

Series 20

- Available in various configurations
 - 20 — Standard, 2 piece construction
 - TP20 — Tandem, 2 & 3 Place
 - NP20 & NTP20 — “New” series, 3 piece construction, in single, double, and triple sections
 - R20— Reversible, 2 piece construction
 - PB20 — Piggy-back design - allowing for additional pumps.
- Construction:
 - Aluminum - For excellent power to weight ratio.
 - or
 - Cast iron - for extra durability.*
- Journal bearings for long life and good over-hung load capability
- Buna-N Seals are standard for petroleum and glycol based fluids
“Viton™” seals are optional.
- Pressure balanced plates for greater efficiency.

* Cast iron is not available on all models, consult factory for availability

Viton is a trademark of the DuPont Co.

Model 20 Seal Kits

MODEL	ASSEMBLY DRAWING	SHAFT SEAL	WHERE USED	SHAFT SEAL KIT	SOFT GOODS KIT
20	45491	14145	#1, 2, 3, 5, 6, 7 Shafts	14645	15630
		14416	#4 shaft	15628	15629
V20	45531	14145	#1, 2, 3, 5, 6 shafts	15460	15632
		14416	#4 shaft	15631	14289
TP20 2-PLACE	45480	14415	#1, 3, 5 shafts	14645	15672
		14416	#4 shaft	15628	17161
VTP20 2-PLACE	45484	14145	#1, 3, 5 shafts	15460	15673
		14416	#4 shaft	15631	17162
TP20 3-PLACE	45486	14145	#1, 3, 5 shafts	14645	15674
VTP20 3-PLACE	46387	14145	#1, 3, 5 shafts	15460	15675
R20	45861	14145	#1, 2, 3, 5, 6 shafts	14645	14662
		14416	#4 shaft	15628	14305
VR20	45703	14145	#1, 2, 3, 5 shafts	15460	15634
		14416	#4 shaft	15631	15633
NP20	49079	14145	#1, 2, 3 shafts	14645	15639
		14416	#4 shaft	15628	15638
VNP20	49730	14145	#1, 2, 3 shafts	15460	15643
		14416	#4 shaft	15631	15642
NTP20	49189	14145	#1, 2, 3 shafts	14645	15691
		14416	#4 shaft	15628	15690
VNTP20	49682	14145	#1, 2, 3 shafts	15460	15693
		14416	#4 shaft	15631	15692
PB20	49396	14145	#1, 2, 3 shafts	14645	15683
		14416	#4 shaft	15628	15682
VPB20	49731	14145	#1, 2, 3 shafts	15460	15584
		14416	#4 shaft	15631	15684

M20

#1, 2, 3, 5 SHAFTS

0015483

0016763

VITON 0015650

0016762

M20

#4 SHAFT

0015635

0016764

NOT AVAIL. IN VITON



Model 20

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 A or C
 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
20	100	.0087	2.01	.0330	32.938	.0072	2500	172	2500
20	150	.0131	3.02	.0496	49.498	.0108	2500	172	2500
20	200	.0175	4.04	.0662	66.204	.0146	2500	172	2500
20	250	.0219	5.06	.0829	82.919	.0182	2500	172	2500
20	300	.0262	6.05	.0992	99.142	.0218	2500 ⁽¹⁾	172	2500
20	350	.0306	7.07	.1158	115.857	.0255	2500 ⁽²⁾	172	2500
20	400	.0350	8.08	.1325	132.408	.0292	2500	172	2500
20	450	.0394	9.10	.1491	149.123	.0328	2500	172	2500

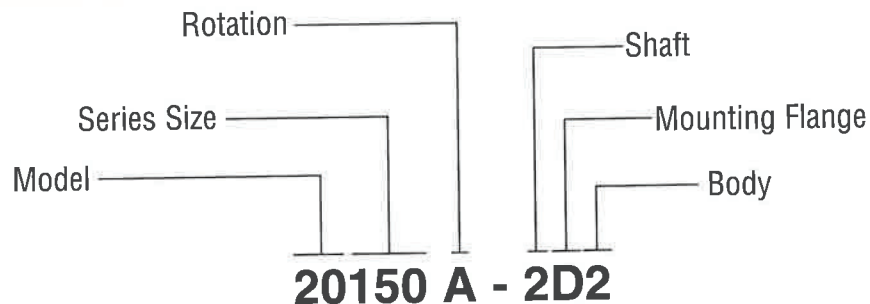
Notes: (1) 2100 PSI maximum due to torque limitations of No. 4 shaft. (2) 1800 PSI maximum due to torque limitations of No. 4 shaft
 All data based on SAE 10W oil at 150°F. Available with Viton Seals for use with phosphate ester base fluids.
 *Some models and sizes are available for pressure up to 3500 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 (V20) when ordering pumps with Viton Seals.
 Add 'FP' to pump model number (FP20- or VFP20) when ordering pumps with cast iron construction.

Shafts Available

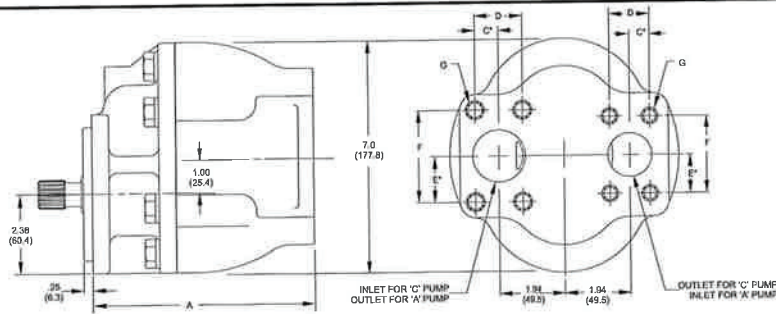
<p>1 SAE 'C' 1-1/4" 14-Tooth Spline Flat Root Side Fit Torque limit 655 Lbs. Ft. (888, Nm) "Single" Pumps only</p> <p>Spline Data Diametral Pitch 12/24 Pressure Angle 30° No. Of Teeth 14</p>	<p>2 1" Dia. Straight Shaft Torque limit 341 Lbs. Ft. (462,3 Nm)</p> <p>CAUTION: Due to shaft torque limitations, Consult the Factory for approval before applying this shaft in models of .350 size and larger pumps.</p>	<p>3 SAE 'C' 1-1/4" 14 Straight Shaft Torque limit 655 Lbs. Ft. (888, Nm) Available on all sizes.</p>
<p>4 7/8" Dia. 13 Tooth Spline Flat Root Side Fit Torque limit 184 Lbs. Ft. (249,4 Nm)</p> <p>CAUTION: Due to shaft torque limitations, Consult the Factory for approval before applying this shaft in models of .300 size and larger pumps.</p> <p>Spline Data Diametral Pitch 16/32 Pressure Angle 30° No. Of Teeth 13</p>	<p>5 1-1/4" Straight Shaft Torque limit 655 Lbs. Ft. (888, Nm) Available on all sizes</p>	

Mounting Flanges Available

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

Bodies Available

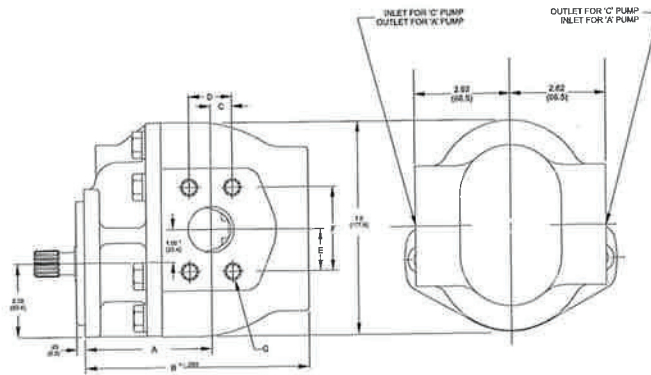
2



Mounting Dimensions

PUMP MODEL	For B & C 4-Bolt & C 2-Bolt Flanges		SAE 4-Bolt Connector Ports				Shipping Weights	
	A		Inlet		Outlet		lbs.	kgs.
			Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.		
20150	6.61 (167,8)		1-1/4"	1.19 (30,2)	1"	.937 (23,8)	19	8.62
20200	6.61 (167,8)		1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	21	9.53
20250	6.61 (167,8)		1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	22	9.98
20300	6.86 (174,2)		1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	23	10.04

3



Mounting Dimensions

PUMP MODEL	For B & C 4-Bolt & C 2-Bolt Flanges		SAE 4-Bolt Connector Ports				Shipping Weights	
	A	B	Inlet		Outlet		lbs.	kgs.
			Conn. Sz.	Hole Dia.	Conn. Sz.	Hole Dia.		
20150	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.19 (30,2)	1"	.937 (23,8)	19	8.62
20200	4.12 (104,6)	6.61 (167,8)	1-1/4"	1.19 (30,2)	1"	.937 (23,8)	20	9.07
20250	4.12 (104,6)	6.61 (167,8)	1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	21	9.53
20300	4.12 (104,6)	6.90 (175,2)	1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	22	9.98
20350	4.35 (110,4)	7.18 (182,3)	1-1/2"	1.50 (38,1)	1-1/4"	1.19 (30,2)	23	10.4
20400	4.35 (110,4)	7.47 (189,7)	2"	2.00 (50,8)	1-1/4"	1.37 (34,7)	24	10.9
20450	4.66 (118,3)	7.75 (196,8)	2"	2.00 (50,8)	1-1/4"	1.37 (34,7)	25	11.3

Dimensional Data

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
2"	.84 (21,3)	1.688 (42,8)	1.53 (38,8)	3.062 (77,7)	1/2-13NC

* These dimensions locate C of bolt pattern only.

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



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



