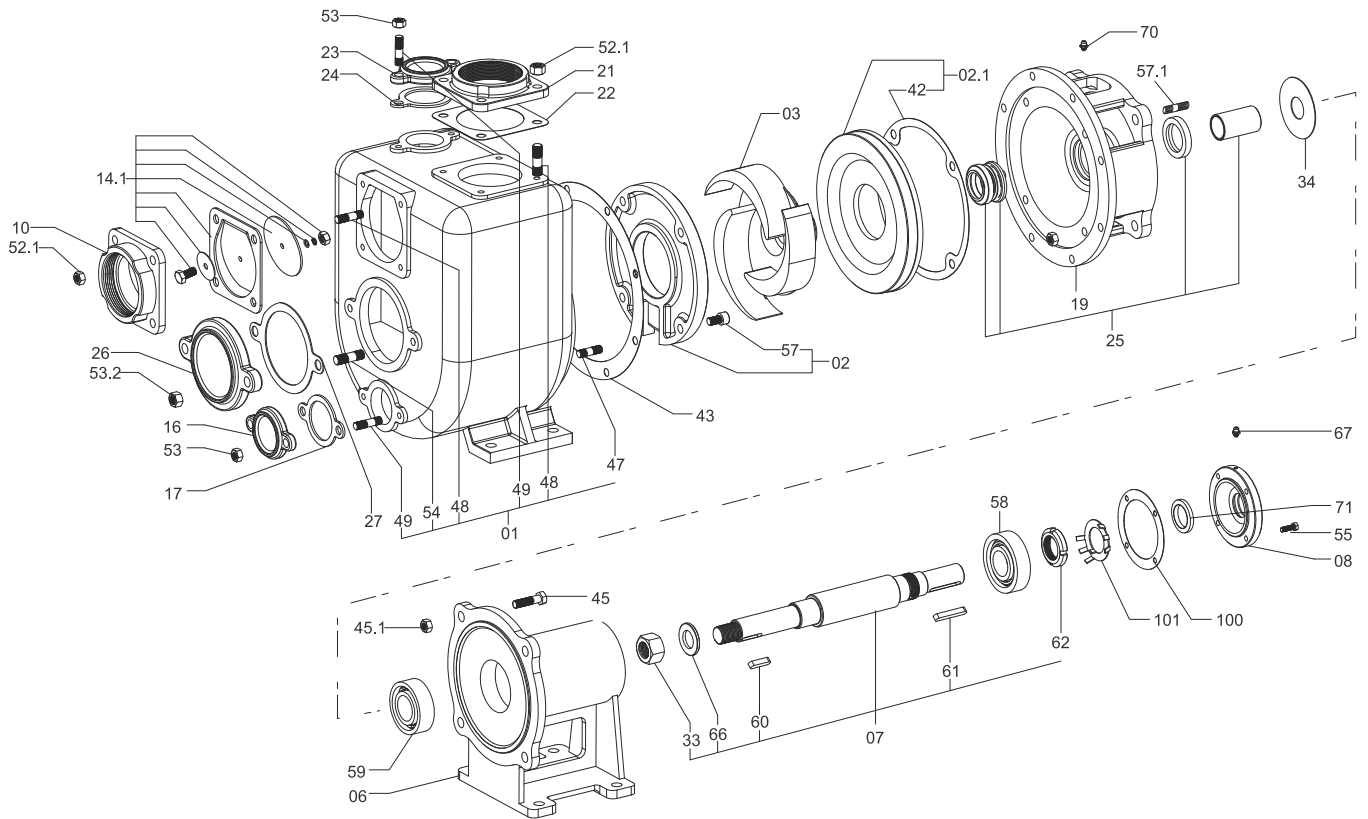
Material

Part	Standard material	Options on request
Casing	Cast iron	Ductile iron
Impeller	Bronze	Cast iron / ATSM304 / ASTM316
Wear plate	Bronze	Cast iron / ATSM304 / ASTM316
Shaft	ASTM304	ATSM1045 / ATSM316 / ASTM420
Shaft seal	Mechanical seal	-

Material code

C	: Cast iron	45	: ASTM1045
Q	: Ductile iron	304	: ASTM304
B85	: Bronze	316	: ASTM316
S	: ASTM420	M	: Mechanical seal

Exploded View



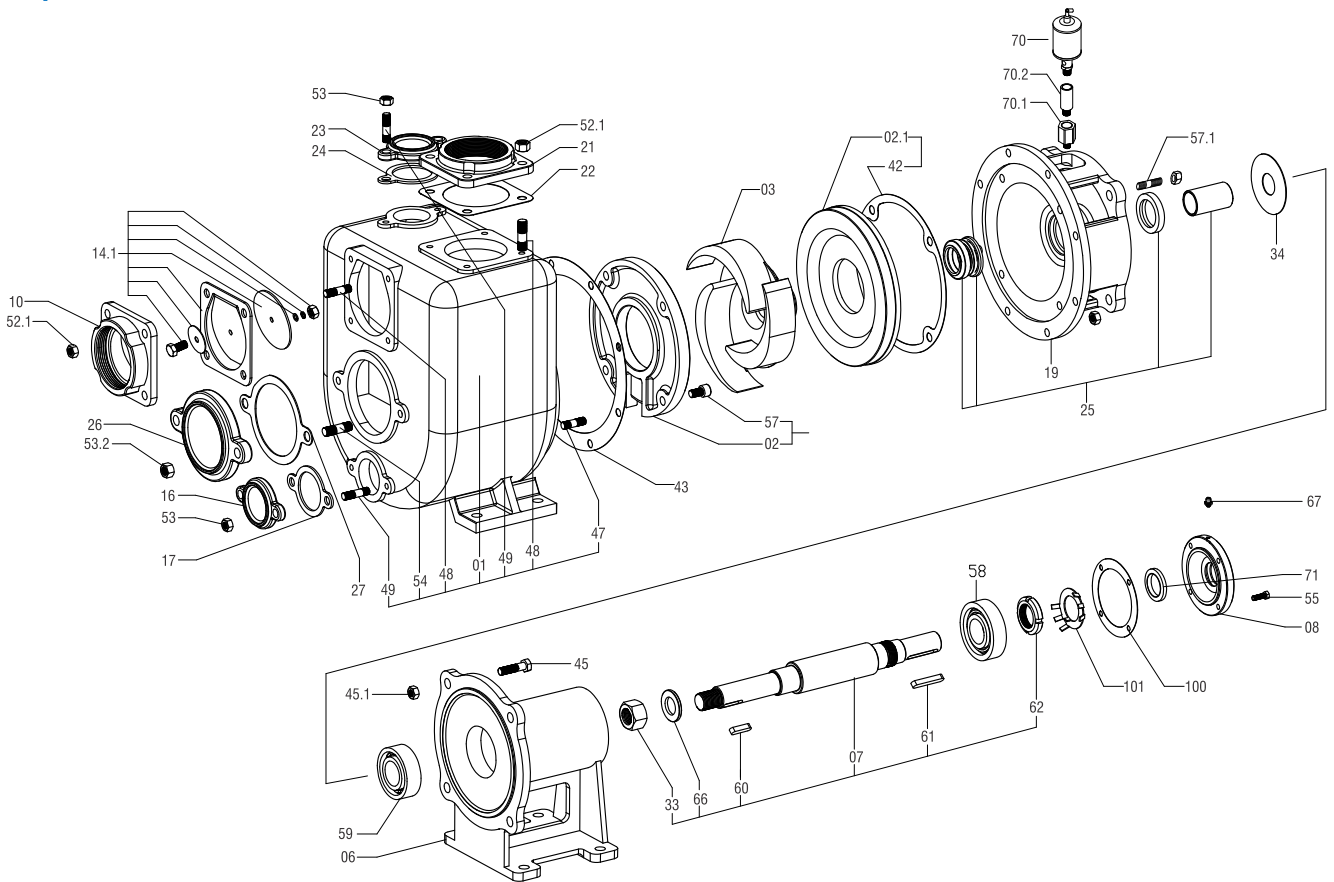
Material of Construction (MOC)

Code	Parts name	Material	Code	Parts name	Material
01	Casing	Cast iron HT200	34	Water deflector	ASTM304
02	Wear plate-front	Bronze	42	Back wear plate gasket	Paper
02.1	Wear plate-back	Cast iron HT250	43	Casing gasket	Paper
03	Impeller	Bronze	45	Bolt	Carbon steel
06	Bearing frame	Cast iron HT200	45.1	Nut	Carbon steel
07	Shaft	ASTM304SS	47	Stud	ASTM304SS
08	Bearing cover	Cast iron HT200	48	Stud	ASTM304SS
10	Suction flange	Cast iron HT200	49	Stud	ASTM304SS
14.1	Rubber check	Nitrile rubber	52.1	Nut	ASTM304SS
14.1	Front plate - check valve	Brass	53	Nut	Brass
14.1	Back plate - check valve	Brass	53.2	Nut	Brass
14.1	Bolt	ASTM304	54	Stud	ASTM304
14.1	Nut	ASTM304	55	Bolt	Carbon steel
16	Inspection cover	Cast iron HT200	57.1	Screw bolt	Carbon steel
17	Inspection cover gasket	Nitrile rubber	58	Ball bearing	NTN
19	Pump cover	Cast iron HT200	59	Ball bearing	NTN
21	Discharge flange	Ductile iron	60	Impeller key	ASTM304
22	Discharge gasket	Nitrile rubber	61	Shaft key	ASTM1045
23	Inspection cover	Cast iron HT200	62	Bearing lock nut	ASTM1045
24	Inspection cover gasket	Nitrile rubber	66	Flat washer	ASTM304
25	Shaft sleeve	ASTM304	67	Grease cap	Brass
25	Oil seal	Nitrile rubber	70	Grease cap	Brass
25	Mechanical seal	Sic-carbide/Tungsten carbide/viton	71	Lip seal	
26	Inspection cover	Cast iron HT200	100	Bearing cover gasket	Paper
27	Inspection cover gasket	Nitrile rubber	101	Bearing lock nut washer	Carbon steel
33	Impeller nut	ASTM304			

Self Priming Sewage Pump

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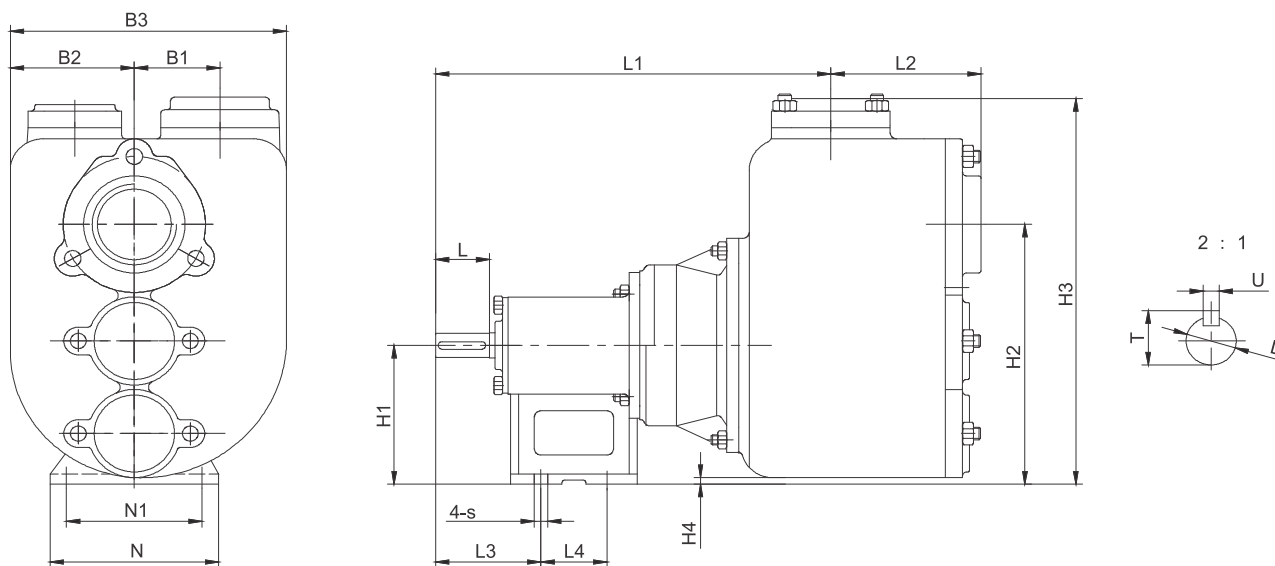
Exploded View



Material of Construction (MOC)

Code	Parts name	Material	Code	Parts name	Material
01	Casing	Cast iron HT200	42	Back wear plate gasket	Paper
02	Wear plate-front	Bronze	43	Casing gasket	Paper
02.1	Wear plate-back	Bronze	45	Bolt	Carbon steel
03	Impeller	Bronze	45.1	Nut	Carbon steel
06	Bearing frame	Cast iron HT200	47	Stud	ASTM304SS
07	Shaft	ASTM304SS	48	Stud	ASTM304SS
08	Bearing cover	Cast iron HT200	49	Stud	ASTM304SS
10	Suction flange	Cast iron HT200	52.1	Nut	ASTM304SS
14.1	Rubber check	Nitrile rubber	53	Nut	Brass
14.1	Front plate - check valve	Brass	53.2	Nut	Brass
14.1	Back plate - check valve	Brass	54	Stud	ASTM304
14.1	Bolt	ASTM304	55	Bolt	Carbon steel
14.1	Nut	ASTM304	57.1	Screw bolt	Carbon steel
16	Inspection cover	Cast iron HT200	58	Ball bearing	NTN
17	Inspection cover gasket	Nitrile rubber	59	Ball bearing	NTN
19	Pump cover	Cast iron HT200	60	Impeller key	ASTM304
21	Discharge flange	Ductile iron	61	Shaft key	ASTM1045
22	Discharge gasket	Nitrile rubber	62	Bearing lock nut	ASTM1045
23	Inspection cover	Cast iron HT200	66	Flat washer	ASTM304
24	Inspection cover gasket	Nitrile rubber	67	Grease cap	Brass
25	Shaft sleeve	ASTM304	70	Needle valve type oil cup	Brass & Plastic
25	Oil seal	Nitrile rubber	70.1	Socket M-F	ASTM304
25	Mechanical seal	Sic-carbide/Tungsten carbide/viton	70.2	Extension pipe M-F	ASTM304
26	Inspection cover	Cast iron HT200	71	Lip seal	
27	Inspection cover gasket	Nitrile rubber	100	Bearing cover gasket	Paper
33	Impeller nut	ASTM304	101	Bearing lock nut washer	Carbon steel
34	Water deflector	ASTM304			

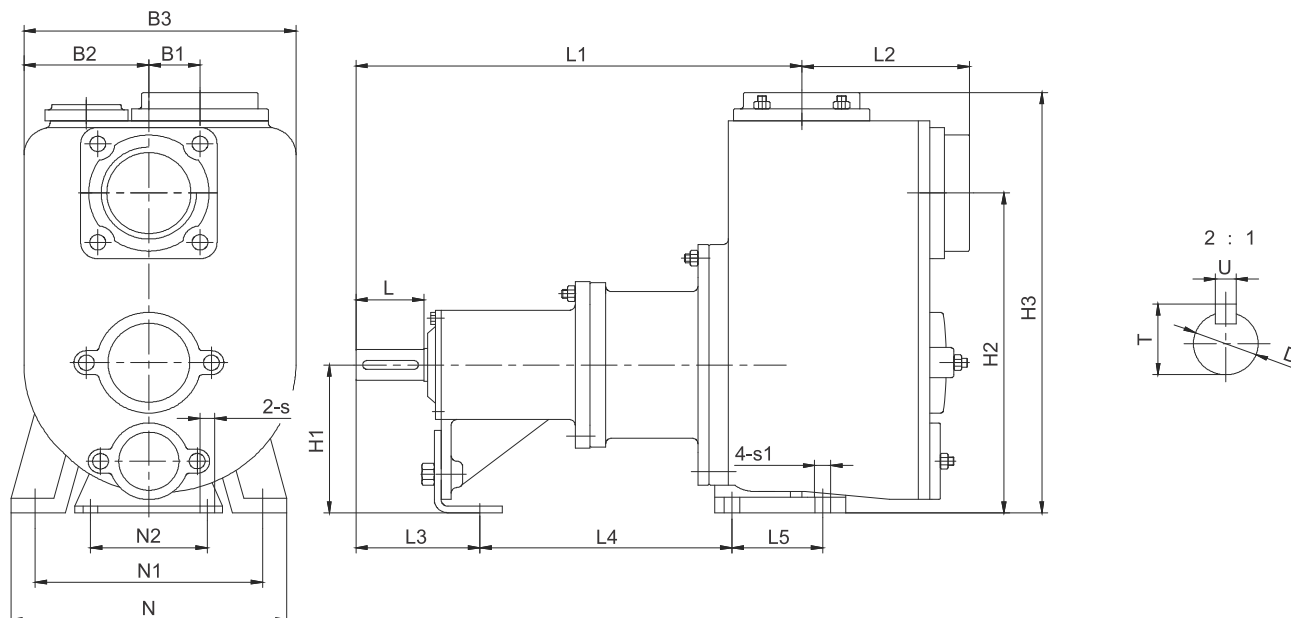
G.A Drawing



Dimensions (mm)

Model	B1	B2	B3	L1	L2	H1	H2	H3	H4	L	N1	N	L3	L4	S	T	U	D	Kg
PSPSP50-120	36	94	210	300	114	110	206	306	5	41	103	128	80	50	Ø12	21.5	6	Ø19	31
PSPSP100-160	37	150	300	442	180	160	341	462	10	60	150	182	110	125	Ø14	31	8	Ø28	130

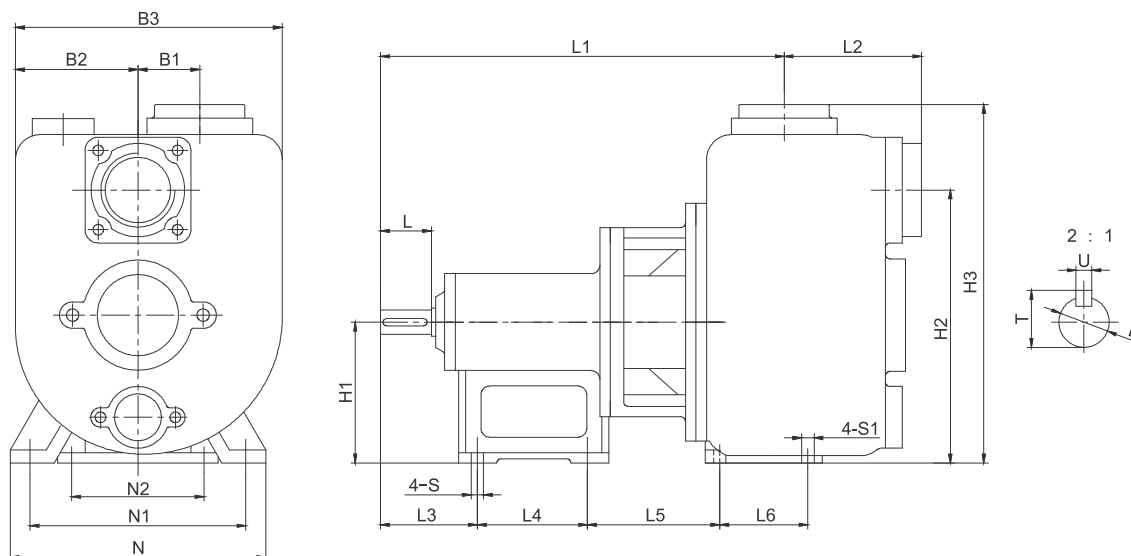
G.A Drawing



Dimensions (mm)

Model	B1	B2	B3	L1	L2	H1	H2	H3	N2	N1	N	L	L3	L4	L5	S	S1	T	U	D	Kg
PSPSP80-140	36	110	240	392	148	132	269	381	90	200	245	60	109	222	80	Ø14	Ø14	31	8	Ø28	55

G.A Drawing



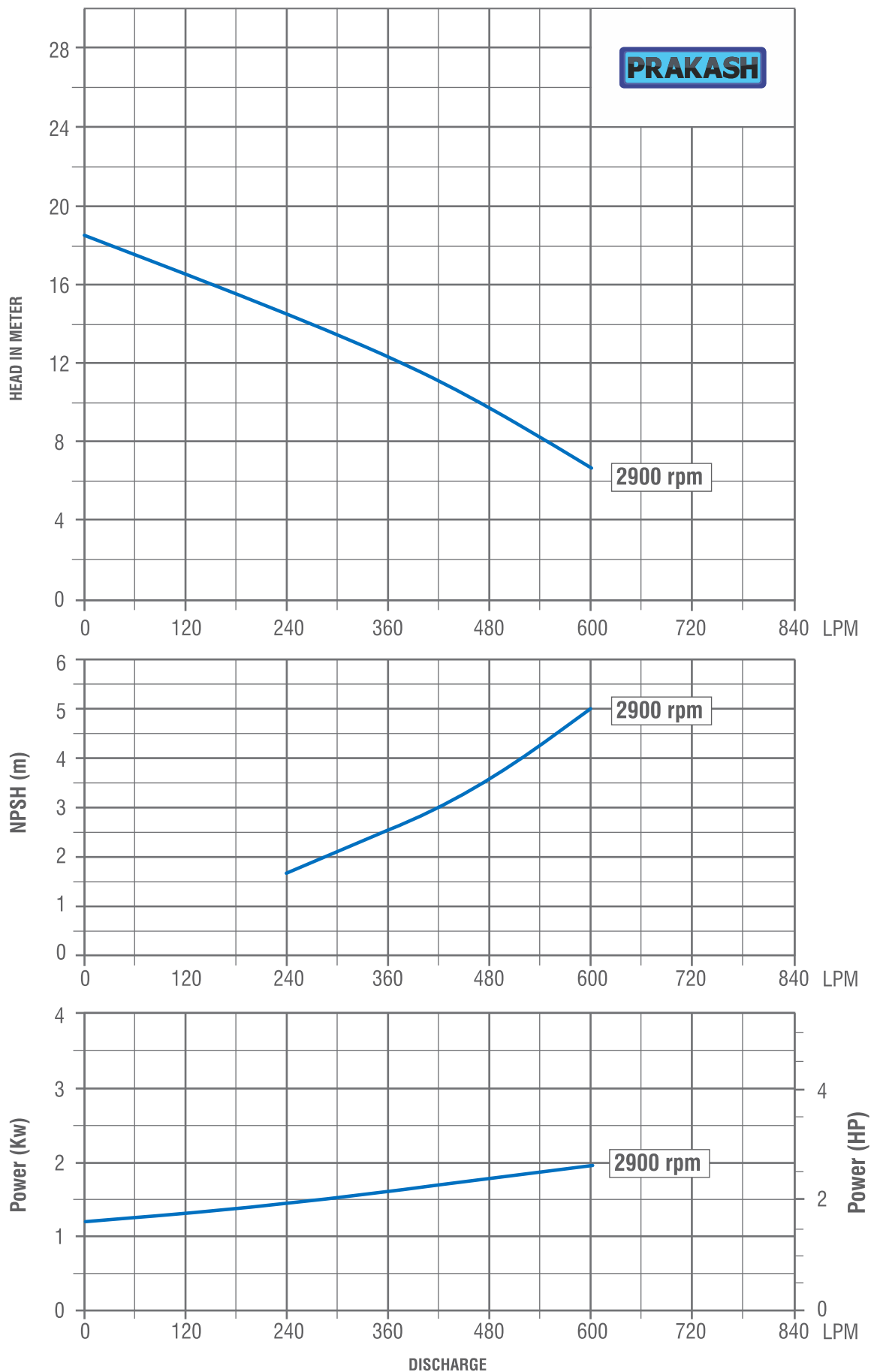
Dimensions (mm)

Model	B1	B2	B3	L1	L2	H1	H2	H3	N2	N1	N	L	L3	L4	L5	L6	S	S1	T	U	D	Kg
PSPSP80-215	70	139	303	458	155	160	318	410	150	245	290	60	110	125	150	100	Ø14	Ø14	31	8	Ø28	75

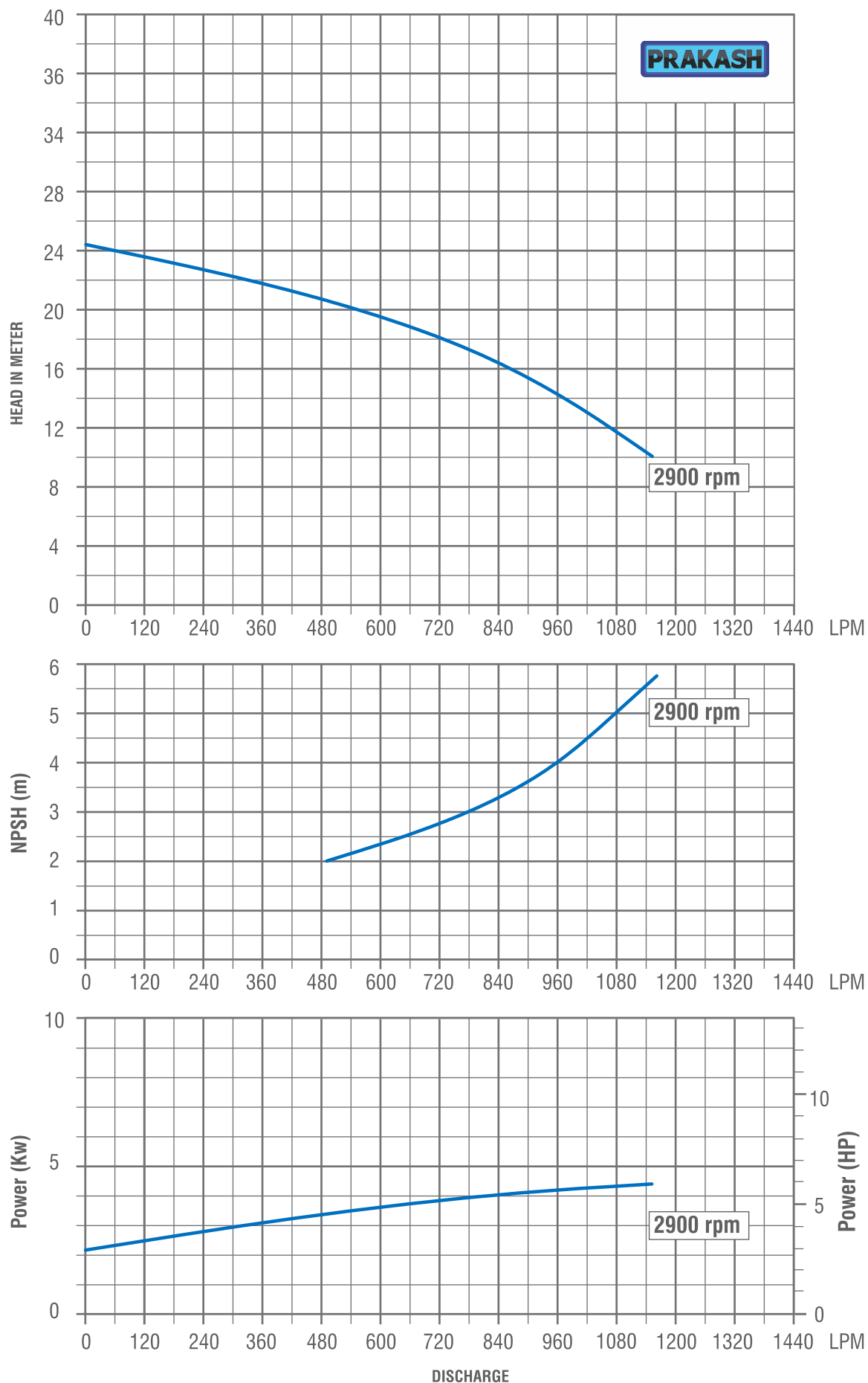
Performance Chart

Model	Speed (RPM)	Power (Shaft)		Inlet / Outlet	Particle size of pollutants	Head in meters	Flow		
		Kw	HP				M3/H	LPM	US GPM
PSPSP50-120	2900	2.2	3.0	2" x 2" (50 x 50)	25	18.5	0	0	0
						15	13	217	57.2
						11	25	416	110
						7.6	34	566	150
						6.8	36	600	158.4
PSPSP80-140	2900	5.5	7.5	3" x 3" (80 x 80)	28	24.5	0	0	0
						21.5	24	400	106
						18	43	716	189
						12	63	1050	277
						10	69	1150	304
PSPSP80-215	1450	4.0	5.5	3" x 3" (80 x 80)	40	15	0	0	0
						13	25	417	110
						11	44	733	194
						8	60	1000	264
						7	65	1183	286
PSPSP100-160	2900	15	20	4" x 4" (100 x 100)	45	31	0	0	0
						27	50	833	220
						23	100	1666	440
						17	130	2166	572
						14	144	2399	634
PSPSP100-160	1450	2.2	3.0	4" x 4" (100 x 100)	45	8	0	0	0
						7	20	333	88
						6.2	40	666	176
						3	60	1000	264
						2.5	80	1333	352

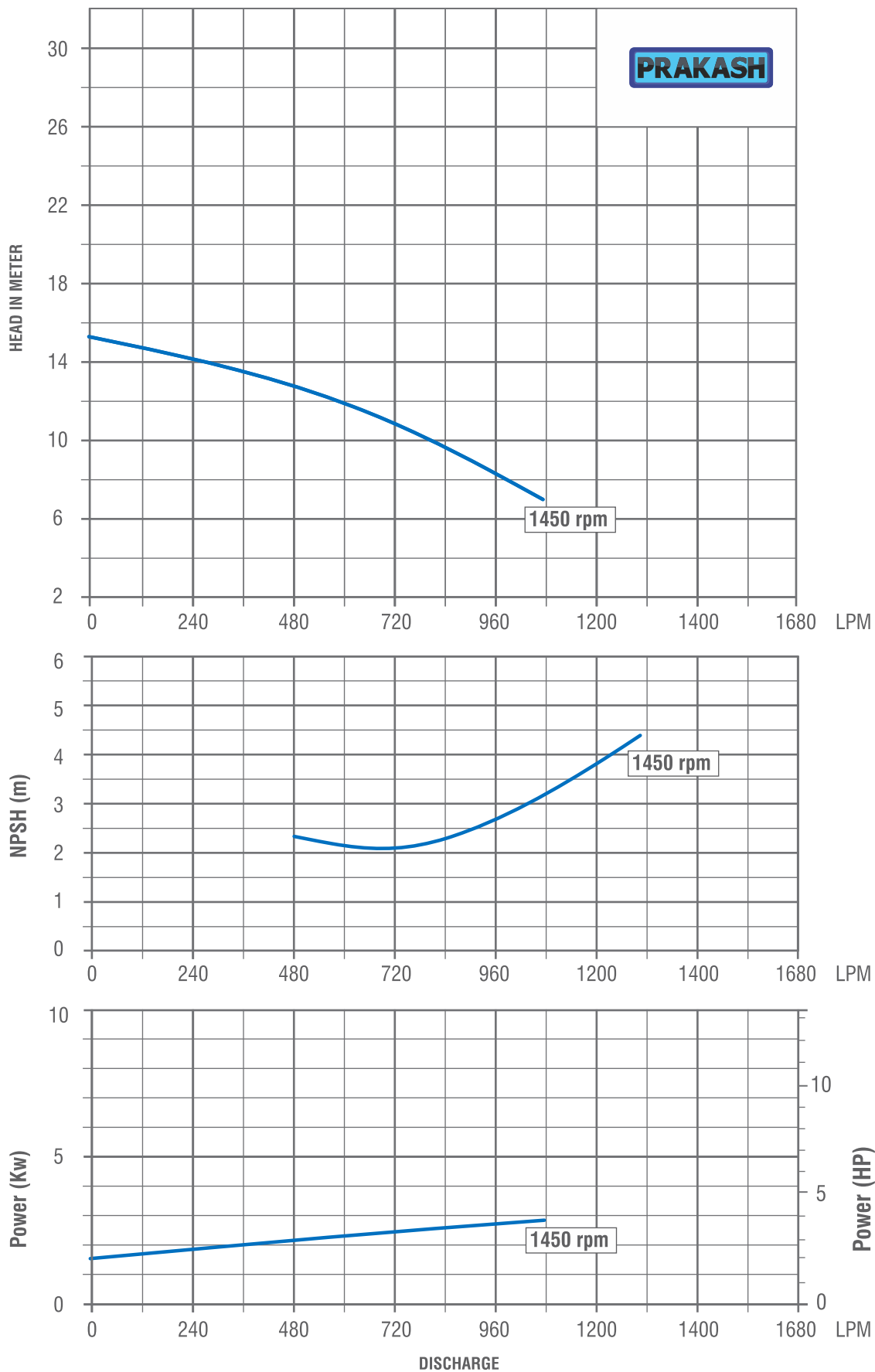
HYDRAULIC PERFORMANCE CURVE PSPSP50-120 2900RPM, 50Hz



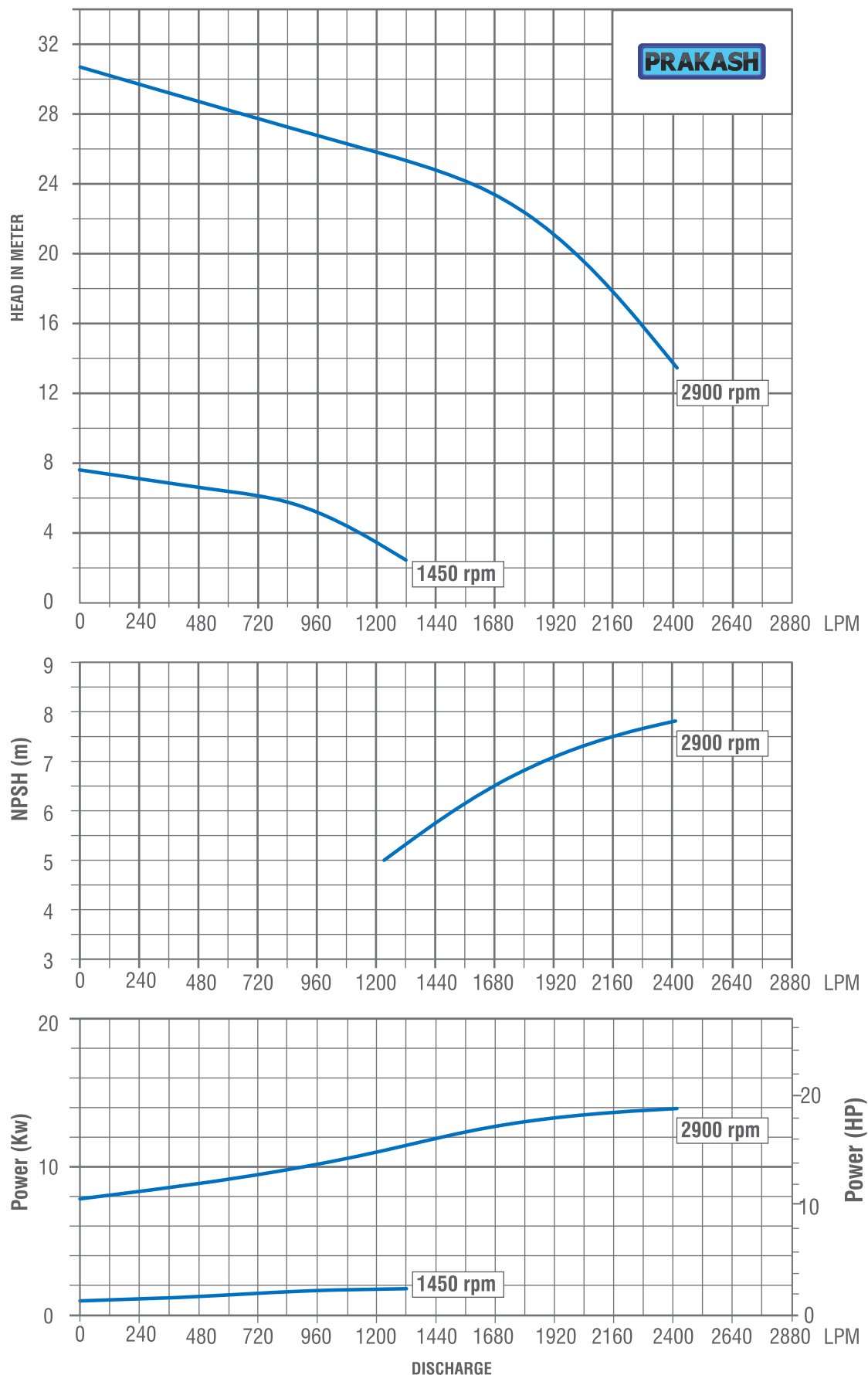
HYDRAULIC PERFORMANCE CURVE PSPSP80-140 2900RPM, 50Hz



HYDRAULIC PERFORMANCE CURVE PSPSP80-215 1450RPM, 50Hz



HYDRAULIC PERFORMANCE CURVE PSPSP100-160 1450 & 2900RPM, 50Hz



PRAKASH

Office in India

PRAKASH PUMP

Survey No. 479, Opp. Supreme Estate-1, Zak Kadadara Road, Vill. - Kadadara,
Tal. Dahegam, Gandhinagar, Gujarat 382305 INDIA E-mail: sale@prakashpump.com

Distributor Office for Middle East

PRAKASH PUMP EST

P.O. Box: 20973 Industrial Area Al Ain (United Arab Emirates)
Tel.: +971 3 7222733 Mob.: +971 50 6731283 E-mail: sale@prakashpump.com

Distributor Office for Oman

GLOBAL EQUIPMENT MATERIAL CO. LLC

P.O. Box. 227, Postal Code: 320 Nakhal Road, Barka (Sultanate of Oman)
Tel.: +968 26883982 Mob.: +968 94584686 E-mail: oman@prakashpump.com

Distributor Office for Saudi Arabia

PRAKASH PUMP INDUSTRY

P.O. Box 14327, Bldg. 3616, Al Marwah 6447, Al Mishael Riyadh City, (Kingdoms of Saudi Arabia)
Sulay Exit 18. Mobile: +966 539811109 Email: saudi@prakashpump.com

Factory Address

PANJI ENGINEERING PVT LTD

Survey No. 479, Opp. Supreme Estate-1, Zak Kadadara Road, Vill. - Kadadara,
Tal. Dahegam, Gandhinagar, Gujarat 382305 INDIA E-mail: sale@prakashpump.com



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sale@prakashpump.com / oman@prakashpump.com
/ saudi@prakashpump.com



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