



# Series Overview

# Series GL

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



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

1	Code	Product Type	Specifications	Notes	
	G	Gear Pump			
2	L	Series GL	Max System Pressure (MAWP) 21 Bar (300 psi)	Ports 3/4-14 (F) NPT Side Ports	
3	-	Standard Design			
4		<b>Gear Set (Width/N°Gears/Pitch)</b>	<i>Displacement</i>	<i>Max Differential Pressure</i>	<i>Driven Magnet (Standard)</i>
	H21	0.750/2/12	4.6 ml/rev (1.2 gal/1000*rev)	8.7 Bar (125 psi)	Ferrite
	H23	1.000/2/12	6.2 ml/rev (1.6 gal/1000*rev)	8.7 Bar (125 psi)	Ferrite
	H25	1.250/2/12	7.7 ml/rev (2.0 gal/1000*rev)	8.7 Bar (125 psi)	Ferrite
5		<b>Gear Material</b>		<i>Max Differential Pressure</i>	<i>Temp Range</i>
	F	PTFE		3.5 Bar (50 psi)	-46/54°C (-50/130°F)
	J	PEEK (carbon fiber/ptfe)		8.7 Bar (125 psi)	-46/121°C (-50/250°F)
6		<b>Static Seals</b>			<i>Temp Range</i>
	F	PTFE			-46/232°C (-50/450°F)
	V	Viton®			-29/204°C (-20/400°F)
	D	EP			-46/149°C (-50/300°F)
7		<b>Base Materials</b>			
	S	SS316			
	D	Alloy 20			
	T	Titanium			
	C	Hast C-276®			
8		<b>Drive Mount</b>	<i>Max System Pressure (MAWP)</i>		<i>Weight (Pumphead)</i>
	E	NEMA 56C	21 Bar (300 psi)		3.9 kg (8.6 lbs)
	6	IEC 71-B14	21 Bar (300 psi)		3.9 kg (8.6 lbs)
	8	IEC 80-B14	21 Bar (300 psi)		3.9 kg (8.6 lbs)

**Options** Add Option codes after the Base Code to modify features or enhance the product.

<b>Driven Magnet (PC12)</b>		
M2	SmCo Driven (Laser Welded)	
<b>Driving Magnet (PC13)</b>		
N3	NdFeB Driving (Ring)	
<b>High System Pressure (PC14)</b>		<i>Max System Pressure (MAWP)</i>
CH15	1500 psi (Machined Cup)	103 Bar(1500 psi) SS316

Notes

- 1 PTFE gears come standard with Rulon® bushings

PRICES ARE FOB/EX-WORKS FACTORY - Prices shown are the Manufacturer's Suggested List Price and are subject to change without notice.

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info.micropump@idexcorp.com

www.micropump.com



# Technical Data

# Series GL

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

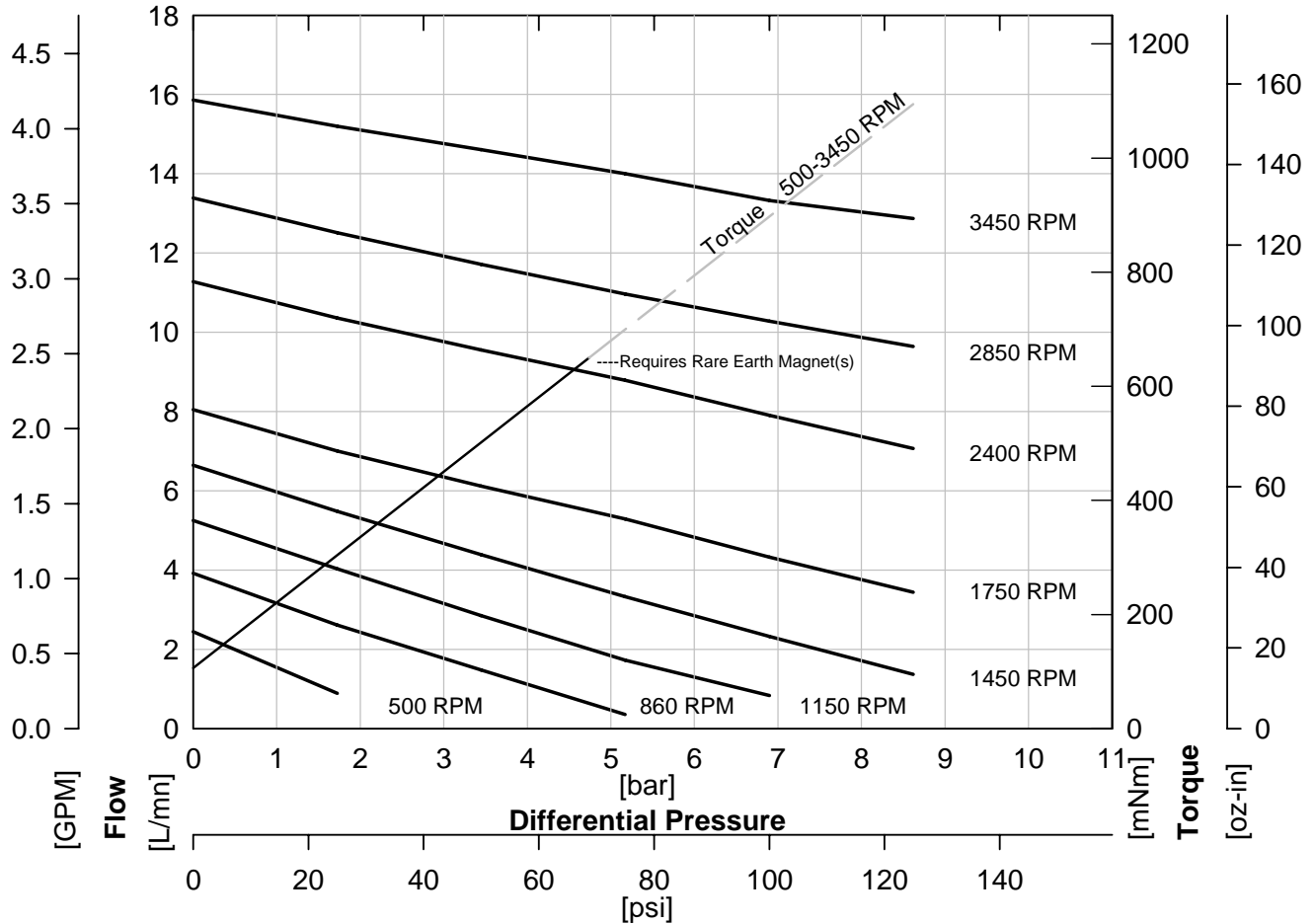
**Pump Construction**  
 Magnetic Drive Gear Pump  
 Cavity Style  
 Two Helical, Shafted Gears/DP12  
 Sleeve Bushings  
 O-Ring Seals (Qty 3)



## Performance

GL-H21

Water @ 1 CP



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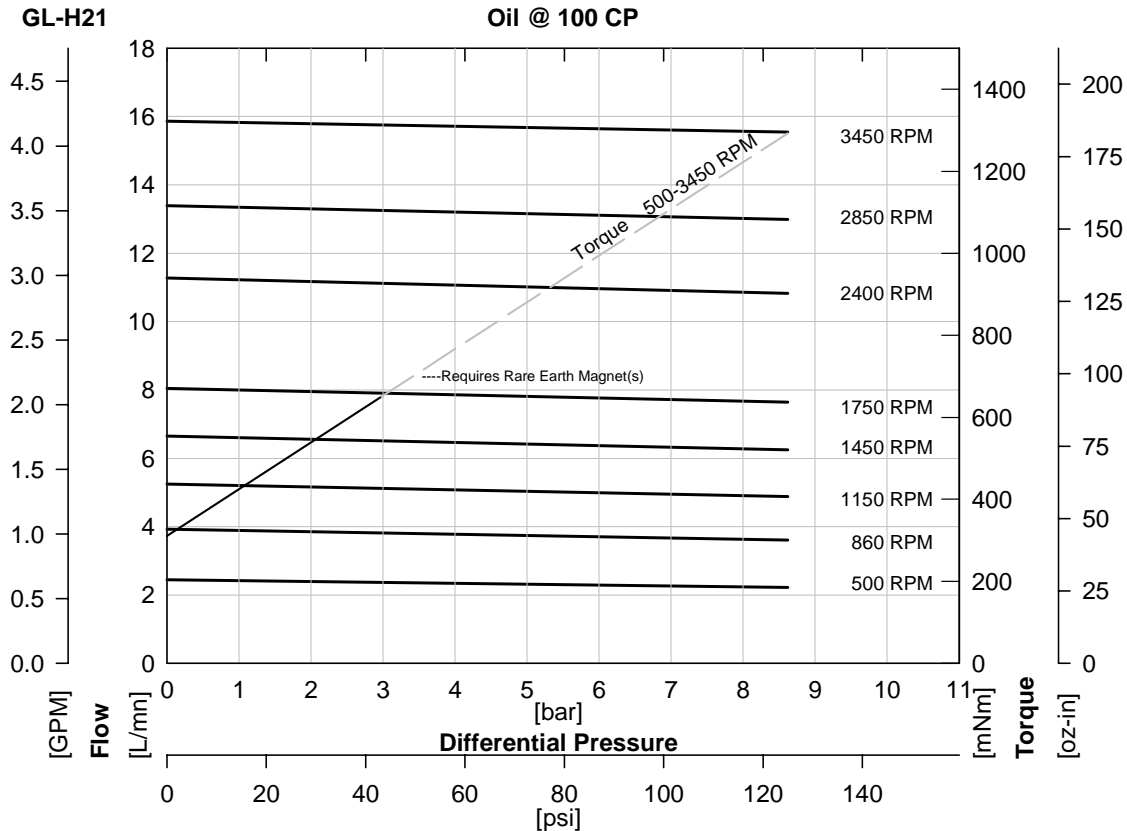
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<b>Base Code</b>		<b>Gear Set</b>		<b>Drive Mount</b>		<b>Options</b>	
G	L	-	H21	●	●	●	
1	2	3	4	5	6	7	8
Model			Wetted Materials				
							O/C: Pump S/K: Service Kit
Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings 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.

<b>Torque Correction Factors: For Higher Viscosity Liquids</b>				
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

<b>Magnet Decouple Torque</b>			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz.in]
Ferrite	Ferrite	643	91
Ferrite	SmCo	819	116
Ferrite	NdFeB	1073	152
SmCo	Ferrite	1222	173
SmCo	SmCo	1483	210
SmCo	NdFeB	1780	252
NdFeB	Ferrite	1921	272
NdFeB	SmCo	2634	373
NdFeB	NdFeB	3298	467

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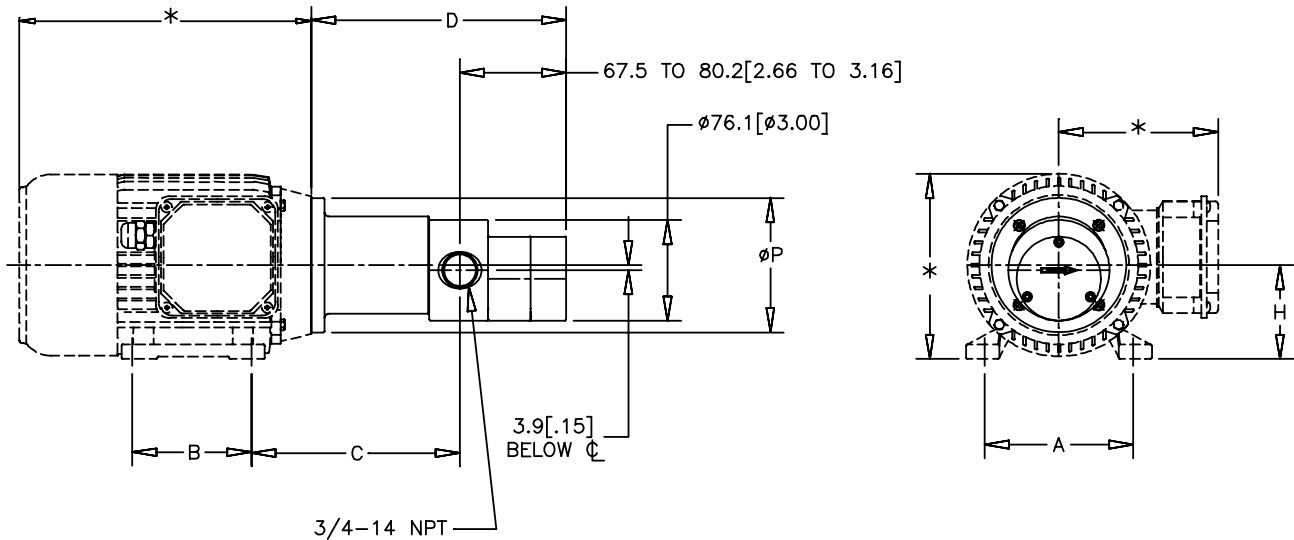
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<b>Base Code</b>		Gear Set		Drive Mount		<b>Options</b>	
G	L	-	H21			6/8	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring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



## Dimensions




MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
<sup>6</sup> 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]
<sup>8</sup> 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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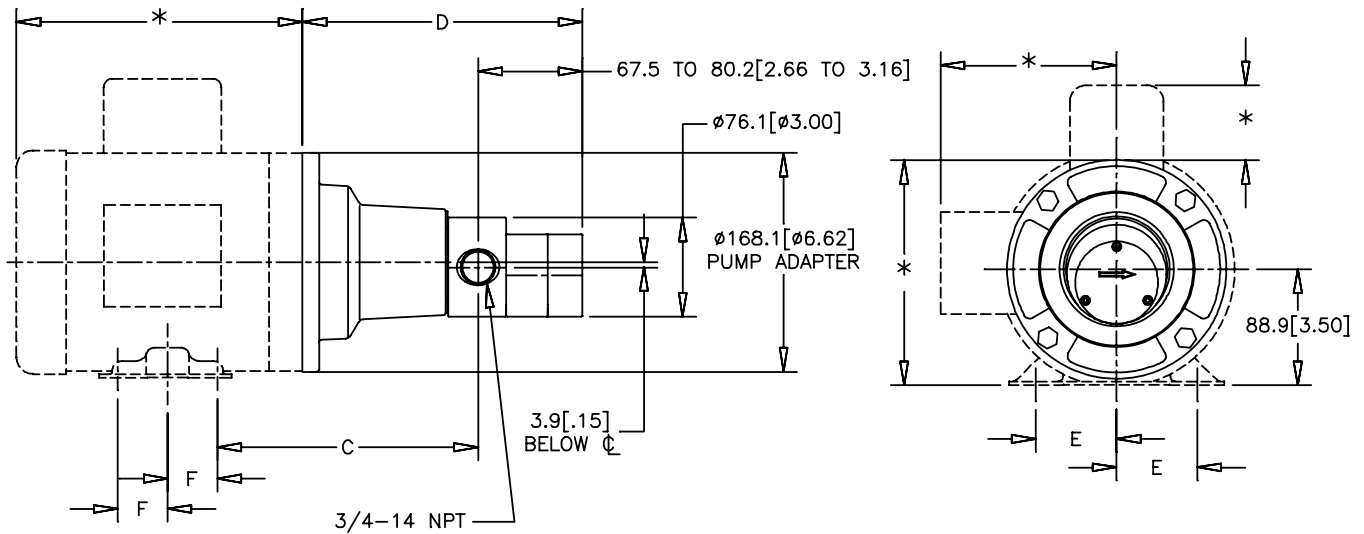
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<b>Base Code</b>		Gear Set		Drive Mount		<b>Options</b>	
G	L	-	H21				
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
							
<b>Magnetic Drive Gear Pump</b> Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)							

## Dimensions



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

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# Series GL

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

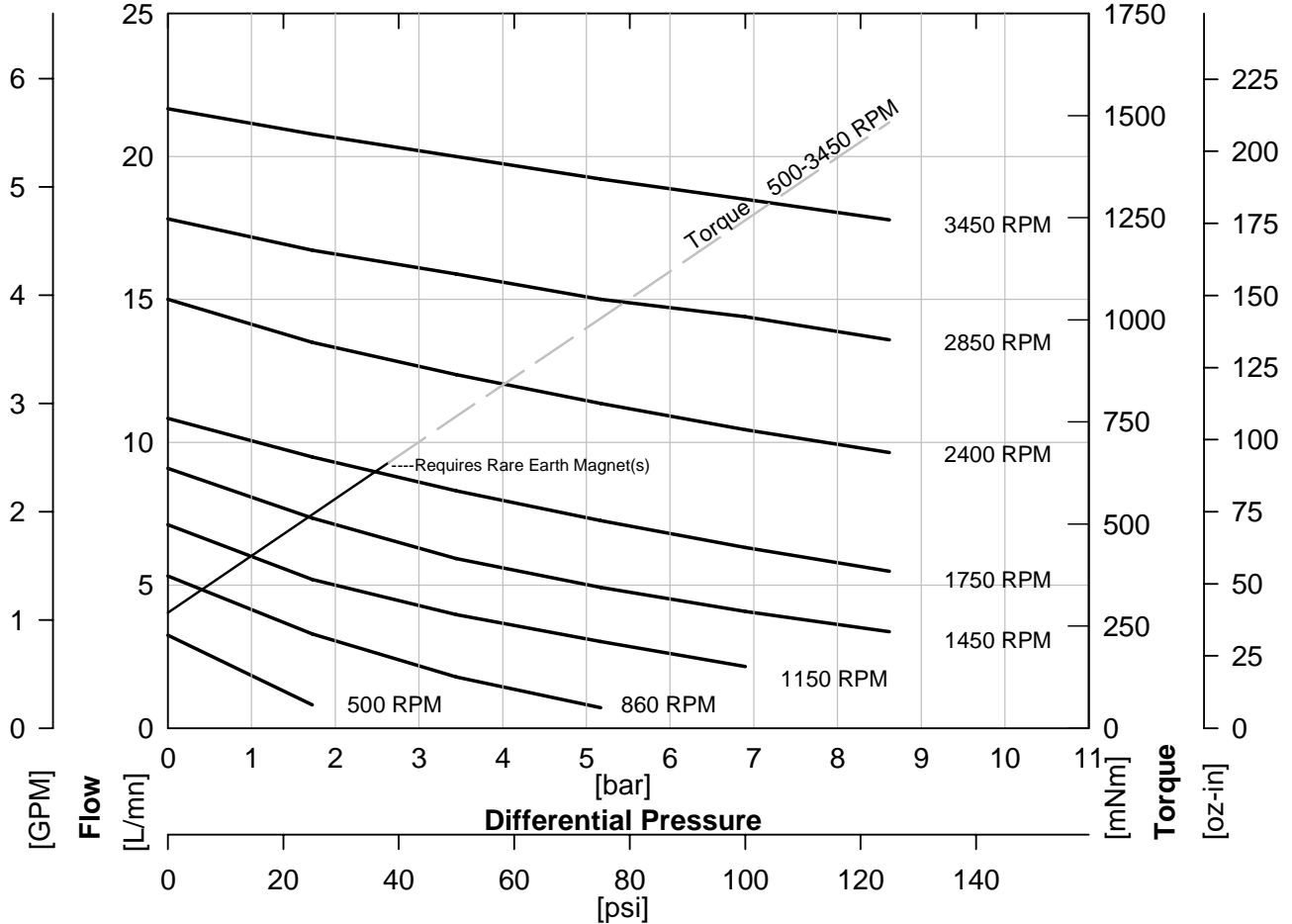
**Pump Construction**  
 Magnetic Drive Gear Pump  
 Cavity Style  
 Two Helical, Shafted Gears/DP12  
 Sleeve Bushings  
 O-Ring Seals (Qty 3)



## Performance

GL-H23

Water @ 1 CP



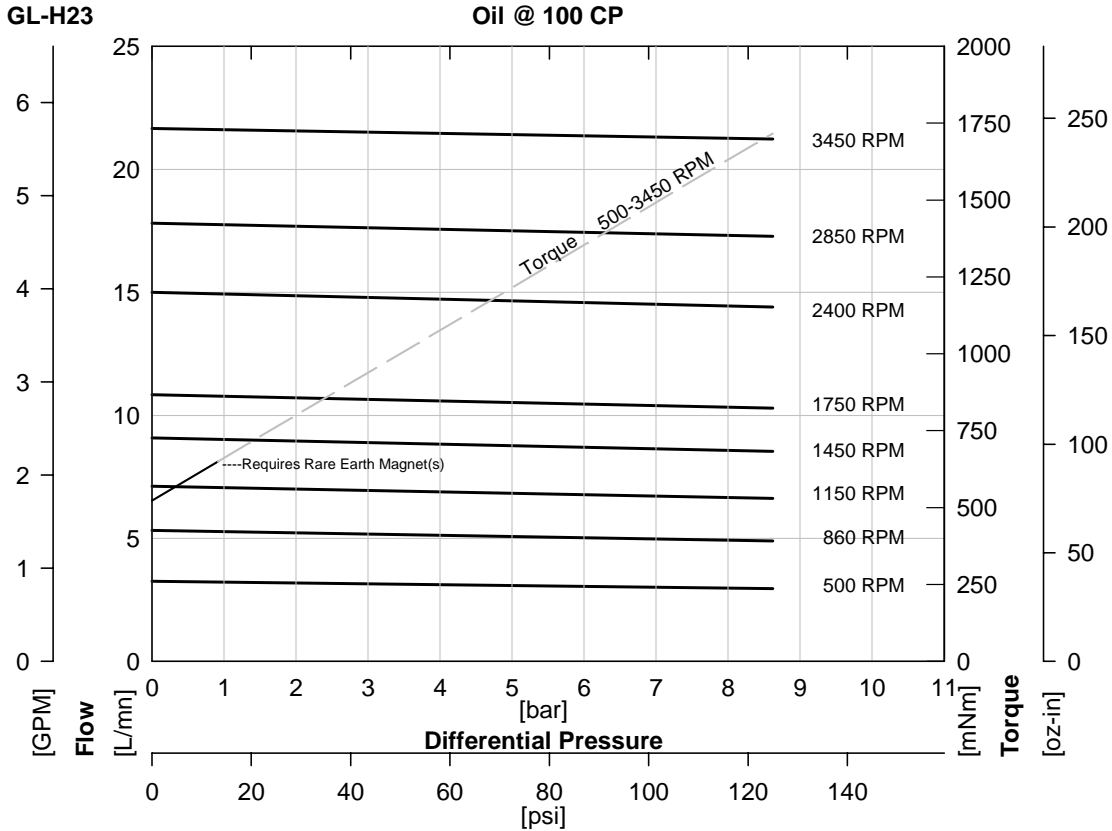
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<b>Order Code</b>				<b>Pump Construction</b>			
<b>Base Code</b>		<b>Gear Set</b>		<b>Drive Mount</b>		<b>Options</b>	
G	L	-	H23	●	●	●	
1	2	3	4	5	6	7	8
Model			Wetted Materials				
							O/C: Pump S/K: Service Kit
Magnetic Drive Gear Pump Cavity 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.

<b>Torque Correction Factors: For Higher Viscosity Liquids</b>				
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

<b>Magnet Decouple Torque</b>			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz.in]
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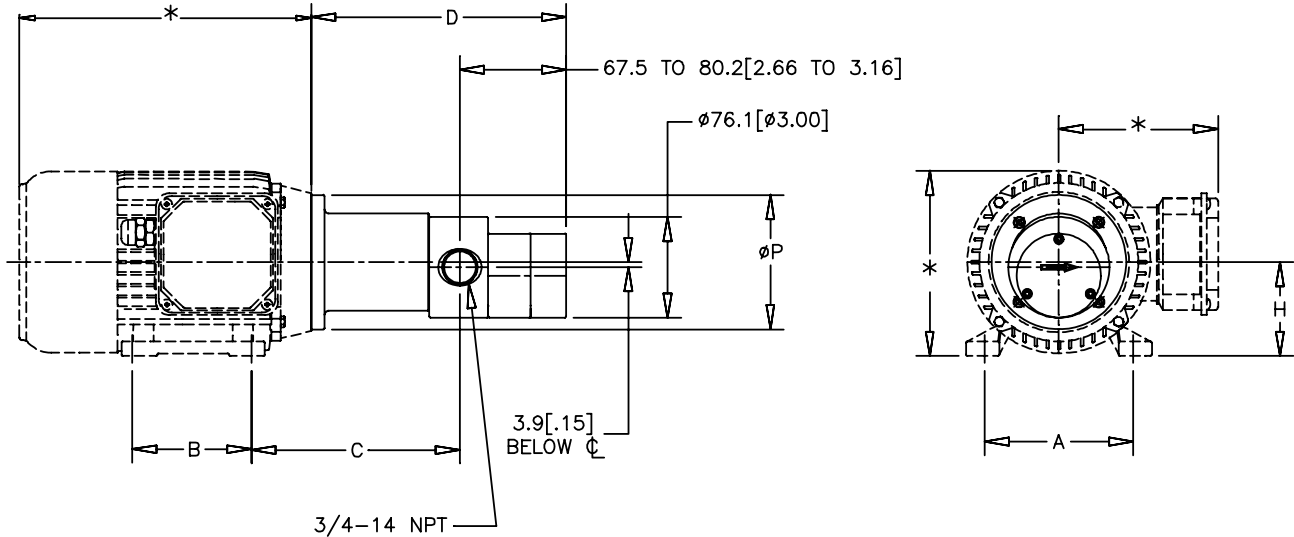




<b>Order Code</b>				<b>Pump Construction</b>			
<b>Base Code</b>		Gear Set		Drive Mount		<b>Options</b>	
G	L	-	H23			6/8	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals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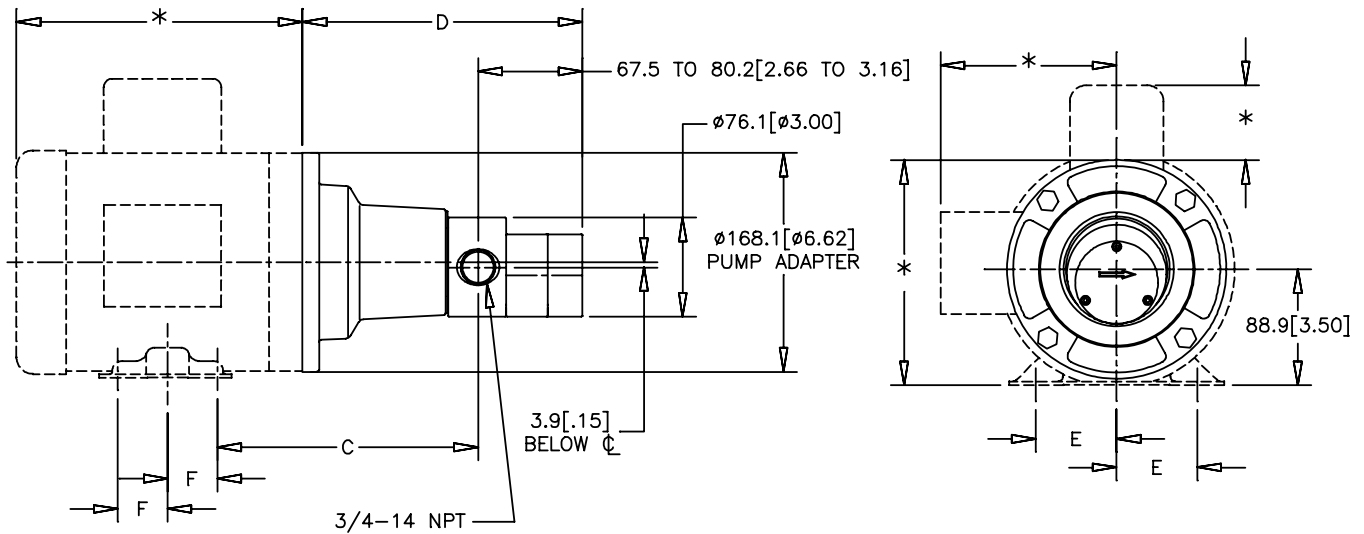
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Order Code								Options		<b>Pump Construction</b> Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring Seals (Qty 3)
Base Code			Gear Set		Drive Mount					
G	L	-	H23				E			
1	2	3	4	5	6	7	8			
Model				Wetted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

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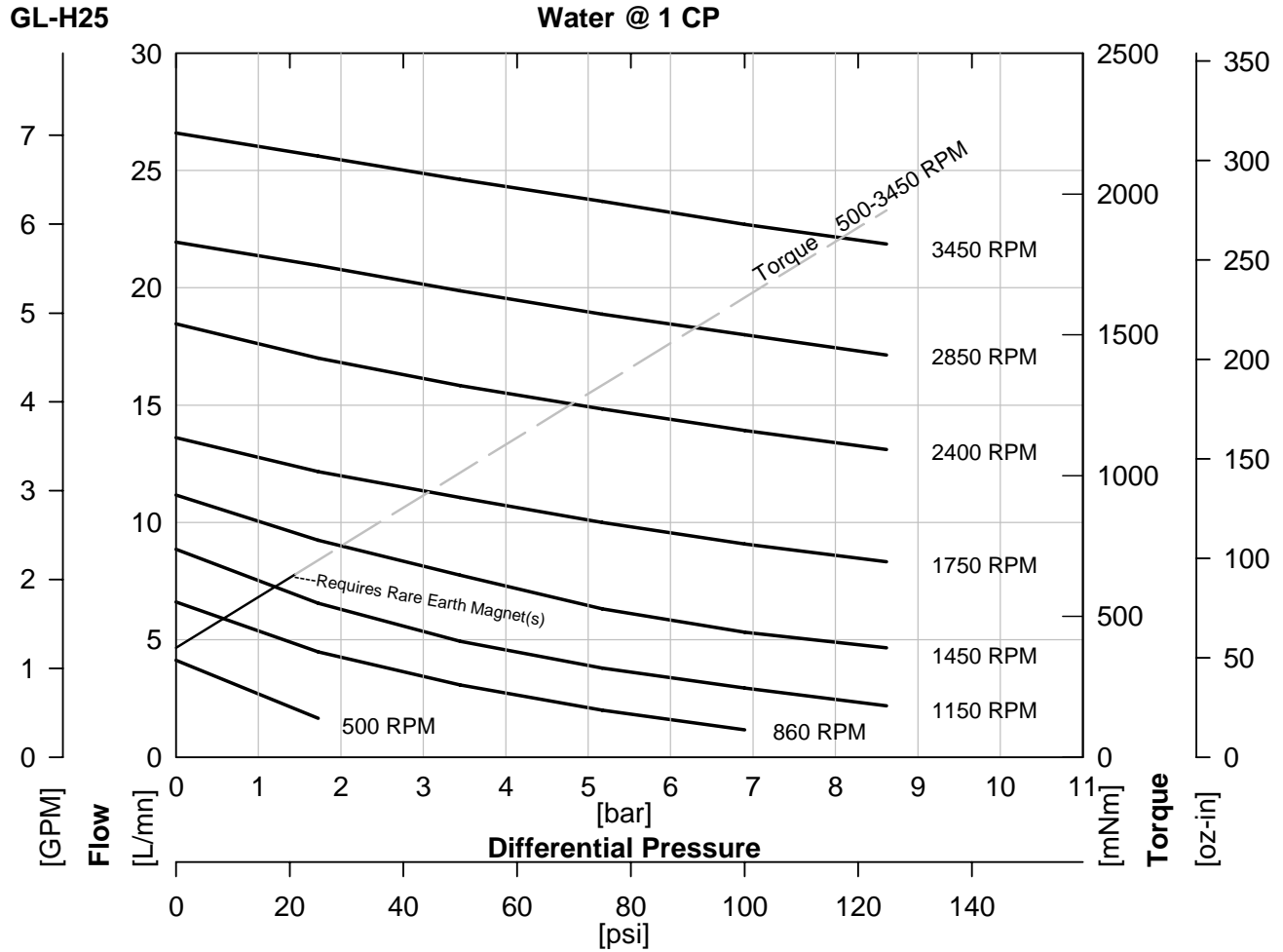
# Series GL

<b>Order Code</b>				<b>Options</b>			
<b>Base Code</b>		<b>Gear Set</b>		<b>Drive Mount</b>			
G	L	-	H25				
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)




## Performance

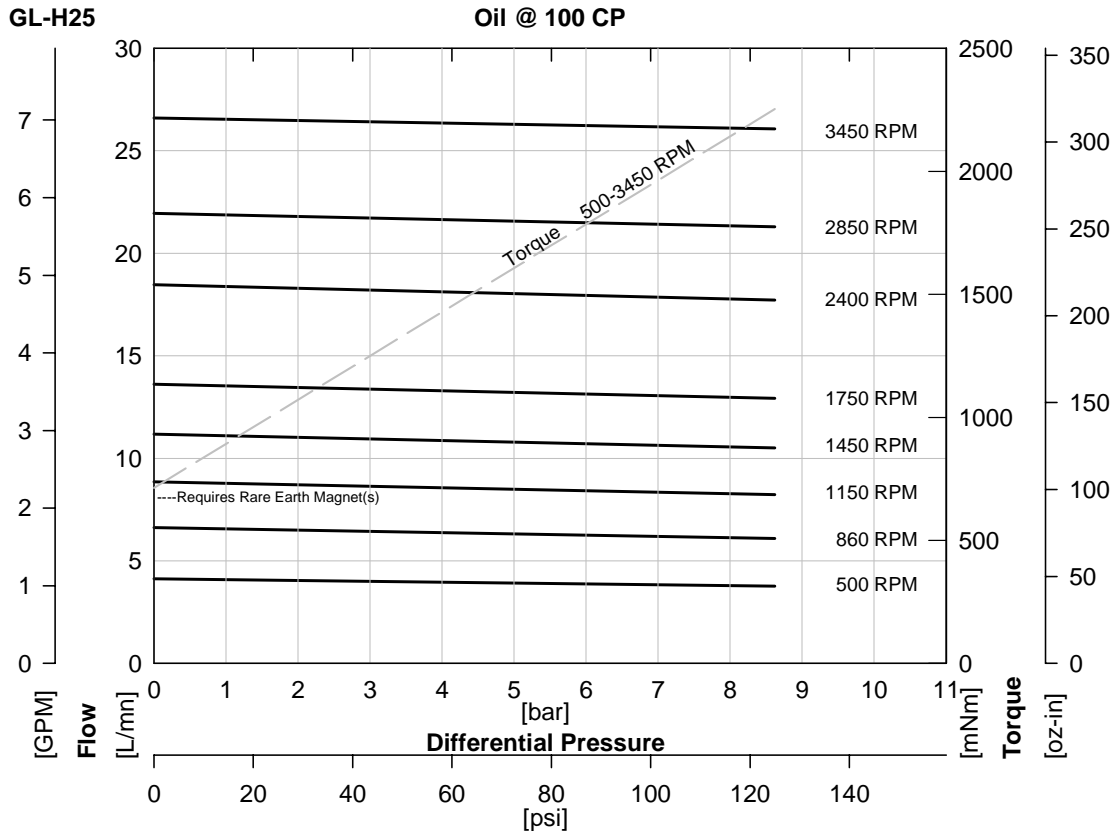


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<b>Base Code</b>												
<b>G</b>	<b>L</b>	-	<b>H25</b>									
1	2	3	4	5	6	7	8		O/C: Pump S/K: Service Kit			
Model			Wetted Materials									

## Performance-High Viscosity



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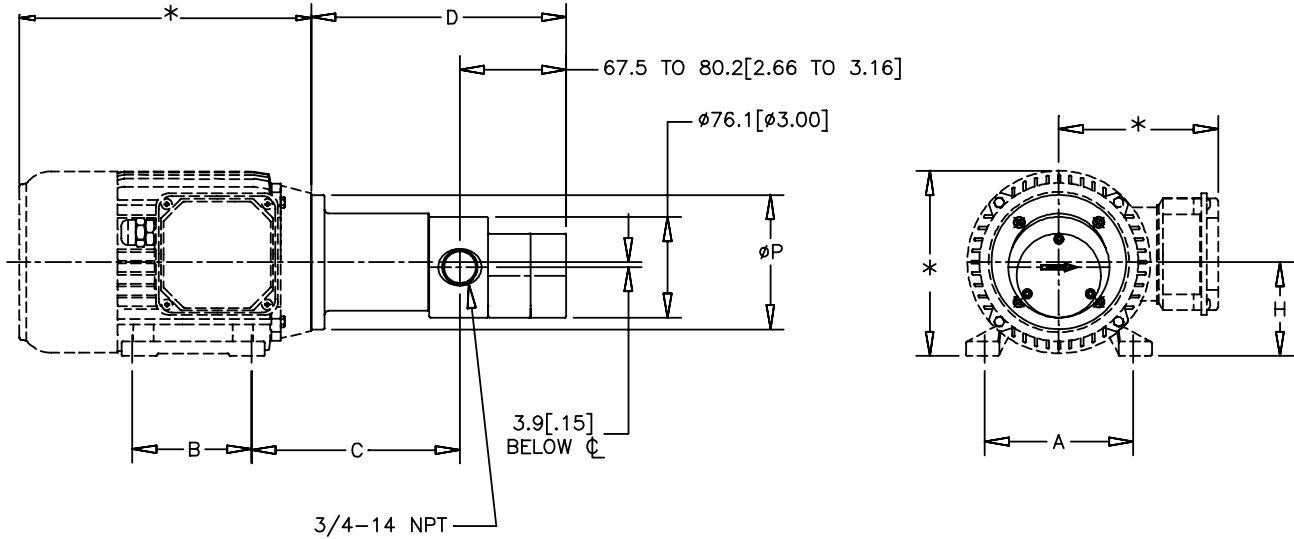
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<b>Base Code</b>		Gear Set		Drive Mount		<b>Options</b>	
G	L	-	H25			6/8	
1	2	3	4	5	6	7	8
Model				Wetted Materials			
				O/C: Pump S/K: Service Kit			
				Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP12 Sleeve Bushings O-Ring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



## Dimensions



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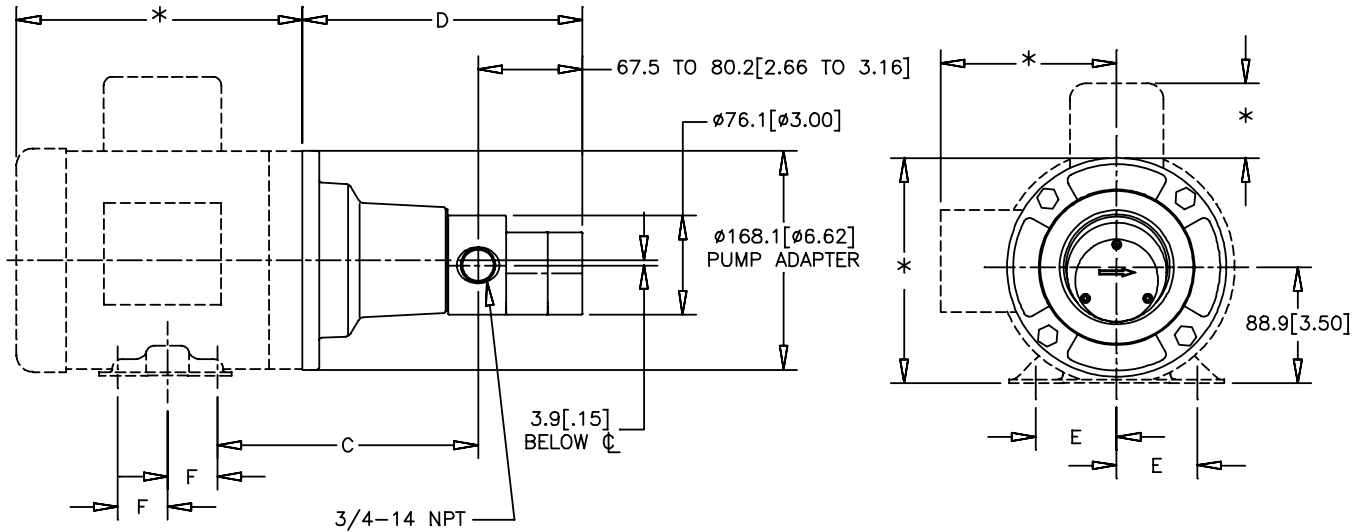
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<b>Order Code</b>				<b>Pump Construction</b>			
<b>Base Code</b>		Gear Set		Drive Mount		<b>Options</b>	
G	L	-	H25			E	
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	
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- \*THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION.
- ALL DIMENSIONS ARE 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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