



OMNI GEAR®

Catalog

SWING DRIVE UNIT



SL

series

22 OCT 2018 REV. A





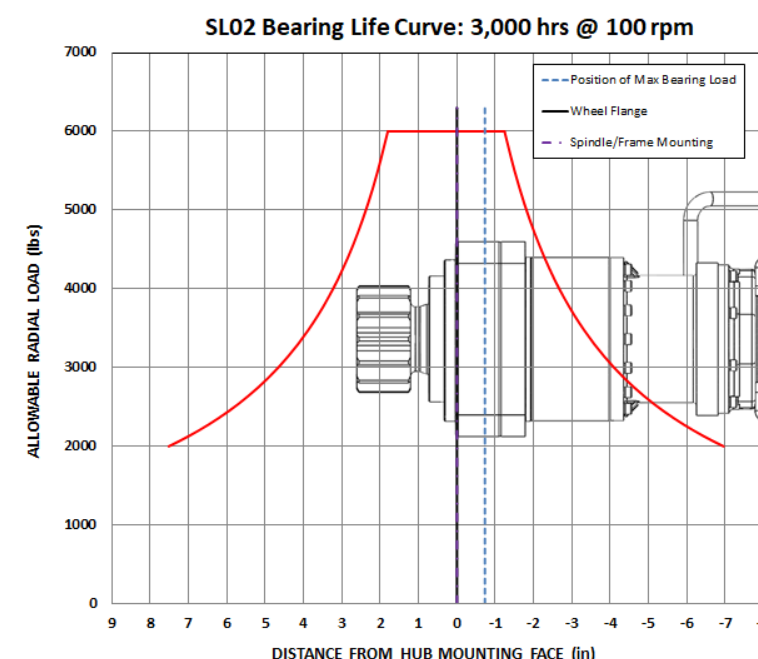
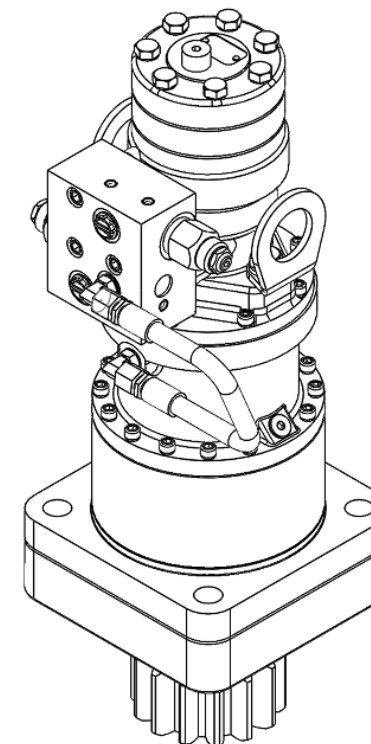
# SL02 Swing Drive Single Reduction, SAE Input

SL02 Swing Drive Single Reduction: SAE Input						
Max. Continuous torque <sup>1)</sup>		7500 in-lbf		845 Nm		
Max. intermittent torque		15000 in-lbf		1690 Nm		
Max. input speed		5000 RPM				
Approximate weight		66.6 lbs		30.2 kg		
Approximate oil capacity		27.5 fl oz		0.8 L		
Feature Chart						
Feature	Description				Code	Sample
GEAR RATIO	6.2				06	SL0206
INPUT	Motor Pilot	Motor Mount	Spindle Pilot	Spindle Mount		SL0206AA
	ϕ3.25"	2x1/2"-13 UNC-2B ON ϕ106.4(ϕ4.19") B.C.			AA	
MOTOR COUPLING	Teeth		Pitch			SL0206AA15
	15		16/32		15	
OUTPUT	Gear Teeth		D.P.(Module)			SL0206AA15G4
	14		4.23 (6.0)		G4	
	17		5 (7)		G5	
HUB	Wheel Pilot Dia.	Flange Thk.	Bolt Pattern			SL0206AA15G4HS
	ϕ5.91"	11(0.433)	4xϕ0.748 on ϕ5.48 B.C.		HS	
STUDS	Size & Pitch		Stud Length <sup>3)</sup>			SL0206AA15G4HSNS
	-		-		NS	
BRAKE RATING	in-lbf		Nm			SL0206AA15G4HSNS-18
	1860		210		18	
	2800		316		28	

<sup>1)</sup> Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

<sup>2)</sup> O-rings for motor/brake port interface not included

<sup>3)</sup> Length under stud head to end of thread equals usable stud length plus housing flange thickness



Note: These bearing curves are supplied for design purposes only relating to radial load. They illustrate the importance of maintaining load properly over the bearing center.

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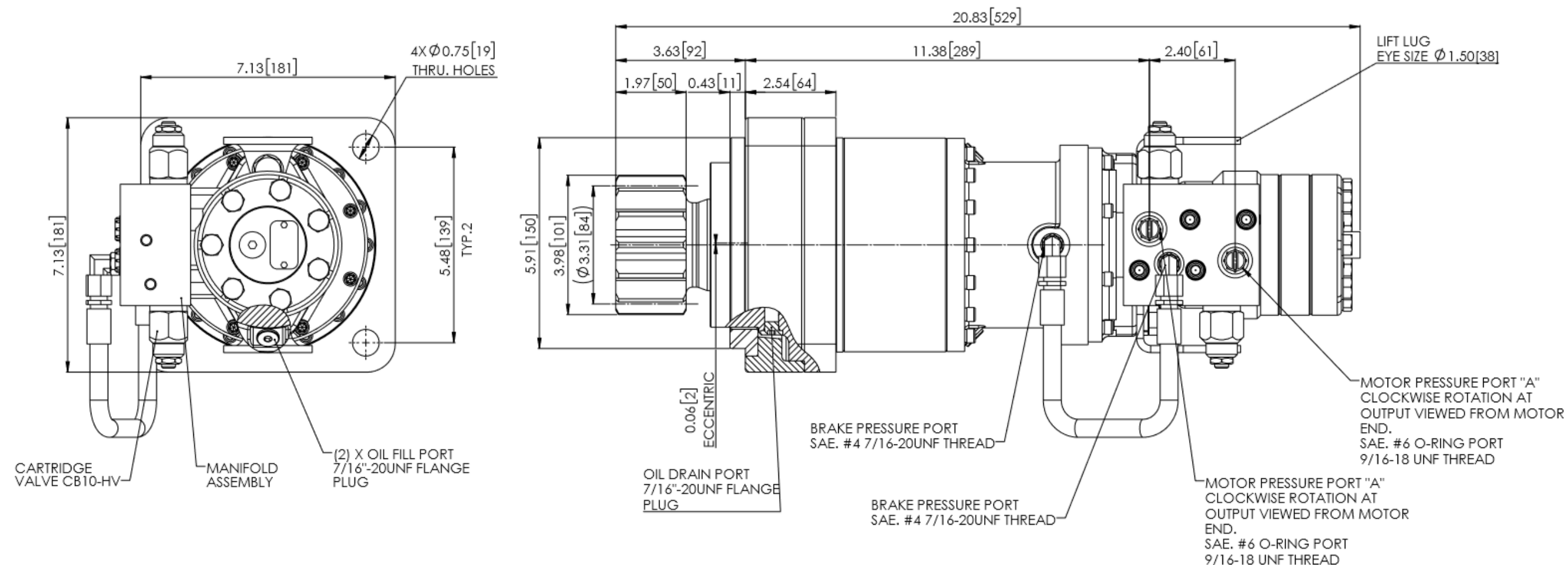
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# SL02 Swing Drive Single Reduction, SAE Input



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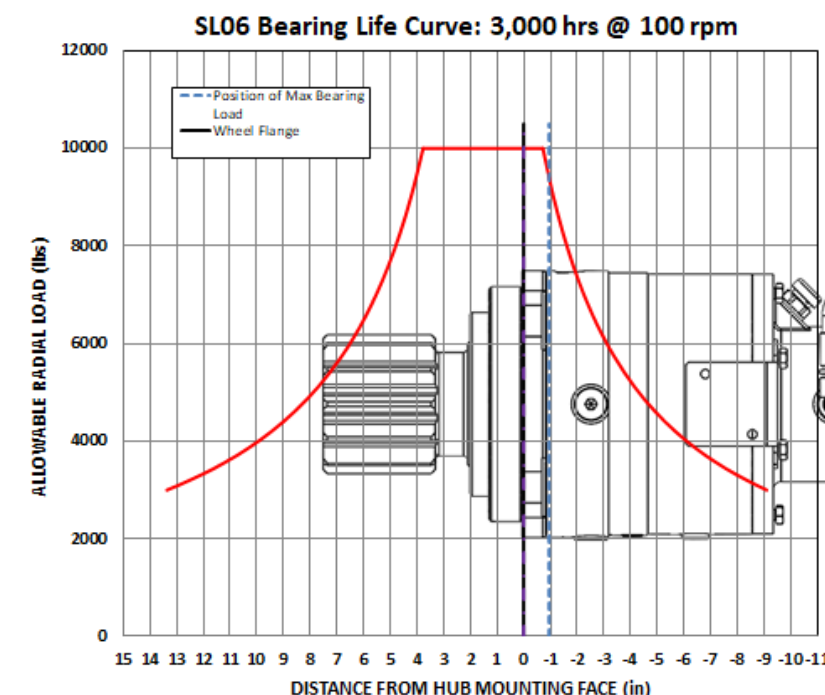
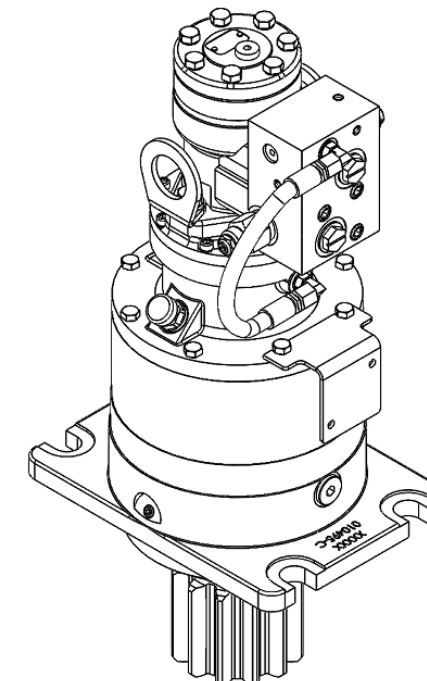
# SL06 Swing Drive Double Reduction, SAE Input

SL06 Swing Drive Double Reduction: SAE Input						
Max. Continuous torque <sup>1)</sup>	30000 in-lbf	3390 Nm				
Max. intermittent torque	60000 in-lbf	6780 Nm				
Max. input speed	4000 RPM					
Approximate weight	139 lbs	63 kg				
Approximate oil capacity	44.0 fl oz	1.3 L				
Feature Chart						
Feature	Description				Code	Sample
GEAR RATIO	25.53				25	SL0634
	33.76				34	
SAE INPUT	Motor Pilot	Motor Mount	Spindle Pilot	Spindle Mount		SL0634AA
	⌀3.25"	2x1/2"-13 UNC-2B on ⌀4.19" B.C.	-	-	AA	
	⌀3.25"	2X M12X1.75 on ⌀4.19" B.C.	-	-	A4	
MOTOR COUPLING	Teeth		Pitch			SL0634AA6B
	6		6.35(0.25")		6B	
	15		16/32		15	
OUTPUT	Gear Teeth		Diameter Pitch			SL0634AA6BG4
	22		4		G4	
	12		3.5		G6	
	17		3.175		GA	
	18		4.233		G8	
HUB	Wheel Pilot Dia.	Flange Thk.	Bolt Pattern			SL0634AA6BG4HR
	⌀7.09"	0.38"	4x R0.468" ) on 5"x 10"		HR	
STUDS	Size & Pitch		Stud Length <sup>2)</sup>			SL0634AA6BG4HRNS
	-		-		NS	
BRAKE RATING	in-lbf		Nm			SL0634AA6BG4HRNS-18
	1550		175		15	
	1860		210		18	
	2800		316		28	
	4000		452		40	
Eccentric Ring	Pilot		Offset			SL0634AA6BG4HRNS-18E1
	7.05"		0.06"		E1	
	7.05"		0.125"		E2	
	7.05"		0.09"		E3	
	5.75		0.06"		E4	

<sup>1)</sup> Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

<sup>2)</sup> O-rings for motor/brake port interface not included

<sup>3)</sup> Length under stud head to end of thread equals usable stud length plus housing flange thickness



Note: These bearing curves are supplied for design purposes only relating to radial load. They illustrate the importance of maintaining load properly over the bearing center.

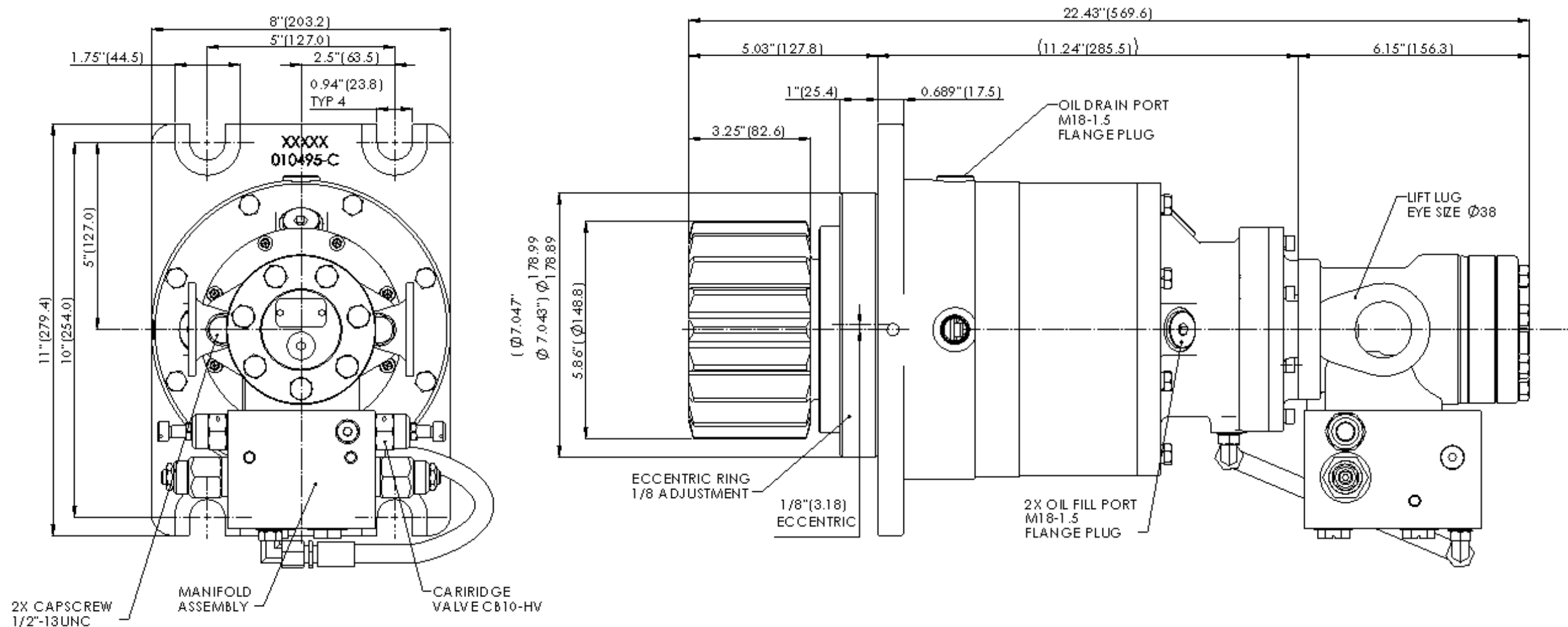
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# SL06 Swing Drive Double Reduction, SAE Input



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# SL12 Swing Drive Double Reduction, SAE Input

SL12 Swing Drive Double Reduction: SAE Input						
Max. Continuous torque <sup>1)</sup>		50,000 in-lbf		5,650 Nm		
Max. intermittent torque		100,000 in-lbf		11,299 Nm		
Max. input speed		5,000 RPM				
Approximate weight		176 lbs		80 kg		
Approximate oil capacity		50 fl oz		1.5 L		
Feature Chart						
Feature	Description				Code	Sample
GEAR RATIO	36.00				36	SL1236
SAE INPUT	Motor Pilot	Motor Mount	Spindle Pilot	Spindle Mount		SL1236AA
	Ø3.25"	2x1/2"-13 UNC-2B ON 4.19" B.C.	-	-	AA	
MOTOR COUPLING	Teeth		Pitch			SL1236AA15
	15T		16/32		15	
OUTPUT	Gear Teeth		Diameter Pitch			SL1236AA15G4
	22		4		G4	
HUB	Wheel Pilot Dia.	Flange Thk.	Bolt Pattern			SL1236AA15G4HS
	10.63"	0.77"	8x 0.61"on Ø12.375" B.C.		HS	
STUDS	Size & Pitch		Stud Length <sup>3)</sup>			SL1236AA15G4HSNS
	-		-		NS	
BRAKE RATING	in-lbf		Nm			SL1236AA15G4HSNS-15
	1550		175		15	

<sup>1)</sup> Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

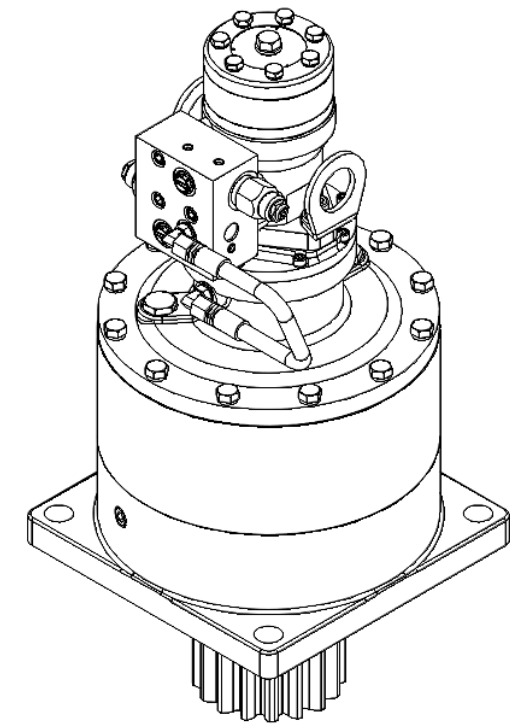
<sup>2)</sup> O-rings for motor/brake port interface not included

<sup>3)</sup> Length under stud head to end of thread equals usable stud length plus housing flange thickness

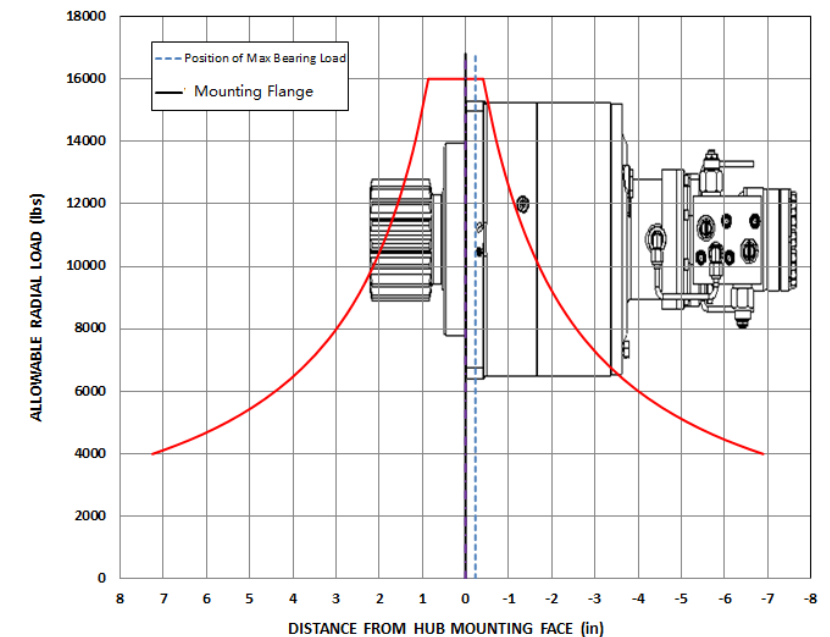
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SL12 Bearing Life Curve: 3,000 hrs @ 100 rpm



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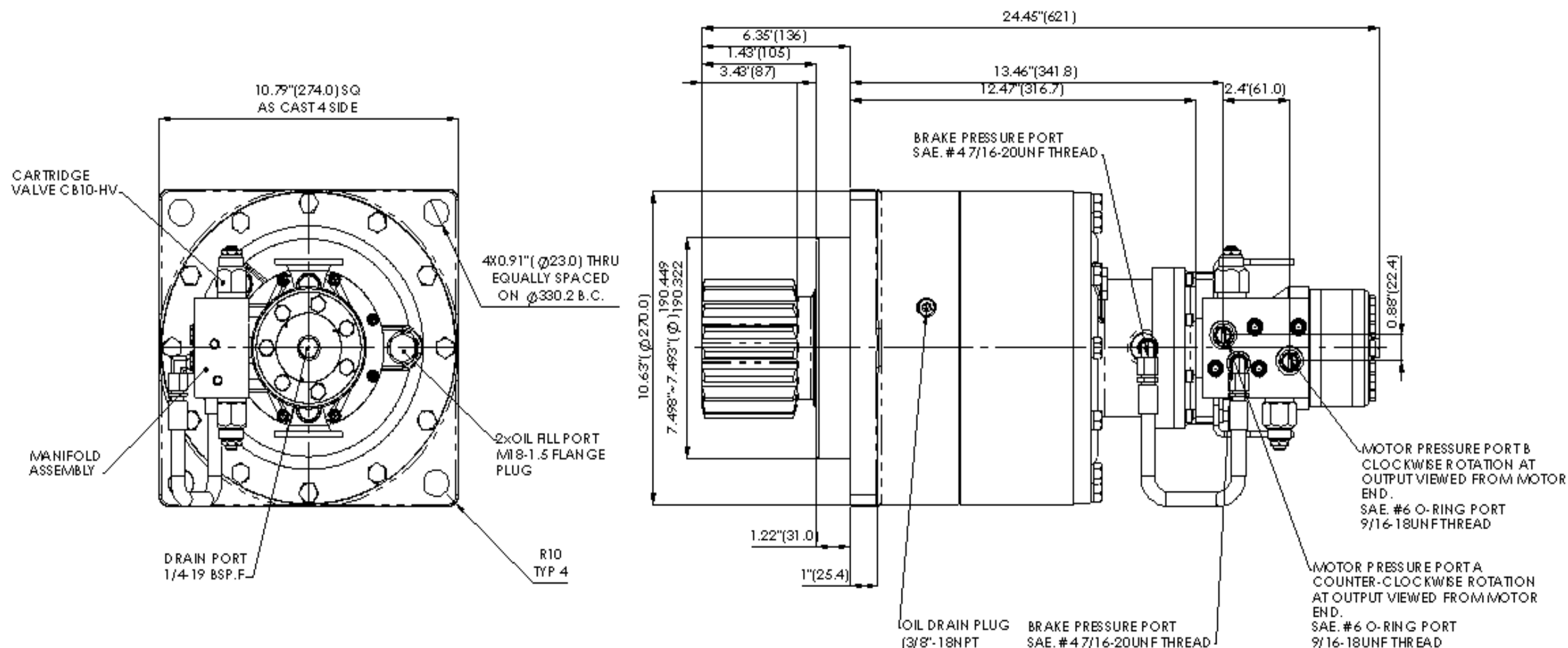
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## Appendix: Application Instruction

To adjust life for loads and speeds other than shown on the curve

Life Factor (LF) =

$$\frac{SF \times R}{R'}$$

R = Allowable resultant load for a given location from the mounting flange

R' = Anticipated load at location from mounting flange

SF = Speed factor from table

Speed Factors		Bearing Life	
Output Speed		Life Factor	
(RPM)	SF	(LF)	Hours
5	2.456	0.584	500
10	1.944	0.719	1000
20	1.620	0.812	1500
30	1.435	0.886	2000
40	1.316	0.947	2500
50	1.231	1.000	3000
60	1.165	1.047	3500
70	1.113	1.090	4000
80	1.069	1.130	4500
90	1.032	1.116	5000
100	1.000	1.231	6000
200	0.812	1.289	7000
300	0.719	1.342	8000
400	0.659	1.390	9000
500	0.617	1.435	10000

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CAUTION: The same torsional load parameters used in calculating the driving mode must be used in the braking mode!

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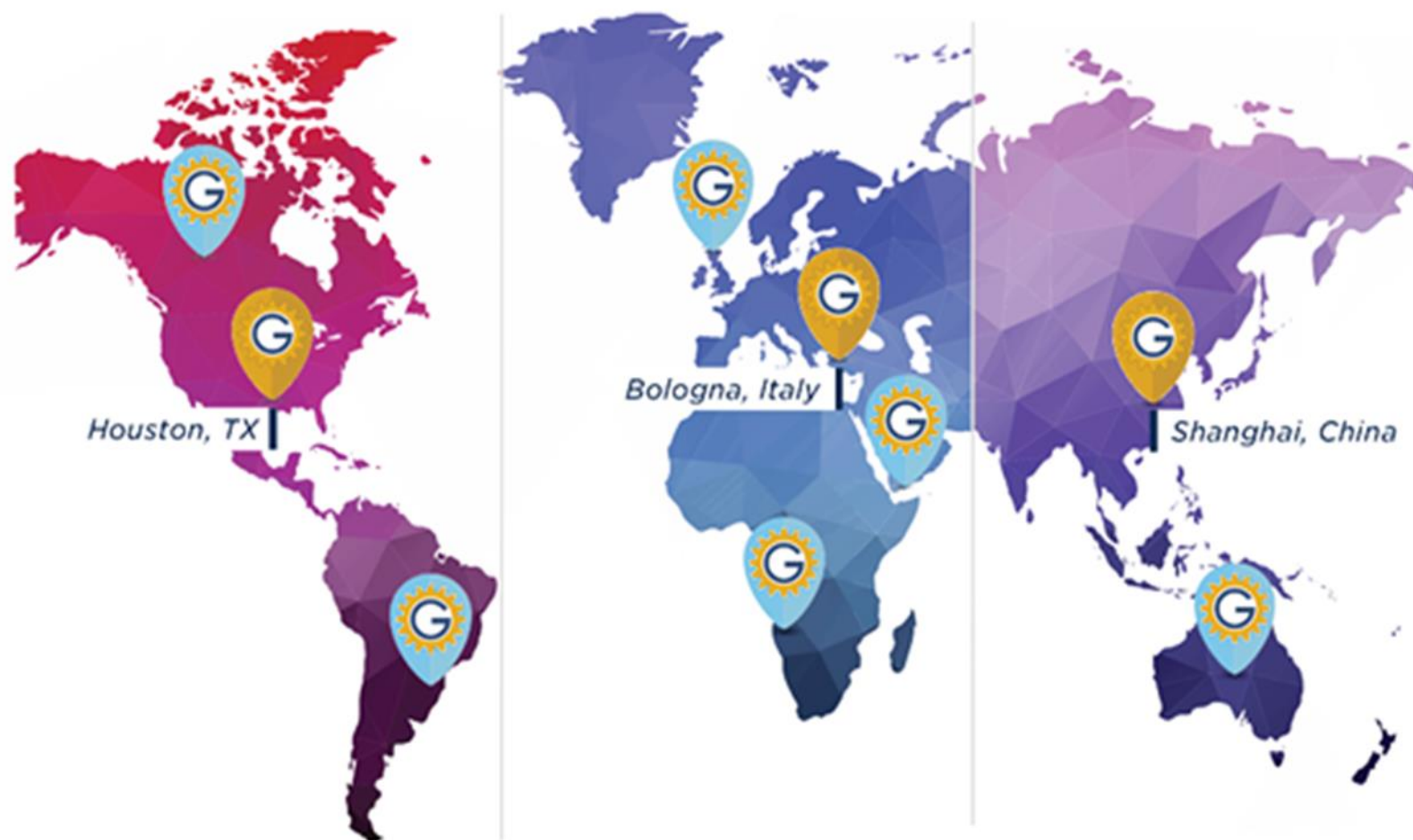
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With over 70 years of manufacturing experience in the engineering, production, and sale of construction and agricultural equipment, **OMNI GEAR®** has a solid foundation and vast understanding of the needs of today's equipment builders. With 42 years of manufacturing experience in Asia, **OMNI GEAR®** has become a recognized leader within the world-wide enclosed gear drive community.



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