

Company: Bonneville Power Administration

Name:

Date: 2/8/2007

Selection: Missing Fairbanks Vertical Turbines



Pump:

Size: 23HH.1+ (1 stage)

Type: VERT.TURBINE
Synch speed: 720 rpm

Curve: Impeller:

Specific Speeds: Ns: ---
Nss: ---

Dimensions: Suction: 29 in
Discharge: 24 in

Vertical Turbine: Bowl size: 23 in
Max lateral: 0.88 in
Thrust K factor: 69 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:

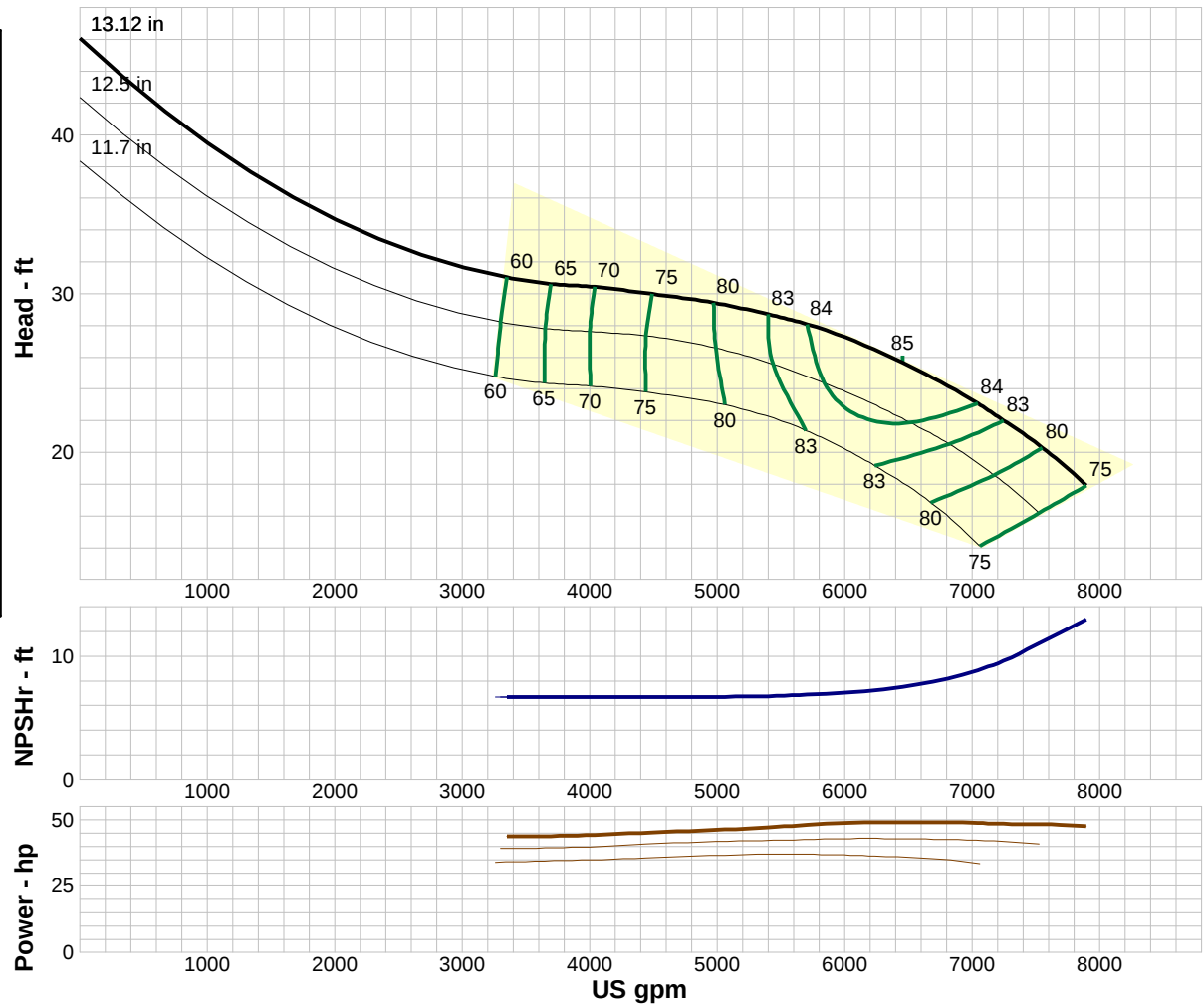
Standard: NEMA --- hp
Enclosure: TEFC Speed: ---
Frame: ---
Sizing criteria: Max Power on Design Curve

Pump Limits:

Temperature: 150 °F
Pressure: --- psi g
Sphere size: 1.81 in

Power: 450 hp
Eye area: --- in²

---- Data Point ----	
Flow:	6455 US gpm
Head:	25.6 ft
Eff:	85%
Power:	49.2 hp
NPSHr:	7.5 ft
---- Design Curve ----	
Shutoff head:	46.1 ft
Shutoff dP:	19.9 psi
Min flow:	--- US gpm
BEP:	85% @ 6455 US gpm
NOL power:	49.2 hp @ 6455 US gpm
-- Max Curve --	
Max power:	49.2 hp @ 6455 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
7579	705	20.1	79.6	48.3	11.4
6316	705	26.1	84.8	49	7.39
5053	705	29.3	80.6	46.4	6.71
3790	705	30.6	66.4	44	6.7
2526	705	---	---	---	---