HOSS Pump Systems

1336 N. 143rd E. Ave.
Tulsa, OK 74116
918-660-7220

info@hosspumps.com

Quote Date:	Rev:
TBD	0

Quote #
TBD

Attention:		**Rate**	**BPD**	**GPM**	**Fluid**	**Produced Water**
Company			12500	364.43	SG	1.05
Project					**Viscosity (cP):**	1
Location		**Pressures**	**PSI**	**Head In Feet**	**Temp:**	95°F (35°C)
Email		**Intake**	30	66		
Phone		**Discharge**	1650	3630		
		Differential	1620	3564		

Pump Description:

Manufacturer	Model	Size	# Of Stages
HOSS	CHR12500	700	40

316SS Head & Base with AR Bearings
Ni-Resist Stages - 1:3 AR Bearings

Motor Description:

Manuf.	Frame Size	HP	Power	RPM
GE (or equivalent)	5011LS	500	3/60/460	3600
	Rotation: CCW from NDE			

Inverter Duty Rated, Insulated NDE Bearing, Space Heater, Winding RTDs, Bearing RTDs,

System Overall Length 29 feet

HTC & Cooler Package:

Patented HOSS Thrust Chamber Assembly with Monel Shaft, Mount, and Hardware
Rotation is Bi-directional, Thrust Load capacity = 19,000lbs
Cooler Package and Reservoir mounted on a frame
5 Gallon Reservoir w/Olaer Cooler & Pump Combination. Power requirement is 3/60/230-460.

Intake, Discharge, and Mechanical Seal:

		Size	Class	Type
Intake Assembly:	316SS Metallurgy	6"	150	RFWN
Discharge Assembly:	316SS Wetted Metallurgy with Carbon Steel Flange	4"	1500	RFLJ
Mechanical Seal:	Champion, Component, Type 2B, 150 psig max			

Instrumentation Package:

Intake Pressure:	Pressure Transmitter, Murphy, PXT-K-100
Discharge Pressure:	Pressure Transmitter, Murphy 0-3000 PSI, PXT-K-3000
Vibration Thrust Chamber:	Transmitter, Vibration, Metrix , P/N ST5484E-121-020-00
Lube Level:	Gauge, Murphy, Lube Level, L129CK1 (Standard)
HTC Temperature:	RTDT-225-400-100, Murphy Temperature Transmitter, 2-1/2

HOSS SYSTEM SPECIFICATIONS

Pump Data:

Manufacturer	HOSS		**Operating Frequency:**	60	3600 RPM			
Series	700		**Adjusted Speed @ 60Hz**	3570				
Model	CHR12500		**Calculated Head @ Operating Speed**		1627.9	psi	3581	feet
Stages	40		**Calculated BHP @ Operating Speed**		446.8	HP		
			Calculated Efficiency @ Op. Speed		77.3	%		
Fluid Velocity in FPS		2.56	**Thrust @ Operating Speed**		4449.1	lbs		
			Max Thrust @ Operating Speed		5830.4	lbs		
			NPSHr @ Operating Speed (Min)		11.0	psi	24.1	feet

Motor Data:

Manufacturer	**Frame Size**	**HP**	**Power**	**RPM**
GE	5011LS	500	3/60/460	3600

% of Motor Load @ Operating Point	89%	**% of Motor Load @ Run-out**	98%

HTC Data:

Design life of the HOSS horizontal thrust chamber is 5 years, with a standard 2 year warranty (when maintained by HOSS or an authorized HOSS service partner).

The HOSS HTC has fewer moving parts than any other HTC and has no angular contact ball bearings.

The oil seals are on the outside and are a proprietary configuration for the HOSS HTC and can be changed without disassembly of the HTC.

The HOSS HTC has a thermocouple as a standard, but can have a probe installed in the bearing to measure bearing pad temperature.

The HOSS HTC can also have a load cell installed in the bearing to give real time load data on the bearing.

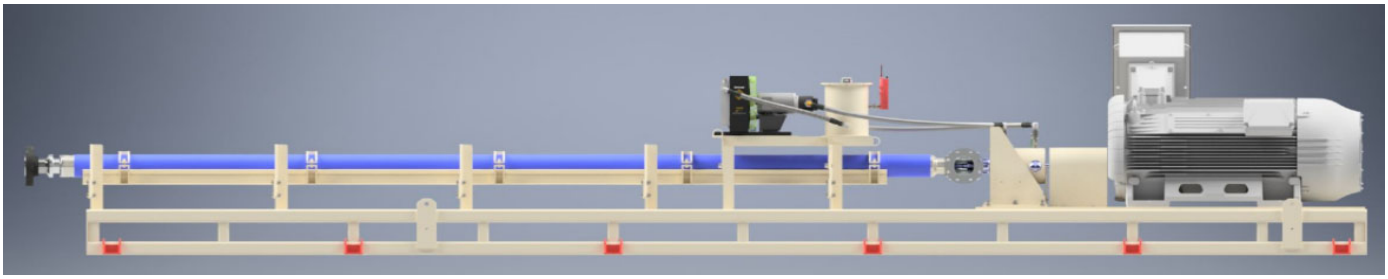
Both of these options, including the thermocouple, can have a digital display on the system to help monitor system conditions.

The oil that is used in HOSS Systems is Lubrication Engineering Multilec ISO 32

Load on HTC @ Operating Speed	23.4%
Max Load on HTC @ Operating Speed	30.7%

The Skid:

The HOSS Skid is a robust ladder box design skid with an adjustable cradle that will accommodate pumps from 4” up to 16” without changing any part of the skid with the exception of the cradle caps. You do not have to replace individual posts with different sizes of saddles and caps.



General:

Motor Coupling & Guard: Rexnord 7" Spacer Coupling with Guard

Base plate: HOSS heavy duty 4" ladder design square tubing, 6" rigid angle pump cradle, 3/4" motor plate

Testing: Standard non-witness hydro and performance test

Paint: HOSS Brown Powder Coat

Documentation: HOSS standard documentation package (GA drawings, project manual, and API RP11S pump performance curves)

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Pump Performance Report

Customer Information	
Customer Name:	
Site Location:	
Contact Person:	
Client Reference:	
CAI Quote #:	
Design Date:	
Phone Number:	
Email:	
Comment:	

User Input	
Manufacturer:	HOSS
Series:	675
Model:	CHR12500
Fluid Specific Gravity:	1.05
Desired Flow Rate:	12500 bpd
Intake Pressure:	30 psi
Discharge Pressure Required:	1650 psi
Fluid Temperature:	95 °F
Fluid Viscosity:	1 cP
Viscosity Correction:	Using CAI Viscosity Correction
Fluid Type:	Produced Water
Operating Frequency:	60 Hz
Adjust Speed @ 60Hz:	3570 rpm
Desired Number of Stages:	40

Pump Performance Output	
Required Frequency:	60 Hz
Required Flow Rate @ Operating Speed:	12500 bpd
Calculated Head @ Operating Speed:	1627.9 psi
Calculated Head @ shutin :	1947 psi
Calculated BHP @ Operating Speed:	446.8 hp
HP Run Out :	492 hp
Calculated Efficiency @ Operating Speed:	77.3%
Thrust @ Operating Speed:	4449.1 lbf
Max Thrust @ Operating Speed:	5830.4 lbf
NPSHr @ Operating Speed:	24.1 feet

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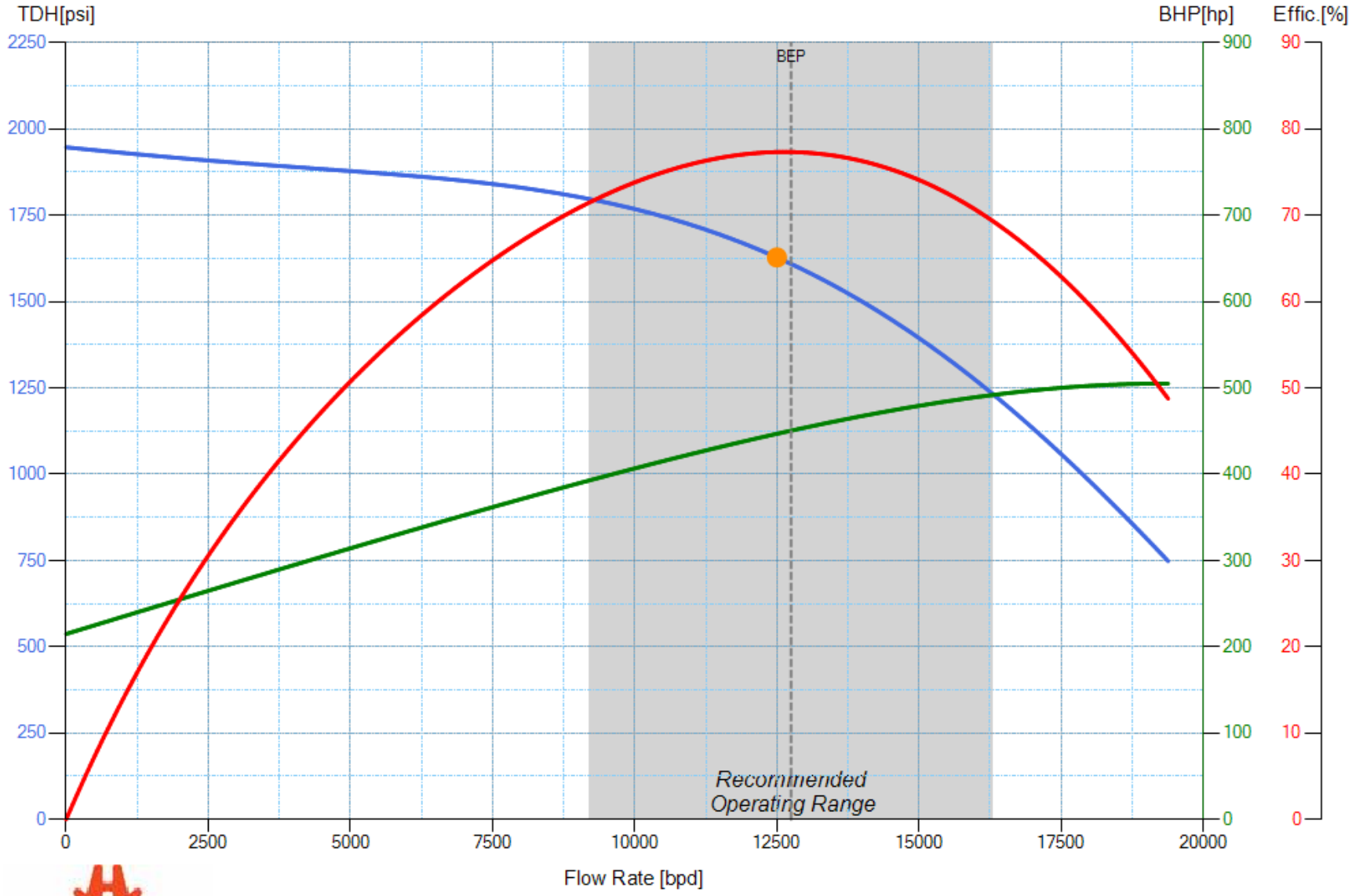

HOSS PUMP SYSTEMS

3570 RPM @ 60 Hz, SG=1.05, Viscosity = 1 cP
Target: 12500 [bpd] at TDH of 1627.9 [psi]

CHR12500
40 Stages

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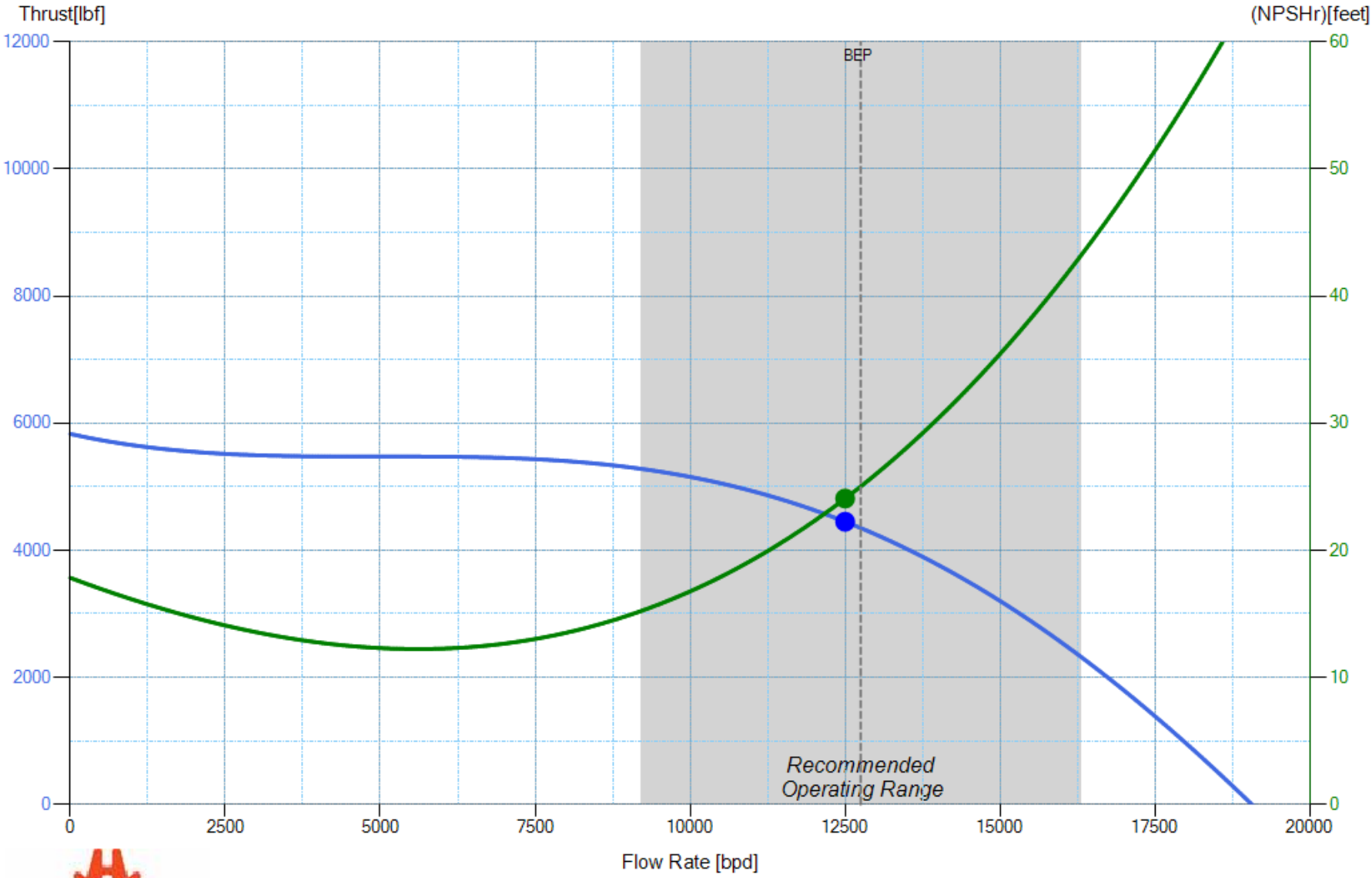

HOSS PUMP SYSTEMS

Variable Speed, SG=1.05, Viscosity=1 cP

Target: 12500 [bpd] at Thrust of 4449.1 [lbf], NPSHr of 24.1 [feet]

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40 Stages

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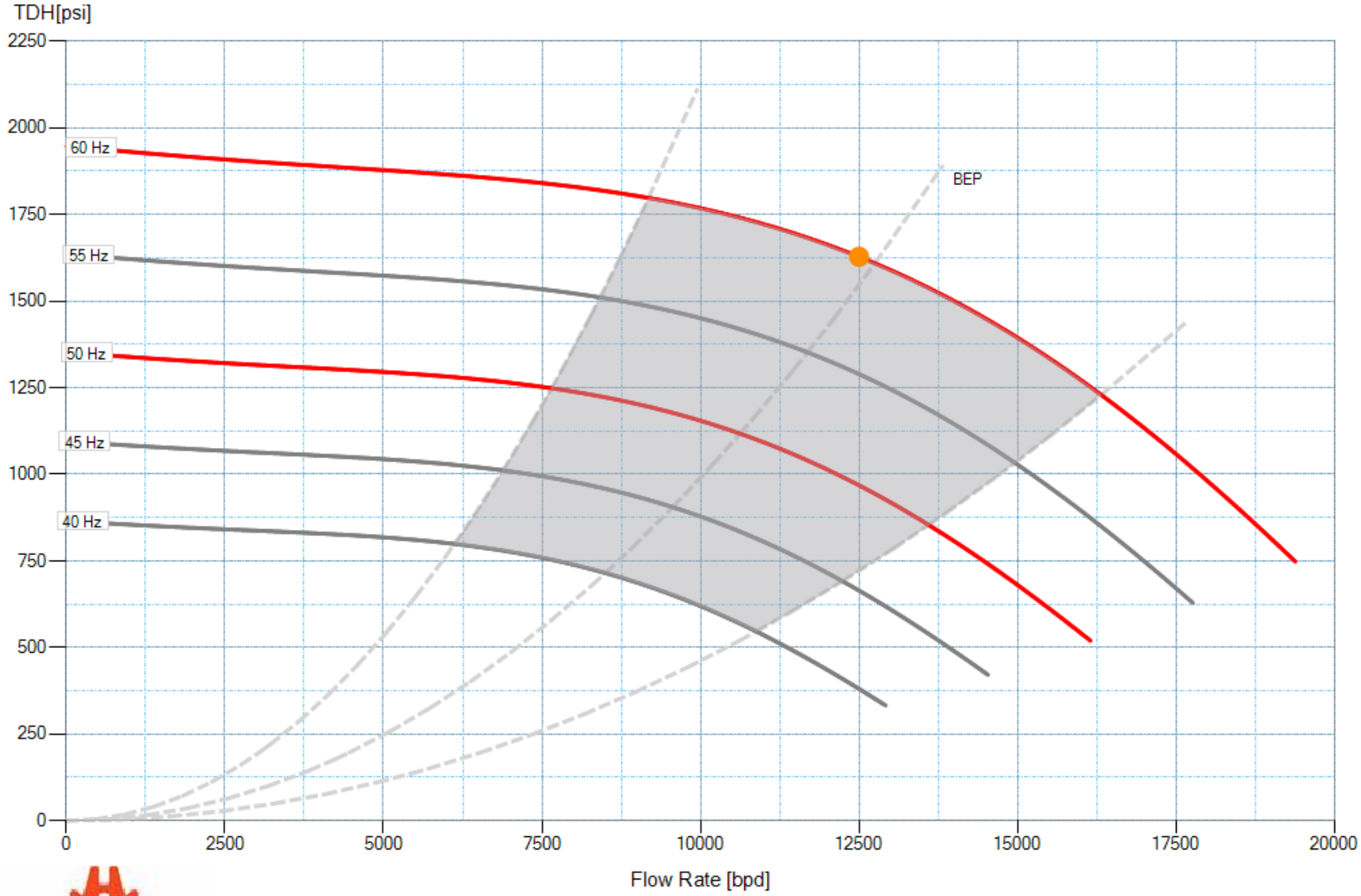

HOSS PUMP SYSTEMS

Variable Speed, SG = 1.05, Viscosity = 1 cP
Target: 12500 [bpd] at TDH of 1627.9 [psi]

CHR12500
40 Stages

Quote Number: