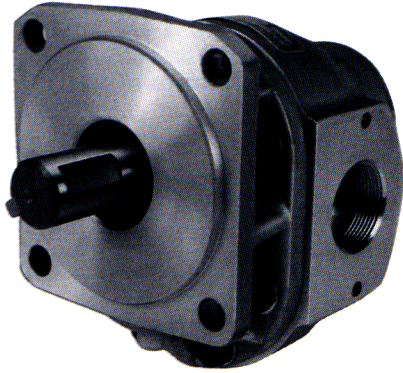


Model R20



Description Gear Pump
 Flow Range To 98 GPM (370.9 LTR)
 Displacements .. To 9.10 C.I.R.(149.12 CC's/REV.)
 Maximum Pressure to. 2500 PSI (172 BAR)
 Maximum Speed to..... 2500 RPM
 Rotation Reversible
 Bearing Journal
 Construction..... Aluminum or Cast Iron*

Performance Data

PUMP MODEL	SECTION SIZE	DISPLACEMENT/REVOLUTION (Theoretical)					MAXIMUM PRESSURE		MAXIMUM SPEED
		US Gallons	Cubic Inches	Liters	Cubic Centimeters	Imperial Gallons	PSI	BAR	RPM
R20	100	.0087	2.01	.0330	32.938	.0072	2500	172	2500
R20	150	.0131	3.02	.0496	49.498	.0108	2500	172	2500
R20	200	.0175	4.04	.0662	66.204	.0146	2500	172	2500
R20	250	.0219	5.06	.0829	82.919	.0182	2500	172	2500
R20	300	.0262	6.05	.0992	99.142	.0218	2500 ⁽¹⁾	172	2500
R20	350	.0306	7.07	.1158	115.857	.0255	2500 ⁽²⁾	172	2500
R20	400	.0350	8.08	.1325	132.408	.0292	2500	172	2500
R20	450	.0394	9.10	.1491	149.123	.0328	2500	172	2500

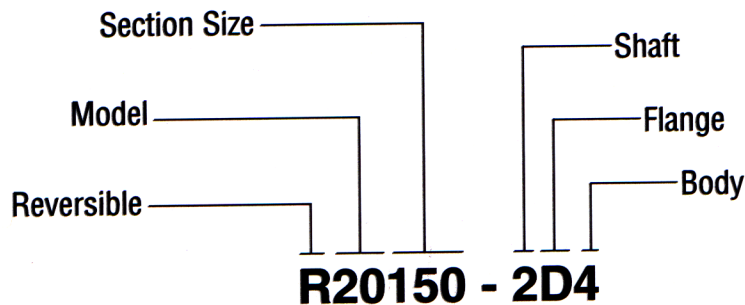
Notes: (1) 2100 PSI maximum due to torque limitations of No. 4 shaft. (2) 1800 PSI maximum due to torque limitations of No. 4 shaft
 All data based on SAE 10W oil at 150°F. Available with Viton Seals for use with phosphate ester base fluids.
 *Some models and sizes are available for pressure up to 3500 PSI. Cast-iron not available on all models. Consult factory for availability.

CAUTION: "Inlet vacuum" should not exceed 5" Hg at normal operating speed and temperature.
 Operation of pumps in excess of 5" Hg requires factory approval.

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

How To Order

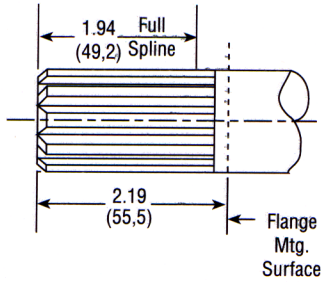
'A' denotes counterclockwise rotation
 'C' denotes clockwise rotation
 When viewed from drive shaft end



Note: Add prefix 'V' to pump model number (VR20) when ordering with Viton Seals for use with phosphate ester based fluids.

Shafts Available

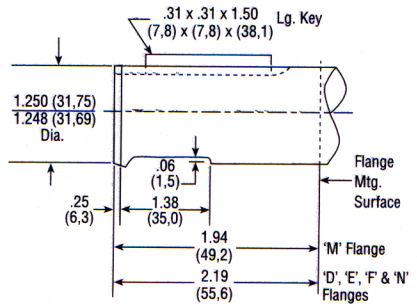
1 SAE 'C' 1-1/4" 14 Tooth Spline Flat Root Side Fit
Torque limit 655 Lbs. Ft. (888, Nm)
"Single" Pumps only



Spline Data
Diametral Pitch 12/24
Pressure Angle 30°
No. Of Teeth 14

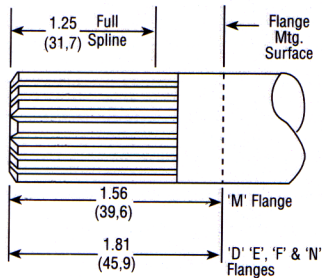
2 1" Dia. Straight Shaft
Torque limit 314 Lbs. Ft. (462,3 Nm)

3 SAE 'C' 1-1/4" Straight Shaft
Torque limit 655 Lbs. Ft. (888, Nm)
Available on all sizes



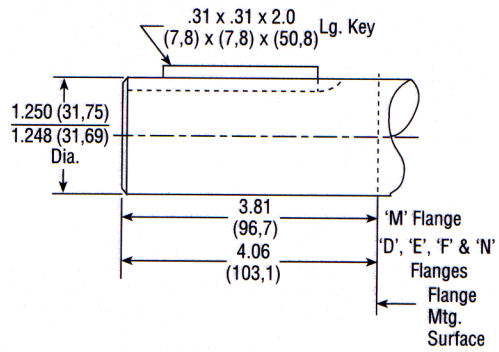
4 7/8" Dia. 13 Tooth Spline Flat Root Side Fit
Torque limit 184 Lbs. Ft. (249,4 Nm)

CAUTION: Due to shaft torque limitations, Consult the Factory for approval before applying this shaft in models of -300 size and larger pumps.

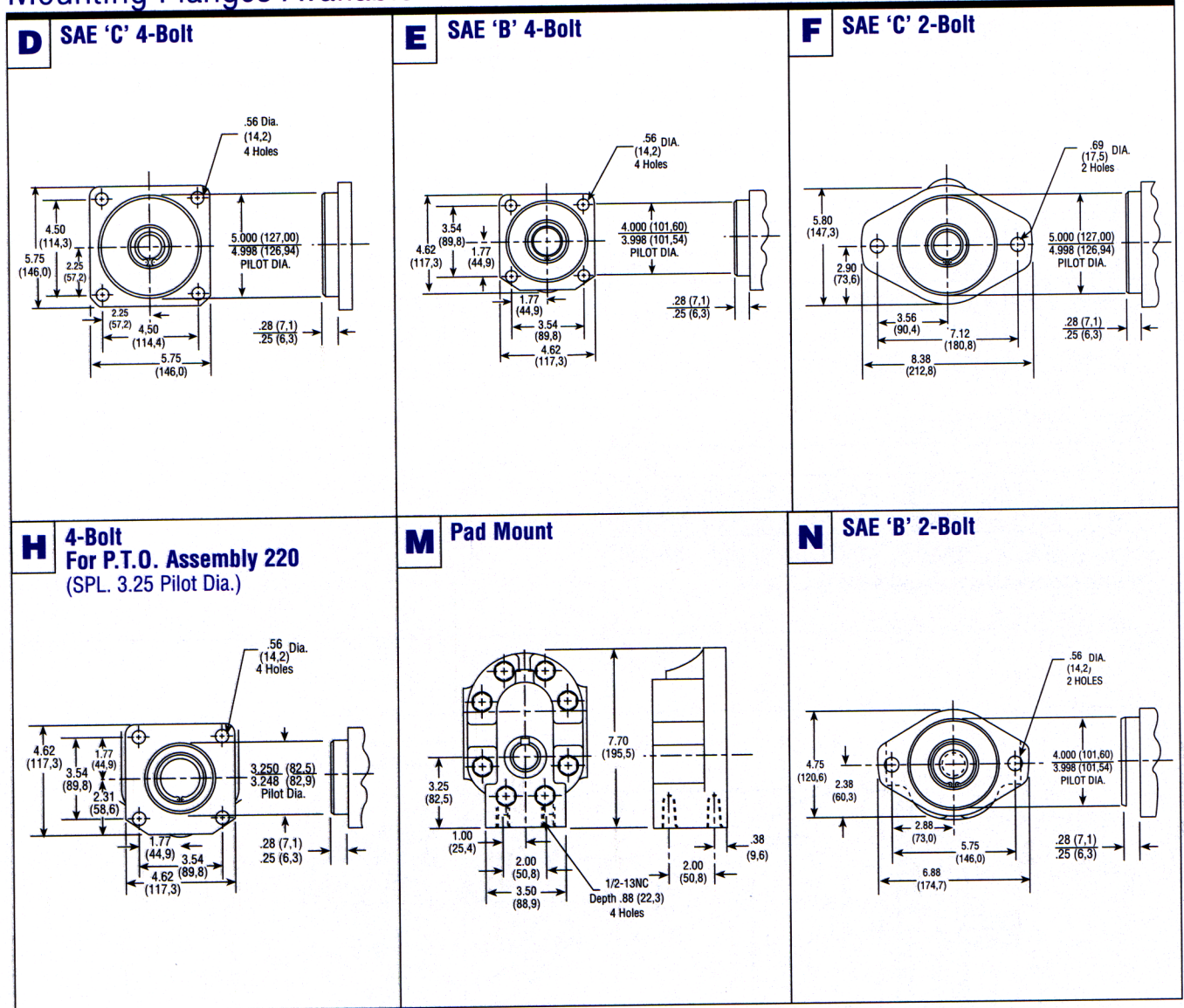


Spline Data
Diametral Pitch 16/32
Pressure Angle 30°
No. Of Teeth 13

5 1-1/4" Straight Shaft
Torque limit 655 Lbs. Ft. (888, Nm)
Available on all sizes



Mounting Flanges Available



See "General Product & Safety Information" on inside front cover of this catalog



Dimensional Data

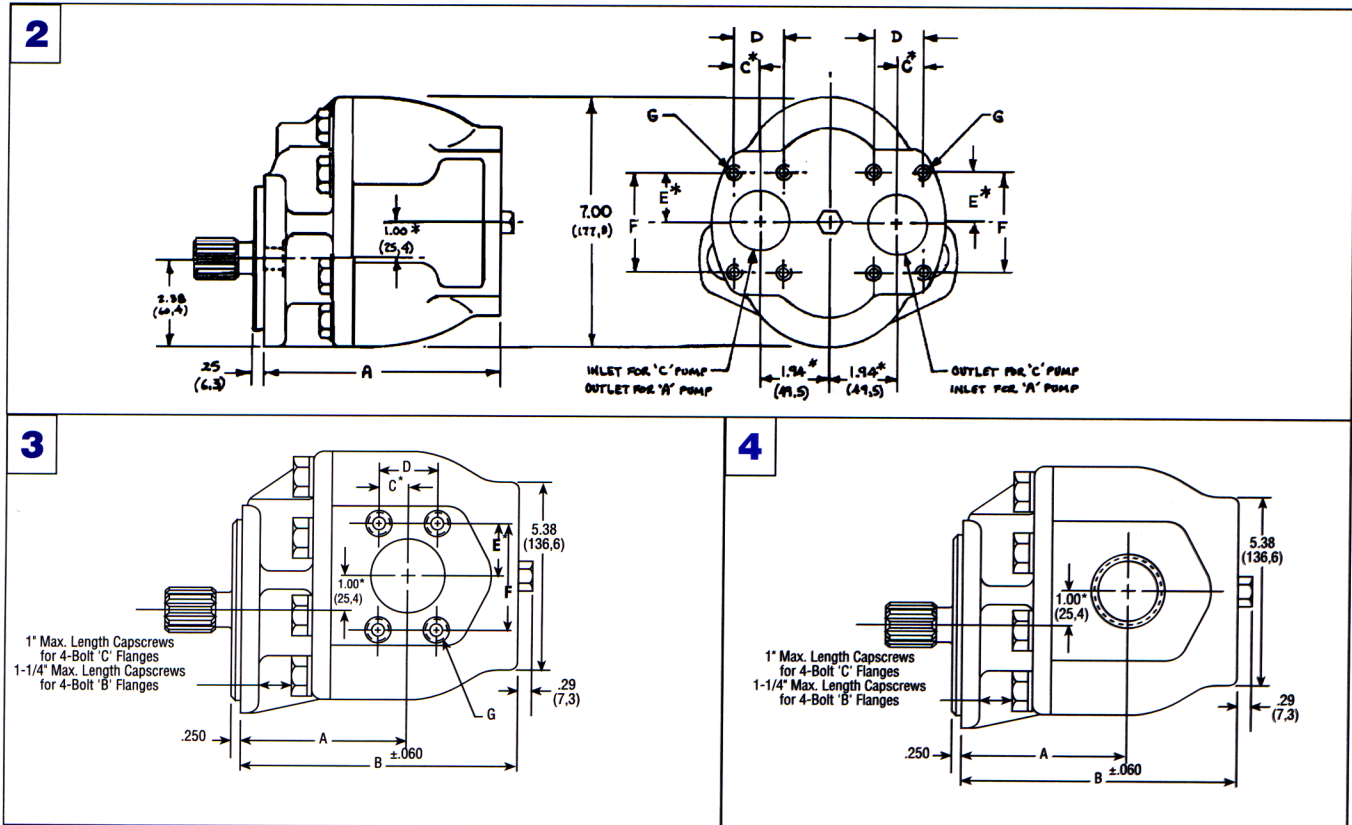
Mounting Dimensions

PUMP SIZE	For B & C 4-Bolt & C 2-Bolt Flanges		No. 2 SAE 4-Bolt Both Ports		No. 3 SAE 4-Bolt Port Both Sides		No. 4 NPT Port Both Sides	Shipping Weights	
	A	B	Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.	NPT	lbs.	kgs.
R20150	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.25 (31,7)	1"	1.00 (25,4)	1"	19	8.62
R20200	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.25 (31,7)	1"	1.00 (25,4)	1-1/4"	20	9.07
R20250	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.38 ()	1-1/4"	1.25 (31,7)	1-1/2"	21	9.53
R20300	4.12 (104,6)	6.90 (175,2)	1-1/2"	1.50 (38,1)	1-1/4"	1.25 (31,7)	1-1/2"	22	9.98
R20350	4.35 (110,4)	7.18 (182,3)	—	—	1-1/2"	1.50 (38,1)	1-1/2"	23	10.4
R20400	4.35 (110,4)	7.47 (189,7)	—	—	1-1/2"	1.50 (38,1)	—	24	10.9
R20450	4.66 (118,3)	7.75 (196,8)	—	—	1-1/2"	1.50 (38,1)	—	25	11.3

SAE 4-Bolt Connector Ports

Size	G	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

SAE 4-Bolt NPT Connectors are available. See Accessory Section



* These dimensions locate \bar{C} of bolt pattern only