

# Appalachian 60

# **Self-Priming Surface Pump**



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## Appalachian 60 - 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.

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: 51.0 kW - 68.4 HP (2,200 rpm)

Spherical solids handling: D. 3" (76 mm)

#### **Benefits**

Pump: High efficiency: 70% (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" (76 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

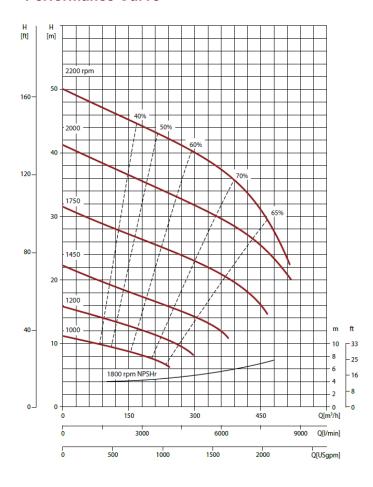
running" operation of the pump

Wear plate: Cast iron wear plate that is easily

replaceable

**Easy maintenance:** Hinged cover for direct access to the impeller (without lifting devices). Link belt quick to replace on the field.

#### **Performance Curve**





# **Technical data**

#### Pump

Model	Appalachian 60
Qmax	510 m³/h – 8,500 l/min (2,250 GPM)
Hmax	51 m (167 ft)
Q max eff.	390 m³/h – 6,500 l/min (1,700 GPM)
Eff. max	70 %
Suction port	Flanged - ANSI 150
Delivery port	Flanged - ANSI 150
Impeller type	Semi-Open, 2 vane
Solids handling	76 mm (3.0 ")
Material	G11
Casing	EN-GJL-200 cast iron
Impeller	EN-GJS-500 ductile iron
Wear plates	EN-GJL-200 cast iron
Number of plates	1
Shaft	39NiCrMo4 steel
Flushing	Yes
Mechanical seal	Tungsten carbide / Tungsten carbide
Elastomers	VITON

### **Priming system**

Lubrication

Vacuum pump	V20	
Vacuum pump type	Diaphragm	
Nominal air capacity	50 m³/h (29.4 cfm)	
Max vacuum	0.9 bar	
Separator type	-	
Separator material	EN-GJL-200 cast iron	
Drives	Link belt	

Oil

#### Engine

Engine							
Make		Kohler					
Model		KDI 2504TCR					
Туре		Diesel turbo common rail					
Displacement		2,482 cm³ (151 in³)					
No. cylinders		4					
Cooling		Liquid with radiator					
Rpm type		Variable					
Standard speed		2,200 rpm					
US emissions		EPA Tier 4F					
Starting		Electric					
Starting voltage		12 V					
Oil change interval		500 h					
Speed [rpm]	1200	1400	1600	1800	2000	2200	
Power [kW]*	32	39.6	45	47.7	49.1	49.7	
Power [HP]	42.9	53.1	60.4	64.0	65.9	66.7	

<sup>\*</sup> 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 (I/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	Polyester powder, average thickness of 3 MIL
Features	Lifting beam
Battery	Acid charge Pb-Ca maintenance free,
	12 V - 1100 CCA
Tank	54 USG
Locking keys	Fuel cap
Fuel consumption	3.5 US Gal/hr @2200 rpm @BEP
H suction port	31 in (2.6 ft)
Dry weight	4085 lbs

#### **Dimensional**

