

BSM ROTARY GEAR PUMPS

500-SERIES



FLG. MTD. PUMP

PUMP FOOT

The BSM 500-Series pumps are designed to provide quiet and efficient service at standard motor speeds, moderately high pressures. Typical applications are supplying hydraulic power on machine tools and construction equipment, as well as oil field gathering line service, and deep hole drilling applications.

Design: Drive speeds to 1725 rpm; discharge pressures to 1000 psi; flow rate to 60.0 gpm; foot or flange mounted.

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

Bearings: Anti-friction needle bearings. Also available with carbon graphite or bronze bearings.

Seal: Mechanical seal. Also available with packed seal.

Lubrication: Self lubricating using the pumped liquid.

Rotation: Clockwise or counter-clockwise. A reversible back drain permits direction of rotation to be easily changed in the field.

Liquid Viscosities: 100 ssu to 1,000 ssu recommended. Clean liquids having good lubricating qualities. Adaptable for handling liquids of higher or lower viscosities.

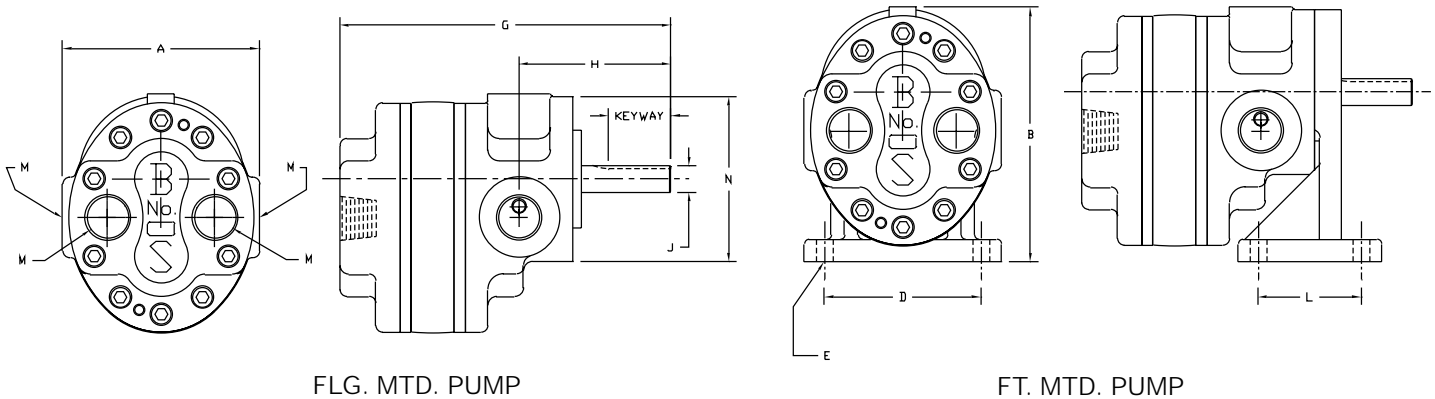
Suction Lift: Up to 28" Hg / 31 feet depending on the type of liquid being pumped.

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 Kit, and Seal Kits. Refer to Section 13.

BSM ROTARY GEAR PUMPS

DIMENSIONAL DATA 500-Series



DIMENSIONS (INCHES)

Model	A	B	C	D	E	G	H	J	K	L	M	N	O	Keyway
507	4.00	5.19	3.19	3.00	.39	7.56	3.38	5/8	3.50	2.38	3/4	3.25	5/16-18	3/16 x 3/32
511	4.00	5.19	3.19	3.00	.39	8.06	3.38	5/8	3.50	2.38	3/4	3.25	5/16-18	3/16 x 3/32
517	5.50	7.13	3.66	4.38	.47	9.25	4.25	3/4	4.75	2.88	1	4.68	7/16-14	3/16 x 3/32
525	5.50	7.13	3.66	4.38	.47	9.75	4.25	3/4	4.75	2.88	1	4.68	7/16-14	3/16 x 3/32
537	6.25	8.00	4.38	5.00	.53	10.75	4.50	1.00	5.63	3.38	1 1/2	4.68	7/16-14	1/4 x 1/8
547	6.25	8.00	4.38	5.00	.53	11.25	4.50	1.00	5.63	3.38	1 1/2	4.68	7/16-14	1/4 x 1/8
557	6.25	8.00	4.38	5.00	.53	11.75	4.50	1.00	5.63	3.38	1 1/2	4.68	7/16-14	1/4 x 1/8
567	6.25	8.00	4.38	5.00	.53	13.25	4.50	1.00	5.63	3.38	2	4.68	7/16-14	1/4 x 1/8

OPERATING CHARACTERISTICS

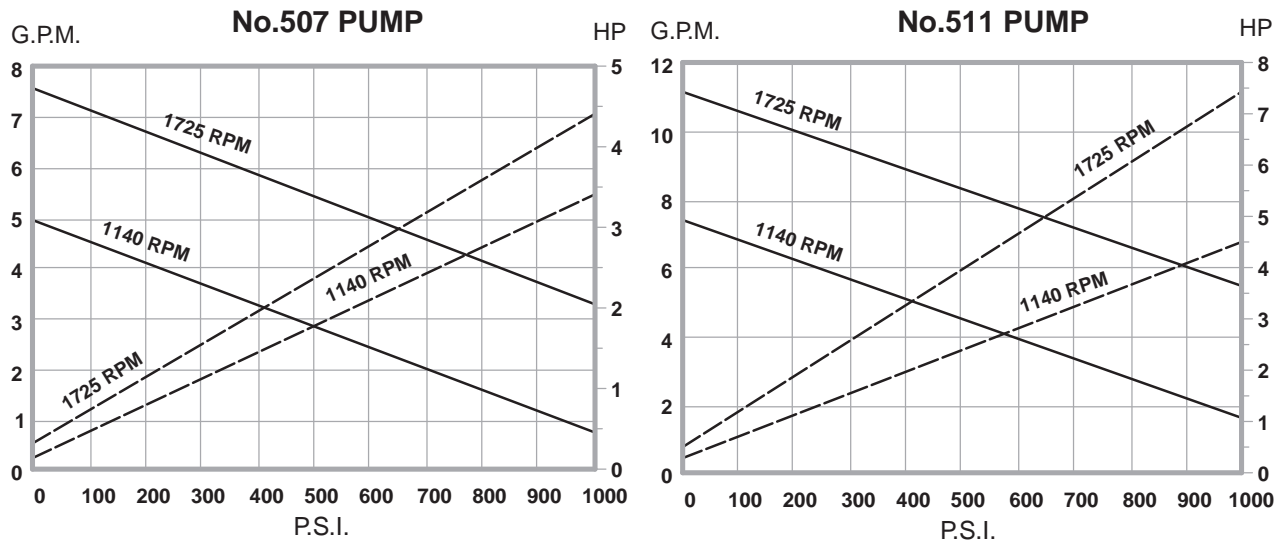
Model	Drive Speed rpm	0 psi		100 psi		200 psi		300 psi		400 psi		500 psi		1000 psi	
		gpm	hp	gpm	hp	gpm	hp	gpm	hp	gpm	hp	gpm	hp	gpm	hp
507	1140	5.0	.20	4.7	.50	4.4	.85	4.1	1.2	3.8	1.5	3.5	1.9	2.0	3.5
	1725	7.6	.40	7.3	.80	7.0	1.2	6.7	1.6	6.4	2.0	6.1	2.5	4.6	4.5
511	1140	7.5	.40	7.0	.80	6.7	1.2	6.3	1.6	5.9	2.0	5.5	2.5	3.5	4.6
	1725	11.1	.60	10.7	1.3	10.3	2.0	9.8	2.6	9.4	3.3	9.0	4.0	7.0	7.5
517	1140	12.0	.40	11.3	1.2	11.0	1.8	10.5	2.6	10.0	3.2	9.5	3.9	--	--
525	1140	17.0	.50	15.5	1.5	15.0	2.6	14.2	3.6	13.5	4.5	12.7	5.5	--	--
537	1140	24.5	.60	22.5	2.2	20.5	3.6	19.0	5.0	17.0	6.4	15.0	7.9	--	--
547	1140	31.1	.70	29.0	2.7	27.0	4.5	25.3	6.3	23.5	8.1	21.5	9.9	--	--
557	1140	37.5	.80	35.5	3.2	33.5	5.4	31.5	7.6	30.0	9.8	28.0	12.0	--	--
567	1140	57.9	1.20	56.0	4.9	54.0	8.3	52.1	11.7	50.2	15.1	48.3	18.5	--	--

*Delivery and input horsepower are based on liquid viscosity of 100 ssu at speed and pressures shown.

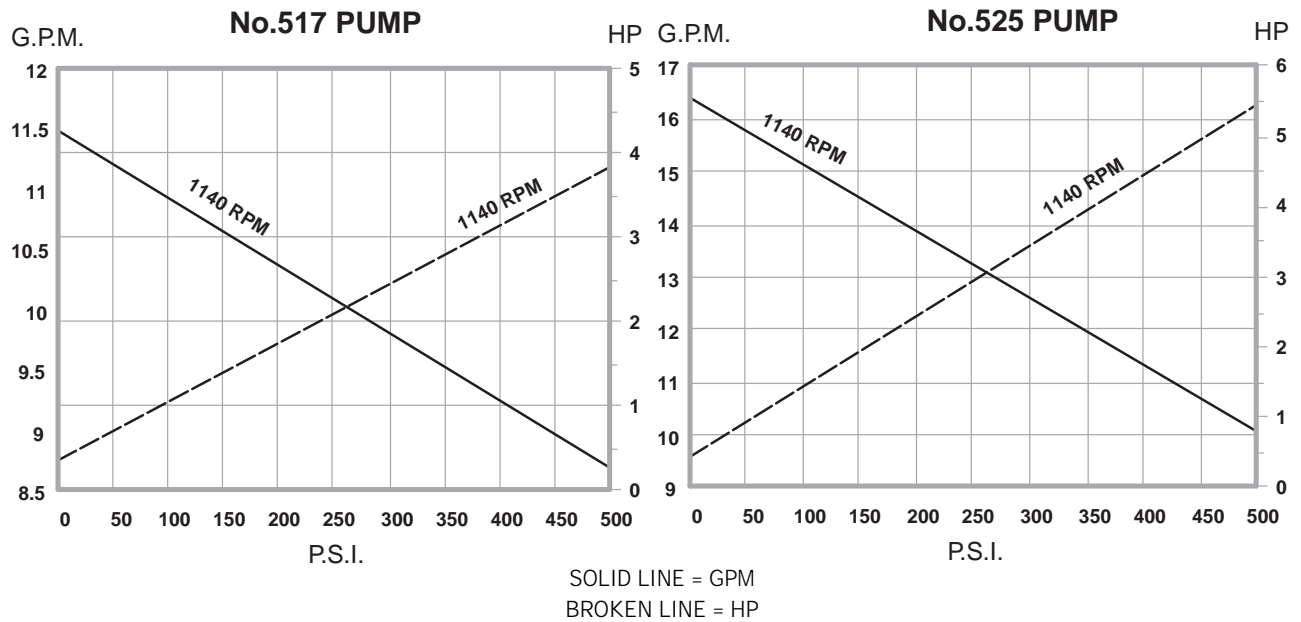
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 70 SSU LIQUID



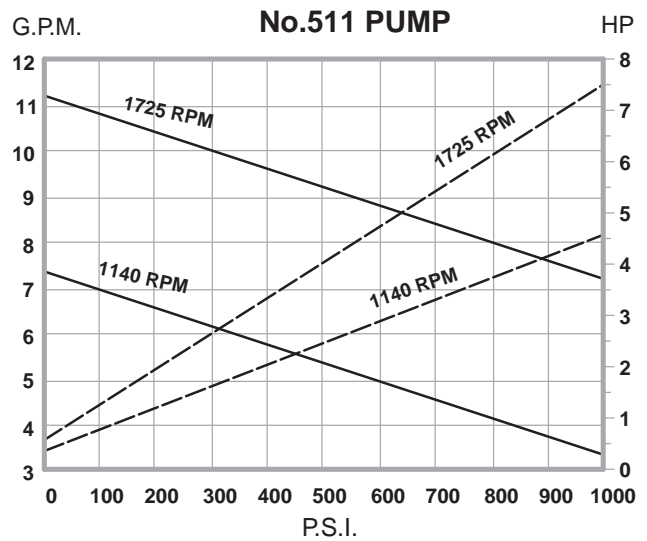
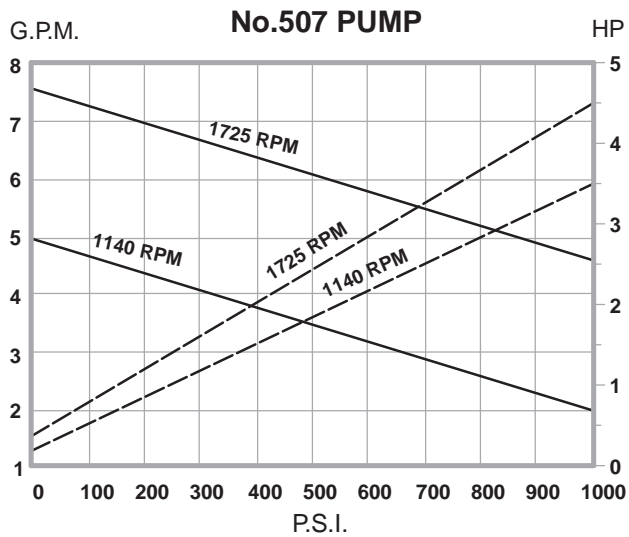
OPERATING CHARACTERISTICS, 70 SSU LIQUID



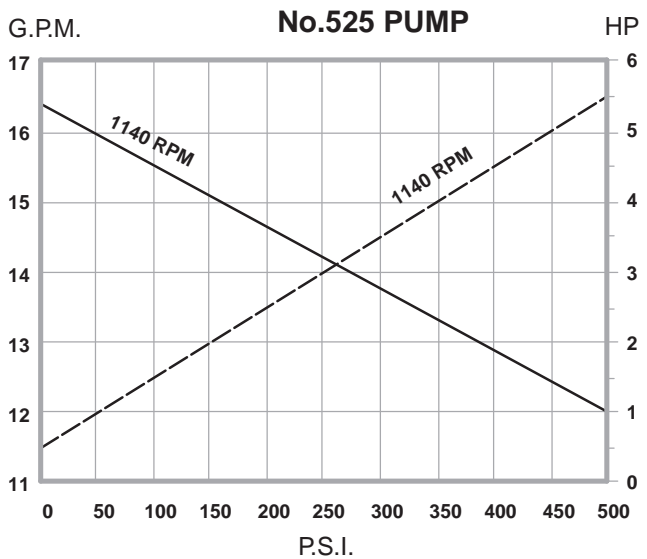
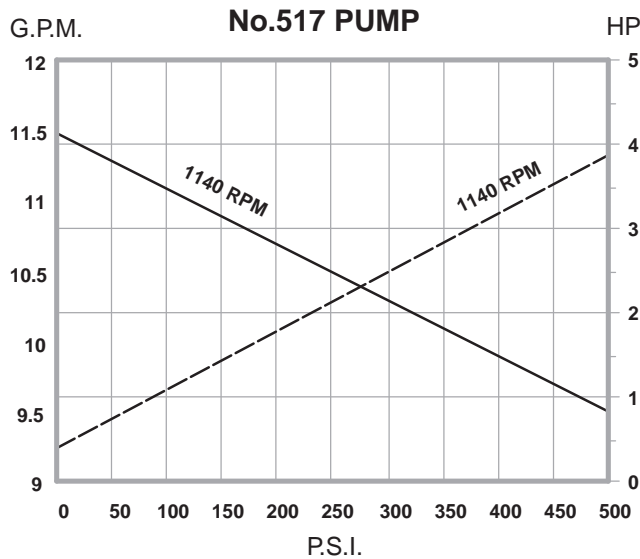
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 100 SSU LIQUID



OPERATING CHARACTERISTICS, 100 SSU LIQUID

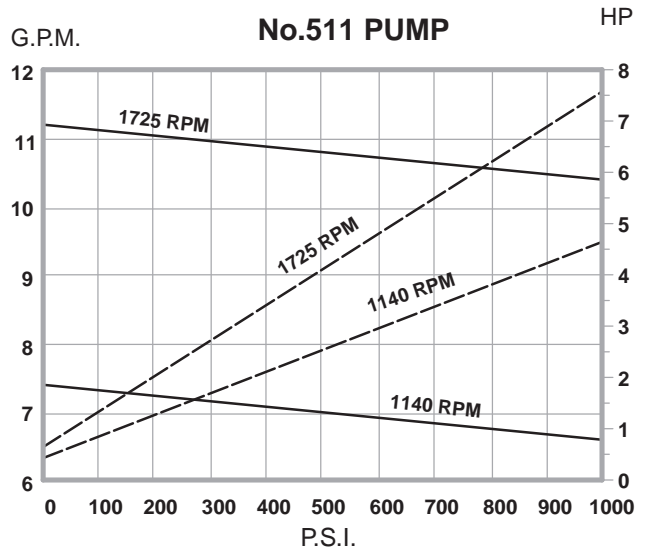
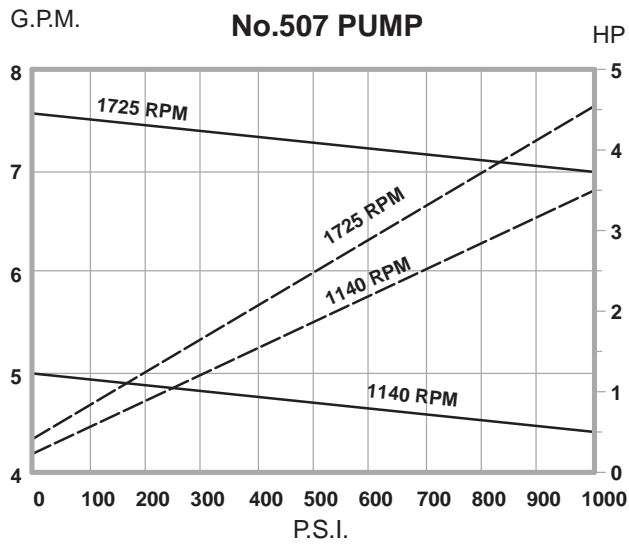


SOLID LINE = GPM
BROKEN LINE = HP

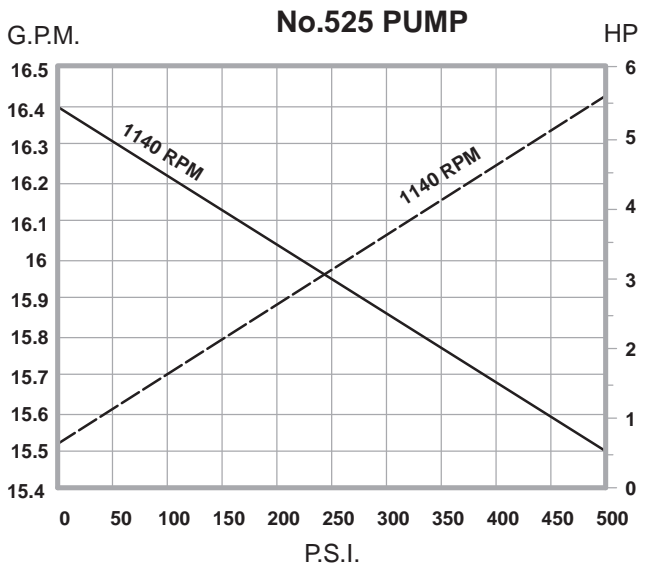
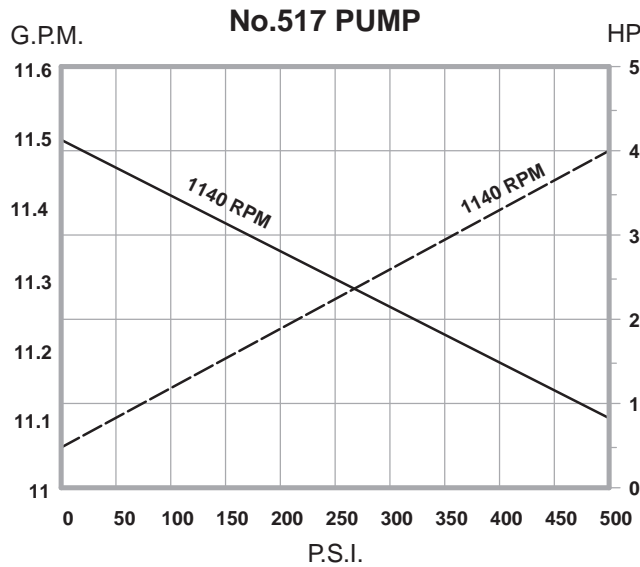
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 500 SSU LIQUID



OPERATING CHARACTERISTICS, 500 SSU LIQUID

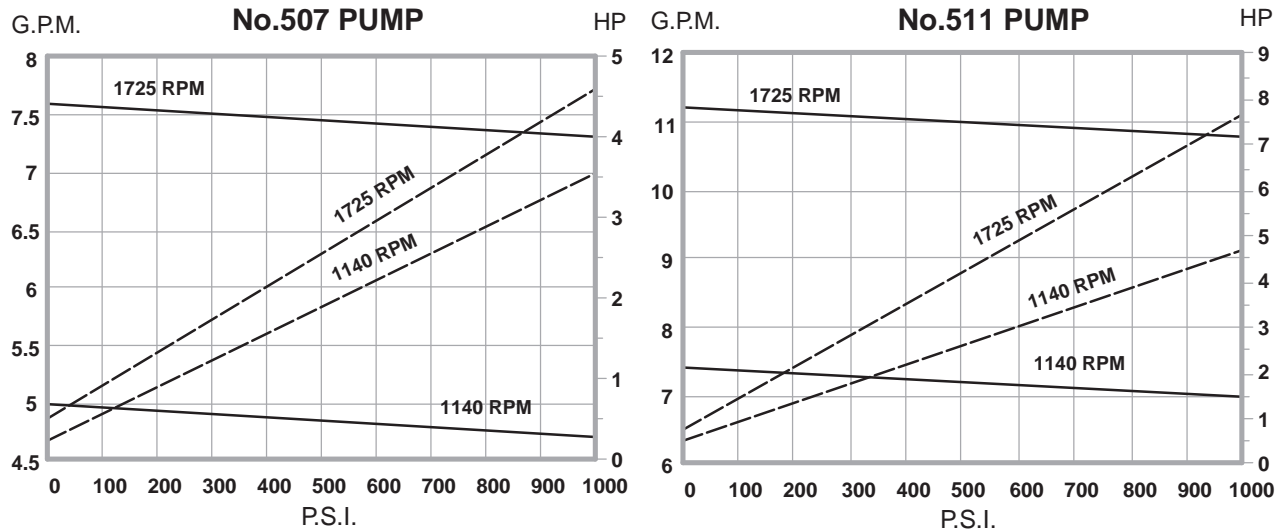


SOLID LINE = GPM
BROKEN LINE = HP

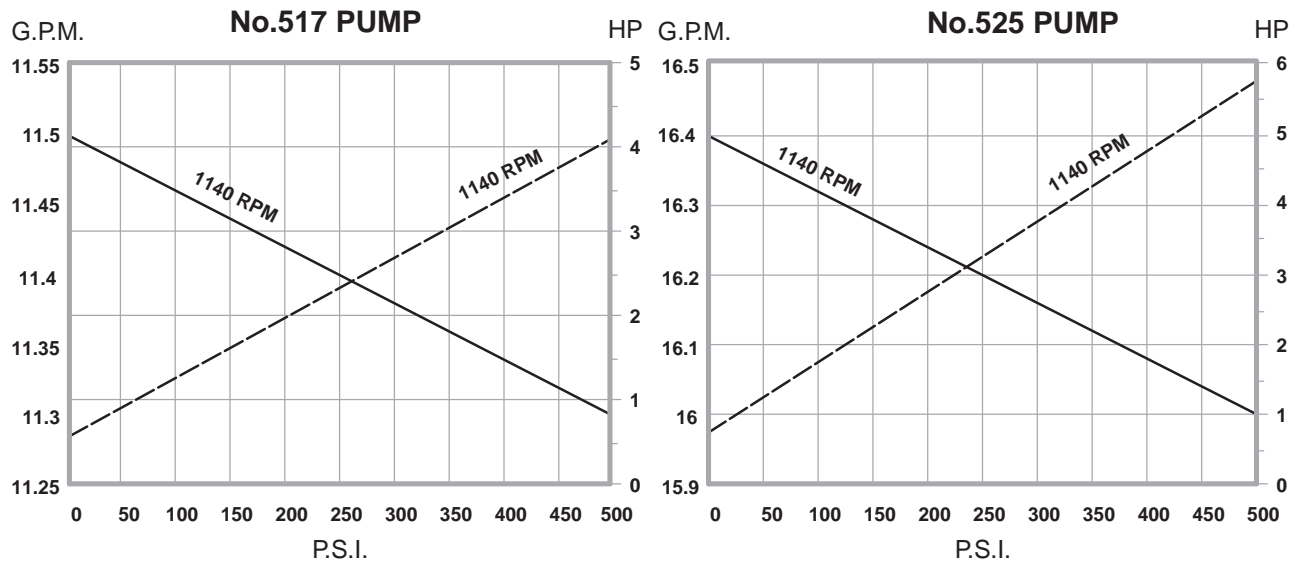
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 1,000 SSU LIQUID



OPERATING CHARACTERISTICS, 1,000 SSU LIQUID

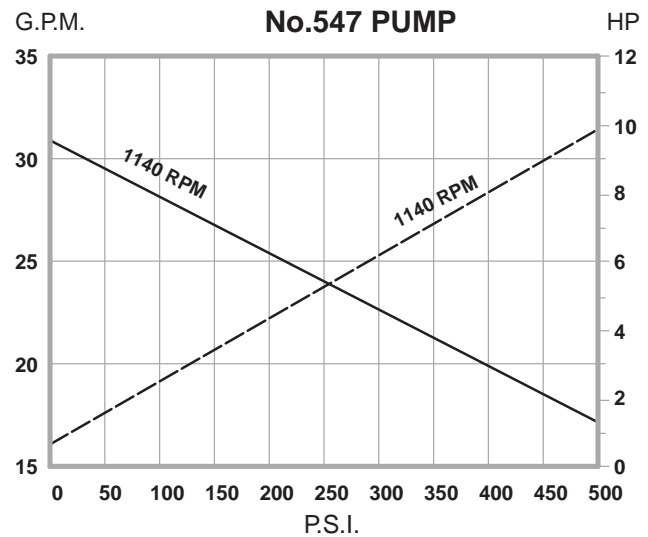
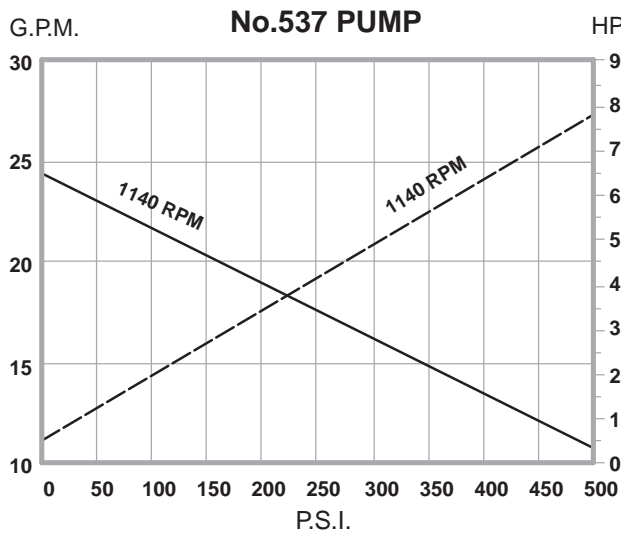


SOLID LINE = GPM
BROKEN LINE = HP

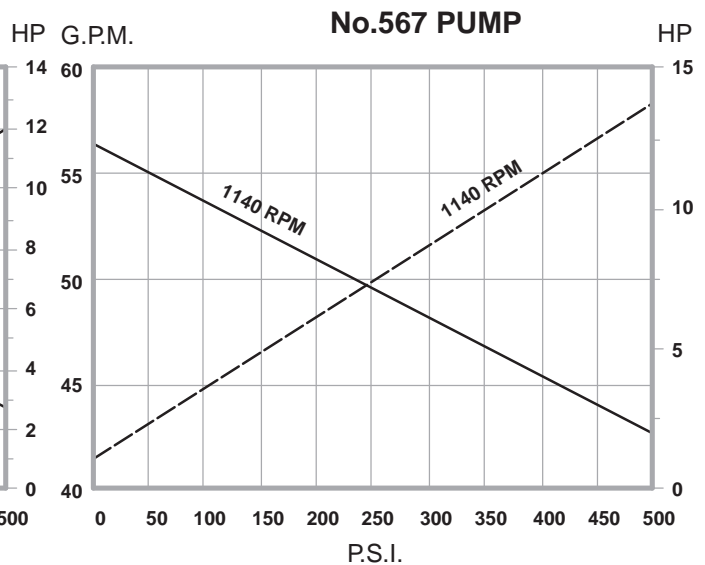
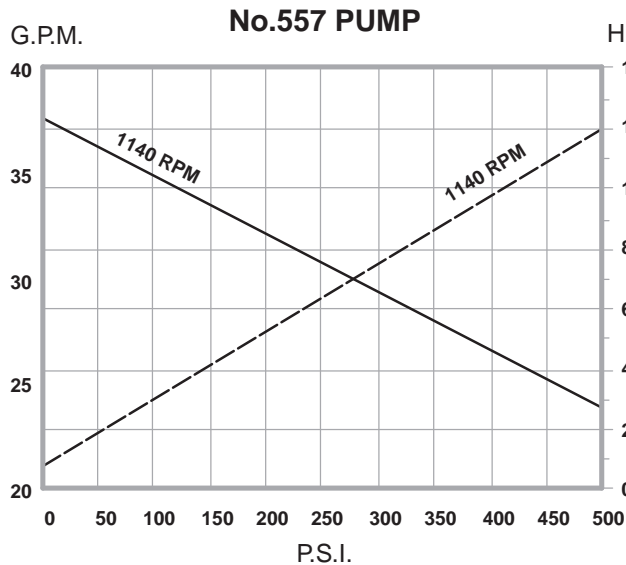
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 70 SSU LIQUID



OPERATING CHARACTERISTICS, 70 SSU LIQUID

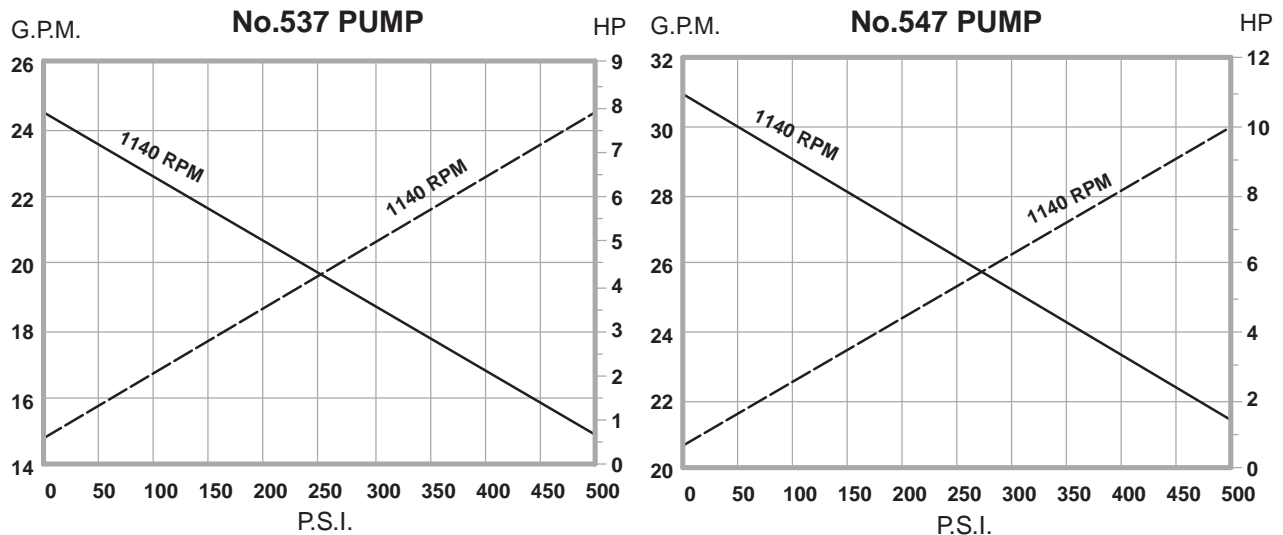


SOLID LINE = GPM
BROKEN LINE = HP

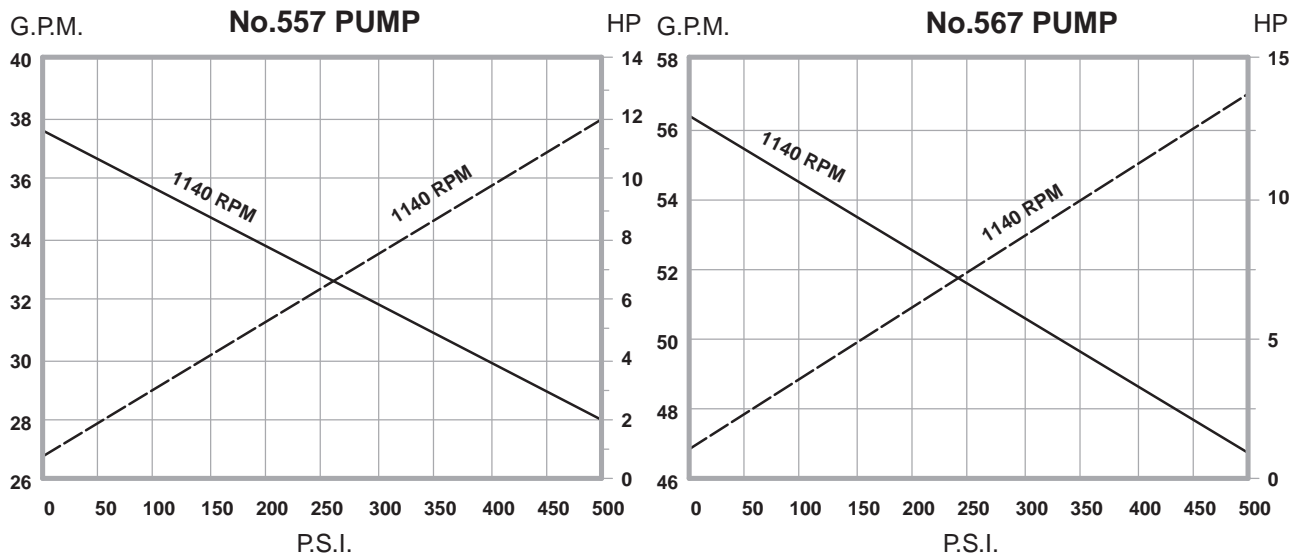
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 100 SSU LIQUID



OPERATING CHARACTERISTICS, 100 SSU LIQUID

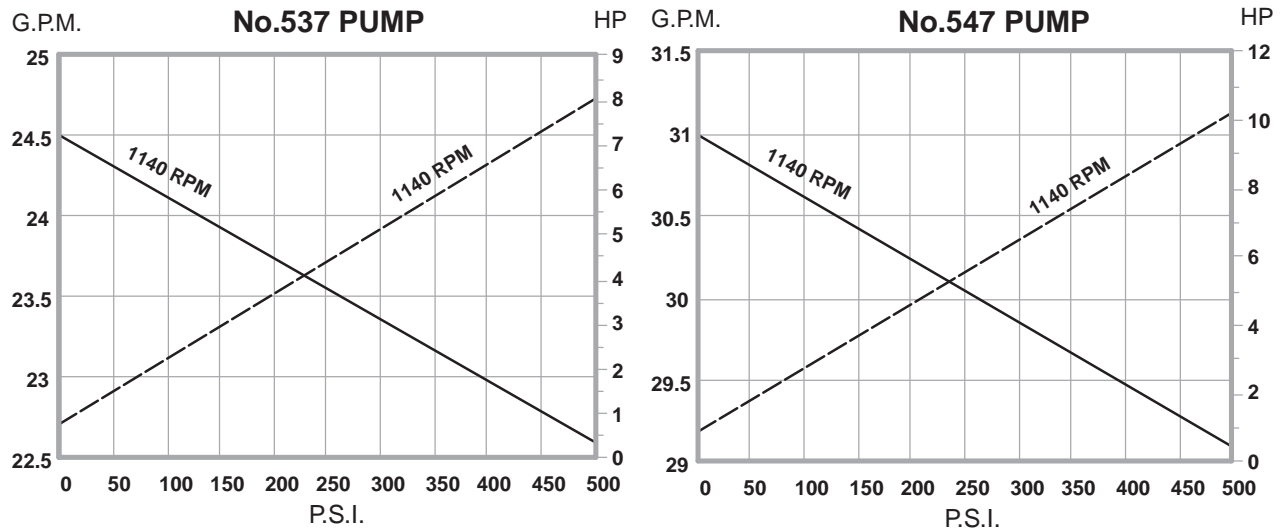


SOLID LINE = GPM
BROKEN LINE = HP

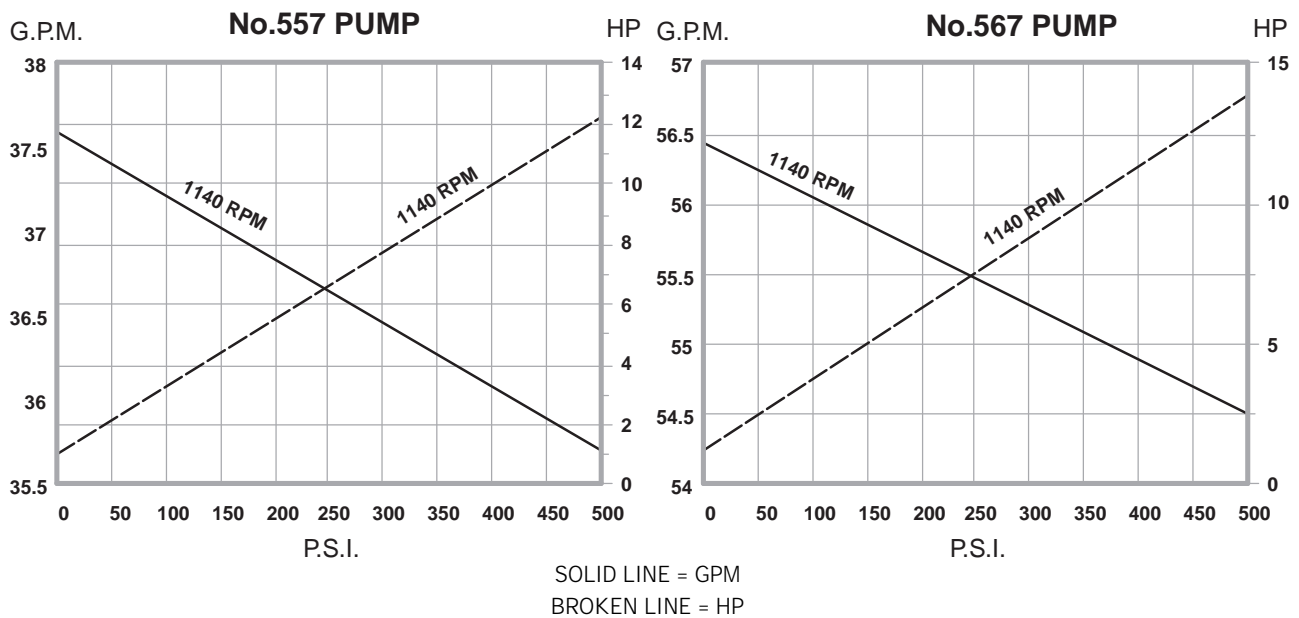
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 500 SSU LIQUID



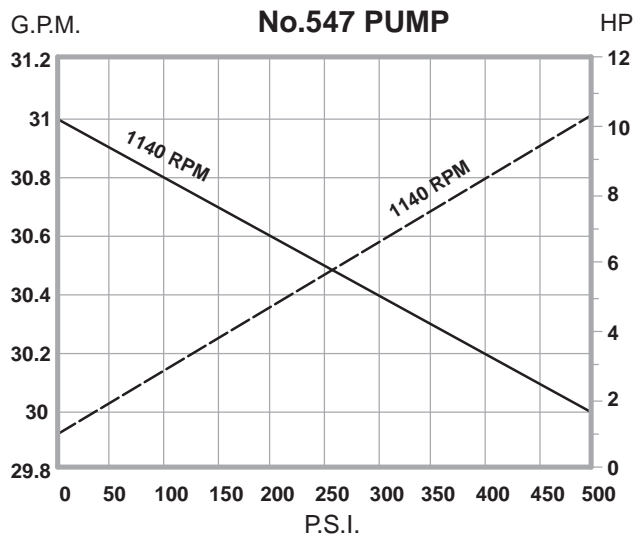
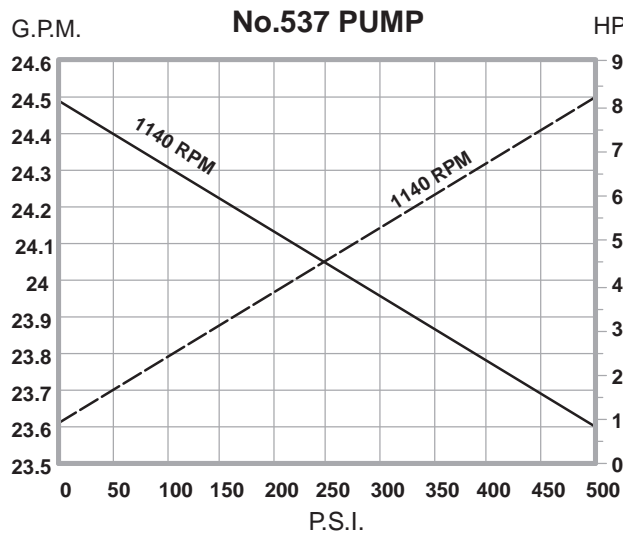
OPERATING CHARACTERISTICS, 500 SSU LIQUID



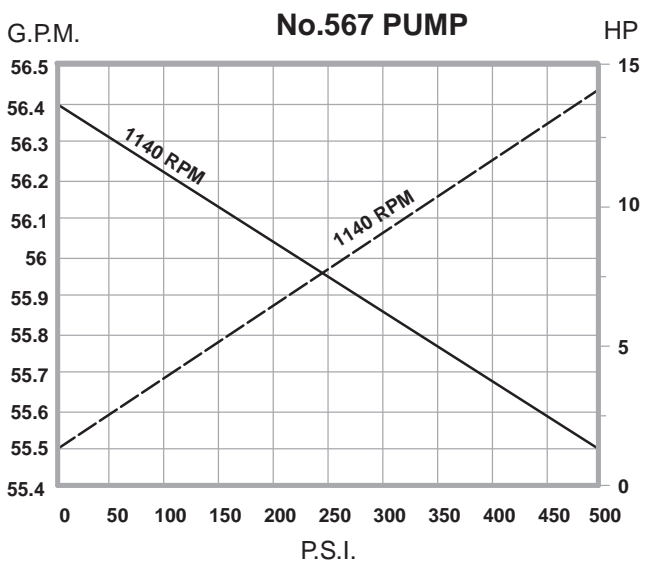
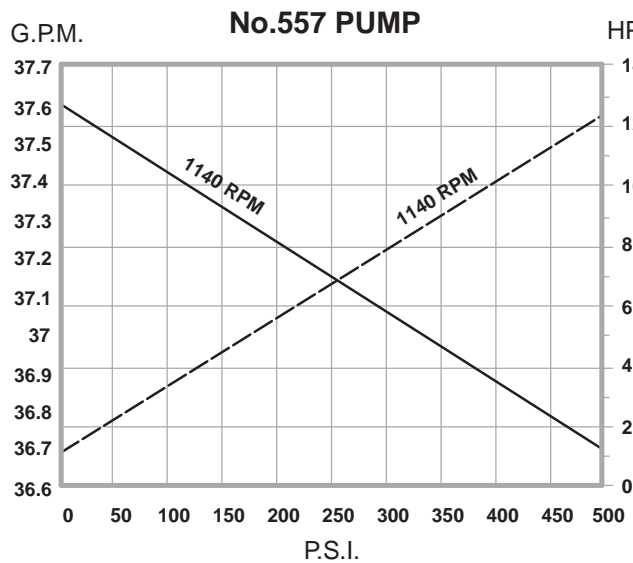
BSM ROTARY GEAR PUMPS

500-SERIES

OPERATING CHARACTERISTICS, 1,000 SSU LIQUID



OPERATING CHARACTERISTICS, 1,000 SSU LIQUID

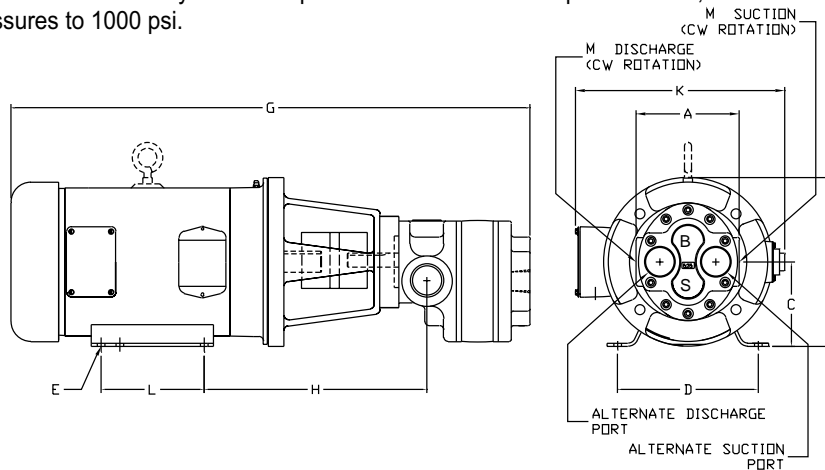


SOLID LINE = GPM
BROKEN LINE = HP

BSM ROTARY GEAR PUMPS

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

BSM 500-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 500-Series Motor Driven Rotary Gear Pumps are available in motor speeds of 860, 1140 and 1725 rpm with capacities to 60.0 gpm and pressures to 1000 psi.

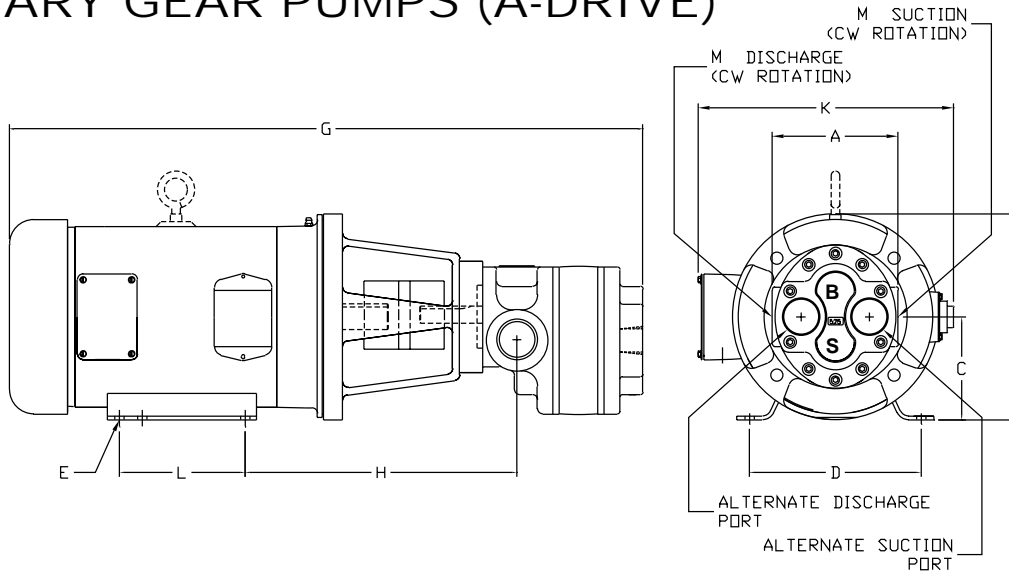


DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	G	H	K	L	M
507-A	56C	4.00	6.88	2.88	4.88	0.34	20.19	8.93	8.31	3.00	3/4
	145TC	4.00	6.88	2.88	5.50	0.34	21.91	9.25	8.56	5.00	3/4
	182TC	4.00	8.69	3.88	7.50	0.41	23.50	10.87	9.81	4.50	3/4
	184TC	4.00	8.69	3.88	7.50	0.41	24.50	10.87	9.81	5.50	3/4
	213TC	4.00	10.25	4.63	8.50	0.41	26.41	11.75	12.16	5.50	3/4
	215TC	4.00	10.25	4.63	8.50	0.41	27.91	11.75	12.16	7.00	3/4
511-A	56C	4.00	6.88	2.88	4.88	0.34	20.69	8.93	8.31	3.00	3/4
	145TC	4.00	6.88	2.88	5.50	0.34	22.41	9.25	8.56	5.00	3/4
	182TC	4.00	8.69	3.88	7.50	0.41	24.00	10.87	9.81	4.50	3/4
	184TC	4.00	8.69	3.88	7.50	0.41	25.00	10.87	9.81	5.50	3/4
	213TC	4.00	10.25	4.63	8.50	0.41	26.91	11.75	12.16	5.50	3/4
	215TC	4.00	10.25	4.63	8.50	0.41	28.41	11.75	12.16	7.00	3/4
517-A	56C	5.50	6.88	2.88	4.88	0.34	21.88	9.06	8.31	3.00	1
	145TC	5.50	6.88	2.88	5.50	0.34	23.60	9.38	8.56	5.00	1
	182TC	5.50	8.69	3.88	7.50	0.41	25.31	11.88	9.81	4.50	1
	184TC	5.50	8.69	3.88	7.50	0.41	26.31	11.88	9.81	5.50	1
	213TC	5.50	10.25	4.63	8.50	0.41	28.22	12.75	12.16	5.50	1
	215TC	5.50	10.25	4.63	8.50	0.41	29.72	12.75	12.16	7.00	1
525-A	56C	5.50	6.88	2.88	4.88	0.34	22.38	9.06	8.31	3.00	1
	145TC	5.50	6.88	2.88	5.50	0.34	24.10	9.38	8.56	5.00	1
	182TC	5.50	8.69	3.88	7.50	0.41	25.81	11.88	9.81	4.50	1
	184TC	5.50	8.69	3.88	7.50	0.41	26.81	11.88	9.81	5.50	1
	213T	5.50	10.25	4.63	8.50	0.41	28.72	12.75	12.16	5.50	1
	215TC	5.50	10.25	4.63	8.50	0.41	30.22	12.75	12.16	7.00	1
	254TC	5.50	12.88	5.63	10.00	0.53	32.31	13.25	16.09	8.25	1

BSM ROTARY GEAR PUMPS

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



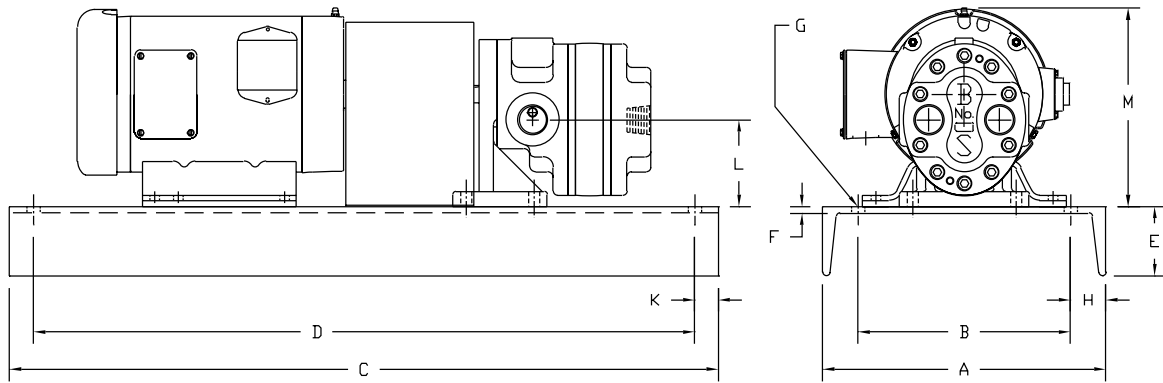
DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	G	H	K	L	M
537-A	182TC	6.25	8.69	3.25	7.50	0.41	26.81	12.13	9.81	4.50	1 1/2
	184TC	6.25	8.69	3.25	7.50	0.41	27.81	12.13	9.81	5.50	1 1/2
	213TC	6.25	10.25	4.00	8.50	0.41	29.72	13.00	12.16	5.50	1 1/2
	215TC	6.25	10.25	4.00	8.50	0.41	31.22	13.00	12.16	7.00	1 1/2
	254TC	6.25	12.88	5.00	10.00	0.53	33.31	14.00	16.09	8.25	1 1/2
	256TC	6.25	12.88	5.00	10.00	0.53	35.06	14.00	16.09	10.00	1 1/2
547-A	182TC	6.25	8.69	3.25	7.50	0.41	27.31	12.13	9.81	4.50	1 1/2
	184TC	6.25	8.69	3.25	7.50	0.41	28.31	12.13	9.81	5.50	1 1/2
	213TC	6.25	10.25	4.00	8.50	0.41	30.22	13.00	12.16	5.50	1 1/2
	215TC	6.25	10.25	4.00	8.50	0.41	31.72	13.00	12.16	7.00	1 1/2
	254TC	6.25	12.88	5.00	10.00	0.53	33.81	14.00	16.09	8.25	1 1/2
	256TC	6.25	12.88	5.00	10.00	0.53	35.56	14.00	16.09	10.00	1 1/2
557-A	182TC	6.25	8.69	3.25	7.50	0.41	27.81	12.13	9.81	4.50	1 1/2
	184TC	6.25	8.69	3.25	7.50	0.41	28.81	12.13	9.81	5.50	1 1/2
	213TC	6.25	10.25	4.00	8.50	0.41	30.72	13.00	12.16	5.50	1 1/2
	215TC	6.25	10.25	4.00	8.50	0.41	32.22	13.00	12.16	7.00	1 1/2
	254TC	6.25	12.88	5.00	10.00	0.53	34.31	14.00	16.09	8.25	1 1/2
	256TC	6.25	12.88	5.00	10.00	0.53	36.06	14.00	16.09	10.00	1 1/2
	286TC	6.25	14.63	5.75	11.00	0.53	37.44	14.00	20.44	11.00	1 1/2
567-A	182TC	6.75	8.69	3.25	7.50	0.41	29.88	12.13	9.81	4.50	2
	184TC	6.75	8.69	3.25	7.50	0.41	30.88	12.13	9.81	5.50	2
	213TC	6.75	10.25	4.00	8.50	0.41	32.79	13.00	12.16	5.50	2
	215TC	6.75	10.25	4.00	8.50	0.41	34.29	13.00	12.16	7.00	2
	254TC	6.75	12.88	5.00	10.00	0.53	36.38	14.00	16.09	8.25	2
	256TC	6.75	12.88	5.00	10.00	0.53	38.13	14.00	16.09	10.00	2
	286TC	6.75	14.63	5.75	11.00	0.53	39.51	14.50	14.50	11.00	2

BSM ROTARY GEAR PUMPS

500-SERIES BASE MOUNTED ASSEMBLIES (D-DRIVE)

BSM 500-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 steel bases are available with optional features such as drip-lip construction, drain plugs, mounting lugs, casters, etc..

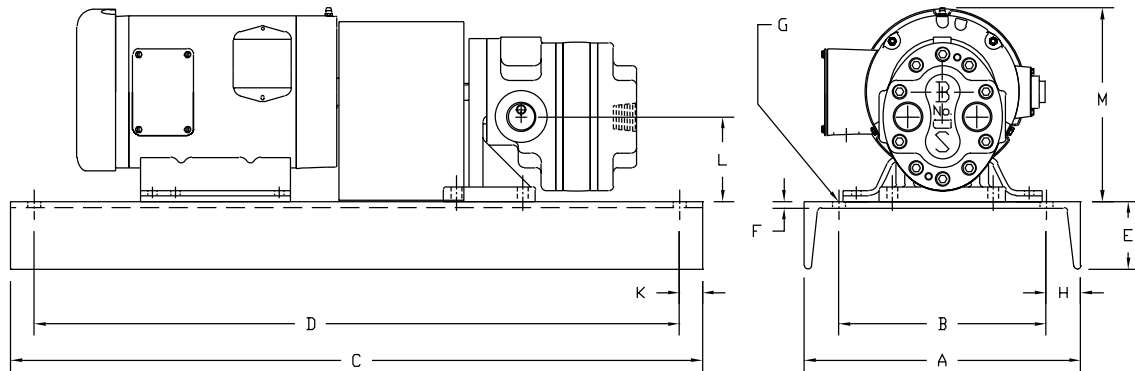


DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	F	G	H	K	L	M
507-D	56	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	145T	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	182T	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.88	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.88	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
511-D	56	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	145T	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	182T	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.88	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.88	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
517-D	56	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	145T	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	182T	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.88	8.69
	184T	12.00	9.00	32.00	30.00	2.94	0.28	0.56	1.50	1.00	3.88	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
525-D	56	12.00	9.00	24.00	22.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	145T	12.00	9.00	26.00	24.00	2.94	0.28	0.56	1.50	1.00	2.88	6.88
	182T	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.88	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.28	0.56	1.50	1.00	3.88	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.63	10.25
	254T	18.00	15.00	42.00	40.00	3.95	0.45	0.56	1.50	1.00	5.63	12.88

BSM ROTARY GEAR PUMPS

500-SERIES BASE MOUNTED ASSEMBLIES (D-DRIVE)



DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	F	G	H	K	L	M
537-D	182T	12.00	9.00	30.00	28.00	2.94	0.28	0.56	1.50	1.00	3.25	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.25	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	254T	18.00	15.00	42.00	40.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
	256T	18.00	15.00	44.00	42.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
547-D	182T	12.00	9.00	30.00	28.00	2.94	0.41	0.56	1.50	1.00	3.25	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.25	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	254T	18.00	15.0	42.00	40.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
	256T	18.00	15.00	44.00	42.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
557-D	182T	12.00	9.00	30.00	28.00	2.94	0.41	0.56	1.50	1.00	3.25	8.69
	184T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.25	8.69
	213T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	254T	18.00	15.00	42.00	40.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
	256T	18.00	15.00	44.00	42.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
	284T	24.00	20.00	48.00	44.00	3.17	0.51	0.63	2.00	1.00	5.75	14.63
567-D	182T	15.00	12.00	32.00	30.00	3.41	0.41	0.56	1.50	1.00	3.25	8.69
	184T	15.00	12.00	34.00	32.00	3.41	0.41	0.56	1.50	1.00	3.25	8.69
	213T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	215T	15.00	12.00	36.00	34.00	3.41	0.41	0.56	1.50	1.00	4.00	10.25
	254T	18.00	15.00	44.00	42.00	3.95	0.45	0.56	1.50	1.00	5.00	12.88
	256T	18.00	15.00	48.00	46.00	3.95	.045	0.56	1.50	1.00	5.00	12.88
	286T	24.00	20.00	48.00	44.00	3.17	0.51	0.63	2.00	2.00	5.75	14.63