

Company: Bonneville Power Administration

Name:

Date: 2/8/2007

Selection: Missing Fairbanks Vertical Turbines



Pump:

Size: 44A.1+ (1 stage)
 Type: VERT.TURBINE
 Synch speed: 720 rpm
 Curve: 07-069
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 715 rpm
 Dia: 32.74 in
 Impeller:
 Ns: ---
 Nss: ---
 Suction: 43 in
 Discharge: 30 in
 Bowl size: 43 in
 Max lateral: 1.5 in
 Thrust K factor: 175 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

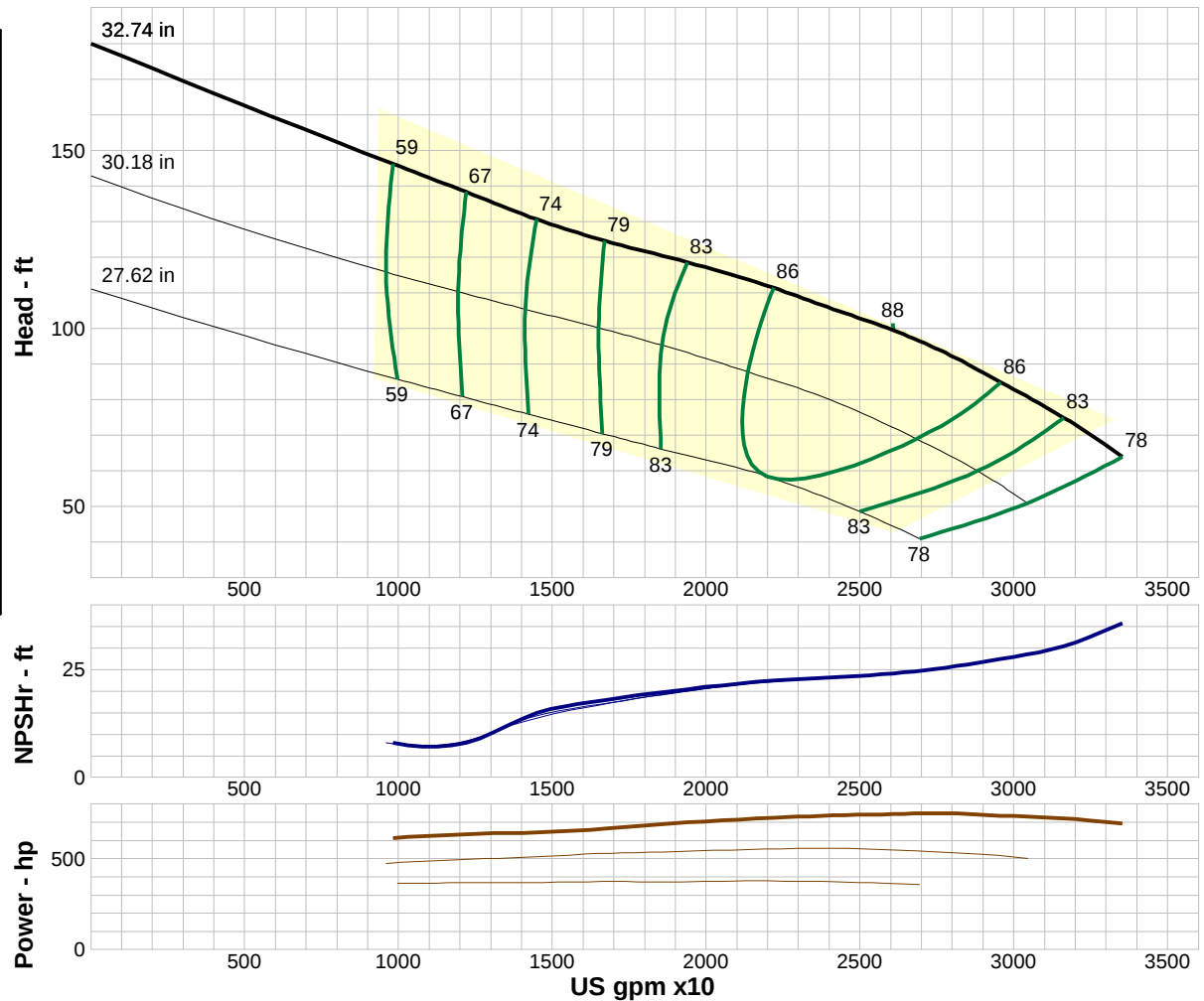
Motor:

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

Pump Limits:

Temperature: 150 °F
 Pressure: 300 psi g
 Sphere size: 2.85 in
 Power: 1475 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	26063 US gpm
Head:	99.5 ft
Eff:	88%
Power:	744 hp
NPSHr:	24.1 ft
---- Design Curve ----	
Shutoff head:	180 ft
Shutoff dP:	77.8 psi
Min flow:	--- US gpm
BEP:	88% @ 26063 US gpm
NOL power:	751 hp @ 27756 US gpm
-- Max Curve --	
Max power:	751 hp @ 27756 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
32168	715	71.7	81.5	713	32
26807	715	96.7	87.6	747	24.7
21446	715	113	85.2	719	22
16084	715	126	77.6	659	17.2
10723	715	143	62.1	622	8