





The pump system consists of a centrifugal pump and a vacuum pump - making automatic priming possible. Even with suction heights of several meters the machine rapidly evacuates the air from the suction pipe and starts to pump. Additionally, thanks to the semi-open impeller, the PAS MF range is also suitable for pumping liquids with solids in suspension.

FEATURES	
Pump	High efficiency: 77% (B.E.P.)
Rapid "dry" priming	Up to a height of 7.5 m (24.6 ft)
High resistance	To abrasive liquids and turbid sandy waters
Semi-open impeller	Solids handling up to 76 mm (3")
Diaphragm vacuum pump	Oil free suitable for dry running: no contamination of the environment
Wear plates	Cast iron (G11 rubber lined) or stainless steel wear plates, that are easily replaceable
Mechanical shaft seal in oil bath	It allows the "dry running" operation of the pump
Easy maintenance	Hinged cover for direct access to the impeller (without lifting devices). Link belt quick to replace on the field.

PUMP SPECIFICATIONS		
PAS 150		
Dimensions	1200 x 2320 x 1480 mm 44 x 91 x 58 "	
H suction port	0,56 m (1.8 ft)	
Dry weight	1150 kg (2,540 lb)	
Wet weight	1350 kg (2,980 lb)	
Qmax	111 l/s - 400 m³/h	
Hmax	37 m (121 ft)	
Q max eff.	95 l/s - 340 m³/h	
Eff. max	77 %	
Suction port	Flanged - 150 TABLE E (AS 2129)	
Delivery port	Flanged - 150 TABLE E (AS 2129)	
Impeller type	Semi-Open, 2 vane	
Solids handling	76 mm (3.0")	

(111)		
MATERIAL	G11	F11
Casing	EN-GJL-200 cast iron	EN-GJL-200 cast iron
Impeller	EN-GJS-500 ductile iron	AISI 316L - CF3M stainless steel
Wear plates	EN-GJL-200 rubber lined cast iron	AISI 316L - CF3M stainless steel
Number of plates	2	2
Shaft	39NiCrMo3 steel	SAF 2205 stainless steel
Flushing	Yes	Yes
Mechanical seal	Tungsten carbide / Tungsten carbide	Tungsten carbide / Tungsten carbide
Elastomers	NBR/VITON	NBR/VITON

Specification is subject to change without prior notice. Please check with your local National Pump & Energy representative for the latest specifications.









PRIMING SYSTEM SPECIFICATIONS		
V20		
Vacuum pump type	Diaphragm	
Nominal air capacity	50 m³/h (29.4 cfm)	
Max vacuum	0,9 bar	
Separator type	Atlas Copco	
Separator material	EN AC-42100 (Al- Si7Mg0.3) - Aluminum	
Drives	Link belt	

ENGINE SPECIFICATIONS		
MAKE	DEUTZ	
Model	D 2.9 L4	
Туре	Diesel direct injection, aspirated	
Displacement	2.900 cm³ (177 in³)	
No. cylinders	4	
Cooling	Liquid with radiator	
Rpm type	Variable	
Standard speed	2.000 rpm	
US emissions	EPA Tier 3	
Starting	Electric	
Starting voltage	12 V	

SPEED (RPM)	1400	1600	1800	2000
Consumption [I/h]	6	7	7.7	8,4
Power [kW]	22	25	27	29,5
Power [HP]	26,5	33,5	36,3	39,5

CONTROL PANEL SPECIFICATIONS

PWK37 KENSHO CONTROLLER

Manual operation: start, stop

Automatic operation: start-stop with floats

Digital display with 2 languages (EN, CN) with: Hour meter, Rev counter, Liquid temperature, Oil pressure

Battery voltmeter, Fuel level (%)

Engine control unit (ECU) commands shutdown, derating or running depending on operating anomalies

Automatic engine shutdown in case of:

- low oil pressure
- water overheating
- low battery voltage (engine failure alarms with LED lights and display message)

Service time (hours)

Emergency stop button

Push-button accelerator (up/down)

(PW1 FleetLink control as option)

ARRANGEMENT SPECIFICATIONS

TECHNICAL DATA	
Material	S235JR EN 10025-2 carbon steel
Coatings	Epoxy powder, average thickness of 80 µm
Colour	Yellow and grey (standard)
Features	Painted steel base. Hardhart Gullwing doors.
Battery	Acid charge Pb-Ca maintenance free 12 V - 100 Ah - 400 A
Tank	200 I (52.8 USG)
Optional supply	(External fuel connection as option)
Drip pan	250,0 I (66.0 USG) (125 % of the total volume of the tank)
Emergency stop	Outside the canopy









PERFORMANCE CURVES

TEST ACCORDING TO UNI EN ISO 9906 STANDARD - LEVEL 2B

Test liquid Clean water, density 1,000 kg/m³

Spherical solids handling D.76 mm (3")

Max absorbed power 27,0 kW - 36.2 HP (2.000 rpm)

Losses from priming system and check valve not included



















