

Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	•	•	•		
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
							

Product Options

Base Code <i>Select a code character for each numbered position to configure the product.</i>						
1	Code	Product Type	Specifications			Notes
	G	Gear Pump				
2		Product Series	Max System Pressure (MAWP)	Ports		
	LH	Series GLH	103 Bar (1500 psi)	3/4-14 (F) NPT Side Ports		
3		Modifier				
	-	Standard Design				
4		Gear Set (Width/N°Gears/Pitch)	Displacement	Max Differential Pressure	Driven Magnet (Standard)	
	H25	1.250/2/12	7.7 ml/rev (2.0 gal/1000*rev)	6.9 Bar (100 psi)	Samarium Cobalt (SmCo)	
	H23	1.000/2/12	6.2 ml/rev (1.6 gal/1000*rev)	8.7 Bar (125 psi)	Samarium Cobalt (SmCo)	
	H21	0.750/2/12	4.6 ml/rev (1.2 gal/1000*rev)	8.7 Bar (125 psi)	Samarium Cobalt (SmCo)	
5		Gear Material	Max Differential Pressure		Temp Range	
	J	PEEK (carbon fiber/ptfe)	8.7 Bar (125 psi)		-46/121°C (-50/250°F)	
	F	PTFE	3.5 Bar (50 psi)		-46/54°C (-50/130°F)	
6		Static Seals			Temp Range	
	V	Viton®			-29/204°C (-20/400°F)	
	F	PTFE			-46/232°C (-50/450°F)	
7		Base Materials				
	S	SS316				
8		Drive Mount	Max System Pressure (MAWP)			Weight (Pumphead)
	K	NEMA 143/145TC	103 Bar (1500 psi)			3.9 kg (8.6 lbs)
	E	NEMA 56C	103 Bar (1500 psi)			3.9 kg (8.6 lbs)
	8	IEC 80-B14	103 Bar (1500 psi)			3.9 kg (8.6 lbs)
	6	IEC 71-B14	103 Bar (1500 psi)			3.9 kg (8.6 lbs)
Options		Add Option codes after the Base Code to modify features or enhance the product.				
		Driving Magnet (PC13)			Temp Range	
	N0	Ferrite Driving			-46/99°C (-50/210°F)	
	N3	NdFeB Driving (Ring)			-46/82°C (-50/180°F)	
	N1	SmCo Driving (Segments)			-46/260°C (-50/500°F)	
	M2	SmCo Driven (Segments)			-46/260°C (-50/500°F)	
	CH15	103 Bar (1500 psi) Max System Pressure (MAWP)				

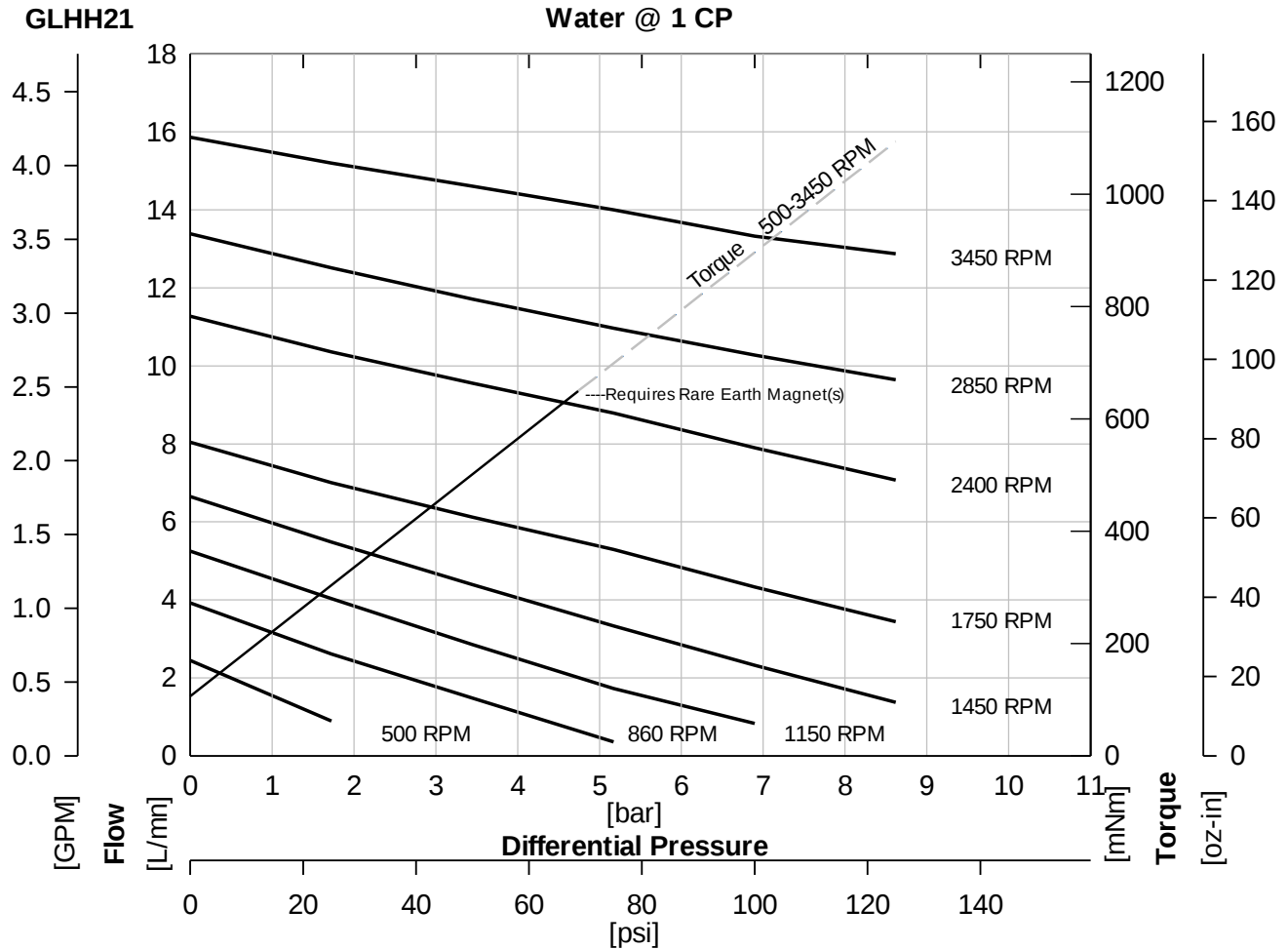
Notes

- 1 PTFE gears come standard with Rulon® bushings
- 2 Driving Magnet (Hub) Sold Separately

ACTUAL PERFORMANCE MAY VARY - Specifications are subject to change without notice. When multiple specs are noted, the most conservative value applies.

Order Code										Pump Construction
Base Code			Gear Set		Drive Mount		Options			
G	LH	-	H21							
1	2	3	4	5	6	7	8			
Model			Wetted Materials			O/C: Pump S/K: Service Kit				

Performance

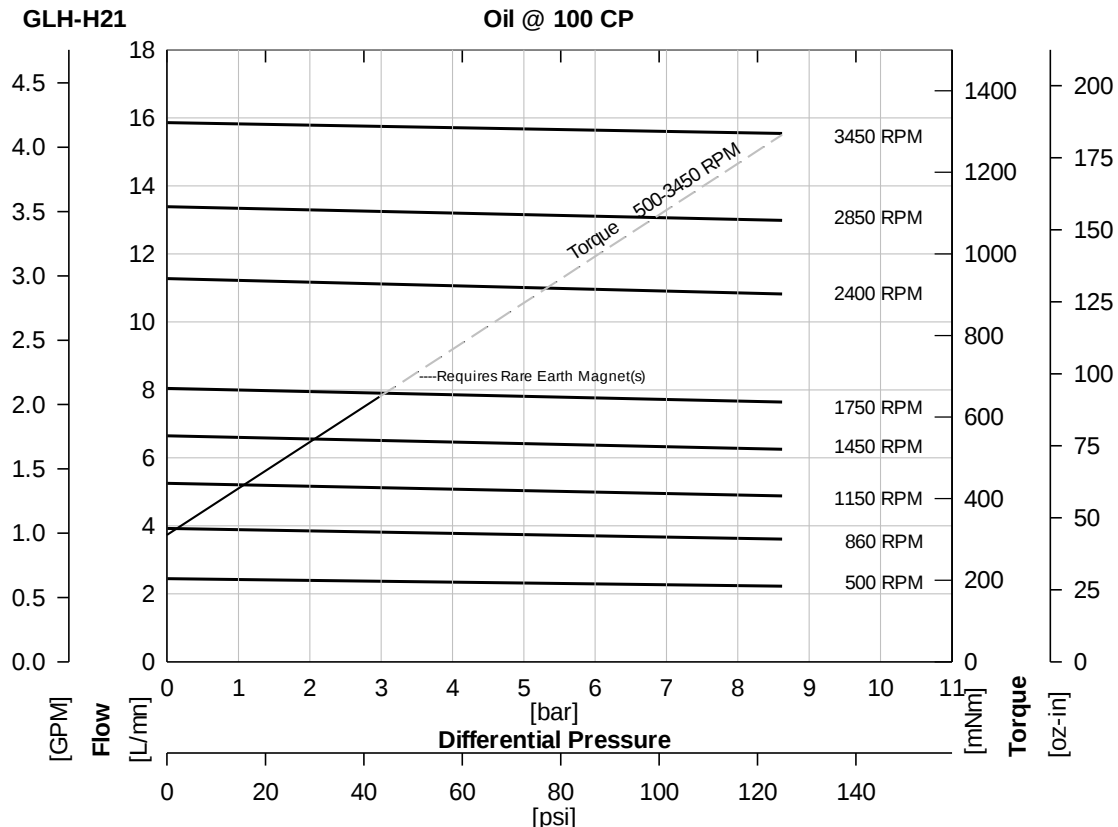


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Order Code								Pump Construction	
Base Code				Gear Set		Drive Mount		Options	
G	LH	-	H21						
1	2	3	4	5	6	7	8		
Model			Wetted Materials			O/C: Pump S/K: Service Kit			
								Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)	



Performance-High Viscosity



$$\text{Watts} = \frac{\text{Torque [mNm]} \times \text{Speed [RPM]}}{9555}$$

$$\text{HP} = \frac{\text{Torque [oz-in]} \times \text{Speed [RPM]}}{1.008 \times 10^6}$$

To calculate torque, multiply correction factor by torque from viscosity curve above.

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	2500
Max Speed [RPM]		3450	3450	1750
[Bar]	[psi]			
0.3	5	0.3	1	3.8
1.4	20	0.5	1	2.9
2.8	40	0.7	1	2.3
4.1	60	0.7	1	2.0
5.5	80	0.8	1	1.8
6.9	100	0.8	1	1.6
8.6	125	0.8	1	1.5

Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz.in]
SmCo	Ferrite	1222	173
SmCo	SmCo	1483	210
SmCo	NdFeB	1780	252

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Order Code										Pump Construction
Base Code			Gear Set		Drive Mount		Options			
G	LH	-	H21	•	•	•	O/C: Pump S/K: Service Kit			
1	2	3	4	5	6	7	8			
Model			Wetted Materials							

Specifications

	SI	US
Displacement	4.6 ml/rev	1.2 gal/1000*rev
Max Flow (4 Pole Speed)	6.7 L/mn 1450 RPM (50Hz)	2.2 gal/mn 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	13.2 L/mn 2850 RPM (50Hz)	4.2 gal/mn 3450 RPM (60Hz)
Max Differential Pressure	1 8.7 Bar	125 psi
Max System Pressure (MAWP)	103 Bar	1500 psi
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	2 51 cm.H ₂ O (1450 RPM)	24 in.H ₂ O (1750 RPM)
Temp Range	3 See Gear Material	See Gear Material
Viscosity Range	4 0.2 to 2500 cp	0.2 to 2500 cp
Max Speed	3,450 RPM	3,450 RPM
Rotation (Facing Motor Shaft)	CW	CW
Weight (Pumphead)	3.9 kg	8.6 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	3/4-14 (F) NPT Side Ports	3/4-14 (F) NPT Side Ports
Driven Magnet (Standard)	Samarium Cobalt (SmCo)	Samarium Cobalt (SmCo)
Optional Internal Bypass	No	No

Notes

- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

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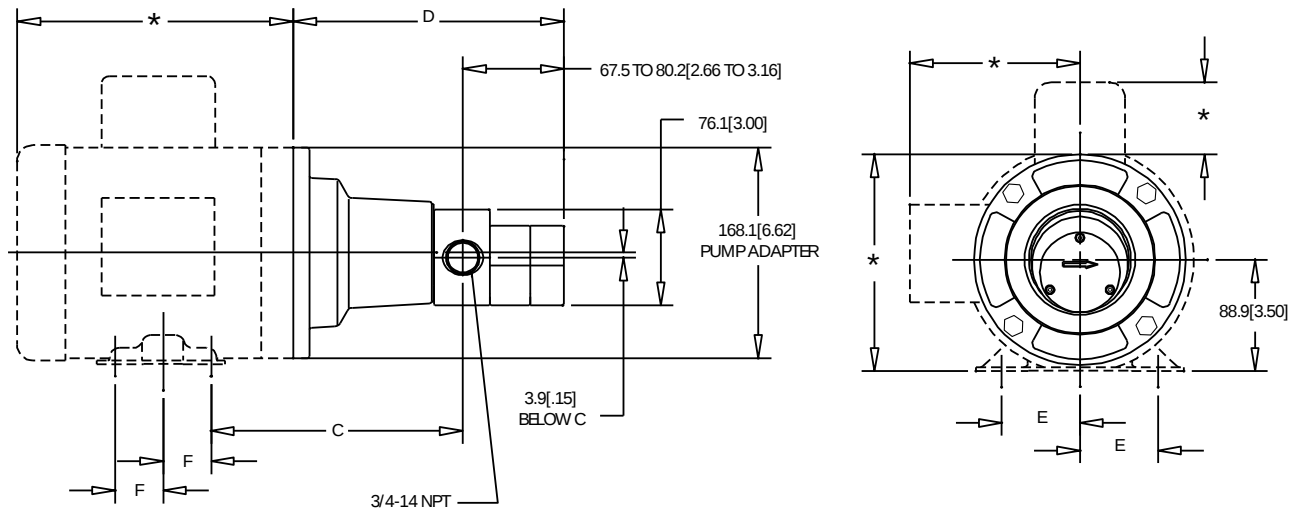
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Base Code			Gear Set		Drive Mount			Options				
G	LH	-	H21									
1	2	3	4	5	6	7	8					
Model			Wetted Materials			O/C: Pump S/K: Service Kit						

Magnetic Drive Gear Pump	
Cavity Style	
Two Helical, Shafted Gears/DP12	
Sleeve Bushings	
O-Ring Seals (Qty 3)	

Pump Construction

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP12
Sleeve Bushings
O-Ring Seals (Qty 3)

Dimensions



MOUNT	C mm [in]	D mm [in]	E mm [in]	F mm [in]
E NEMA 56C	199.8 [7.87]	201.9 [7.95] TO 214.7 [8.45]	61.9 [2.44]	38.1 [1.50]
K NEMA 143 TC	195.0 [7.68]	201.9 [7.95] TO 214.7 [8.45]	69.9 [2.75]	50.8 [2.00]
K NEMA 145 TC	195.0 [7.68]	201.9 [7.95] TO 214.7 [8.45]	69.9 [2.75]	63.5 [2.50]

NOTES:

1. * THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION
2. ALL DIMENSIONS ARE NOMINAL

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Order Code										Options
Base Code			Gear Set		Drive Mount					
G	LH	-	H21				6			
1	2	3	4	5	6	7	8			
Model				Wetted Materials				O/C: Pump S/K: Service Kit		

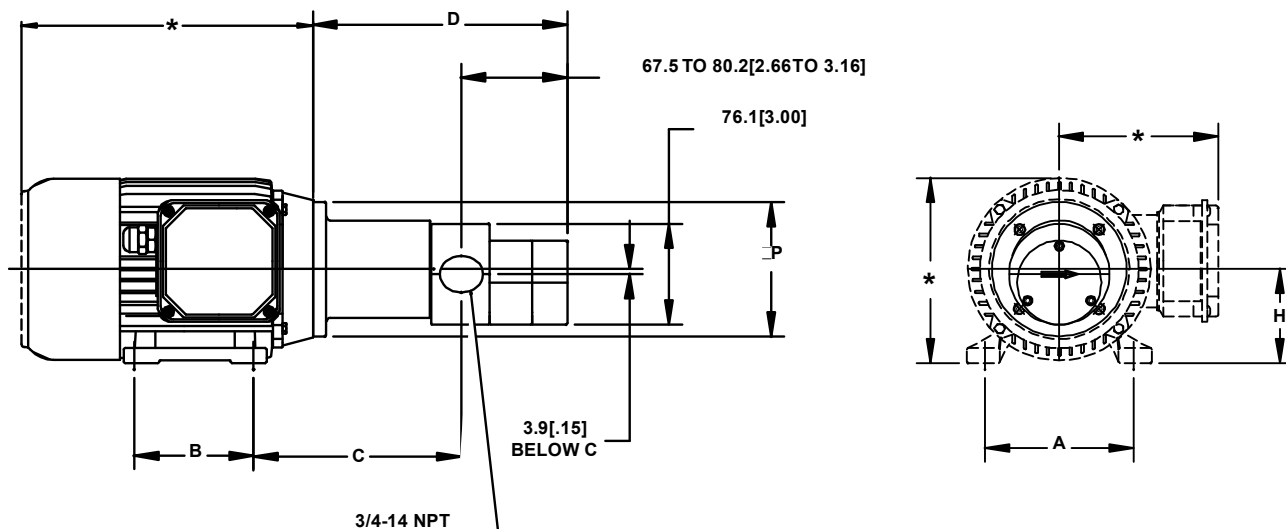
Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP12
Sleeve Bushings
O-Ring Seals (Qty 3)



Pump Construction

Magnetic Drive Gear Pump
 Cavity Style
 Two Helical, Shafted Gears/DP12
 Sleeve Bushings
 O-Ring Seals (Qty 3)

Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
6 IEC71B14B3	112 [4.41]	90 [3.54]	157.2 [6.19]	179.7[7.07] TO 192.4[7.57]	71 [2.80]	105 [4.13]
8 IEC80B14B3	125 [4.92]	100 [3.94]	172.1 [6.77]	189.6[7.46] TO 202.3[7.96]	80 [3.15]	120 [4.72]

NOTES:

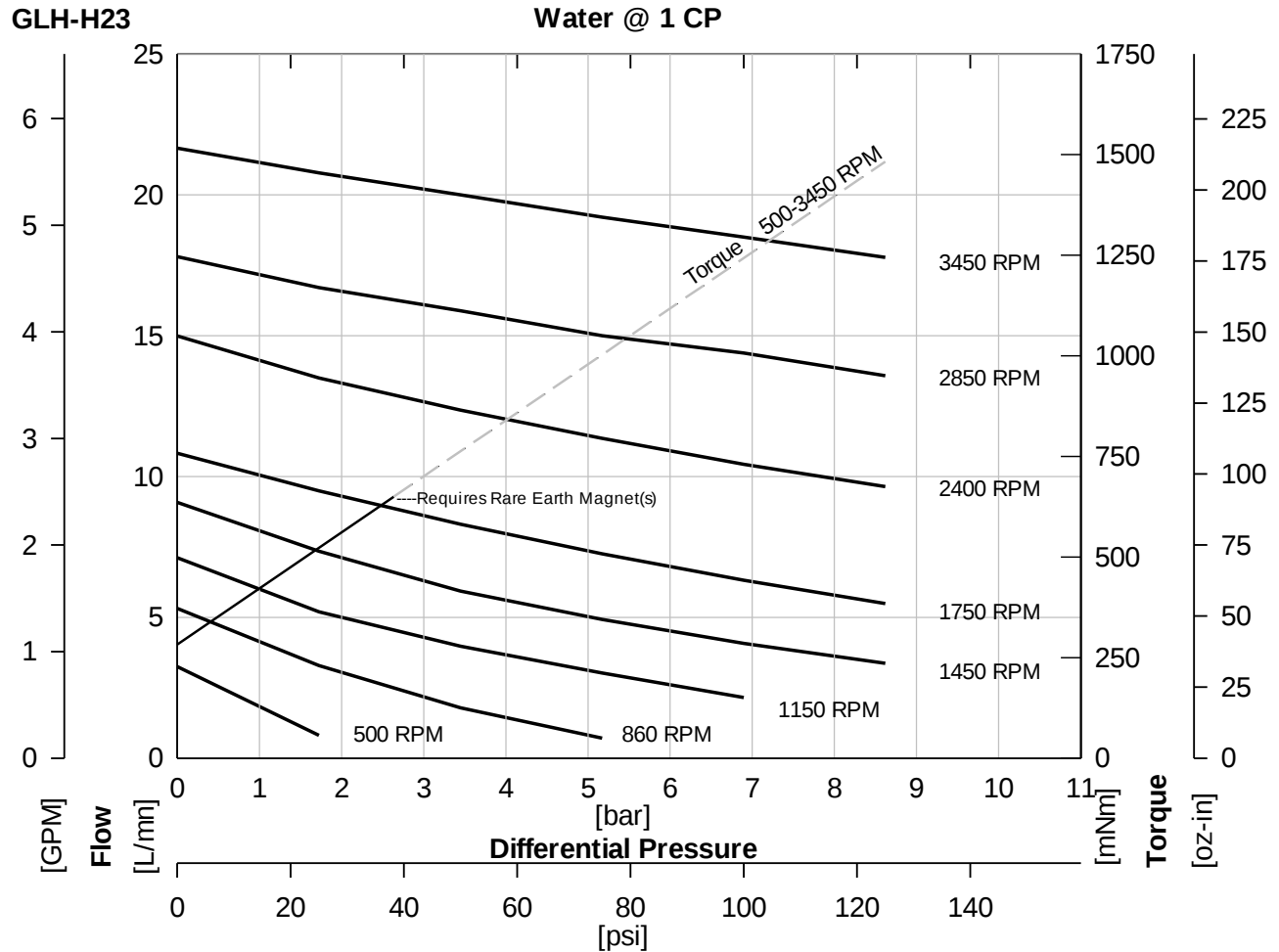
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 info.micropump@idexcorp.com www.micropump.com

Order Code										Pump Construction	
Base Code			Gear Set		Drive Mount		Options				
G	LH	-	H23								
1	2	3	4	5	6	7	8				
Model			Wetted Materials			O/C: Pump S/K: Service Kit					
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)											

Performance

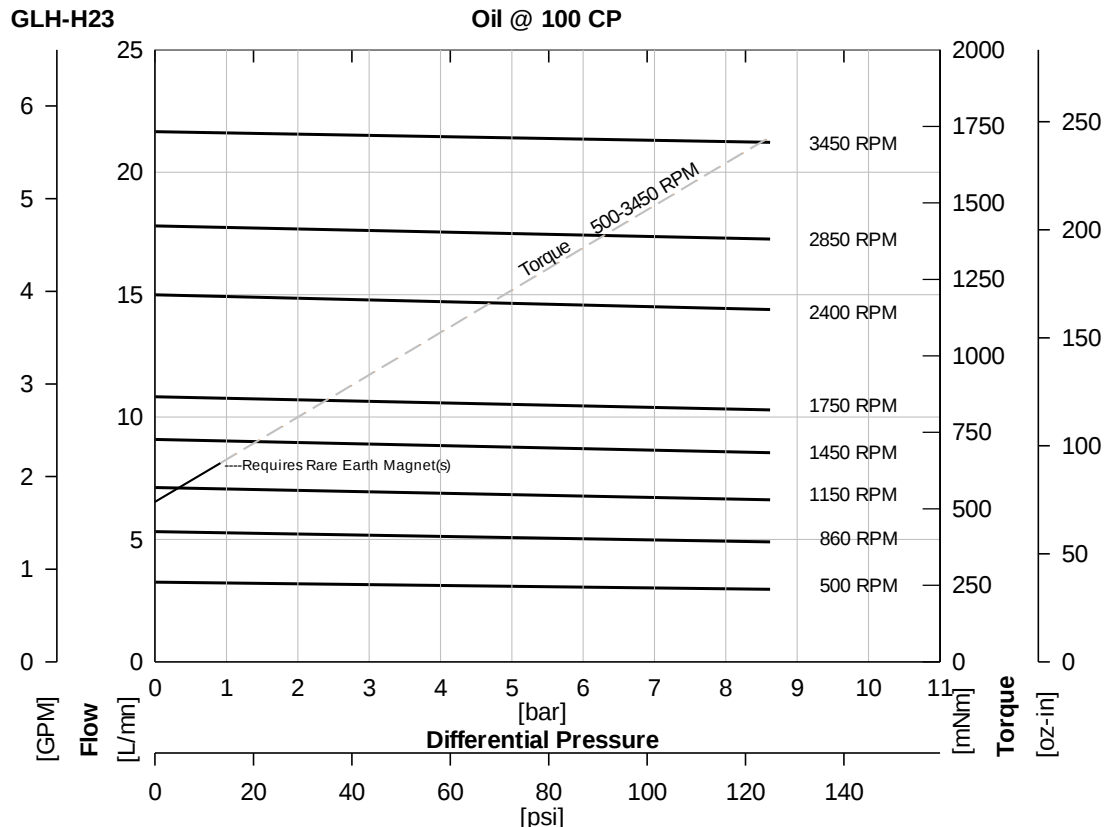


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Order Code								Pump Construction	
Base Code				Gear Set		Drive Mount		Options	
G	LH	-	H23					Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)	
1	2	3	4	5	6	7	8	O/C: Pump S/K: Service Kit	
Model			Wetted Materials						



Performance-High Viscosity



$$\text{Watts} = \frac{\text{Torque [mNm]} \times \text{Speed [RPM]}}{9555}$$

$$\text{HP} = \frac{\text{Torque [oz-in]} \times \text{Speed [RPM]}}{1.008 \times 10^6}$$

To calculate torque, multiply correction factor by torque from viscosity curve above.

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	2500
Max Speed [RPM]		3450	3450	1750
[Bar]	[psi]			
0.3	5	0.5	1	2.8
1.4	20	0.6	1	2.3
2.8	40	0.7	1	2.0
4.1	60	0.8	1	1.8
5.5	80	0.8	1	1.6
6.9	100	0.8	1	1.5
8.6	125	0.9	1	1.4

Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz.in]
SmCo	Ferrite	1222	173
SmCo	SmCo	1483	210
SmCo	NdFeB	1780	252

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Order Code										Pump Construction
Base Code			Gear Set		Drive Mount		Options			
G	LH	-	H23	•	•	•	O/C: Pump S/K: Service Kit			
1	2	3	4	5	6	7	8			
Model			Wetted Materials							

Specifications

	SI	US
Displacement	6.2 ml/rev	1.6 gal/1000*rev
Max Flow (4 Pole Speed)	9.0 L/mn 1450 RPM (50Hz)	2.9 gal/mn 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	17.7 L/mn 2850 RPM (50Hz)	5.7 gal/mn 3450 RPM (60Hz)
Max Differential Pressure	1 8.7 Bar	125 psi
Max System Pressure (MAWP)	103 Bar	1500 psi
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	2 51 cm.H ₂ O (1450 RPM)	24 in.H ₂ O (1750 RPM)
Temp Range	3 See Gear Material	See Gear Material
Viscosity Range	4 0.2 to 2500 cp	0.2 to 2500 cp
Max Speed	3,450 RPM	3,450 RPM
Rotation (Facing Motor Shaft)	CW	CW
Weight (Pumphead)	3.9 kg	8.6 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	3/4-14 (F) NPT Side Ports	3/4-14 (F) NPT Side Ports
Driven Magnet (Standard)	Samarium Cobalt (SmCo)	Samarium Cobalt (SmCo)
Optional Internal Bypass	No	No

Notes

- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

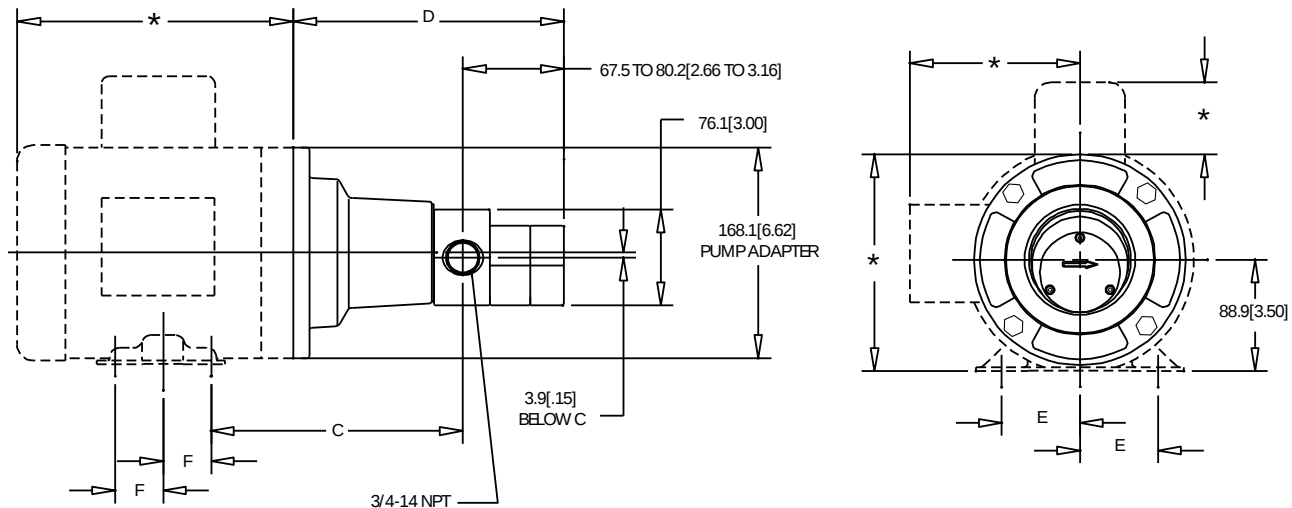
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<u>Order Code</u>										<u>Pump Construction</u>		
Base Code			Gear Set		Drive Mount			Options			Magnetic Drive Gear Pump	
G	LH	-	H23								Cavity Style	
1	2	3	4	5	6	7	8				Two Helical, Shafted Gears/DP12	
Model			Wetted Materials						Sleeve Bushings			
									O-Ring Seals (Qty 3)			
									O/C: Pump S/K: Service Kit			

Pump Construction

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP12
Sleeve Bushings
O-Ring Seals (Qty 3)

Dimensions



MOUNT	C mm [in]	D mm [in]	E mm [in]	F mm [in]
E NEMA 56C	199.8 [7.87]	201.9[7.95] TO 214.7[8.45]	61.9 [2.44]	38.1 [1.50]
K NEMA 143 TC	195.0 [7.68]	201.9[7.95] TO 214.7[8.45]	69.9 [2.75]	50.8 [2.00]
K NEMA 145 TC	195.0 [7.68]	201.9[7.95] TO 214.7[8.45]	69.9 [2.75]	63.5 [2.50]

NOTES:

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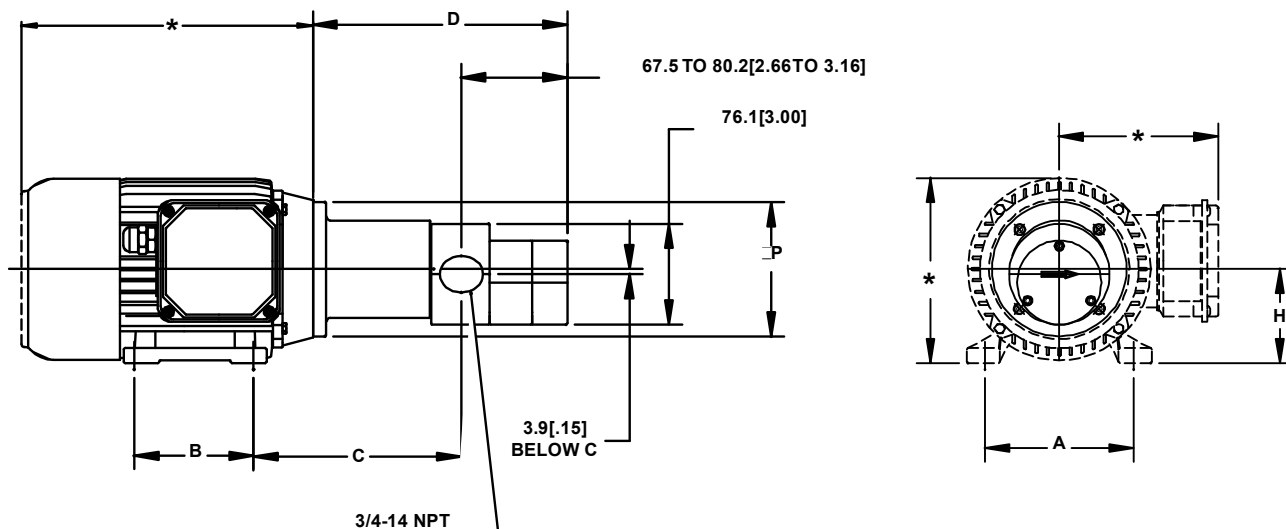
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Order Code								Options			
Base Code				Gear Set		Drive Mount					
G	LH	-	H23				6				
1	2	3	4	5	6	7	8				
Model				Wetted Materials				O/C: Pump S/K: Service Kit			

Pump Construction

Magnetic Drive Gear Pump
 Cavity Style
 Two Helical, Shafted Gears/DP12
 Sleeve Bushings
 O-Ring Seals (Qty 3)

Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
6 IEC71B14B3	112 [4.41]	90 [3.54]	157.2 [6.19]	179.7[7.07] TO 192.4[7.57]	71 [2.80]	105 [4.13]
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NOTES:

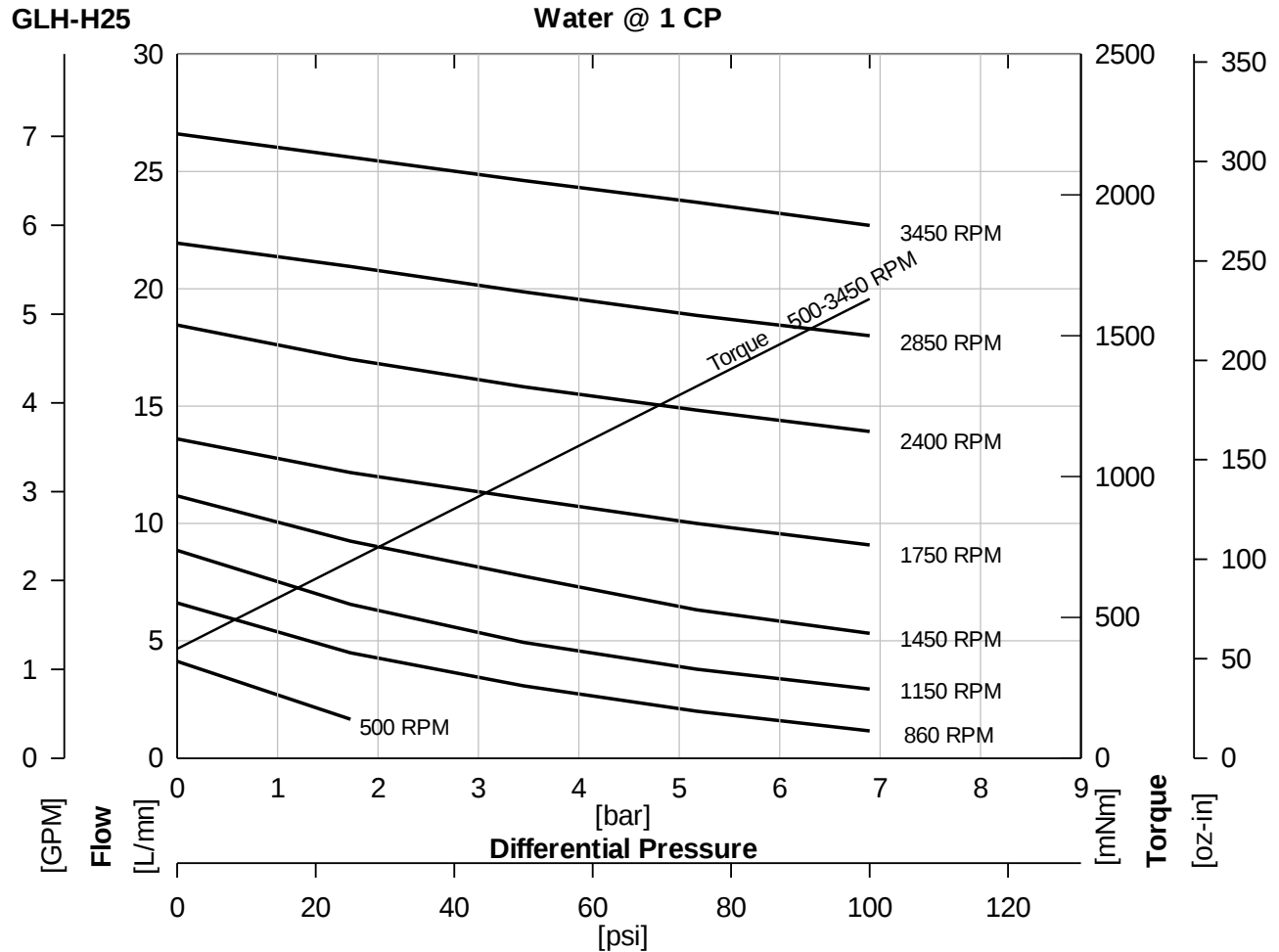
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 info.micropump@idexcorp.com www.micropump.com

Order Code										Pump Construction	
Base Code			Gear Set		Drive Mount		Options				
G	LH	-	H25								
1	2	3	4	5	6	7	8				
Model			Wetted Materials			O/C: Pump S/K: Service Kit					
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)											

Performance



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Order Code				Pump Construction																					
Base Code <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">G</td> <td style="border: 1px solid black; padding: 2px;">LH</td> <td style="border: 1px solid black; padding: 2px;">-</td> <td style="border: 1px solid black; padding: 2px;">H25</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;"></td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> </table> Model Wetted Materials				G	LH	-	H25					1	2	3	4	5	6	7	8	Options <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">O/C: Pump</td> <td style="border: 1px solid black; padding: 2px;">S/K: Service Kit</td> </tr> </table>				O/C: Pump	S/K: Service Kit
G	LH	-	H25																						
1	2	3	4	5	6	7	8																		
O/C: Pump	S/K: Service Kit																								
Gear Set H25				Drive Mount O/C: Pump S/K: Service Kit																					

Pump Construction

Magnetic Drive Gear Pump

Cavity Style

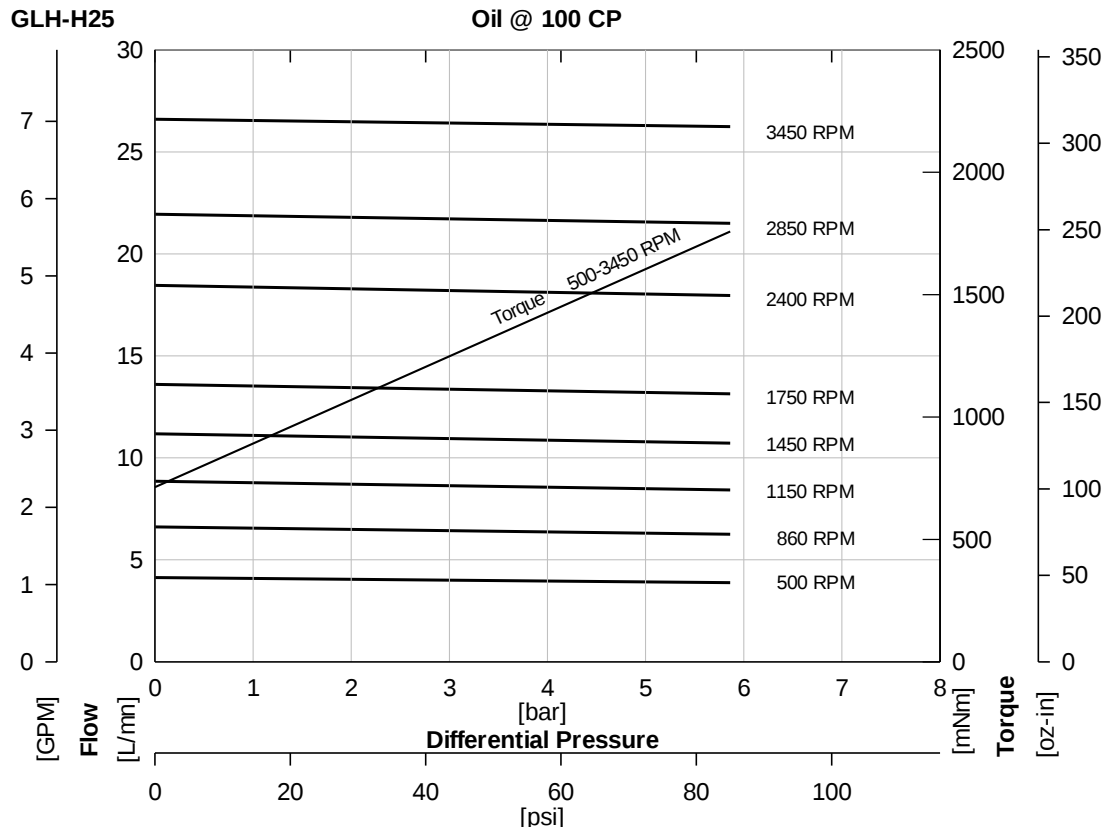
Two Helical, Shafted Gears/DP12

Sleeve Bushings

O-Ring Seals (Qty 3)



Performance-High Viscosity



$$\text{Watts} = \frac{\text{Torque [mNm]} \times \text{Speed [RPM]}}{9555}$$

$$\text{HP} = \frac{\text{Torque [oz-in]} \times \text{Speed [RPM]}}{1.008 \times 10^6}$$

To calculate torque, multiply correction factor by torque from viscosity curve above.

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	2500
Max Speed [RPM]		3450	3450	1750
[Bar]	[psi]			
0.3	5	0.5	1	2.3
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2.8	40	0.7	1	1.8
4.1	60	0.8	1	1.6
5.5	80	0.8	1	1.5
6.9	100	0.8	1	1.4
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Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz.in]
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Base Code			Gear Set		Drive Mount		Options			
G	LH	-	H25	•	•	•	O/C: Pump S/K: Service Kit			
1	2	3	4	5	6	7	8			
Model			Wetted Materials							

Specifications

	SI	US
Displacement	7.7 ml/rev	2.0 gal/1000*rev
Max Flow (4 Pole Speed)	11.2 L/mn 1450 RPM (50Hz)	3.6 gal/mn 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	22.0 L/mn 2850 RPM (50Hz)	7.1 gal/mn 3450 RPM (60Hz)
Max Differential Pressure	1 6.9 Bar	100 psi
Max System Pressure (MAWP)	103 Bar	1500 psi
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	2 51 cm.H ₂ O (1450 RPM)	24 in.H ₂ O (1750 RPM)
Temp Range	3 See Gear Material	See Gear Material
Viscosity Range	4 0.2 to 2500 cp	0.2 to 2500 cp
Max Speed	3,450 RPM	3,450 RPM
Rotation (Facing Motor Shaft)	CW	CW
Weight (Pumphead)	3.9 kg	8.6 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	3/4-14 (F) NPT Side Ports	3/4-14 (F) NPT Side Ports
Driven Magnet (Standard)	Samarium Cobalt (SmCo)	Samarium Cobalt (SmCo)
Optional Internal Bypass	No	No

Notes

- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

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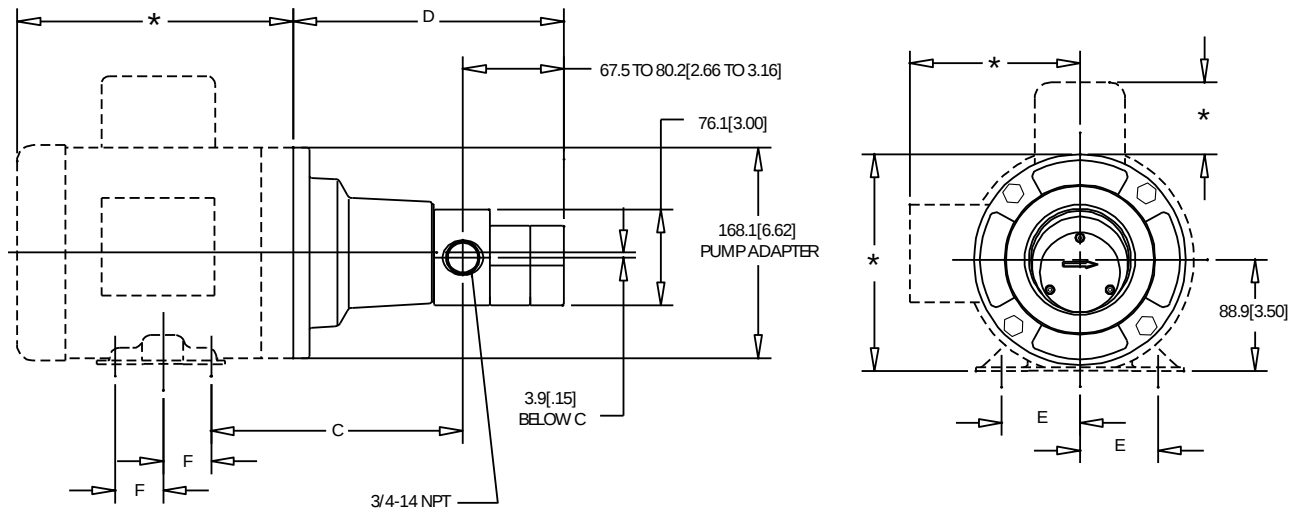
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Base Code			Gear Set		Drive Mount			Options				
G	LH	-	H25									
1	2	3	4	5	6	7	8					
Model			Wetted Materials			O/C: Pump S/K: Service Kit						

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP12
Sleeve Bushings
O-Ring Seals (Qty 3)

Pump Construction

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP12
Sleeve Bushings
O-Ring Seals (Qty 3)

Dimensions



MOUNT	C mm [in]	D mm [in]	E mm [in]	F mm [in]
E NEMA 56C	199.8 [7.87]	201.9 [7.95] TO 214.7 [8.45]	61.9 [2.44]	38.1 [1.50]
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NOTES:

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Order Code										Options	
Base Code			Gear Set		Drive Mount						
G	LH	-	H25				6				
1	2	3	4	5	6	7	8				
Model				Wetted Materials				O/C: Pump S/K: Service Kit			

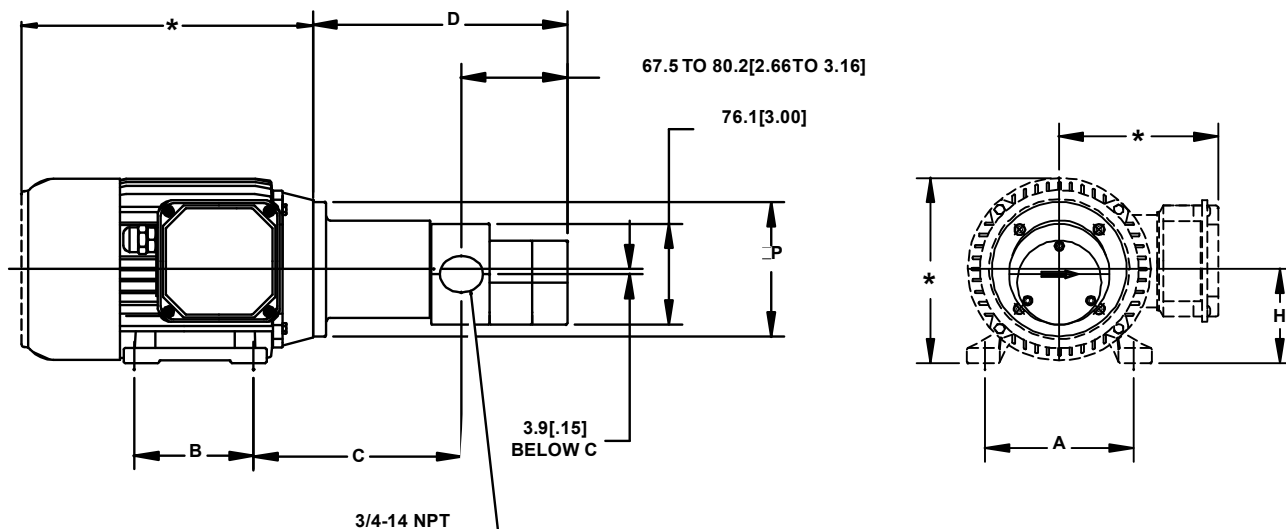
Pump Construction	
Magnetic Drive Gear Pump	
Cavity Style	
Two Helical, Shafted Gears/DP12	
Sleeve Bushings	
O-Ring Seals (Qty 3)	



Pump Construction

Magnetic Drive Gear Pump
 Cavity Style
 Two Helical, Shafted Gears/DP12
 Sleeve Bushings
 O-Ring Seals (Qty 3)

Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
6 IEC71B14B3	112 [4.41]	90 [3.54]	157.2 [6.19]	179.7[7.07] TO 192.4[7.57]	71 [2.80]	105 [4.13]
8 IEC80B14B3	125 [4.92]	100 [3.94]	172.1 [6.77]	189.6[7.46] TO 202.3[7.96]	80 [3.15]	120 [4.72]

NOTES:

1. *THESE DIMENSIONS WIL VARY BASED ON MOTOR SELECTION.
2. ALL DIMENSIONSARE NOMINAL.

ACTUAL PERFORMANCE MAY VARY - Specifications are subject to change without notice. When multiple specs are noted, the most conservative value applies.

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