



Company: Systecore Inc.  
 Name: MSU  
 Date: 07/22/08

P-1, P-2

**Pump:**

Model: S6A12A-2  
 Type: HSC  
 Synch speed: 1800 rpm  
 Size: 8x6x12  
 Specific Speeds:  
 Dimensions:  
 Speed: 1780 rpm  
 Dia: 11.0625 in  
 Impeller: C02-93024  
 Ns: 2239  
 Nss: 5169  
 Suction: 8 in  
 Discharge: 6 in

**Search Criteria:**

Flow: 1600 US gpm Head: 100 ft

**Fluid:**

Water  
 SG: 1  
 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  
 Sizing criteria: Max Power on Design Curve  
 Size: 50 hp  
 Speed: 1800  
 Frame: 326T

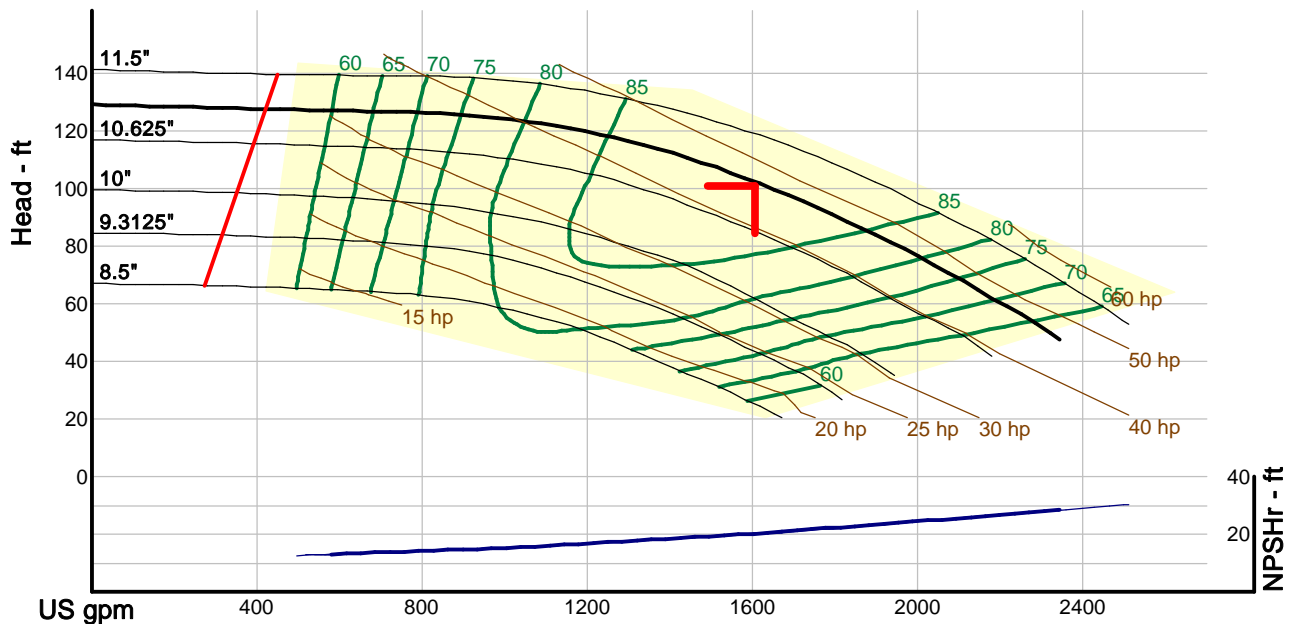
**Pump Limits:**

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

**---- Data Point ----**  
 Flow: 1600 US gpm  
 Head: 101 ft  
 Eff: 86.9%  
 Power: 46.5 hp  
 NPSHr: 20.3 ft

**-- Design Curve --**  
 Shutoff Head: 128 ft  
 Shutoff dP: 55.3 psi  
 Min Flow: 413 US gpm  
 BEP: 87.2% eff  
 @ 1651 US gpm  
 NOL Pwr: 47.7 hp  
 @ 2088 US gpm

**-- Max Curve --**  
 Max Pwr: 56.6 hp  
 @ 2251 US gpm



Refer to Working Pressure vs. Temperature chart for maximum rated working pressure. All data are subject to change. Contact factory for certified data.

**Performance Evaluation:**

Flow US gpm	Speed rpm	Head ft	Pump %eff	Power hp	NPSHr ft
1920	1780	80.8	83	47	23.7
1600	1780	101	86.9	46.5	20.3
1280	1780	115	85.2	43.5	17.6
960	1780	123	77.3	38.5	15.2
640	1780	126	63	32.1	13.5