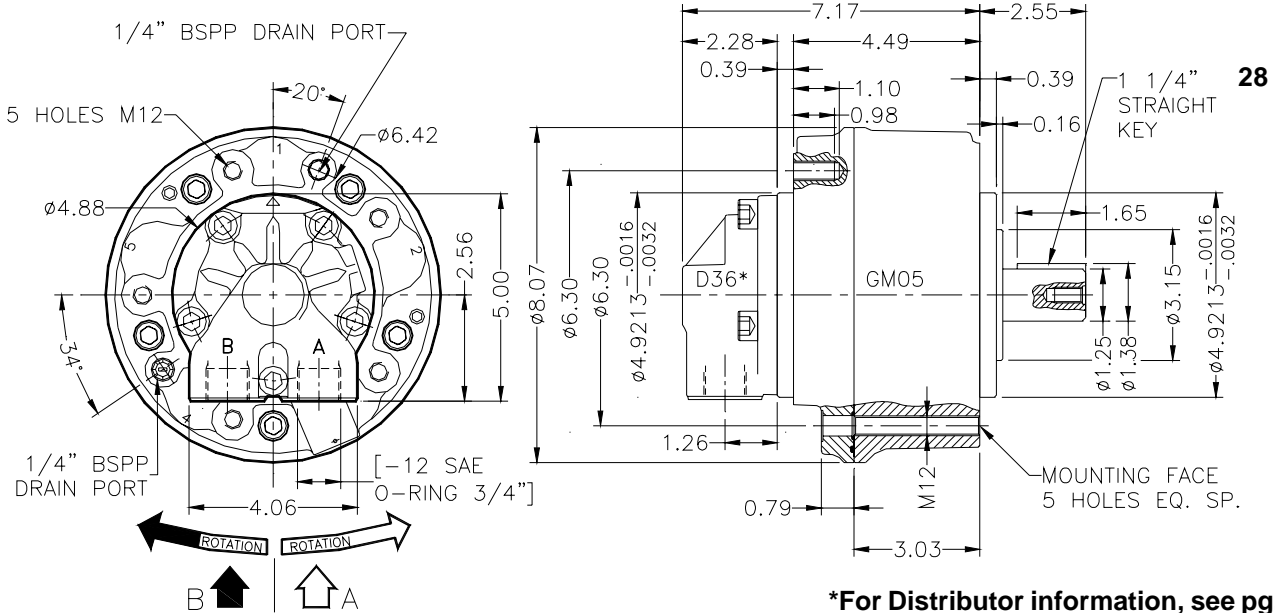


## DIMENSIONS



\*For Distributor information, see pg. 46.

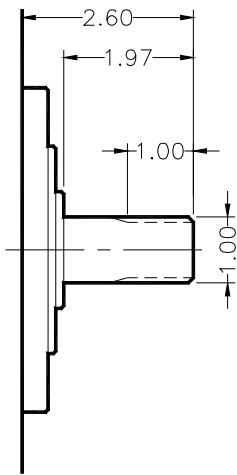
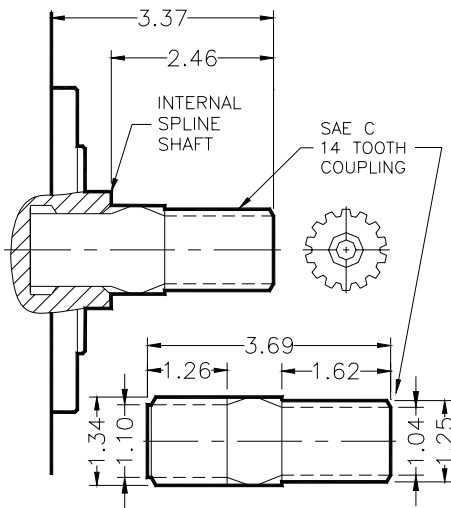
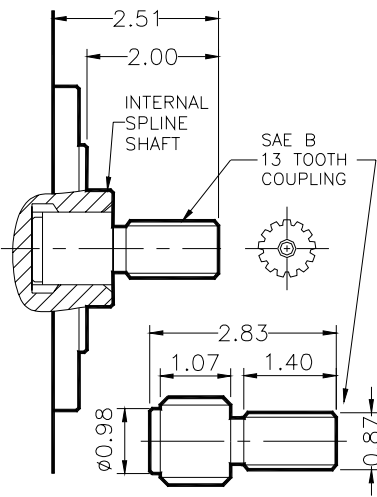
## SAE SHAFT OPTIONS

See Page 52 for SAE Flanges

7/8 13 Tooth Spline 13

1 1/4 14 Tooth Spline 17

Class 6B Fit Spline 77



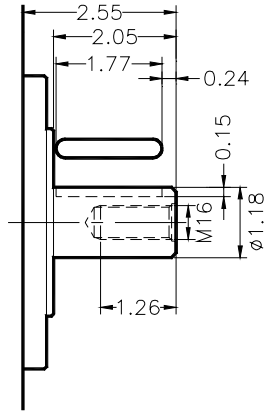
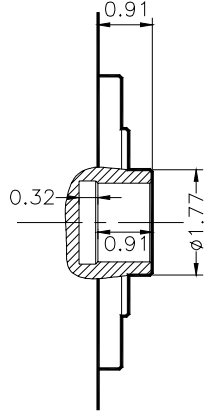
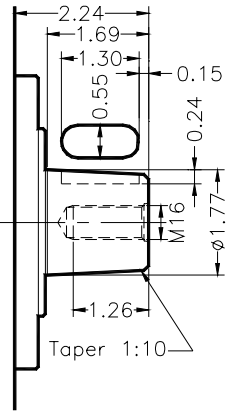
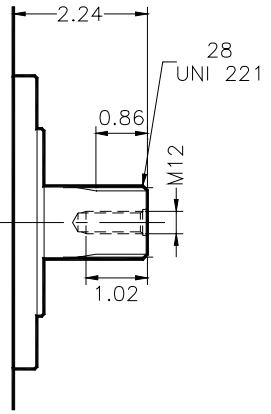
## METRIC SHAFT OPTIONS

Spline DIN 5480 7  
 UNI 221 1

Tapered 2

Internal Spline DIN 5480 9  
 UNI 221 3

Parallel Keyed 8



## ORDER CODES

GM05	110	1	H	-	D36	-	-	-
------	-----	---	---	---	-----	---	---	---

### MOTOR CODE

1. **Nominal displacement** - See motor spec. table

2. **Shaft options:** 7 = Ext. 35-2-16 DIN 5480 (std)

1 = Ext. 28 UNI 221

9 = Int. 35-2-16 DIN 5480

3 = Int. 28 UNI 221

2 = Tapered Keyed

8 = Parallel Keyed

13 = 7/8" 13 Tooth Spline

17 = 11/4 14 Tooth Spline

28 = 11/4 Straight Keyed

77 = Class 6B Fit Spline

3. **Bearings:**

No code = Ball Bearings

H = Roller Bearings

G = Spherical Roller Bearings

4. **Other options:**

HP = High pressure version, only  
GM05-65, 75, 110, 130

U = Without shaft seal

SV = Shaft seal protection

VY = Viton seals

I = Case press. relief valve  
43psi.

**DISTRIBUTOR CODE** See Page 46

5. **Distributor:** D36 standard

6. **Tachometer:** K = Predisposed for tachometer

J = Mechanical Tach. mount

JB2 = Mount for BEI encoder

E25 BA (type 6R)

JB4 = Mount for Hall Effect switch  
up to 200 pulses per rev.

### ASSEMBLY CODES

7. **Direction of shaft rotation:** standard motors are supplied with clockwise rotation (viewed from shaft end) with flow in port A, out port B.

No code = Clockwise rotation

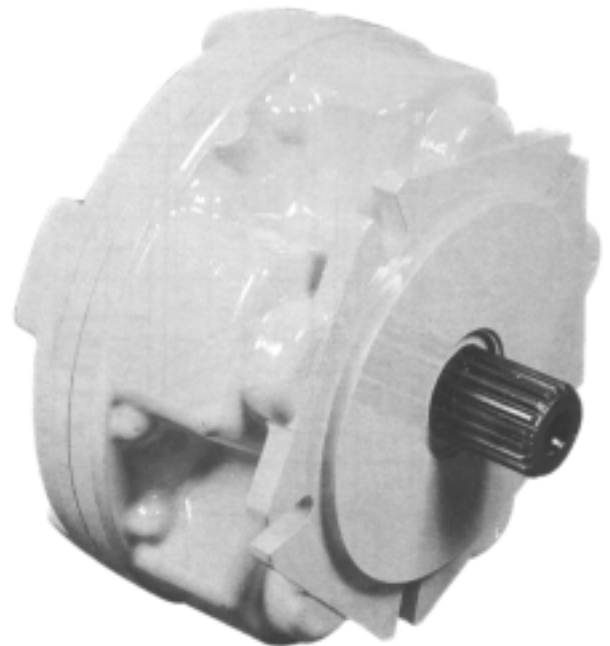
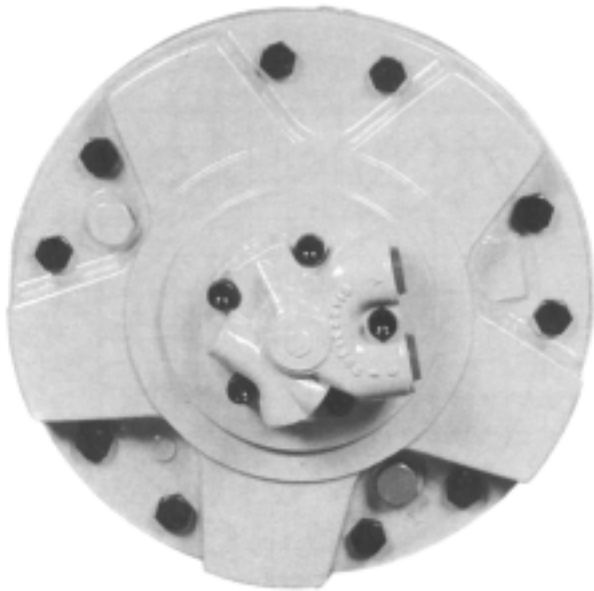
L = Counter-Clockwise rotation

8. **Distributor cover position:** See Page 7

No code = Position DM1

DM~ = Other position

# GM1



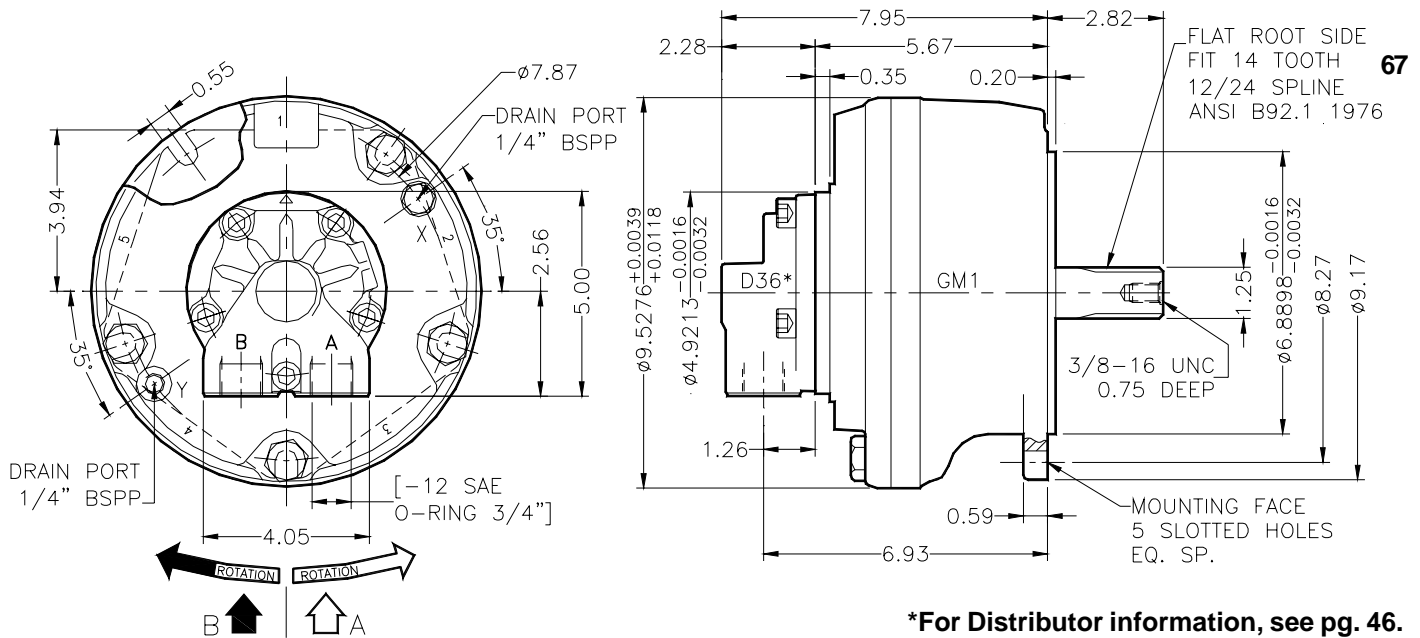
<b>GM1</b>		<b>100</b>	<b>150</b>	<b>175</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>320*</b>
Displacement	<i>in<sup>3</sup>/rev</i>	6.04	9.40	10.50	12.27	14.83	17.70	19.16
Specific torque	<i>lb.ft/100psi</i>	8.01	12.47	13.93	16.28	19.68	23.49	25.42
Cont. pressure <sup>1)</sup>	<i>psi</i>	3550	3550	3550	3550	3550	3550	3550
Peak pressure	<i>psi</i>	6400	6000	5700	5500	5500	5000	5000
Peak press <sup>2)</sup>	<i>psi</i>	8500	7800	7000	-	-	-	-
Max. speed <sup>3)</sup>	<i>rpm</i>	1200	1200	1200	1200	1000	900	900
Peak power	<i>HP</i>	75	75	75	75	75	75	75

\* Motor has limited working pressure. Please contact SAI for specifications

Approximate weight: 60 lbs  
 Motor casing oil capacity: 64 in<sup>3</sup>  
 Max. casing pressure: 14 psi continuous  
 70 psi peak

- 1) Continuous or average working pressure should be chosen in function of the bearing lifetime.
- 2) High pressure version (HP).
- 3) Speed limitation with optional low speed distributors: cont. 250 rpm, max 500 rpm (see distributors, page 46).

## DIMENSIONS



### SAE SHAFT OPTIONS

### SPECIAL SHAFT OPTIONS See Pg. 52 for SAE Flanges

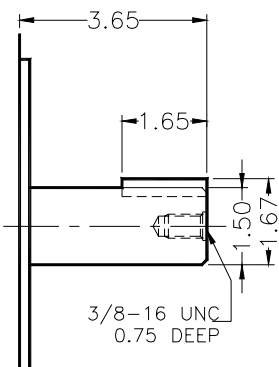
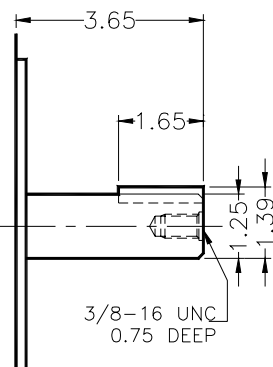
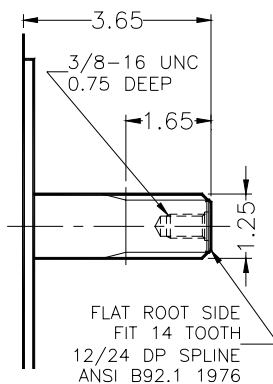
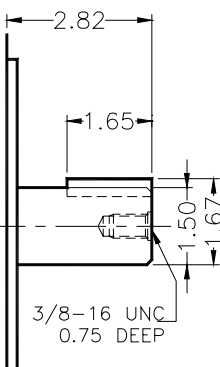
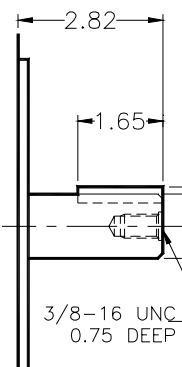
1 1/4 Straight  
Keyed **58**

1 1/2 Straight  
Keyed **68**

1 1/4 14 Tooth  
Spline **37**

1 1/4 Straight  
Keyed **38**

1 1/2 Straight  
Keyed **48**



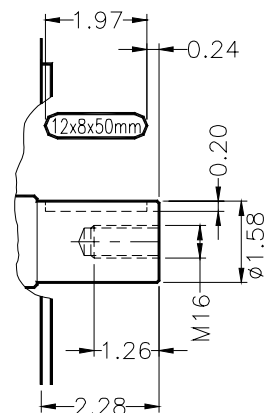
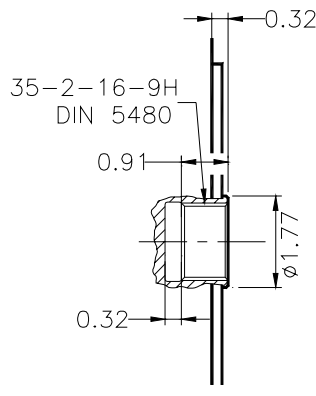
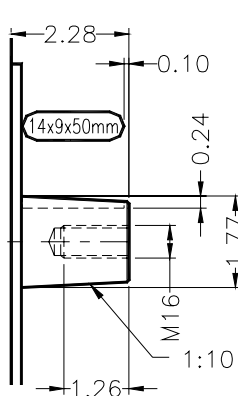
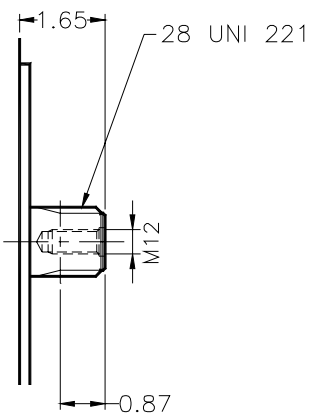
### METRIC SHAFT OPTIONS

Spline DIN 5480 **7**  
UNI 221 **1**

Tapered **2**

Internal Spline DIN 5480 **9**  
UNI 221 **3**

Parallel Keyed **8**



## BEARING OPTIONS

For longer lifetimes, contact our technical department.

**Ball bearings (standard)** - the lifetime of the ball bearings is approximately 15% of the equivalent lifetime of the roller bearings "H" given in the graph.

**Roller bearings (option H)** - recommended for most applications. The lifetime is given in the bearing lifetime graph.

**Spherical roller bearings (option G)** - the lifetime is approximately 2.24 times the equivalent lifetime of the roller bearings given in the graph.

### ORDER CODES

GM1	150	1	H	-	D36	-	-	-
-----	-----	---	---	---	-----	---	---	---

### MOTOR CODE

1. **Nominal displacement** - See motor spec. table

2. **Shaft options:** 7 = Ext. 35-2-16 DIN 5480 (std)

1 = Ext. 28 UNI 221

9 = Int. 35-2-16 DIN 5480

3 = Int. 28 UNI 221

2 = Tapered Keyed

**SAE Flange**

8 = Parallel Keyed

**Shaft Options:**

58 = 11/4 Straight Keyed

68 = 11/2 Straight Keyed

37 = 11/4 14 Tooth Spline

38 = 11/4 Straight Keyed

48 = 11/2 Straight Keyed

3. **Bearings:**

No code = Ball Bearings

H = Roller Bearings

G = Spherical Roller Bearings

4. **Other options:**

HP = High pressure version  
only GM1 100, 150, 175

U = Without shaft seal

SV = Shaft seal protection

VY = Viton seals

I = Case press. relief valve 43psi

**DISTRIBUTOR CODE** See Page 46

5. **Distributor:** D36 standard

6. **Tachometer:** K = Predisposed for tachometer

J = Mechanical Tach. mount

JB2 = Mount for BEI encoder

E25 BA (type 6R)

JB4 = Mount for Hall Effect switch  
up to 200 pulses per rev.

### ASSEMBLY CODES

7. **Direction of shaft rotation:** standard motors are supplied with clockwise rotation (viewed from shaft end) with flow in port A, out port B.

No code = Clockwise rotation

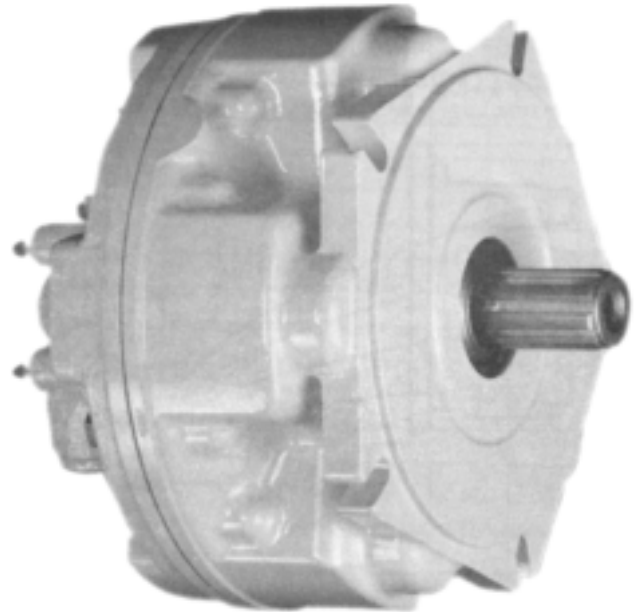
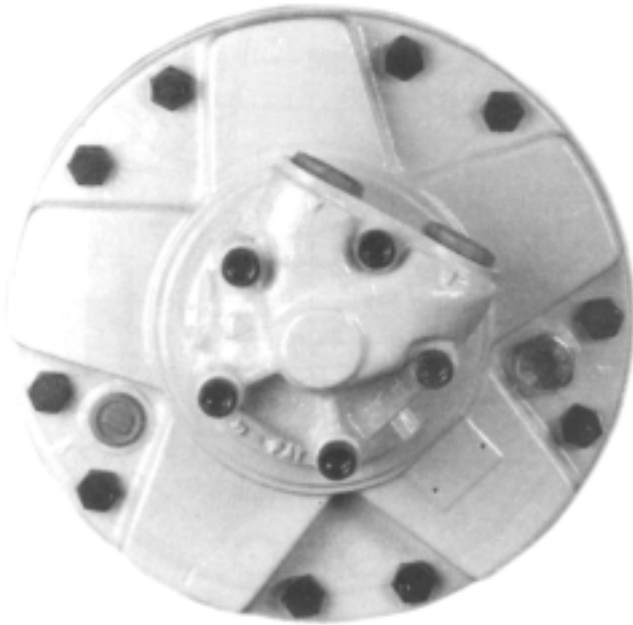
L = Counter-Clockwise rotation

8. **Distributor cover position:** See Page 7

No code = Position DM1

DM ~ = Other position

# GM2



<b>GM2</b>		<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>420</b>	<b>500</b>	<b>600</b>
Displacement	<i>in<sup>3</sup>/rev</i>	11.72	15.32	18.55	21.18	25.94	30.08	34.47
Specific torque	<i>lb.ft/100psi</i>	15.55	20.33	24.62	28.11	34.42	39.92	45.74
Cont. pressure <sup>1)</sup>	<i>psi</i>	3550	3550	3550	3550	3550	3550	3550
Peak pressure	<i>psi</i>	6400	6000	5700	5700	5500	5500	5000
Peak pressure <sup>2)</sup>	<i>psi</i>	8550	7800	7000	7000	-	-	-
Max. speed <sup>3)</sup>	<i>rpm</i>	1000	1000	900	900	850	850	800
Peak power	<i>HP</i>	95	95	95	95	95	95	95

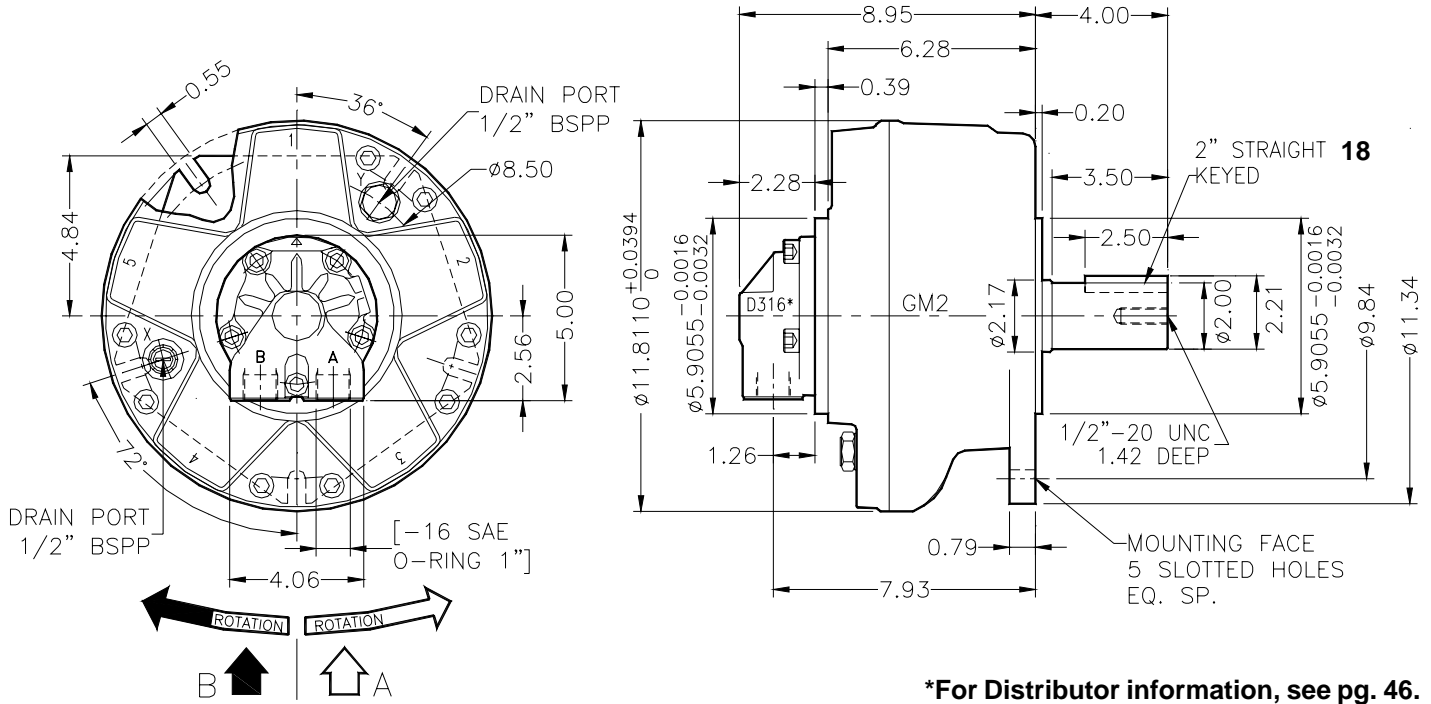
Approximate weight: 104 lbs

Motor casing oil capacity: 122 in<sup>3</sup>

Max. casing pressure: 14 psi continuous  
70 psi peak

- 1) Continuous or average working pressure should be chosen in function of the bearing lifetime.
- 2) High pressure version (HP).
- 3) Speed limitation with optional low speed distributors: cont. 250 rpm, max 500 rpm (see distributors, page 46).

## DIMENSIONS



## SHAFT OPTIONS

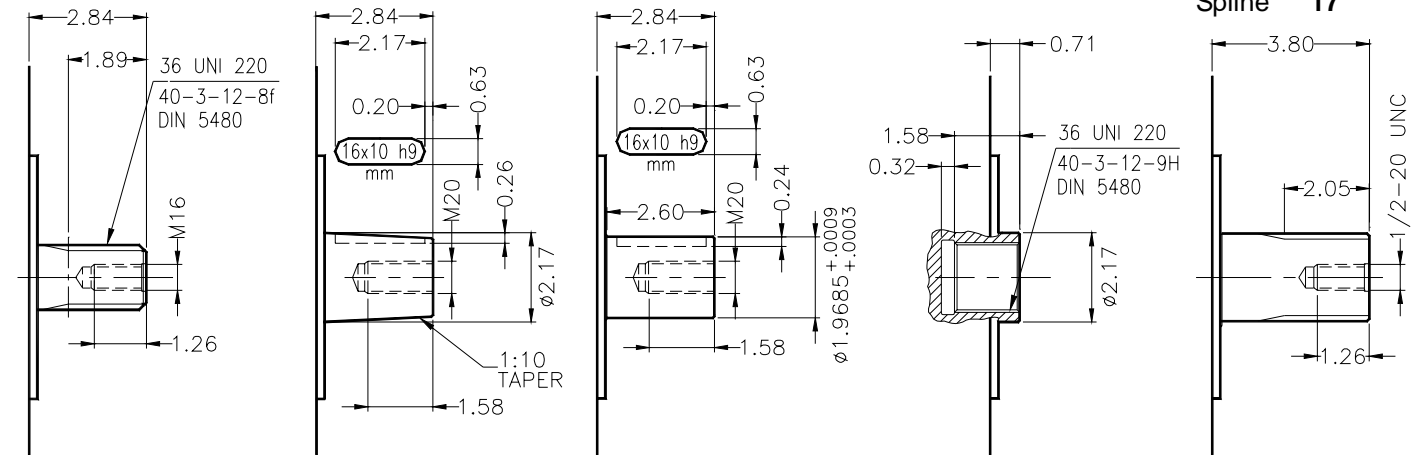
Splined DIN 5480 **7**  
UNI 220 **1**

Tapered **2**

Parallel Keyed **8**

Internal DIN 5480 **9**  
Spline UNI 220 **3**

Flat Root Side Fit  
16 Tooth 8/16 Pitch  
Spline **17**

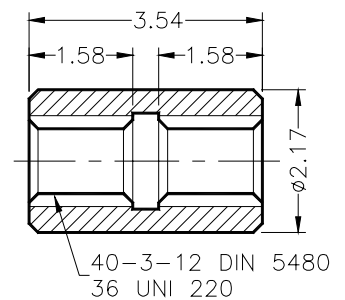


## SPLINE DATA (dimensions in mm [1 in = 25.4 mm])

40-3-12 DIN 5480	
	<b>d0</b> Ø36.0
	<b>d1</b> Ø40.0 $+0.620$ H14
	<b>d2</b> Ø34.0 $+0.160$ H11
	<b>A</b> Ø5.25
	<b>da</b> Ø28.96 $+0.130$ H11
	<b>d3</b> Ø39.4 $-0.160$ h11
	<b>d4</b> Ø33.4 $-0.620$ h14
	<b>B</b> Ø6.0
	<b>db</b> Ø45.989 $-0.025$ f 8

36 UNI 220 (DIN 5462)	
	<b>d1</b> Ø36.0 $+0.025$ H7
	<b>d2</b> Ø40.0 $+0.160$ H11
	<b>A</b> 7.0 $+0.028$ F7
	<b>d3</b> Ø36.0 $-0.009$ g6
	<b>d4</b> Ø40.0 $-0.080$ d11
	<b>B</b> 7.0 $-0.013$ f 7

## ADAPTOR



## ORDER CODES

GM2	300	1	H	-	D316	-	-	-
-----	-----	---	---	---	------	---	---	---

### MOTOR CODE

**1. Nominal displacement** - See motor spec. table

**2. Shaft options:** 7 = Ext. 40-3-12 DIN 5480 (std)  
 1 = Ext. 36 UNI 220  
 9 = Int. 40-3-12 DIN 5480  
 3 = Int. 36 UNI 220  
 2 = Tapered Keyed  
 8 = Parallel Keyed  
 18 = 2" Straight Keyed

**3. Bearings:**

No code = Ball Bearings  
 H = Roller Bearings  
 G = Spherical Roller Bearings

**4. Other options:**

HP = High pressure version  
 only 200, 250, 300, 350  
 U = Without shaft seal  
 SV = Shaft seal protection  
 VY = Viton seals  
 I = Case press. relief valve  
 43psi

**DISTRIBUTOR CODE** See page 46

**5. Distributor:** D316 standard

**6. Tachometer:** K = Predisposed for tachometer  
 J = Mechanical Tach. mount  
 JB2 = Mount for BEI encoder  
 E25 BA (type 6R)  
 JB4 = Mount for Hall Effect  
 switch up to 200 pulses  
 per rev.

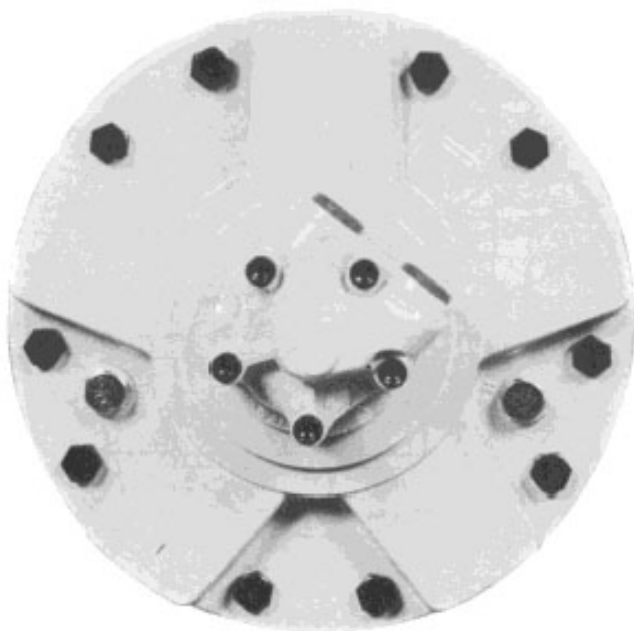
### ASSEMBLY CODES

**7. Direction of shaft rotation:** standard motors  
 are supplied with clockwise rotation (viewed from  
 shaft end) with flow in port A, out port B.  
 No Code = Clockwise rotation  
 L = Counter-Clockwise rotation

**8. Distributor cover position:** See Page 7  
 No code = Position DM1  
 DM~ = Other position



# GM3/GM3A



<b>GM3/GM3A</b>		<b>350</b>	<b>425</b>	<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>900*</b>	<b>1000*</b>
Displacement	<i>in<sup>3</sup>/rev</i>	21.48	26.00	29.66	36.31	42.12	48.33	53.27	60.23
Specific torque	<i>lb.ft/100psi</i>	28.50	34.50	39.36	48.18	55.89	64.13	70.69	79.92
Cont. pressure <sup>1)</sup>	<i>psi</i>	3550	3550	3550	3550	3550	3550	3550	3550
Peak pressure	<i>psi</i>	6400	6000	6000	5700	5500	5500	5000	5000
Peak pressure <sup>2)</sup>	<i>psi</i>	8500	8500	8500	7000	-	-	-	-
Max. speed <sup>3)</sup>	<i>rpm</i>	800	750	700	675	625	600	550	500
Peak power	<i>HP</i>	120	120	120	120	120	120	120	120

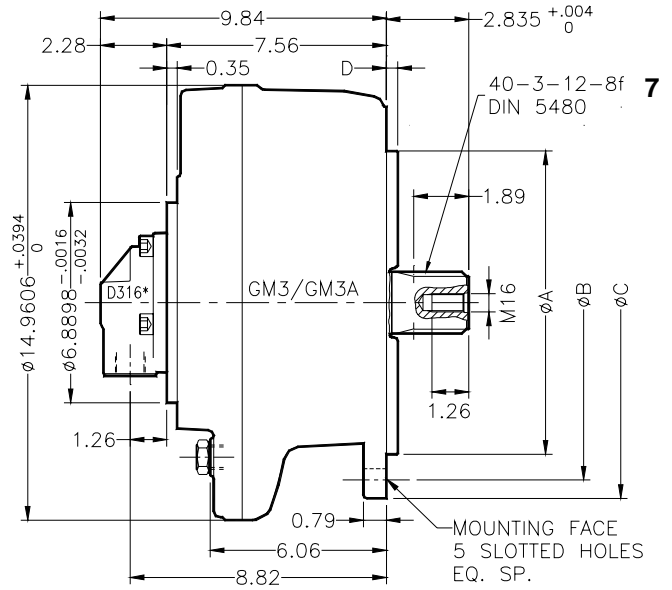
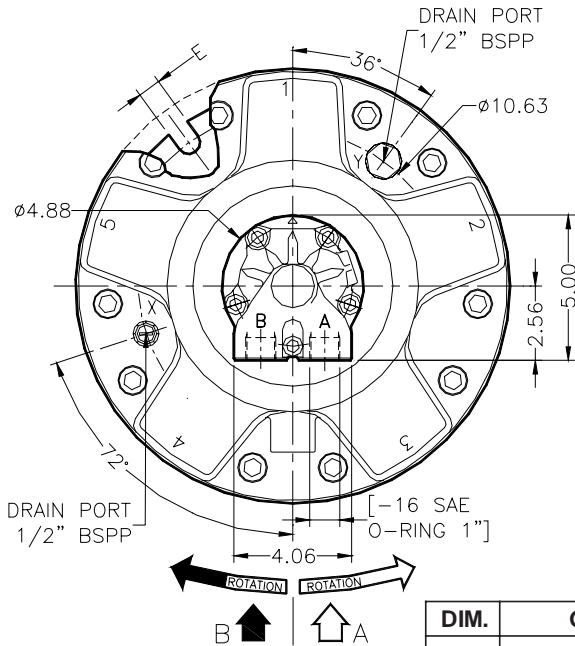
\* not available for GM3A

Approximate weight: 143 lbs  
 Motor casing oil capacity: 275 in<sup>3</sup>  
 Max. casing pressure: 14 psi continuous  
 70 psi peak

- 1) Continuous or average working pressure should be chosen in function of the bearing lifetime.
- 2) High pressure version (HP).
- 3) Speed limitation with optional low speed distributors: cont. 250 rpm, max 500 rpm (see distributors, page 46).

# GM3/GM3A

## DIMENSIONS

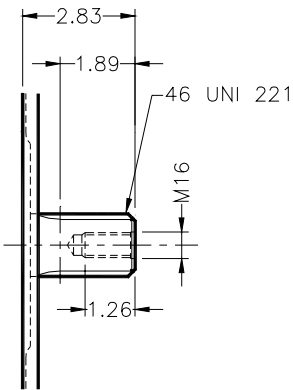


DIM.	GM3	GM3A**
A	10.4331 -0.0025 -0.0045	5.9055 -0.0016 -0.0032
B	12.205	7.677
C	13.465	9.843
D	0.39	0.20
E	0.79	0.55

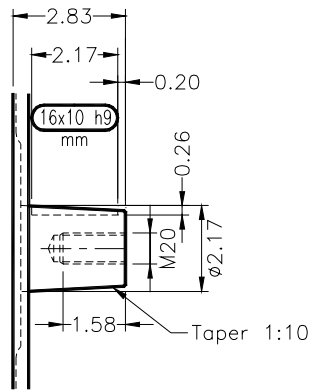
\*For Distributor information, see pg. 46.  
\*\*GM3A is a dimensional interchange to the M3

## SHAFT OPTIONS

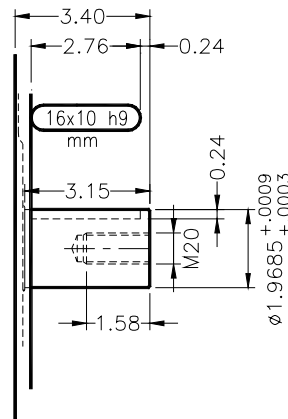
Splined DIN 5480 7  
UNI 221 1



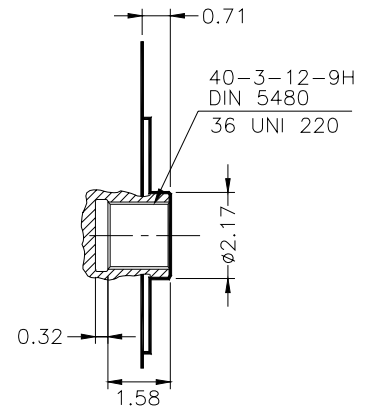
Tapered 2



Parallel Keyed 8



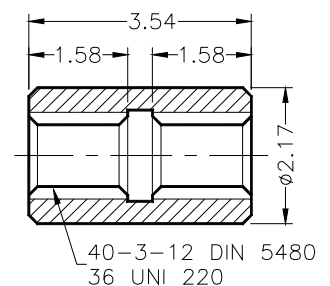
Internal DIN 5480 9  
Spline UNI 220 3



## SPLINE DATA (dimensions in mm [1 in = 25.4 mm])

40-3-12 DIN 5480		46 UNI 221 (8-46-54 DIN 5463)	
	d0		d1
	Ø36.0		Ø46.0 +0.025 +0 H7
	d1		d2
	Ø40.0 +0.620 +0 H14		Ø54.0 +0.190 +0 H11
	d2		A
	Ø34.0 +0.160 +0 H11		9.0 +0.028 +0.013 F7
	A		d3
	Ø5.25		Ø46.0 -0.009 -0.025 g6
	da		d4
	Ø28.96 +0.130 +0 H11		Ø54.0 -0.100 -0.290 d11
	d3		B
	Ø39.4 -0 -0.160 h11		9.0 -0.013 -0.028 f7
	d4		
	Ø33.4 -0 -0.620 h14		
	B		
	Ø6.0		
	db		
	Ø45.989 -0.025 -0.064 f8		

## ADAPTOR



**ORDER CODES**

GM3	500	1	-	-	D316	-	-	-
-----	-----	---	---	---	------	---	---	---

**MOTOR CODE**

**1. Nominal displacement** - See motor spec. table

**2. Shaft options:**

- 7 = Ext. 40-3-12 DIN 5480 (std)
- 1 = Ext. 46 UNI 221
- 9 = Int. 40-3-12 DIN 5480
- 3 = Int. 36 UNI 220
- 2 = Tapered Keyed
- 8 = Parallel Keyed

**3. Bearings:**

- E = Roller bearings
- G = Spherical roller bearings

**4. Other options:**

- HP = High pressure version  
only 350, 425, 500, 600
- U = Without shaft seal
- SV = Shaft seal protection
- VY = Viton seals
- I = Case press. relief valve 43psi

**DISTRIBUTOR CODE** See Page 46

**5. Distributor:** D316 standard

**6. Tachometer:**

- K = Predisposed for tachometer
- J = Mechanical Tach. mount
- JB2 = Mount for BEI encoder  
E25 BA (type 6R)
- JB4 = Mount for Hall Effect switch  
up to 200 pulses per rev.

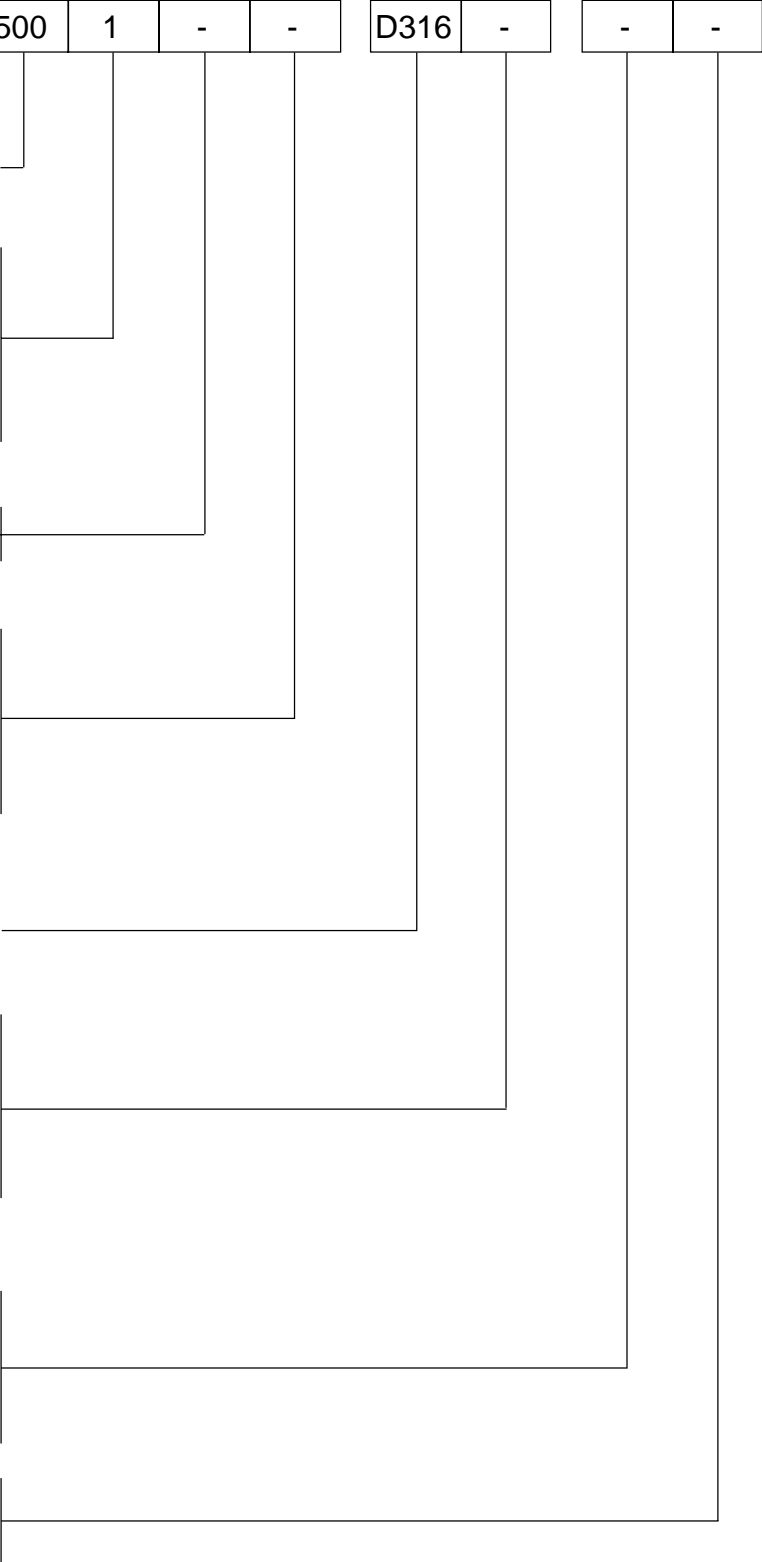
**ASSEMBLY CODES**

**7. Direction of shaft rotation:** standard motors are supplied with clockwise rotation (viewed from shaft end) with flow in port A, out port B.

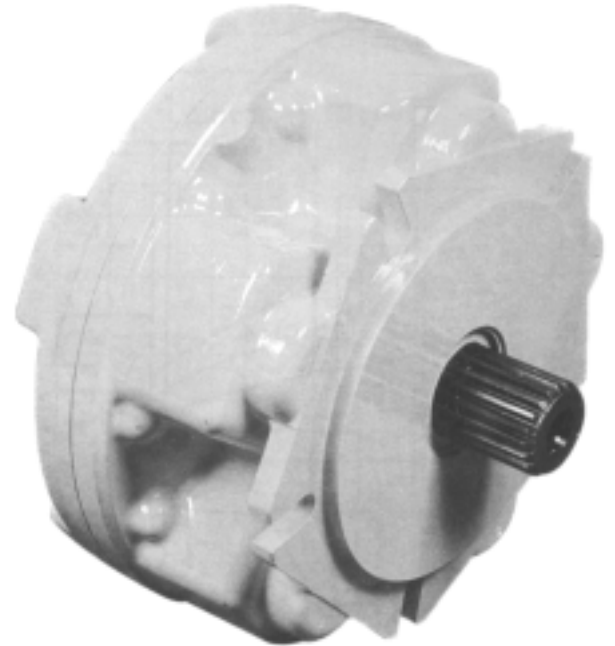
- No code = Clockwise rotation
- L = Counter-Clockwise rotation

**8. Distributor cover position:** See Page 7

- No code = Position DM1
- DM~ = Other position



# GM4



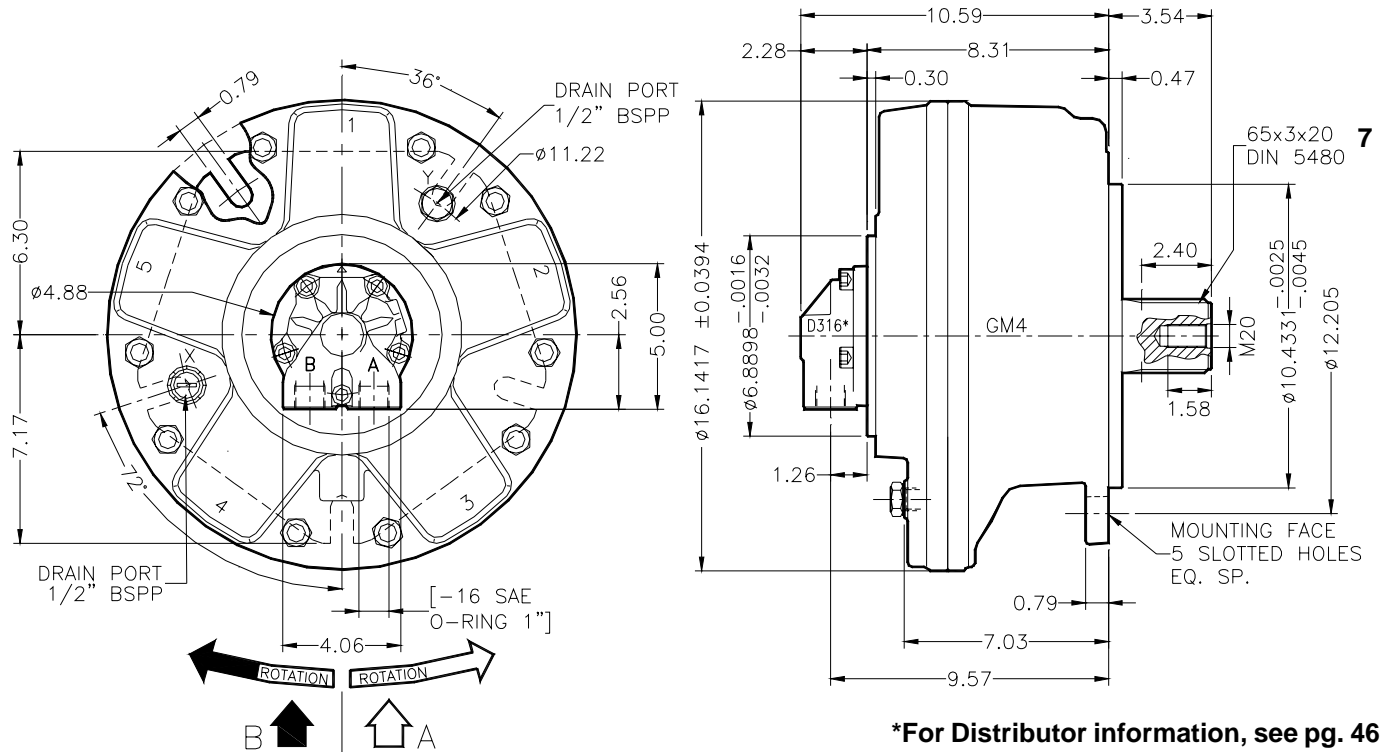
<b>GM4</b>		<b>400</b>	<b>500</b>	<b>600</b>	<b>800</b>	<b>900</b>	<b>1000</b>	<b>1100</b>	<b>1250*</b>	<b>1300*</b>
Displacement	<i>in<sup>3</sup>/rev</i>	24.53	30.70	37.59	48.39	55.17	62.37	68.10	76.10	80.31
Specific torque	<i>lb.ft/100psi</i>	32.55	40.74	49.88	64.21	73.21	82.76	90.36	100.98	106.57
Cont. pressure <sup>1)</sup>	<i>psi</i>	3550	3550	3550	3550	3550	3550	3550	3550	3550
Peak pressure	<i>psi</i>	6400	6400	6000	5700	5700	5500	5500	5000	5000
Peak press. <sup>2)</sup>	<i>psi</i>	8500	8500	8500	7000	7000	-	-	-	-
Max. speed <sup>3)</sup>	<i>rpm</i>	700	650	625	550	500	450	425	400	375
Peak power	<i>HP</i>	150	150	150	150	150	150	150	150	150

\* Motor has limited working pressure. Please contact SAI for specifications.

Approximate weight: 220 lbs  
 Motor casing oil capacity: 1.7 gallons  
 Max. casing pressure: 14 psi continuous  
 70 psi peak

- 1) Continuous or average working pressure should be chosen in function of the bearing lifetime.
- 2) High pressure version (HP).
- 3) Speed limitation with optional low speed distributors: cont. 250 rpm, max 500 rpm (see distributors, page 46).

## DIMENSIONS



\*For Distributor information, see pg. 46.

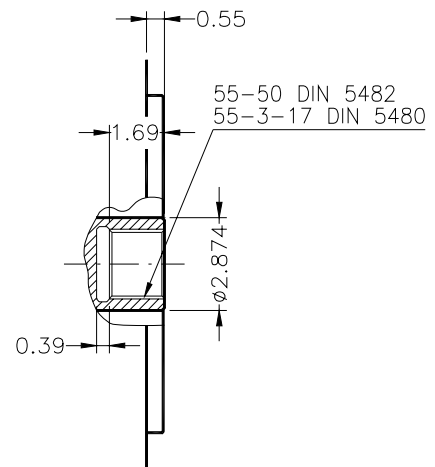
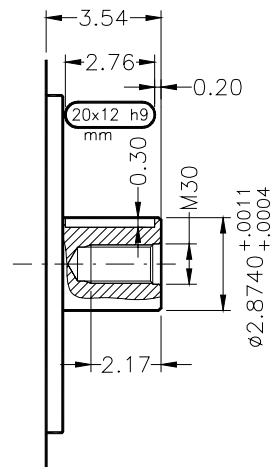
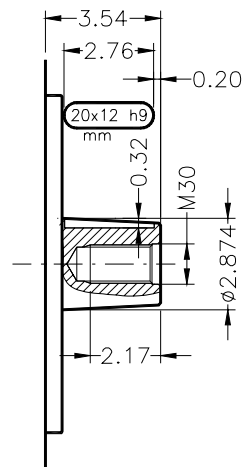
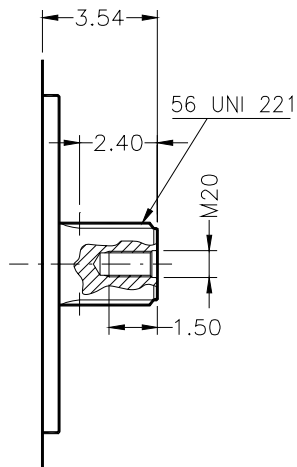
## SHAFT OPTIONS

Splined DIN 5480 **7**  
UNI 220 **1**

Tapered **2**

Parallel Keyed **8**

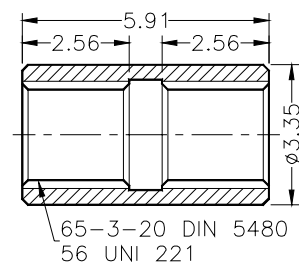
Internal DIN 5480 **9**  
Spline DIN 5482 **3**



## SPLINE DATA (dimensions in mm [1 in = 25.4 mm])

DIN	65-3-20 DIN 5480	55-2-26 DIN 5482	55-3-17 DIN 5480	56 UNI 221
	<b>d0</b> $\phi 60.0$	$\phi 52.0$	$\phi 51.0$	<b>d1</b> $\phi 56.0^{+0.030}_{+0}$ H7
	<b>d1</b> $\phi 65.0^{+0.740}_{+0}$ H14	$\phi 55.0^{+0.300}_{+0}$ H12	$\phi 55.0^{+0.740}_{+0}$ H14	<b>d2</b> $\phi 65.0^{+0.190}_{+0}$ H11
	<b>d2</b> $\phi 59.0^{+0.190}_{+0}$ H11	$\phi 50.0^{+0.160}_{+0}$ H11	$\phi 49.0^{+0.160}_{+0}$ H11	<b>A</b> $10.0^{+0.028}_{+0.013}$ F7
	<b>A</b> $\phi 5.25$	$\phi 3.5$	$\phi 5.25$	<b>d3</b> $\phi 56.0^{-0.010}_{-0.029}$ g6
	<b>da</b> $\phi 54.101^{+0.190}_{+0}$ H11	$\phi 46.902^{+0.100}_{+0}$ H10	$\phi 43.807^{+0.160}_{+0}$ H11	<b>d4</b> $\phi 65.0^{-0.100}_{-0.290}$ d11
	<b>d3</b> $\phi 64.4^{-0}_{-0.190}$ h11	$\phi 54.5^{-0}_{-0.190}$ h11	$\phi 54.4^{-0}_{-0.190}$ h11	<b>B</b> $10.0^{-0.013}_{-0.028}$ f7
	<b>d4</b> $\phi 58.4^{-0}_{-0.740}$ h14	$\phi 49.0^{-0}_{-0.300}$ h12	$\phi 48.4^{-0}_{-0.620}$ h14	
	<b>B</b> $\phi 6.0$	$\phi 3.5$	$\phi 6.0$	
	<b>db</b> $\phi 70.999^{-0.030}_{-0.076}$ f8	$\phi 56.953^{-0.060}_{-0.134}$ e9	$\phi 60.873^{-0.030}_{-0.076}$ f8	
UNI				

## ADAPTOR



## ORDER CODES

GM4	800	1	-	-	D316	-	-	-
-----	-----	---	---	---	------	---	---	---

### MOTOR CODE

1. **Nominal displacement** - See motor spec. table

2. **Shaft options:**

- 7 = Ext. 65-3-20 DIN 5480
- 1 = Ext. 56 UNI 221
- 9 = Int. 55-3-17 DIN 5480
- 3 = Int. A 55-50 DIN 5482
- 2 = Tapered Keyed
- 8 = Parallel Keyed

3. **Bearings:**

- No code = Roller bearings
- G = Spherical roller bearings

4. **Other options:**

- HP = High pressure version  
only 400, 500, 600, 800, 900
- U = Without shaft seal
- SV = Shaft seal protection
- VY = Viton seals
- I = Case press. relief valve 43psi

**DISTRIBUTOR CODE** See Page 46

5. **Distributor:** D316 standard

6. **Tachometer:** K = Predisposed for tachometer  
J = Mechanical Tach. mount  
JB2 = Mount for BEI encoder  
E25 BA (type 6R)  
JB4 = Mount for Hall Effect switch  
up to 200 pulses per rev.

### ASSEMBLY CODES

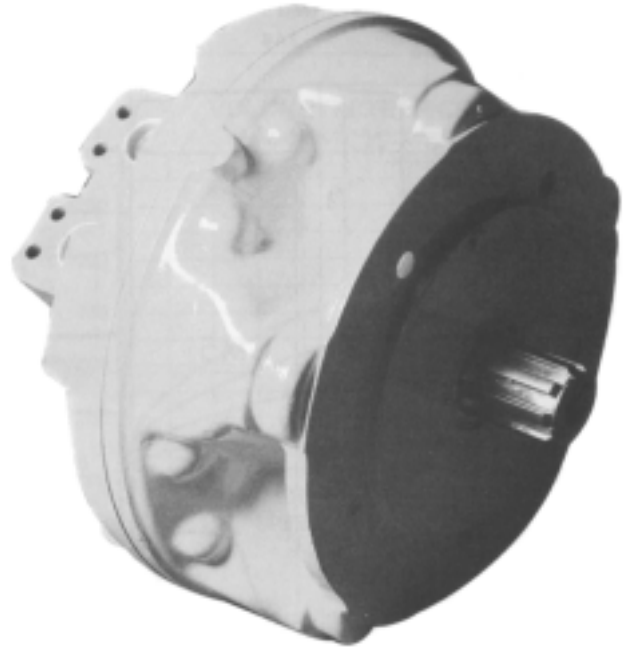
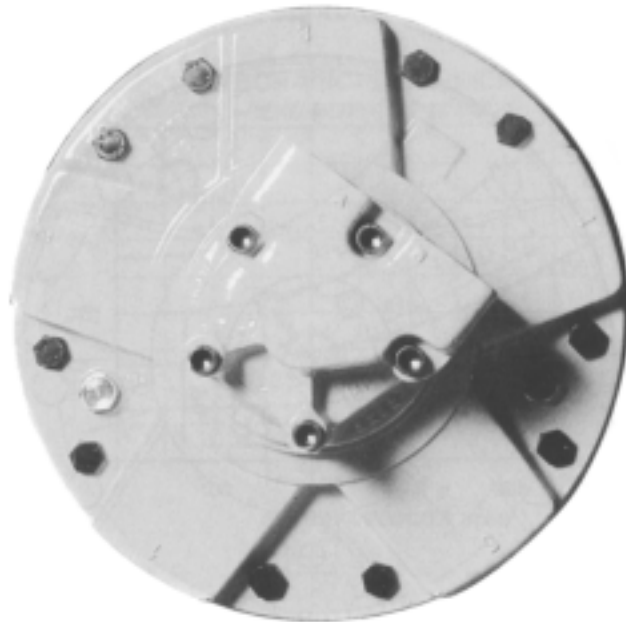
7. **Direction of shaft rotation:** standard motors  
are supplied with clockwise rotation  
(viewed from shaft end) with flow in port A, out  
port B.

- No code = Clockwise rotation
- L = Counter-Clockwise rotation

8. **Distributor cover position:** See Page 7

- No code = Position DM1
- DM~ = Other position

# GM5A



<b>GM5A</b>		<b>525</b>	<b>650</b>	<b>800</b>	<b>1000</b>	<b>1200</b>	<b>1300</b>	<b>1450</b>	<b>1600</b>	<b>1800</b>	<b>2000</b>
Displacement	<i>in<sup>3</sup>/rev</i>	32.10	40.21	49.25	63.40	72.31	81.77	89.22	99.71	110.80	122.50
Specific torque	<i>lb.ft/100psi</i>	42.60	53.36	65.35	84.13	95.95	108.51	118.39	132.31	147.03	162.55
Cont. pressure <sup>1)</sup>	<i>psi</i>	3550	3550	3550	3550	3550	3550	3550	3550	3550	3550
Peak pressure	<i>psi</i>	6400	6400	6000	6000	5700	5700	5500	5500	5000	5000
Peak press. <sup>2)</sup>	<i>psi</i>	8500	8500	7000	7000	7000	7000	-	-	-	-
Max. speed <sup>3)</sup>	<i>rpm</i>	700	650	625	550	500	450	425	400	375	325
Peak power	<i>HP</i>	190	190	190	190	190	190	190	190	190	190

Approximate weight: 286 lbs  
 Motor casing oil capacity: 2.6 gallons  
 Max. casing pressure: 14 psi continuous  
 70 psi peak

- 1) Continuous or average working pressure should be chosen in function of the bearing lifetime.
- 2) High pressure version (HP).
- 3) Speed limitation with optional low speed distributors: cont. 250 rpm, max 500 rpm (see distributors, page 46).

## BEARING OPTIONS

For longer lifetimes, contact our technical department.

Roller bearings (standard) - recommended for most applications. The lifetime is given in the bearing lifetime graph.

Spherical roller bearings (option G) - the lifetime is approximately 0.91 times the equivalent lifetime of the standard bearings.

### ORDER CODES

GM5A	1000	1	-	-	D40	-	-	-
------	------	---	---	---	-----	---	---	---

### MOTOR CODE

1. **Nominal displacement** - See motor spec. table

2. **Shaft options:**

- 7 = Ext. 65-3-20 DIN 5480 (std)
- 1 = Ext. 56 UNI 221
- 9 = Int. 55-3-17 DIN 5480
- 3 = Int. 55-50 DIN 5482
- 2 = Tapered Keyed
- 8 = Parallel Keyed

3. **Bearings:**

- No code = Roller bearings
- G = Spherical roller bearings

4. **Other options:**

- HP = High pressure version  
only 525, 650, 800,  
1000, 1200, 1300
- U = Without shaft seal
- SV = Shaft seal protection
- VY = Viton seals
- I = Case press. relief valve 43psi

DISTRIBUTOR CODE See Page 46

5. **Distributor:** D316 standard

6. **Tachometer:** K = Predisposed for tachometer  
J = Mechanical Tach. mount  
JB2 = Mount for BEI encoder  
E25 BA (type 6R)  
JB4 = Mount for Hall Effect switch  
up to 200 pulses per rev.

### ASSEMBLY CODES

7. **Direction of shaft rotation:** standard motors are supplied with clockwise rotation (viewed from shaft end) with flow in port A, out port B.

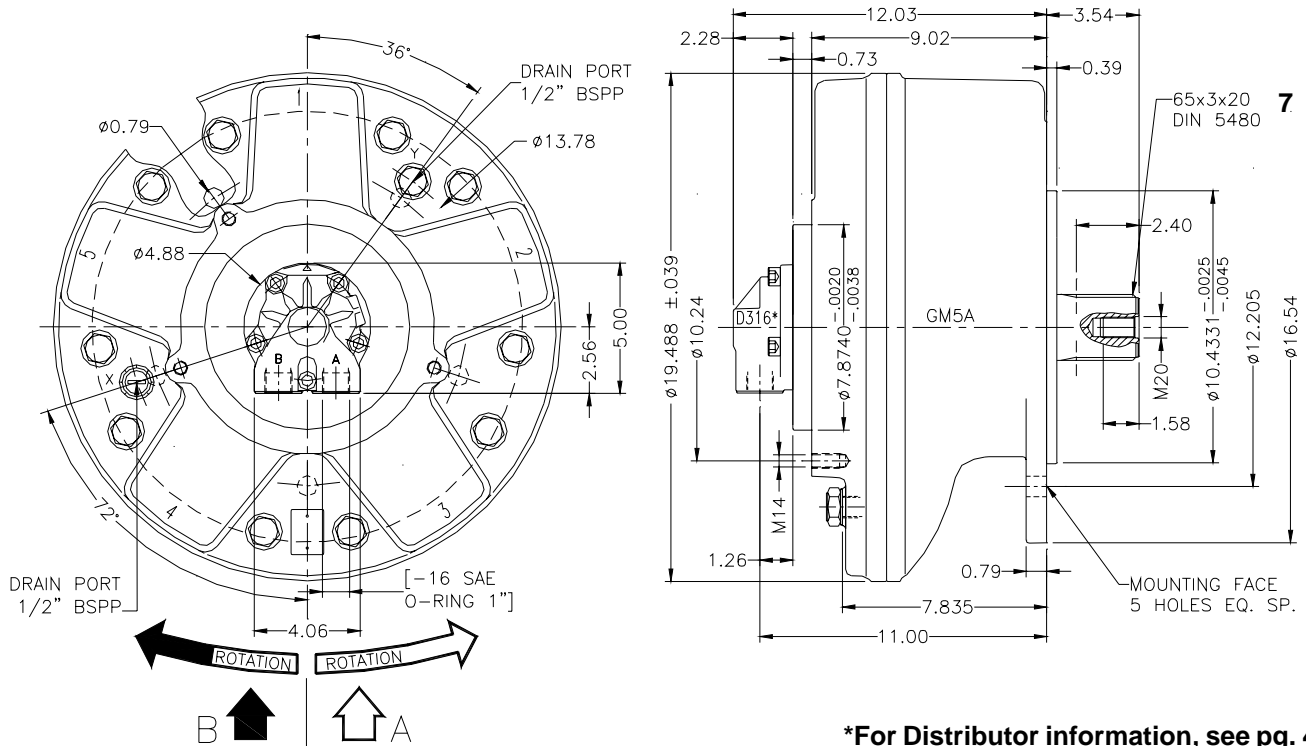
- No code = Clockwise rotation
- L = Counter-Clockwise rotation

8. **Distributor cover position:** See Page 7

- No code = Position DM1
- DM~ = Other position



## DIMENSIONS



\*For Distributor information, see pg. 46.

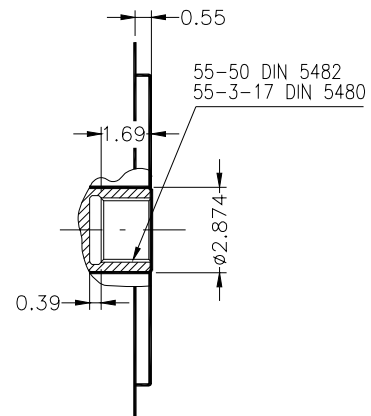
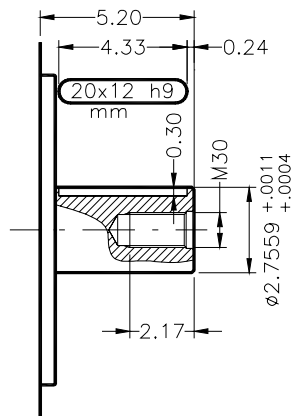
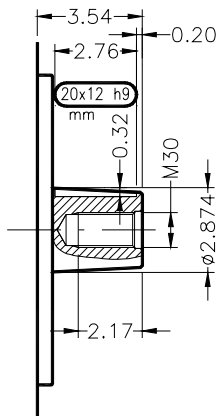
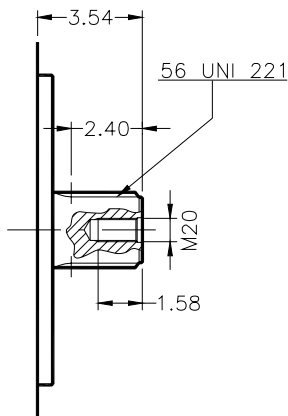
## SHAFT OPTIONS

Splined DIN 5480 7  
UNI 220 1

Tapered 2

Parallel Keyed 8

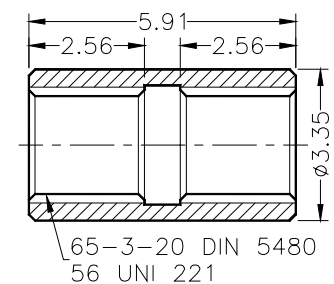
Internal DIN 5480 9  
Spline DIN 5482 3



## SPLINE DATA (dimensions in mm [1 in = 25.4 mm])

DIN	65-3-20 DIN 5480	55-2-26 DIN 5482	55-3-17 DIN 5480	56 UNI 221
	<b>d0</b> Ø60.0	Ø52.0	Ø51.0	<b>d1</b> Ø56.0 <sup>+0.030</sup> / <sub>+0</sub> H7
	<b>d1</b> Ø65.0 <sup>+0.740</sup> / <sub>+0</sub> H14	Ø55.0 <sup>+0.300</sup> / <sub>+0</sub> H12	Ø55.0 <sup>+0.740</sup> / <sub>+0</sub> H14	<b>d2</b> Ø65.0 <sup>+0.190</sup> / <sub>+0</sub> H11
	<b>d2</b> Ø59.0 <sup>+0.190</sup> / <sub>+0</sub> H11	Ø50.0 <sup>+0.160</sup> / <sub>+0</sub> H11	Ø49.0 <sup>+0.160</sup> / <sub>+0</sub> H11	<b>A</b> 10.0 <sup>+0.028</sup> / <sub>+0.013</sub> F7
	<b>A</b> Ø5.25	Ø3.5	Ø5.25	<b>d3</b> Ø56.0 <sup>-0.010</sup> / <sub>-0.029</sub> g6
	<b>da</b> Ø54.101 <sup>+0.190</sup> / <sub>+0</sub> H11	Ø46.902 <sup>+0.100</sup> / <sub>+0</sub> H10	Ø43.807 <sup>+0.160</sup> / <sub>+0</sub> H11	<b>d4</b> Ø65.0 <sup>-0.100</sup> / <sub>-0.290</sub> d11
	<b>d3</b> Ø64.4 <sup>-0</sup> / <sub>-0.190</sub> h11	Ø54.5 <sup>-0</sup> / <sub>-0.190</sub> h11	Ø54.4 <sup>-0</sup> / <sub>-0.190</sub> h11	<b>B</b> 10.0 <sup>-0.013</sup> / <sub>-0.028</sub> f7
	<b>d4</b> Ø58.4 <sup>-0</sup> / <sub>-0.740</sub> h14	Ø49.0 <sup>-0</sup> / <sub>-0.300</sub> h12	Ø48.4 <sup>-0</sup> / <sub>-0.620</sub> h14	
	<b>B</b> Ø6.0	Ø3.5	Ø6.0	
	<b>db</b> Ø70.999 <sup>-0.030</sup> / <sub>-0.076</sub> f8	Ø56.953 <sup>-0.060</sup> / <sub>-0.134</sub> e9	Ø60.873 <sup>-0.030</sup> / <sub>-0.076</sub> f8	

## ADAPTOR



# Distributors

			D4.. HS	D3.. LS	D30 LS	D90 HS	D250 HS
Speed	<i>rpm</i>	cont. max.	1200 2400	300 500	300 500	700 1200	500 1000
Pressure	<i>psi</i>	cont. max.	3550 7100	3550 7100	2000 4000	3550 7100	3550 7100
Flow	<i>gal(US)/min</i>	cont. max.	53 106	53 106	53 106	132 264	264 528

	PORTS	HS/LS	DESCRIPTION
<b>D30A</b>	3/4" BSP (A)	LS	Short distributor
<b>D31A</b>	3/4" BSP (R)	LS	
<b>D36A</b>	3/4" SAE (R)	LS	<b>Standard</b> for GM05, GM1 series
<b>D310A</b>	1" BSP (R)	LS	
<b>D316A</b>	1" SAE (R)	LS	<b>Standard</b> for GM2, GM3, GM3A, GM4, GM5A series
<b>D311A</b>	1" BSP (R)	LS	With purge valve 5.3 gal/min at 285 psi
<b>D317A</b>	1" SAE (R)	LS	With purge valve 5.3 gal/min at 285 psi
<b>D312A</b>	3/4" BSP (R)	LS	With purge valve 5.3 gal/min at 285 psi
<b>D313A</b>	1" BSP (R)	LS	With shuttle valve
<b>D314A</b>	1" SAE (R)	LS	With anti-cavitation valve
<b>D315A</b>	3/4" BSP (R)	LS	With shuttle valve
<b>D37A</b>	1" SAE 3000 psi (R)	LS	
<b>D40A</b>	1" BSP (R)	HS	For applications that require high speed & back pressure
<b>D416A</b>	1" SAE (R)	HS	For applications that require high speed & back pressure
<b>D47A</b>	1" SAE 3000 psi (R)	HS	
<b>D48A</b>	1" BSP (R)	HS	With double pressure relief valves, 6000 psi, 40 gal/min
<b>D481A</b>	1" BSP (R)	HS	As D48, with purge valve 5.3 gal/min at 285 psi
<b>D49A</b>	1" BSP (R)	HS	With double pressure relief valves, 3000 psi, 20 gal/min
<b>D491A</b>	1" BSP (R)	HS	As D49, with purge valve 5.3 gal/min at 285 psi
<b>D90A</b>	1.5" SAE 6000 psi (R)	HS	<b>Standard</b> for GM6 & L7 series
<b>D250A</b>	2" SAE 6000 psi (R)	HS	High capacity distributor

HS = high speed  
 LS = low speed  
 (A) = axial ports  
 (R) = radial ports

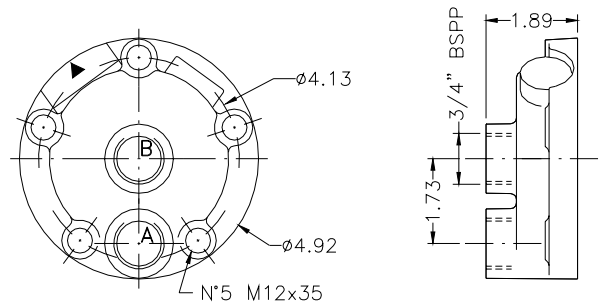
**Note:** D42 substituted by D312(HS)  
 D421 substituted by D313(HS)  
 D422 substituted by D314(HS)

# Distributors

## D30A

Light distributor with axial port connections.  
 NB: Cont. press. 2000 psi; peak pressure 4000 psi.

Weight: 5.5 lbs



## D31A

Distributor with 3/4" BSP ports.

## D36A

Distributor with -12 SAE O-Ring 3/4" ports.

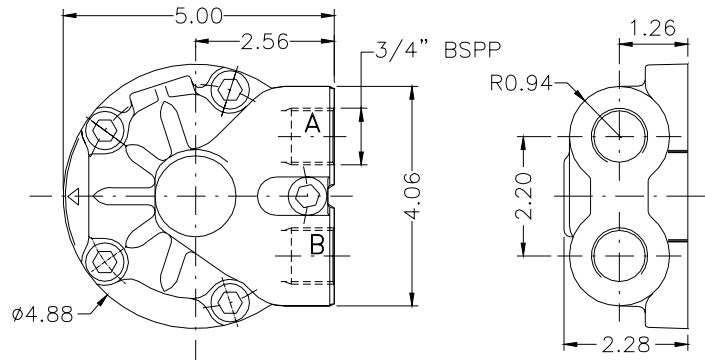
## D310A

Distributor with 1" BSP ports.

## D316A

Distributor with -16 SAE O-Ring 1" ports.

Weight: 8 lbs



## D311A

Distributor with low pressure purge valve. Max flow 5.3 gal/min at 285psi.

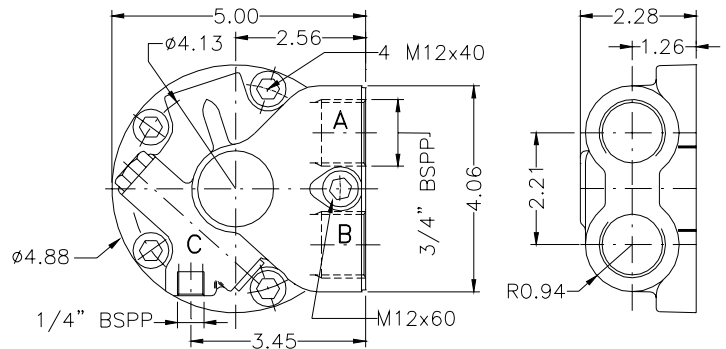
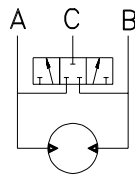
## D317A

Same as D311 but with -16 SAE O-Ring 1" ports.

## D312A

As D311, with -12 SAE O-Ring 3/4" ports.

Weight: 9.9 lbs



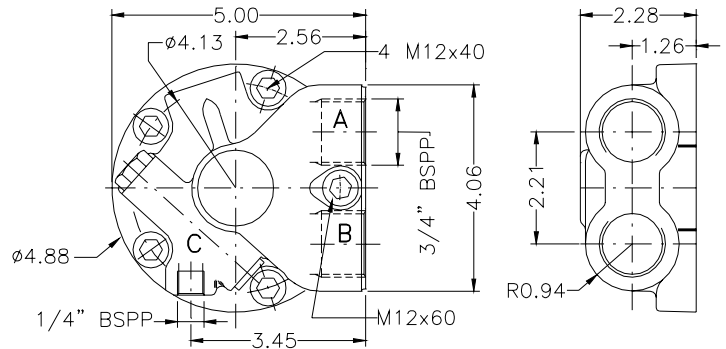
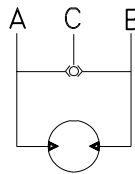
## D313A

Distributor with shuttle valve for high pressure pilot

## D315A

Same as D313 but with -16 SAE O-Ring 1" ports.

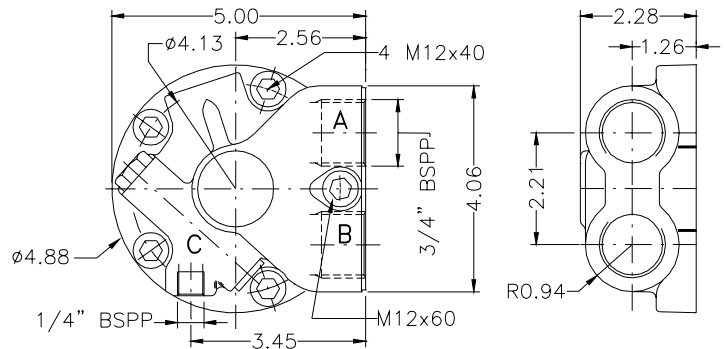
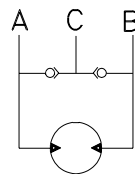
Weight: 9.9 lbs



## D314A

Distributor with anti-cavitation valve

Weight: 9.9 lbs

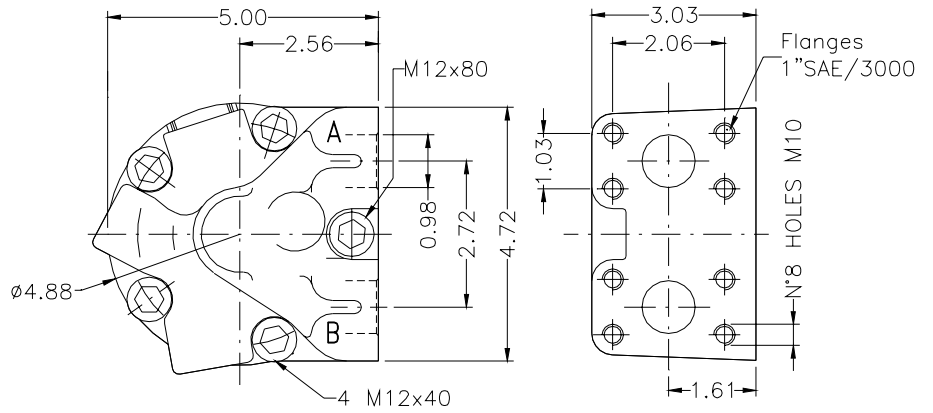


# Distributors

## D37A

Distributor with 1" SAE, 3000 psi flanges

Weight: 11 lbs



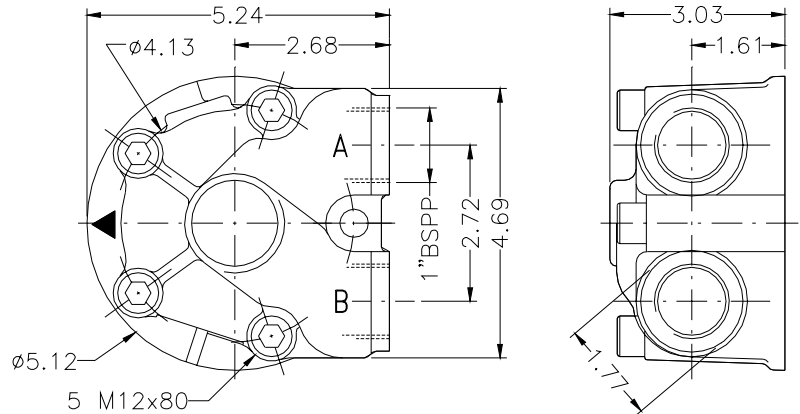
## D40A

Distributor with 1" BSP ports.

## D416A

Distributor with -16 SAE O-Ring 1" ports.

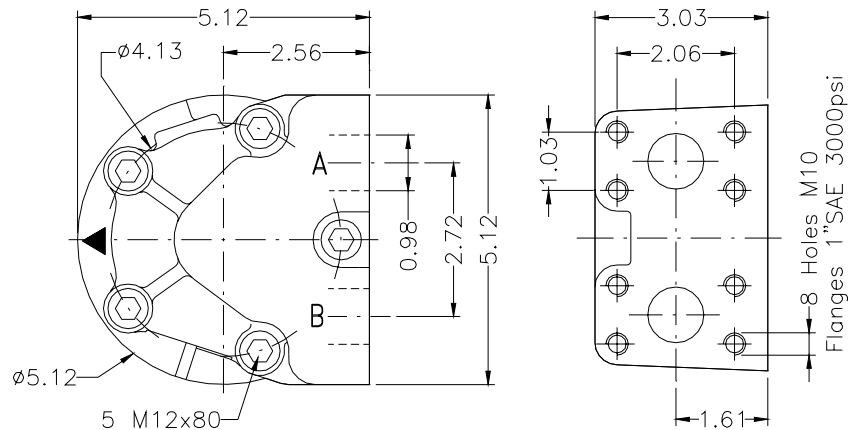
Weight: 11 lbs



## D47A

Distributor with 1" SAE, 3000 psi flanges

Weight: 13 lbs



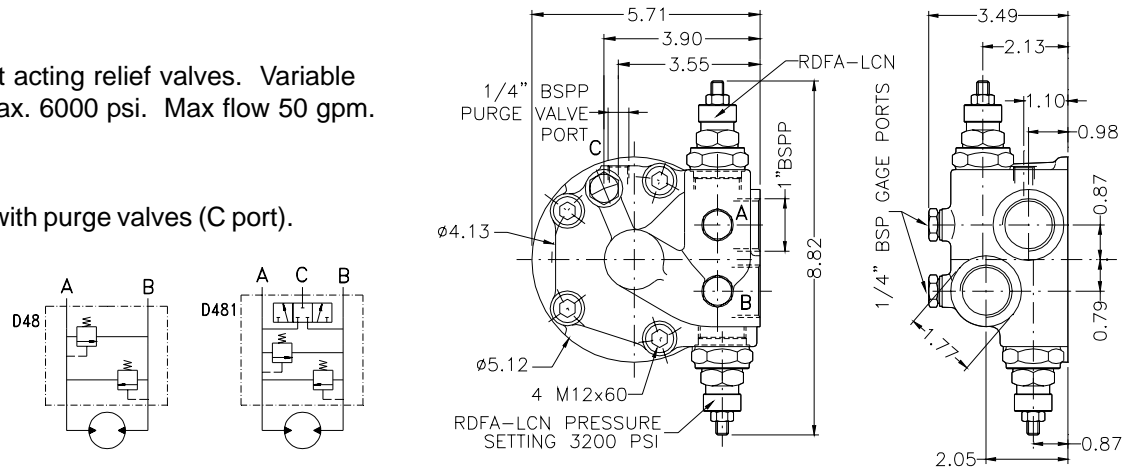
## D48A

Distributor with direct acting relief valves. Variable pressure settings, max. 6000 psi. Max flow 50 gpm.

## D481A

Same as D48A, but with purge valves (C port).

Weight: 13 lbs



# Distributors

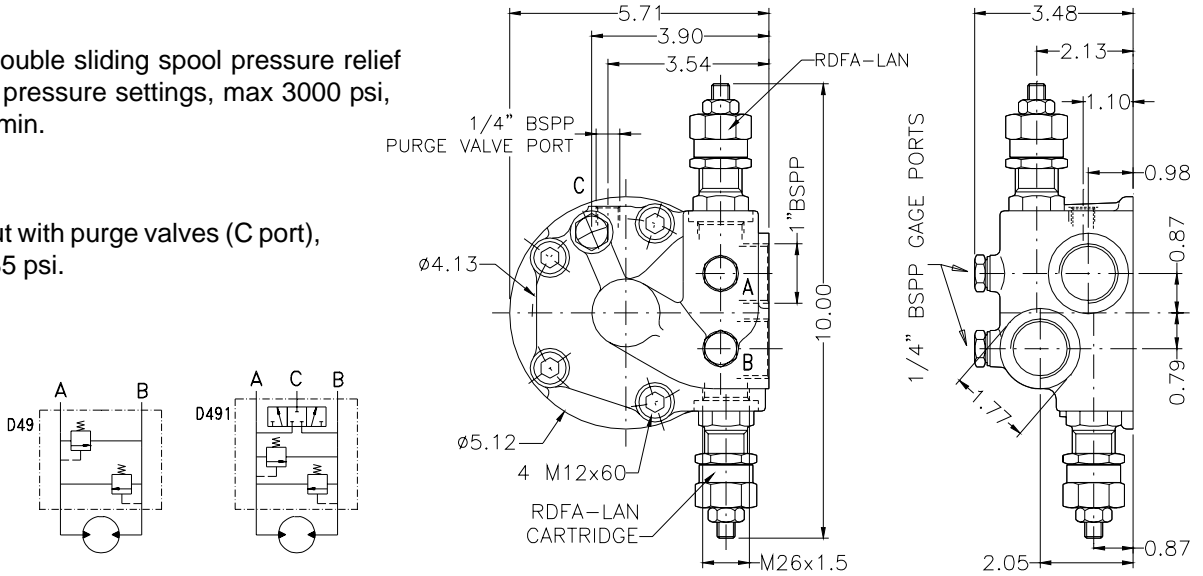
## D49A

Distributor with double sliding spool pressure relief valves. Variable pressure settings, max 3000 psi, max flow 20 gal/min.

## D491A

Same as D49, but with purge valves (C port), 5.3 gal/min. at 285 psi.

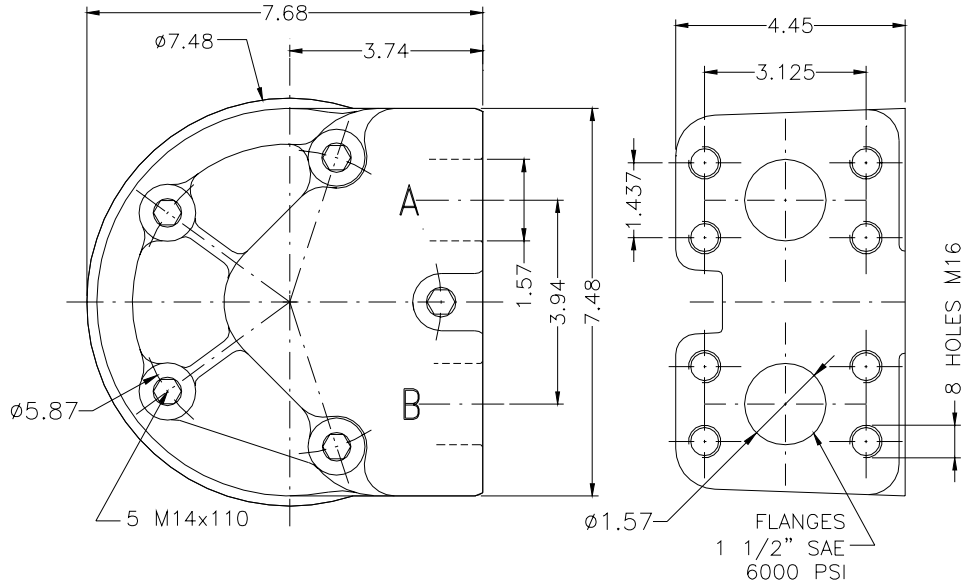
Weight: 13 lbs



## D90A

Standard distributor for GM6 Series Motors.

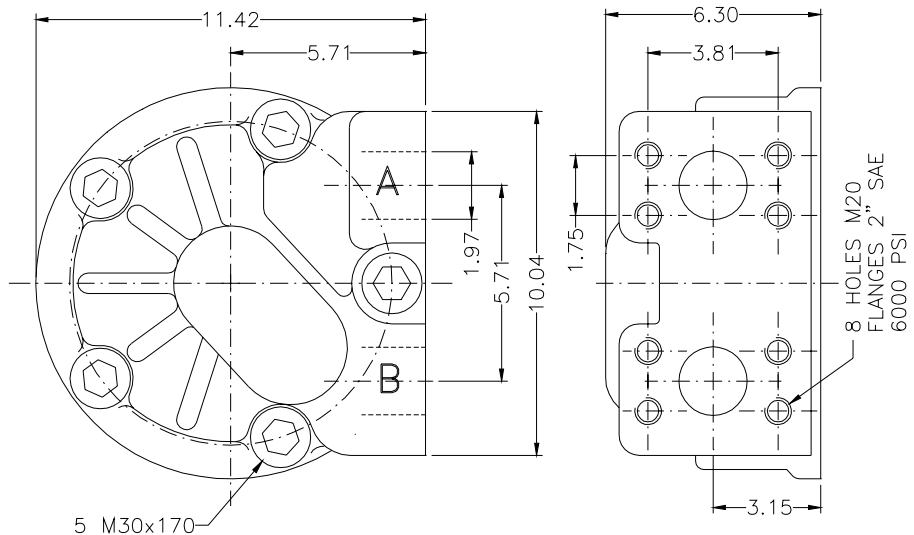
Weight: 32 lbs



## D250A

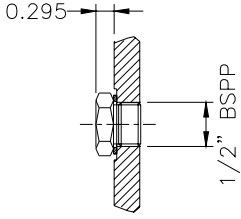
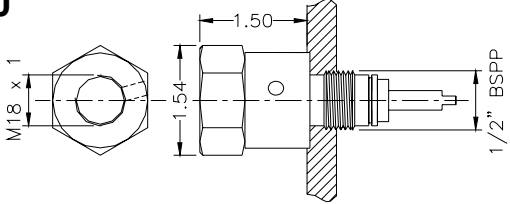
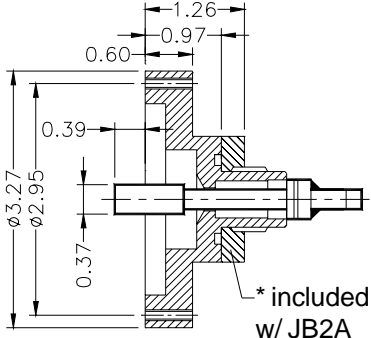
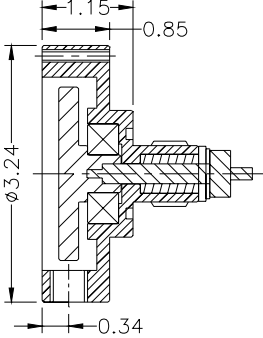
High flow distributor.

Weight: 110 lbs



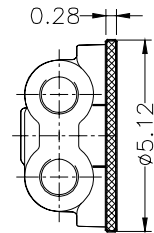
# Distributors

## MECHANICAL TACHOMETER

<p>Tachometer drive plug</p> <p>Code <b>K</b></p> 	<p>Tachometer drive</p> <p>Code <b>J</b></p> 
<p>Tach Drive Mount for BEI Encoder E25 BA (type 6R) on request</p> <p>Code <b>JB2A*</b> * use w/ D3... only</p> <p>Code <b>JB2</b> use w/ all other distributors</p> 	<p>Tach Drive Mount for Hall Effect Switch on request</p> <p>Code <b>JB4</b></p> 

### High speed option for low speed distributors: D3.. (HS)

Low speed (LS) distributors such as D30, D31 ... D37 can be supplied mounted on a bronze disc (see figure). With this disc these distributors have the same max speed characteristics as high speed distributors (HS).



## ORDER CODES

### DESCRIPTION

### CODE

(7) DISTRIBUTOR TYPE

D...

(8) Valve pressure setting (bar)

(...)

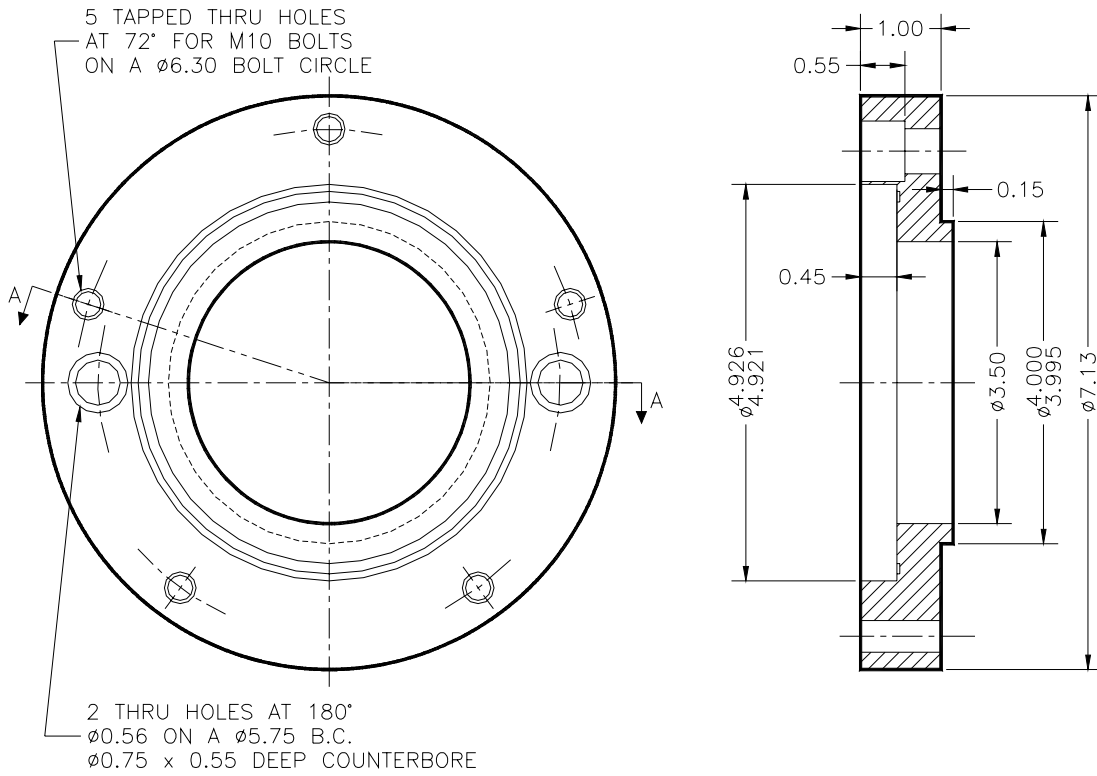
(9) Predisposed for tachometer  
Mechanical Tach. mount  
Mount for BEI encoder  
E25 BA (type 6R)  
Mount for Hall Effect switch  
up to 200 pulses per rev.

**K**  
**J**  
**JB2/JB2A**  
**JB4**



# SAE Flanges

## GM05 SAE 'B' 2 BOLT FLANGE



## GM1 SAE 'C' 4 BOLT FLANGE

