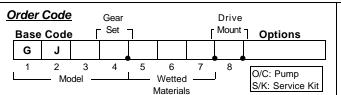


# IDEX

# Series Overview

# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
DTEE Revel of O-Ping Seal (Oty 1)



	Code	Select a code character for each		ure the product.		
1	<u>Code</u>	Product Type	<u>Specifications</u>			Notes
	G	Gear Pump				
2		Product Series	Max System Pressure (MAWP)	Ports		
	J	Series 120	21 Bar (300 psi)	1/8-27 (F) NPT Side Ports		
3		Design Modifier				
	•	Standard Design				
4		Gear Set (Width/NºGears/Pitch		Max Differential Pressure	Driven Magnet (Standard)	
	N21	0.175/2/24	0.316 ml/rev (0.08 gal/1000*re	5.6 Bar (80 psi)	Ferrite	
	N23	0.350/2/24	0.64 ml/rev (0.17 gal/1000*rev	) 5.6 Bar (80 psi)	Ferrite	
	N25	0.500/2/24	0.91 ml/rev (0.24 gal/1000*rev	) 5.6 Bar (80 psi)	Ferrite	
5		Gear Material		Max Differential Pressure	Temp Range	
	F	PTFE		3.5 Bar (50 psi)	-46/99°C (-50/210°F)	
	Р	PPS (carbon fiber/ptfe)		5.2 Bar (75 psi)	-46/121°C (-50/250°F)	1
	J	PEEK (carbon fiber/ptfe)		5.6 Bar (80 psi)	-46/121°C (-50/250°F)	1
6		Static Seals			Temp Range	
	F1	PTFE Gasket (.004) 5369			-46/54°C (-50/130°F)	2
	F2	PTFE Gasket (.005) 3613			43/77°C (110/170°F)	2
	F3	PTFE Gasket (.006) 4188			71/99°C (160/210°F)	2
7		Base Materials				
	S	SS316				
	D	Alloy 20				
	Т	Titanium				
	С	Hast C-276®				
	В	Hast B-2®				
8		Drive Mount	Max System Pressure (MAWP)		Weight (Pumphead)	
	Α	MP Housing	21 Bar (300 psi)		0.34 kg (0.75 lbs)	
	В	MP Plate	21 Bar (300 psi)		0.34 kg (0.75 lbs)	
	С	MP Step Cup (2 oz-in)	21 Bar (300 psi)		0.34 kg (0.75 lbs)	3
	G	MP Integral Series® (SS316)	21 Bar(300 psi) SS316		0.45 kg (1.0 lbs)	4
	Е	NEMA 56C	21 Bar (300 psi)		1.2 kg (2.6 lbs)	5
	K	NEMA 143/145TC	21 Bar (300 psi)		1.2 kg (2.6 lbs)	5
	2	IEC 56-B14	21 Bar (300 psi)		1.2 kg (2.6 lbs)	6
	3	IEC 63-B5	21 Bar (300 psi)		1.2 kg (2.6 lbs)	5
	4	IEC 63-B14	21 Bar (300 psi)		1.2 kg (2.6 lbs)	5
	5	IEC 71-B5	21 Bar (300 psi)		1.2 kg (2.6 lbs)	5
		1201100	21 Dai (000 poi)		1.2 Ng (2.0 103)	J

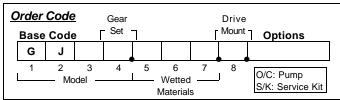
GJ000S.2





### Series Overview

# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTEE Revel of O-Ping Seal (Oty 1)



Options	Add Option codes after the Base Code to modify features or enhance the product.				
	Bypass (PC11)	Optional Internal Bypass			
B1	Internal Bypass (SS316)	Preset to 3 Bar (G drive to 5.4	7		
	Driven Magnet (PC12)				
M1	SmCo Driven (Segments)		8		
	Driving Magnet (PC13)				
N1	SmCo Driving (Segments)		8		
N3	NdFeB Driving (Ring)		8		
	Bushings (PC15)				
D1	Carbon Bushing(s)		8		
	Ports/Fittings (PC17)	Ports			
F5	Tri-Clamp (TC25) Fittings	1/2" 316L SS Ferrule			
	Port Orientation (PC18)	Ports			
Q1	Deck Ports	1/8-27 (F) NPT Deck Ports			

#### Notes

- 1 Select appropriate gaskets for higher temperatures (PC06).
- 2 Application details required for temperatures > 54C (130F) before order entry.
- 3 Available only in O/C GJ-N21.FFS.C (no bypass).
- 4 Integral Series® SS316 only. Consult factory for other materials.
- 5 "A" mount aluminum adapter, packaged separately. Includes magnet hub.
- 6 "A" mount plastic adapter, packaged separately. Includes magnet hub.
- 7 Available in SS316 only.
- 8 Application details required before order entry.

GJ000S 2



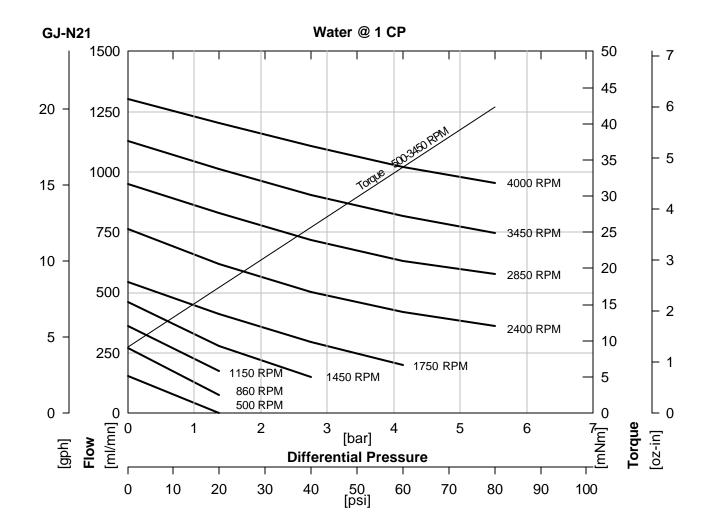
Pump Construction Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP24 Sleeve Bushings Gasket Seals (Qty 2) PTFF Bevel or O-Ring Seal (Oty 1)

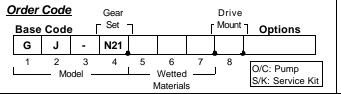


GJ100 Rev A

Page 1

## **Performance**

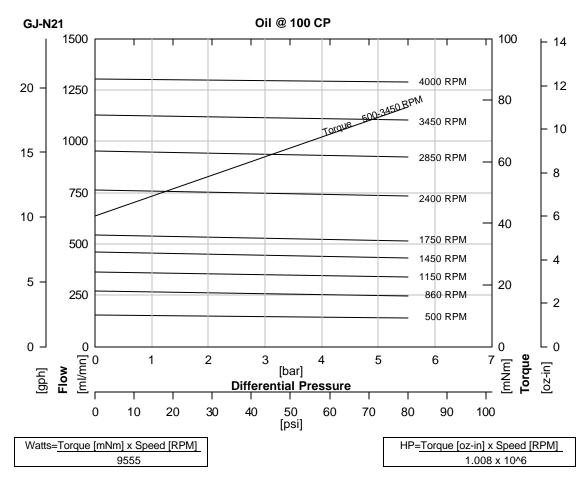




Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Performance-High Viscosity**



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

Torque Co	Torque Correction Factors: For Higher Viscosity Liquids							
V	iscosity [cp]	1	100	1500				
Max S	Speed [RPM]	10000	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	Driving	Torque	Torque				
Magnet	Hub	[mNm]	[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				

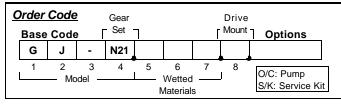
ACTUAL PERFORMANCE MAY VARY - Specifications are subject to change without notice. When multiple specs are noted, the most conservative value applies.

GJ100 Rev A





# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Specification**

		SI
Displacement		0.316 ml/rev
Max Flow (4 Pole Speed)		460 ml/mn 1450
Max Flow (2 Pole Speed)		910 ml/mn 2850
Max Differential Pressure	1	5.6 Bar
Max System Pressure (MAWP)		21 Bar
NIPR (Absolute)		180 mBar
Wet Lift (Typical)	2	51 cm.H2O (145
Temp Range	3	See Gear Mate
Viscosity Range	4	0.2 to 1500 cp
Max Speed		10,000 RPM
Rotation (Facing Motor Shaft)		CW
Weight (Pumphead)		0.45 kg
Dimensions (LxWxH)		See Drawing
Ports		1/8-27 (F) NPT
Driven Magnet (Standard)		Ferrite
Optional Internal Bypass		Preset to 3 Bar

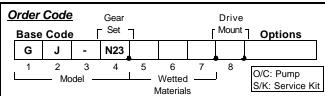
SI	US
0.316 ml/rev	0.08 gal/1000*rev
460 ml/mn 1450 RPM (50Hz)	8.9 gal/hr 1750 RPM (60Hz)
910 ml/mn 2850 RPM (50Hz)	18 gal/hr 3450 RPM (60Hz)
5.6 Bar	80 psi
21 Bar	300 psi
180 mBar	2.5 psia
51 cm.H2O (1450 RPM)	24 in.H2O (1750 RPM)
See Gear Material	See Gear Material
0.2 to 1500 cp	0.2 to 1500 cp
10,000 RPM	10,000 RPM
CW	CW
0.45 kg	1.0 lbs
See Drawing	See Drawing
1/8-27 (F) NPT Side Ports	1/8-27 (F) NPT Side Ports
Ferrite	Ferrite
Preset to 3 Bar (G drive to 5.4 bar)	Preset to 45 psi (G drive to 80 psi)

#### 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.

GJ100 Rev A

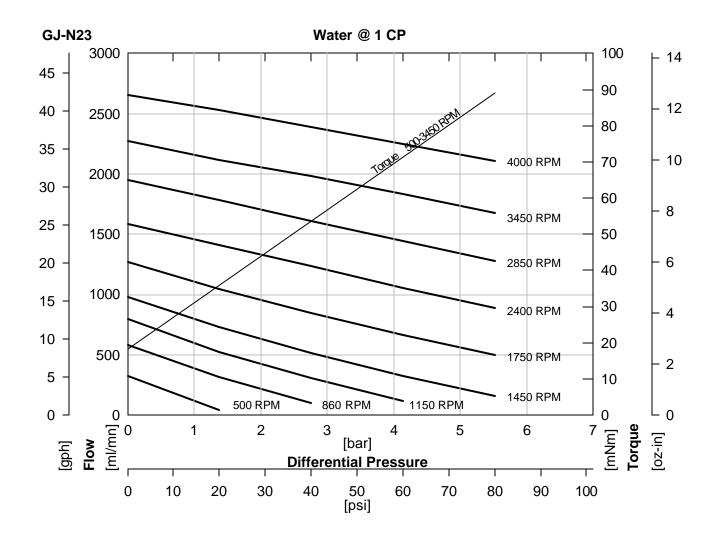




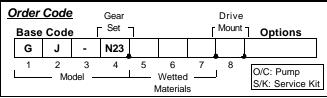
Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Performance**



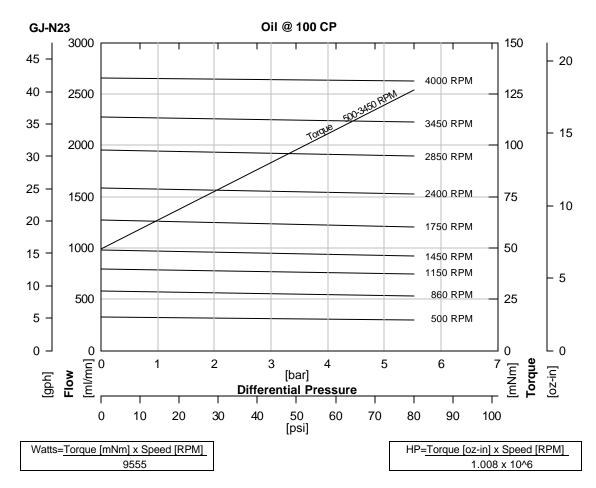
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Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Performance-High Viscosity**



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

Torque Co	Torque Correction Factors: For Higher Viscosity Liquids							
V	iscosity [cp]	1	100	1500				
Max S	Speed [RPM]	10000	3450	500				
[Bar]	[psi]							
0.3	5	0.4	1	1.7				
1.4	20	0.5	1	1.5				
2.8	40	0.6	1	1.4				
4.1	60	0.7	1	1.3				
5.5	80	0.7	1	1.3				

Magnet Decouple Torque							
Driven	Driving	Torque	Torque				
Magnet	Hub	[mNm]	[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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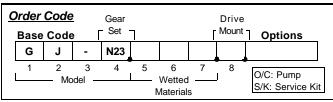
GJ300 Rev A



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#### **Technical Data**

# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Specification**

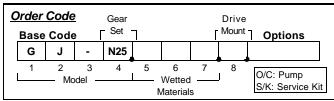
		SI	US
Displacement		0.64 ml/rev	0.17 gal/1000*rev
Max Flow (4 Pole Speed)		930 ml/mn 1450 RPM (50Hz)	18 gal/hr 1750 RPM (60Hz)
Max Flow (2 Pole Speed)		1830 ml/mn 2850 RPM (50Hz)	36 gal/hr 3450 RPM (60Hz)
Max Differential Pressure	1	5.6 Bar	80 psi
Max System Pressure (MAWP)		21 Bar	300 psi
NIPR (Absolute)		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		10,000 RPM	10,000 RPM
Rotation (Facing Motor Shaft)		CW	CW
Weight (Pumphead)		0.45 kg	1.0 lbs
Dimensions (LxWxH)		See Drawing	See Drawing
Ports		1/8-27 (F) NPT Side Ports	1/8-27 (F) NPT Side Ports
Driven Magnet (Standard)		Ferrite	Ferrite
Optional Internal Bypass		Preset to 3 Bar (G drive to 5.4 bar)	Preset to 45 psi (G drive to 80 psi)

#### 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.

GJ300 Rev A

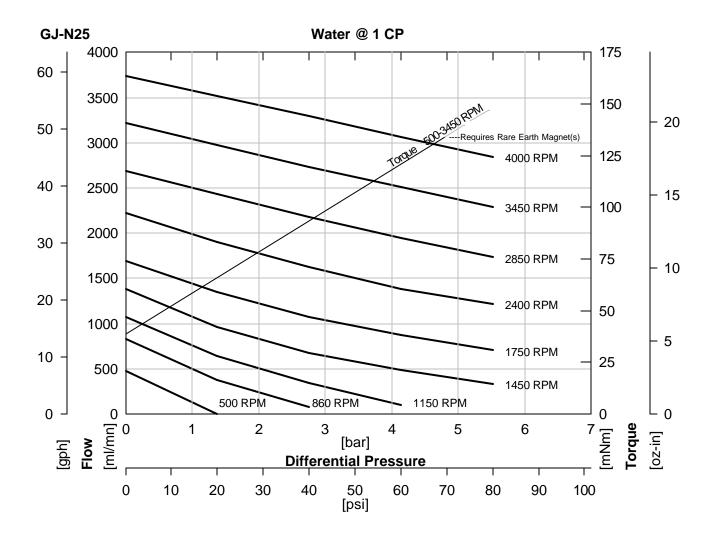




Pump Construction Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP24 Sleeve Bushings Gasket Seals (Qty 2) PTFF Bevel or O-Ring Seal (Qty 1)

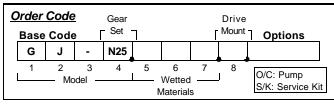


## **Performance**



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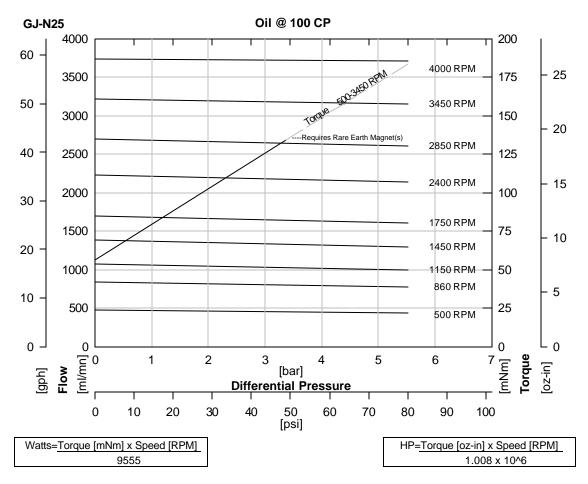
GJ500 Rev A



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Performance-High Viscosity**



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

Torque Co	Torque Correction Factors: For Higher Viscosity Liquids							
V	iscosity [cp]	1	100	1500				
Max S	Speed [RPM]	10000	3450	300				
[Bar]	[psi]							
0.3	5	0.7	1	1.3				
1.4	20	0.7	1	1.2				
2.8	40	0.8	1	1.1				
4.1	60	0.8	1	1.1				
5.5	80	0.8	1	1.1				

Magnet Decouple Torque						
Driven	Driving	Torque	Torque			
Magnet	lagnet Hub		[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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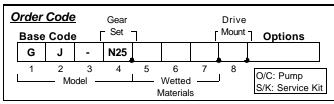
GJ500 Rev A



# IDEX.

#### **Technical Data**

# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Specification**

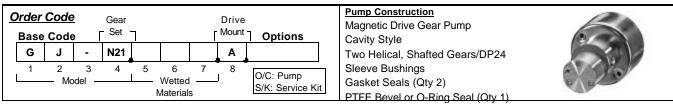
	SI	US
Displacement	0.91 ml/rev	0.24 gal/1000*rev
Max Flow (4 Pole Speed)	1320 ml/mn 1450 RPM (50Hz)	26 gal/hr 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	2600 ml/mn 2850 RPM (50Hz)	50 gal/hr 3450 RPM (60Hz)
Max Differential Pressure	5.6 Bar	80 psi
Max System Pressure (MAWP)	21 Bar	300 psi
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	51 cm.H2O (1450 RPM)	24 in.H2O (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	10,000 RPM	10,000 RPM
Rotation (Facing Motor Shaft)	CW	CW
Weight (Pumphead)	0.45 kg	1.0 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	1/8-27 (F) NPT Side Ports	1/8-27 (F) NPT Side Ports
Driven Magnet (Standard)	Ferrite	Ferrite
Optional Internal Bypass	Preset to 3 Bar (G drive to 5.4 bar)	Preset to 45 psi (G drive to 80 psi)

#### Notes

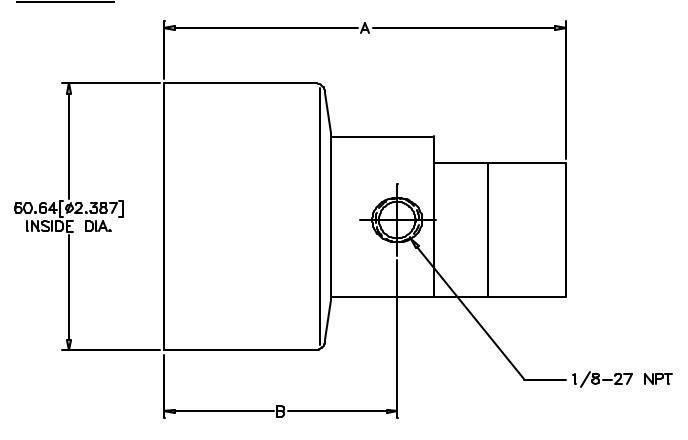
- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

GJ500 Rev A

# Series 120



#### **Dimension**



	A (MAX) mm [m]	B	
GEAR SET	տտ [ւոյ	mm [in]	
N21	86.0 [3.39]	54.6 [2.15]	
N23	90.4 [3.56]	54 6 [2.15]	
N25	94.4 [3.72]	54 6 [2.15]	

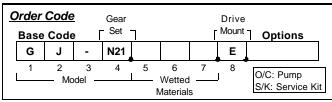
#### NOTES:

1. 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.



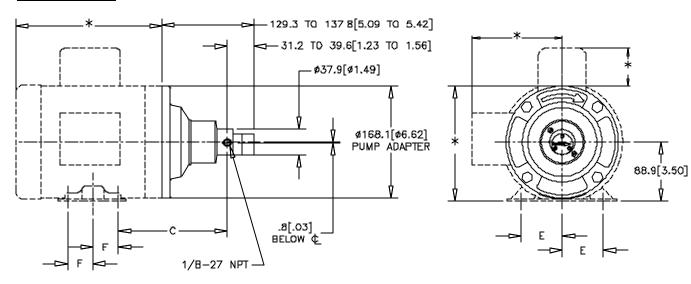
# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



### **Dimension**



	С		E		F	
MOUNT	mm [in]		mm [in]		mm [in]	
E NEMA 56C	163.4	[6.43]	61.9	[2.44]	38.1	[1.50]
K NEMA 143†C	158.5	[6.24]	69.9	[2.75]	50.8	[2.00]
K NEMA 145TC	158 5	[6.24]	69.9	[2.75]	63.5	[2.50]

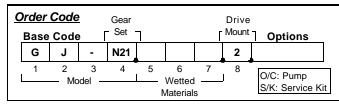
#### NOTES:

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





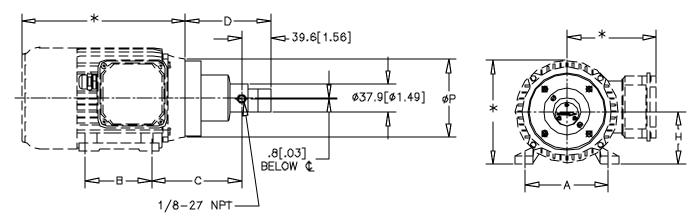
# Series 120



Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Dimension**



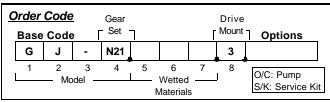
MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
2 IEC56B14B3	90 [3.54]	71 [2.80]	99.2 [3.90]	94.5 [3.72] †0 102.8[4.05]	56 [2 <i>.</i> 20]	80 [3.15]
4 IEC63B14B3	100 [3.94]	80 [3.15]	108.8[4.28]	100.1[3.94] TO 108.5[4.27]	63 [2.4B]	90 [3.54]
6 IEC71B14B3	112 [4.41]	90 [3.54]	120.8[4.76]	107.1[4.22] TO 115.5[4.55]	71 [2 <i>.</i> 80]	105 [4.13]

#### NOTES:

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



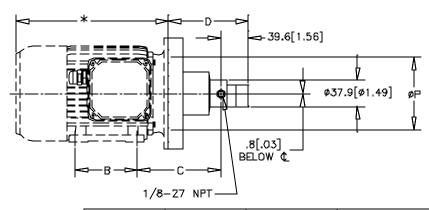
# Series 120

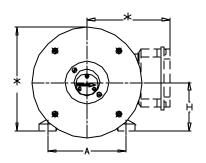


Pump Construction
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings
Gasket Seals (Qty 2)
PTFF Bevel or O-Ring Seal (Qty 1)



## **Dimension**





	A	В	С	а	Н	Р
MDUNT	mm [in]	mm [in]	mm [in]	mm [in]	mm [in]	mm [in]
3 IEC63B5B3	100 [3.94]	80 [3.15]	108.8[4.28]	100.1[3.94] TO 108.5[4.27]	63 [2.4B]	140 [5.51]
5 IEC71B5B3	112 [4.41]	90 [3.54]	120.8[4.76]	107.1[4.22] TO 115.5[4.55]	71 [2.80]	160 [6.30]

#### NOTES:

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