

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 14MC-2C (1 stage)

Type: Vertical
Synch speed: 1160 rpm

Curve: 14MC-2C

Specific Speeds:

Dimensions:

Vertical Turbine:

Speed: 1160 rpm
Dia: 10.875 in

Impeller:

Ns: 1160
Nss: ---

Suction: 10 in
Discharge: 10 in

Bowl size: 14 in
Max lateral: 1.03 in
Thrust K factor: 10 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

--- hp
Speed: ---
Frame: ---

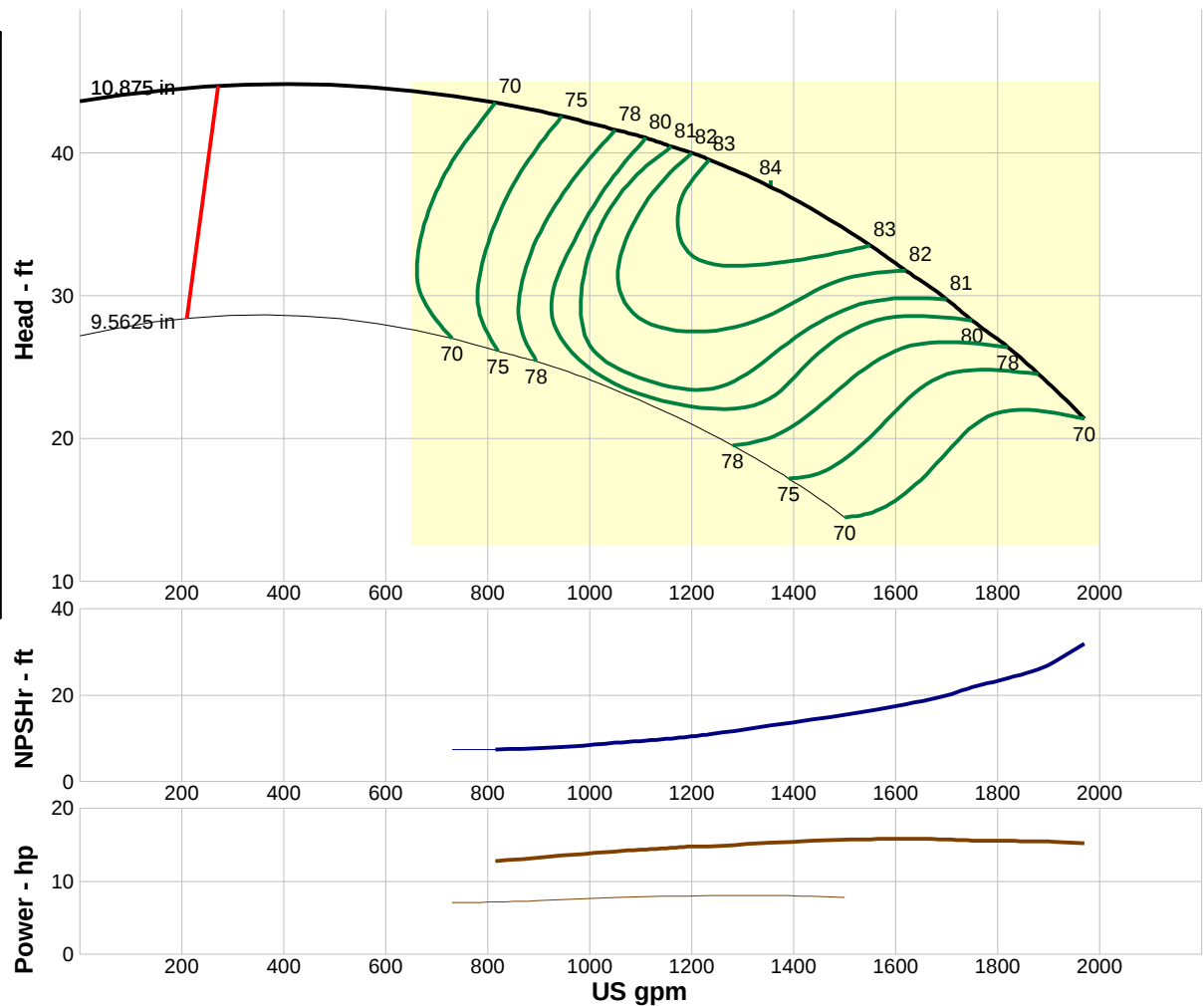
Sizing criteria: Max Power on Design Curve

Pump Limits:

Temperature: 140 °F
Pressure: 303 psi g
Sphere size: 0.5 in

Power: 450 hp
Eye area: --- in²

---- Data Point ----	
Flow:	1355 US gpm
Head:	37.6 ft
Eff:	84%
Power:	15.3 hp
NPSHr:	13 ft
---- Design Curve ----	
Shutoff head:	43.6 ft
Shutoff dP:	18.8 psi
Min flow:	271 US gpm
BEP:	84% @ 1355 US gpm
NOL power:	15.8 hp @ 1620 US gpm
-- Max Curve --	
Max power:	15.8 hp @ 1620 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1891	1160	24.1	74.4	15.5	26.8
1576	1160	32.8	82.6	15.8	17.1
1261	1160	39.1	83.2	14.9	11.4
946	1160	42.6	75	13.5	8.01
630	1160	43.5	62.9	11.7	6.79