

Model: 16



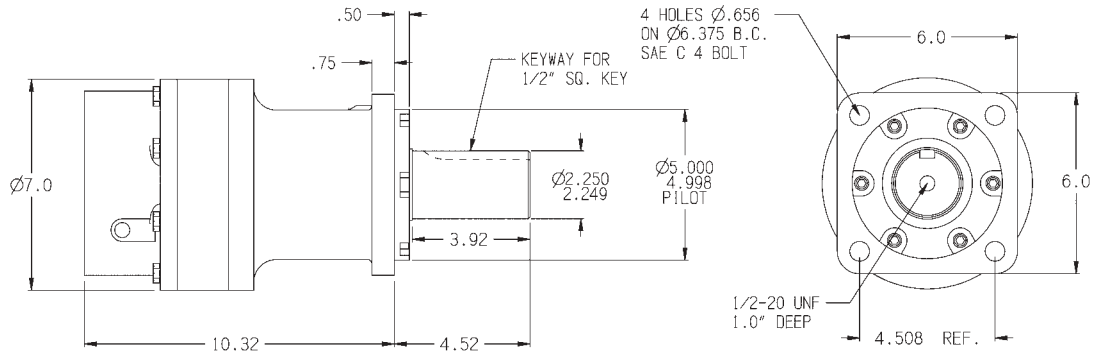
HECO GEAR

Planetary Speed Reducers for Industry

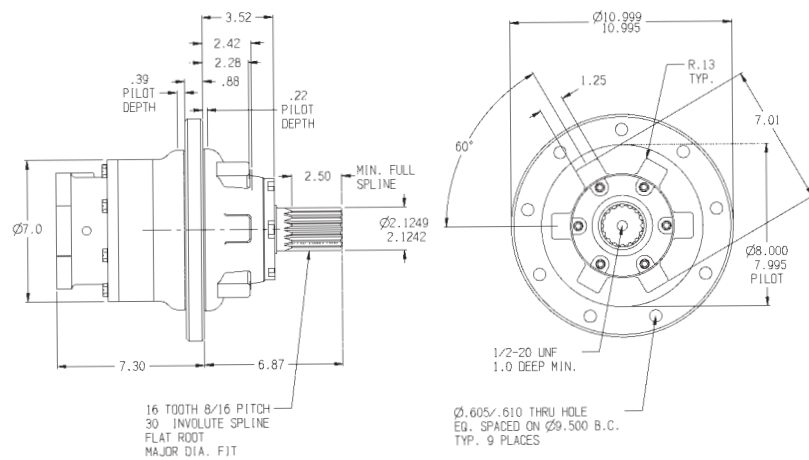
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Installation Dimensions

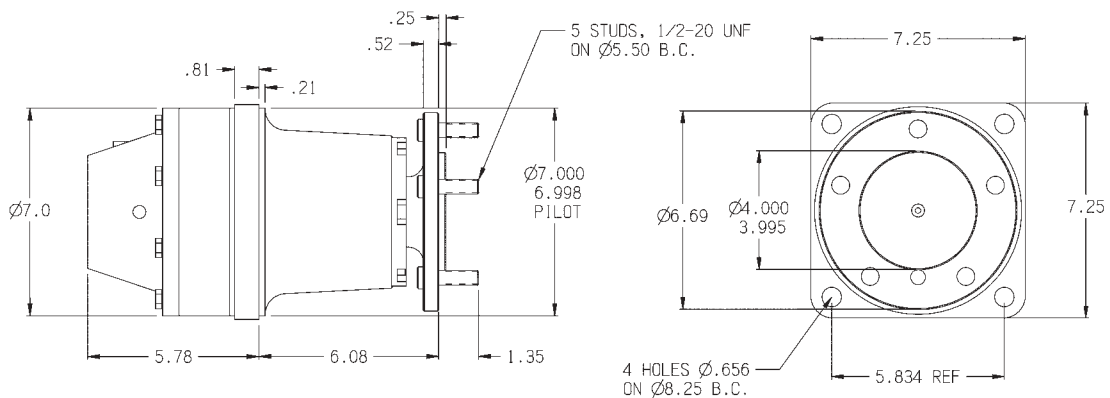
Model 16FF105



Model 16AF465



Model 16CF545



NOTE: Installation drawings are available at www.hecogear.com under "Products"

Performance Data

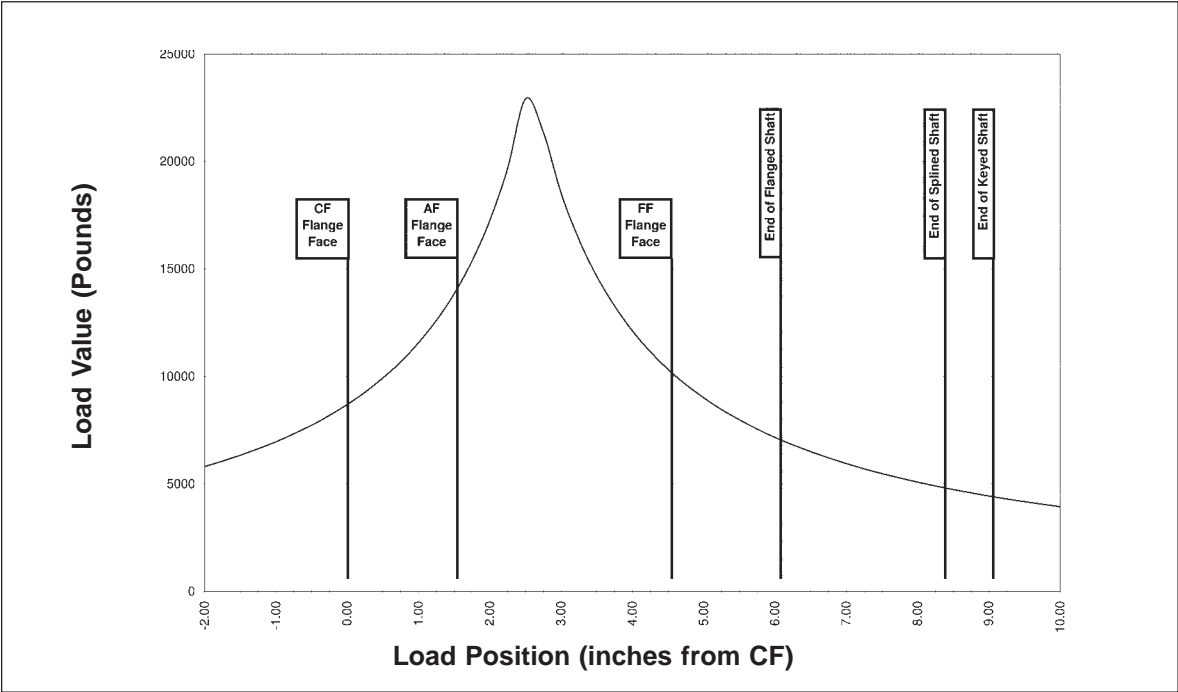
Torque ⁽¹⁾

Continuous	Intermittent	Peak
30,000 in-lbs	45,000 in-lbs	60,000 in-lbs
2,500 ft-lb	3,750 ft-lb	5,000 ft-lb
3,390 Nm	5,080 Nm	6,780 Nm

Ratio 5.2:1

Speed ⁽¹⁾ 3600 RPM intermittent input speed

Radial Load Rating ⁽¹⁾



Weight 67 - xxx lbs (? kg)

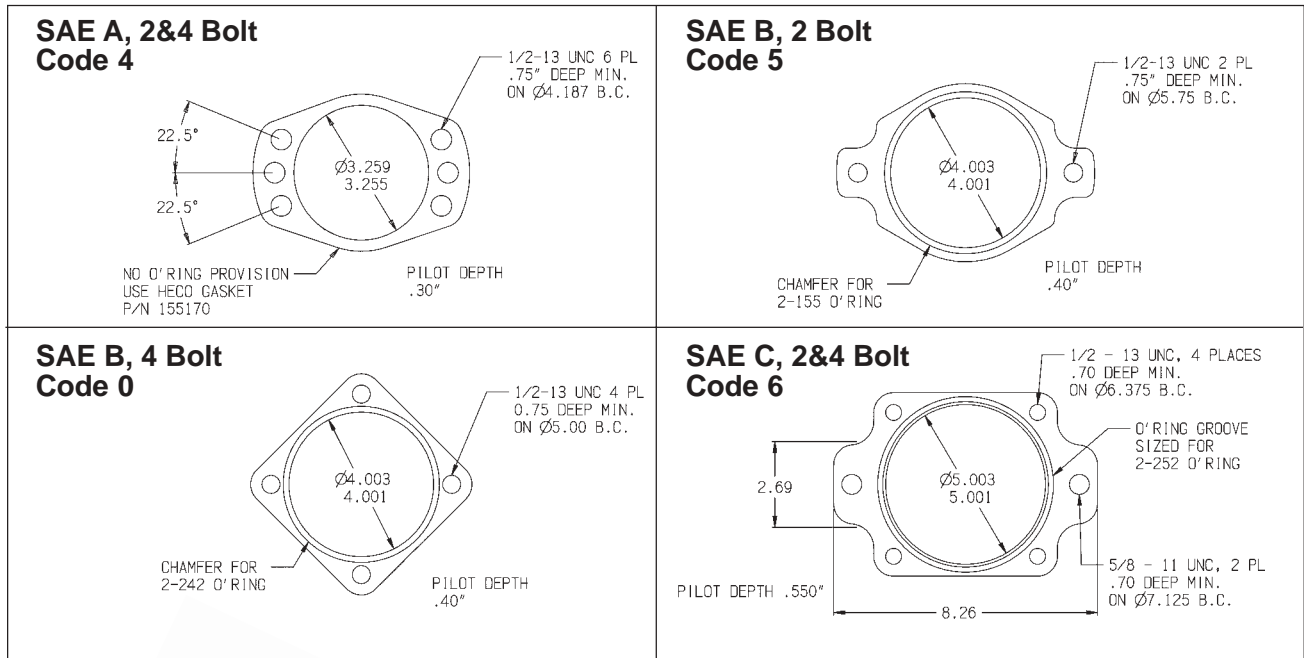
Application Information

Reducer life is affected by torque, speed, radial and axial load. Reducer life is also dependent on the duty cycle of the application. We define the duty cycle as an operation beginning with “start” and ending with a full stop or reversal. Typical components of the duty cycle are starting, running, reversing, overrunning and stopping. Life of the internal bearings is one of the limiting factors; consequently applications the require simultaneous high speed and high torque will have shortened life.

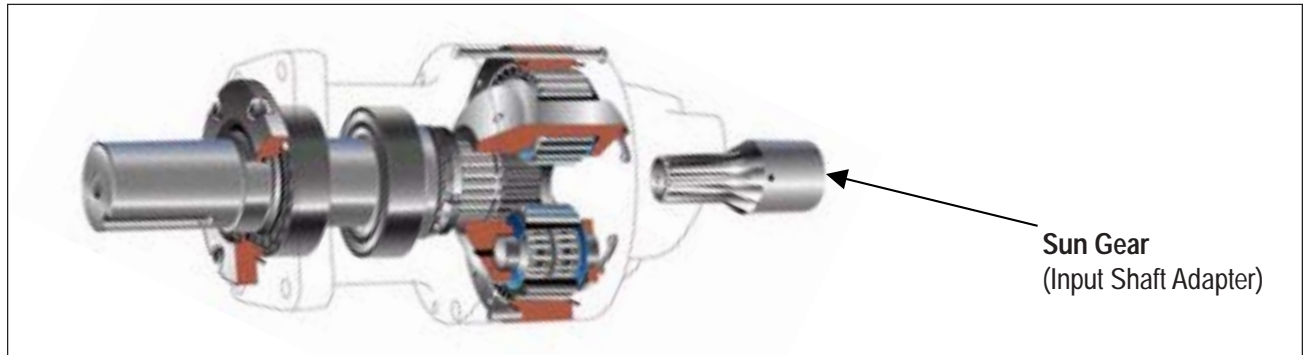
Heco Gear can help you estimate reducer life for your specific application. Contact us with your duty cycle and life requirements and we can simulate reducer design life. Customer testing of the reducer in the specific application is recommended to determine actual life.

⁽¹⁾ Ratings are based on using 85W-140 gear oil.

Motor Adapter Options



Sun Gear (Input Shaft) Options



Sun Gears		Motor Shaft Lengths From Motor Mounting flange to the end of the shaft	
Sun Gear #	Hydraulic Motor Shaft Type	Min. Length - in (mm)	Max. Length - in (mm)
16B	7/8" - 13 Tooth Spline	1.40 (35.56)	1.75 (44.45)
16C	1" - 15 Tooth Spline	1.70 (43.18)	1.95 (49.53)
16D	1" Straight Keyed	1.80 (45.72)	2.10 (53.34)
16E	Charlynn 2000 Bearingless	N/A	N/A
16FC	Charlynn 4000 Compact Bearingless	N/A	N/A
16F	Charlynn 4000 Bearingless	N/A	N/A
16H	1 1/4" Straight Keyed	2.05 (52.07)	2.40 (60.96)
16I	1 1/4" - 14 Tooth Spline	2.00 (50.80)	2.32 (58.93)
16M	1" SAE 6B Spline	1.95 (49.53)	2.30 (58.42)
16O	7/8" Straight Keyed	??	??
16P	1 1/8" Straight Keyed	??	??
16S	Danfoss OMSS Bearingless	N/A	N/A

Order Information & Model Codes

Code	Description	Code	Description
1 - Mounting Flange Base Model		3 - Motor Adapter	
16FF	Front Flange	0	SAE B, 4 Bolt
16AF	Round Flange ⁽¹⁾	4	SAE A - 2 & 4 Bolt combination
16CF	Center Flange	5	SAE B - 2 Bolt
2 - Output Shaft Options		6	SAE C - 2 & 4 Bolt combination
1	2.250" Straight Keyed	4 - Ratio	
2	4 Bolt Flanged Shaft with 1/2" studs	5	5.2:1
22	4 Bolt Flanged Shaft with 5/8" studs	5 - Design Number	
3	2.250" J501 Taper	6	Current Design
4	16 Tooth 8/16 Spline	6 - Special Options ⁽²⁾	
5	5 Bolt Flanged Shaft with 1/2" studs	A22	Nickel Plated Shaft & Seal Carrier
52	5 Bolt Flanged Shaft with 5/8" studs	A32	Magnetic Speed Pick-Up
6	2.000" Straight Keyed	⁽¹⁾ Interchange mounting for: Auburn 6T, 6S, 7S & Fairfield S1A (check pilot dimensions). ⁽²⁾ Units with "A" suffix denote special modifications; Consult Heco.	
7	2.545" 2 9/16" Round with Cross		
	Drilled Hole		
8	2.000" Hex with Cross Drilled Hole		
81	1.625" Square		

Sample Model Code

1	2	3	4	5	6
16FF	1	4	5	6	A22

Sun Gear Kit Model Code

16B	7/8" - 13 Tooth Spline	16H	1 1/4" Straight Keyed
16C	1" - 15 Tooth Spline	16I	1 1/4" - 14 Tooth Spline
16D	1" Straight Keyed	16M	1" SAE 6B Spline
16E	Charlynn 2000 Bearingless	16O	7/8" Straight Keyed
16FC	Charlynn 4000 Compact Bearingless	16P	1 1/8" Straight Keyed
16F	Charlynn 4000 Bearingless	16S	Danfoss OMSS Bearingless

Note: Mounting bolts and o-rings or gaskets are included.

Oil Recommendation

For maximum speed reducer life the recommended oil is SAE 85W-140 Multi-grade gear oil meeting API-GL5 and API-MT1 service. Alternate oil that will provide adequate speed reducer life is SAE 90W gear oil meeting API-GL5 and API-MT1 service. These oils should be readily available at your local automotive store or lubricant dealer.

When using a Bearingless hydraulic motor or "Flow Through" lubrication where hydraulic oil from the hydraulic motor lubricates the speed reducer an ISO 68 hydraulic oil with EP1 additives and a minimum of 0.125% zinc anti-wear additive will provide adequate speed reducer life.

Maximum oil temperature should not exceed 160° F (70° C) for continuous operation or 180° F (80° C) for intermittent operation.

Consult Heco Gear for applications requiring use of non-petroleum based or fire retardant lubrication.

NOTE: Warranty information and Parts & Service manuals (pdf format) are available at www.hecogear.com.