



PD

Portable, Zero Suction; Submersible Contractor Dewatering Pumpset



Ultra Light in Weight...

...Heavy Duty in Performance



Slim Outside...

...Robust Inside



Abrasion Resistant...

...yet Tough



- **Hard Anodized, Die-Cast Aluminum Alloy Parts**
- **Abrasion Resistant, Rubber Lined Pump Diffuser**
- **Corrosion & Erosion Resistant, Pump Mechanical Seal of Silicon Carbide**



Premium Materials

- **99.9% Copper Wound Motor**
- **Stainless Steel:**
 - **Impeller,**
 - **Motor Jacket**
 - **Lifting Handle**
 - **Armour Braided Cable (1m)**
 - **Crack Resistant Hose Coupler**

Typical Segments



Construction Dewatering



Tunnel Dewatering



Building (Basements)



Industry



Controlling Flood Water



Thermal Power



Dams



Docks & Shipyard

Design: Pumpset

Stainless Steel Hose Coupler

(as standard): Allows a smooth slip on installation.

(**Flange Connector** available as an optional extra cost.)

Cable Gland: Hi-Fidelity

Stainless Steel Cable Gland protects against ingress of moisture even in case of cable sheath puncture.

Motor: IP 68

Enclosure, designed for 55°C ambient temperature.



Hi-Quality Mechanical Shaft Seal:

Always Cooled & Lubricated by Pre-Filled Buffer Oil Ensuring Ultra-Low Risk of Failure Due to Accidental Dry Running.

The Pump Mechanical Seal is made of Premium **Silicon Carbide** Faces to provides 5 times higher Corrosion, Wear & Heat Cracking Resistance (as compared to Competing designs which use Tungsten Carbide).

Oil Chamber

Large volume oil bath effectively lubricates & cools both the mechanical seals enabling longer safe dry running period.

Abrasion Resistant: Due to

Rubber Lined Impeller Suction Cover & Diffuser.

InBuilt Shock Absorbers: help avoids

damage due to Rough Handling.

SS Braid Armour Protected:

Cable Entry (upto 1m) to withstand Rough Handling.

Stainless Steel Lifting Handle

Bearings: Heavy duty, Greased for Life, Ball Bearings are used to carry all Thrusts.

Inbuilt Winding Thermal Sensor:

Protects the Motor Windings against Burn-Out by giving Alarm in case of Overheating.

Stainless Steel Jacket Casing:

ensures that the Pumped Liquid cools the motor before reaching the discharge pipe, allows safe & continuous motor operation even at very low suction water levels.

Shaft: Stainless Steel, Ultra

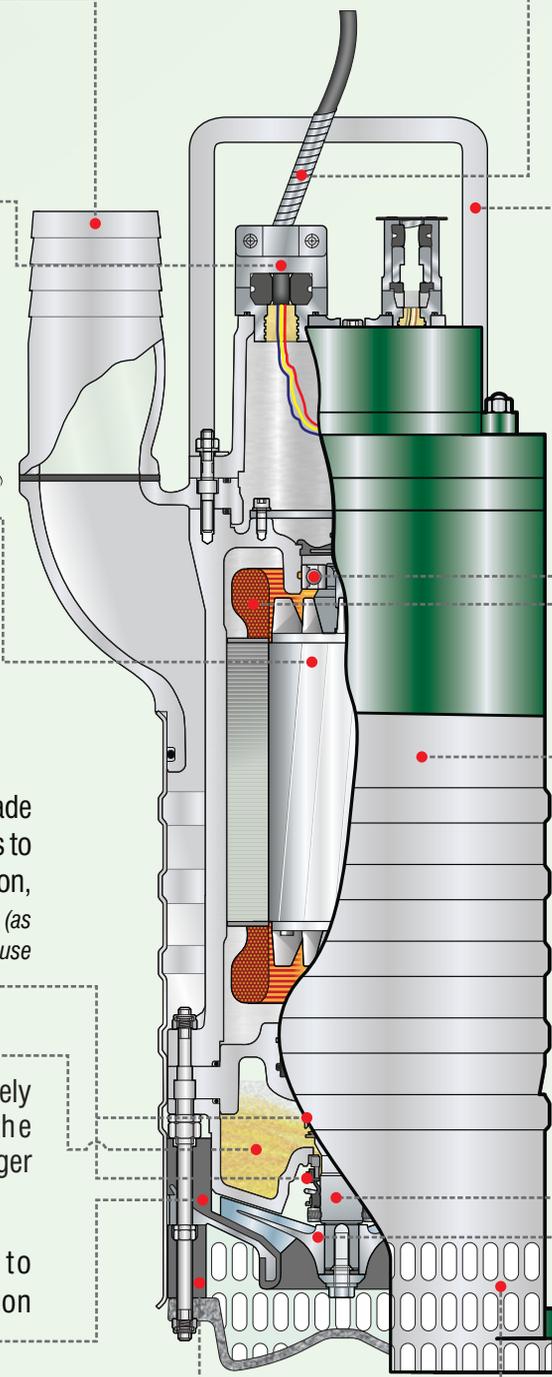
Heavy Sized **Mono** Shaft ensures Zero Spare Parts requirements throughout its Life.

Impeller: Wear Resistant SS

410 (CA15) as standard for Abrasive (Ar) Applications - Optionally of **SS 316 (CF8M)** for Sea Water (Se) applications.

Strainer & all Fasteners:

Stainless Steel & for better durability.



Sea Water Resistant (Se) version available with CF8M Impeller & Sacrificial Zinc Anodes.



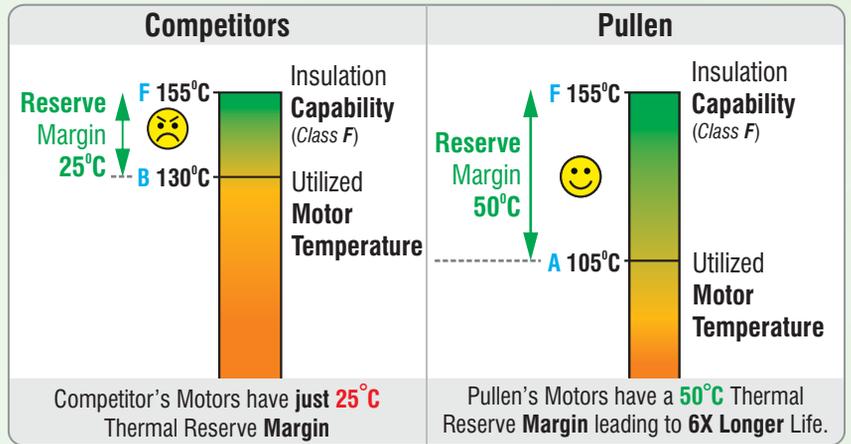
Flexible Starting Options:

To Safe Guard your Power Source against High Starting Current, Pumpsets Rated 7.5hp & above are Always equipped with Expensive (yet at No Extra Cost); 6 Wire Star Delta Winding & Cable - no need of expensive Soft Starters/ ATS/ VFDs & yet the same Motor can also be used Universally with DOL / ATS/ Soft Starter/VFD starters.



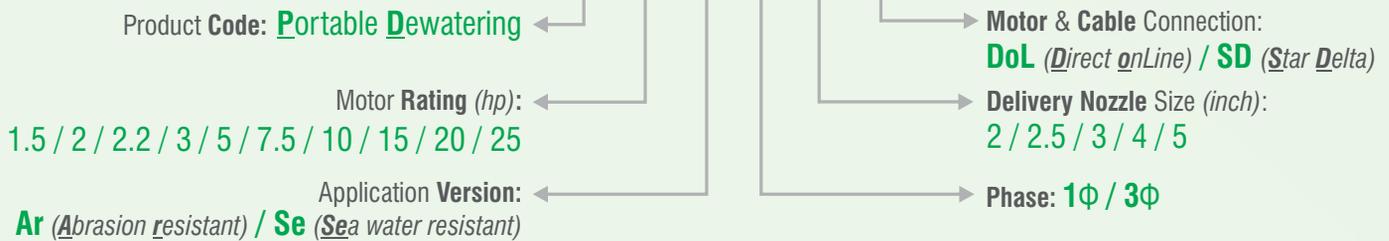
World's Best Premium Motor Insulation

Costlier Resin Impregnation (v/s cheaper Varnish - used by most Competitors) ensures Superb Di-Electric Strength; **Minimizing the Risk of Insulation Burn-out by 6X.**



Nomenclature

PD 7.5 Ar 3φ 2.5 Do



Standard Technical Specifications

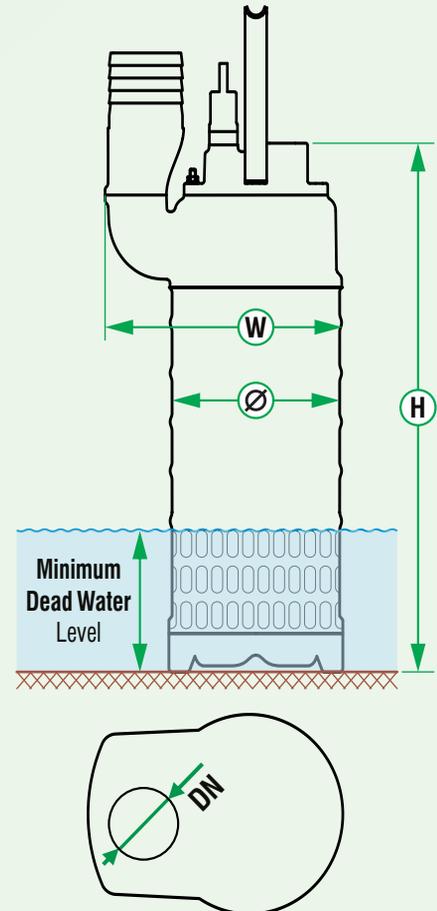
Phase & Power Supply		1φ; 230V; 50Hz			3φ; 415V; 50Hz							
Motor Rating	hp	1.5	2	2.2	3	5	7.5	10	15	20	25	
Delivery Nozzle Size (DN)	Inch	2	2.5	2	2.5	3	4	4	4	5	5	
	mm	50	65	50	65	80	100	100	100	125	125	
Discharge (Range)	m ³ /hr	6-24	9-36	7-28	10-42	15-63	20-84	22-92	24-102	36-154	39-165	
	lpm	94-397	143-607	110-467	165-700	248-1050	330-1400	363-1540	402-1703	605-2567	649-2753	
Head (Range)	m	9-4	11-5	12-6	14-6	17-7	19-8	23-10	31-14	33-13	40-15	
Application Version		Ar (Abrasion resistant) / Se (Sea water resistant) by default / optional							Ar (Abrasion resistant)			
Motor	Full Load Current	A	8.5	11.5	4.5	6.0	8.5	11.3	15.0	21.5	29.0	35.0
	Allowable Methods of Starting		DoL (with Capacitor)			DoL / ATS / Soft Starter			Star Delta // (DoL / ATS / Soft Starter)*			
	In-built default Protections (included in supply)	Moisture Seal Protection by	Stator Body Water Leakage Detector (SBWLD)					Primary Seal Leakage Detector (PSLD)				
		Winding Temperature Detector (WTD) by	Bi Metallic Strip (BMS)									
	Water Level Control by		Float Switch (with additional Scope of Supply & Cost)									
Speed	RPM	3000 (syn)										
Ambient Temperature		≤55°C										

*Cable connection is required to be modified for (DOL / ATS / Soft Starter) in Starter.



Dimensions & Weight:

Phase	Motor Rating	Delivery Nozzle Size (DN)		Pumpset Dimensions			Minimum Dead Water Required	Approx. Pumpset Weight (without cable)
				W	Ø	H		
φ	hp	inch	mm	mm			mm	kg
1φ	1.5	2	50	255	195	680	90	16
	2	2.5	65	255	195	680	90	18
3φ	2.2	2	50	255	195	680	90	23
	3	2.5	65	260	230	735	90	23
	5	3	80	260	230	735	90	36
	7.5	4	100	340	250	800	115	54
	10	4	100	340	250	800	115	60
	15	4	100	400	295	865	110	90
	20	5	125	445	345	970	160	131
25	5	125	445	345	970	160	136	



Optional Accessories:

Control cum Starter Panel



Indoor type
Wall Mounted



Outdoor type
Stand Mounted



Water Level Control
Float Switch



Flexible PVC /
Rubber Hose Pipes



Hose Coupler Clamp



Flange Connector

Manufactured & Marketed by:

Aqua Machineries Private Limited

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Registered Office & Manufacturing Plant

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