

Appalachian H1080

High Head Self-Priming
Surface Pump



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Appalachian H1080 – High Head 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 with the best possible efficiency.

Applications

The DAE Pumps Appalachian H1080 pump is designed to withstand the toughest applications and deliver best in class pumping efficiency. One of the common areas of utilization is in the mining and oil & gas segment where reliability, efficiency and versatility is the key to providing a customized solution. Other suitable applications within construction and general dewatering, municipal as well as general industry are ideal for the Appalachian H1080 pump. Our pumps are packed with features that not only meet, but exceed the needs of our customers.

Test according to UNI EN ISO 9906 standard - level 2
 Losses from priming system and check valve not included
 Test liquid: clean water, density 62.43 lb./ft³ (8,345 lb./gal)

Benefits

Efficiency: The 17" impeller with 82% efficiency at B.E.P. provides the best pumping result with minimal efforts

Solids handling: Closed impeller type with solids handling capability of 3.5" for trouble-free operation

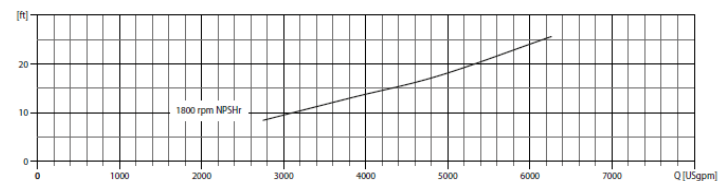
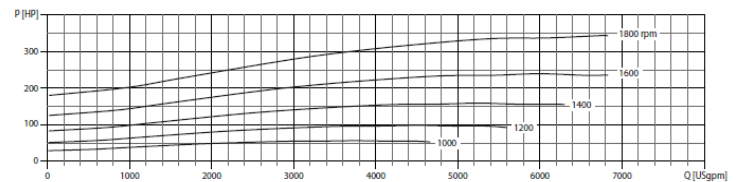
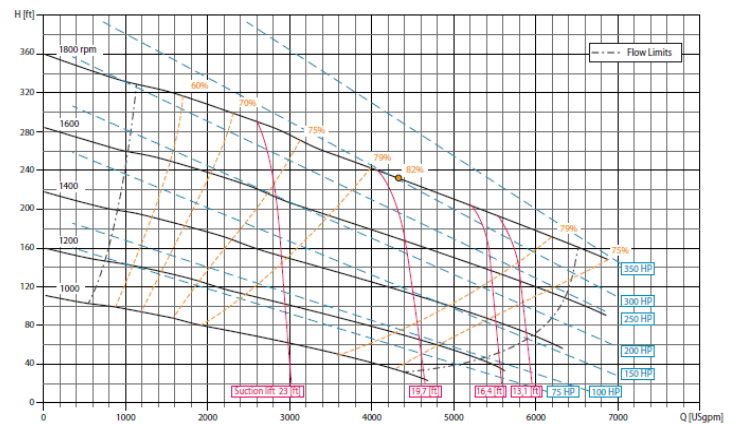
Footprint: Best in class footprint for the transport of 3x Appalachian H1080 pumps on the same trailer

Serviceability: Semi cartridge seal and bolted front wear ring for easy service

Polyethylene fuel tank: Corrosion-free PE tank provides a longer lifetime and avoids tank cleaning due to oxidation

Performance Curve

Speed	Impeller Dia.	Style	Solids Dia.	Ns	Suction	Discharge	No. Vanes
Various	17" / 440 mm	Enclosed	3.5" / 89 mm	1800 rpm	10" / 250 mm	8" / 200 mm	2



Technical data

Pump

Model	Appalachian H1080
Qmax	6,400 GPM
Hmax	360 ft
Q max eff.	4,270 GPM
Eff. max	82 %
Suction port	10" Flanged - ANSI Class 150
Delivery port	8" Flanged - ANSI Class 150
Impeller type	Closed, 2 vane
Impeller diameter	17"
Solids handling	3.5"
Material	
Casing	ASTM A536 ductile iron
Impeller	ASTM A743 CA6NM
Wear ring	ASTM A48 Class 20 grey iron
Wear plate	ASTM A48 Class 20 Grey Iron + NBR rubber coating
Shaft	AISI 630 Stainless steel
Mechanical Seal Faces	Silicon carbide Vs Silicon carbide
Elastomers	VITON
Check Valve	ASTM A536 ductile iron + NBR rubber flap
Separator	Steel

Priming system

Vacuum pump	
Vacuum pump type	Diaphragm
Nominal air capacity	50.0 cfm
Max vacuum	- 26.6 inHg
Drives	Link belt

Engine

Make	John Deere
Model	6090HFC09
Type	Diesel turbo common rail
Displacement	549 in ³
No. cylinders	6
Cooling	Liquid with radiator
Rpm type	Variable
Standard speed	1,800 rpm
US emissions	EPA Tier 4F
Starting	Electric
Starting voltage	24 V
Oil change interval	325 HP

Control panel

Model PW 750

Manual operation

Automatic operation: start-stop with transducers or floats

FleetLink optional

Arrangement

Technical data

Material	ASTM A36 steel
Coatings	Epoxy powder, average thickness of 3 MIL
Features	Lifting beam. Fork lift pockets. Pump access through hinged door. Protected PE fuel tank.
Battery	Acid charge Pb-Ca maintenance free, 24 V - 1100 CCA
Fuel tank capacity	250 USG
DEF tank capacity	14.8 USG
Fuel consumption	14.7 US Gal/hr @1,800 rpm @82% eff.
Dry weight	11,375 lbs
Wet weight	13,400 lbs

Dimensional

[in]

