

Company: Bonneville Power Administration

Name:

Date: 2/9/2007

Selection: Gould Centrifugal Pump



#### Pump:

Size: 11A-SH  
Type: CC\_ENDSUCTION\_C  
Synch speed: 3600 rpm  
Curve: GP SSH/SSH-F  
Specific Speeds:  
Dimensions:  
Speed: 3500 rpm  
Dia: 10.0938 in  
Impeller:  
Ns: ---  
Nss: ---  
Suction: 2 in  
Discharge: 1 in

#### Search Criteria:

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

#### Fluid:

Water  
Density: 62.25 lb/ft<sup>3</sup>  
Viscosity: 1.105 cP  
NPSHa: --- ft  
Temperature: 60 °F  
Vapor pressure: 0.2563 psi a  
Atm pressure: 14.7 psi a

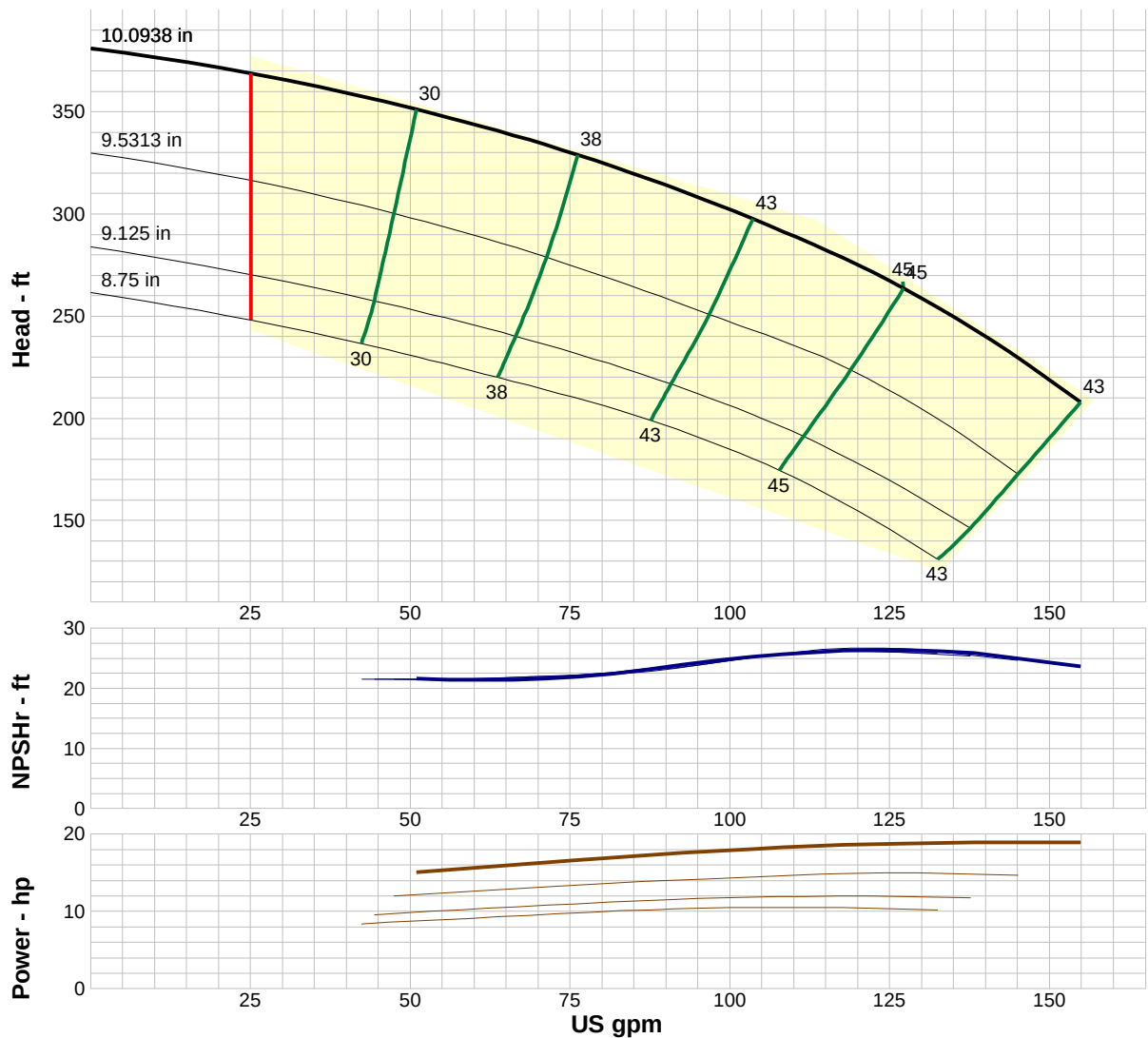
#### Motor:

Consult GOULDS to select a motor for this pump.

#### Pump Limits:

Temperature: 212 °F  
Pressure: 230 psi g  
Sphere size: 0.125 in  
Power: 20 hp  
Eye area: --- in<sup>2</sup>

| ---- Data Point ----   |                      |
|------------------------|----------------------|
| Flow:                  | 127 US gpm           |
| Head:                  | 264 ft               |
| Eff:                   | 45%                  |
| Power:                 | 18.8 hp              |
| NPSHr:                 | 26.4 ft              |
| ---- Design Curve ---- |                      |
| Shutoff head:          | 381 ft               |
| Shutoff dP:            | 165 psi              |
| Min flow:              | 25 US gpm            |
| BEP:                   | 45% @ 127 US gpm     |
| NOL power:             | 18.9 hp @ 155 US gpm |
| -- Max Curve --        |                      |
| Max power:             | 18.9 hp @ 155 US gpm |



#### Performance Evaluation:

| Flow<br>US gpm | Speed<br>rpm | Head<br>ft | Efficiency<br>% | Power<br>hp | NPSHr<br>ft |
|----------------|--------------|------------|-----------------|-------------|-------------|
| 149            | 3500         | 220        | 43              | 18.9        | 24.2        |
| 124            | 3500         | 268        | 45              | 18.7        | 26.3        |
| 99.2           | 3500         | 303        | 42              | 17.9        | 24.7        |
| 74.4           | 3500         | 330        | 37              | 16.5        | 21.9        |
| 49.6           | 3500         | 352        | 30              | 15          | 21.6        |