

Genuine Metaris MH30/31 Series Gear Pumps

Bearing Style Gear Pumps & Motors



Performance When You Need it Most

Genuine Metaris MH30/31 series bearing pumps & motors are available in 7 different gear sizes with a variety of mounting flanges, shaft configurations and porting options. Multi-section units, piggyback designs, dowelled assemblies & flow dividers are all also available. With ductile iron housings, these pumps offer pressure ratings as high as 3000 psi for the most demanding of applications. The MH series are perfect alternatives to other gear pump products from Commercial®/Parker® and Muncie®.

- Suitable for a variety of applications
- Multiple displacements and options available
- Heavy Duty Roller Bearing Design
- Dowelled and Rugged Cast Iron Construction
- Pressure Balanced Wear Plates
- Pressures up to 3000 psi
- Multiple Bearing Carrier Options
- Variety of Mounting Flange and Shaft Options
- Speeds up to 2400 rpm
- Multiple Porting Options
- High Strength Steel Gear & Shaft Sets
- Alternatives for Commercial®/Parker® and Muncie® gear products



MH30/31 Series Gear Pump & Motor

MODEL CODE BREAKDOWN

Repeat for Tandem Units

1 2 3 4 5 6 7 8 9 6 7 10

MHP - 31 - A - 1 - 07 - ME - AB - 10 - 12 - DB - * - * - *

Type¹
MHP = Pump
MHM = Motor

Unit²
A = Single Unit
B = Tandem Unit
C = Single or Tandem Unit w/ a Continental Shaft

Shaft End Cover³
1 = Pump w/o Shaft Bearing (Clockwise Rotation)
2 = Pump w/o Shaft Bearing (Counter-clockwise Rotation)
3 = Pump w/o Shaft Bearing (Double Rotation)
4 = Pump w/ Shaft Bearing (Clockwise Rotation)
5 = Pump w/ Shaft Bearing (Counter-clockwise Rotation)
6 = Pump w/ Shaft Bearing (Double Rotation)
8 = Motor w/ Shaft Bearing & 1/4" Drain Port
9 = Motor w/o Shaft Bearing & 1/4" Drain Port

Shaft End Cover⁴
00 = Pad Mount
05 = 6-Bolt Flng 3.25" Dia. Bolt Circle
42 = SAE 4-Bolt "B" Mount
78 = SAE 4-Bolt "C" Mount
91 = 31/51 Piggyback Mount
92 = 76/31 Piggyback Mount
94 = SAE 2-Bolt "A" Mount
96 = SAE 2-Bolt "B" Mount
97 = SAE 2-Bolt "B" Mount (Type 2)

Connecting Shaft¹⁰
For connecting tandem units
1 = Connecting Shaft - Multiple Units

Bearing Carriers⁹
See technical catalog for options

Shaft Type⁸
07 = SAE "C" 14 Tooth Spline 1.250" Dia. (Cont. Only)
12 = Keyed Shaft .75" Dia. x 1.56 Key (Cont. Only)
15 = SAE "B" Keyed .875 Dia. w/ 5/8"-18 Thd (Cont. Only)
25 = SAE "B" 13 Tooth Spline .88" Dia.
30 = SAE "B" Keyed .88" Dia. 1/4" x 3/8" x 1" Key
43 = SAE "BB" Keyed 1" Dia. 1/4" x 3/8" x 1-1/4" Key
65 = SAE "B" 13 Tooth Spline .875" Dia. Type 2
66 = SAE "B" Keyed .88" Dia. 1/4" x 3/8" x 1" Key Type 2
67 = SAE "B" Keyed 1" Dia. 1/4" x 3/8" x 1-1/4" Key Type 2
68 = 6 Tooth Spline .1" Dia.
95 = SAE "A" 9 Tooth Spline .62" Dia.
98 = SAE "BB" 15 Tooth Spline 1" Dia.

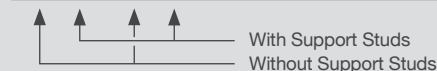
Gear Size⁷
Code / Displacement (in³/r)

05	07	10	12	15	17	20	22	25
(.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)	(4.43)	(4.93)

Port End Cover⁵

NPT Codes

Single Units	Tandem Units	Port Size		A	B
		Left	Right		
BE BY	BI BY	None	None	n/a	n/a
KE KY	KI KY	3/4"	None	n/a	1.25
LE LY	LI LY	None	3/4"	1.25	n/a
ME MY	MI MY	3/4"	3/4"	1.25	1.25



Orientation is viewed from the shaft end

O-ring Codes

Single Units	Tandem Units	Port Size		A	B
		Left	Right		
GU	GU	1-1/4"	1"	1.38	1.38
HU	HU	1"	1-1/4"	1.38	1.38
TU	TU	1-1/4"	1"	1.38	1.38
XU	XU	1"	1-1/4"	1.38	1.38

Orientation is viewed from the shaft end

ORB Codes

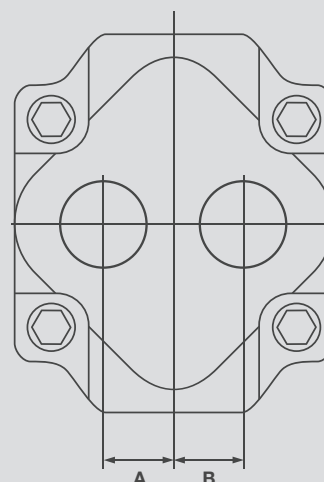
Single Units	Tandem Units	Port Size		A	B
		Left	Right		
CE CY	CI CY	3/4"	None	n/a	1.25
CA CO	CU CO	3/4"	None	n/a	1.38
DE DY	DI DY	None	3/4"	1.25	n/a
DA DO	DU DO	None	3/4"	1.25	n/a
FE FY	FI FY	3/4"	3/4"	1.25	1.25
JA BO	JU BO	3/4"	3/4"	1.38	1.38
GE GY	GI GY	1"	3/4"	1.25	1.38
KA	KU	1"	3/4"	1.38	1.38
HE HY	HI HY	3/4"	1"	1.38	1.25
LA	LU	3/4"	1"	1.38	1.38
MA YO	MU YO	1"	None	n/a	1.38
RA RO	SU RO	None	1"	1.38	n/a
JE JY	JI JY	1"	1"	1.38	1.38
ZA ZO	ZU ZO	1"	1"	1.38	1.38



Orientation is viewed from the shaft end

Gear Housing⁶

See technical catalog for options



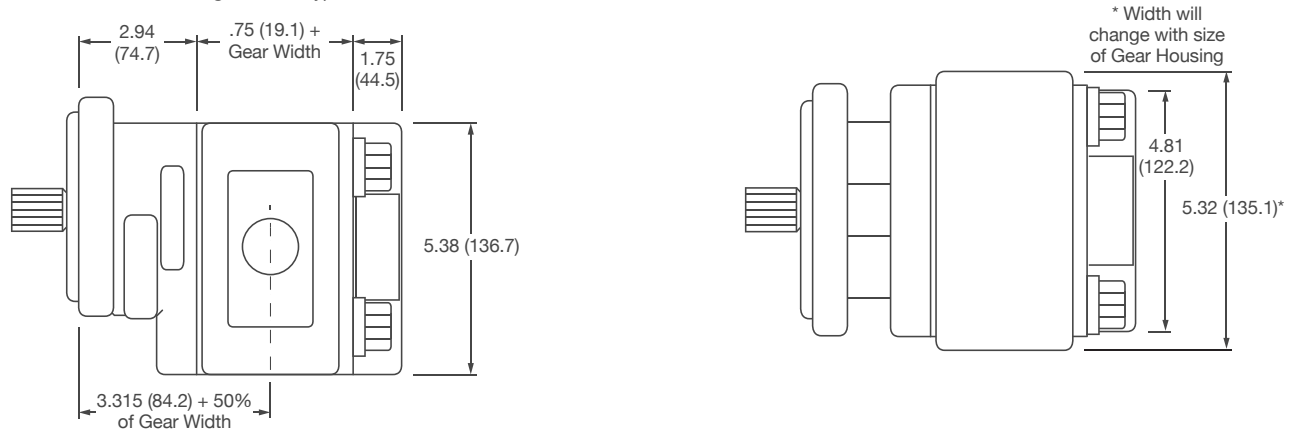
SPECIFICATIONS

GEAR WIDTH		DISPLACEMENT		MAX PRESSURE		MAX PRESSURE (DOWELLED)		WEIGHT LBS (KGS)
		IN ³ /REV	(CM ³ /REV)	PSI	BAR	PSI	BAR	
.05	1/2"	.99	(16.1)	2500	(172)	3000	(207)	30 (14)
.07	3/4"	1.48	(24.2)	2500	(172)	3000	(207)	31 (14)
1.00	1"	1.97	(32.3)	2500	(172)	3000	(207)	32 (15)
1.25	1-1/4"	2.46	(40.4)	2500	(172)	3000	(207)	33 (15)
1.50	1-1/2"	2.96	(48.4)	2500	(172)	3000	(207)	34 (15)
1.75	1-3/4"	3.45	(56.5)	2250	(145)	2500	(172)	35 (16)
2.00	2"	3.94	(64.6)	2250	(145)	2500	(172)	36 (16)

DIMENSIONS

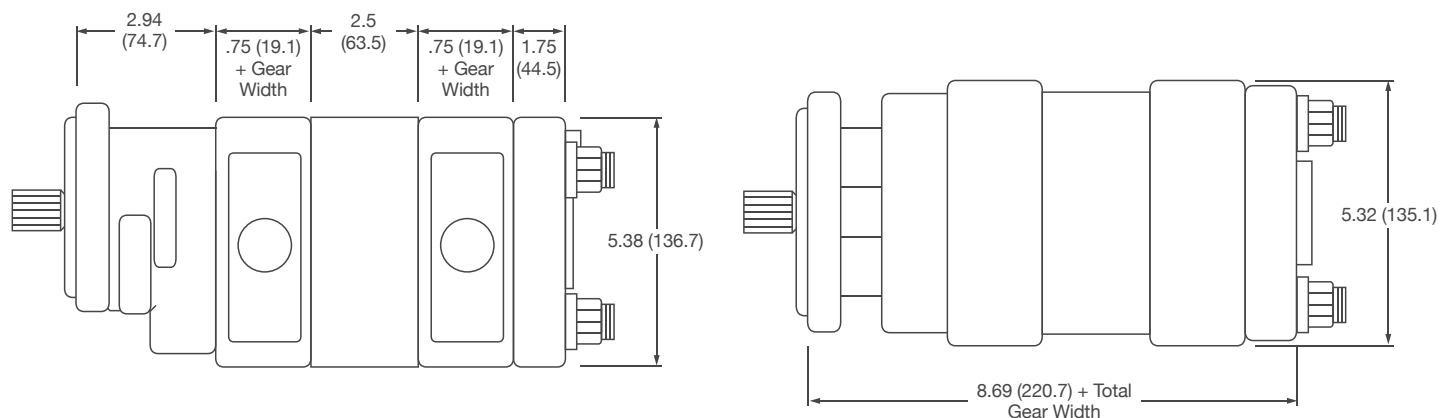
Single Unit

* Shaft dimension will change with the type of shaft used.



Multiple Unit

* Shaft dimension will change with the type of shaft used.

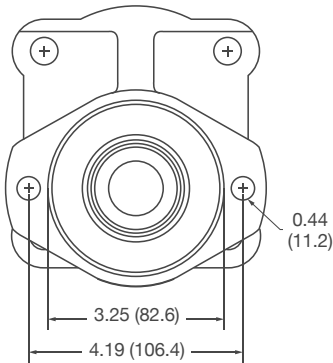


Dimensions are in inches (millimeters).

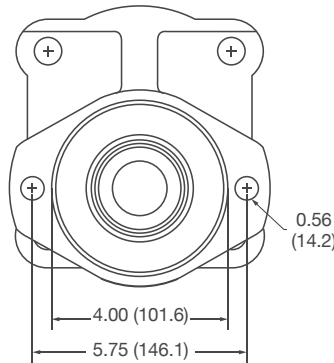
MH30/31 Series Gear Pump & Motor

SHAFT COVER DIMENSIONS

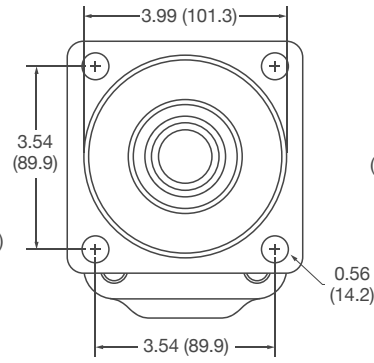
2-Bolt "A" Mount



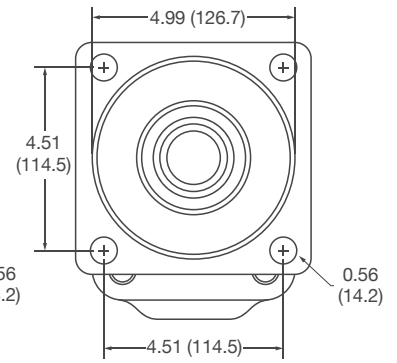
2-Bolt "B" Mount



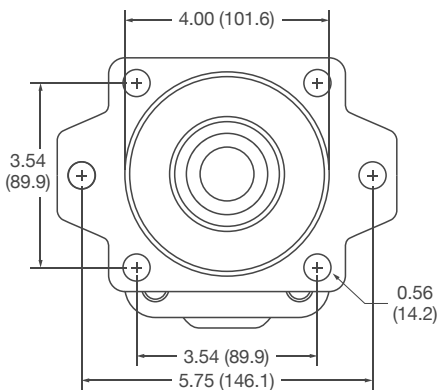
4-Bolt "B" Mount



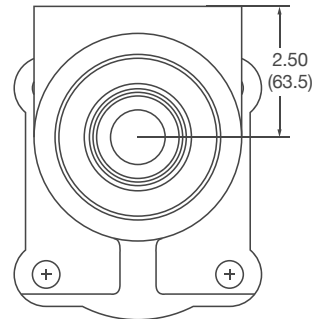
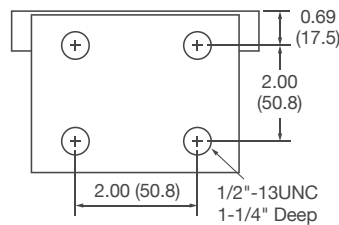
4-Bolt "C" Mount



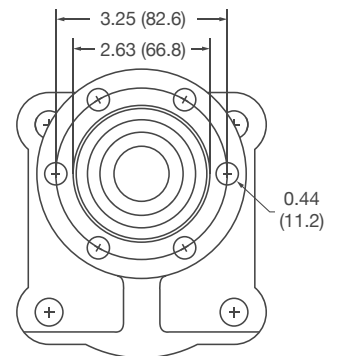
2/4-Bolt "B" Mount



Pad Mount



6-Bolt Round Mount



Dimensions are in inches (millimeters).



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