

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES



FT. MTD. PUMP

BSM bronze pumps are ideal for use where corrosion resistant materials are required such as providing circulation on water-jacketed engines, pumping saline solutions as well as a variety of marine and other corrosive atmosphere applications.

**Design:** Drive speeds to 900 rpm; discharge pressures to 100 psi; flow rate to 26.8 gpm; foot or flange mounted

**Material:** All bronze construction except models 23 & 24 which are equipped with corrosion resistant stainless steel shafts.

**Bearings:** Plain.

**Seal:** Compression packing.

**Lubrication:** Pumps are equipped with grease fittings.

**Rotation:** Clockwise or counter-clockwise rotation. Either connection may be used for suction.

**Liquid Viscosities:** A wide range of clean or corrosive liquids.

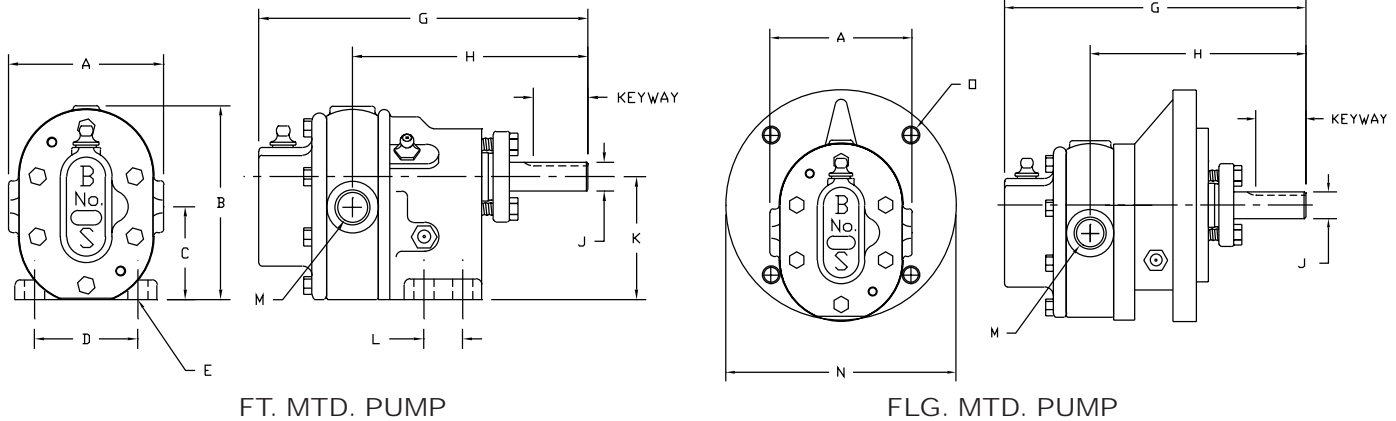
**Suction Lift:** Up to 15" Hg / 17 feet depending on the type of liquid being pumped.

**Drive Options:** 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; and Packing. Refer to Section 13.

# BSM ROTARY GEAR PUMPS

## DIMENSIONAL DATA BRONZE-SERIES



### DIMENSIONS (INCHES)

Model	A	B	C	D	E	F	G	H	J	K	L	M	O	Keyway
21	3.00	3.69	1.78	2.00	0.39	7.50	6.25	4.56	0.56	2.38	0.75	3/8	3/8-16	1/8x1/16
22	3.44	4.53	2.31	2.50	0.39	8.47	7.22	5.00	0.63	3.00	0.88	1/2	3/8-16	3/16x3/32
23	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	3/16x3/32
24	4.44	5.81	2.88	3.00	0.45	11.50	9.88	6.69	0.75	3.88	1.25	1 1/4	3/8-16	3/16x3/32

### OPERATING CHARACTERISTICS

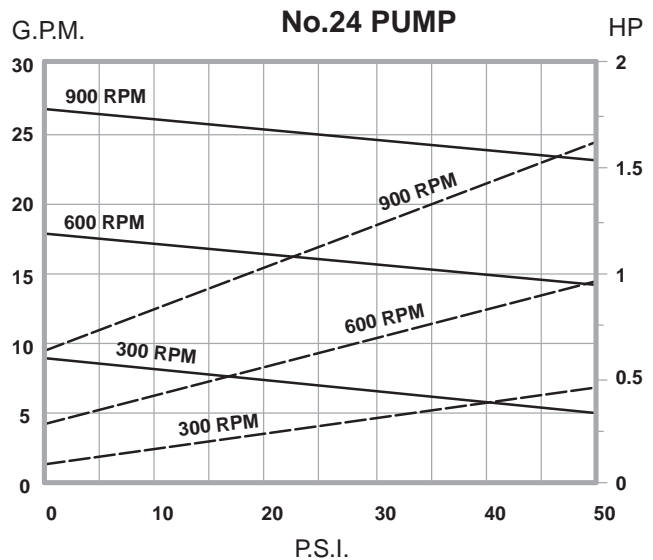
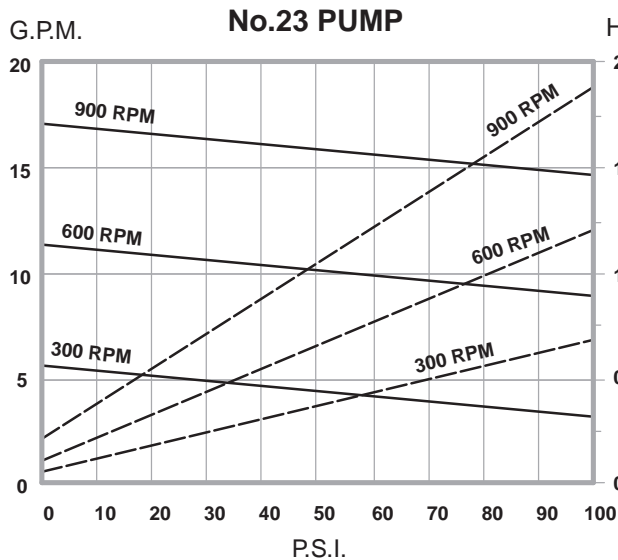
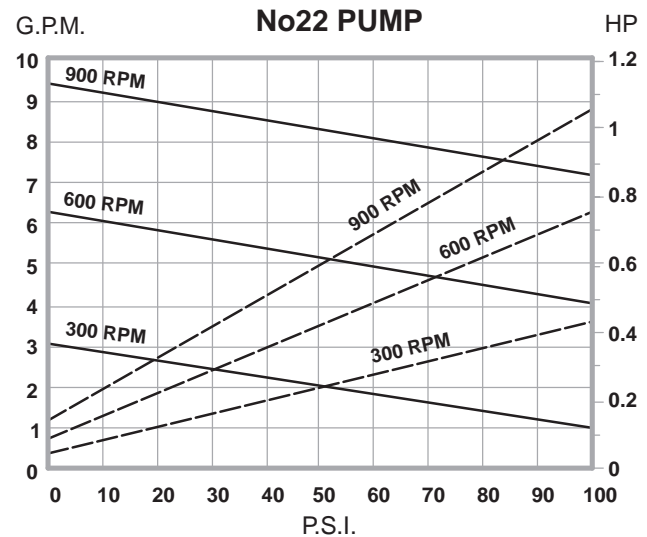
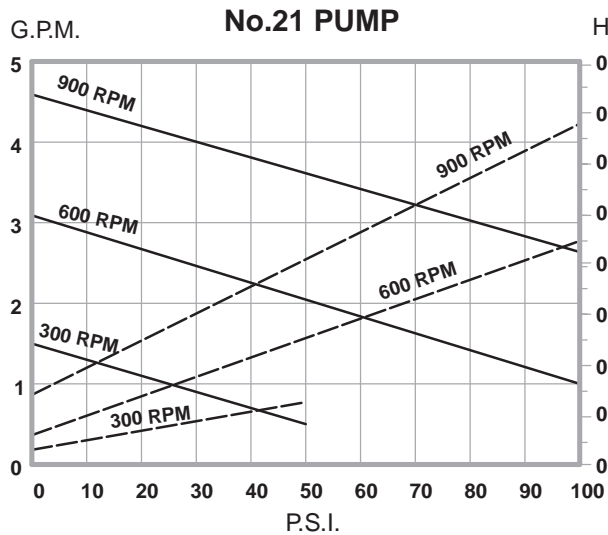
Model No.	Displ GPR	Slip GPM PSI	Drive Speed RPM	0 psi		50 psi		75 psi		100 psi		200 psi	
				gpm	hp	gpm	hp	gpm	hp	gpm	hp	gpm	hp
21	.00515	.0022	300	1.5	.02	1.4	.10	1.38	.14	1.3	.18	1.1	.34
			600	3.1	.05	3.0	.20	2.93	.28	2.9	.36	2.7	.66
			900	4.6	.11	4.5	.33	4.47	.35	4.4	.54	4.2	.98
22	.01043	.0023	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
23	.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
24	.02980	.0080	300	8.9	.07	8.5	.37	8.3	.57	8.1	.80	--	--
			600	17.9	.22	17.5	.77	17.3	1.1	17.1	1.4	--	--
			900	26.8	.50	26.4	1.3	26.2	1.7	26.0	2.3	--	--

\*Delivery and input horsepower are based on liquid viscosity of 300 ssu

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES

### OPERATING CHARACTERISTICS, 32 SSU LIQUID

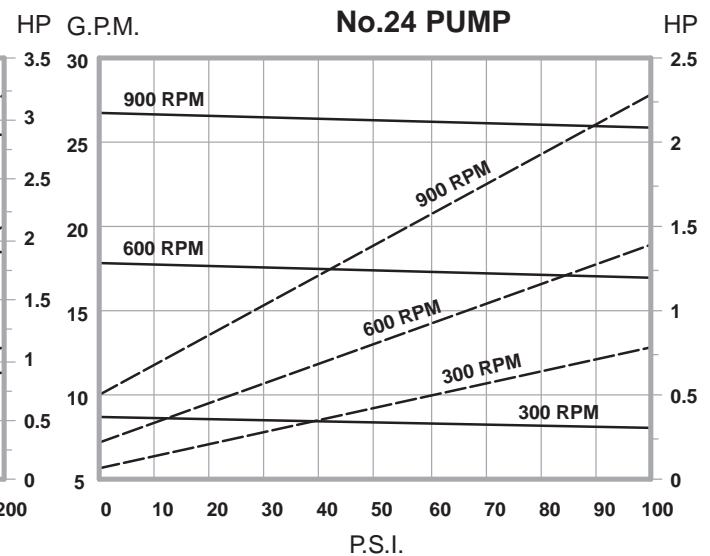
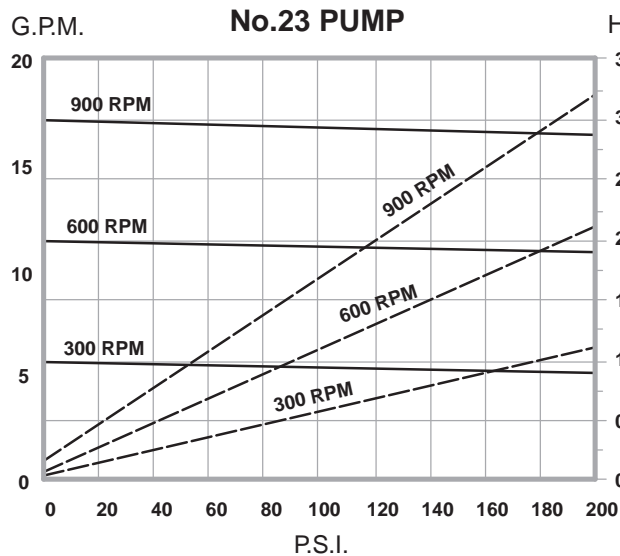
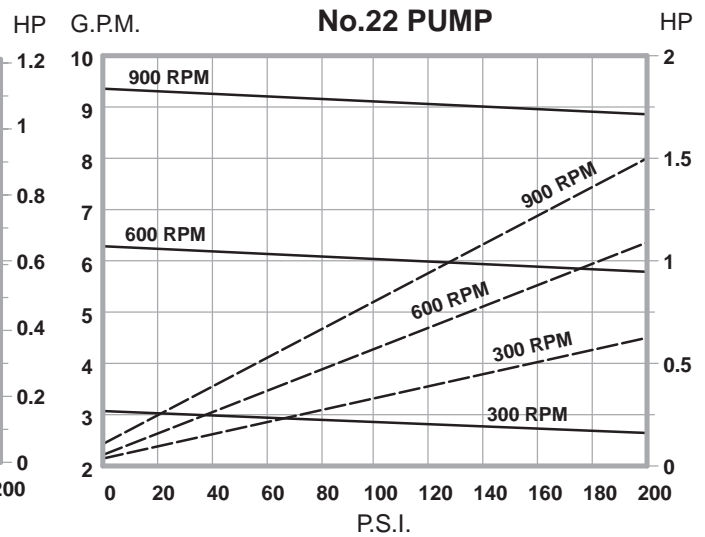
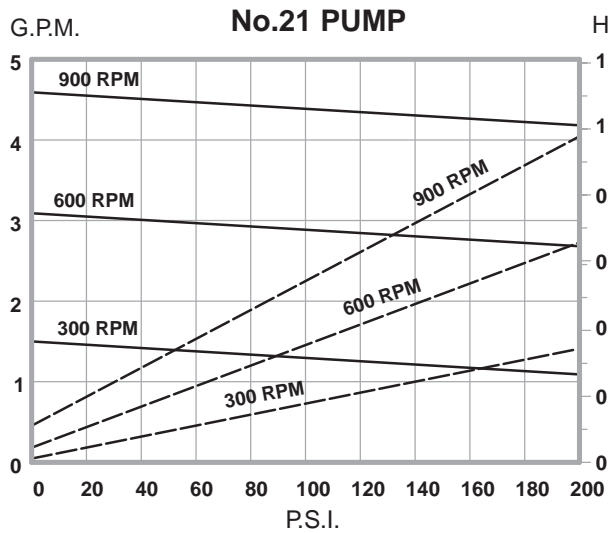


SOLID LINE = GPM  
BROKEN LINE = HP

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES

### OPERATING CHARACTERISTICS, 300 SSU LIQUID

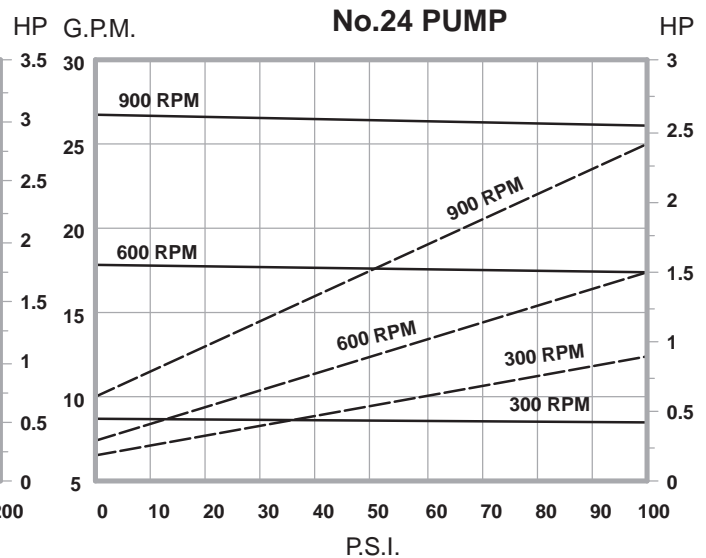
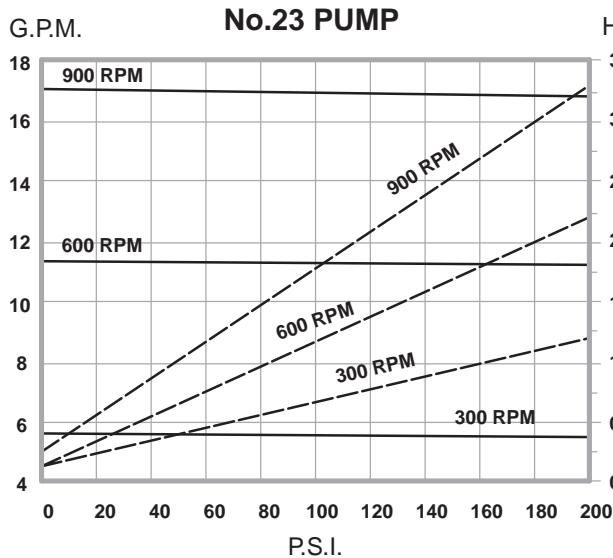
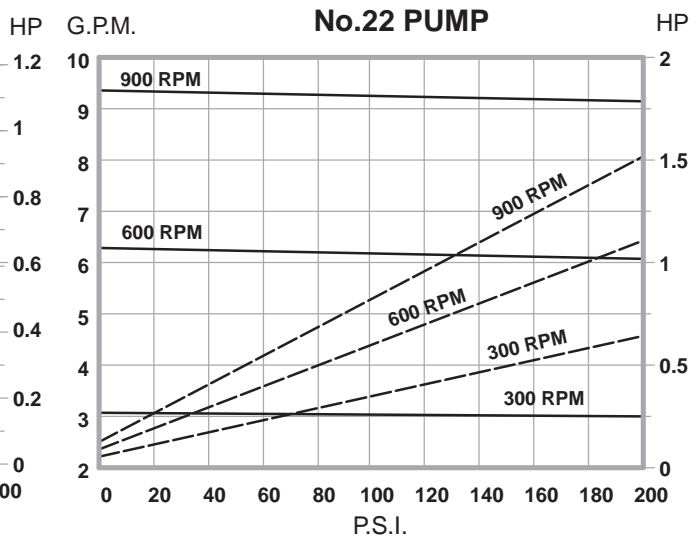
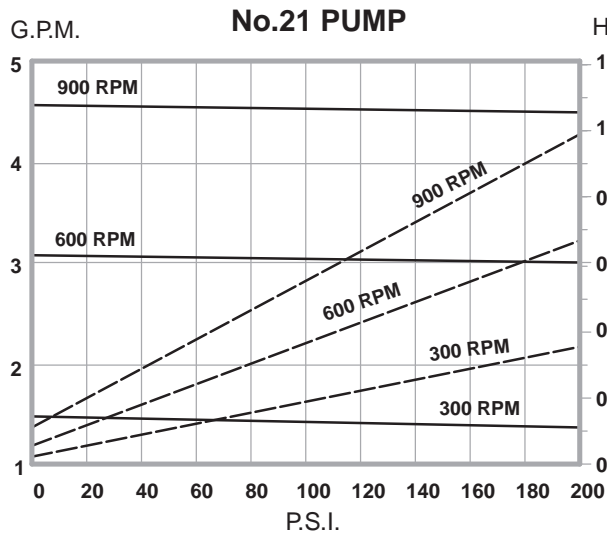


SOLID LINE = GPM  
BROKEN LINE = HP

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES

### OPERATING CHARACTERISTICS, 1,000 SSU LIQUID

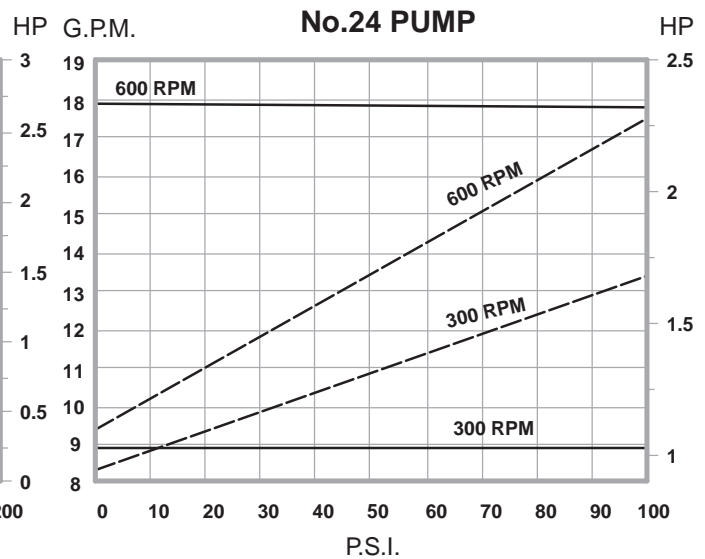
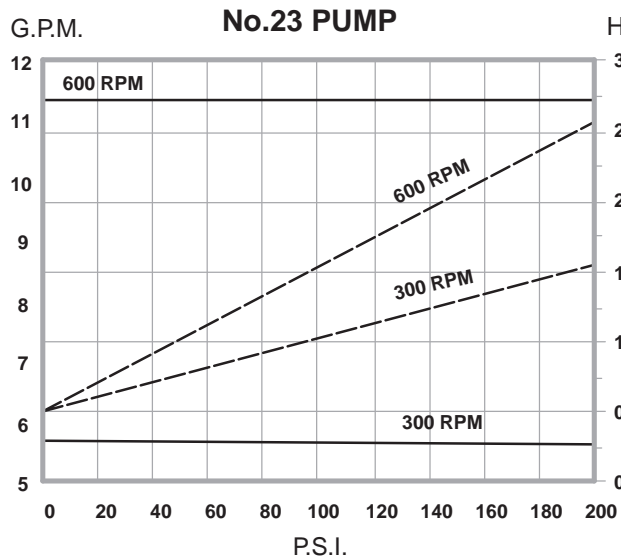
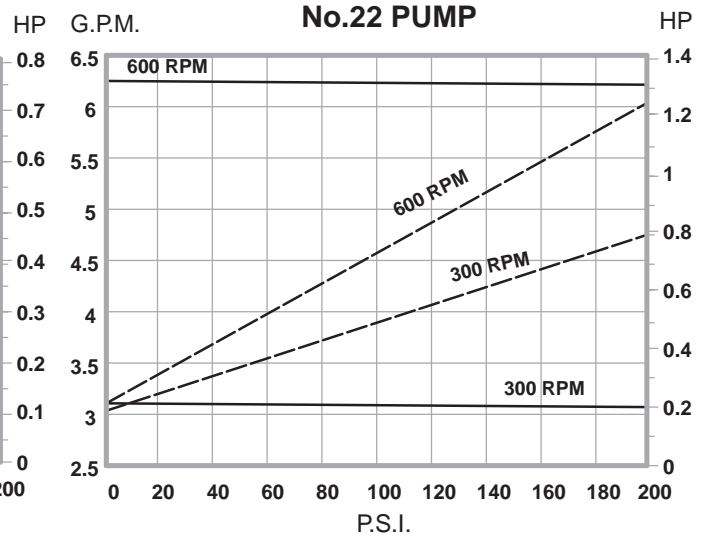
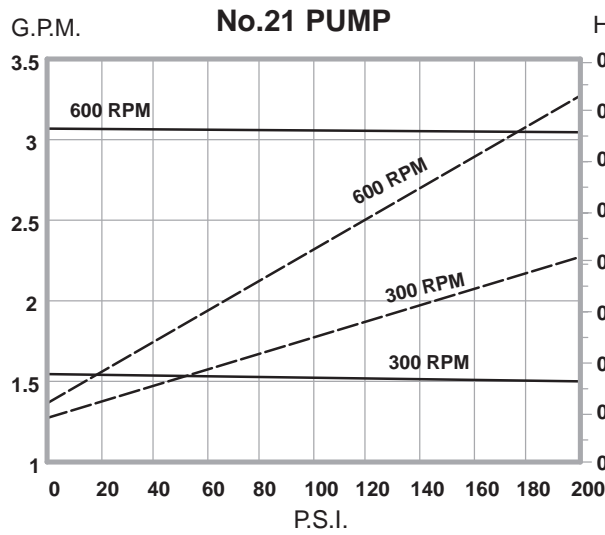


SOLID LINE = GPM  
BROKEN LINE = HP

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES

OPERATING CHARACTERISTICS, 5,000 SSU LIQUID

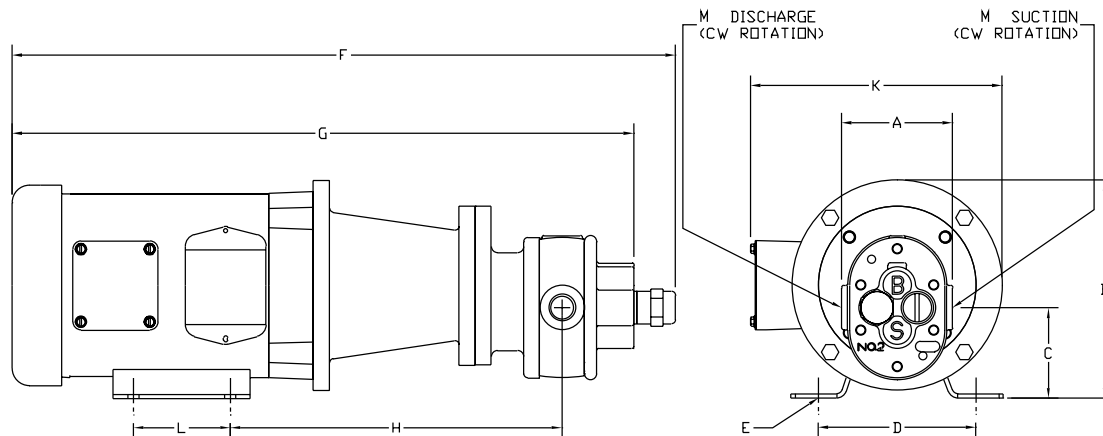


SOLID LINE = GPM  
BROKEN LINE = HP

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES MOTOR DRIVEN ROTARY GEAR PUMPS (A-DRIVE)

BSM Bronze-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 Bronze-Series Motor Driven Rotary Gear Pumps are available in motor speeds of 860 rpm with capacities to 26.8 gpm and pressures to 200 psi.



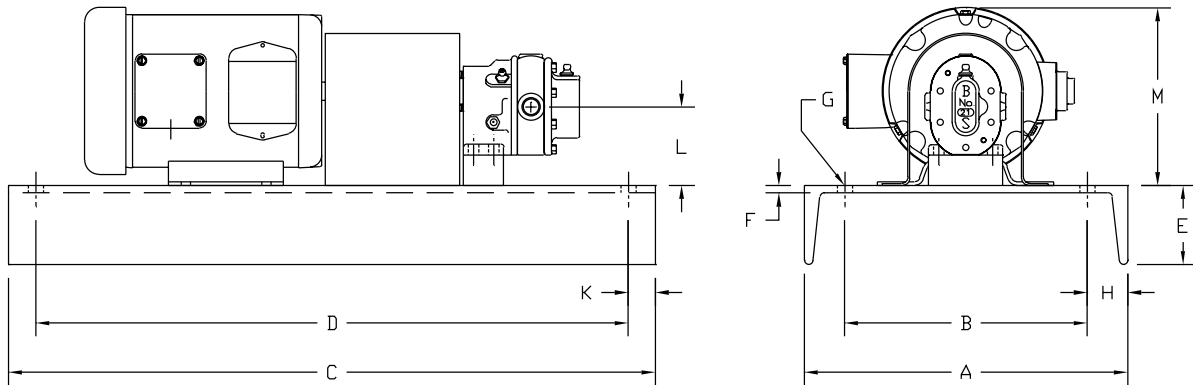
### DIMENSIONS (INCHES)

Model No.	Motor Frame	A	B	C	D	E	G	H	K	L	M
21-A	56C	3.00	6.88	2.91	4.88	0.34	18.56	9.81	8.31	3.00	3/8
	145TC	3.00	6.88	2.91	5.50	0.34	20.28	10.12	8.56	5.00	3/8
	182TC	3.00	8.69	3.91	7.50	0.41	21.87	11.75	9.81	4.50	3/8
22-A	56C	3.44	6.88	2.81	4.88	0.34	19.53	10.25	8.31	3.00	1/2
	145TC	3.44	6.88	2.81	5.50	0.34	21.25	10.56	8.56	5.00	1/2
	182TC	3.44	8.69	3.81	7.50	0.41	22.84	12.19	9.81	4.50	1/2
	184TC	3.44	8.69	3.81	7.50	0.41	23.84	12.19	9.81	5.50	1/2
23-A	56C	4.44	6.88	2.50	4.88	0.34	21.19	11.43	8.31	3.00	3/4
	145TC	4.44	6.88	2.50	5.50	0.34	22.91	11.75	8.56	5.00	3/4
	182TC	4.44	8.69	3.50	7.50	0.41	24.50	13.37	9.81	4.50	3/4
	184TC	4.44	8.69	3.50	7.50	0.41	25.50	13.37	9.81	5.50	3/4
	213TC	4.44	10.25	4.25	8.50	0.41	27.41	14.25	12.16	5.50	3/4
	215TC	4.44	10.25	4.25	8.50	0.41	28.91	14.25	12.16	7.00	3/4
24-A	145TC	4.44	6.88	2.50	5.50	0.34	23.91	12.25	8.56	5.00	1 1/4
	182TC	4.44	8.69	3.50	7.50	0.41	25.50	13.87	9.81	4.50	1 1/4
	184TC	4.44	8.69	3.50	7.50	0.41	26.50	13.87	9.81	5.50	1 1/4
	213TC	4.44	10.25	4.25	8.50	0.41	28.41	14.75	12.16	5.50	1 1/4
	215TC	4.44	10.25	4.25	8.50	0.41	29.91	14.75	12.16	7.00	1 1/4

# BSM ROTARY GEAR PUMPS

## BRONZE-SERIES BASE MOUNTED ASSEMBLIES (D-DRIVE)

BSM Bronze-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
<b>21-D</b>	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
<b>22-D</b>	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
<b>23-D</b>	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
<b>24-D</b>	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