

Technical Specification Data

<p>Order Code</p> <p>Base Code Gear Set Drive Mount</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 12.5%;">G</td> <td style="width: 12.5%;">JR</td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></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> <tr> <td colspan="4">Model</td> <td colspan="2">Wetted Materials</td> <td colspan="2">O/C: Pump S/K: Service Kit</td> </tr> </table>	G	JR							1	2	3	4	5	6	7	8	Model				Wetted Materials		O/C: Pump S/K: Service Kit		<p>Pump Construction</p> <p>Magnetic Drive Gear Pump Cavity Style Two Spur, Shafted Gears Sleeve Bushings/Gasket Seals (2) PTFE Bevel or O-Ring Seal (1)</p>
G	JR																								
1	2	3	4	5	6	7	8																		
Model				Wetted Materials		O/C: Pump S/K: Service Kit																			

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

Code	Product Type	Specifications	Notes
1	G Gear Pump		
2	Product Series	Max System Pressure (MAWP)	Ports
	JR Series GJR	21 Bar (300 psi)	1/8-28 B.S.P.P. Side Ports
3	Modifier		
	- Standard Design		
4	Gear Set (Width/N°Gears/Pitch)	Displacement	Max Differential Pressure Driven Magnet (Standard)
	N21 0.175 / 2 / 24	0.316 ml/rev (0.08 gal/1000*rev)	5.5 Bar (80 psi) Ferrite
	N23 0.350 / 2 / 24	0.64 ml/rev (0.17 gal/1000*rev)	5.5 Bar (80 psi) Ferrite
	N27 0.700 / 2 / 24	1.23 ml/rev (0.32 gal/1000*rev)	5.5 Bar (80 psi) Ferrite
5	Gear Material		Max Differential Pressure Temp Range
	99 Solid Nickel Carbide		5.5 Bar (80 psi) -46/121°C (-50/250°F)
6	Static Seals		Temp Range
	F1 PTFE Gasket (.004) 5369		-46/121°C (-50/250°F)
	F4 PTFE Gasket (.004) 5369		-46/121°C (-50/250°F)
	F11 PTFE Gaskets/ Viton O-Ring		-46/121°C (-50/250°F) 1
	F12 PTFE Gaskets/ EP O-Ring		-46/121°C (-50/250°F) 1
	F15 PTFE Gasket/ TEV O-Ring		-46/121°C (-50/250°F) 1
7	Base Materials		
	S SS316		
8	Drive Mount	Max System Pressure (MAWP)	Weight (Pumphead)
	A* MP Housing	21 Bar (300 psi)	0.34 kg (0.75 lbs)
	SE EagleDrive™ MS	21 Bar (300 psi) SS316	0.45 kg (1.0 lbs)
	LE EagleDrive™ EL	21 Bar (300 psi) SS316	0.45 kg (1.0 lbs)

*A-mount housing can be adapted to any NEMA 56C or IEC motor

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Order Code								Pump Construction	
Base Code		Gear Set						Drive Mount	
G	JR								
1	2	3	4	5	6	7	8	O/C: Pump S/K: Service Kit	
Model			Wetted Materials						
								Magnetic Drive Gear Pump	
								Cavity Style	
								Two Spur, Shafted Gears	
								Sleeve Bushings/Gasket Seals (2)	
								PTFE Bevel or O-Ring Seal (1)	

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

Bypass C11

Optional System Bypass

Notes

Driven Magnet (PC12)

Driving Magnet (PC13)

N3 NdFEB Driving (Ring)

2

Ports / Fittings (PC17)

Ports

P2 1/8-28 B.S.P.P. Ports

1/8-28 B.S.P.P. Ports

Ports Orientation (PC18)

Ports

Q1 Deck Ports

Deck Ports

1

Notes

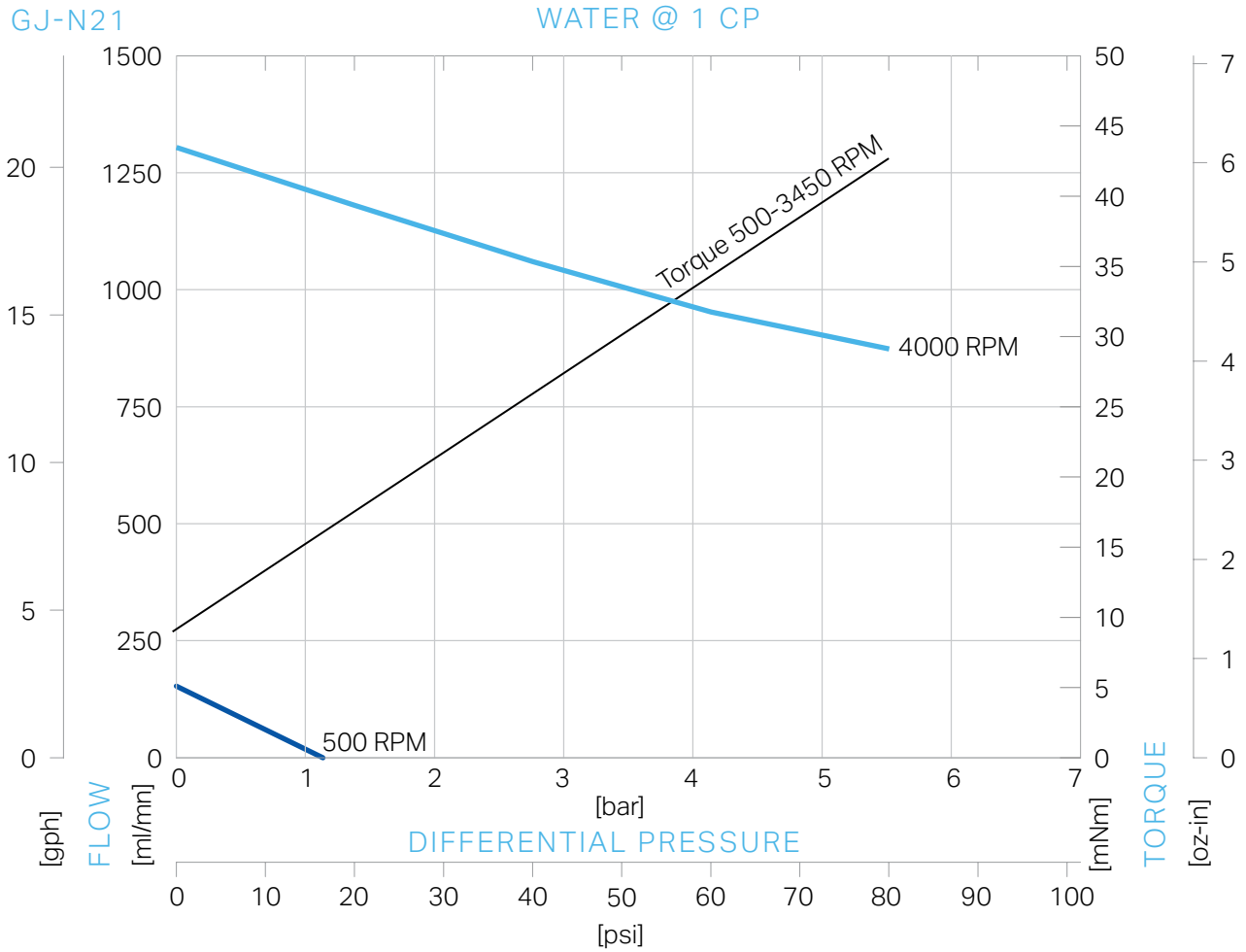
1 - Denotes customization or materials that may require minimum order quantities.

2- Available only with industrial IEC or NEMA drive mounts

Technical Specification Data

Order Code								Pump Construction		
Base Code		Gear Set		Drive Mount				Magnetic Drive Gear Pump		
G	JR	-	N21					Cavity Style		
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears		
Model			Wetted Materials				O/C: Pump S/K: Service Kit		Sleeve Bushings/Gasket Seals (2)	
								PTFE Bevel or O-Ring Seal (1)		

Performance



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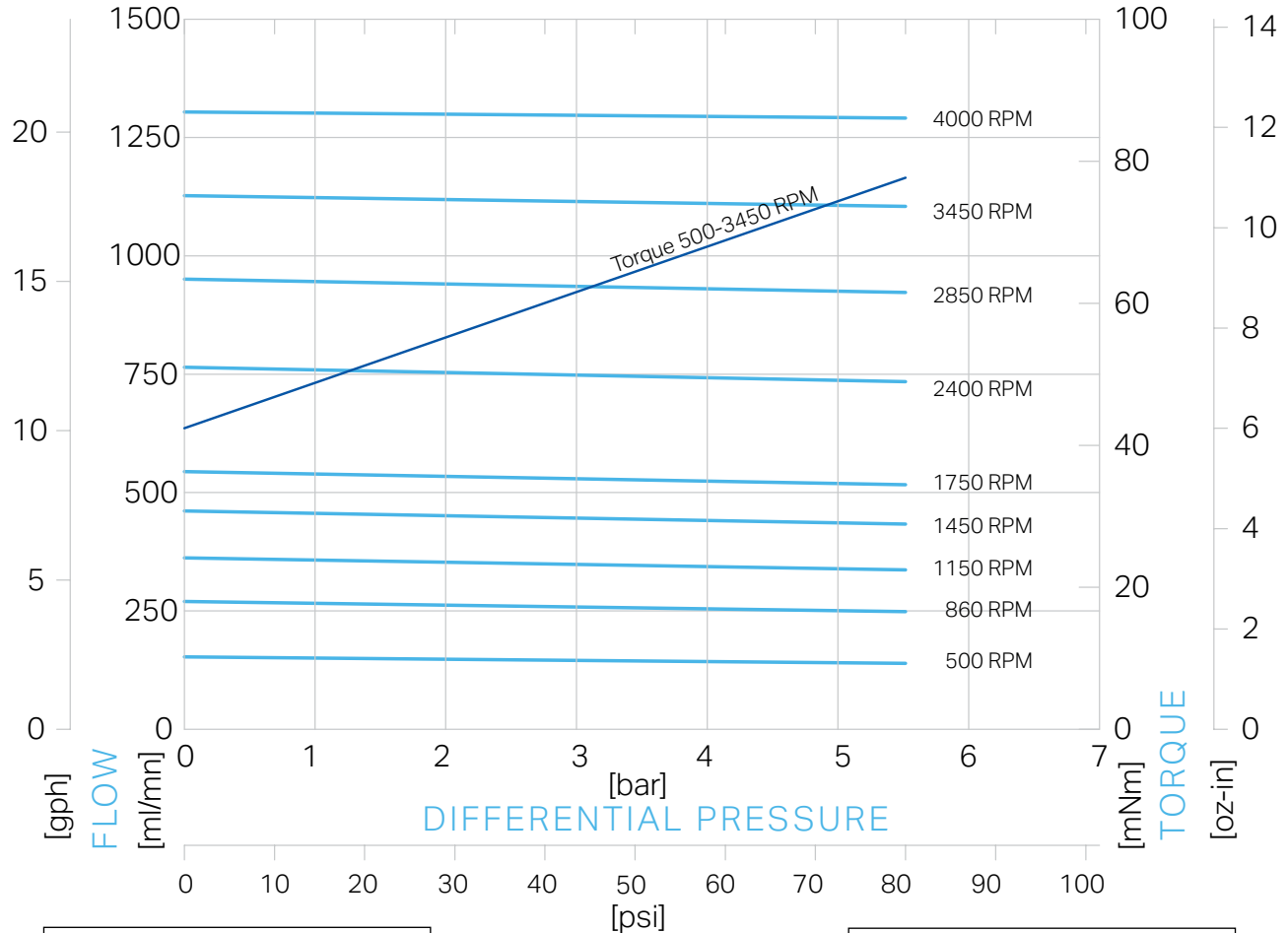
Technical Specification Data

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Base Code		Gear Set		Drive Mount				Magnetic Drive Gear Pump			
G	JR	-	N21					Cavity Style			
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears			
Model			Wetted Materials				Sleeve Bushings/Gasket Seals (2)				
								PTFE Bevel or O-Ring Seal (1)			
								O/C: Pump S/K: Service Kit			

Performance-High Viscosity

GJ-N21

OIL @ 100 CP



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

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

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

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	1500
Max Speed [RPM]		10,000	3450	860
[Bar]	[psi]			
0.3	5	0.2	1	2.3
1.4	20	0.3	1	2.1
2.8	40	0.4	1	1.9
4.1	60	0.5	1	1.8
5.5	80	0.5	1	1.6

Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz. in.]
Ferrite	Ferrite	113	16
Ferrite	Ferrite	134	19
Ferrite	SmCo	254	36
SmCo	SmCo	636	90
Ferrite	NdFeB	304	43
SmCo	NdFeB	932	132

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<p>Base Code</p> <table border="1"> <tr> <td>G</td> <td>JR</td> <td>-</td> <td>N21</td> <td></td> <td></td> <td></td> <td></td> <td></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> <td></td> </tr> </table> <p>Model: 1-3, Wetted Materials: 4-6, Drive Mount: 7-8, O/C: Pump, S/K: Service Kit</p>	G	JR	-	N21						1	2	3	4	5	6	7	8		<p>Magnetic Drive Gear Pump</p> <p>Cavity Style</p> <p>Two Spur, Shafted Gears</p> <p>Sleeve Bushings/Gasket Seals (2)</p> <p>PTFE Bevel or O-Ring Seal (1)</p>
G	JR	-	N21																
1	2	3	4	5	6	7	8												

Specifications

	SI	US
Displacement	0.316 ml/rev	0.08 gal/1000*rev
Max Flow (4 Pole Speed)	460 ml/mn 1450 RPM (50Hz)	8.9 gal/hr 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	910 ml/mn 2850 RPM (50Hz)	18 gal/hr 3450 RPM (60Hz)
Max Differential Pressure	1 5.5 Bar	80 psi
Max System Pressure (MAWP)	21 Bar	300 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 1500 cp	0.2 to 1500 cp
Max Speed	5,500 RPM	5,500 RPM
Rotation (Facing Motor Shelf)	CW	CW
Weight (Pumphead)	0.45 kg	1.0 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	1/8-28 B.S.P.P. Side Ports	1/8-28 B.S.P.P. Side Ports
Driven Magnet (Standard)	Ferrite	Ferrite

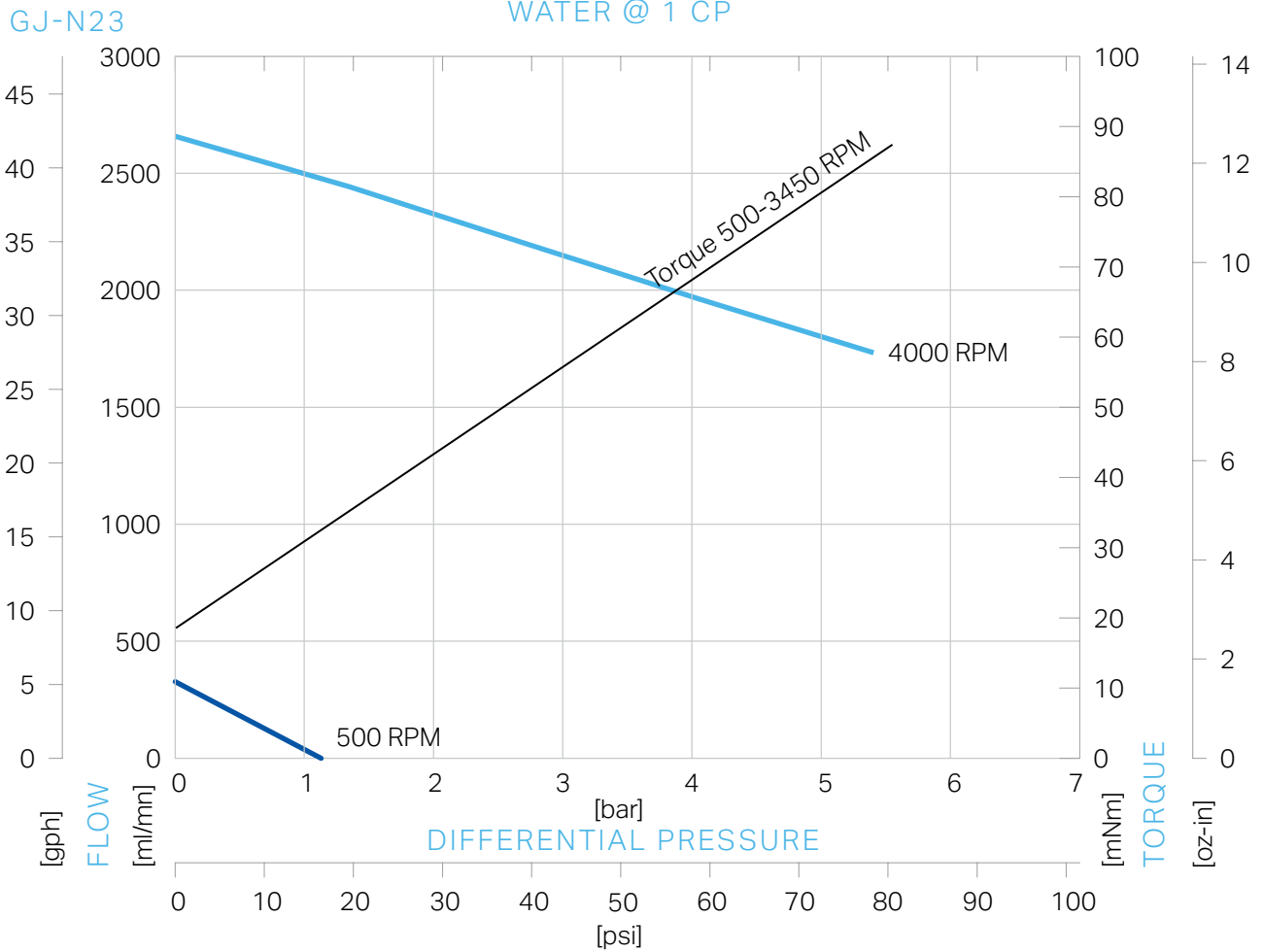
Notes

- 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.

Technical Specification Data

Order Code								Pump Construction	
Base Code		Gear Set		Drive Mount				Magnetic Drive Gear Pump	
G	JR	-	N23					Cavity Style	
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears	
Model			Wetted Materials			O/C: Pump S/K: Service Kit		Sleeve Bushings/Gasket Seals (2)	
								PTFE Bevel or O-Ring Seal (1)	

Performance



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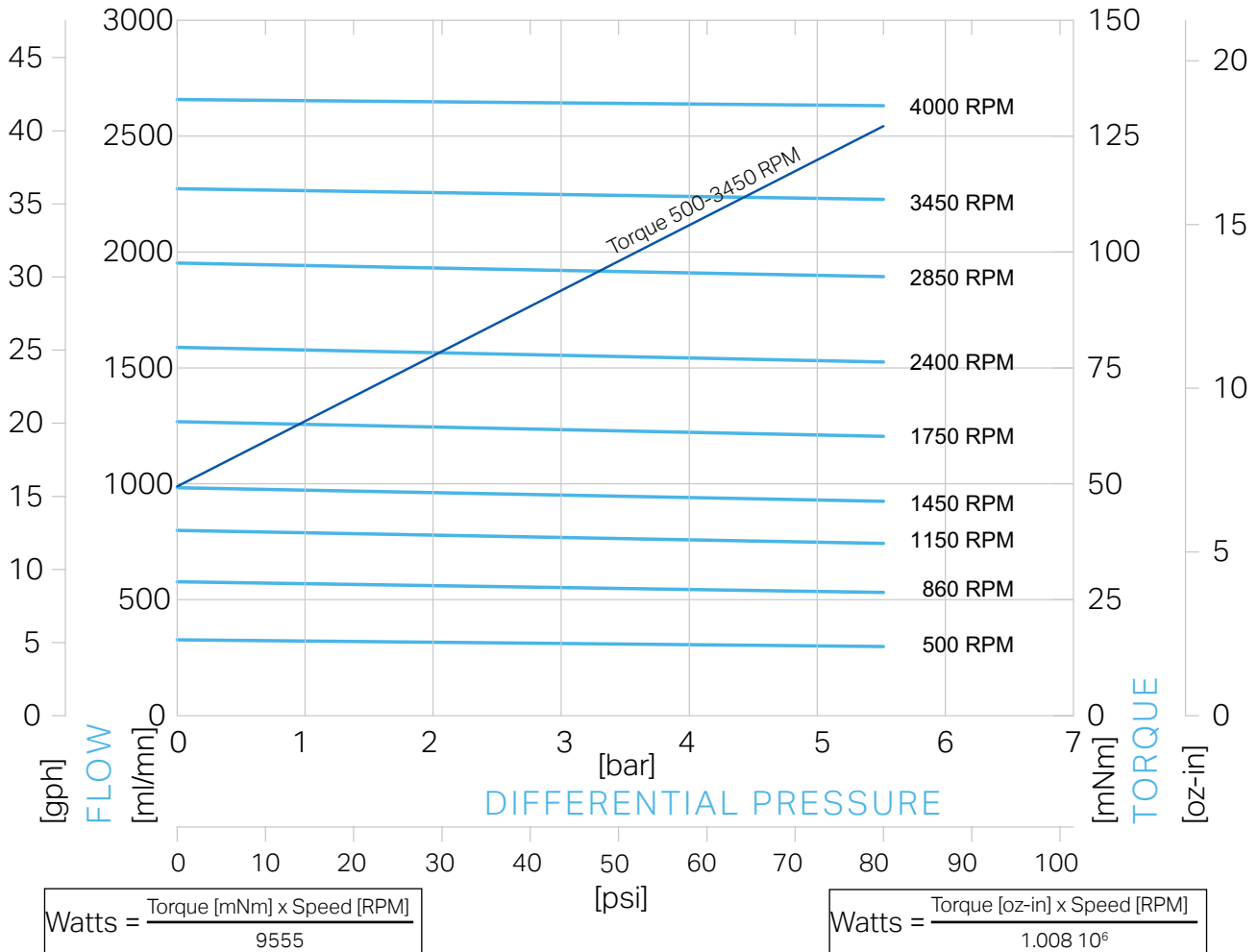
Technical Specification Data

Order Code								Pump Construction	
Base Code		Gear Set		Drive Mount				Magnetic Drive Gear Pump	
G	JR	-	N23					Cavity Style	
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears	
Model			Wetted Materials				O/C: Pump		S/K: Service Kit
								Sleeve Bushings/Gasket Seals (2)	
								PTFE Bevel or O-Ring Seal (1)	

Performance-High Viscosity

GJ-N23

OIL @ 100 CP



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

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	1500
Max Speed [RPM]		10,000	3450	860
[Bar]	[psi]			
0.3	5	0.2	1	2.3
1.4	20	0.3	1	2.1
2.8	40	0.4	1	1.9
4.1	60	0.5	1	1.8
5.5	80	0.5	1	1.6

Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz. in.]
Ferrite	Ferrite	113	16
Ferrite	Ferrite	134	19
Ferrite	SmCo	254	36
SmCo	SmCo	636	90
Ferrite	NdFeB	304	43
SmCo	NdFeB	932	132

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Order Code	Pump Construction																											
<p>Base Code</p> <table border="1"> <tr> <td>G</td> <td>JR</td> <td>-</td> <td>N23</td> <td></td> <td></td> <td></td> <td></td> <td></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> <td></td> </tr> <tr> <td colspan="3">Model</td> <td colspan="3">Wetted Materials</td> <td colspan="2">Drive Mount</td> <td>O/C: Pump S/K: Service Kit</td> </tr> </table>	G	JR	-	N23						1	2	3	4	5	6	7	8		Model			Wetted Materials			Drive Mount		O/C: Pump S/K: Service Kit	<p>Magnetic Drive Gear Pump Cavity Style Two Spur, Shafted Gears Sleeve Bushings/Gasket Seals (2) PTFE Bevel or O-Ring Seal (1)</p>
G	JR	-	N23																									
1	2	3	4	5	6	7	8																					
Model			Wetted Materials			Drive Mount		O/C: Pump S/K: Service Kit																				

Specifications

	SI	US
Displacement	0.64 ml/rev	0.17 gal/1000*rev
Max Flow (4 Pole Speed)	930 ml/mn 1450 RPM (50Hz)	18 gal/hr 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	1830 ml/mn 2850 RPM (50Hz)	36 gal/hr 3450 RPM (60Hz)
Max Differential Pressure	5.5 Bar	80 psi
Max System Pressure (MAWP)	21 Bar	300 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 1500 cp	0.2 to 1500 cp
Max Speed	5,500 RPM	5,500 RPM
Rotation (Facing Motor Shelf)	CW	CW
Weight (Pumphead)	0.45 kg	1.0 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	1/8-28 B.S.P.P. Side Ports	1/8-28 B.S.P.P. Side Ports
Driven Magnet (Standard)	Ferrite	Ferrite

Notes

- 2 - Priming ability varies with operating conditions.
- 3 - See Product Options for specific temp limits.
- 4 - See Performance-High Viscosity for viscosity limits.

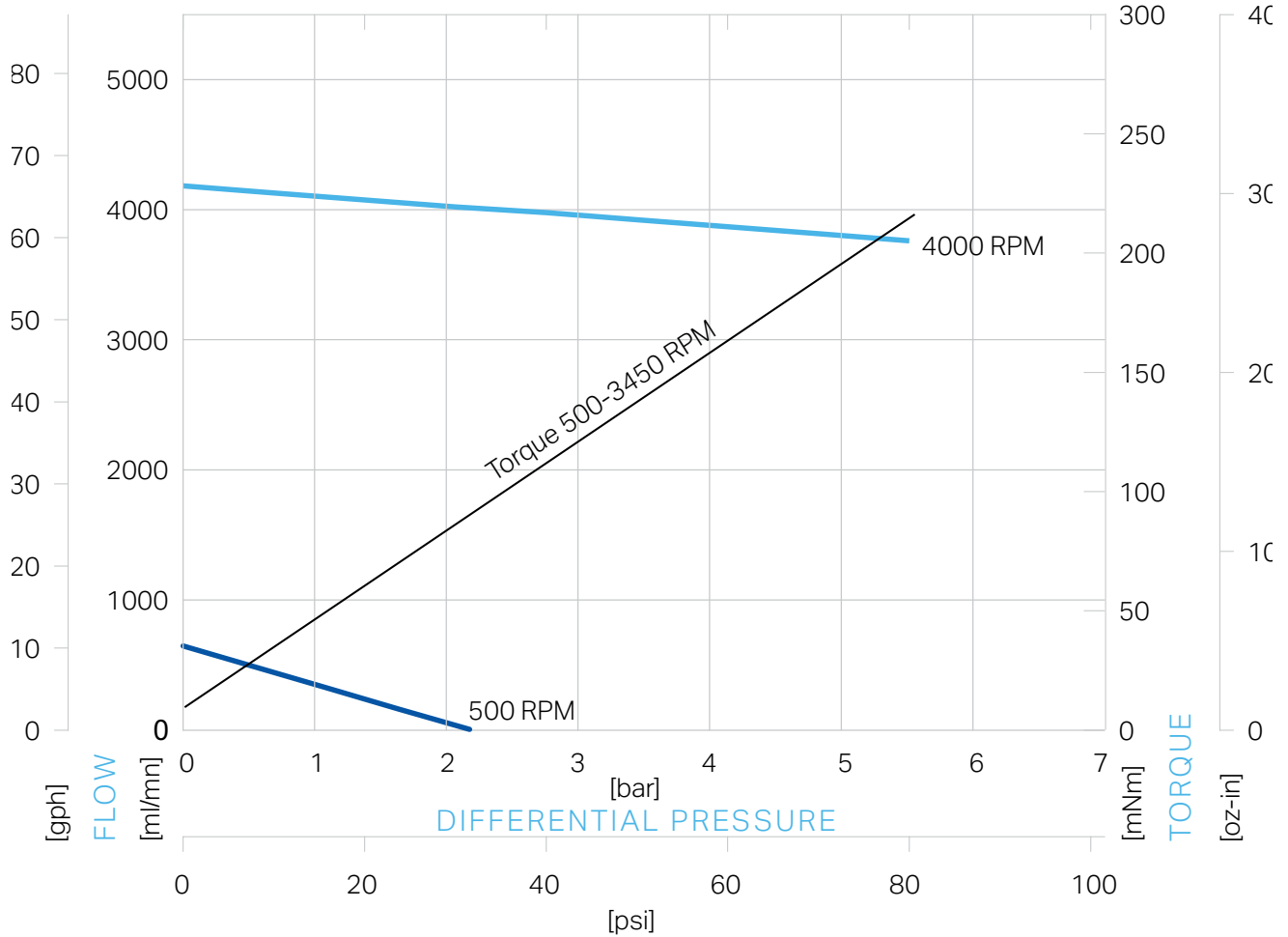
Technical Specification Data

Order Code								Pump Construction		
Base Code			Gear Set		Drive Mount			Magnetic Drive Gear Pump		
G	JR	-	N27					Cavity Style		
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears		
Model				Wetted Materials			O/C: Pump S/K: Service Kit		Sleeve Bushings/Gasket Seals (2)	
								PTFE Bevel or O-Ring Seal (1)		

Performance

GJ-N27

WATER @ 1 CP

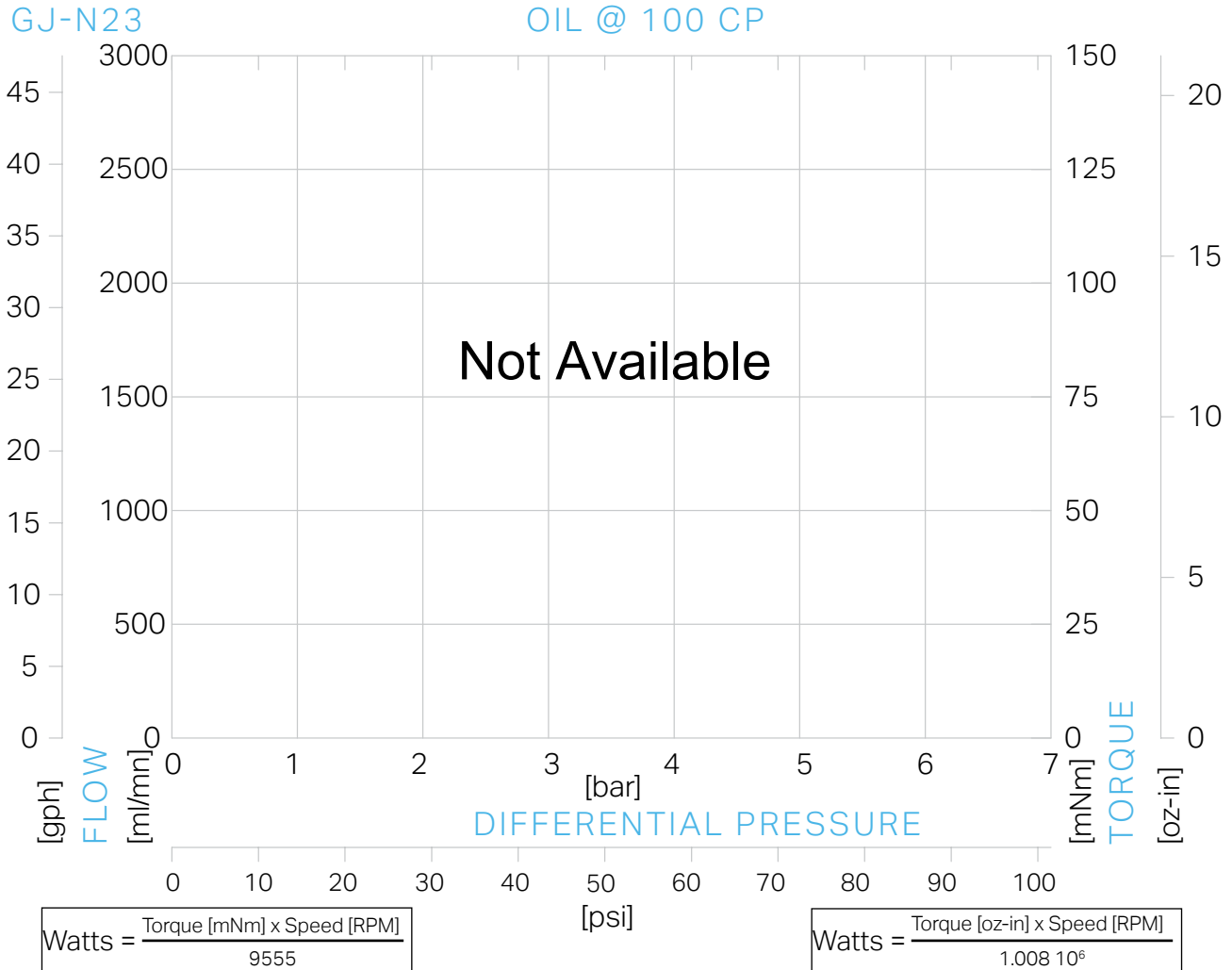


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Technical Specification Data

Order Code								Pump Construction	
Base Code		Gear Set		Drive Mount				Magnetic Drive Gear Pump	
G	JR	-	N27					Cavity Style	
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears	
Model			Wetted Materials				O/C: Pump		Sleeve Bushings/Gasket Seals (2)
								PTFE Bevel or O-Ring Seal (1)	
								S/K: Service Kit	

Performance-High Viscosity



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

Torque Correction Factors: For Higher Viscosity Liquids				
Viscosity [cp]		1	100	1500
Max Speed [RPM]		10,000	3450	860
[Bar]	[psi]			
0.3	5	0.2	1	2.3
1.4	20	0.3	1	2.1
2.8	40	0.4	1	1.9
4.1	60	0.5	1	1.8
5.5	80	0.5	1	1.6

Magnet Decouple Torque			
Driven Magnet	Driving Hub	Torque [mNm]	Torque [oz. in.]
Ferrite	Ferrite	113	16
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Ferrite	SmCo	254	36
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Ferrite	NdFeB	304	43
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<p>Base Code</p> <table border="1"> <tr> <td>G</td> <td>JR</td> <td>-</td> <td>N27</td> <td></td> <td></td> <td></td> <td></td> <td></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> <td></td> </tr> <tr> <td colspan="3">Model</td> <td colspan="3">Wetted Materials</td> <td colspan="2">Drive Mount</td> <td></td> </tr> </table> <p>O/C: Pump S/K: Service Kit</p>	G	JR	-	N27						1	2	3	4	5	6	7	8		Model			Wetted Materials			Drive Mount			<p>Magnetic Drive Gear Pump</p> <p>Cavity Style</p> <p>Two Spur, Shafted Gears</p> <p>Sleeve Bushings/Gasket Seals (2)</p> <p>PTFE Bevel or O-Ring Seal (1)</p>
G	JR	-	N27																									
1	2	3	4	5	6	7	8																					
Model			Wetted Materials			Drive Mount																						

Specifications

	SI	US
Displacement	1.23 ml/rev	0.32 gal/1000*rev
Max Flow (4 Pole Speed)	1630 ml/mn 1450 RPM (50Hz)	32 gal/hr 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	3250 ml/mn 2850 RPM (50Hz)	1.0 gal/mn 3450 RPM (60Hz)
Max Differential Pressure	5.5 Bar	80 psi
Max System Pressure (MAWP)	21 Bar	300 psi
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	51 cm.H ₂ O (1450 RPM)	24 in.H ₂ O (1750 RPM)
Temp Range	See Gear Material	See Gear Material
Viscosity Range	4 0.2 to 1500 cp	0.2 to 1500 cp
Max Speed	5,500 RPM	5,500 RPM
Rotation (Facing Motor Shelf)	CW	CW
Weight (Pumphead)	0.45 kg	1.0 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	1/8-28 B.S.P.P. Side Ports	1/8-28 B.S.P.P. Side Ports
Driven Magnet (Standard)	Ferrite	Ferrite

Notes

4 - See Performance-High Viscosity for viscosity limits.

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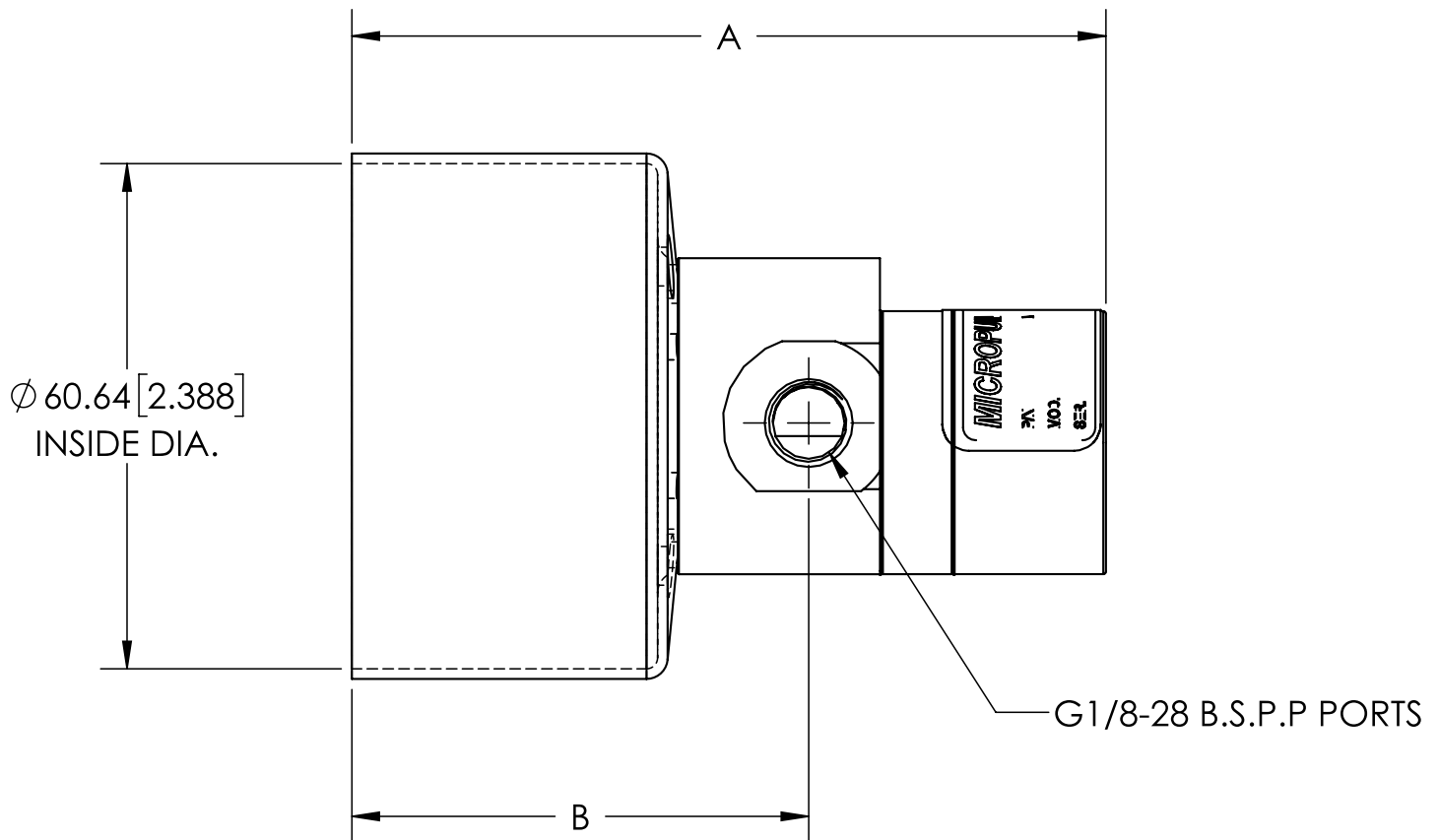
Order Code

Base Code		Gear Set			Drive Mount		
G	JR						
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 Spur, Shafted Gears
 Sleeve Bushings/Gasket Seals (2)
 PTFE Bevel or O-Ring Seal (1)

Dimensions

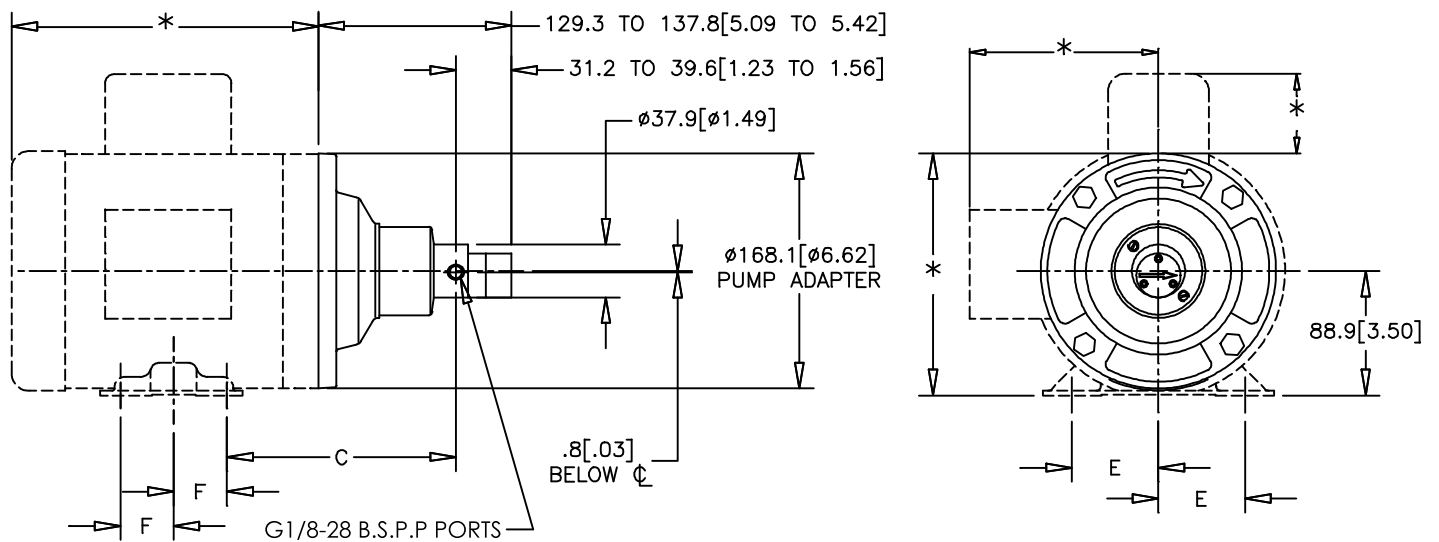


GEAR SET	A (MAX) mm [in]	B mm [in]
N21	86.11 [3.39]	54.83 [2.16]
N23	90.50 [3.56]	54.83 [2.16]
N23	99.27 [3.91]	54.83 [2.16]

Technical Specification Data

Order Code								Pump Construction
Base Code		Gear Set			Drive Mount			Magnetic Drive Gear Pump
G	JR							Cavity Style
1	2	3	4	5	6	7	8	Two Spur, Shafted Gears
Model				Wetted Materials			O/C: Pump S/K: Service Kit	Sleeve Bushings/Gasket Seals (2)
								PTFE Bevel or O-Ring Seal (1)

NEMA Mount Dimensions



MOUNT	C mm [in]	E mm [in]	F mm [in]
NEMA ^E 56C	163.4 [6.43]	61.9 [2.44]	38.1 [1.50]
NEMA ^K 143TC	158.5 [6.24]	69.9 [2.75]	50.8 [2.00]
NEMA ^K 145TC	158.5 [6.24]	69.9 [2.75]	63.5 [2.50]

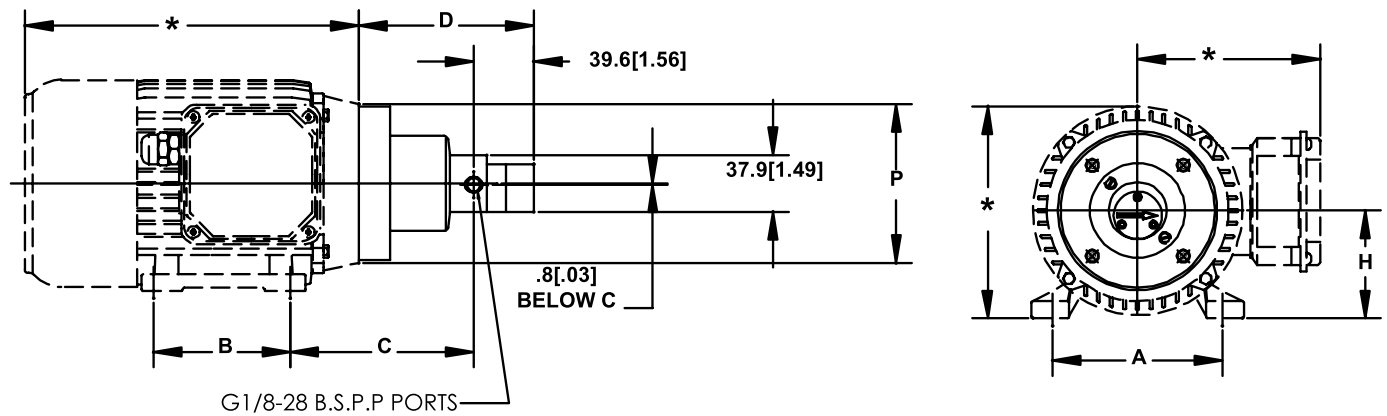
NOTES:

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

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G	JR							Cavity Style	Two Spur, Shafted Gears
1	2	3	4	5	6	7	8	Sleeve Bushings/Gasket Seals (2)	PTFE Bevel or O-Ring Seal (1)
Model			Wetted Materials			O/C: Pump S/K: Service Kit			

IEC 56 Mount Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
2 IEC56B14B3	90 [3.54]	71 [2.80]	99.2 [3.90]	94.5 [3.72] TO 102.8 [4.05]	56 [2.20]	80 [3.15]
4 IEC63B14B3	100 [3.94]	80 [3.15]	108.8 [4.28]	100.1 [3.94] TO 108.5 [4.27]	63 [2.48]	90 [3.54]
6 IEC71B14B3	112 [4.41]	90 [3.54]	120.8 [4.76]	107.1 [4.22] TO 115.5 [4.55]	71 [2.80]	105 [4.13]

NOTES:

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