

## GENERAL DESCRIPTION

# HH200 Pumpsets

The pump is basically a simple end suction pump which has a completely automatic priming system built into the design. This enables the pump to self prime from a completely dry condition even with a long suction line. No liquid of any nature is required to prime the pump and therefore in temporary dry trench conditions the pump will 'snore' until such time as liquid is available.

The compressor prime (CP) principal utilises a standard air compressor feeding a pneumatic ejector mounted above the air/water separation tank. With this device, suction lifts up to 8.2m (27ft) can be obtained.

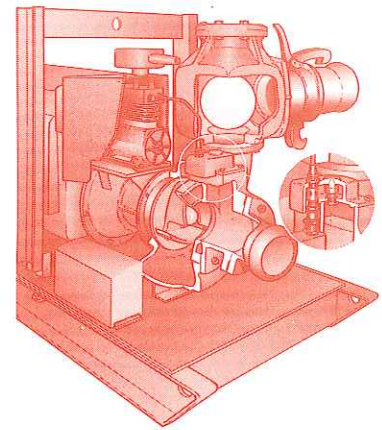
It can handle unscreened sewage, trade effluents, thick slurries and solids up to normal limitation of 80mm.

All wear parts are cast in 316 stainless steel. The impeller is a fully open 3 bladed design pump. The shaft is machined from 431 stainless steel.

The mechanical seal is dry running and fitted externally to the pump in its own self contained oil reservoir. It is leak tight and suitable for sewage and sludges, using silicon carbide faces. Pump-out vanes on the impeller ensure the seal is lightly loaded for extended life.

The pump can be driven by air or water cooled diesel engines or suitable electric motors. A flexible coupling transmits power to the impeller.

The pump unit is supported through a heavy duty SG iron adaptor bracket. The whole unit can be mounted on various chassis i.e. skid, site trailer or road trailer. Integral fuel tanks of 1,520L capacity can be incorporated together with towing eyes and lifting frames.



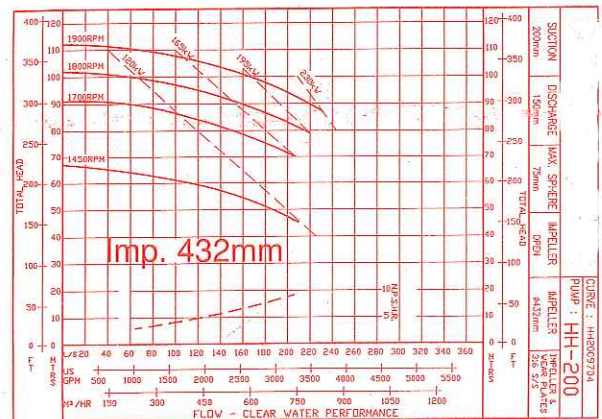
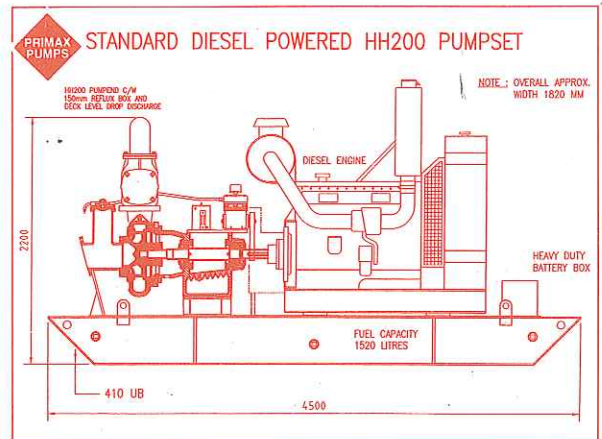
## Compressor prime (CP) self-priming system

### Design details:

Pump Designation:	HH200
Pump Description:	Single Stage, volute type, 3 bladed fully open Centrifugal Pump
Suction Flange:	8" Table 'E'
Delivery Flange:	8" Table 'E'
Nominal Casing Thickness:	16mm
Nominal Shaft Diameter:	75mm
Impeller Eye Diameter:	200mm
Maximum Impeller O.D.:	430mm
Maximum Impeller O.D.:	286mm
Solids Handling Size:	80mm
Wear Plate Clearances:	REAR: 1.0mm FRONT: 0.38/0.50mm
Design Efficiency:	86%
Max HP:	230 kw
Operating Speed:	MIN: 1200 rpm MAX: 2000 rpm
Maximum Head:	112 m
Maximum Capacity:	240 L/sec
Operating Temperature:	MIN: -20°C MAX: +100°C
Operating Temperature Casing:	MIN: -20°C MAX: +177°C
Permissible Suction Press:	MIN: Zero ABS MAX: 2BAR (29 PSI)
Maximum Hydraulic Test Press:	20.1 BAR (291PSI)
Bearing Sizes:	DRIVE END: SKF6317 Ball PUMP END: SKF NU317EC Roller
Estimated Bearing Life:	MIN. SPEED/MAX. LOAD: 15,000 Hours MAX. SPEED/MIN. LOAD: 11,280 Hours
Type of Bearing Lubrication:	Great lubrication Shell Alvania RA or equivalent.
Type of Shaft Seal:	Mechanical seal silicon carbide faces dry running lubrication from oil reservoir behind seat. Pump out vanes on rear of impeller shroud. Balance holes.

### Materials of Construction:

Pump Casing:	S.G. IRON GRADE 400/12
Suction Cover:	S.G. IRON GRADE 400/12
Air Separation Tank:	S.G. IRON GRADE 400/12
Bearing Bracket:	S.G. IRON GRADE 400/12
Pump Shaft:	431 Stainless Steel
Impeller:	316 Stainless Steel
Wearplates:	316 Stainless Steel
Air Injector:	316 Stainless Steel
Seal Housing:	S.G. IRON GRADE 400/12
Mechanical Seal:	Chesterton type 1A - 69.75mm
Lip Seal:	Nitrile Rubber 95 x 75 x 10mm
N.R.V. Body:	S.G. IRON GRADE 400/12
N.R.V. Rubber:	Nitrile or Polyurethane Rubber 55/60 Shore.
Compressor Drive Details:	Engine/Pump/Coupling Fenner Fénaflex Coupling
COMPRESSOR PULLEY:	Tooth Belt 1/2" Pitch Heavy x 40 Teeth (P/N. 26-0724-0243)
DRIVE PULLEY:	Tooth Belt 1/2" Pitch Heavy x 32 Teeth (P/N. 10-0000-0039)
Number & Belt Section:	1 x Timing Belt 38mm Wide 390H150 (P/N. 26-0840-9912).
Compressor Details:	Bendix 2W 440 R Twin-in-line cylinders 75mm x 50mm stroke, Air cooled 15cfm (410L/min) at 1000 rpm. Lubrication from engine oil system.
Compressor:	Integral with engine. (Ref. Manufacturers Operating Manual).
Ejector Details:	Jet 23-0418-2016 Venturi: 23-0419-2016



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