

# Moyno Industrial Products

A Unit of Robbins & Myers, Inc.

Section: **SANITARY PUMPS**  
(FF & FG)

Date: December 15, 1995

## Performance Data

Curve 4.00

**Element:** 8

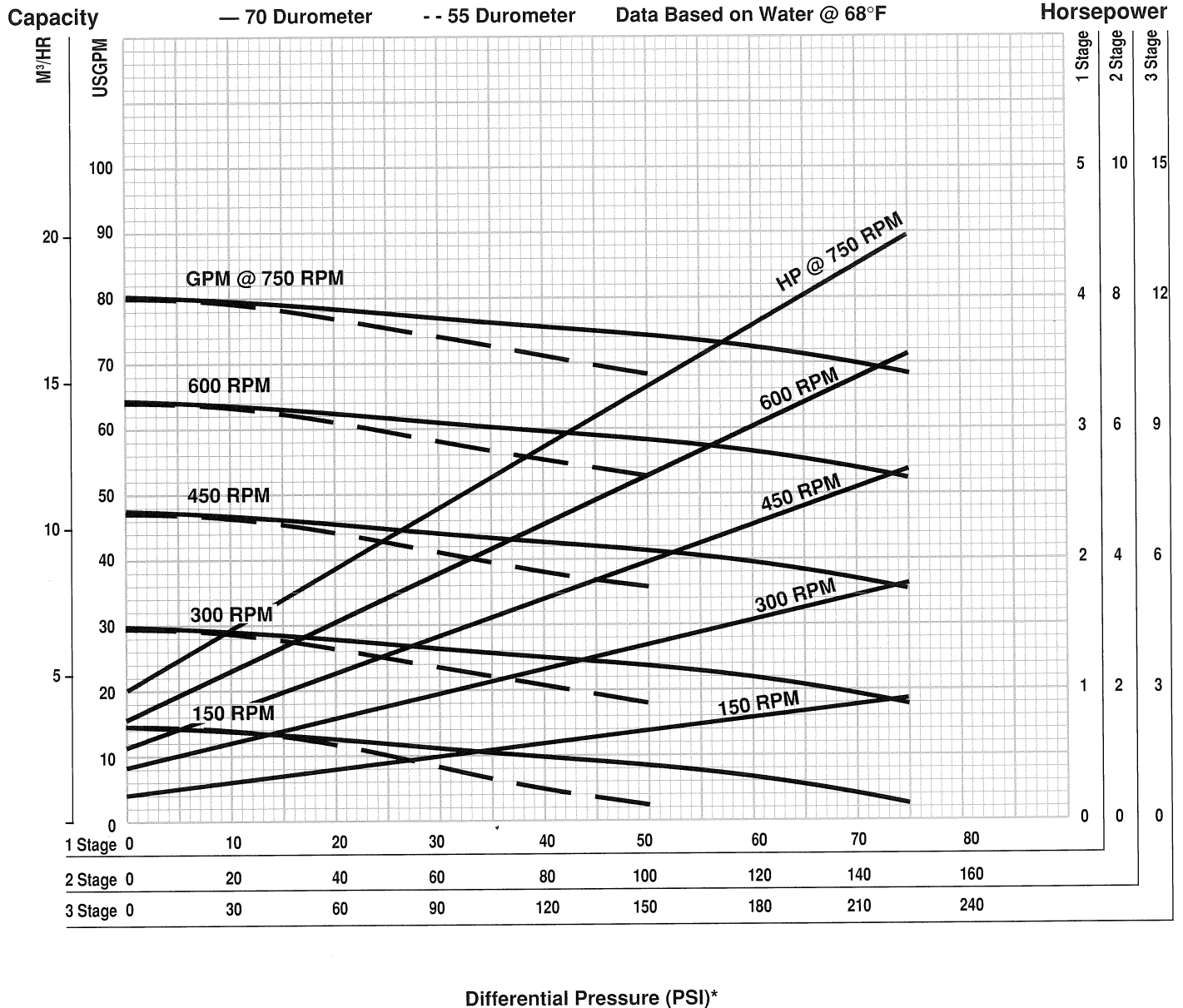
**Stages:** 1, 2, 3

**Frame Designation:** FF, FG

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

**NOTE:** Pressure limits rated at 75 psi/stage (70 Duro).

	RPM	150	300	450	600	750
NPSH Required — (ft.)		1.10	2.20	3.30	4.90	7.60
Minimum Recommended Motor HP	1 STG	1	2	3	5	5
	2 STG	1 1/2	3	5	5	7 1/2
	3 STG	2	5	5	7 1/2	10
Drive End HP	FF	.17	.34	.51	.68	.86
	FG	.24	.47	.70	.94	1.17
Must be added to HP value from curve.						



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

Element: 8

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**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-.078") (1-2mm)			Coarse 9 to 4 Mesh (.078-.185") (2-5mm)		
	Number of Stages								
	1	2	3	1	2	3	1	2	3
10	.20	.20	.30	.20	.30	.40	.30	.40	.50
30	.60	.70	.90	.70	.90	1.10	1.00	1.30	1.50
50	1.00	1.20	1.50	1.10	1.40	1.80	1.60	2.10	2.60

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

**HP ADDER/100 RPM/STAGE**

Viscosity (Centipoise)						
1	2,500	5,000	10,000	50,000	100,000	150,000
0	.30	.50	.70	1.40	2.00	2.50

**HORSEPOWER MULTIPLIERS:**

For applications involving temperature, multiply the minimum HP for starting, as corrected above for your material, by the multiplier for the appropriate rotor size and temperature.

(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

Temperature has little effect on running HP but has considerable effect on starting torque. For applications involving temperatures greater than 200°F, consult the factory.