

Pump Data Sheet - DEAN PUMP

6.625" impeller with VFD down to 2000 RPM

Name: Heat Media Circulation Pump

Date: 4/10/2017



Pump:

Size: 3 x 4 x 8.5
 Type: SERIES R400
 Synch speed: 3600 rpm
 Curve: R3085-A1
 Specific Speeds:
 Dimensions:
 Speed: 3500 rpm
 Dia: 6.625 in
 Impeller:
 Ns: —
 Nss: —
 Suction: —
 Discharge: —

Search Criteria:

Flow: 220 US gpm Head: 100 ft

Fluid:

Theminol 72
 SG: 0.753
 Viscosity: 0.19 cP
 NPSHa: 25 ft
 Temperature: 716 °F
 Vapor pressure: 90.33 psi a
 Atm pressure: 14.7 psi a

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 25 hp
 Speed: 3600
 Frame: 284TS

Pump Limits:

Temperature: 850 °F
 Pressure: —
 Sphere size: 0.5 in
 Power: 100 hp
 Eye area: —

— Data Point —

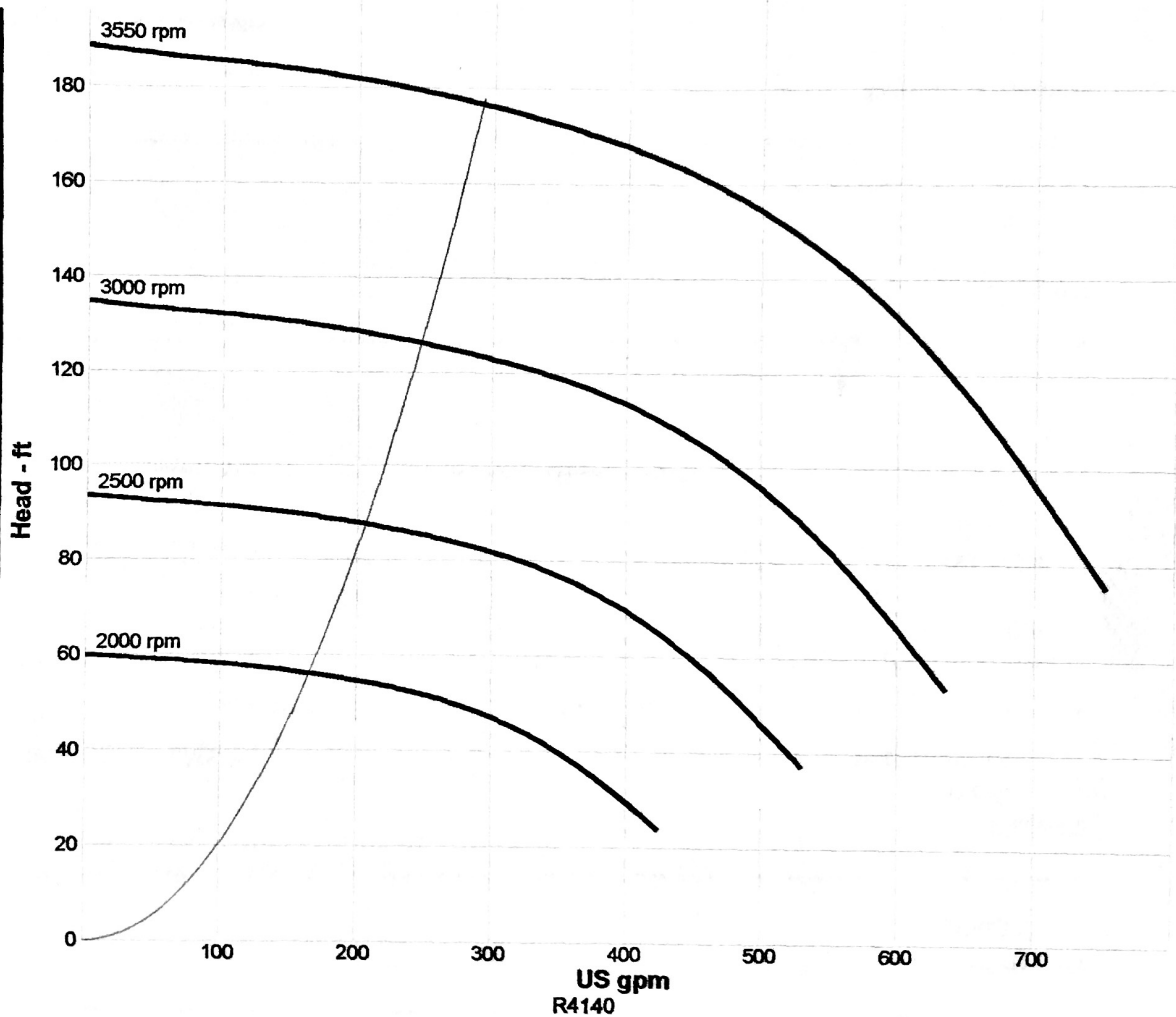
Flow: 220 US gpm
 Head: 176 ft
 Eff: 56%
 Power: 13.1 hp
 NPSHr: 9.13 ft

---- Design Curve ----

Shutoff head: 183 ft
 Shutoff dP: 59.7 psi
 Min flow: 101 US gpm
 BEP: 74% @ 506 US gpm
 NOL power:
 21.4 hp @ 663 US gpm

-- Max Curve --

Max power:
 48 hp @ 915 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
264	3500	173	62	14	9.74
220	3500	176	56	13.1	9.13
176	3500	178	47	12.5	8.56
132	3500	179	36	12.4	8.15
88	3500	—	—	—	—