

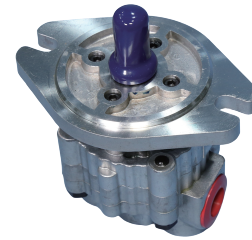
## GGM Series Hydraulic Motors

### Options

- Gerotor design
- Side ports, rear ports
- Straight, splined shafts
- SAE ports
- Roller bearings for long life
- High pressure mechanical seals

### Applications

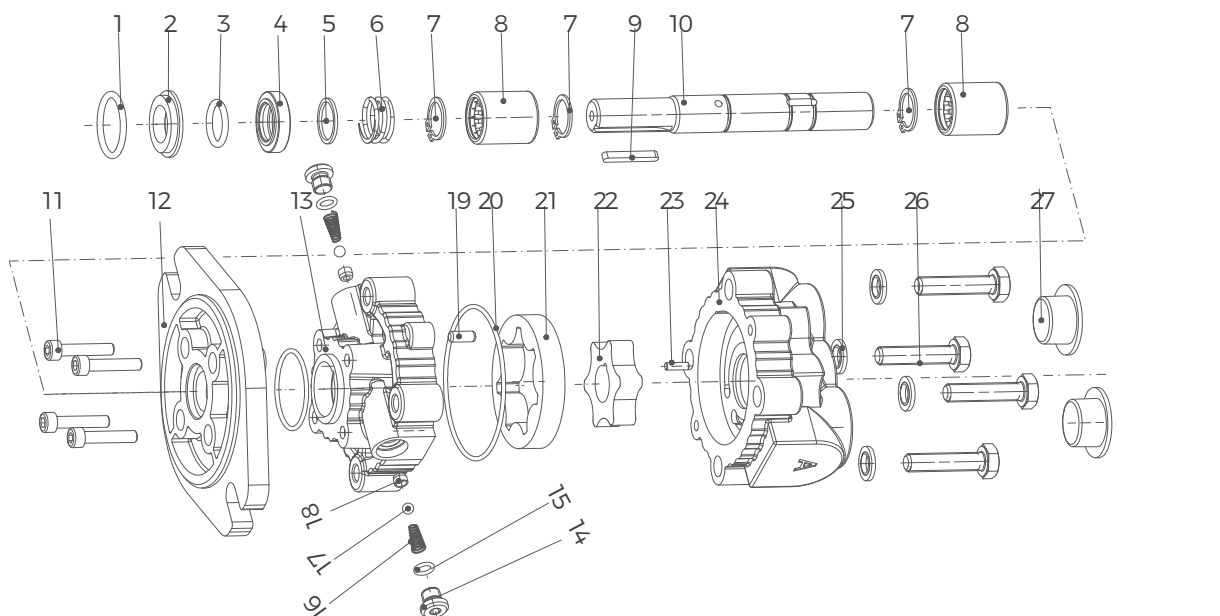
- Construction machines
- Refuse/dump truck
- Material handling
- Forestry machines
- Agriculture machines
- Industrial machines



### General


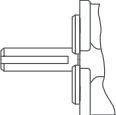
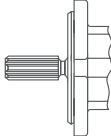
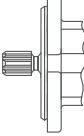
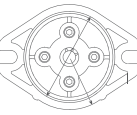
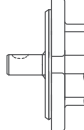
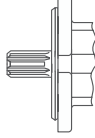
Max. Displacement	cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	11.47 [.700]
Max. Speed	RPM	5000
Max. Torque 1000 PSI	in.-lbs [kg-cm]	111 [128]
Max. Output	kW [HP]	64 [85.8]
Max. Pressure Drop	bar [PSI]	cont.: 138 [2000] int.: 172.58 [2500]
Max. Oil Flow	lpm [GPM]	56.7[15]
Max. Shaft Side Loads	lbs. [kg]	170 [77]
Pressure fluid		Mineral based- HLP (DIN 51524) or HM (ISO 6743/4)
Temperature Range	°C [°F]	-40÷140 [-40÷284]
Optimal Viscosity range	mm <sup>2</sup> /s [SUS]	20÷75 [98÷347]
Filtration		ISO code 20/16 (Min. recommended fluid filtration of 25 microns)

When used in series, the back pressure shall not exceed 69bar.



- |                           |                         |                 |                     |                      |
|---------------------------|-------------------------|-----------------|---------------------|----------------------|
| 1 O-ring                  | 7 Non-standard clamp    | 13 Intermediate | 19 Positioning pins | 25 Washer            |
| 2 Mechanical static ring  | 8 Needle roller bearing | 14 Plug         | 20 O-ring           | 26 Bolt              |
| 3 O-ring                  | 9 Parallel Key          | 15 O-ring       | 21 Inner rotor      | 27 Oil port plug cap |
| 4 Mechanical dynamic ring | 10 Transmission shaft   | 16 Spring       | 22 Outer rotor      |                      |
| 5 Washer                  | 11 Screw                | 17 Steel ball   | 23 Cylindrical pin  |                      |
| 6 Compression spring      | 12 Front cover          | 18 Valve base   | 24 Rear cover       |                      |

## Ordering Code

CGM SERIES		DISP	FLANGE		SHAFT	PORTS		ROTATION	PAINT		FUNCTION	
CODE	DISP		CODE	FLANGE		CODE	PORTS		CODE	PAINT		
3.6	3.9cm <sup>3</sup> /rev [.218in <sup>3</sup> /rev]		AB	2- Ø10.4 rhomb Ø82.55 pilot Ø50.8×3.1		A	Rear		A	No Paint		
6.1	6.2cm <sup>3</sup> /rev [.372in <sup>3</sup> /rev]					B	Side					
7.4	7.8cm <sup>3</sup> /rev [.450in <sup>3</sup> /rev]											
9.5	9.7cm <sup>3</sup> /rev [.580in <sup>3</sup> /rev]											
11.5	11.6cm <sup>3</sup> /rev [.700in <sup>3</sup> /rev]		HA	4- Ø10 square 50.8 × 50.8 pilot Ø45.2×3.1		SQ	9/16 Dia. keyed shaft				A	Standard seal
						RD	9/16 Dia.8 tooth splined long shaft				B	Standard seal w/dust seal
			AC	2-Ø11.2 rhomb Ø106.4 pilot Ø82.55×3.1		RF	5/8 Dia.9 tooth splined shaft				V	High temp.
						SR	7/16 Dia. keyed shaft				S	Low temp.
						RG	9/16 Dia. 8 tooth splined shaft					
											CODE	ROTATION
											A	Standard
											R	Opposite

## Specifications

Type	GGM3.6	GGM6.1	GGM7.4
Displacement in <sup>3</sup> /rev [cm <sup>3</sup> /rev]	.218(3.57)	.372(6.094)	.450(7.374)
Max. Rated RPM	5000	5000	5000
Rated Flow Per 1000 RPM (Nominal)	.95GPM(3.6 L/min)	1.61GPM(6.1 L/min)	1.95GPM(7.4 L/min)
Max. Continuous Pressure	2000PSI(138.0 bar)	2000PSI(138.0 bar)	2000PSI (138.0 bar)
Max. Intermittent Pressure	2500PSI(172.5 bar)	2500PSI(172.5 bar)	2500PSI (172.5 bar)
Output Torque Per 1000 PSI (69.0 bar)	35 in.-lbs (40 kg-cm)	59 in.-lbs (68 kg-cm)	72 in.-lbs. (83 kg-cm)
Weight	2.8 pounds(1.25 kg)	3.0 pounds(1.36 kg)	3.1 pounds(1.41 kg)
Shaft Side Load**	170 lbs(77.0 kg)	130 lbs.(59.0 kg)	110 lbs.(50.0 kg)

Type	GGM9.5	GGM11.5
Displacement in <sup>3</sup> /rev [cm <sup>3</sup> /rev]	.580(9.50)	.700(11.471)
Max. Rated RPM	5000	5000
Rated Flow Per 1000 RPM (Nominal)	2.51GPM(9.5 L/min)	3.03GPM(11.5 L/min)
Max. Continuous Pressure	2000PSI (138.0 bar)	1500PSI (103.5 bar)
Max. Intermittent Pressure	2500PSI (172.5 bar)	2000PSI (138.0 bar)
Output Torque Per 1000 PSI (69.0 bar)	92 in.-lbs. (107 kg-cm)	111 in.-lbs (128 kg-cm)
Weight	3.3 pounds(1.50 kg)	3.5 pounds(1.59 kg)
Shaft Side Load**	70 lbs.(31.7 kg)	30 lbs.(13.5 kg)

\* THEORETICAL

\*\* SIDE LOAD: Maximum Permissible Shaft Side Load at 2500 RPM and 1000 PSI (69.0 bar)  
(B-10 Bearing Life of 1000 Hrs.)

OIL TEMPERATURE: Maximum recommended oil temperature 180° F (82.2° C)

OIL VISCOSITY: Recommended viscosity 150 SUS (3.65 engler).

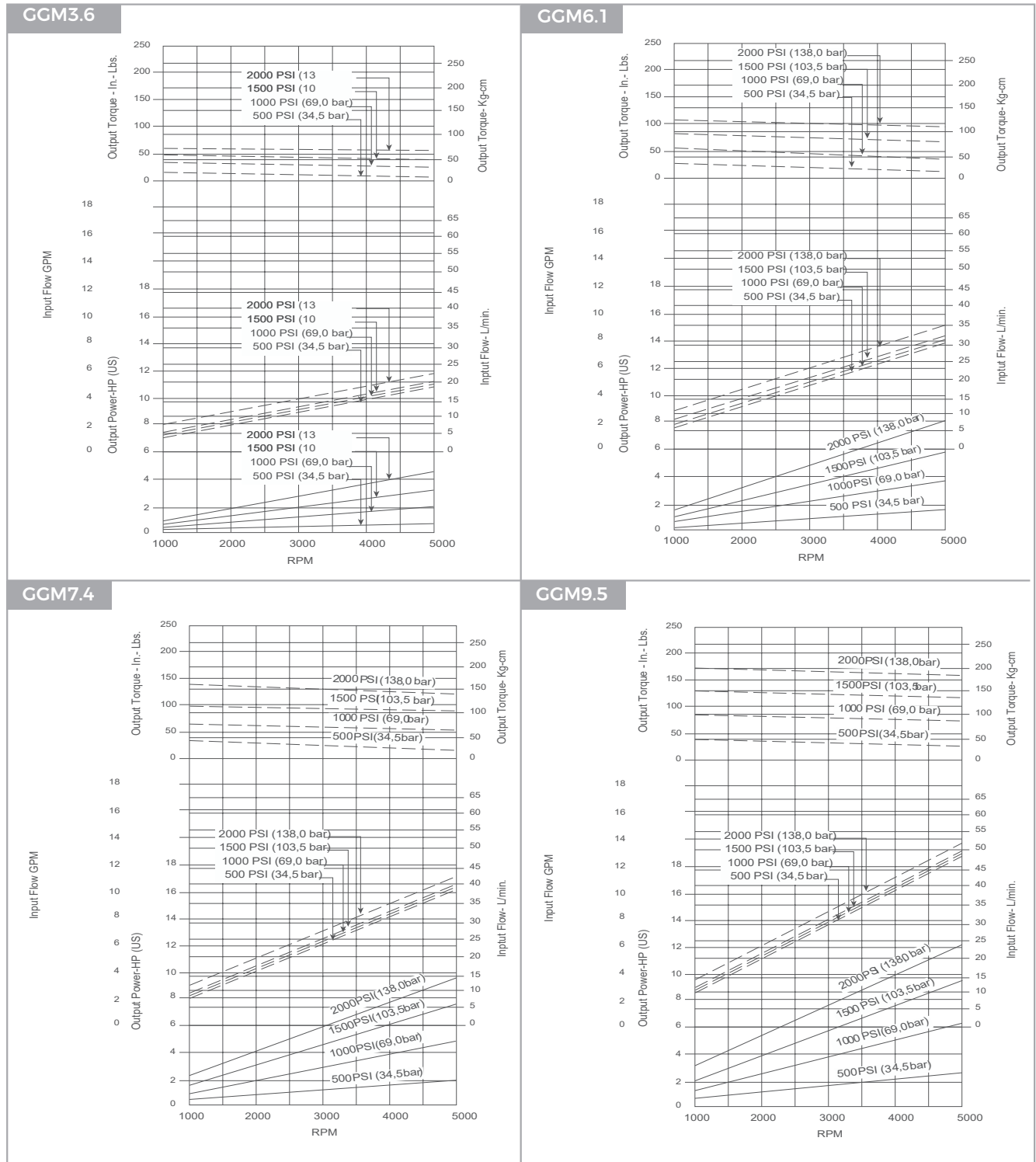
(32 centistokes) Minimum recommended viscosity

60 SUS (2.1 engler) (13 centistokes)

FILTRATION: Minimum recommended filtration 10 Micron.

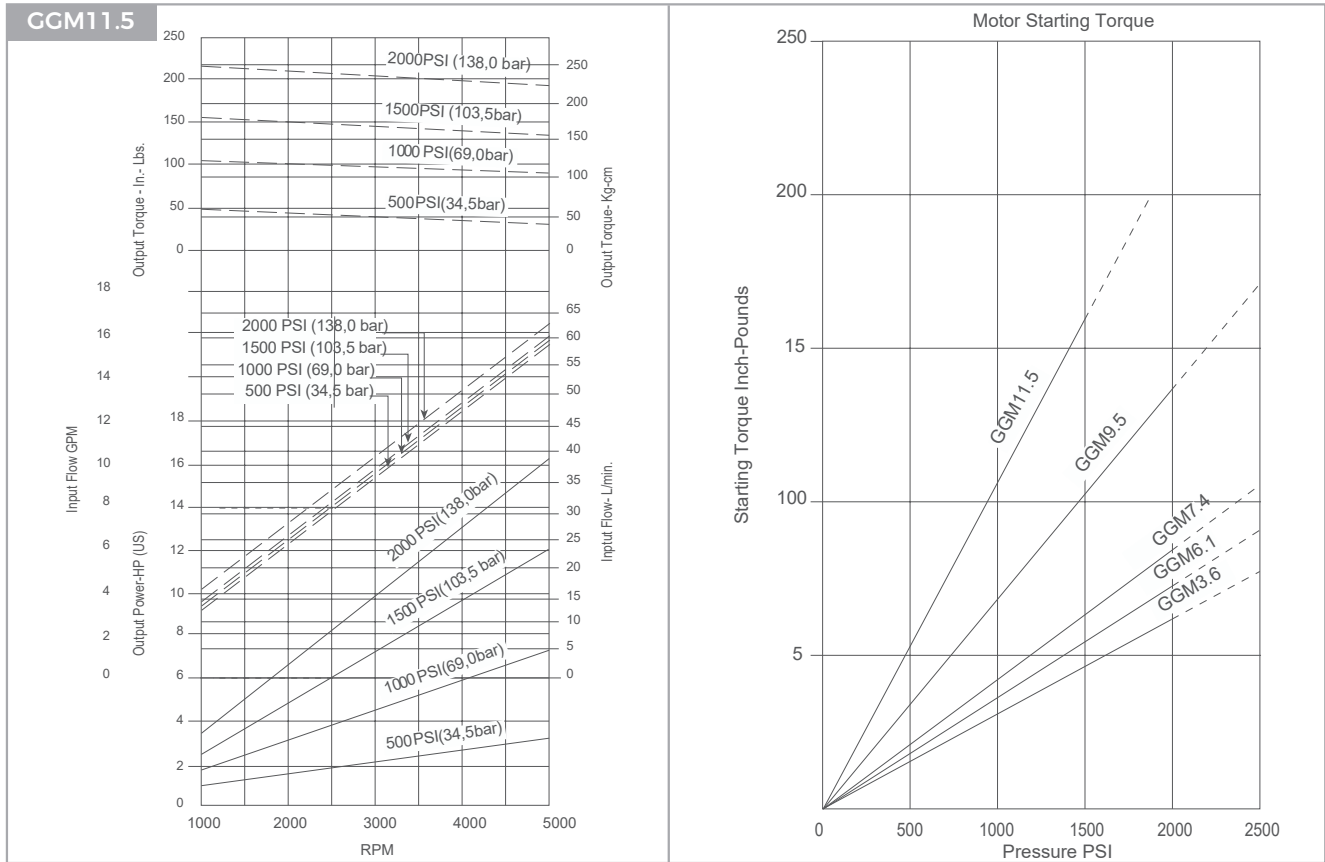
END THRUST: 80 Lbs. (36.3 kg.) maximum.

## Function Diagrams

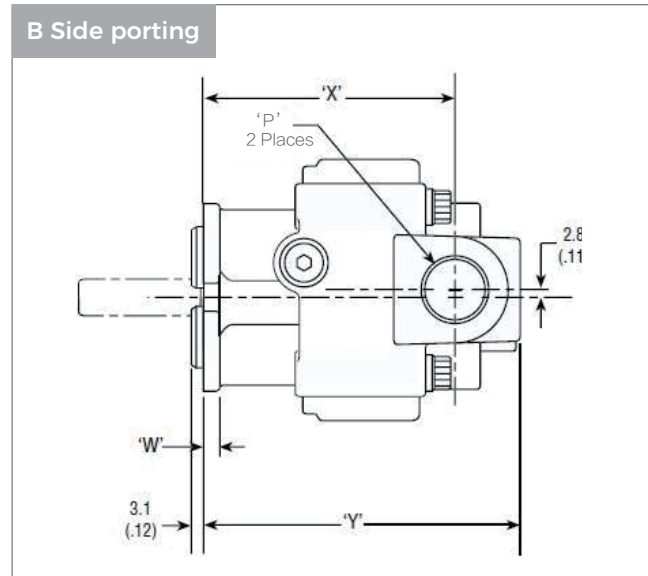
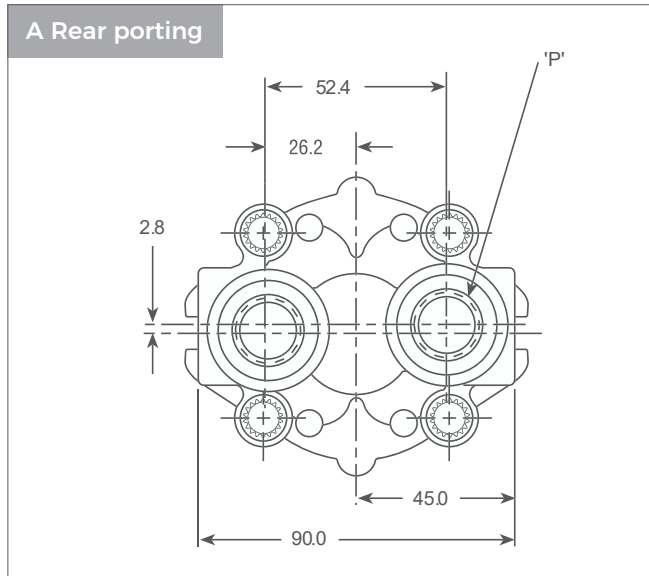




### Function Diagrams



## GGM Dimensions and Mountings

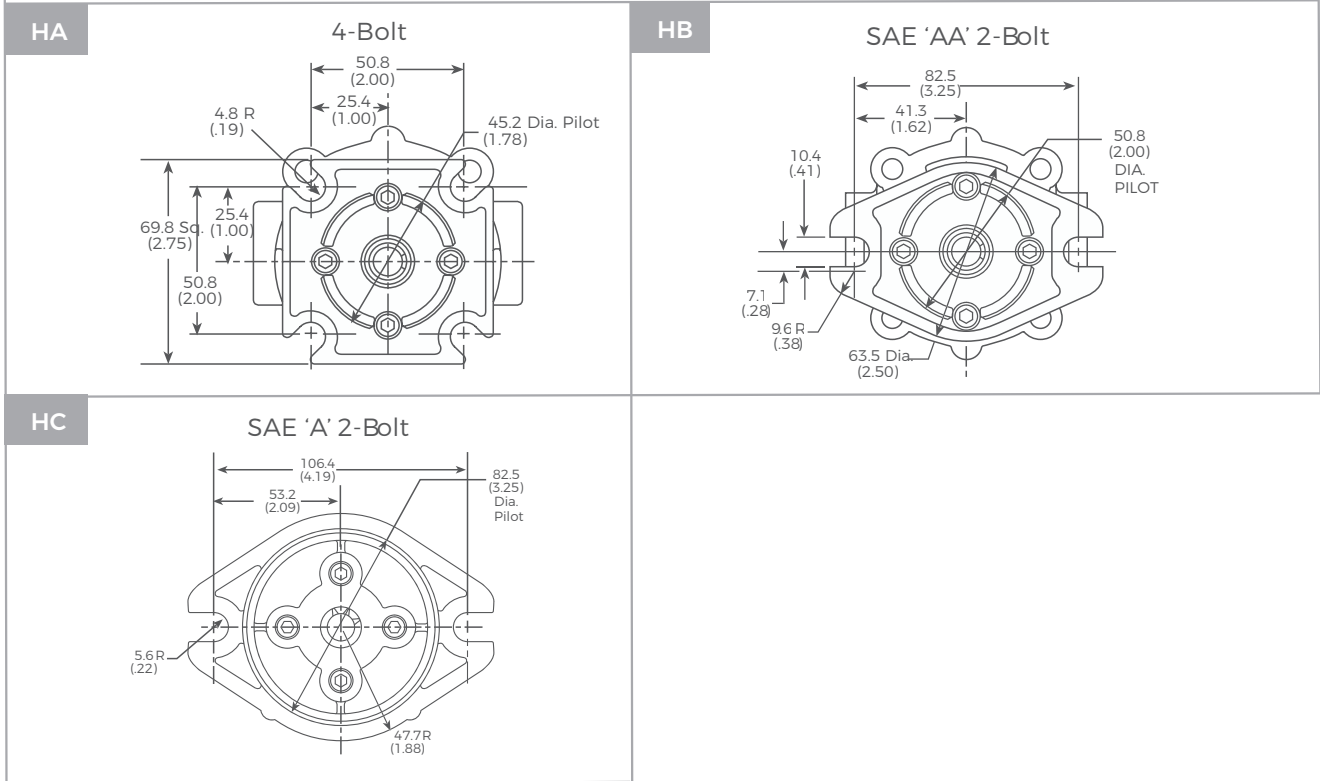


Model	Size	
	"X"	"Y"
GGM3.6	73.1(2.88)	93.1(3.67)
GGM6.1	77.3(3.04)	97.3(3.83)
GGM7.4	79.4(3.13)	99.4(3.91)
GGM9.5	83.0(3.27)	103.0(4.06)
GGM11.5	86.3(3.40)	106.3(4.19)

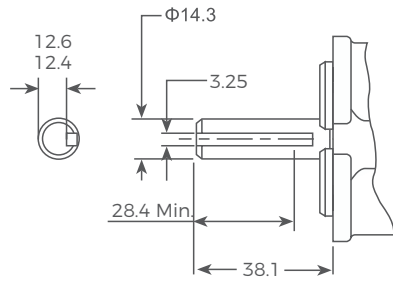
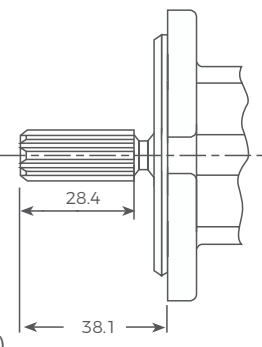
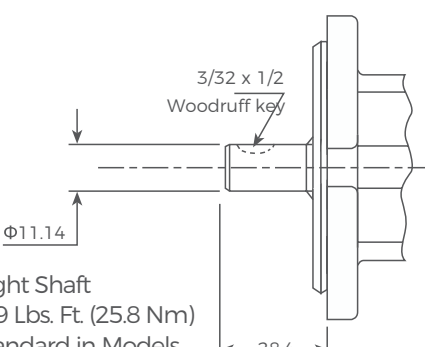
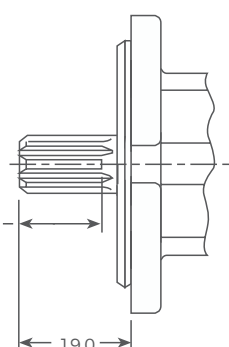
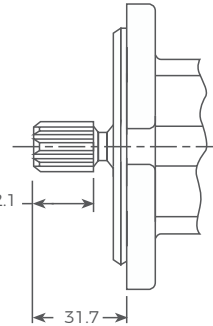
Flange	"W"
2 holes "A-A"	6.3
4 holes	6.3
2 holes "A"	9.5

Model	"P" SAE Straight thread oil port, O-ring seal
GGM3.6	SAE 8(3/4-16UNF)
GGM6.1	SAE 8(3/4-16UNF)
GGM7.4	SAE 8(3/4-16UNF)
GGM9.5	SAE 10(7/8-14UNF)
GGM11.5	SAE 10(7/8-14UNF)

### GGM Flange Covers Dimensions



### GGM Shafts Dimensions

<p><b>SQ</b></p>  <p>Diameter 9/16, Straight shaft              Maximum bearing torque 52.9 Nm</p>	<p><b>RD</b></p>  <p>9/16 Dia. 8 Tooth Splined Shaft              Flat Root Side Fit-Class 2 Fit              Torque Limit 39 Lbs. Ft. (52.9 Nm)</p>
<p><b>SR</b></p>  <p>7/16 Dia. Straight Shaft              Torque Limit 19 Lbs. Ft. (25.8 Nm)              Available as Standard in Models</p>	<p><b>RG</b></p>  <p>9/16 Dia. 8 Tooth Splined Shaft              Flat-Root Side Fit-Class 2 Fit              Torque Limit 39 Lbs. Ft. (52.9 Nm)              Available as Standard in Models</p>
<p><b>RF</b></p>  <p>5/8 Dia. 9 Tooth Splined Shaft              Flat Root Side Fit - Class 1 Fit              Torque Limit 52 Lbs. Ft. (70.5 Nm)              Available as Standard in Models</p>	