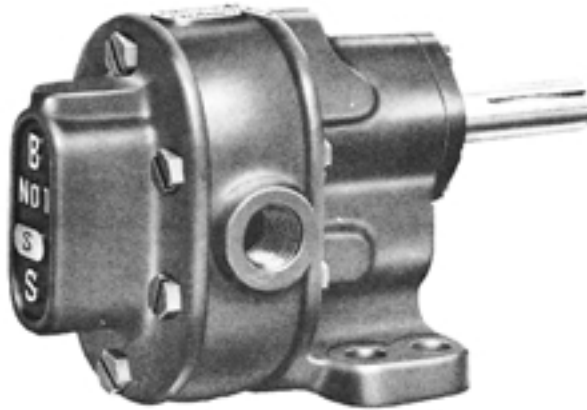


BSM ROTARY GEAR PUMPS

S-SERIES



FT. MTD. PUMP

S-Series pumps are designed to operate at standard motor speeds and are suitable for pumping oils, inert chemicals, petroleum products and various other liquids in transfer, circulation, lubrication, and liquid pressurization applications.

Design: Drive speeds to 1800 rpm; discharge pressures to 200 psi; flow rate to 32.0 gpm; foot or flange mounted; with or without integral relief valve.

Material: Cast Iron casings with precision machined, heat treated gears and case hardened shafts. Pumps are also available in Ductile Iron and Steel.

Bearings: Replaceable iron sleeve bearings. Also available with carbon graphite or bronze bearings.

Seal: Mechanical seal. Also available with compression packing or lip seal. Mechanical seal and lip seals available with different elastomers for pumping different types of liquids.

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

Rotation: Pumps are available for clockwise or counter-clockwise rotation. Discharge is always on the side of the pump toward which the top of the shaft rotates. Specify at time of order.

Liquid Viscosities: 32 ssu to 100,000 ssu. Adaptable for handling liquids from water soluble to molten lead.

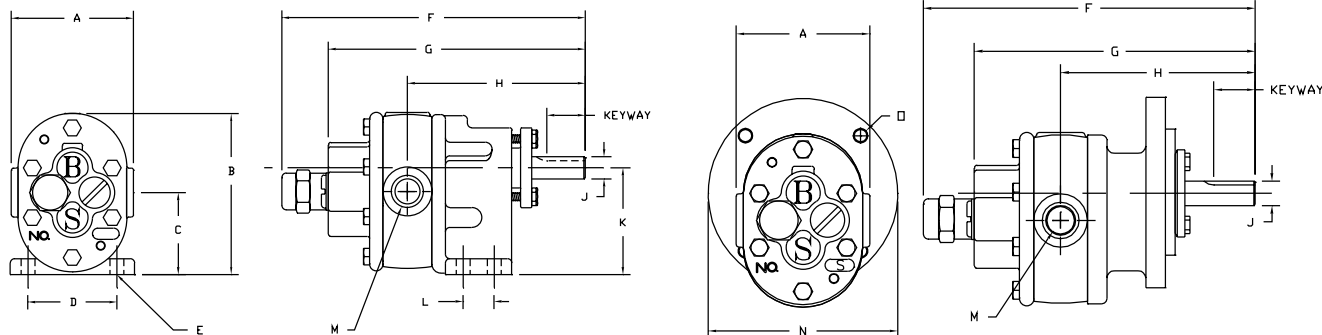
Suction Lift: 28" Hg / 31 feet depending on the type of liquid being pumped.

Drive Options: E-Drive (pump close coupled to motor); A-Drive (pump connected to c-face motor with adapter bracket and coupling); 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: Repair Kits; Gear Sets; Bearing Kits; and Seal Kits. Refer to Section 13.

BSM ROTARY GEAR PUMPS

DIMENSIONAL DATA S-SERIES



FT. MTD. PUMP

FLG. MTD. PUMP

DIMENSIONS (INCHES)

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Keyway
1S	3.00	3.69	1.78	2.00	0.39	7.50	6.25	4.56	0.56	2.38	0.75	3/8	4 7/8	3/8-16	1/8 x 1/16
2S	3.44	4.53	2.31	2.50	0.39	8.47	7.22	5.00	0.68	3.00	0.88	1/2	"	3/8-16	3/16 x 3/32
3S	4.44	5.72	2.88	3.00	0.45	10.50	8.88	6.19	0.75	3.88	1.25	3/4	"	3/8-16	3/16 x 3/32
4S	4.44	5.91	2.88	3.00	0.45	10.50	8.88	6.19	0.75	3.88	1.25	1	"	3/8-16	3/16 x 3/32
5S	5.00	5.97	2.88	3.00	0.45	10.50	8.88	6.69	0.75	3.88	1.25	1 1/4	"	3/8-16	3/16 x 3/32

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
1S	.00262	.0024	600	1.6	.03	1.5	.08	1.4	.11	1.3	.15	1.1	.33
			860	2.3	.04	2.1	.13	2.07	.18	2.0	.23	1.8	.49
			1140	3.0	.06	2.9	.17	2.8	.23	2.7	.30	2.5	.63
			1725	4.5	.14	4.4	.29	4.3	.36	4.28	.48	4.0	.95
2S	.00521	.0035	600	3.1	.05	3.0	.15	2.9	.24	2.8	.31	2.4	.65
			860	4.5	.08	4.3	.22	4.2	.34	4.1	.45	3.8	.93
			1140	5.9	.13	5.8	.31	5.7	.41	5.6	.51	5.2	1.0
			1725	9.0	.44	8.8	.64	8.7	.78	8.6	.94	8.3	1.6
3S	.00947	.0026	600	5.7	.08	5.6	.34	5.5	.47	5.4	.60	5.2	1.1
			860	8.1	.25	8.0	.54	7.9	.68	7.8	.83	7.6	1.5
			1140	10.8	.38	10.7	.77	10.6	.97	10.5	1.1	10.2	2.0
			1725	16.2	.92	16.1	1.4	16.0	1.7	15.9	2.0	15.7	3.1
4S	.0135	.009	600	8.1	.30	7.9	.50	7.8	.60	7.7	.80	7.4	1.2
			860	11.6	.40	11.3	.70	11.2	.90	11.1	1.1	10.7	1.8
			1140	15.3	.50	15.0	.90	14.8	1.20	14.7	1.45	14.2	2.3
			1725	23.2	.80	22.7	1.40	22.5	1.80	22.3	2.2	21.4	3.5
5S	.0186	.02	600	11.1	.45	10.8	.55	10.6	.75	10.4	.95	9.7	1.6
			860	15.9	.65	15.5	.80	15.2	1.0	15.0	1.3	14.0	2.3
			1140	21.1	.80	20.5	1.1	20.2	1.4	19.8	1.8	18.5	3.1
			1725	32.0	1.30	31.0	1.6	30.5	2.1	30.0	2.7	28.0	4.7

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

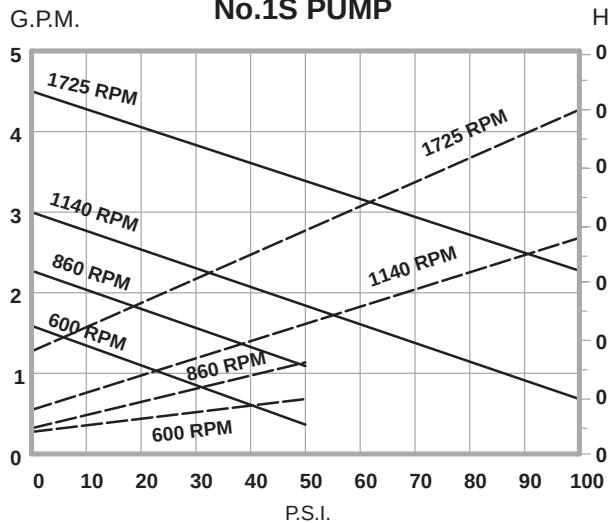
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BSM ROTARY GEAR PUMPS

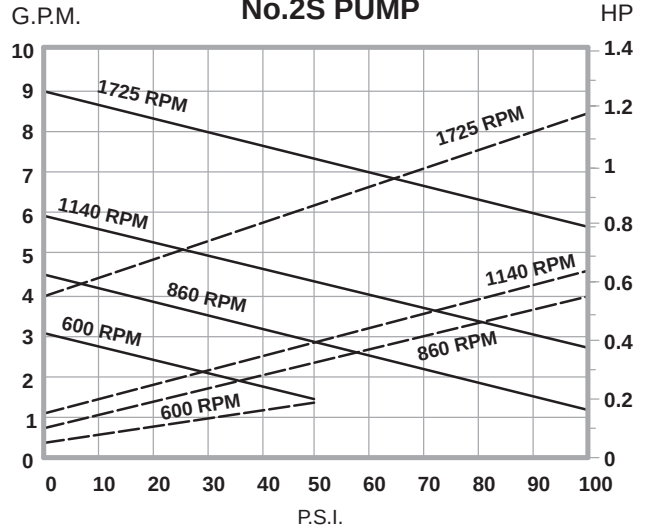
S-SERIES

OPERATING CHARACTERISTICS, 32 SSU LIQUID

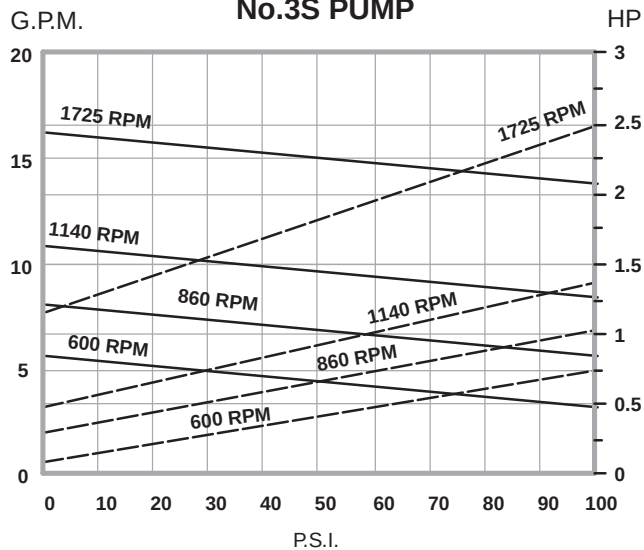
No.1S PUMP



No.2S PUMP



No.3S PUMP

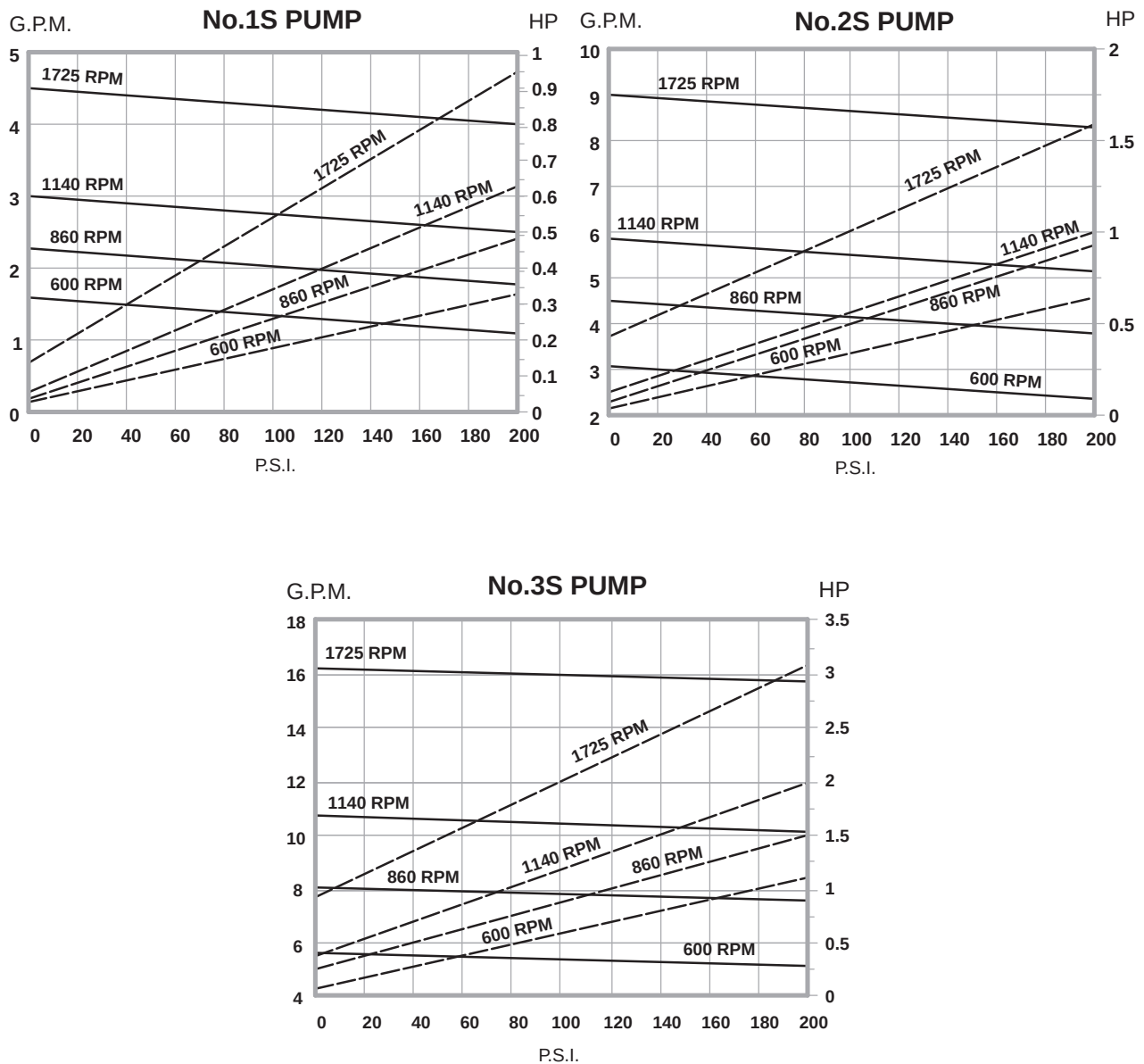


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

S-SERIES

OPERATING CHARACTERISTICS, 300 SSU LIQUID

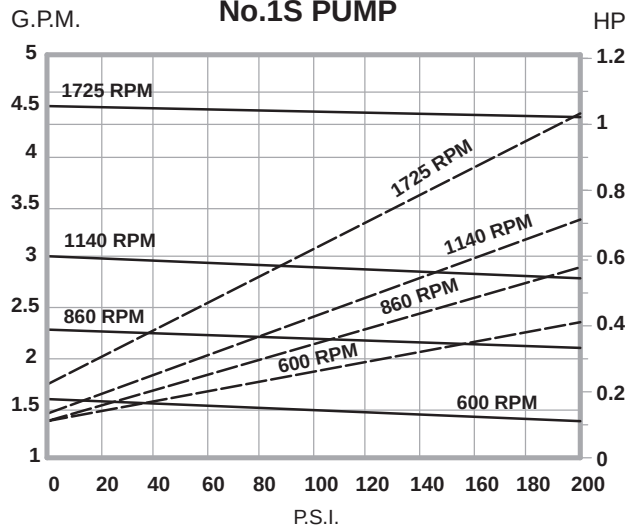


BSM ROTARY GEAR PUMPS

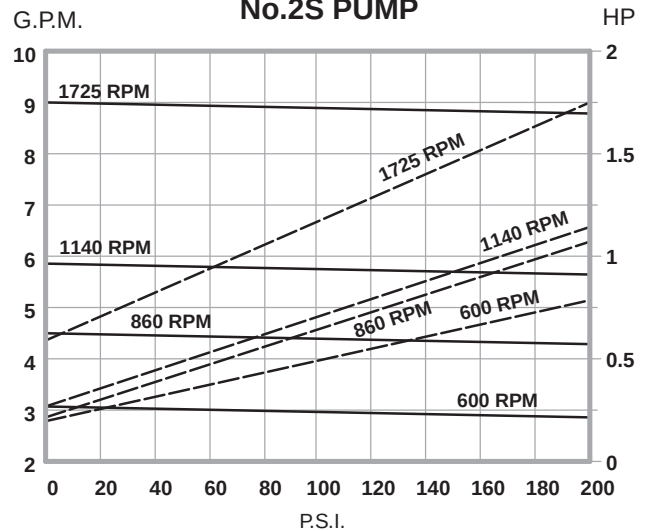
S-SERIES

OPERATING CHARACTERISTICS, 1,000 SSU LIQUID

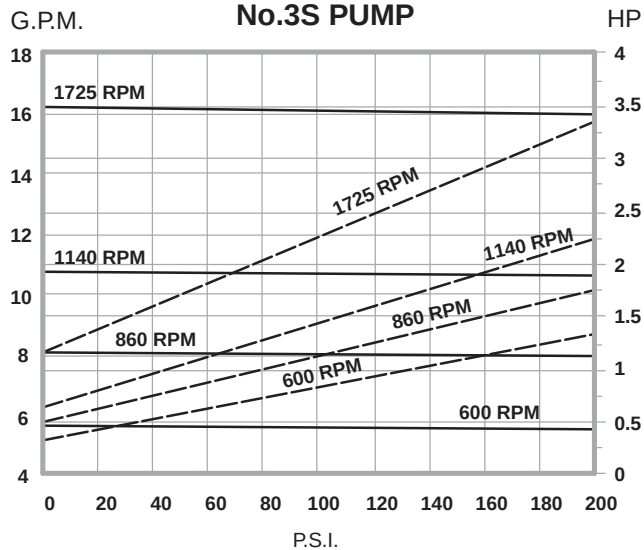
No.1S PUMP



No.2S PUMP



No.3S PUMP

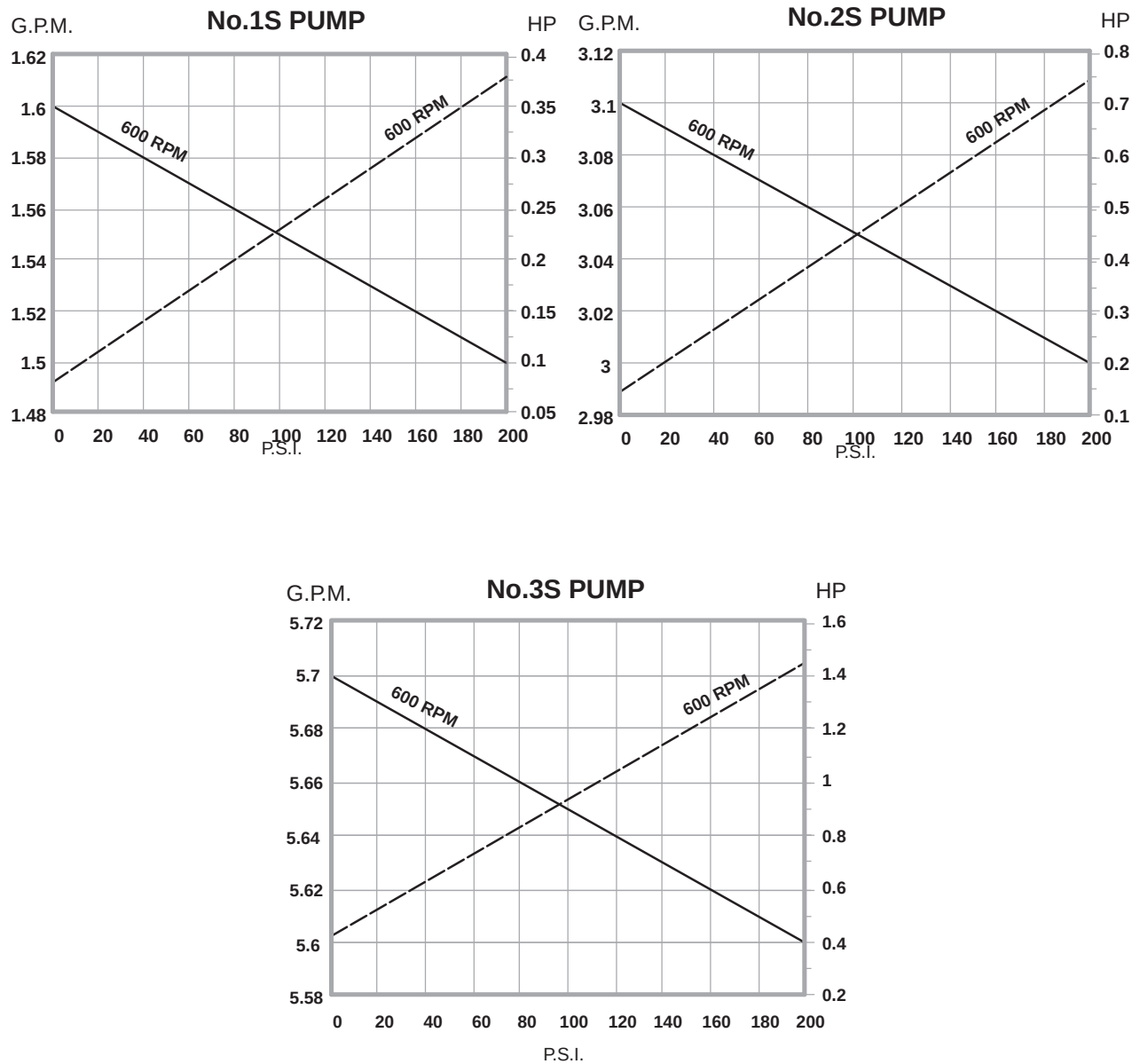


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

S-SERIES

OPERATING CHARACTERISTICS, 5,000 SSU LIQUID

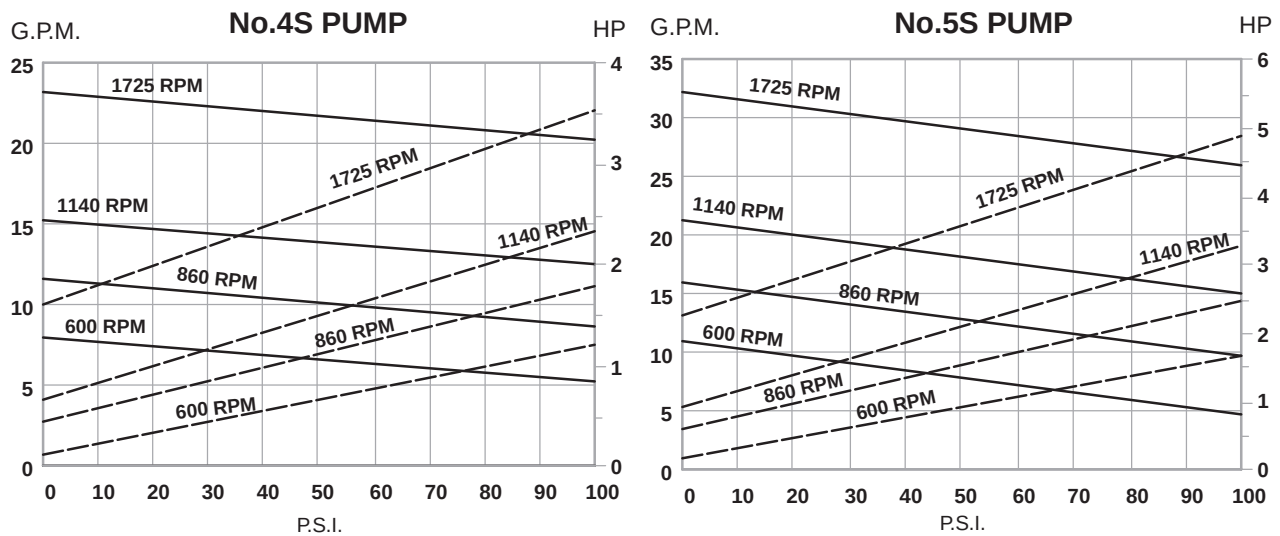


SOLID LINE = GPM
BROKEN LINE = HP

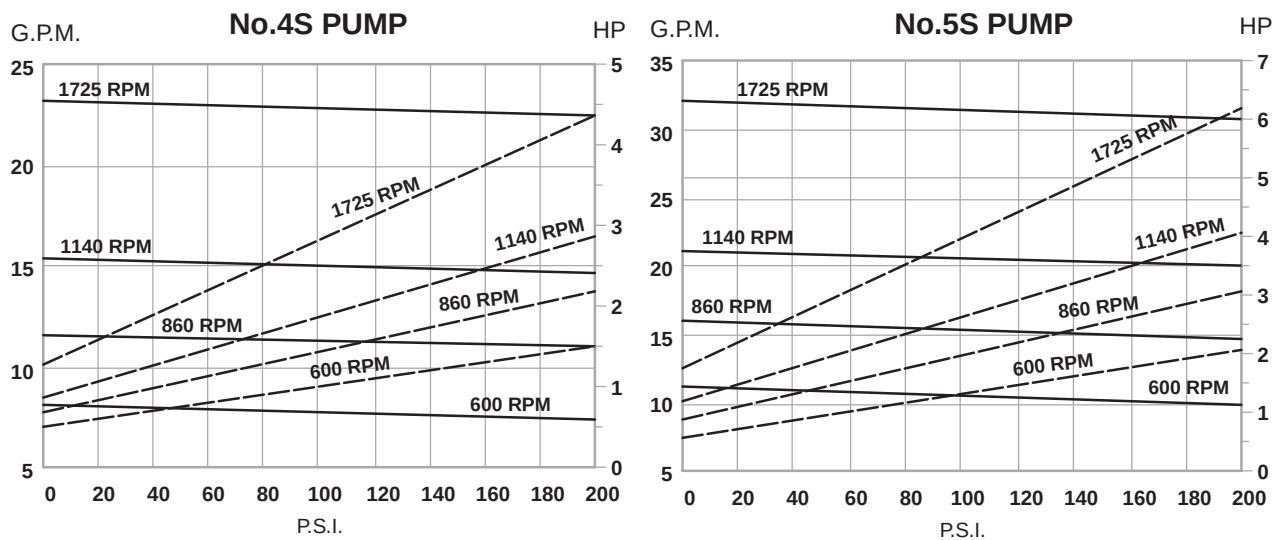
BSM ROTARY GEAR PUMPS

S-SERIES

OPERATING CHARACTERISTICS, 32 SSU LIQUID



OPERATING CHARACTERISTICS, 300 SSU LIQUID

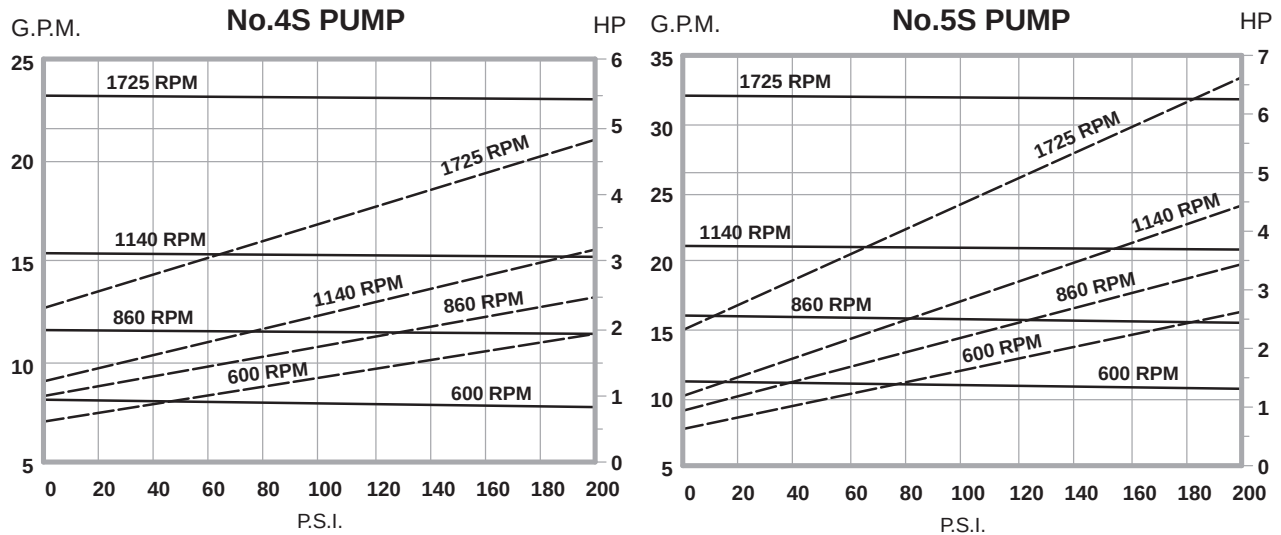


SOLID LINE = GPM
BROKEN LINE = HP

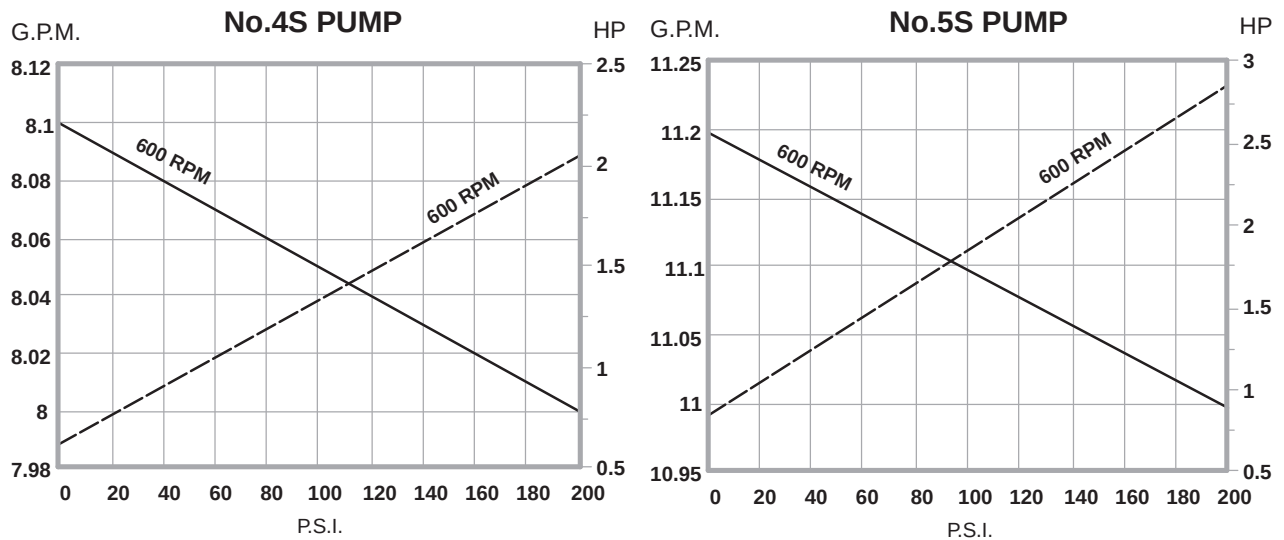
BSM ROTARY GEAR PUMPS

S-SERIES

OPERATING CHARACTERISTICS, 1,000 SSU LIQUID



OPERATING CHARACTERISTICS, 5,000 SSU LIQUID

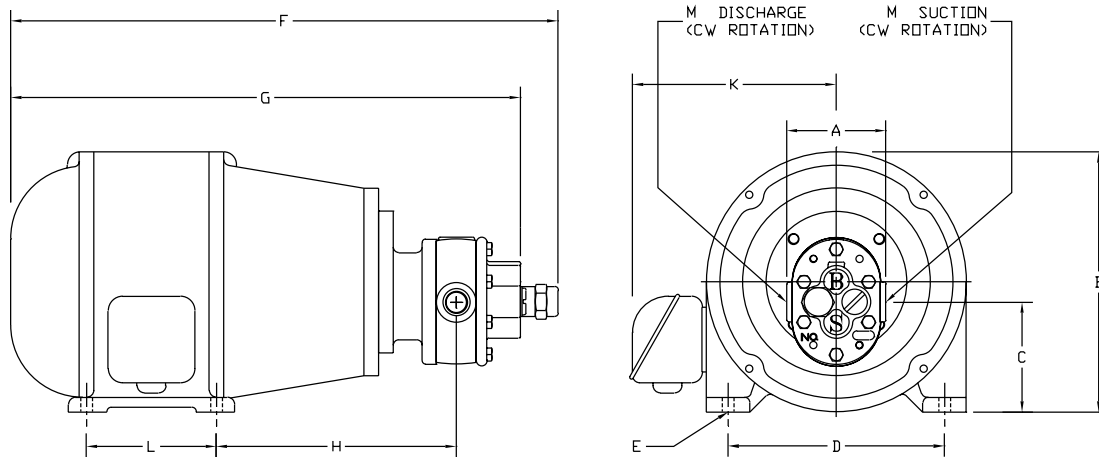


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

S-SERIES CLOSE COUPLED MOTOR DRIVEN ROTARY GEAR PUMPS (E-DRIVE)

BSM S-Series pumps are available direct coupled to the end bell of a foot mounted motor. This assembly, referred to as an E-Drive, ensures accurate alignment and requires less space than a pump connected to the C-Face of a motor. BSM S-Series Close Coupled Motor Driven Rotary Gear Pumps are available in motor speeds of 860, 1140 & 1725 rpm with capacities to 32.0 gpm and pressures to 200 psi.



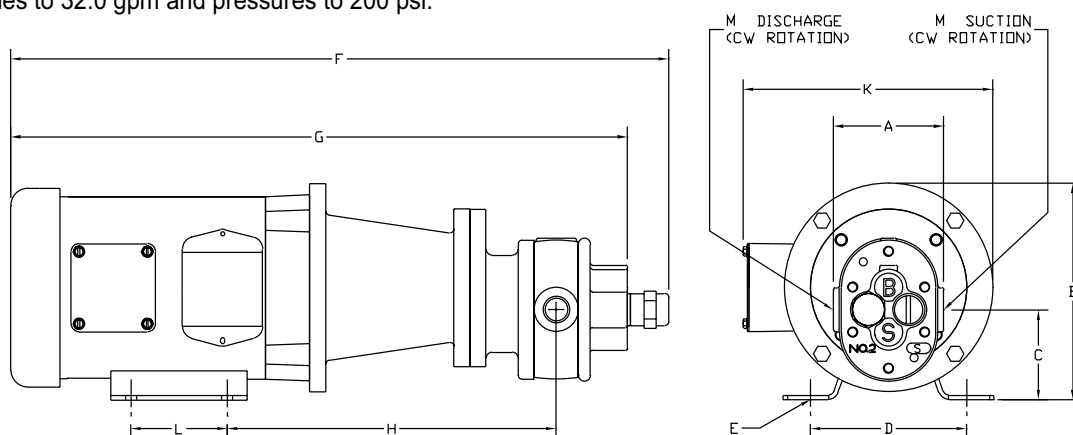
DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	F	G	H	K	L	M
1S-E	182	3.00	9.00	3.90	7.50	.406	17.94	16.69	7.88	7.06	4.50	3/8
2S-E	182	3.44	9.00	3.81	7.50	.406	18.91	17.66	8.31	7.06	4.50	1/2
	184	3.44	9.00	3.81	7.50	.406	19.91	18.66	8.31	7.06	5.50	"
	213	3.44	10.38	4.56	8.50	.406	21.47	20.22	9.12	7.94	5.50	"
3S-E	182	4.44	9.00	3.50	7.50	.406	20.94	19.31	9.50	7.06	4.50	3/4
	184	4.44	9.00	3.50	7.50	.406	21.94	20.31	9.50	7.06	5.50	"
	213	4.44	10.38	4.25	8.50	.406	23.50	21.88	10.31	7.94	5.50	"
	215	4.44	10.38	4.25	8.50	.406	24.00	22.38	10.31	7.94	7.00	"
4S-E	182	4.44	9.00	3.50	7.50	.406	20.94	19.31	9.50	7.06	4.50	1
	184	4.44	9.00	3.50	7.50	.406	21.94	20.31	9.50	7.06	5.50	"
	213	4.44	10.38	4.25	8.50	.406	23.54	21.88	10.31	7.94	5.50	"
	215	4.44	10.38	4.25	8.50	.406	24.00	22.38	10.31	7.94	7.00	"
	254U	4.44	12.38	5.25	6.03	.406	26.19	24.56	12.49	9.81	8.25	"
5S-E	182	5.00	9.00	3.47	7.50	.406	21.94	20.31	10.00	7.06	4.50	11/4
	184	5.00	9.00	3.47	7.50	.406	22.94	21.31	10.00	7.06	5.50	"
	213	5.00	10.38	4.22	8.50	.406	24.50	22.88	10.81	7.94	5.50	"
	215	5.00	10.38	4.22	8.50	.406	25.00	23.38	10.81	7.94	7.00	"
	254U	5.00	12.38	5.22	6.03	.406	27.19	25.56	12.99	9.81	8.25	"

BSM ROTARY GEAR PUMPS

S-SERIES MOTOR DRIVEN ROTARY GEAR PUMPS (A-DRIVE)

BSM S-Series pumps are available direct coupled to a Nema C-Face foot mounted motor. This assembly, referred to as an A-Drive, ensures accurate alignment and requires less space and is less costly than a pump and motor mounted on a baseplate. BSM S-Series Motor Driven Rotary Gear Pumps are available in motor speeds of 860, 1140 & 1725 rpm with capacities to 32.0 gpm and pressures to 200 psi.



DIMENSIONS (INCHES)

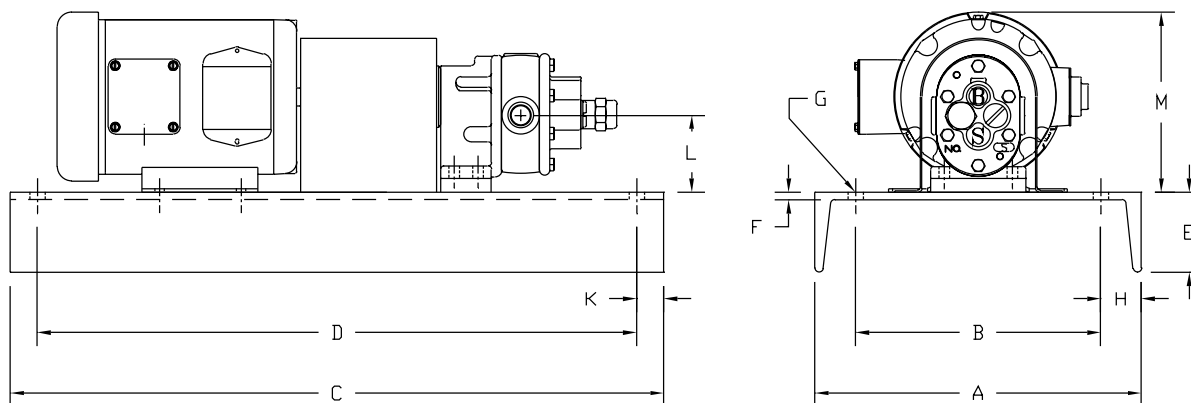
Model No.	Motor Frame	A	B	C	D	E	F	G	H	K	L	M
1S-A	56C	3.00	6.88	2.91	4.88	0.34	19.81	18.56	9.81	8.31	3.00	3/8
	145TC	3.00	6.88	2.91	5.50	0.34	21.53	20.28	10.12	8.56	5.00	3/8
	182TC	3.00	8.69	3.91	7.50	0.41	23.12	21.87	11.75	9.81	4.50	3/8
2S-A	56C	3.44	6.88	2.81	4.88	0.34	20.78	19.53	10.25	8.31	3.00	5/8
	145TC	3.44	6.88	2.81	5.50	0.34	22.50	21.25	10.56	8.56	5.00	5/8
	182TC	3.44	8.69	3.81	7.50	0.41	24.09	22.84	12.19	9.81	4.50	5/8
	184TC	3.44	8.69	3.81	7.50	0.41	25.09	23.84	12.19	9.81	5.50	5/8
3S-A	56C	4.44	6.88	2.50	4.88	0.34	22.82	21.19	11.43	8.31	3.00	3/4
	145TC	4.44	6.88	2.50	5.50	0.34	24.54	22.91	11.75	8.56	5.00	3/4
	182TC	4.44	8.69	3.50	7.50	0.41	26.13	24.50	13.37	9.81	4.50	3/4
	184TC	4.44	8.69	3.50	7.50	0.41	27.13	25.50	13.37	9.81	5.50	3/4
	213TC	4.44	10.25	4.25	8.50	0.41	29.04	27.41	14.25	12.16	5.50	3/4
	215TC	4.44	10.25	4.25	8.50	0.41	30.54	28.91	14.25	12.16	7.00	3/4
4S-A	56C	4.44	6.88	2.50	4.88	0.34	22.82	21.19	11.43	8.31	3.00	1
	145TC	4.44	6.88	2.50	5.50	0.34	24.54	22.91	11.75	8.56	5.00	1
	182TC	4.44	8.69	3.50	7.50	0.41	26.13	24.50	13.37	9.81	4.50	1
	184TC	4.44	8.69	3.50	7.50	0.41	27.13	25.50	13.37	9.81	5.50	1
	213TC	4.44	10.25	4.25	8.50	0.41	29.04	27.41	14.25	12.16	5.50	1
	215TC	4.44	10.25	4.25	8.50	0.41	30.54	28.91	14.25	12.16	7.00	1
5S-A	56C	5.00	6.88	2.50	4.88	0.34	23.20	21.57	11.63	8.31	3.00	1 1/4
	145TC	5.00	6.88	2.50	5.50	0.34	24.92	23.29	11.95	8.56	5.00	1 1/4
	182TC	5.00	8.69	3.50	7.50	0.41	26.51	24.88	13.57	9.81	4.50	1 1/4
	184TC	5.00	8.69	3.50	7.50	0.41	27.51	25.88	13.57	9.81	5.50	1 1/4
	213TC	5.00	10.25	4.25	8.50	0.41	29.42	27.79	14.45	12.16	5.50	1 1/4
	215TC	5.00	10.25	4.25	8.50	0.41	30.92	29.29	14.45	12.16	7.00	1 1/4
	254TC	5.00	12.88	5.25	10.00	0.53	37.26	35.63	16.19	16.09	8.25	1 1/4

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BSM ROTARY GEAR PUMPS

S-SERIES BASE MOUNTED ASSEMBLIES (D-DRIVE)

BSM S-Series pumps are available as base mounted pump and motor assemblies. Each assembly includes the base, flexible coupling, coupling guard, riser blocks, (if required) lifting eye-bolts, and mounting hardware. The fabricated steel or channel iron bases are available with optional features such as drip-lip construction, drain plugs, mounting lugs, casters, etc..



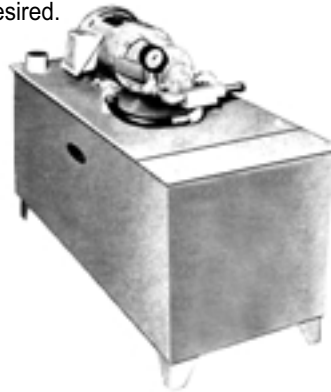
DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	F	G	H	K	L	M
1S-D	56C	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.91	6.88
	145TC	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.91	6.88
	182TC	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.91	8.69
2S-D	56C	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.81	6.88
	145TC	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.81	6.88
	182TC	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.81	8.69
	184TC	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.81	8.69
3S-D	56C	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	145TC	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	182TC	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.50	8.69
	184TC	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.50	8.69
	213TC	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.25	10.25
	215TC	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.25	10.25
4S-D	56C	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	145TC	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	182TC	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.50	8.69
	184TC	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.50	8.69
	213TC	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.25	10.25
	215TC	15.00	12.00	36.00	34.00	3.41	0.41	0.63	2.00	1.00	4.25	10.25
5S-D	56C	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	145TC	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.50	6.88
	182TC	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.50	8.69
	184TC	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.50	8.69
	213TC	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.25	10.25
	215TC	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.25	10.25
	254TC	18.00	15.00	42.00	40.00	3.95	0.45	0.56	1.50	1.00	5.25	12.88

BSM ROTARY GEAR PUMPS

"PUMPAC" WITH MOTOR DRIVEN ROTARY GEAR PUMPS

The precision-built, positive displacement pump has heat treated steel gears supported by substantial bearings to ensure continuous service. Pump shaft seal requires no adjustment. Motor is continuous duty type. Rabbeted assembly guarantees accurate alignment of pump and motor. Drive is through flexible coupling. Rigid welded sheet steel tank, 16 or 32 gallons, has tank cover plate supporting pump and motor resting on rubber gasket for vibration free service. Without disturbing pump assembly or piping, an access cover can be easily removed to check strainer and condition of oil. Return lines extending below liquid level and a baffle in tank are supplied to prevent turbulence. Other standard built-in extras include a pressure gage, relief valve, strainer, and suction piping to pump, also a bypass line from relief valve to tank. When ordering, specify pump number, RPM, H.P., and tank capacity desired.



DIMENSIONAL DATA

Pump No.	MOTOR			GPM at Max PSI	Max. PSI	Tank Cap., Gal.	DIMENSIONS (inches)											
	RPM	HP	Frame				Lo	Ho	Wo	A	B	C	D	E	F(+.12)	G	H	S
1SA	1725	1/4	56	4.4	35	16	27	19.31	13	12.19	5.00	10.25	1.38	2.44	3.31	8.38	2.91	1/4
	1725	1/2	56	4.3	60	16												
	1725	3/4	56	4.26	105	16												
	1140	1/2	56	2.7	105	16												
2SA	1725	1/4	56	8.74	70	16	27	19.31	13	12.19	5.00	10.25	1.38	2.44	3.062	8.38	2.81	1/4
	1725	1/2	56	8.60	110	16												
	1140	1/2	56	5.74	65	16												
	1140	3/4	56	5.59	100	16												
3SA	1725	1 1/2	145T	5.41	150	16												
	1725	2	145T	5.24	200	16												
	1725	2	56	16.07	50	16	27	19.31	13	12.19	5.00	10.25	1.38	2.44	2.56	8.38	2.50	1/4
	1140	1 1/2	56	15.95	95	16												
1SA	1725	1/4	56	4.3	70	32	37	22.31	16	15.19	5.00	13.25	1.38	3.75	3.31	13.38	2.91	1/2
	1725	1/2	56	4.26	105	32												
	1725	3/4	56	2.7	105	32												
	1140	1/2	56	2.59	165	32												
2SA	1725	1/4	56	8.74	70	32	37	22.31	16	15.19	5.00	13.25	1.38	3.75	3.06	13.38	2.81	1/2
	1725	1/2	56	8.60	110	32												
	1140	1/2	56	5.74	65	32												
	1140	3/4	56	5.59	100	32												
3SA	1725	1 1/2	145T	5.41	150	32												
	1725	2	145T	5.24	200	32												
	1725	2	56	16.07	50	32	37	22.31	16	15.19	5.00	13.25	1.38	3.75	2.56	13.38	2.50	1/2
	1140	1 1/2	56	15.95	95	32												

