BEN 4-250

Diesel - Qmax 180 m^3/h (790 USgpm) - Hmax 32 m (105 ft)



BEN 4-250 Liquid cooled engine



BEN 4-250 Air cooled engine

BEN - Centrifugal pumps for bentonite

The self-priming centrifugal pumps are for applications where the main feature is the difficulty in priming. Even with suction heights of several meters the machine quickly evacuates the air from the suction pipe and starts pumping. Additionally, thanks to special hard cast iron, the BEN range is also suitable for pumping high abrasive liquids such as bentonite muds.

Applications

Both Atlas Copco and Varisco have decades of experience in designing and producing pumps. We have put those years of expertize into providing a solutions portfolio that works across multiple applications. The BEN 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 and drilling.

Benefits

Rapid self-priming
Without foot valve up to a height of 7.5 m (24.5 ft)

Semi-open impeller
Solids handling up to 50 mm (2")

Easy maintenance
Removable front cover for direct access to the impeller

400 HB hardness cast iron
High resistance to abrasive fluids and muds with solids in suspension, specific weight up to 1,55 kg/l

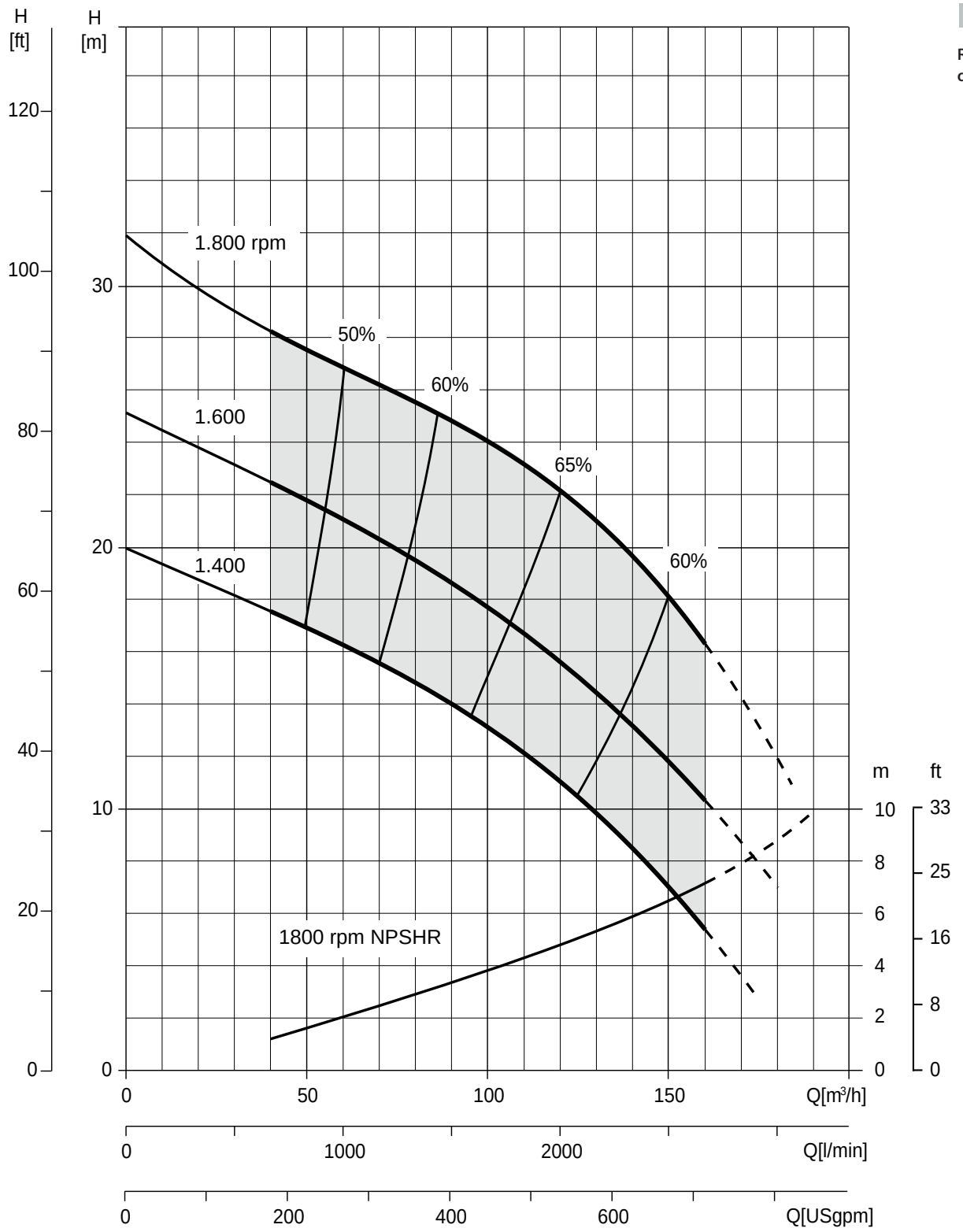
Wear plates
Cast iron (G11 rubber lined) or stainless steel wear plates, that are easily replaceable

BEN 4-250

Performance curves

Test according to UNI EN ISO 9906 standard - level 2
Test liquid: clean water, density 1,000 kg/m³
Spherical solids handling: D.50 mm (2")

Priming time: 18 s from 1,5 m (4.9 ft)
Max absorbed power: 13,2 kW - 17.7 HP (1.800 rpm)



BEN 4-250

Technical data

Pump

Model	BEN 4-250
Qmax	180 m^3/h - 3.000 l/min (800 USgpm)
Hmax	32 m (105 ft)
Q max eff.	120 m^3/h - 2.000 l/min (500 USgpm)
Eff. max	65 %
Suction port	Threaded - 4" BSP
Delivery port	Threaded - 4" BSP
Impeller type	Semi-Open, 2 vane
Solids handling	50 mm (2.0 ")
Material	**D11**
Casing	400 HB cast iron
Impeller	400 HB cast iron
Wear plates	400 HB cast iron
Number of plates	2
Shaft	39NiCrMo3 steel
Flushing	Yes
Mechanical seal	Silicon carbide / Silicon carbide
Elastomers	NBR

Engines

Make	Kohler				Deutz			
Model	KDI 1903M (KL10)				D2011L03I (ZD35)			
Type	Diesel direct injection, aspirated				Diesel direct injection, aspirated			
Displacement	1.861 cm^3 (114 in^3)				2.330 cm^3 (142 in^3)			
No. cylinders	3				3			
Cooling	Liquid with radiator				Air			
Rpm type	Variable				Variable			
Standard speed	1.800 rpm				1.800 rpm			
EU emissions	2002/88/CE Stage 3A				2002/88/CE Stage 3A			
US emissions	EPA Tier III				EPA Tier III			
Starting	Electric				Electric			
Starting voltage	12 V				12 V			
Oil change interval	500 h				300 h			
Market	UE				UE			
Speed [rpm]	**1200**	**1400**	**1600**	**1800**	**1200**	**1400**	**1600**	**1800**
Consumption [l/h]	3,5	4,4	5,1	5,4	3,4	4,2	5	5,6
Power [kW]	13,5	17,6	20,3	21,6	13,5	16,7	19,8	22,1
Power [HP]	18.1	23.6	27.2	29	18.1	22.4	26.6	29.6

Control panel

Model	CP KDI 1903M-2504M	CP KL DEUTZ 01
	Manual operation	Manual operation
	Digital hour meter	Hour meter
	Automatic engine shutdown in case of:	Engine failure alarms with LED lights in case of:
	- low oil pressure - water overheating - lack of battery charging (engine failure alarms with LED lights)	- low oil pressure - engine overheating - lack of battery charging
	Throttle rod	Throttle rod

BEN 4-250

Arrangements

Technical data	
Material	S275JR EN 10025-2 carbon steel
Coatings	Epoxy powder, average thickness of 80 µm
Color	Yellow and grey Atlas Copco (standard)
Features	Modular and demountable framework; hot dip galvanised steel support bases, bullbars and lifting beam. Mudguards with galvanised steel walkable surface. Tow bar, adjustable support feet. Lockable battery box. Fuel level indicator.
Battery	Acid charge Pb-Ca maintenance free 12 V - 100 Ah - 400 A
Tank	300 l (79.3 USG)
Locking keys	Fuel cap

BLOCK VAR 4-250



Dimensions	995 x 1770 x 1520 mm 39 x 70 x 60 "
H suction port	0,74 m (2.4 ft)
Weight (KL10)	780 kg (1,720 lb)
Weight (ZD35)	790 kg (1,740 lb)

SKID01 VAR 4-250



Dimensions	995 x 2200 x 1630 mm 39 x 87 x 64 "
H suction port	0,85 m (2.8 ft)
Weight (KL10)	880 kg (1,940 lb)
Weight (ZD35)	890 kg (1,960 lb)

SKID02 VAR 4-250



Dimensions	1070 x 2220 x 1670 mm 42 x 87 x 66 "
H suction port	0,89 m (2.9 ft)
Weight (KL10)	905 kg (2,000 lb)
Weight (ZD35)	915 kg (2,020 lb)

STACK VAR 4-250



Dimensions	995 x 1770 x 1580 mm 39 x 70 x 62 "
H suction port	0,74 m (2.4 ft)
Weight (KL10)	830 kg (1,830 lb)
Weight (ZD35)	840 kg (1,850 lb)

TRAILER VAR 4-250



Dimensions	1410 x 2330 x 1880 mm 56 x 92 x 74 "
H suction port	1,1 m (3.6 ft)
Weight (KL10)	910 kg (2,010 lb)
Weight (ZD35)	920 kg (2,030 lb)

Specification is subject to change without prior notice. Please check with your local Atlas Copco representative for the latest specifications.