

- **Three-piece cast iron construction**  
High efficiency and long life in severe operating environments.
- **Low friction bushing**  
Provides strength in heavy duty applications.
- **Balanced thrust plates**  
Optimize pump efficiency.
- **Largest journal bearings available**  
for high pressure and long life.



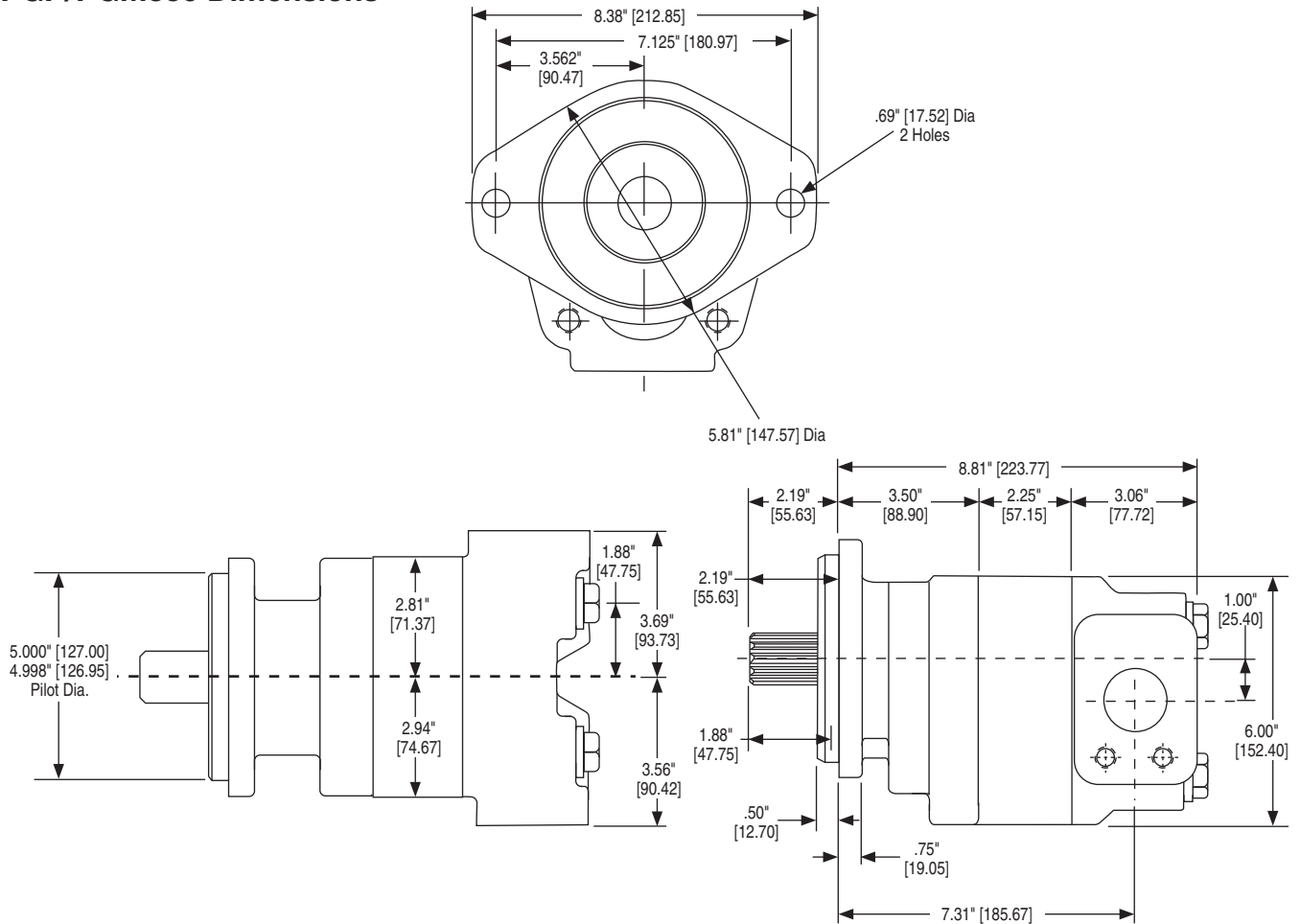
Product Features	Description
<b>Pump Type</b>	Heavy-duty, cast iron, external gear
<b>Mounting</b>	SAE standard flanges, ZF, others
<b>Ports</b>	SAE split flanges and other types of threaded ports, see Specifications
<b>Shaft Style</b>	SAE splined, keyed, and others, see Specifications
<b>Maximum Speed</b>	2,400 RPM
<b>Theor. displacement</b>	See Specifications
<b>Drive</b>	Clockwise, counterclockwise, double. Direct drive with flexible coupling is recommended. Pumps subject to radial loads must be specified with an outboard bearing. Axial loading is not allowed.
<b>Inlet pressure</b>	30 psia (15psig) maximum pressure / 5 in. Hg maximum vacuum at operating temperature
<b>Outlet pressure</b>	See Specifications
<b>Hydraulic fluids</b>	Mineral oil, fire resistant fluids: water-oil emulsions 60/40, MFB; water-glycol, HFC; phosphate-esters, HFD (FPM seals required)

Product Features	Description
<b>Fluid viscosity</b>	From 7.5 to 1600 cSt (50 to 7500 sus). Recommended 15 to 75 cSt.
<b>Fluid temperature</b>	Mineral oil with standard seals: 0°F to 180°F (-20°C to 80°C); Fire resistant fluids HFB, HFC: 0°F to 150°F (-20°C to 65°C)
<b>Filtration</b>	ISO 4406 code: <ul style="list-style-type: none"> <li>• 19/16 at 2000 psi/140 bar</li> <li>• 17/14 at 3000 psi/210 bar</li> <li>• 15/12 at 4000 psi/275 bar</li> </ul>
<b>Direction of rotation (looking at the drive shaft)</b>	CW, CCW, Bi-Rotational
<b>Multiple pump assemblies</b>	Up to 6 gear selections of the same model, even with different gear widths
<b>Separate or common inlet capability</b>	Common

PGP350 Frame Size	05	07	10	12	15	17	20	22	25
Displacement – cm <sup>3</sup> /rev (in <sup>3</sup> /rev)	20.9 (1.28)	31.3 (1.91)	41.8 (2.55)	52.2 (3.19)	62.7 (3.83)	73.1 (4.46)	83.6 (5.10)	94.0 (5.74)	104.5 (6.38)
Max continuous pressure – bar (psi)	241 (3,500)	241 (3,500)	241 (3,500)	241 (3,500)	241 (3,500)	224 (3,250)	207 (3,000)	190 (2,750)	172 (2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	48 [21.8]	49.5 [22.4]	51 [23.1]	52.5 [23.8]	54.0 [24.5]	55.5 [25.2]	57.0 [25.9]	58.5 [26.5]	60.0 [27.2]

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PGP/PGM350 Dimensions



**PGP/PGM350 Performance Data**

**PGP350 Pump Performance Data**

Speed RPM	Output Flow Input Power	Gear Widths								
		1/2"	3/4"	1"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/4"	2-1/2"
900	GPM	4.0	6.4	8.8	11.2	13.7	16.1	18.6	21.0	23.4
	LPM	15	24	33	42	52	61	70	79	89
	HP	11	17	22	28	33	36	38	39	40
	kW	8	12	17	21	25	27	28	29	30
1200	GPM	5.6	8.8	12.1	15.4	18.7	21.9	25.2	28.4	31.7
	LPM	21	33	46	58	71	83	95	108	120
	HP	15	22	30	37	44	48	51	52	53
	kW	11	17	22	28	33	36	38	39	39
1500	GPM	7.3	11.3	15.5	19.5	23.6	27.7	31.8	35.9	40.0
	LPM	28	43	59	74	89	105	120	136	151
	HP	18	28	37	46	55	60	63	65	66
	kW	14	21	28	34	41	45	47	49	49
1800	GPM	8.9	13.8	18.8	23.6	28.6	33.5	38.4	43.3	48.3
	LPM	34	52	71	89	108	127	145	164	183
	HP	22	33	44	55	67	72	76	78	79
	kW	17	25	33	41	50	54	57	58	59
2100	GPM	10.6	16.3	22.1	27.8	33.6	39.3	45.1	50.8	56.6
	LPM	40	62	84	105	127	149	171	192	214
	HP	26	39	52	65	78	84	89	91	92
	kW	19	29	39	48	58	63	66	68	69
2400	GPM	12.2	18.8	25.4	31.9	38.5	45.1	51.7	58.2	64.8
	LPM	46	71	96	121	146	171	196	220	245
	HP	30	44	59	74	89	96	101	105	106
	kW	22	33	44	55	66	72	76	78	79

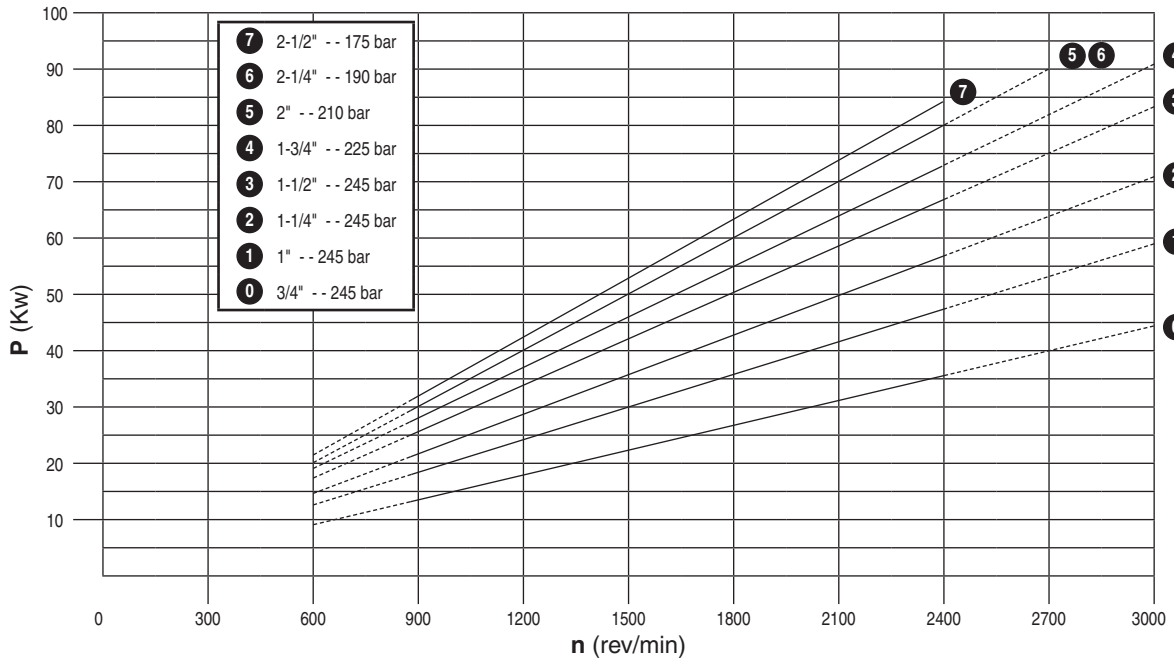
**PGM350 Motor Performance Data**

Speed RPM	Output Torque	Gear Widths													
		1" 3500 psi		1-1/4" 3500 psi		1-1/2" 3500 psi		1-3/4" 3250 psi		2" 3000 psi		2-1/4" 2750 psi		2-1/2" 2500 psi	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B
900	in/lbs	13.4	1320	16.0	1670	18.6	2025	21.2	2225	23.8	2350	26.4	2425	28.9	2450
	Nm	51	149.1	61	188.7	70	228.8	80	251.4	90	265.5	100	274.0	110	276.8
1200	in/lbs	16.9	1315	20.4	1660	23.8	2015	27.2	2215	30.6	2340	34.0	2410	37.4	2435
	Nm	64	148.6	77	187.6	90	227.7	103	250.3	116	264.4	129	272.3	142	275.1
1500	in/lbs	20.5	1300	24.7	1640	28.9	1990	33.2	2195	37.4	2315	41.7	2385	45.9	2410
	Nm	77	146.9	93	185.3	110	224.8	126	248.0	142	261.6	158	269.5	174	272.3
1800	in/lbs	24.0	1295	29.0	1635	34.1	1980	39.2	2180	44.2	2300	49.3	2375	54.4	2395
	Nm	91	146.3	110	184.7	129	223.7	148	246.3	167	259.9	187	268.3	206	270.6
2100	in/lbs	27.5	1285	33.4	1620	39.3	1965	45.2	2165	51.1	2285	57.0	2355	62.9	2380
	Nm	104	145.2	126	183.0	149	222.0	171	244.6	193	258.2	216	266.1	238	268.9
2400	in/lbs	31.0	1265	37.7	1600	44.4	1940	51.2	2135	57.9	2255	64.6	2325	71.3	2350
	Nm	117	142.9	143	180.8	168	219.2	194	241.2	219	254.8	245	262.7	270	265.5

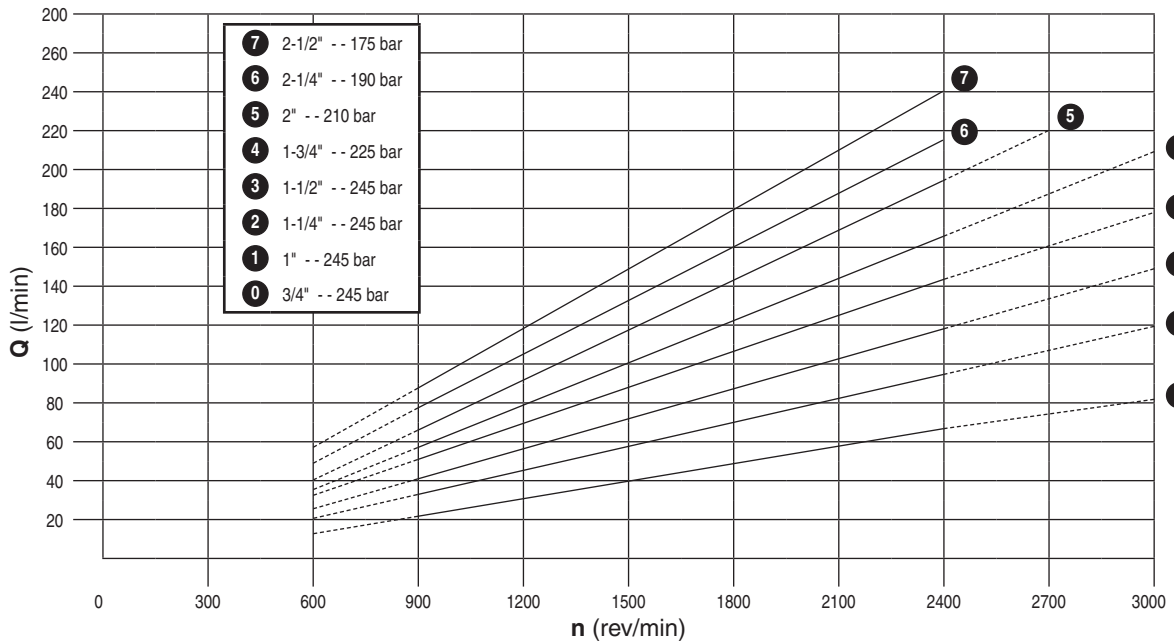
A: Input Flow GPM/LPM; B: Output Torque IN/LBS/Nm

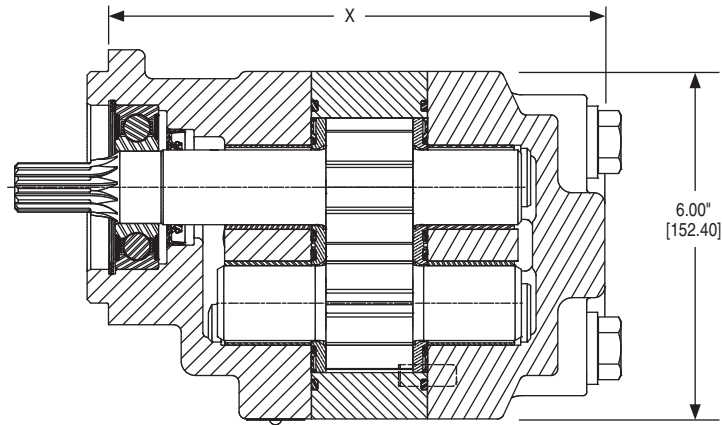
Note: In accordance with our policy of continuing product development, we reserve the right to change specification shown in this catalog without notice.

**Input**



**Output**

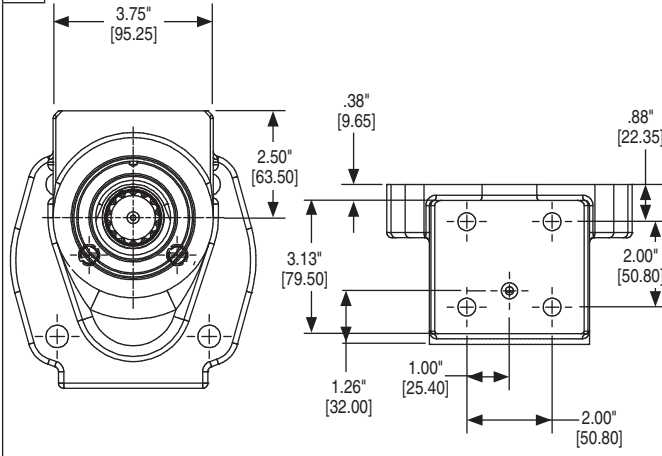




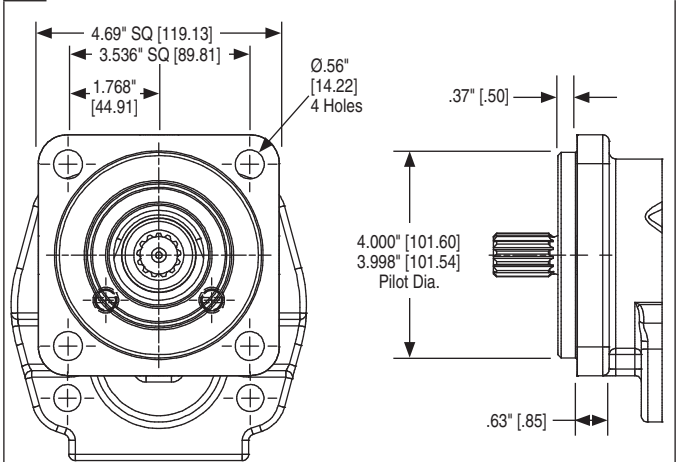
**X DIMENSION**

SEC CODE	07	10	12	15	17	20	22	25
00	8.06" [204.72]	8.31" [211.07]	8.56" [217.42]	8.81" [223.77]	9.06" [230.12]	9.31" [236.47]	9.56" [242.82]	9.81" [249.17]
42	7.81" [198.37]	8.06" [204.72]	8.31" [211.07]	8.56" [217.42]	8.81" [223.77]	9.06" [230.12]	9.31" [236.47]	9.56" [242.82]
46	7.81" [198.37]	8.06" [204.72]	8.31" [211.07]	8.56" [217.42]	8.81" [223.77]	9.06" [230.12]	9.31" [236.47]	9.56" [242.82]
78	7.81" [198.37]	8.06" [204.72]	8.31" [211.07]	8.56" [217.42]	8.81" [223.77]	9.06" [230.12]	9.31" [236.47]	9.56" [242.82]
97	7.81" [198.37]	8.06" [204.72]	8.31" [211.07]	8.56" [217.42]	8.81" [223.77]	9.06" [230.12]	9.31" [236.47]	9.56" [242.82]

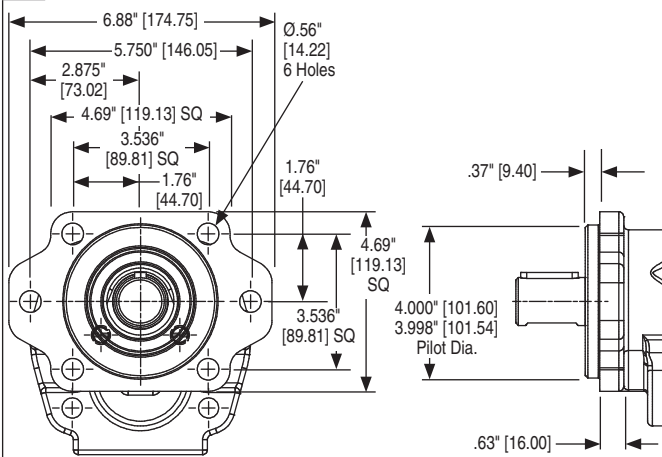
**00 Pad Mount**



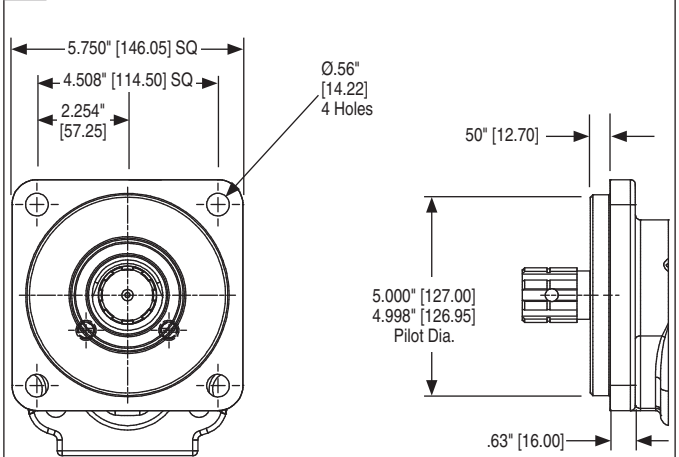
**42 SAE B 4-Bolt**



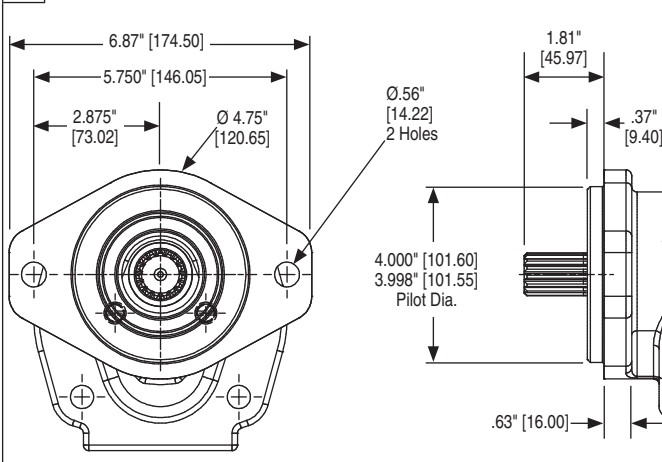
**46 SAE B 2/4-Bolt**

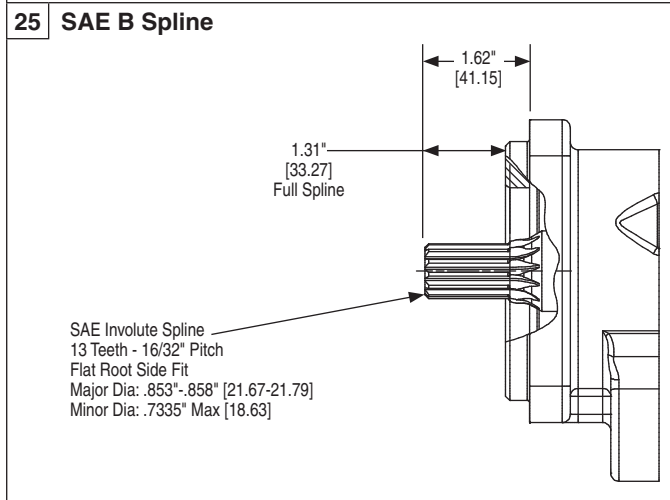
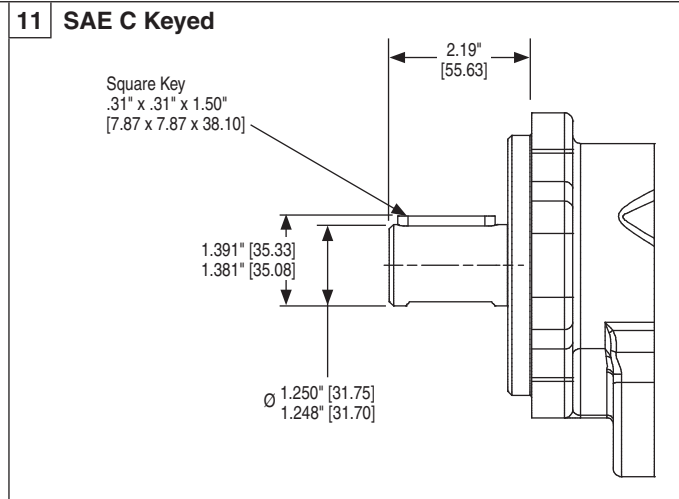
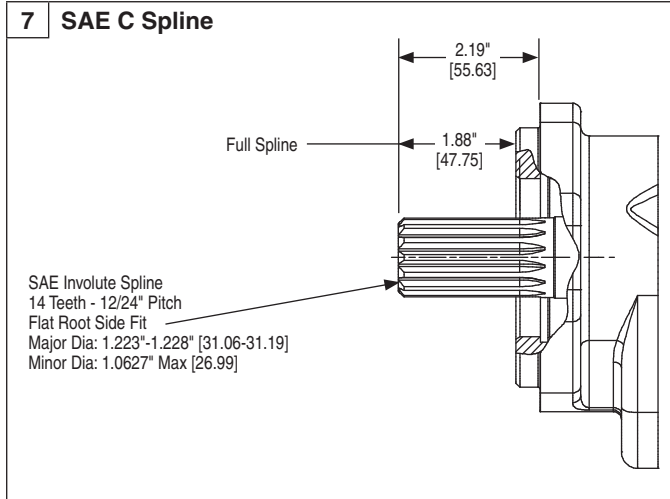


**78 SAE C 4-Bolt**

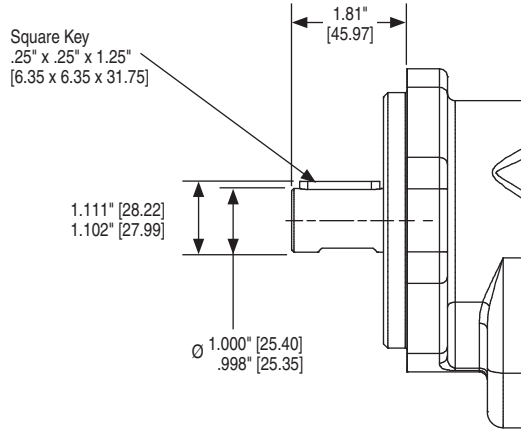


**97 SAE B 2-Bolt**

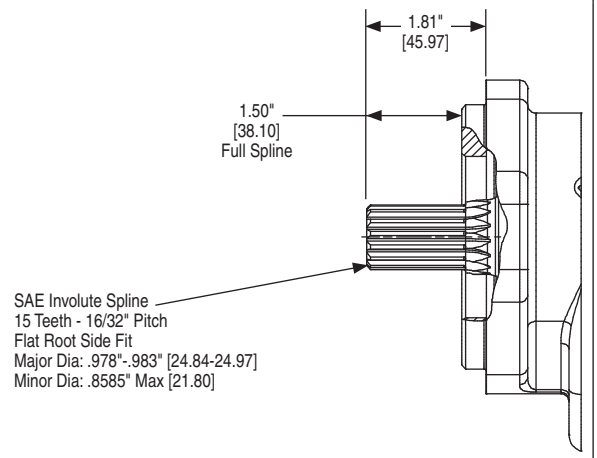




**43 SAE BB Keyed**



**98 SAE BB Spline**



Shaft Style		Integral: 1 2 pieces: 2	Maximum Torque	
			lb-ft	Nm
SAE B	Splined - 13 Teeth	1	242	328
		2	242	328
SAE BB	Splined - 15 Teeth	1	371	503
		2	300	407
SAE C	Splined - 14 Teeth	1	708	960
		2	300	407
	1.25" Keyed	1	500	678
		2	300	407
Connecting Shaft			300	407

Torque (lb-ft) =  $\frac{\text{Pressure (PSI)} \times \text{Displacement (in}^3\text{/rev)}}{75.4}$

Torque (Nm) =  $\frac{\text{Pressure (Bar)} \times \text{Displacement (cc/rev)}}{62.8}$