

BSM ROTARY GEAR PUMPS

AUTOMATIC REVERSING GEAR PUMPS



FT MTD PUMP

BSM Automatic Reversing Gear Pumps are designed to maintain the same direction of delivery regardless of the direction of rotation of the driving shaft. These pumps are used on machine tools and other reversing mechanisms which require a constant flow of liquid.

Design: Drive speeds to 900 rpm; discharge pressures to 200 psi; flow rate to 17.1 gpm.

Material: Cast Iron casings with precision machined, heat treated gears and case hardened shafts.

Bearings: Plain.

Seal: Compression packing with adjustable gland.

Lubrication: Self lubricating using the pumped liquid. Also available for handling non-lubricating liquids.

Rotation: Vertical foot type, right hand furnished. Left hand mounting optional. Reversible. Discharge is always from the top of the pump. Top valve cover may be transposed with the bottom for left or right hand mounting on foot.

Liquid Viscosities: Liquids having good lubricating qualities are recommended.

Suction Lift: Up to 15" Hg recommended. Consult the factory for higher suction lift recommendations.

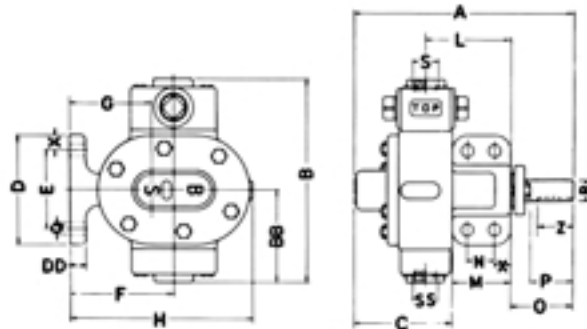
Drive Options: D-Drive (pump coupled to motor mounted on baseplate); GR-Drive (pump coupled to gear reducer coupled to motor mounted on baseplate); B-Drive (pump and motor connected by V-belt and pulleys mounted on baseplate).

Accessories: Gear Sets; Bearing Kit, and Packing Kits. Refer to Section 13.

BSM ROTARY GEAR PUMPS

MODELS 11, 12, 13 AUTOMATIC REVERSING GEAR PUMPS

DIMENSIONAL DATA



Dimensions (inches)

Model	A	B	BB	C	D	DD	E	F	G*	H
11	6 ³ / ₁₆	5 ⁹ / ₁₆	2 ⁹ / ₁₆	2 ¹ / ₈	2 ³ / ₄	1/2	2	2 ²³ / ₃₂	2 ¹ / ₈	5
12	7 ¹ / ₁₆	6 ⁷ / ₁₆	2 ¹⁵ / ₁₆	3 ¹ / ₈	3 ¹ / ₂	1/2	2 ¹ / ₂	3 ¹ / ₁₆	2 ¹ / ₈	5 ⁷ / ₈
13	8 ¹ / ₁₆	8 ¹ / ₁₆	3 ¹ / ₂	4 ¹ / ₂	4	3/4	3	4 ¹ / ₄	3 ¹ / ₄	7 ⁷ / ₁₆

L	M	N	O	P	Q	R	S NPT	SS NPT	X	Z	Key- way
2 ¹ / ₄	1 ¹ / ₂	3/4	2 ¹ / ₁₆	1 ³ / ₈	2 ⁵ / ₆₄	5/16	3/8	3/8	3/8	1 ¹ / ₁₆	1/8 x 1/16
2 ³ / ₄	1 ⁷ / ₈	7/8	2 ¹ / ₁₆	1 ¹ / ₄	2 ⁵ / ₆₄	3/8	1/2	1/2	1/2	1 ¹ / ₁₆	3/16 x 3/32
3 ³ / ₄	2 ¹ / ₄	1 ¹ / ₄	2 ⁹ / ₁₆	1 ¹¹ / ₃₂	2 ⁹ / ₆₄	3/4	3/4	1 ¹ / ₄	1/2	1 ¹ / ₁₆	3/16 x 3/32

*G is distance from bottom of stand to center of drive shaft; plus or minus .005".

OPERATING CHARACTERISTICS*

Model	Displmnt gals per rev.	Slip gpm/psi	Drive Speed rpm	0 psi		50 psi		75 psi		100 psi		200 psi	
				gpm	hp	gpm	hp	gpm	hp	gpm	hp	gpm	hp
11	.00515	.0022	300	1.5	.02	1.4	.10	1.38	.14	1.3	.18	1.1	.34
			600	3.1	.05	3.0	.20	2.93	.28	2.9	.36	2.7	.66
			900	4.6	.11	4.5	.33	4.47	.35	4.4	.54	4.2	.96
12	.01043	.0023	300	3.1	.04	3.0	.19	2.95	.26	2.9	.34	2.7	.64
			600	6.3	.07	6.1	.34	6.1	.47	6.0	.61	5.8	1.1
			900	9.4	.11	9.3	.48	9.2	.66	9.1	.85	8.9	1.5
13	.01896	.0025	300	5.7	.05	5.6	.28	5.5	.41	5.4	.54	5.2	1.1
			600	11.4	.06	11.3	.47	11.2	.71	11.1	.97	10.9	2.1
			900	17.1	.17	17.0	.83	16.8	1.2	16.8	1.5	16.5	3.2

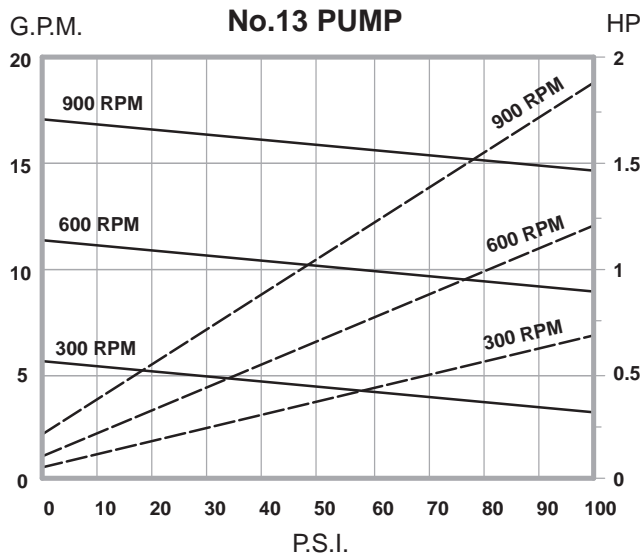
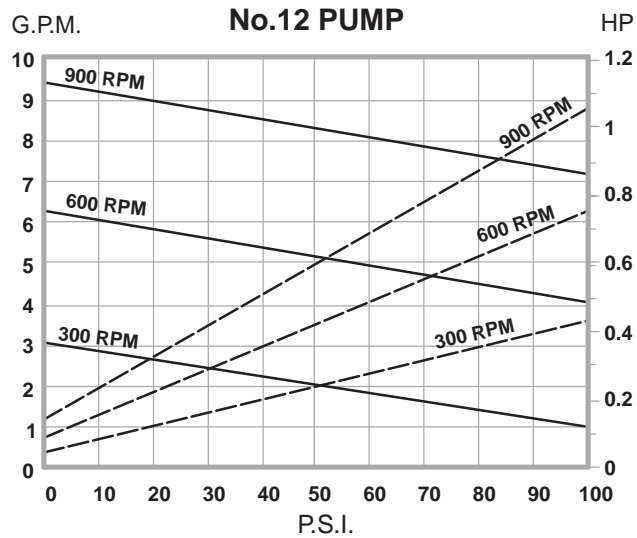
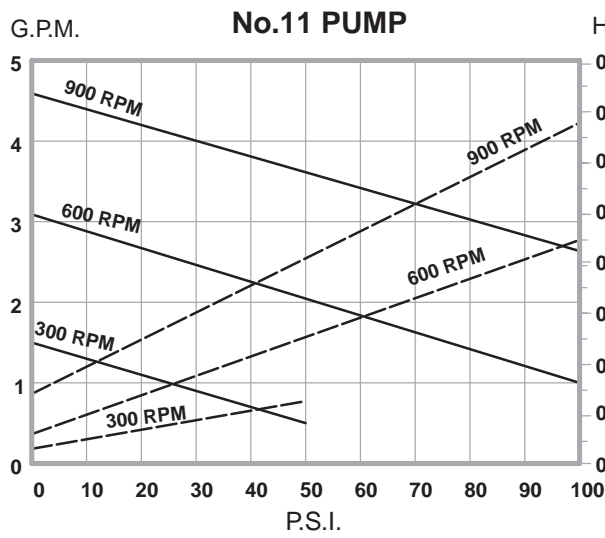
*Delivery and input horsepower are based on liquid viscosity of 300 ssu at speed and pressures shown.

*For operating characteristics at other viscosities and pressure, consult factory.

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OPERATING CHARACTERISTICS, 32 SSU LIQUID

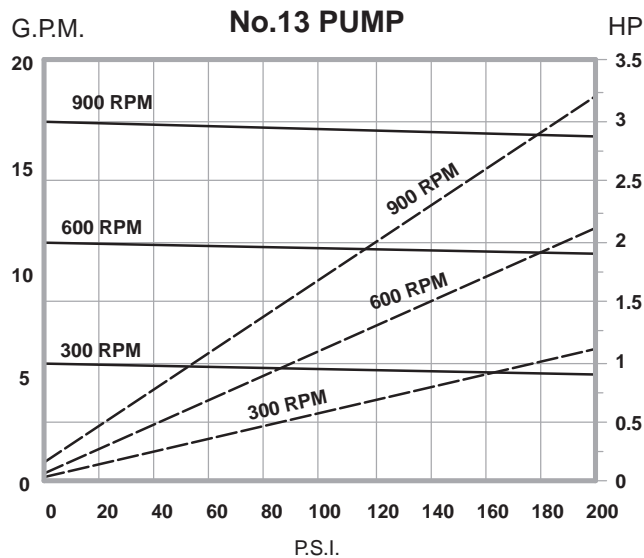
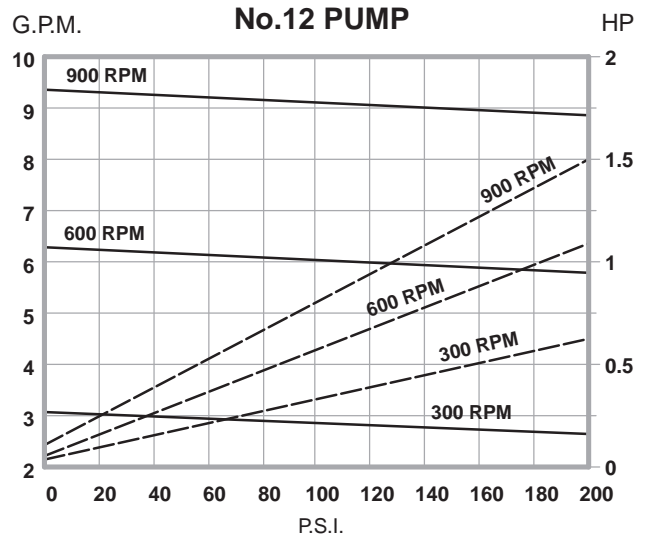
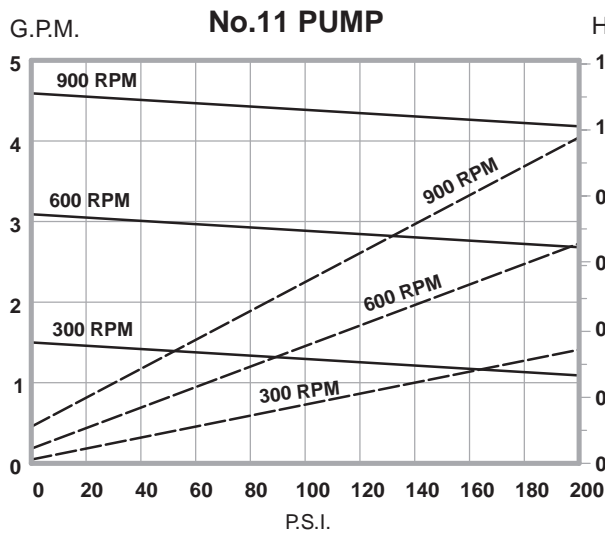


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

AUTOMATIC REVERSING GEAR PUMPS

OPERATING CHARACTERISTICS, 300 SSU LIQUID

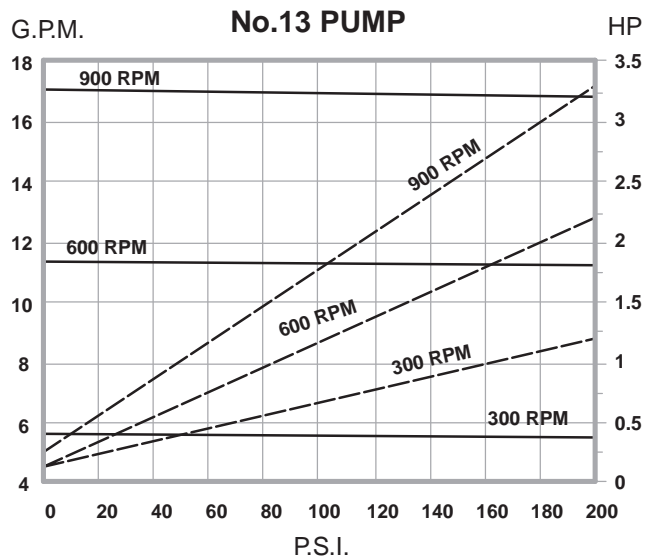
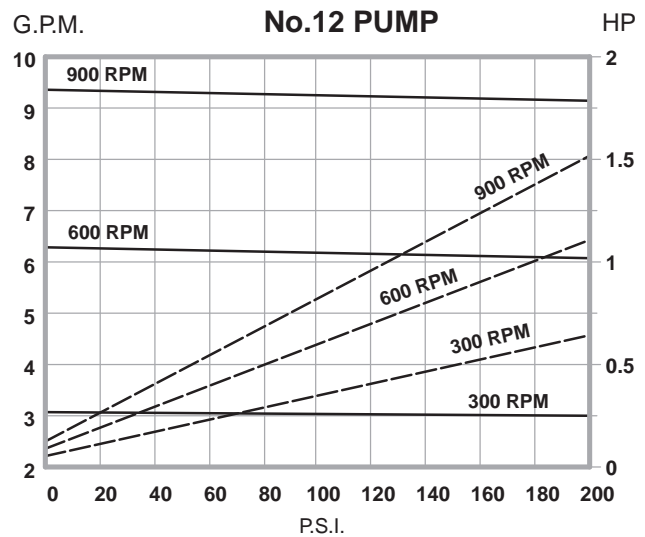
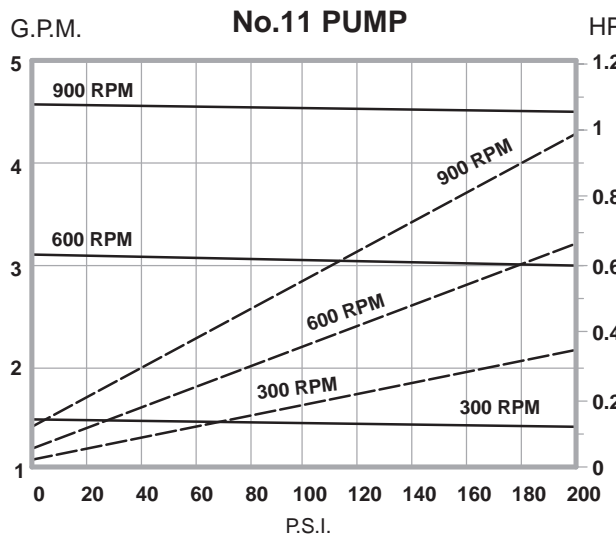


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

AUTOMATIC REVERSING GEAR PUMPS

OPERATING CHARACTERISTICS, 1,000 SSU LIQUID

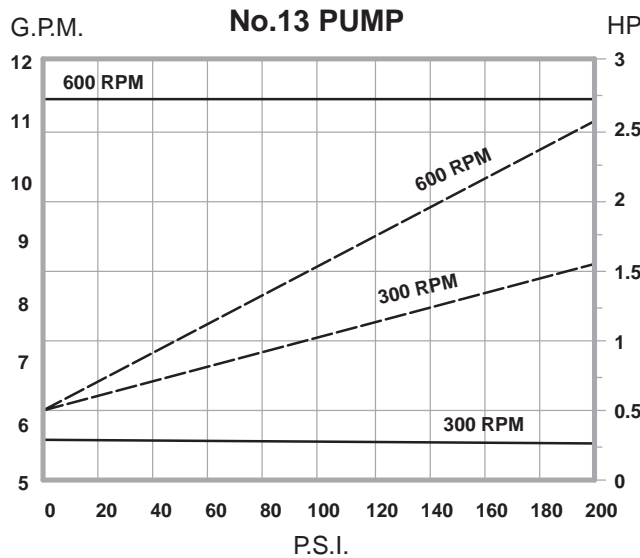
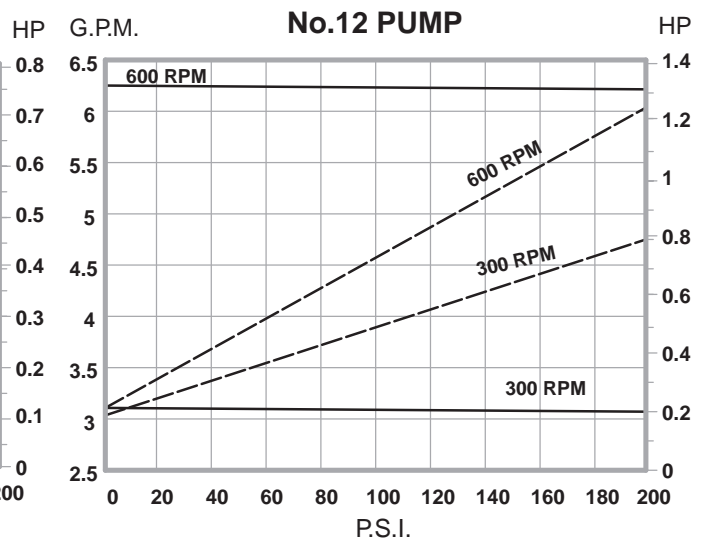
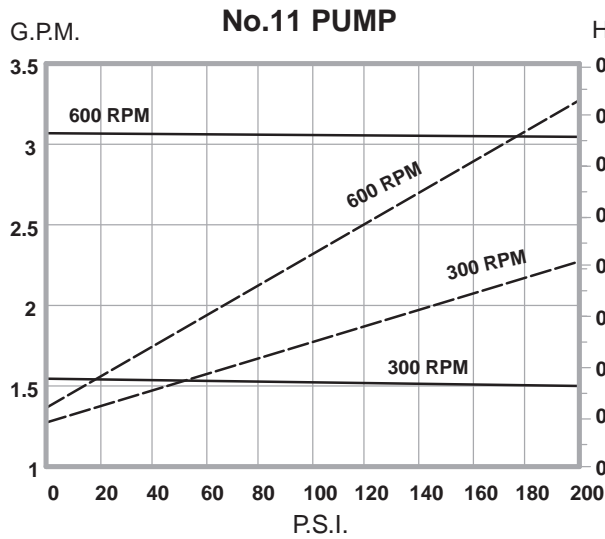


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

AUTOMATIC REVERSING GEAR PUMPS

OPERATING CHARACTERISTICS, 5,000 SSU LIQUID



SOLID LINE = GPM
BROKEN LINE = HP