


Order Code Base Code: [1 2 3 4 5 6 7 8] Gear Set: [4 5] Drive Mount: [7 8] Options: [] Model: [1 2 3 4 5 6 7 8] Wetted Materials: [4 5] 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)	
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Product Options

Base Code Select a code character for each numbered position to configure the product.

1	Code	Product Type	Specifications			Notes
	G	Gear Pump				
2	LH	Series GLH	Max System Pressure (MAWP) 103 Bar (1500 psi)	Ports 3/4-14 (F) NPT Side Ports		
3	-	Standard Design				
4		Gear Set (Width/N°Gears/Pitch)	<i>Displacement</i>	<i>Max Differential Pressure</i>	<i>Driven Magnet (Standard)</i>	
	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		<i>Max Differential Pressure</i>	<i>Temp Range</i>	
	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			<i>Temp Range</i>	
	V	Viton®			-29/204°C (-20/400°F)	
	F	PTFE			-46/232°C (-50/450°F)	
7		Base Materials				
	S	SS316				
8		Drive Mount	<i>Max System Pressure (MAWP)</i>	<i>Weight (Pumphead)</i>		
	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)		<i>Temp Range</i>	Notes
N0	Ferrite Driving	-46/99°C (-50/210°F)	2
N3	NdFeB Driving (Ring)	-46/82°C (-50/180°F)	
N1	SmCo Driving (Segments)	-46/260°C (-50/500°F)	

- 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.

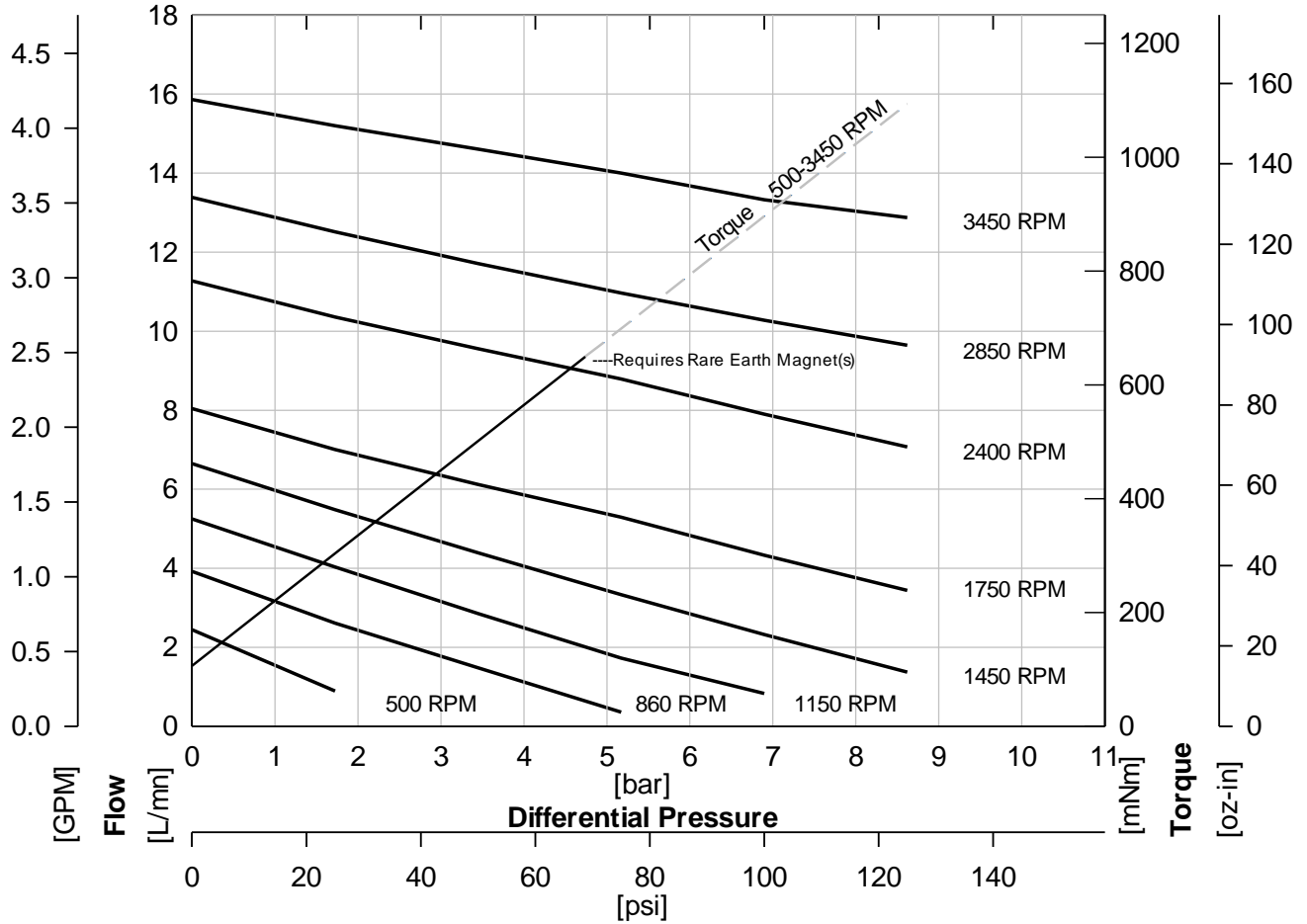
Order Code								Pump Construction	
Base Code		Gear Set		Drive Mount		Options		Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)	
G	LH	-	H21						
1	2	3	4	5	6	7	8		
Model				Wetted Materials				O/C: Pump S/K: Service Kit	



Performance


GLHH21

Water @ 1 CP

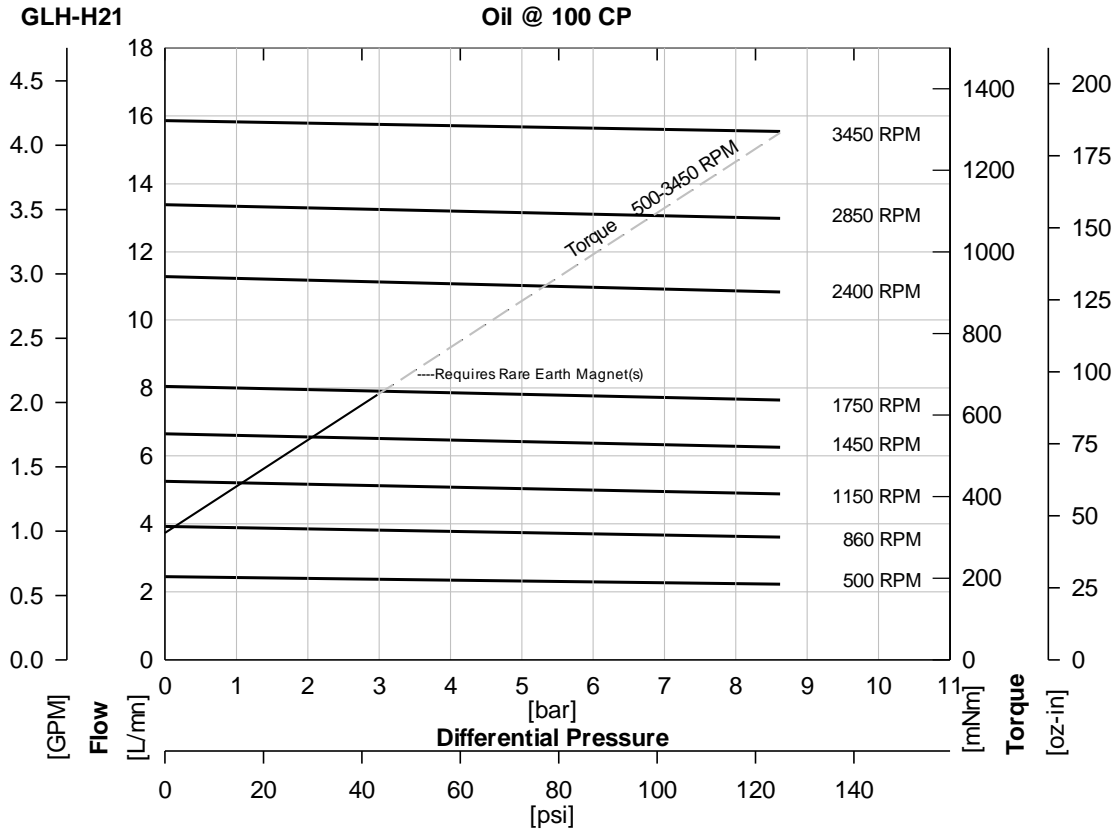


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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H21	•	•	O/C: Pump S/K: Service Kit	
1 2 3 4 5 6 7 8		Wetted Materials					
Model							
Magnetic Drive Gear Pump				Cavity Style			
Two Helical, Shafted Gears/DP12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


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.H2O (1450 RPM)	24 in.H2O (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

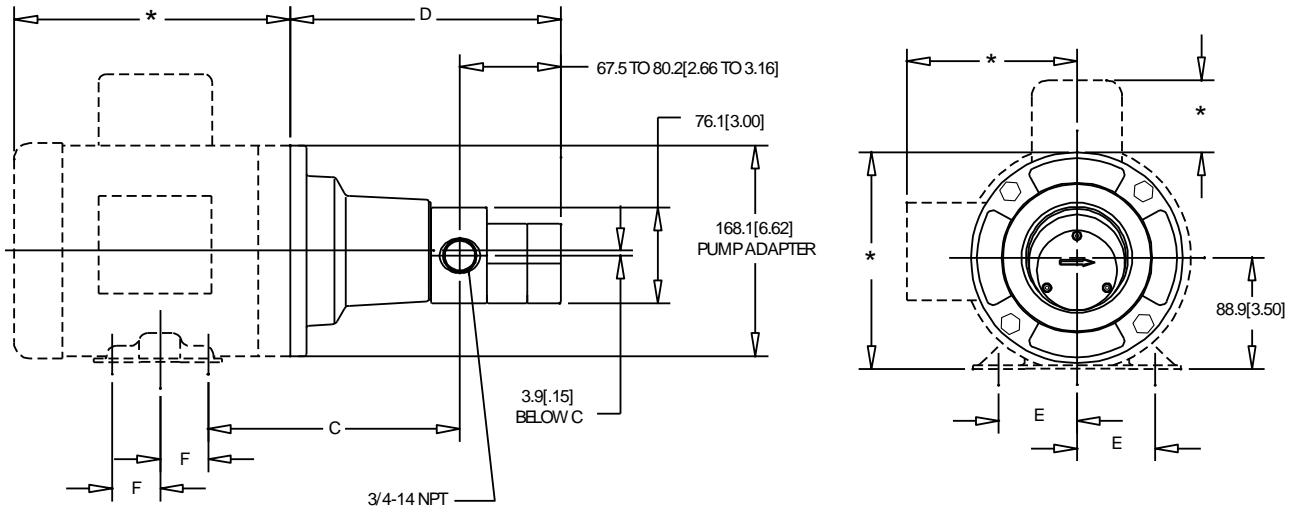
Notes

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

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:

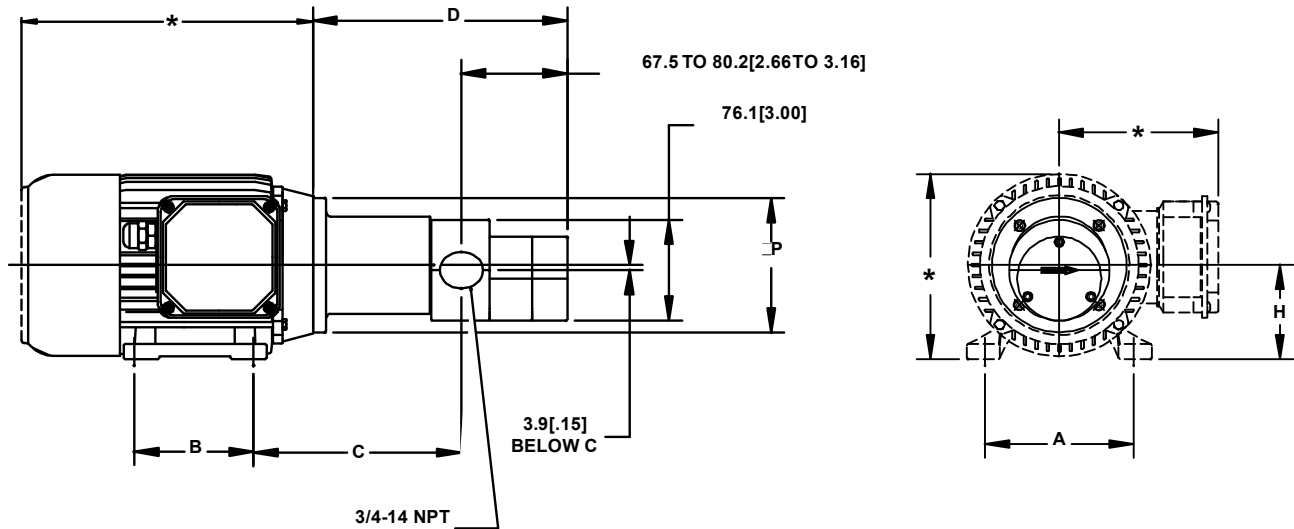
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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H21			6	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve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



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]

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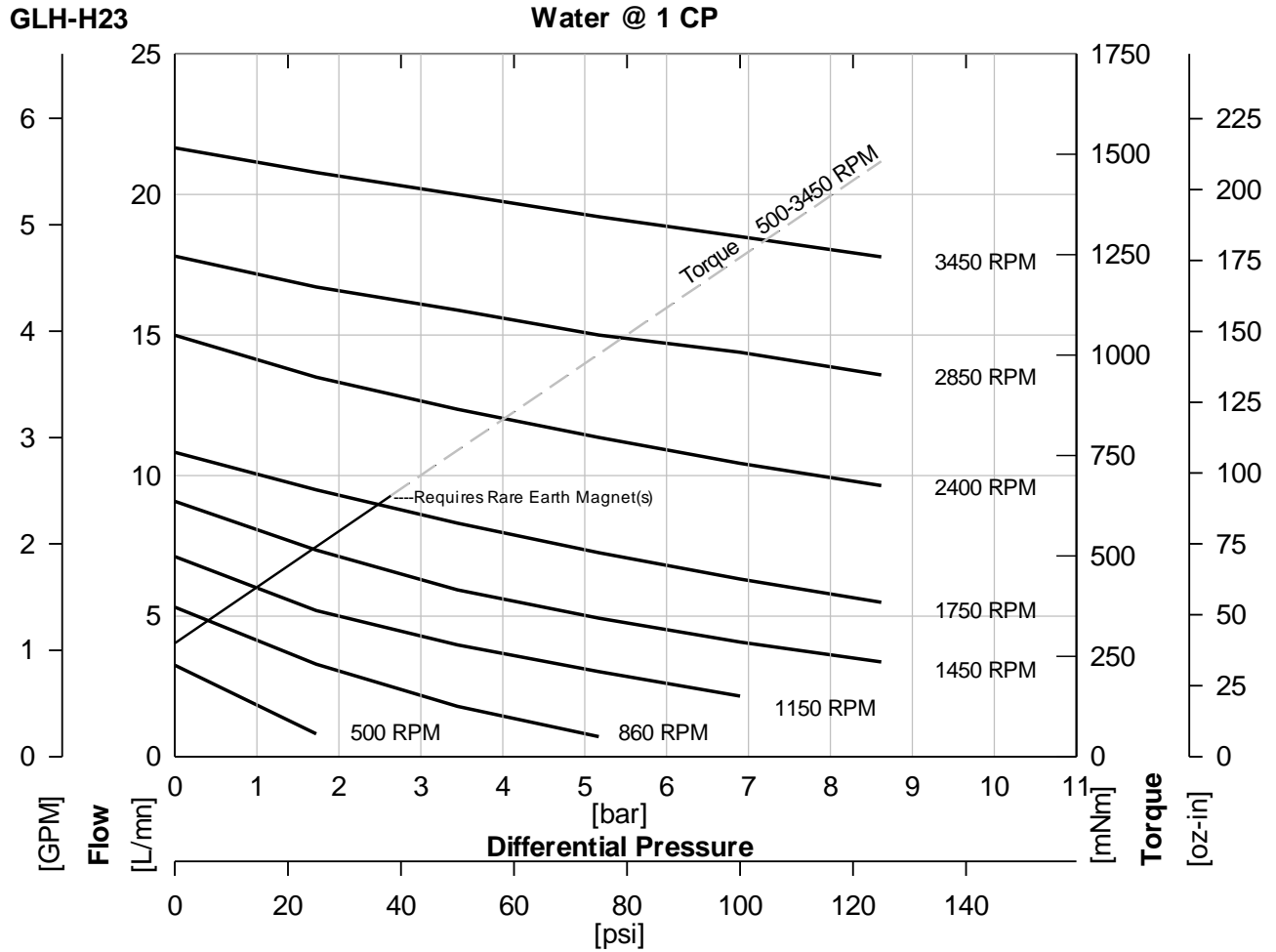
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 info.micropump@idexcorp.com www.micropump.com

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

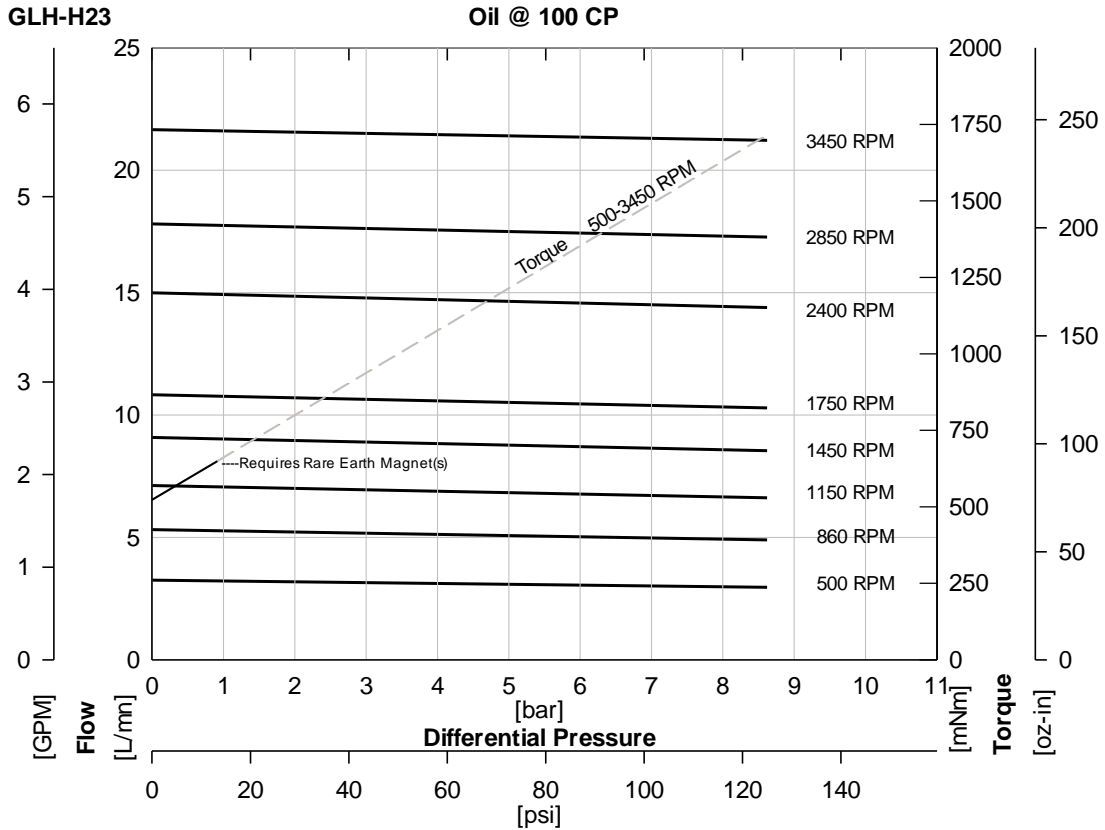


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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H23	●	●	●	
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings 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	0.5	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
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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)	

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

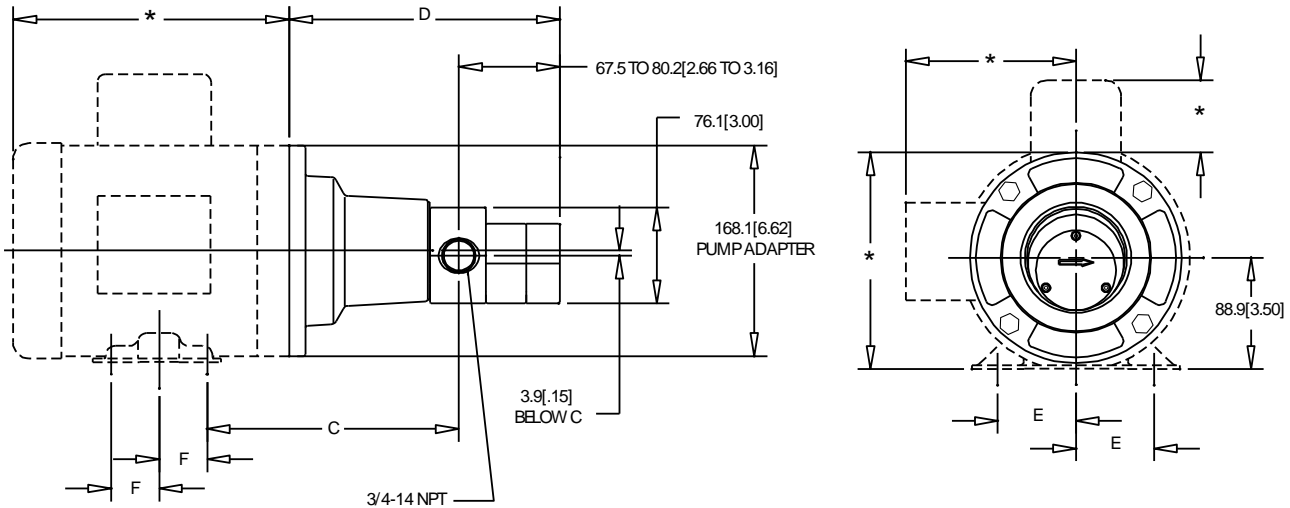
- 1 See Product Options. Max pressure depends on gear material.
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Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H23				
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted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



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:

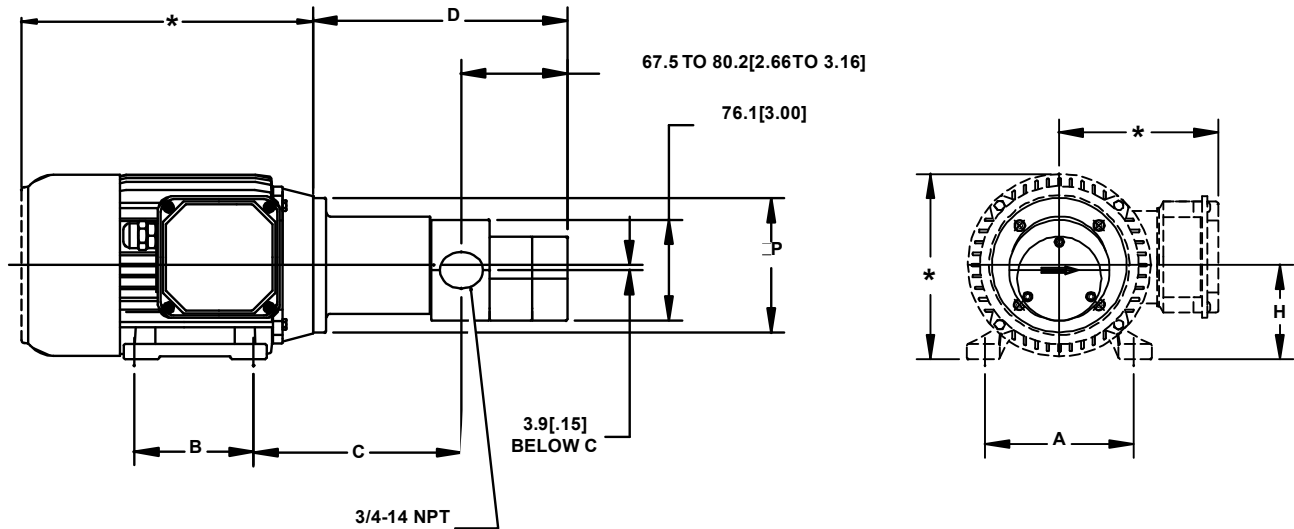
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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H23			6	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve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



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]

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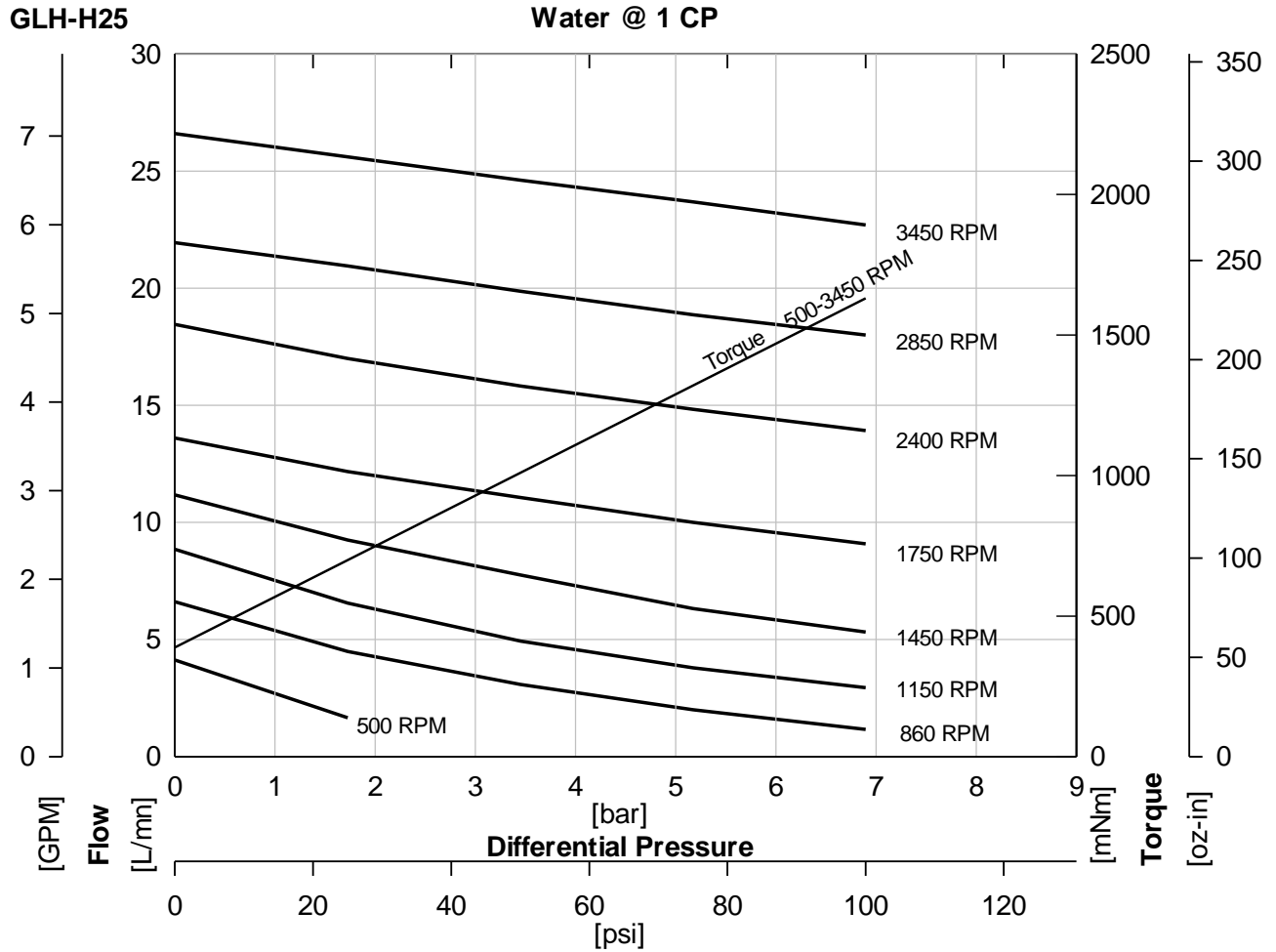
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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H25				
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings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



Performance

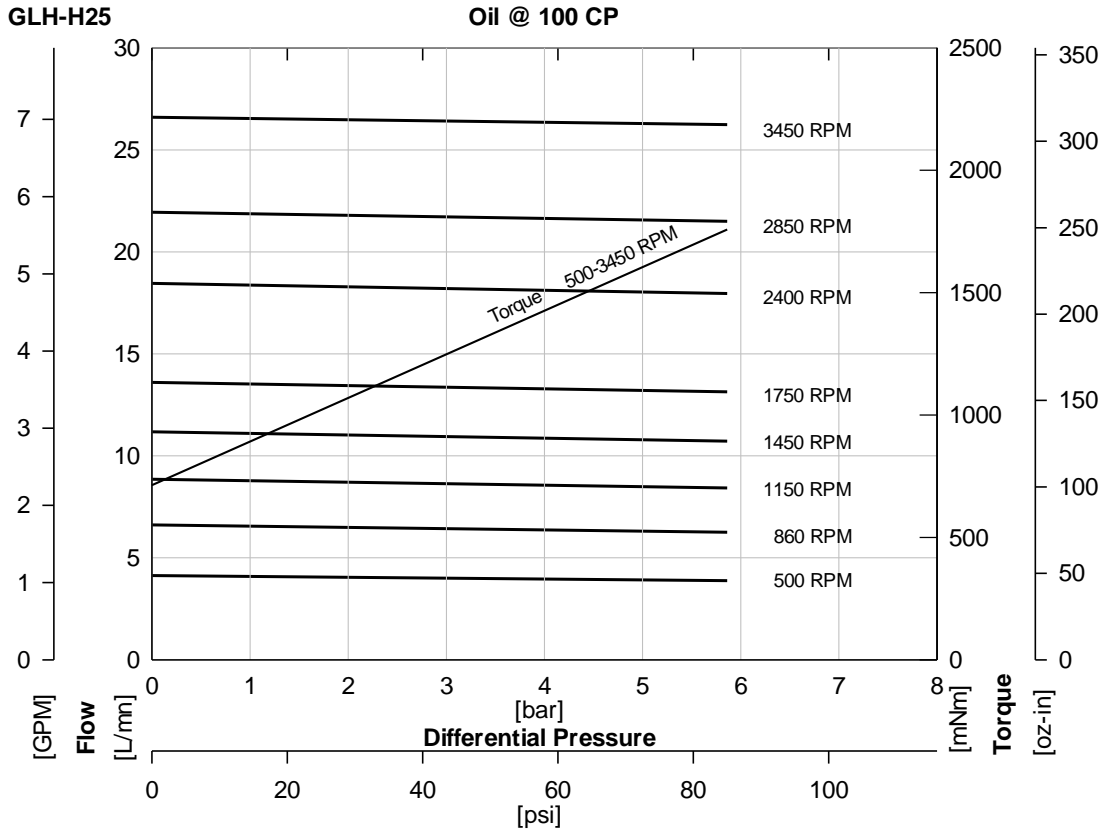


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Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H25	●	●	●	●
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings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



Performance-High Viscosity



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

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
1.4	20	0.6	1	2.0
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
8.6	125	0.9	1	1.3

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						
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)	

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.H2O (1450 RPM)	24 in.H2O (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

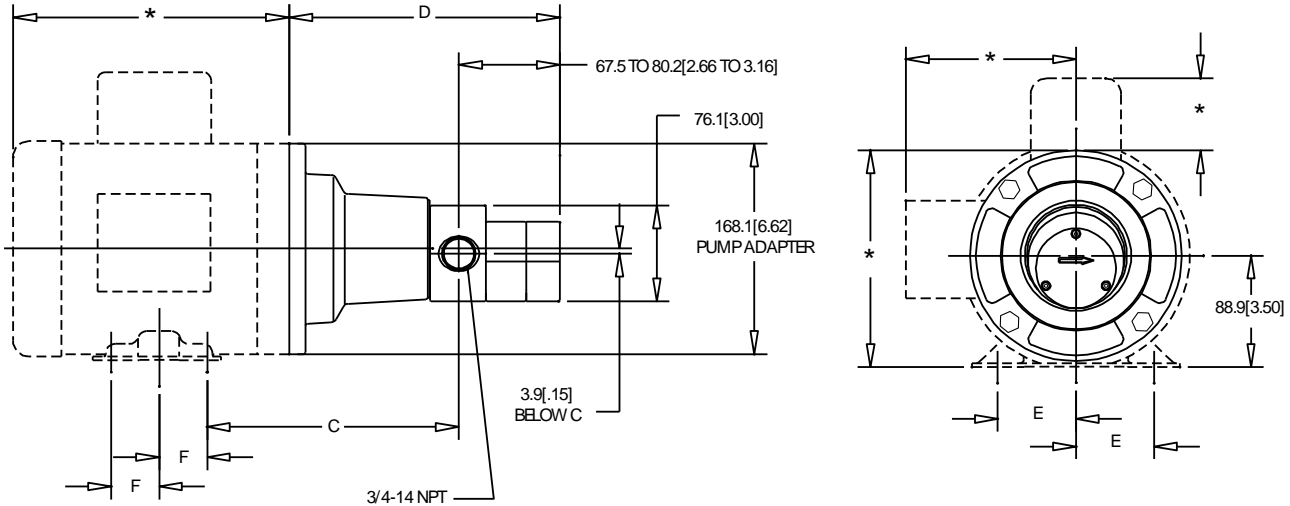
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Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H25				
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)							



Dimensions



MOUNT	C mm [in]	D mm [in]	E mm [in]	F mm [in]
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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:

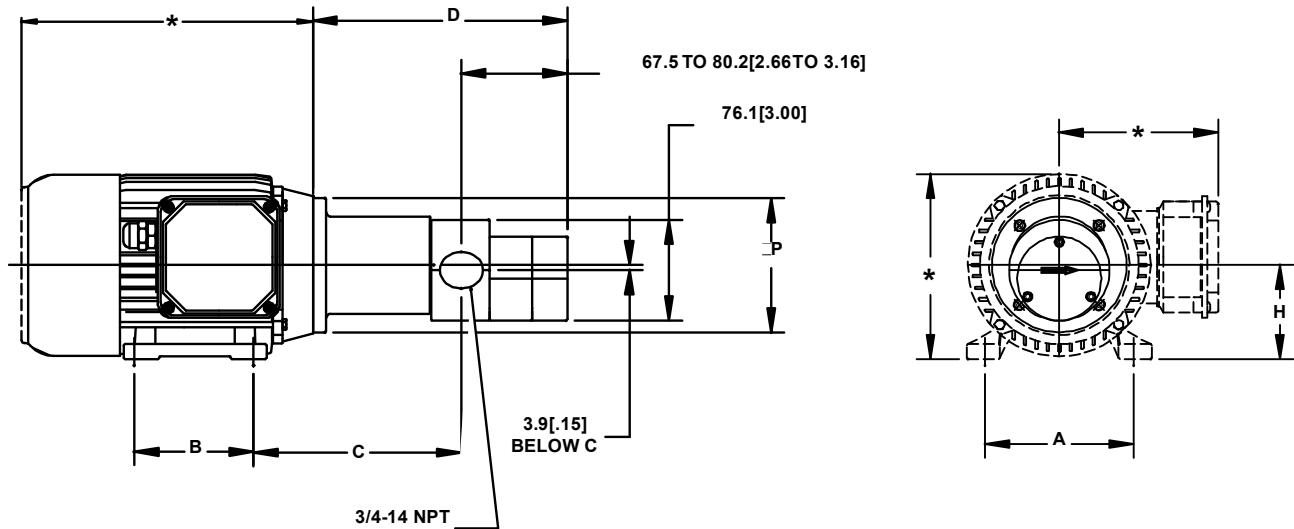
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Base Code		Gear Set		Drive Mount		Options	
G	LH	-	H25			6	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)			



Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
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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]

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