

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 18MM (1 stage)
 Type: Vertical
 Synch speed: 1160 rpm
 Curve: 18MM
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1160 rpm
 Dia: 13.188 in
 Impeller:
 Ns: 1160
 Nss: ---
 Suction: 12 in
 Discharge: 18 in
 Bowl size: 17.75 in
 Max lateral: 0.5 in
 Thrust K factor: 21.75 lb/ft

Search Criteria:

Flow: --- US gpm Head: --- ft

Fluid:

Water
 Density: 62.25 lb/ft³
 Viscosity: 1.105 cP
 NPSHa: --- ft
 Temperature: 60 °F
 Vapor pressure: 0.2563 psi a
 Atm pressure: 14.7 psi a

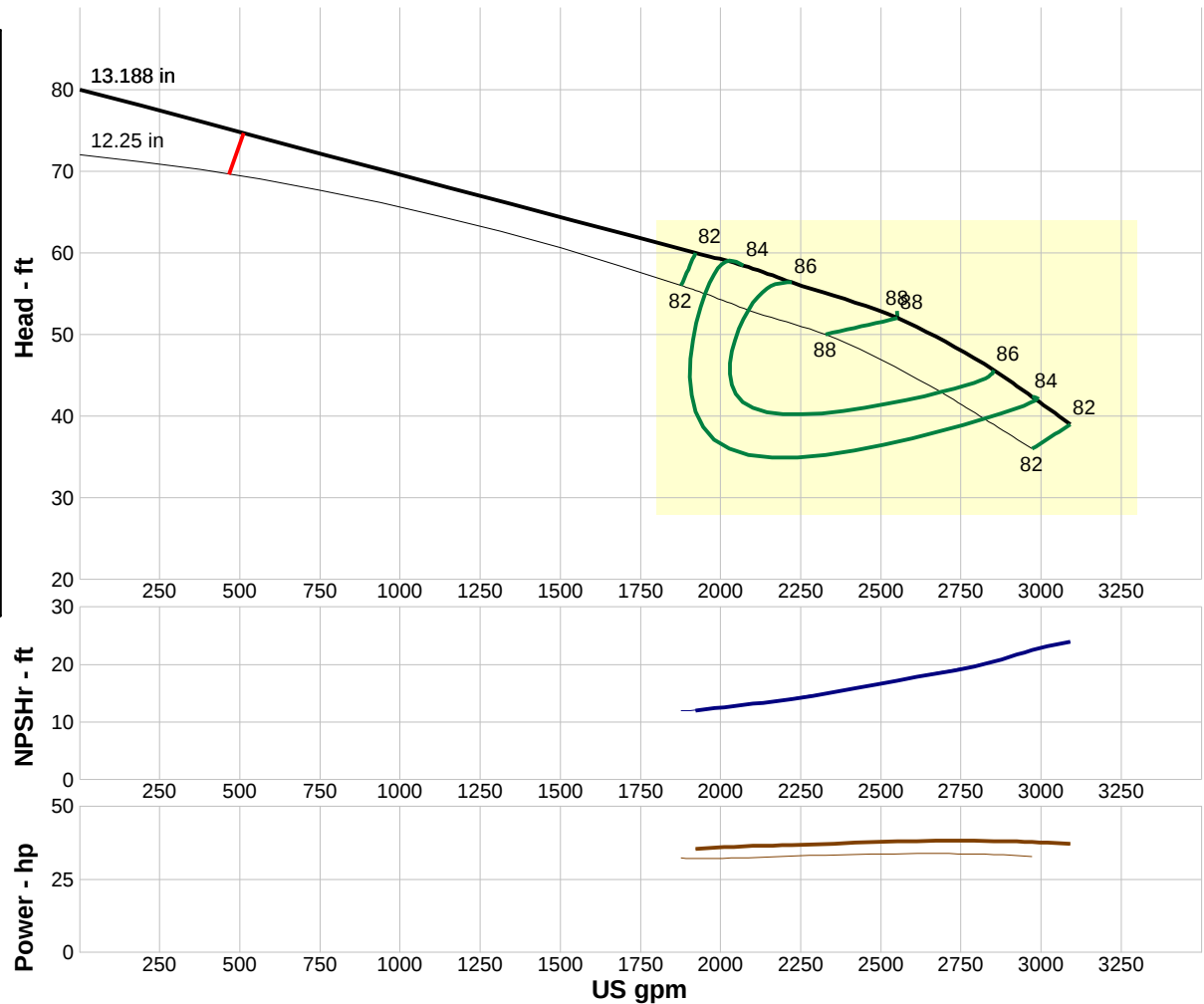
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 --- hp
 Speed: ---
 Frame: ---

Pump Limits:

Temperature: 140 °F
 Pressure: 500 psi g
 Sphere size: 1.375 in
 Power: 1000 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	2550 US gpm
Head:	52 ft
Eff:	88%
Power:	38.1 hp
NPSHr:	17.3 ft
---- Design Curve ----	
Shutoff head:	80 ft
Shutoff dP:	34.6 psi
Min flow:	510 US gpm
BEP:	88% @ 2550 US gpm
NOL power:	38.2 hp @ 2850 US gpm
-- Max Curve --	
Max power:	38.2 hp @ 2850 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
2966	1160	42.5	84.1	37.9	22.4
2472	1160	53	87.5	37.7	16.5
1978	1160	59.4	82.8	35.8	12.4
1483	1160	64.6	76.2	32.9	9.09
989	1160	69.7	69.6	29.9	5.79