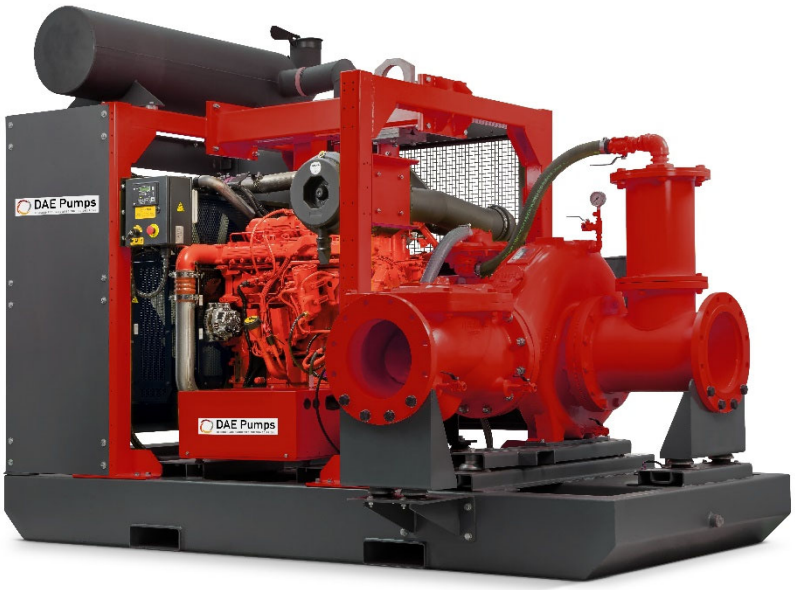
DAE Pumps
DESIGNED AND ENGINEERED PUMPING SOLUTIONS

Appalachian 120

Self-Priming Surface Pump



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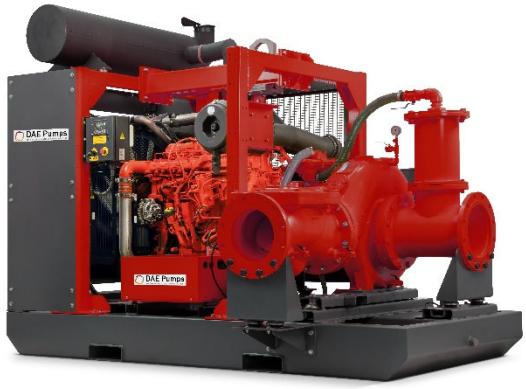


Benefits

Pump: High efficiency: 72% (B.E.P.)
Rapid "dry" priming: Up to a height of 24.6 ft (7.5 m)
High resistance: To abrasive liquids and turbid sandy waters
Semi-open impeller: Solids handling up to 3.5" (89 mm)
Diaphragm vacuum pump: Oil free suitable for dry running: no contamination of the environment
Mechanical shaft seal in oil bath: It allows the "dry running" operation of the pump

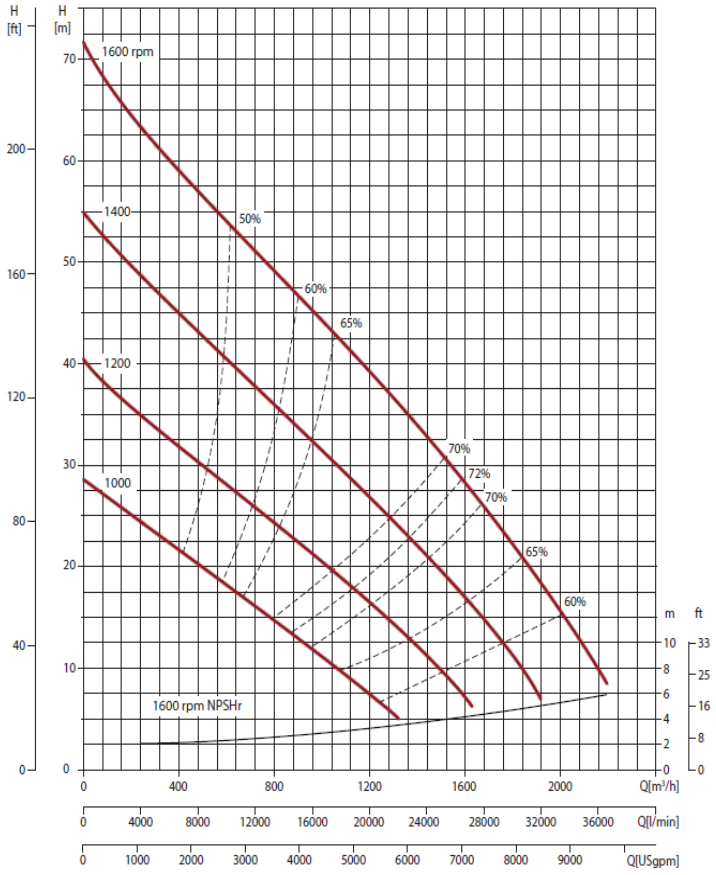
Appalachian 120 – Self-Priming Surface Pumps

The pump system consists of a centrifugal pump and a separator, which enables air to be separated from the liquid and be sucked by 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 Appalachian range is also suitable for pumping liquids with solids in suspension.

Applications

DAE Pumps has decades of experience in designing and producing pumps. We have put those years of expertise into providing a solutions portfolio that works across multiple applications. The Appalachian range is packed with features that not only meet but exceed the needs of the market. We are focused on an efficient, extremely versatile pump that is suitable for many industries, including construction, general dewatering and emergency applications, such as flood clean up.

Performance Curve



Test according to UNI EN ISO 9906 standard - level 2
Priming time: 30 s from 4.9 ft (1.5 m)
Test liquid: clean water, density 1,000 kg/m³
Max absorbed power: 195.0 kW - 261.5 HP (1,600 rpm)
Spherical solids handling: D. 3.5" (89 mm)

Technical data

Pump

Model	Appalachian 120
Qmax	2,160 m³/h – 36,000 l/min (9,510 GPM)
Hmax	71 m (233 ft)
Q max eff.	1,580 m³/h – 26,330 l/min (6,960 GPM)
Eff. max	72 %
Suction port	Flanged - ANSI 300
Delivery port	Flanged - ANSI 300
Impeller type	Semi-Open, 2 vane
Solids handling	89 mm (3.5 ")
Material	**G11**
Casing	ASTM A536 ductile iron
Impeller	ASTM A536 ductile iron
Wear plates	ASTM A48 Class 20 cast iron
Number of plates	1
Shaft	AISI 630 stainless steel
Mechanical seal	Silicon carbide / Tungsten carbide
Elastomers	VITON

Priming system

Vacuum pump	V22
Vacuum pump type	Diaphragm
Nominal air capacity	85 m³/h (50.0 cfm)
Max vacuum	0.9 bar (13.1 psi – 26.6 inHg
Separator type	-
Separator material	EN-GJL-200 cast iron
Drives	Link belt

Engine

Make			Perkins	
Model			TAD872VE	
Type			Diesel turbo common rail	
Displacement			7,700 cm³ (470 in³)	
No. cylinders			6	
Cooling			Liquid with radiator	
Rpm type			Variable	
Standard speed			1,600 rpm	
US emissions			EPA Tier 4F	
Starting			Electric	
Starting voltage			24 V	
Oil change interval			500 h	
Speed [rpm]	**1000**	**1200**	**1400**	**1600**
Power [kW]*	112.8	155.1	183.3	206.8
Power [HP]	151.2	207.9	245.7	277.2

* continuous power ISO 3046 ICXN

Control panel

Model	PW 750
Manual operation	
Automatic operation: start-stop with transducers or floats	
Digital display with 6 languages (EN, SV, FR, DE, ES, IT) with:	
Hour meter, Rev counter, Liquid temperature, Oil pressure and temperature	
Battery voltmeter, Fuel Level (%) and consumption (l/h)	
Automatic engine shutdown in case of:	
- low oil pressure	
- engine 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

Technical data	
Material	ASTM A36 steel
Coatings	Epoxy powder, average thickness of 3 MIL
Battery	Acid charge Pb-Ca maintenance free, 12 V – 100 Ah – 400 A
Tank	450 | (119 USG)
Drip pan	495 | (131 USG) (110% of the total volume of the tank)
Locking keys	Control panel door and canopy doors
Noise level	67-72 dB9A) @10 m (32 ft)
Fuel consumption	10 US Gal/hr @1600 rpm @BEP

Dimensional	
Dimensions	1940 x 3250 x2155 mm 76" x 128" x 85"
H suction port	0.7 m (2.3 ft)
Dry weight	3,700 kg (8,160 lbs)