



50 Gear Drive - Shaft Output

Typical Applications: Industrial, Marine or Mobile Equipment

(913) 782-1238 (Tel)
 (913) 782-4206 (Fax)
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Performance Ratings

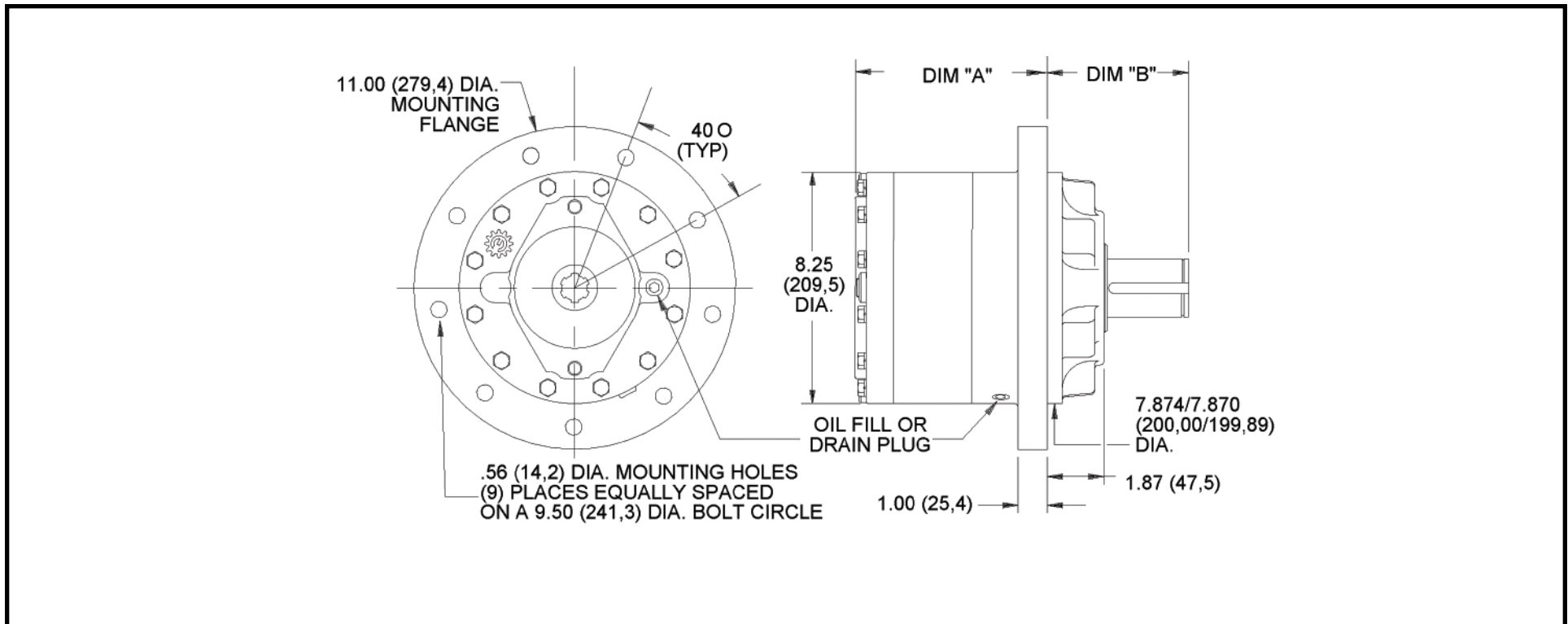
Maximum Intermittent Output Torque	50,000 in-lb (5,649 N-m)
Continuous Output Torque	25,000 in-lb (2,824 N-m)
Peak Torque Rating.....	Consult Eskridge
Maximum Input Speed (No Load).....	3,000 RPM

Consult your Eskridge representative to determine ratings for your specific application or configuration.

General Dimensions for Flanged Gear Drive Mounting (ordering option 'A')

Other options may be available. See ordering information on last page or contact your Eskridge representative for more details.

Values are shown as "inches (millimeters)." Please see pages 6 & 7 for full Dimension A & B specifications.





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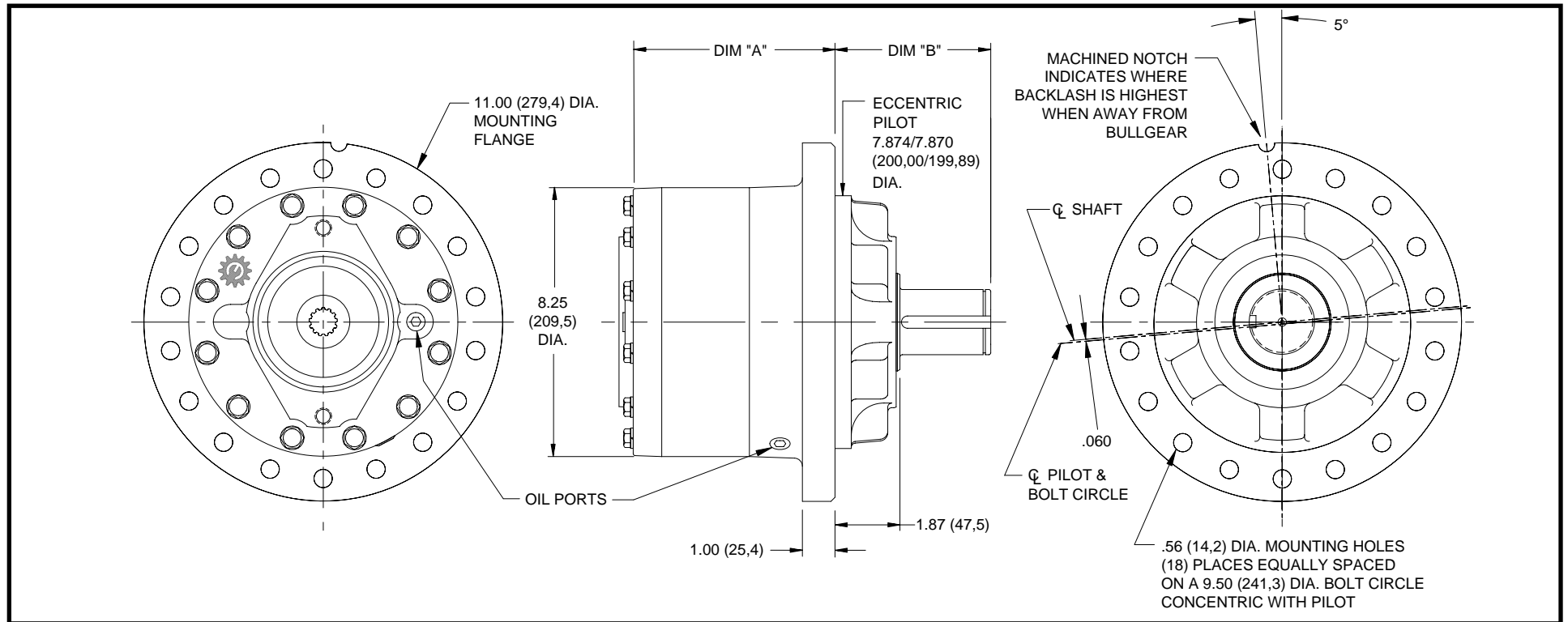
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General Dimensions for Flanged Quick Eccentric Gear Drive Mounting (ordering option 'AQ')

Other options may be available. See ordering information on last page or contact your Eskridge representative for more details.

Values are shown as "inches (millimeters)." Please see pages 6 & 7 for full Dimension A & B specifications.





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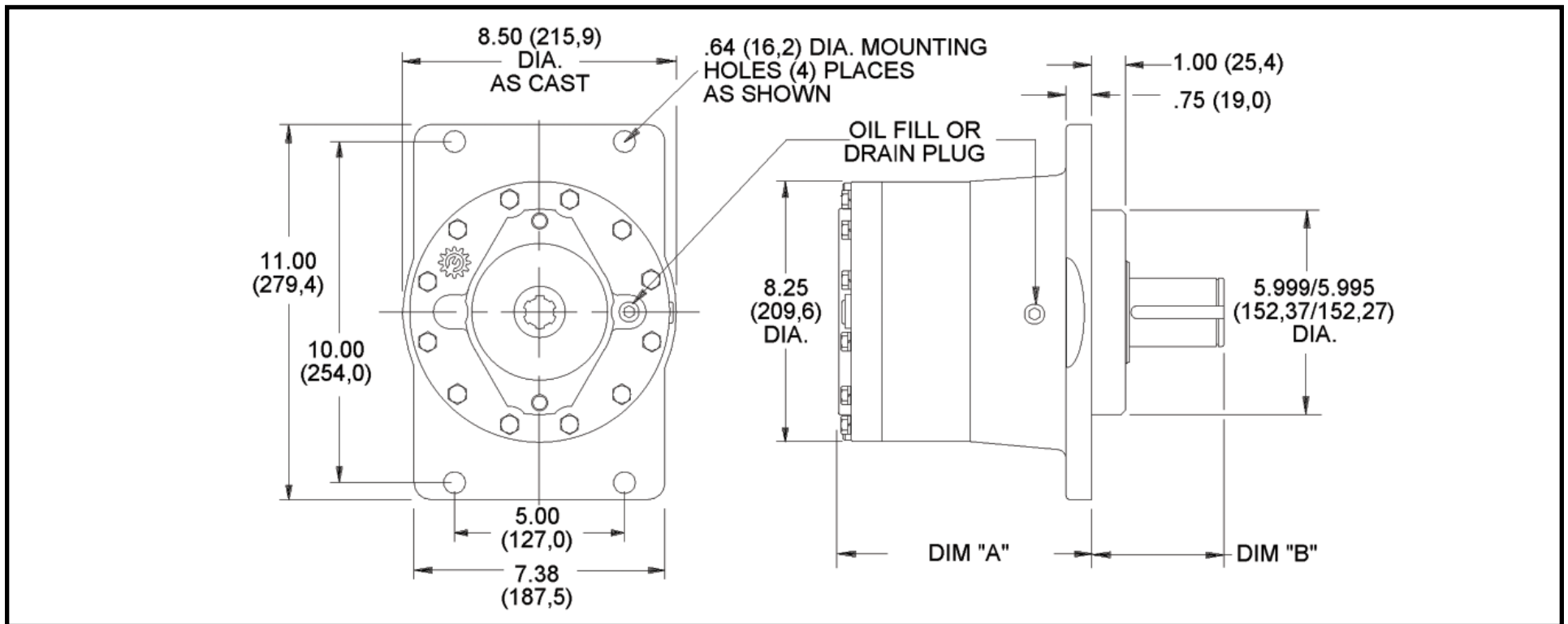
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General Dimensions for Rectangular Gear Drive Mounting (ordering option 'E')

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Values are shown as "inches (millimeters)." Please see pages 6 & 7 for full Dimension A & B specifications.





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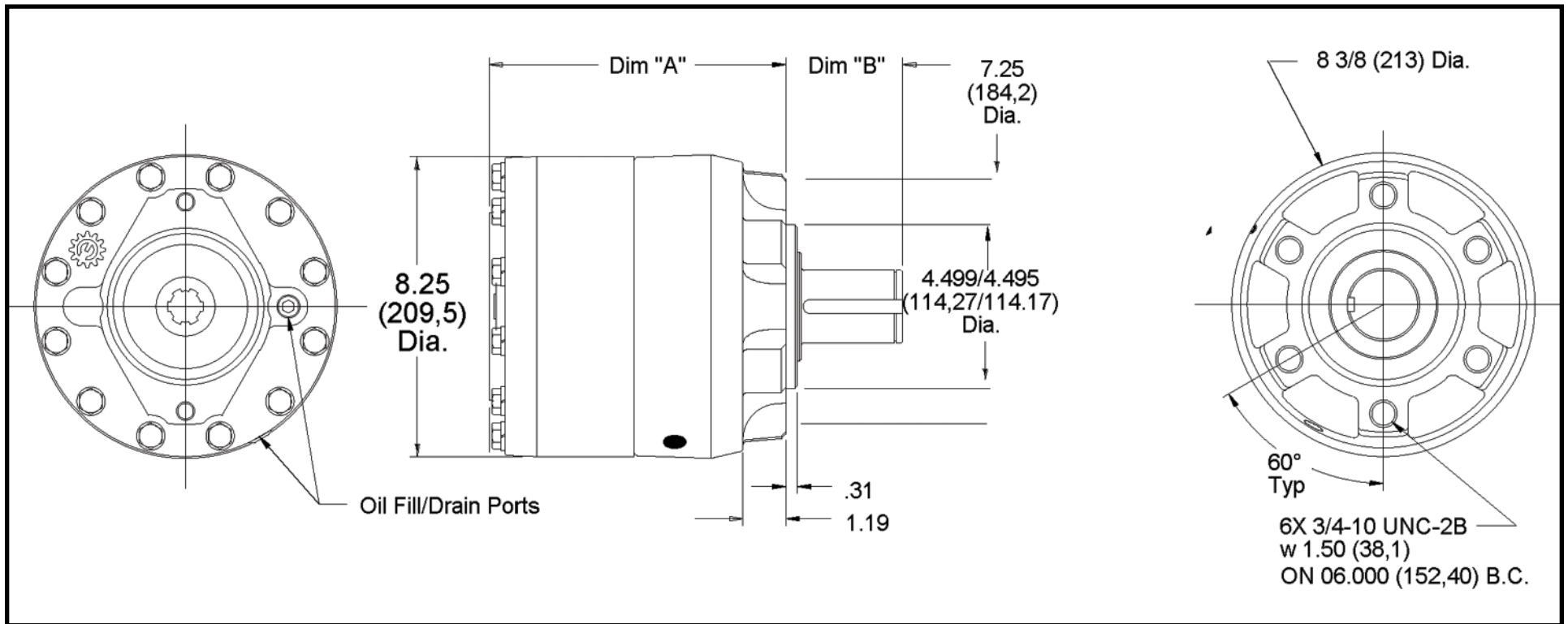
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General Dimensions for Flangeless Gear Drive Mounting (ordering option 'F')

Other options may be available. See ordering information on last page or contact your Eskridge representative for more details.

Values are shown as "inches (millimeters)." Please see pages 6 & 7 for full Dimension A & B specifications.





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Typical Applications: Industrial, Marine or Mobile Equipment

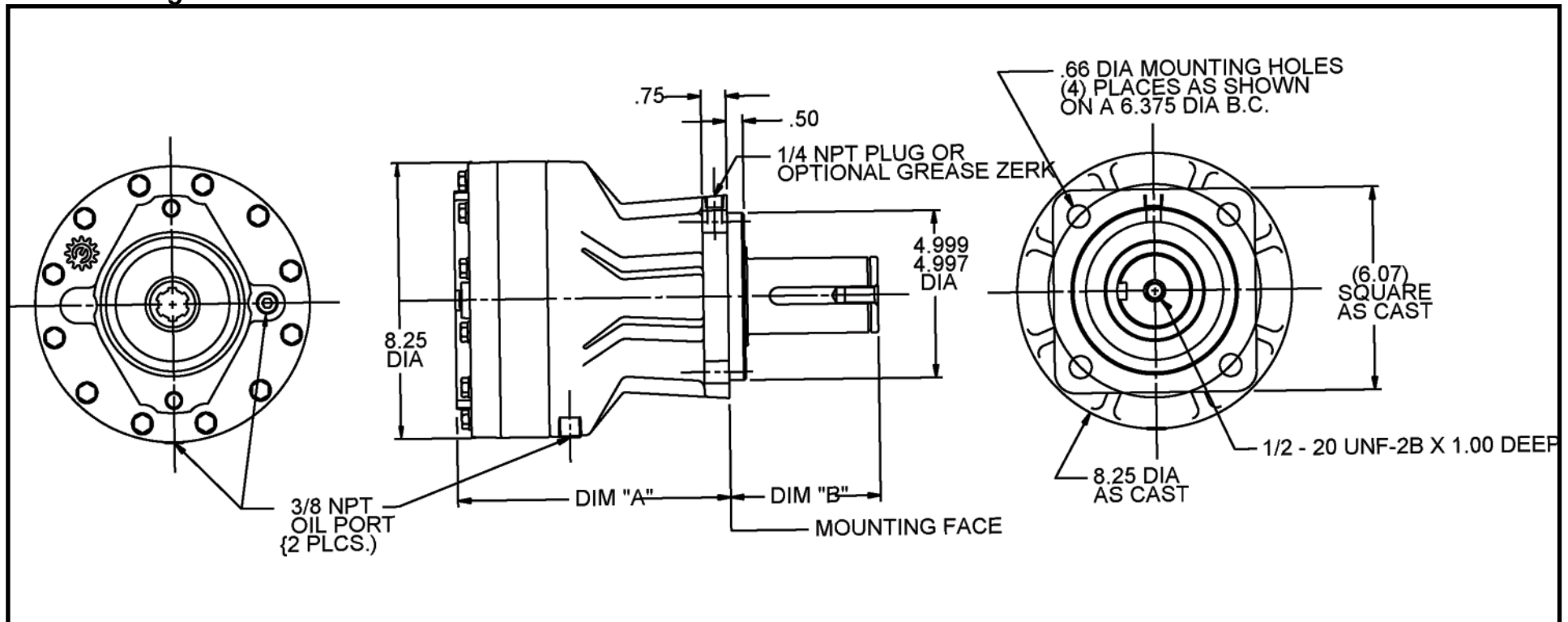
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General Dimensions for Square, SAE "C" Gear Drive Mounting (ordering option 'G')

Other options may be available. See ordering information on last page or contact your Eskridge representative for more details.

Values are shown as "inches (millimeters)." Please see pages 6 & 7 for full Dimension A & B specifications.

This mounting must be ordered with the L shaft retention





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Dimension "A" Specifications (Flange to Flange)

Gear Drive Mounting	Input Mounting, Option A SAE A - 2 & Modified 4 Bolt			Input Mounting, Option B SAE B - 2 Bolt			Input Mounting, Option C SAE C - 4 Bolt			Input Mounting, Option K SAE C - 2 Bolt		
	Single Planetary	Double Planetary	Triple Planetary	Single Planetary	Double Planetary	Triple Planetary	Single Planetary	Double Planetary	Triple Planetary	Single Planetary	Double Planetary	Triple Planetary
A	5.44 (138.1)	6.66 (169.1)	7.95 (201.9)	5.44 (138.1)	6.66 (169.1)	7.95 (201.9)	5.79 (147.0)	7.01 (178.0)	8.30 (210.8)	5.79 (147.0)	7.01 (178.0)	8.30 (210.8)
AQ	5.44 (138.1)	6.66 (169.1)	7.95 (201.9)	5.44 (138.1)	6.66 (169.1)	7.95 (201.9)	5.79 (147.0)	7.01 (178.0)	8.30 (210.8)	5.79 (147.0)	7.01 (178.0)	8.30 (210.8)
E	6.31 (160.2)	7.53 (191.2)	8.82 (224.0)	6.31 (160.2)	7.53 (191.2)	8.82 (224.0)	6.66 (169.1)	7.88 (200.1)	9.17 (232.9)	6.66 (169.1)	7.88 (200.1)	9.17 (232.9)
F	7.00 (177.7)	8.22 (208.7)	9.51 (241.5)	7.00 (177.7)	8.22 (208.7)	9.51 (241.5)	7.35 (186.6)	8.57 (217.6)	9.86 (250.3)	7.35 (186.6)	8.57 (217.6)	9.86 (250.3)
G	8.23 (209.0)	9.45 (240.0)	10.74 (272.7)	8.23 (209.0)	9.45 (240.0)	10.74 (272.7)	8.58 (217.9)	9.80 (248.9)	11.09 (281.6)	8.58 (217.9)	9.80 (248.9)	11.09 (281.6)
C	<i>Consult Eskridge on all options</i>											



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Dimension "B" Specifications

Gear Drive Mounting	Shaft Options										
	D1	D2	D3	D4	D5	D6	D7	D8	F2	H2	C1
A	4.78 (121.3)	4.78 (121.3)	5.00 (126.9)	5.00 (126.9)	—	—	—	—	5.63 (142.9)	7.62 (193.4)	<i>Consult Eskridge on all options</i>
AQ	4.78 (121.3)	4.78 (121.3)	5.00 (126.9)	5.00 (126.9)	—	—	—	—	5.63 (142.9)	7.62 (193.4)	
E	3.91 (99.2)	3.91 (99.2)	4.13 (104.8)	4.13 (104.8)	—	—	—	—	4.76 (120.8)	6.75 (171.3)	
F	3.22 (81.7)	3.22 (81.7)	3.44 (87.3)	3.44 (87.3)	—	—	—	—	4.07 (103.3)	6.06 (153.9)	
G	3.36 (85.4)	3.36 (85.4)	4.50 (114.4)	3.85 (97.9)	2.53 (64.3)	3.00 (76.3)	4.14 (105.3)	3.57 (90.8)	—	—	
C	<i>Consult Eskridge on all options</i>										



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Oil Capacities

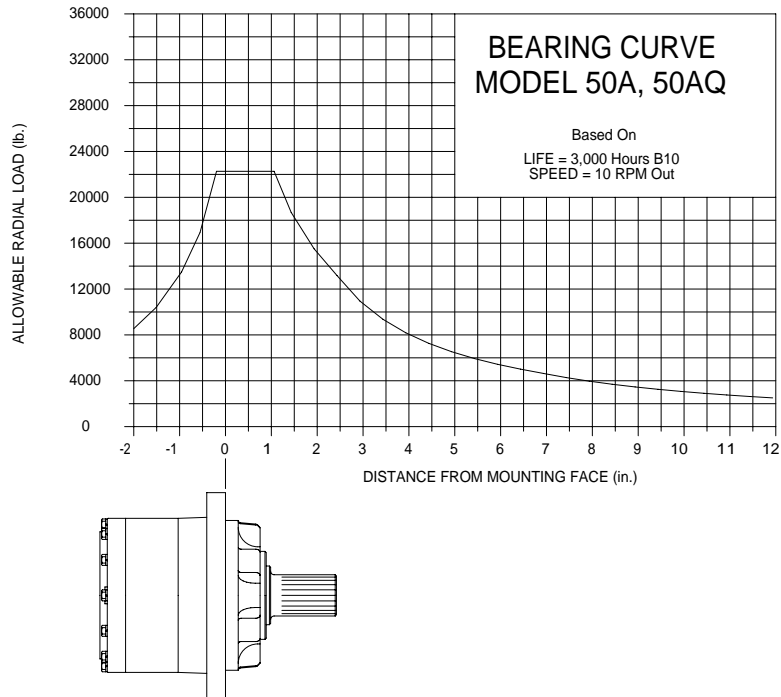
Position		Quantity		
		Single Planetary	Double Planetary	Triple Planetary
A, AQ, E & F Mounts	Vertical	2.00 pts 1.0 L	3.00 pts 1.4 L	3.50 pts 1.7 L
	Horizontal	1.50 pts 0.7 L	1.75 pts 0.8 L	2.00 pts 1.0 L
G Mount	Vertical	2.20 pts 1.0 L	2.70 pts 1.3 L	3.20 pts 1.5 L
	Horizontal	1.40 pts 0.7 L	1.65 pts 0.8 L	1.90 pts 0.9 L

All units are shipped dry (without oil).

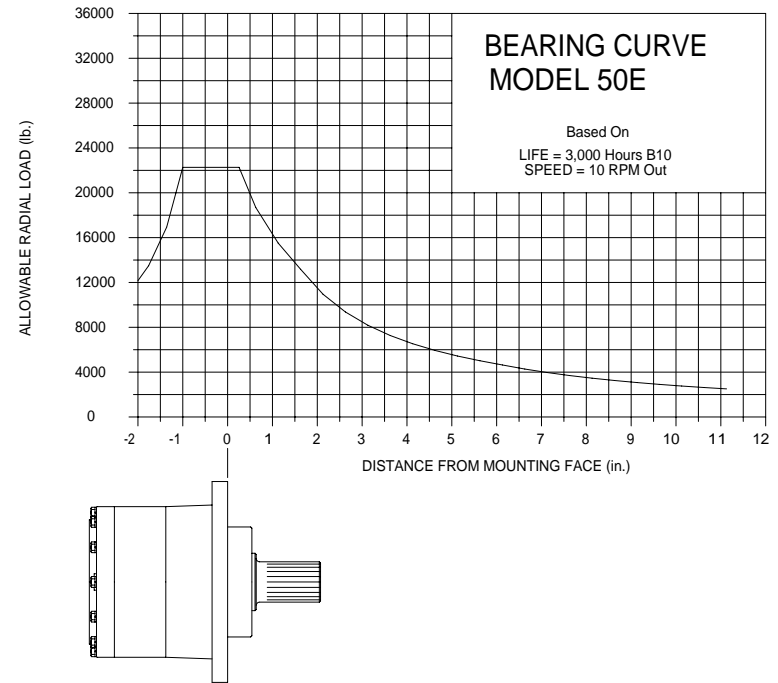
Approximate Unit Weights

Gear Drive Mounting	Stages		
	Single Planetary	Double Planetary	Triple Planetary
A	81 (37)	94 (43)	107 (49)
AQ	81 (37)	94 (43)	107 (49)
E	79 (36)	92 (42)	105 (48)
F	70 (32)	83 (38)	96 (44)
G	64 (29)	77 (35)	90 (41)
C	Consult Eskridge		

Bearing Curve Option A/ AQ



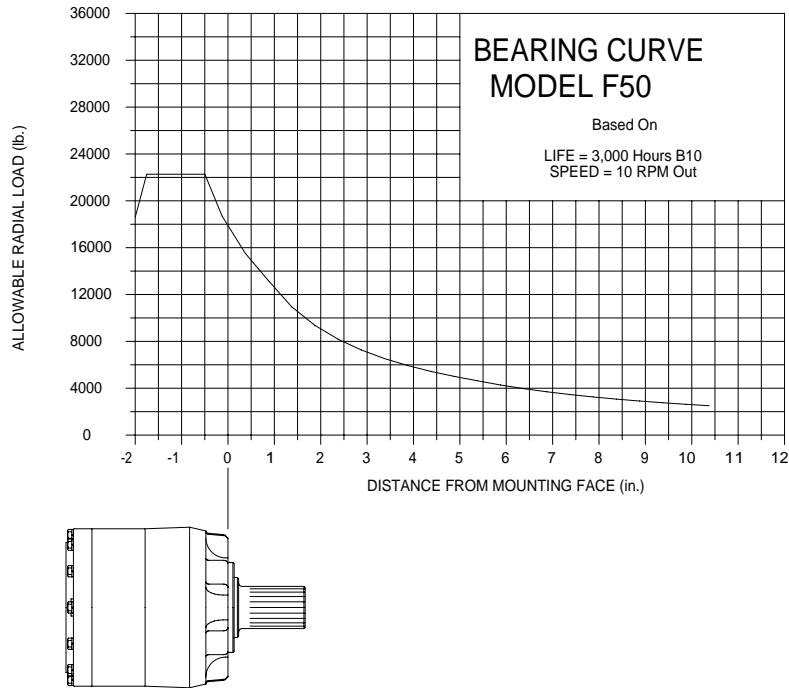
Bearing Curve Option E



To adjust for loads and speeds other than those shown on above curve, use this formula:

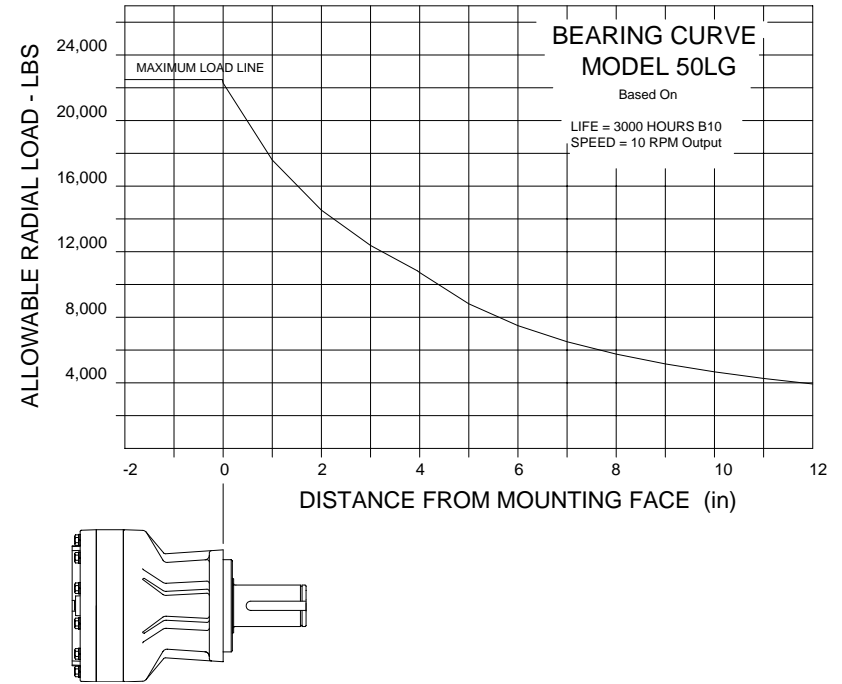
$$\text{Adjusted Life (hours)} = 3000 \left(\frac{10\text{rpm}}{\text{Speed(Adjusted)}} \right) \times \left(\frac{\text{Load (Curve)}}{\text{Load (Adjusted)}} \right)^{10/3}$$

Bearing Curve Option F



Bearing Curve Option G

Option G must be ordered with option L shaft retention.



To adjust for loads and speeds other than those shown on above curve, use this formula:

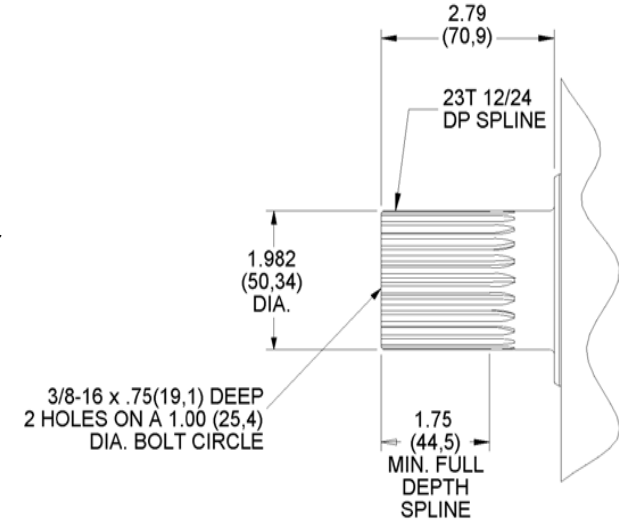
$$\text{Adjusted Life (hours)} = 3000 \left(\frac{10\text{rpm}}{\text{Speed(Adjusted)}} \right) \times \left(\frac{\text{Load (Curve)}}{\text{Load (Adjusted)}} \right)^{10/3}$$

Output Shaft Options Values are shown as "inches (millimeters)"

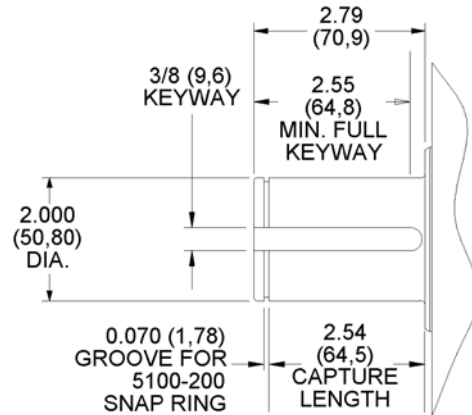
A, AQ, E & F Mounts Output Shaft Order Codes		
A, AQ, E & F Mounts Only	D1	2.00" Dia. x 3/8" Key
	D2	23T 12/24 DP Spline
	D3	2.125" Dia. x 1/2" Key
	D4	2.00" Dia. x 1/2" Key
	F2	2.00" Dia. x 1/2" Key (Internal) <i>(Only for use with K shaft retention option; contact Eskridge for details)</i>
	H2	2.00" Hex Drive
	C1	Custom Shaft, Consult Eskridge

D2 - 23T 12/24 DP Spline

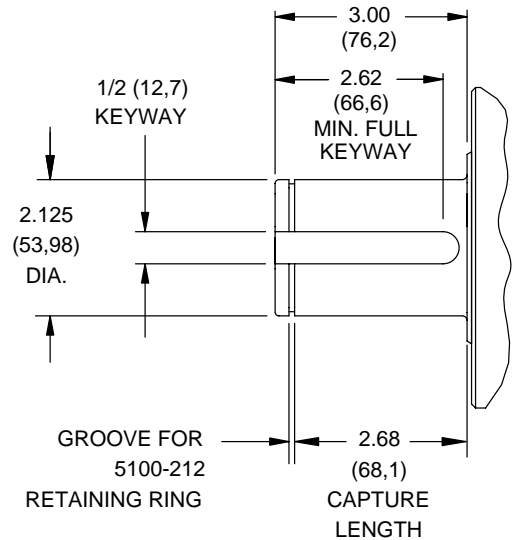
See Hubs & Pinions technical data sheet for details.



D1 - 2.00" Dia. x 3/8" Key



D3 - 2.125" Dia. x 1/2" Key





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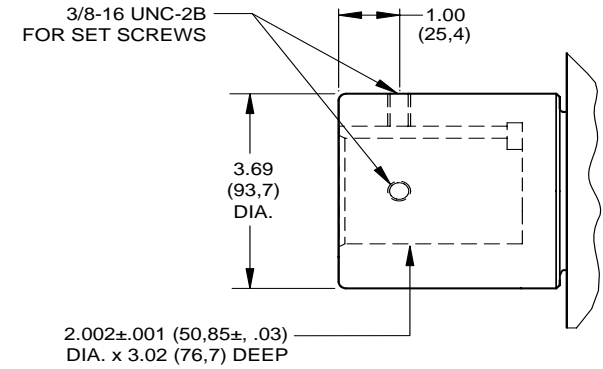
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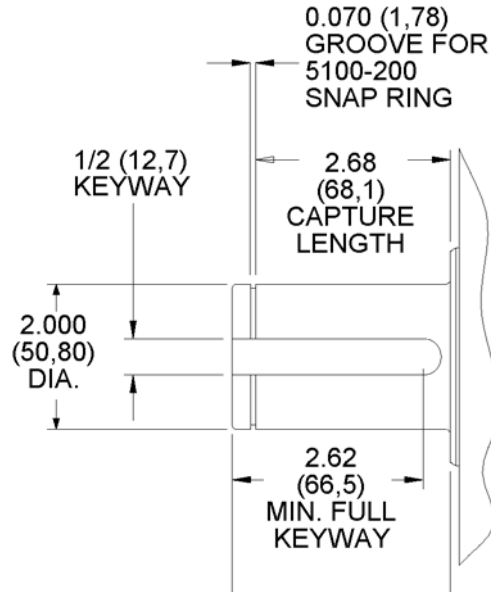
Output Shaft Options *Values are shown as "inches (millimeters)"*

A, AQ, E & F Mounts Output Shaft Order Codes		
A, AQ, E & F Mounts Only	D1	2.00" Dia. x 3/8" Key
	D2	23T 12/24 DP Spline
	D3	2.125" Dia. x 1/2" Key
	D4	2.00" Dia. x 1/2" Key
	F2	2.00" Dia. x 1/2" Key (Internal) <i>(Only for use with K shaft retention option; contact Eskridge for details)</i>
	H2	2.00" Hex Drive
	C1	Custom Shaft, Consult Eskridge

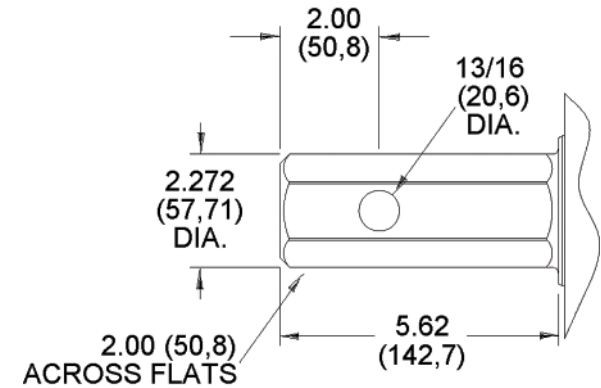
F2 - 2.00" Dia. x 1/2" Key (Internal)



D4 - 2.00" Dia. x 1/2" Key



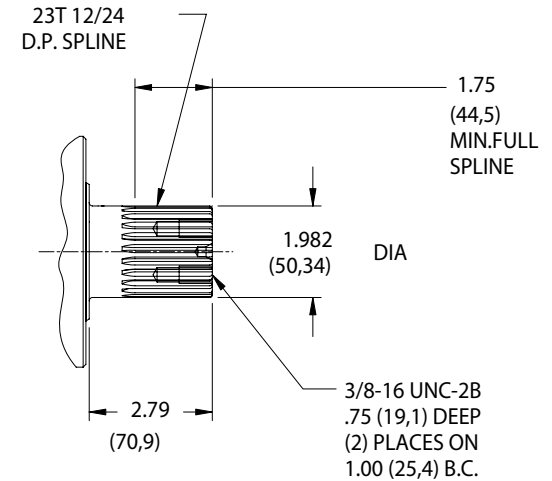
H2 - 2.00" Hex Drive



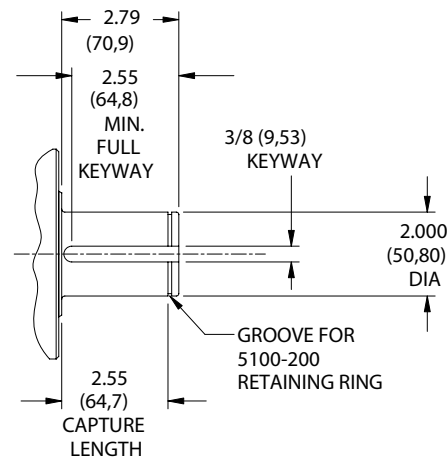
Output Shaft Options Values are shown as "inches (millimeters)"

G Mount Output Shaft Order Codes		
G Mounts Only	D1	2.00" Dia. x 3/8" Key
	D2	23T 12/24 DP Spline
	D3	2.25" x 1/2" Key
	D4	16T 8/16 DP Spline <i>(Replaces Heco Model 16)</i>
	D5	17T 12/24 DP Spline
	D6	17T 12/24 DP Spline (1/4 Longer than D5 Shaft)
	D7	2.00" Dia. x 1/2" Key
	D8	16T 8/16 DP Spline <i>(Replaces Char Lynn 10,000 Motor)</i>
	C1	Custom Shaft, Consult Eskridge

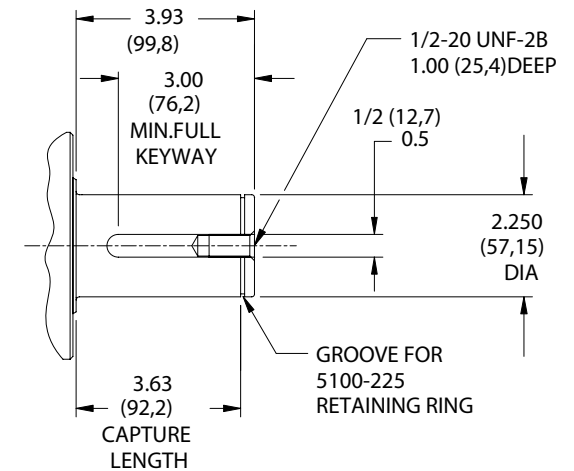
D2 - 23T 12/24 DP Spline



D1 - 2.00" Dia. x 3/8" Key



D3 - 2.25" x 1/2" Key





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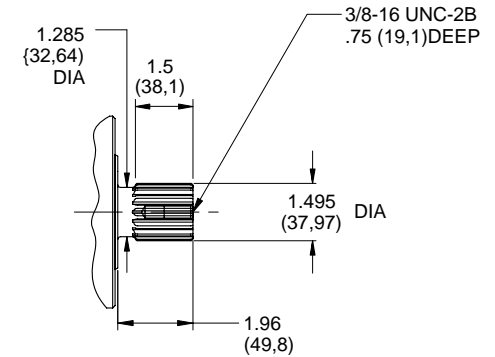
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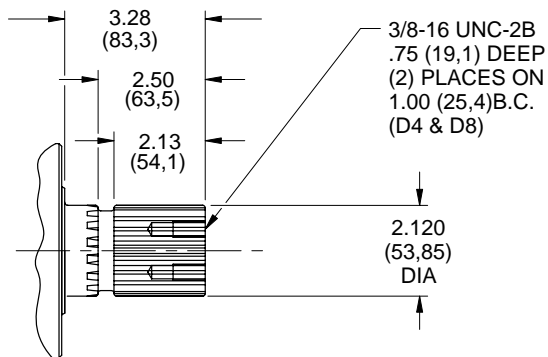
Output Shaft Options Values are shown as "inches (millimeters)"

G Mount Output Shaft Order Codes		
G Mounts Only	D1	2.00" Dia. x 3/8" Key
	D2	23T 12/24 DP Spline
	D3	2.25" x 1/2" Key
	D4	16T 8/16 DP Spline <i>(Replaces Hēco Model 16)</i>
	D5	17T 12/24 DP Spline
	D6	17T 12/24 DP Spline (1/4" Longer than D5 Shaft)
	D7	2.00" Dia. x 1/2" Key
	D8	16T 8/16 DP Spline <i>(Replaces Char Lynn 10,000 Motor)</i>
C1	Custom Shaft, Consult Eskridge	

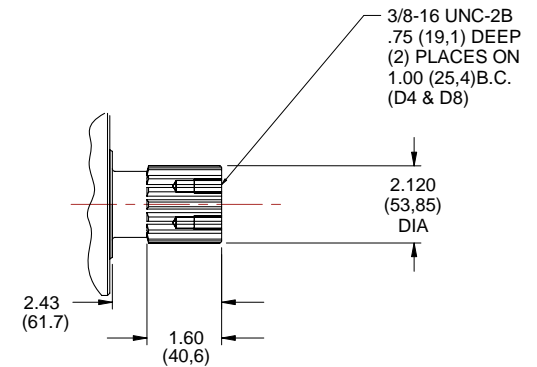
D5 - 17T 12/24 DP Spline



D4 - 16T 8/16 DP Spline



D6 - 17T 12/24 DP Spline (1/4" Longer than D5 Shaft)





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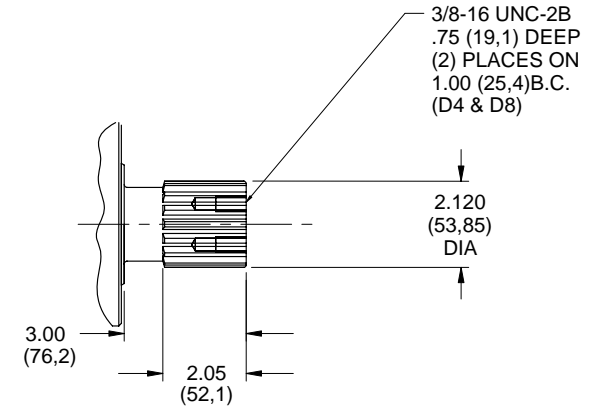
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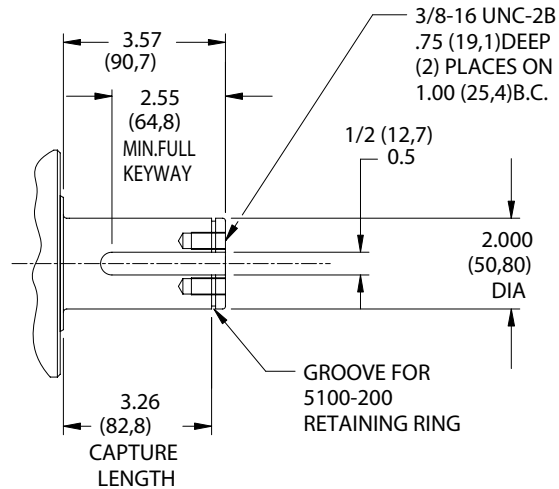
Output Shaft Options Values are shown as "inches (millimeters)"

G Mount Output Shaft Order Codes		
G Mounts Only	D1	2.00" Dia. x 3/8" Key
	D2	23T 12/24 DP Spline
	D3	2.25" x 1/2" Key
	D4	16T 8/16 DP Spline <i>(Replaces Hēco Model 16)</i>
	D5	17T 12/24 DP Spline
	D6	17T 12/24 DP Spline (1/4 Longer than D5 Shaft)
	D7	2.00" Dia. x 1/2" Key
	D8	16T 8/16 DP Spline <i>(Replaces Char Lynn 10,000 Motor)</i>
	C1	Custom Shaft, Consult Eskridge

D8 - 16T 8/16 DP Spline



D7 - 2.00" Dia. x 1/2" Key





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Ordering Information

Example Part Number: 50LAD1A1-4

Please note that additional options are available on the 50 series.
 Contact the factory for further information about unlisted options.

Model	Shaft Retention	Gear Drive Mounting	Output Shaft	Input Mounting	Input Spline	Ratio	Options
50							
	<p>L - Load-N-Lock™ Patented shaft retention system See shaft retention technical bulletin for details.</p>	<p>A - Round AQ - Round Eccentric E - Rectangular F - Flangeless G - 4 Bolt Mounting Flange SAE 'C' Mount <i>This mounting must be ordered with the L shaft retention</i> C - Custom</p>	<p>Please refer to pages 11-15 for output shaft order codes.</p>	<p>A - SAE "A" (2 & Modified 4 Bolt) B - SAE "B" (2 Bolt) C - SAE "C" (4 Bolt) K - SAE "C" (2 Bolt) <i>See input mounting technical bulletin for details.</i></p>	<p>2 - 13T 16/32 DP Spline 3 - SAE 1"-6B Spline 4 - 14T 12/24 DP Spline* 5 - 15T 16/32 DP Spline 6 - 1.00" Dia. x 1/4" Key* *Unavailable in 5:1, 25:1 & 129:1 Verify motor shaft compatibility with factory</p>	<p><i>Single Planetary</i> 4 - 4.08:1 5 - 5.05:1 <i>Double Planetary</i> 16 - 16.65:1 20 - 20.62:1 25 - 25.53:1 <i>Triple Planetary</i> 68 - 67.91:1 84 - 84.10:1 104 - 104.51:1 129 - 128.98:1</p>	<p>Z - Grease Zerk Required for pinion-up applications H - High Pressure Seal* *Only available for the 50LG option.</p>