

## Model M20

Description . . . . . Gear Motors  
 Flow Range . . . . . To 98 GPM  
 Displacements . . . . . To 9.10 C.I.R.  
 Maximum Pressure to . . . . . 2500 PSI  
 Maximum Speed to . . . . . 2500 RPM  
 Rotation . . . . . Bi-Directional  
 Bearings . . . . . Journal  
 Construction . . . . . Aluminum

## Performance Data

MOTOR MODELS	DISPLACEMENT/REVOLUTION (Theoretical)					Torque Per 1000 PSID				Power at Max. RPM & Max.PSID		Maximum Limits				
	US Gallons	Cubic Inches	Liters	Cubic Cm's	Imperial Gallons	Start		Run		H.P.	KW	Relief Setting		Continuous Pressure		Speed
						Lb.In.	Nm	Lb.In.	Nm			PSI	BAR	PSI	BAR	RPM
M20150	.0131	3.02	.050	49.85	.011	272	368	400	542	38	28.3	2500	172	1700	117	2500
M20200	.0175	4.04	.066	66.20	.015	384	520	588	797	50	37.3	2500	172	1700	117	2500
M20250	.0219	5.06	.083	82.92	.018	496	672	720	976	64	47.7	2500	172	1700	117	2500
M20300	.0262	6.05	.099	99.14	.022	608	824	880	1193	74	55.2	2500	172	1700	117	2500
M20350	.0306	7.07	.116	115.86	.025	720	976	1000	1355	90	67.1	2500	172	1700	117	2500
M20400	.0350	8.08	.133	132.41	.029	820	1111	1120	1518	105	78.3	2500	172	1700	117	2500
M20450	.0394	9.10	.149	149.12	.033	940	1274	1340	1816	124	92.5	2500	172	1700	117	2500

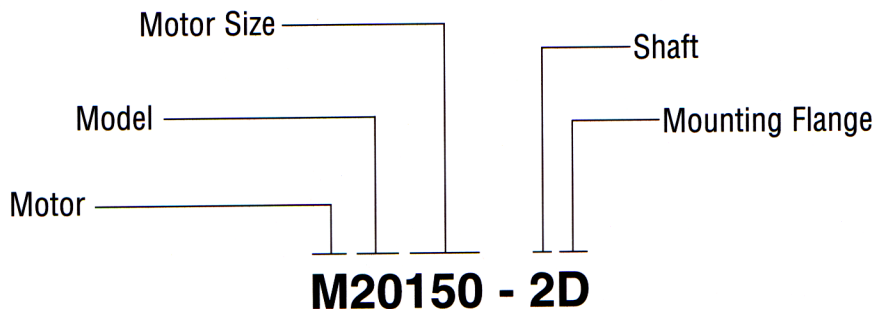
\*Average values from performance curves.  
 Available with Viton Seals for use with phosphate ester base fluids. All data based on SAE 10W oil at 135°F.

**CAUTION:** If return line pressure exceeds 150 PSIG, the external bearing drain must be utilized.

When sizing motors, refer to the performance charts in the back of the catalog to determine the volumetric efficiency and input horsepower requirements.

## How To Order

'A' denotes counterclockwise rotation  
 'C' denotes clockwise rotation  
 When viewed from drive shaft end



Note: Add 'V' to pump model number (VM20) when ordering pumps with Viton Seals for use with phosphate ester base fluids.

# Shafts Available

<p><b>1 SAE 'C' 1-1/4" 14-Tooth Spline Flat Root Side Fit</b> Torque Limit 655 Lbs. Ft. (888, Nm) "Single" Pumps only</p> <p><b>Spline Data</b> Diametral Pitch ..... 12/24 Pressure Angle ..... 30° No. Of Teeth ..... 13</p>	<p><b>2 1" Dia. Straight Shaft</b> Torque Limit 341 Lbs. Ft. (462,3 Nm) Available on 20100 thru 20350 only</p> <p><b>CAUTION:</b> Due to shaft torque limitations, Consult the Factory for approval before applying this shaft in models of -350 size and larger pumps.</p>	<p><b>3 SAE 'C' 1-1/4" Straight Shaft</b> Torque Limit 655 Lbs. Ft. (888, Nm) Available on all sizes</p>
<p><b>4 7/8" Dia. 13-Tooth Spline Flat Root Side Fit</b> Torque Limit 184 Lbs. Ft. (249,4 Nm) Available on 20100 thru 20350 only</p> <p><b>Spline Data</b> Diametral Pitch ..... 16/32 Pressure Angle ..... 30° No. Of Teeth ..... 14</p>	<p><b>5 1-1/4" Straight Shaft</b> Torque Limit 655 Lbs. Ft. (888, Nm) Available on all sizes</p>	

# Mounting Flanges Available

<p><b>D SAE 'C' 4-Bolt</b></p>	<p><b>E SAE 'B' 4-Bolt</b></p>	<p><b>F SAE 'C' 2-Bolt</b></p>
<p><b>M 'M' Pad Mount</b></p>	<p><b>N SAE 'B' 2-Bolt</b></p>	

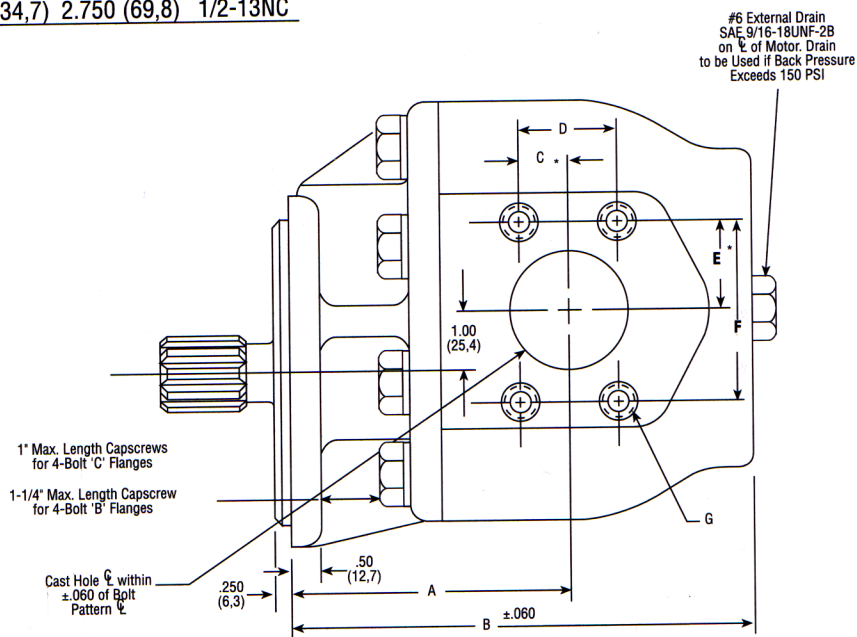
# Dimensional Data

## Mounting Dimensions

MOTOR MODEL	For 'C' 2-Bolt & 'B' & 'C' 4-Bolt Flg.				SAE 4-Bolt Conn. Port				Shipping Weights (Approx.)	
	A		B		Inlet		Outlet		lbs.	kgs.
	Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.		
M20150	4.12 (104,6)	6.61 (167,8)	1"	1.00 (25,4)	1"	1.00 (25,4)	1"	1.00 (25,4)	19	8.62
M20200	4.12 (104,6)	6.61 (167,8)	1"	1.00 (25,4)	1"	1.00 (25,4)	1"	1.00 (25,4)	20	9.07
M20250	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.25 (30,2)	1-1/4"	1.25 (30,2)	1-1/4"	1.25 (30,2)	21	9.53
M20300	4.12 (104,6)	6.90 (175,2)	1-1/4"	1.25 (30,2)	1-1/4"	1.25 (30,2)	1-1/4"	1.25 (30,2)	22	9.98
M20350	4.35 (110,4)	7.18 (182,3)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	23	10.4
M20400	4.35 (110,4)	7.47 (189,7)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	24	10.9
M20450	4.66 (118,3)	7.75 (196,8)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	1-1/2"	1.50 (38,1)	25	11.3

## SAE 4-Bolt Connector Ports

Size	C	D	E	F	G
1"	.51 (12,9)	1.031 (26,1)	1.03 (26,1)	2.062 (52,3)	3/8-16NC
1-1/4"	.59 (14,9)	1.188 (30,1)	1.15 (29,2)	2.313 (58,7)	7/16-14NC
1-1/2"	.70 (17,7)	1.406 (35,7)	1.37 (34,7)	2.750 (69,8)	1/2-13NC



\* These dimensions locate  $\phi$  of bolt pattern only