Average Performance Data - Motors

Motor performance data at 2500 PSI (172 bar) unless noted.

M31

Speed	1" Gear			1 1/2" Gear			2" Gear		
	Output		Input	Output		Input	Output		Input
RPM	Torque	Power	Flow	Torque	Power	Flow	Torque	Power	Flow
800	**675**	**8.5**	**9**	**1035**	**13**	**13**	**1385**	**17.5**	**17**
	76.5	6.5	34	117	9.5	49	156.5	13	64.5
1200	**685**	**13**	**13**	**1055**	**20**	**18**	**1410**	**27**	**23.5**
	77.5	9.5	49	119	15	68	159.5	20	89
1600	**680**	**17.5**	**16**	**1030**	**26**	**23**	**1390**	**35**	**30.5**
	77	13	60.5	116.5	19.5	87	157	26	115
2000	**660**	**21**	**19.5**	**1010**	**32**	**28**	**1370**	**43.5**	**37**
	74.5	15.5	74	114	24	106	155	32.5	140

U.S./*Metric* Torque: **In.-lbs.** / Nm Flow: **GPM** / LPM Power: **HP** / kW

M51

Speed	1" Gear			1 1/2" Gear			2" Gear		
	Output		Input	Output		Input	Output		Input
RPM	Torque	Power	Flow	Torque	Power	Flow	Torque	Power	Flow
800	**825**	**10.5**	**10.5**	**1310**	**16.5**	**15.5**	**1810**	**23**	**21**
	93	8	39.5	148	12.5	58.5	204.5	17	79.5
1200	**850**	**16**	**15.5**	**1340**	**25.5**	**22.5**	**1830**	**35**	**30.5**
	96	12	58.5	151.5	19	85	207	26	115
1600	**830**	**21**	**20**	**1330**	**34**	**30**	**1805**	**46**	**40**
	94	15.5	75.5	150.5	25.5	114	204	34.5	151
2000	**800**	**25.5**	**25**	**1290**	**41**	**37**	**1770**	**56**	**49**
	90.5	19	94.5	146	30.5	140	200	42	185

U.S./*Metric* Torque: **In.-lbs.** / Nm Flow: **GPM** / LPM Power: **HP** / kW

M76

Speed	1" Gear			1 1/2" Gear			2" Gear		
	Output		Input	Output		Input	Output		Input
RPM	Torque	Power	Flow	Torque	Power	Flow	Torque	Power	Flow
800	**1410**	**18**	**20.5**	**2140**	**27**	**28**	**2875**	**36.5**	**35.5**
	159.5	13.5	77.5	242	20	106	325	27	134
1200	**1400**	**26.5**	**27.5**	**2140**	**41**	**38**	**2870**	**54.5**	**49.5**
	158	20	104	242	30.5	144	324.5	40.5	187
1600	**1375**	**35**	**34**	**2110**	**53.5**	**49**	**2830**	**72**	**64**
	155.5	26	129	238.5	40	185	319.5	53.5	242
2000	**1350**	**43**	**41.5**	**2090**	**66.5**	**59**	**2800**	**89**	**78**
	152.5	32	157	236	49.5	223	316.5	66.5	295

U.S./*Metric* Torque: **In.-lbs.** / Nm Flow: **GPM** / LPM Power: **HP** / kW

M51 (continued)

Speed RPM	2 1/2” Gear		
	Output		Input
	Torque	Power	Flow
800	**2330**	**29.5**	**26**
	263.5	22	98.5
1200	**2340**	**44.5**	**37.5**
	264.5	33	142
1600	**2300**	**58.5**	**49.5**
	260	43.5	187
2000	**2250**	**71.5**	**61.5**
	254	53.5	233

M76 (continued)

Speed RPM	2 1/2” Gear			3” Gear*		
	Output		Input	Output		Input
	Torque	Power	Flow	Torque	Power	Flow
800	**3650**	**46.5**	**43**	**3625**	**46**	**50.5**
	412.5	34.6	163	409.5	34.5	191
1200	**3650**	**69.5**	**60.5**	**3575**	**68**	**72**
	412.5	52	229	404	50.5	273
1600	**3600**	**91.5**	**78.5**	**3500**	**89**	**93**
	406.5	68	297	395.5	66.5	352
2000	**3500**	**111**	**96.5**	**3425**	**109**	**114**
	395.5	83	365	387	81.5	431

* Motor performance data at 2000 PSI (138 bar) rated pressure.

Dimensional Data

Model		A[1]	Bs[2][3]	Bm[3][4]	C[5][6]	D[5][7]	E[3]	F[2]	G	H	I	J	K
P30/31	**in.**	**1.62**	**5.44**	**8.69**	**5.44**	**5.88**	**2.94**	**0.75**	**1.75**	**2.50**	**0.88**	**2.69**	**5.38**
	mm.	41.3	138.1	220.7	138.1	149.2	74.6	19.1	44.5	63.5	22.2	68.3	136.5
P50/51	**in.**	**2.19**	**5.88**	**9.50**	**5.44**	**5.88**	**3.38**	**0.75**	**1.75**	**2.88**	**1.00**	**3.00**	**6.00**
	mm.	55.6	149.2	241.3	138.1	149.2	85.7	19.1	44.5	73.0	25.4	76.2	152.4
P75/76	**in.**	**2.19**	**6.75**	**10.75**	**7.75**	**7.94**	**3.75**	**1.00**	**2.00**	**3.00**	**1.25**	**3.94**	**7.88**
	mm.	55.6	171.5	273.1	196.9	201.6	95.3	25.4	50.8	76.2	31.8	100.0	200.0

***U.S.**/Metric*

NOTES

1. Dimension will vary with shaft type
2. Dimension + gear width
3. Dimension is for Type 1 SEC. For Type 2: subtract 1.12" (28.4 mm) for 30/31: subtract 1.00" (25.4 mm) for 50/51.
4. Dimension + total gear width
5. Dimension will vary with port type. Subtract 0.25" (6.4 mm) for S.F. ports.
6. For 2.25" and 2.50" gear width in 50/51 series, dimention is 6.75" (171.5 mm).
7. Dimension is for wide B-C. Narrow B-C dimensions: 5.00" (127 mm) for 30/31 and 50/51; 7.19" (182.6 mm) for 75/76.
8. Dimension + 1/2 front section gear width

Model		L[3][8]	M[4]
P30/31	**in.**	**3.31**	**3.25**
	mm.	84.1	82.6
P50/51	**in.**	**3.75**	**3.62**
	mm.	95.3	92.1
P75/76	**in.**	**4.75**	**4.00**
	mm.	120.7	101.6

Approximate Weight

Single Unit

Model	Unit Weight	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"
P30/31	**Pounds**	**33**	**34**	**35**	**36**	**37**	**-**	**-**	**-**	**-**
	KG	15	15.5	16	16.5	17	-	-	-	-
P50/51	**Pounds**	**37**	**38.5**	**40**	**41.5**	**43**	**48.5**	**50**	**-**	**-**
	KG	17	17.5	18	19	19.5	22	22.5	-	-
P75/76	**Pounds**	**72**	**75**	**77**	**80**	**82**	**85**	**87**	**90**	**92**
	KG	33	34	35	36	37	39	40	41	42

Approximate Weight

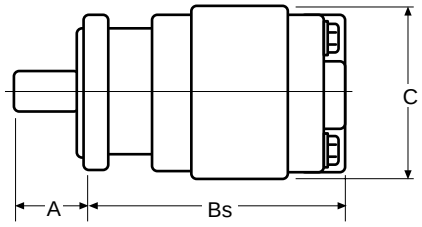
Multiple Unit*

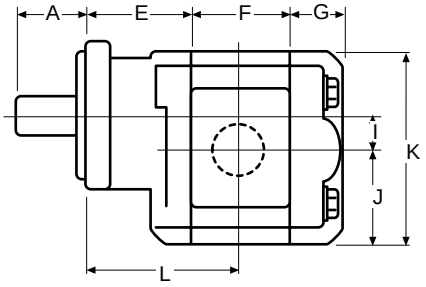
Model	Add per gear section	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"
P30/31	**Pounds**	**27**	**28**	**29**	**31**	**32**	**-**	**-**	**-**	**-**
	KG	12	12.5	13	14	14.5	-	-	-	-
P50/51	**Pounds**	**31**	**32.5**	**34**	**35.5**	**37**	**42.5**	**44**	**-**	**-**
	KG	14	15	15.5	16	17	19	20	-	-
P75/76	**Pounds**	**59**	**62**	**64**	**67**	**69**	**72**	**74**	**77**	**79**
	KG	27	28	29	31	32	33	34	35	36

*Determine the approximate weight from Single Unit chart and add weight of each additional assembly from this chart.

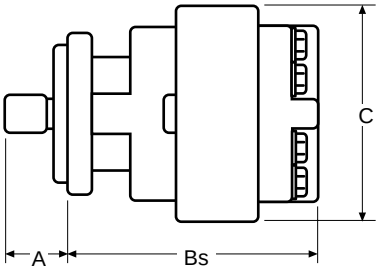
Dimensional Data

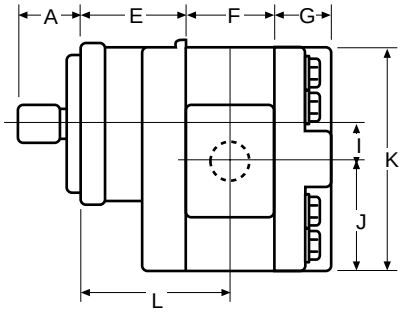
Single Unit - P30/31/50/51



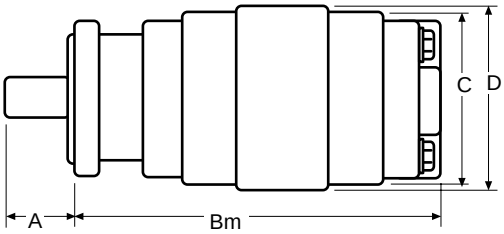


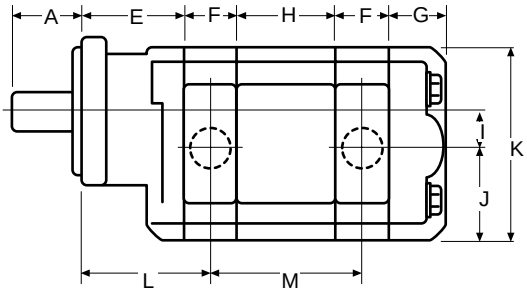
Single Unit - P75/76



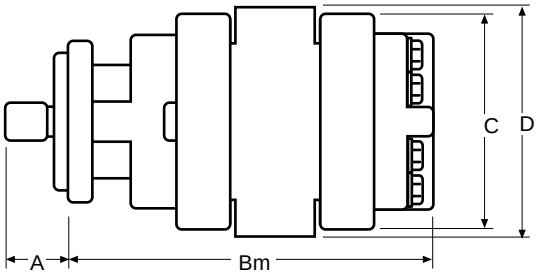


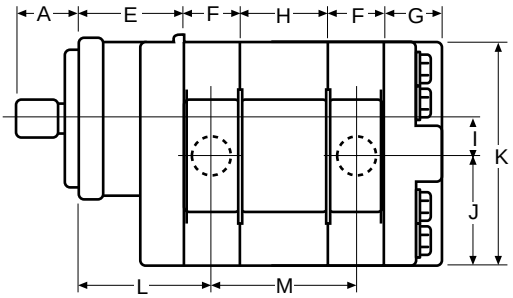
Multiple Unit - P30/31/50/51



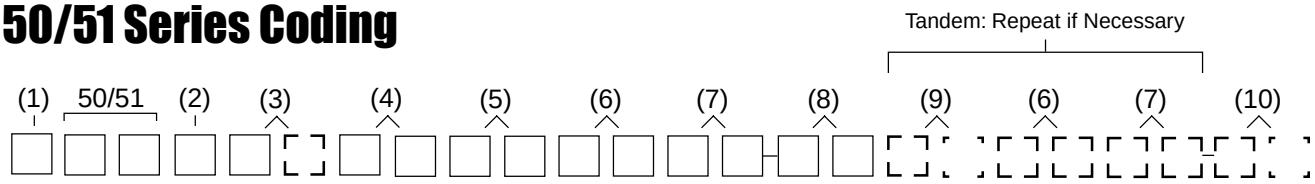


Multiple Unit - P75/76





50/51 Series Coding



Pump/Motor (1)

P	Pump
M	Motor

Unit (2)

A	Single Unit
B	Tandem Unit
C	Single or Tandem w. two-piece shaft (O.B. bearing required)

Shaft End Cover (3)

1	Pump, cw w/o O.B. bearing
2	Pump, ccw w/o O.B. bearing
3	Pump, bi-rotational w/o O.B. bearing (50 series only)
4	Pump, cw with O.B. bearing
5	Pump, ccw with O.B. bearing
6	Pump, bi-rotational with O.B. bearing (50 series only)
8	Motor, bi-rot. with O.B. bearing + 1/4" NPT drain
9	Motor, bi-rot. w/o O.B. bearing + 1/4" NPT drain
18	Motor, bi-rot. with O.B. bearing + 1/4" BSPP drain
19	Motor, bi-rot. w/o O.B. bearing + 1/4" BSPP drain

Shaft End Cover (4) *(type 1 unless noted)*

00	4 bolt pad mount
42	SAE 4 bolt "B" ANSI 101-4
78	SAE 4 bolt "C" ANSI 127-4
91	50-50, 51-51 for piggyback
92	75-50, 76-51 for piggyback
96	SAE 2 bolt "B" ANSI 101-2, **type 2**
97	SAE 2 bolt "B" ANSI 101-2
98	SAE 2 bolt "C" ANSI 127-2
99	SAE 2 bolt "C" ANSI 127-2, **type 2**

Port End Cover (5) (Rear Ported)

Left	Right	Single	Tandem	Extended Studs
Unported				
-	-	**BE**	**BI**	**BY**
NPT Porting (50 series only)				
3/4"	-	**KE**	**KI**	**KY**
-	3/4"	**LE**	**LI**	**LY**
3/4"	3/4"	**ME**	**MI**	**MY**
O.D.T. Porting				
3/4"	-	**CE**	**CI**	**CY**
-	3/4"	**DE**	**DI**	**DY**
3/4"	3/4"	**FE**	**FI**	**FY**

Port End Cover (5) continued

Left	Right	Single	Tandem	Extended Studs
BSPP Porting				
3/4"	-	**WE**	**WI**	**WY**
-	3/4"	**XE**	**XI**	**XY**
3/4"	3/4"	**ZE**	**ZI**	**ZY**
Metric Straight Thread				
3/4"	-	**NE**	**NI**	**NY**
-	3/4"	**PE**	**PI**	**PY**
3/4"	3/4"	**QE**	**QI**	**QY**

Note: 3/4" PEC ports are rated to 2500 PSI max.

	CW	CCW	Double
Piggyback Port End - Pump Only			
Type 50-50, 51-51 & 50-30, 51-31	**KO**	**LO**	**MO**

Optional:

- Port end cover with integral R/V
- Larger rear ports
  1 1/4 x 1 S.F. or ODT
- Larger side ports
  1 1/4 S.F. or ODT inlet
  1" ODT outlet
- Larger rear ports, but requires special gear housing and cap screws
  1 1/2 x 1 1/2 NPT up to 1500 PSI

Contact Product Support Development for additional information.

FOR ALL UNITS

To determine direction of shaft rotation, view the unit with the shaft pointing toward you, and the idler (driven) gear beneath the shaft. With clockwise rotation, flow will be left to right. The inlet pump port will be on the left, outlet on the right. The flow is in the opposite direction with counter-clockwise rotation. Inverting the pump will reverse the inlet and outlet ports but not the direction of rotation.

Gear Housing (6)

Series				50	50	50	50	50	50	50	50	51	51	51	51	51	51	51
Housing Code				07	10	12	15	17	20	22	25	10	12	15	17	20	22	25
Displacement (C.I.R.)				1.91	2.55	3.19	3.83	4.46	5.10	5.74	6.38	2.55	3.19	3.83	4.46	5.10	5.74	6.38
Maximum (PSI)				2500	2500	2500	2500	2000	2000	2000	2000	3000	3000	3000	3000	2500	2500	2500
IN	**OUT**	**CW**	**CCW**															
																No Porting		
-	-	**AB**	**AB**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
																NPT Porting		
3/4”	-	**IC**	**ID**		**X**	**ID**	**ID**	**ID**										
-	3/4”	**ID**	**IC**		**X**	**ID**	**ID**	**ID**										
3/4”	3/4”	**IF**	**IF**		**X**	**X**	**X**	**X**	**X**									
1”*	3/4”	**IJ**	**IG**		**X***	**X**	**X**	**IJ**	**IJ**									
1 1/4”*	3/4”	**IK**	**IH**				**X**											
1”	-	**YC**	**YD**			**X**	**YD**	**YD**	**YD**	**YD**								
-	1”	**YD**	**YC**			**X**	**YD**	**YD**	**YD**	**YD**								
1”	1”	**YF**	**YF**			**X**	**X**	**X**	**X**	**X**	**X**							
1 1/4”*	1”	**YJ**	**YG**				**X***	**X**	**X**	**X**	**YJ**							
1 1/4”*	-	**IA**	**IB**				**X***	**X***	**X**	**IB**	**IB**							
-	1 1/4”	**IB**	**IA**						**X**	**IB**	**IB**							
1 1/4”	1 1/4”	**YL**	**YL**					**X**	**X**	**X**	**X**							
1 1/2”	1”	**YK**	**YH**								**X**							
1 1/2”*	1 1/4”	**YP**	**YM**						**X***	**X**	**X**							
1 1/2”*	1 1/2”	**YR**	**YR**								**X**							
															OD Tube Porting			
3/4”*	-	**EC**	**ED**		**2000**	**2000**	**X**	**ED**	**X**			**X***	**X***		**X**			
-	3/4”	**ED**	**EC**		**2000**	**2000**	**X**	**ED**	**X**						**X**			
3/4”	3/4”	**EF**	**EF**		**2000**	**2000**	**X**	**X**	**X**					**2500**	**X**			
1”*	3/4”	**EJ**	**EG**		**2000***	**2000***	**X**	**EJ***	**EJ**						**X**			
1 1/4”*	3/4”	**EK**	**EH**				**X***	**X***						**2500***	**X***			
1”*	-	**AC**	**AD**		**X***	**X***	**2000**	**X**	**AD**	**AD**	**AD**	**X***	**X***	**X***	**X***	**X**		
-	1”	**AD**	**AC**				**2000**	**X**	**AD**	**AD**	**AD**					**X**		
1”	1”	**AF**	**AF**				**2000**	**X**	**X**		**X**					**X**	**X**	**X**
1 1/4”*	1”	**AJ**	**AG**				**2000***	**X***	**X***	**AJ**	**AJ**					**X***		
1 1/2”*	1”	**AK**	**AH**					**X***	**X***	**X***						**X***		**X**
1 1/4”*	-	**AA**	**AO**				**X***	**X***	**X***	**AO**	**AO**			**X***	**X***		**X**	**X**
-	1 1/4”	**AO**	**AA**							**AO**	**AO**						**X**	**X**
1 1/4”	1 1/4”	**AL**	**AL**						**X**	**X**	**X**						**X**	**X**
1 1/2”*	1 1/4”	**AP**	**AM**						**X***	**X***	**X**						**X***	**X***
1 1/2”*	-	**AE**	**AU**						**X***	**X***						**X***	**X***	**X**
-	1 1/2”	**AU**	**AE**															**X**
1 1/2”	1 1/2”	**AR**	**AR**								**X**							**X**

NOTES

NPT ports are not recommended for use at pressures in excess of 1500 PSI.
Shaded cells are acceptable for motor codes.
* This porting is acceptable for low pressure inlet port only.
“X” Means both codes are available.
“2000” or “2500” indicates maximum pressure rating on port.

Gear Housing (6) *continued*

Series			50	50	50	50	50	50	50	51	51	51	51	51	51	51
Housing Code			10	12	15	17	20	22	25	10	12	15	17	20	22	25
Displacement (C.I.R.)			2.55	3.19	3.83	4.46	5.10	5.74	6.38	2.55	3.19	3.62	4.46	5.10	5.74	6.38
Maximum (PSI)			2500	2500	2500	2000	2000	2000	2000	3000	3000	3000	3000	2500	2500	2500
IN	**OUT**	**CW CCW**														
														Split Flange Porting		
3/4"	-	**UC UD**	**X**	**X**	**UD**	**UD**				**2500**	**X**					
-	3/4"	**UD UC**	**X**	**X**	**UD**	**UD**				**2500**	**X**					
3/4"	3/4"	**UF UF**					**X**		**X**	**2500**	**X**	**X**				
1"*	3/4"	**UJ UG**	**X***	**X***	**UJ**	**UJ**	**UJ**			**2500***	**X***	**X***				
1 1/4"*	3/4"	**UK UH**									**X***	**X***	**X***			
1"*	-	**OC OD**	**2000**	**X***	**X**	**X**	**X**	**OD**	**X**		**X***	**2500**	**X**	**X**		
-	1"	**OD OC**	**2000**	**2000**	**X**	**X**	**X**	**OD**	**X**			**2500**	**X**	**X**		
1"	1"	**OF OF**		**2000**	**X**	**X**	**X**	**X**	**X**			**2500**	**X**	**X**	**X**	**X**
1 1/4"*	1"	**OJ OG**		**2000***	**X***	**X***	**X**	**OJ**	**OJ**			**2500***	**X***	**X***		
1 1/2"*	1"	**OK OH**			**X***	**X***	**X***	**X**	**X**			**2500***	**X***	**X***	**X**	
1 1/4"*	-	**OA OB**		**X***	**X***	**X***	**X**	**OB**	**OB**		**X***	**X***				
-	1 1/4"	**OA OB**					**X**	**OB**	**OB**							
1 1/4"	1 1/4"	**OL OL**			**2000**	**X**	**X**	**X**	**X**					**X**	**X**	**X**
1 1/2"*	1 1/4"	**OP OM**			**2000***	**X***	**X***	**X**	**X**					**X***	**X**	**X**
1 1/2"*	-	**OE OU**			**X***	**X***	**X**		**X**			**X***	**X***	**X***		
-	1 1/2"	**OU OE**					**X**		**X**							
1 1/2"	1 1/2"	**OR OR**					**X**	**X**	**X**						**X**	**X**
2"*	-	**XB ZB**												**X***		
2"*	1"	**UQ UB**					**X***	**X***	**X***							
2"*	1 1/4"	**OQ ON**					**X***	**X***	**ON***					**X***	**X***	**X***
2"*	1 1/2"	**OV OS**					**X***	**X***	**X***						**X***	**X***
2"	2"	**OX OX**							**X**							
														BSPP Porting		
3/4"*	-	**YN YQ**	**X***	**X**	**YQ**	**YQ**				**X***	**2500**	**2500**	**YQ**	**YQ**		
-	3/4"	**YQ YN**		**X**	**YQ**	**YQ**					**2500**	**2500**	**YQ**	**YQ**		
3/4"	3/4"	**YS YS**	**2000**	**X**	**X**				**X**		**2500**	**2500**		**X**		
1"*	3/4"	**YV YT**	**2000***	**X***	**YV***	**YV***	**YV**				**2500***	**2500***	**YV***	**YV***		
1 1/4"*	3/4"	**YW YU**			**YW***											
1"*	-	**SL RQ**		**SL***	**RQ***	**RQ***	**RQ**	**RQ**	**RQ**	**RQ***	**SL***	**RQ***	**RQ***	**RQ***	**RQ**	**RQ**
-	1"	**RQ SL**					**RQ**	**RQ**	**RQ**					**2500**	**RQ**	**RQ**
1"	1"	**MP MP**			**2000**	**X**	**X**		**X**					**2500**		**X**
1 1/4"*	1"	**IX VY**			**2000***	**X***	**VY***	**IX**	**IX**					**2500***	**IX**	**IX**
1 1/2"	1"	**VI HW**							**X**							
1 1/4"*	-	**NJ UI**				**NJ***		**UI**	**UI**						**UI**	**UI**
-	1 1/4"	**UI NJ**						**UI**	**UI**						**UI**	**UI**
1 1/4"	1 1/4"	**PF PF**						**X**	**X**						**X**	**X**
1 1/2"*	1 1/4"	**IS IQ**							**X**							**X***
														Metric Straight Thread		
3/4"*	-	**EN TQ**	**X***	**TQ**	**TQ**	**TQ**				**X***	**TQ***	**TQ***	**TQ**			
-	3/4"	**TQ EN**		**TQ**	**TQ**	**TQ**					**2500**	**2500**	**TQ**			
3/4"	3/4"	**ES ES**	**2000**	**X**							**2500**					
1"*	3/4"	**EV ET**	**2000***	**X***	**EV***	**EV**	**EV**				**2500***	**2500***	**EV***	**EV***		
1"*	-	**NL ER**			**ER***	**ER**	**ER**	**ER**				**ER***	**ER***	**ER***	**ER**	
-	1"	**ER NL**				**ER**	**ER**	**ER**								
1"	1"	**CM CM**			**2000**	**X**	**X**						**2500**			
1 1/4"*	-	**UA**					**UA***	**UA**	**UA**					**UA***	**UA**	**UA**
1 1/4"*	1"	**EX VE**			**2000***	**X***	**EX***	**EX**	**EX**				**2500***	**X***	**EX**	**EX**
1 1/4"	1 1/4"	**PA PA**					**X**	**X**	**X**						**X**	**X**
1 1/2"*	1 1/4"	**SA QA**					**X***	**X***	**X**						**X***	**X***

NOTES: Shaded cells are acceptable for motor codes. * This porting is acceptable for low pressure inlet port only. "X" Means both codes are available. "2000" or "2500" indicates maximum pressure rating on port.

Gear Housing (6) *continued*

Series				50	50	50	50	50	50	50	51	51	51	51	51	51	51
Housing Code				10	12	15	17	20	22	25	10	12	15	17	20	22	25
Displacement (C.I.R.)				2.55	3.19	3.83	4.46	5.10	5.74	6.38	2.55	3.19	3.62	4.46	5.10	5.74	6.38
Maximum (PSI)				2500	2500	2500	2000	2000	2000	2000	3000	3000	3000	3000	2500	2500	2500
IN	**OUT**	**CW**	**CCW**											***Metric Split Flange Porting***			
3/4"*	-	**VN**	**VQ**	**VQ**	**VQ**	**VQ**	**VQ**				**X***						
-	3/4"	**VQ**	**VN**	**VQ**	**VQ**	**VQ**	**VQ**										
1"*	3/4"	**RV**	**VT**	**X***	**RV***	**RV**	**RV**	**RV**			**2500***	**X***					
1 1/4"*	3/4"	**RW**	**RU**									**X***	**X***				
1"*	-	**UL**	**UR**		**UR***	**UR**	**UR**	**UR**	**UR**			**X***	**X***	**X**	**X**		
-	1"	**UR**	**UL**			**UR**	**UR**	**UR**	**UR**					**X**	**X**		
1"	1"	**UM**	**UM**		**2000**	**X**	**X**	**X**	**X**				**2500**	**X**	**X**	**X**	
1 1/4"*	1"	**UX**	**VU**		**2000***	**UX***	**UX***	**UX**	**UX**	**UX**			**2500***	**X***	**X***		
1 1/2"*	1"	**VO**	**HO**			**X***	**X***	**X***					**2500***	**X***	**X***	**X**	
1 1/4"*	-	**NO**	**UO**				**UO***	**UO**	**UO**	**UO**		**X***	**X***				
-	1 1/4"	**UO**	**NO**					**UO**	**UO**	**UO**							
1 1/4"	1 1/4"	**PO**	**PO**			**2000**	**X**	**X**	**X**	**X**					**X**	**X**	**X**
1 1/2"*	1 1/4"	**SO**	**QO**			**2000***	**X***	**X***	**X**	**X**					**X***	**X**	**X**
1 1/2"*	-	**UY**	**TO**			**X***	**X***		**X**					**X***	**X***		
-	1 1/2"	**TO**	**UY**						**X**								
1 1/2"	1 1/2"	**SV**	**SV**					**X**	**X**	**X**						**X**	**X**
2"*	1 1/4"	**JM**	**JR**					**X***	**X***	**X***					**X***	**X***	**X***
2"*	1 1/2"	**JQ**	**JN**					**X***	**X***	**X***						**X***	**X***

NOTES

Shaded cells are acceptable for motor codes.
* This porting is acceptable for low pressure inlet port only.
"X" Means both codes are available.
"2000" or "2500" indicates maximum pressure rating on port.

Gear Width (7)

50 Series

	Gear Width	in.^{3}/rev.	cm^3/rev.	Max Pressure
05	1/2"	1.28	20.9	2500 psi (172 bar)
07	3/4"	1.91	31.3	2500 psi (172 bar)
10	1"	2.55	41.8	2500 psi (172 bar)
12	1 1/4"	3.19	52.2	2500 psi (172 bar)
15	1 1/2"	3.83	62.7	2500 psi (172 bar)
17	1 3/4"	4.46	73.1	2000 psi (138 bar)
20	2"	5.10	83.6	2000 psi (138 bar)
22	2 1/4"	5.74	94.0	2000 psi (138 bar)
25	2 1/2"	6.38	104.5	2000 psi (138 bar)

51 Series

	Gear Width	in.^{3}/rev.	cm^3/rev.	Max Pressure
05	1/2"	1.28	20.9	3000 psi (207 bar)
07	3/4"	1.91	31.3	3000 psi (207 bar)
10	1"	2.55	41.8	3000 psi (207 bar)
12	1 1/4"	3.19	52.2	3000 psi (207 bar)
15	1 1/2"	3.83	62.7	3000 psi (207 bar)
17	1 3/4"	4.46	73.1	3000 psi (207 bar)
20	2"	5.10	83.6	2500 psi (172 bar)
22	2 1/4"	5.74	94.0	2500 psi (172 bar)
25	2 1/2"	6.38	104.5	2500 psi (172 bar)

Shaft Type (8) *(type 1 unless noted)*

For single, tandem, or two piece shaft unless noted.

07	SAE "C" 14 tooth spline 1.25" dia., ANSI 32-4
11	SAE "C" keyed 1.25" dia., 5/16"X15/32"X1 1/2" key, ANSI 32-1
22	50-50, 51-51 piggyback shaft
23	75-50, 76-51 piggyback shaft
25	SAE "B" 13 tooth spline .88" dia., ANSI 22-4
43	SAE "B-B" keyed 1.00" dia. 1/4"X3/8"X1 1/4" key, ANSI 25-1
53	SAE "C" 14 tooth spline 1.25" dia., ANSI-32-4, **type 2** (single & tandem)
65	SAE "B" 13 tooth spline .88" dia., ANSI 22-4, **type 2** (single & tandem)
67	SAE "B-B" keyed 1.00 dia., 1/4"X3/8"X1 1/4" key, ANSI 25-1, **type 2** (single & tandem)
73	SAE "C" keyed 1.25" dia., 5/16" x 15/32" x 2 1/4" key, extended length (two-piece only)
98	SAE "B-B" 15 tooth spline, 1.00" dia., ANSI 25-4 (single & tandem)

Bearing Carriers (9) Pump Only

Common Inlet Passage

IN	OUT	CW	CCW
			
-	-	C	D
* -	-	A	U

** 51 Series only. Used when only one adjacent gear housing has an inlet port.*

NPT Porting (50 Series only)

			
1”	-	TB	BT
1 1/4”	-	VB	BV
1 1/2”	-	WB	BW
			
1”	3/4”	TX	XT
1 1/4”	3/4”	VX	XV
1 1/2”	3/4”	WX	XW
1 1/4”	1”	VZ	ZV
1 1/2”	1”	WZ	ZW
			
1”	3/4”	TJ	JT
1 1/4”	3/4”	VJ	JV
1 1/4”	1”	VK	KV
1 1/2”	1”	WK	KW
			
1”	3/4”	ZX	XZ

ODT Porting

			
1”	-	CB	BC
1 1/4”	-	DB	BD
1 1/2”	-	FB	BF
			
-	3/4”	PJ	*JP
1”	3/4”	CJ	JC
1 1/4”	3/4”	DJ	JD
1 1/2”	3/4”	FJ	JF
1 1/4”	1”	DK	KD
1 1/2”	1”	FK	KF

* 51 Series only.

			
1”	3/4”	CR	RC
1 1/4”	3/4”	DR	RD
*1 1/2”	3/4”	FR	RF
1 1/4”	1”	DS	SD
1 1/2”	1”	FS	SF
-	1”	HZ	*ZH

* 51 Series only.

			
1”	3/4”	KJ	JK

Split Flange Porting

IN	OUT	CW	CCW
			
1”	-	LB	BL
1 1/4”	-	MB	BM
1 1/2”	-	NB	BN
			
-	3/4”	BR	RB
1”	3/4”	LR	RL
1 1/4”	3/4”	MR	RM
1 1/2”	3/4”	NR	RN
1 1/4”	1”	MS	SM
1 1/2”	1”	NS	SN
			
1”	3/4”	LX	XL
1 1/4”	3/4”	MX	XM
1 1/4”	1”	MZ	ZM
1 1/2”	1”	NZ	ZN
			
1”	3/4”	SR	RS

BSPP Porting

			
1”	-	CX	XC
1 1/4”	-	DX	XD
1 1/2”	-	FX	XF
			
* -	3/4”	-	TL
1”	3/4”	CT	TC
1 1/4”	3/4”	DT	TD
1 1/2”	3/4”	FT	TF
1 1/4”	1”	DV	VD
1 1/2”	1”	FV	VF

* 50 Series only.

			
1”	3/4”	GM	MG
1 1/4”	3/4”	HM	MH
1 1/2”	3/4”	WM	MW
1 1/4”	1”	HN	NH
1 1/2”	1”	WN	NW
			
1”	3/4”	PN	NP

Bearing Carriers (9) Pump Only - *continued*

Metric Split Flange Porting

IN	OUT	CW	CCW
			
1”	-	CH	HC
1 1/4”	-	DH	HD
1 1/2”	-	FH	HF
			
-	3/4”	PW	WP
1”	3/4”	CW	WC
1 1/4”	3/4”	DW	WD
1 1/2”	3/4”	FW	WF
1 1/4”	1”	DC	CD
1 1/2”	1”	FC	CF
			
1”	3/4”	GQ	QG
1 1/4”	3/4”	HQ	QH
1 1/2”	3/4”	WQ	QW
1 1/4”	1”	HS	SH
1 1/2”	1”	WS	SW
			
1”	3/4”	ST	TS

Metric Straight Thread Porting

IN	OUT	CW	CCW
			
1”	-	CL	LC
1 1/4”	-	DL	LD
1 1/2”	-	FL	LF
			
1”	3/4”	CZ	ZC
1 1/4”	3/4”	DZ	ZD
1 1/2”	3/4”	FZ	ZF
1 1/4”	1”	DN	ND
1 1/2”	1”	FN	NF
			
1”	3/4”	GT	TG
1 1/4”	3/4”	HT	TH
1 1/2”	3/4”	WT	TW
1 1/4”	1”	HV	VH
1 1/2”	1”	WV	VW
			
1”	3/4”	KL	LK

Bearing Carriers (9) (Motor Only)

No Ports

IN	OUT	DUAL
		
-	-	B

NPT Porting (30 Series only)

		
1”	1”	TT
1 1/4”	1 1/4”	VV
1 1/2”	1 1/2”	WW

ODT Porting

		
1”	1”	CC
1 1/4”	1 1/4”	BB
1 1/2”	1 1/2”	FF

Split Flange Porting

		
1”	1”	LL
1 1/4”	1 1/4”	MM
1 1/2”	1 1/2”	NN

BSPP Porting

IN	OUT	DUAL
		
1”	1”	EE
1 1/4”	1 1/4”	GG

Metric Split Flange Porting

		
1”	1”	RR
1 1/4”	1 1/4”	SS

Metric Straight Thread Porting

		
1”	1”	KK
1 1/4”	1 1/4”	JJ

Connecting Shaft (10)

For connecting tandem units.

1	Connecting Shaft - Multiple Units
22	Piggyback Pump Connecting Shaft for P50 to P50, P51 to P51
23	Piggyback Pump Connecting Shaft for P75 to P50, P76 to P51

NOTE

Split flange thread depths may be more shallow than S.A.E. standard. Contact Product Support Department for actual dimensions.