

**Performance Data**

Curve 7.00

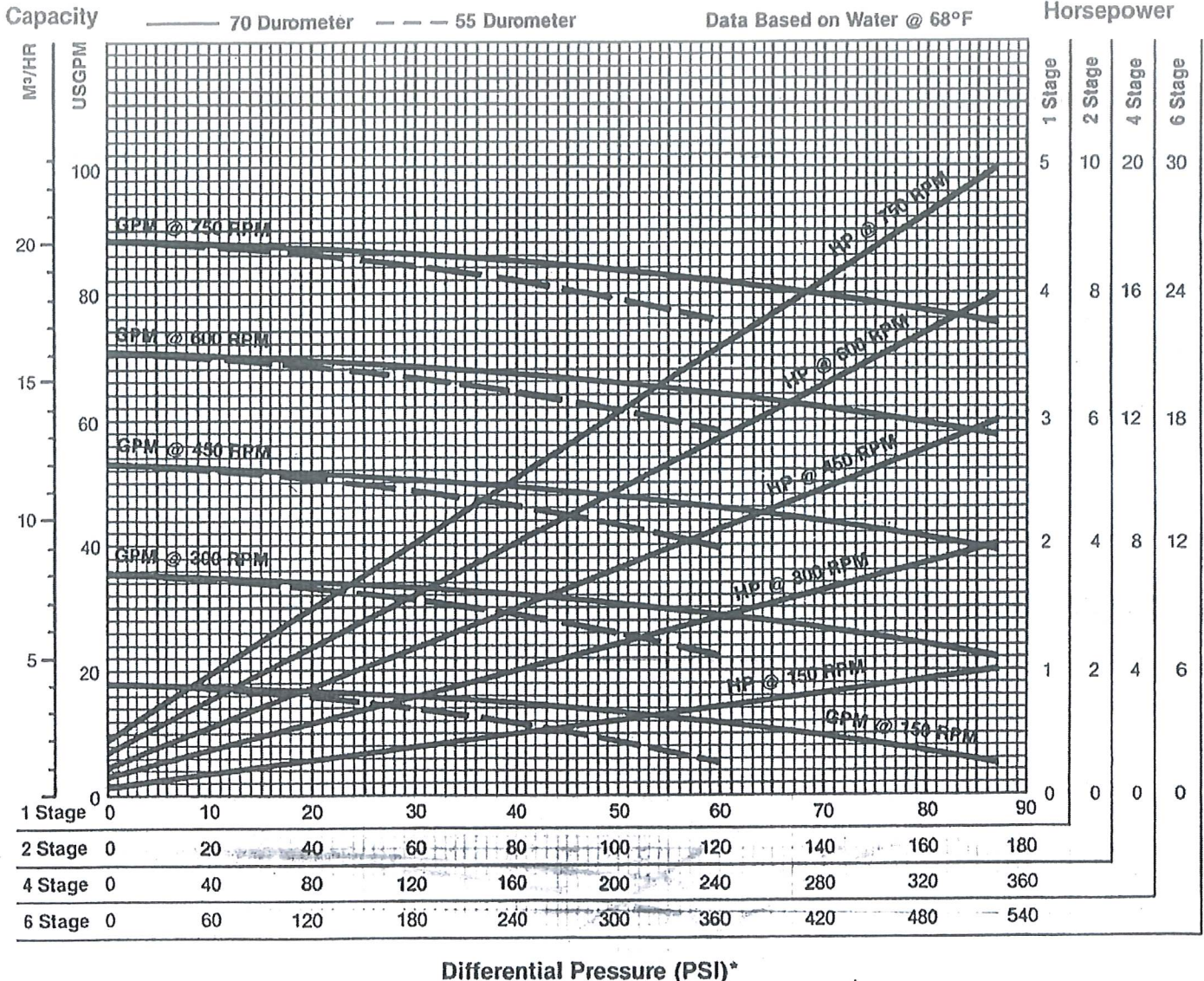
Element: 012

Models: 1E012, 2E012, 4E012  
6F012

Use appropriate HP and pressure scales for the number of stages required.

NOTE: Pressure limits rated at 87 psi/stage (70 Duro.) Some models have additional limits. Please consult factory before making final selection.

	RPM	150	300	450	600	750
NPSH Required — (Ft.)		1.10	2.20	3.30	5.00	7.70
Minimum Recommended Motor HP	1 STG	1	2	3	3	5
	2 STG	1½	3	5	5	7½
	4 STG	3	5	7½	10	10
	6 STG	5	7½	10	15	15
Drive End HP Must be added to HP value from curve.	E	0.24	0.48	0.72	0.96	1.20
	F	0.38	0.76	1.14	1.52	1.90



\*(PSI × .069 = BAR) (PSI × .070 = kg/cm²) (USGPM × .2271 = M³/HR) (HP × .746 = kW)

**Performance Data**

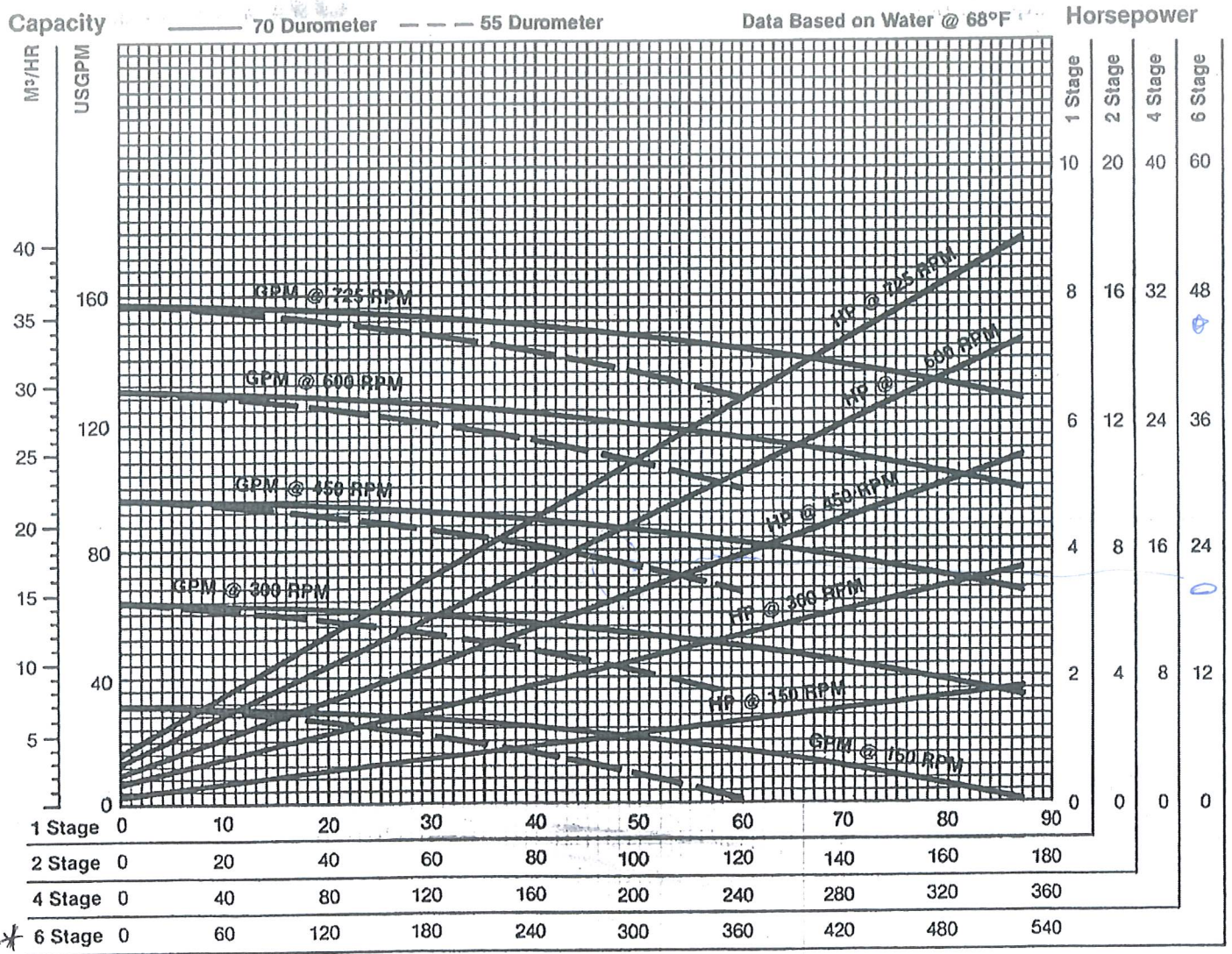
Curve 9.00

Element: 022  
Models: 1E022, 2E022, 4E022  
4F022, 6F022, 6G022

Use appropriate HP and pressure scales for the number of stages required.

NOTE: Pressure limits rated at 87 psi/stage (70 Duro.) Some models have additional limits. Please consult factory before making final selection.

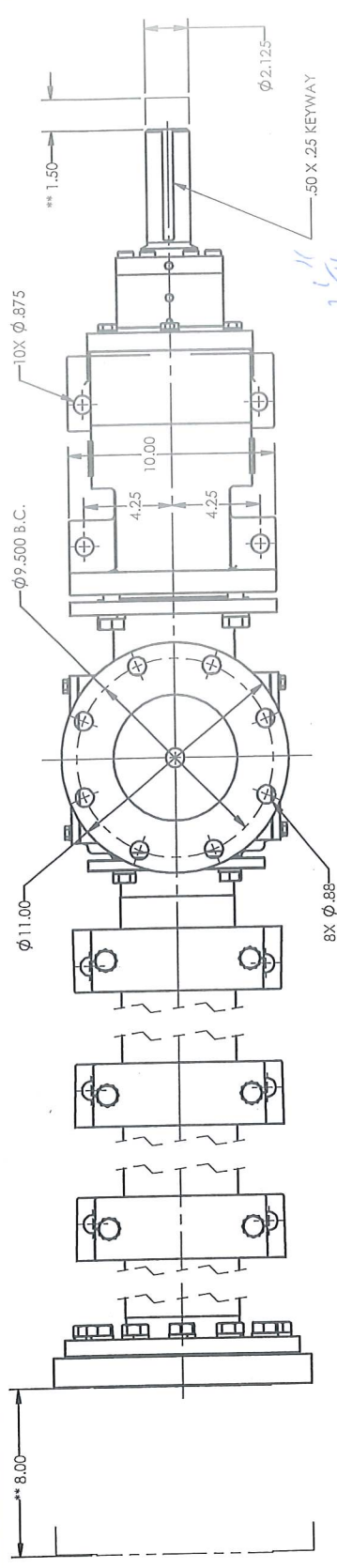
	RPM	150	300	450	600	725
NPSH Required — (Ft.)		1.30	2.60	3.90	7.10	9.80
Minimum Recommended Motor HP	1 STG	1½	3	5	5	7½
	2 STG	2	5	7½	7½	10
	4 STG	3	7½	10	15	15
	6 STG	5	10	15	20	20
Drive End HP Must be added to HP value from curve.	E	0.24	0.48	0.72	0.96	1.16
	F	0.38	0.76	1.14	1.50	1.80
	G	0.53	1.10	1.60	2.20	2.50



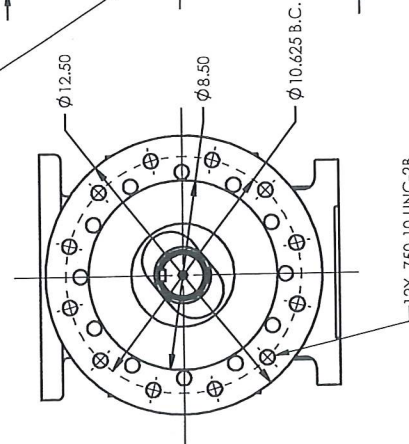
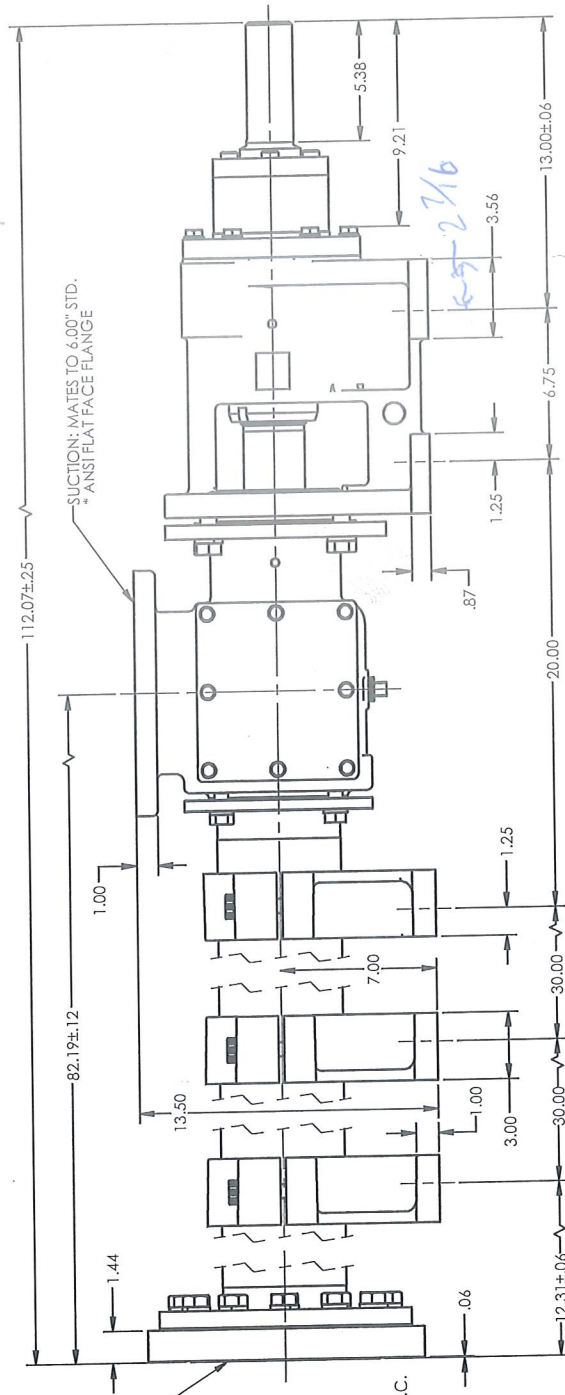
Differential Pressure (PSI)\*

\*(PSI × .069 = BAR) (PSI × .070 = kgf/cm²) (USGPM × .2271 = M³/HR) (HP × .746 = kW)

10 5/16  
8. 1/2



DISCHARGE: MATES TO 6.00" STD. 300# ANSI RAISED FACE FLANGE



<p><b>MOYNO™</b></p> <p>MODEL : 6FD22G1 2000 SERIES</p> <p>DESC : OUTLINE</p> <p>SIZE : DWG. NO. <b>3850375500</b></p> <p>SCALE: 3/8 FIN WT : 735.00#</p> <p>SHEET 1 OF 1</p>	
<p>UNLESS OTHERWISE SPECIFIED :</p> <p>PRIMARY DIMENSIONS IN INCHES</p> <p>SECONDARY DIMENSIONS IN 1/16 ARE MILLIMETERS</p> <p>TOLERANCES - mm:</p> <p>1 PLACE ±.10</p> <p>2 PLACE ±.05</p> <p>ANGLES ±.5°</p> <p>Ra FINISH 125 µin</p> <p>BREAK ALL SHARP EDGES &amp; CORNERS .03 (B) MAX</p> <p>AS CAST TOLERANCES ±.4-.04 (1.6)</p>	<p>DWN: MRB</p> <p>DATE: 8/15/2014</p> <p>CHK: JKE</p> <p>DATE: 8/15/2014</p> <p>PDM STATUS: RELEASED</p> <p>NOTICE: This document contains National Oilwell Varco (NOV) proprietary information. It is to be used in accordance with the terms and conditions, license, or other contractual agreement under which it was released or provided by NOV. No reproduction, distribution, or disclosure of this information is permitted without the prior written authorization of NOV. NOV retains all ownership and intellectual property rights relating to this work, which shall be returned to NOV upon request. © 2014-2014 National Oilwell Varco. All rights reserved.</p>
<p>* 125# - CAST IRON FLANGE</p> <p>* 150# - 316 STAINLESS STEEL FLANGE</p> <p>** MINIMUM DIMENSION NEEDED TO DISASSEMBLE PUMP</p>	<p>REV D</p> <p>DESCRIPTION REDRAWN W/O CHANGES</p> <p>DATE 8/15/2014</p> <p>ECN -</p>

104

**HORSEPOWER MULTIPLIERS:**

Pump horsepower from the reverse side can be broken into three components: drive end, rotor/stator, and hydraulic.

Temperature affects the rotor/stator HP component only. For applications involving temperatures above 70°F, it is necessary to adjust the rotor/stator HP component of the horsepower obtained from the reverse side (i.e., the greater of the water HP or Minimum Recommended HP). This new horsepower is referred to as the **Temperature Corrected Horsepower**.

Rotor/stator horsepower can be found from the curve on the previous page. It is the HP at zero pressure for the corresponding RPM and number of stages.

To calculate the Temperature Corrected Horsepower, subtract the rotor/stator HP from the greater of the water or minimum recommended HP. This gives you the drive end/hydraulic HP. Multiply the rotor/stator HP by the appropriate temperature multiplier listed below. Add this adjusted value to the drive end/hydraulic HP to get the total Temperature Corrected Horsepower.

(Degrees F = %C + 32)

FLUID TEMPERATURE	70°F	100°F	125°F	150°F	175°F	200°F
<b>HORSEPOWER MULTIPLIERS</b>						
- Standard Size Rotor	1.00	1.10	1.30	1.60	2.00	2.50
- Undersize Rotor	0.75	0.80	0.85	0.95	1.10	1.60

For applications involving temperatures greater than 200°F, consult the factory.

**HORSEPOWER ADDITIVES:**

Shown below are HP additives for both water base slurries and for viscous materials. To use these tables, first determine which table applies to your product and enter that table with the appropriate fluid characteristics. Determine the HP additive per 100 RPM and multiply it by the speed of your pump divided by 100. Add the resulting figure to the HP for water from the curve on the preceding page or to the minimum HP for starting from the table at the top of the preceding page, whichever is larger.

If your product is a combination of a slurry and a viscous material, determine the appropriate HP additives from both tables below and use whichever is greater.

**TABLE I. WATER BASE SLURRIES:**

**HP ADDER/100 RPM**

% Solids	Fine 16 Mesh (.039") (<1mm)				Medium 16 to 9 Mesh (.039" to .078") (1-2mm)				Coarse 9 to 4 Mesh (.078" to .185") (2-5mm)			
	Number of Stages											
	1	2	4	6	1	2	4	6	1	2	4	6
10	.19	.24	.40	.72	.23	.30	.50	.90	.39	.50	.83	1.50
30	.56	.73	1.20	2.20	.69	.89	1.50	2.70	1.70	1.50	2.50	4.50
50	.94	1.22	2.00	3.70	1.15	1.49	2.46	4.47	1.93	2.50	4.10	7.50

**TABLE II. VISCOSITY (NEWTONIAN FLUIDS):**

**HP ADDER/100 RPM/STAGE**

Viscosity (Centipoise)						
	2,500	5,000	10,000	50,000	100,000	150,000
1						
0	.68	.95	1.32	2.75	3.85	4.58