

The attached documentation provides a direct comparison of the Auburn Gear Model 6HCF versus the Heco Model 16CF.

Output Spindle Comparison:

AGI Model 6H - code "F24"
Heco Model 16 - code "2"



AuburnGear

HECO INC.

	Auburn Gear	Heco
Outer Bearing Journal Diameter (in)	2.625	2.165
Inner Bearing Journal Diameter (in)	2.625	2.165
Spline; pitch diameter, depth (in), &	2.500	2.000
Number of teeth	40T	31T

AGI Advantages:

The Auburn Gear spindle output provides 47% more cross sectional area at the bearing journal diameters. This increase in section modulus provides:

- ✓ More strength
- ✓ Greater resistance to impact loads
- ✓ Longer shaft life

The Auburn Gear spline provides 18% more surface area and 29% more teeth. These physical property differences result in:

- ✓ Increased torsional strength

Bearing Comparison:



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Outer bearing toward spindle flange.



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HECO INC.

Inner bearing toward gearing.

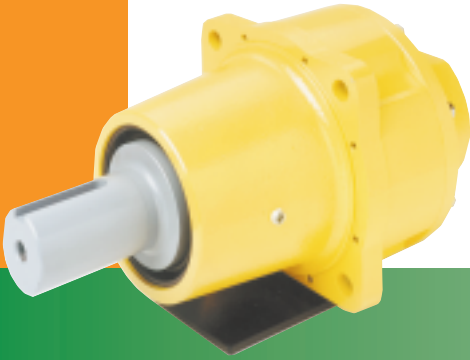
Manufacturer Model	Max. Radial Shaft Load (lbs)
Auburn Gear 6H	26,000
Heco 16	21,000

Note: the bearing ratings are based on a B10 life at 10,000,000 revolutions.

AGI Advantages:

Auburn Gear's Model 6H will provide 24% more radial load capacity than the Heco Model 16. This greater radial load rating, regardless of load center, will provide:

- ✓ Longer bearing life under the same loading conditions
- ✓ The same bearing life by comparison under incrementally larger radial loads



Ring Gear Comparison:



	Auburn Gear	Heco
Pitch Diameter (in)	6.417	4.899
Face width (in)	2.266	1.310
# of teeth	77	63

AGI Advantages:

The 31% larger pitch diameter will provide:

- ✓ Increased torque capacity
- ✓ Longer life

The wider face width and greater number of teeth provide:

- ✓ Greater torque transmission capability
- ✓ Increased gear life under the same duty cycle loading

Carrier Assembly Comparison:



	Auburn Gear	Heco
# of teeth	40	31
Spline pitch diameter (in)	2.500	2.000

AGI Advantages:

The larger pitch diameter in the splined section of the carrier will provide:

- ✓ Increased torque transmission capability to the output shaft
- ✓ Increased strength
- ✓ Greater resistance to torsional impact loading

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Planet Gear Comparison:



	Auburn Gear	Heco
Pitch Diameter (in)	2.333	2.077
Face width (in)	1.265	1.100
Internal bearing journal diameter (in)	1.209	1.115

AGI Advantages:

Similarly to the ring gear traits, the larger pitch diameter and face width will provide:

- ✓ Increased torque capacity
- ✓ Longer life

The larger bearing journal diameter allows for the use of larger and more needle bearings which will provide:

- ✓ Longer bearing life
- ✓ Increased support load capability for larger torsional loads

Planet Gear Thrust Washers:



AGI Advantages:

Auburn Gear's design **does not allow** the thrust washer to spin in conjunction with the planet gear. The thrust

washers have a stamped protrusion that mate with the carrier assembly, which restricts the rotation. The Heco system **allows** the thrust washer to spin with the planet gear.

The thrust washer is a hardened piece (normally carbonitrided) that runs against the planet gear that is hardened and the carrier casting which is made of softer material. If the thrust washer is not restricted, it can eventually grind itself into the carrier casting, thus creating casting contamination within the gearbox, which can ultimately result in a failure.

Planet Gear Needle Bearing Comparison:

	Auburn Gear	Heco
Type	Full complement needle rollers	Caged needle roller bearings
# of rollers	34	30
Roller diameter (in)	0.19	0.14
Roller length (in)	0.620	0.520



AGI Advantages:

The additional number of needle bearing rollers, the larger roller diameter and greater roller length provide:

- ✓ Less compressive stresses on the planet pins and less stress per bearing roller, which translates into greater needle bearing and planet pin life
- ✓ Again, greater torque transmission capability



Planet Pin Comparison:



AGI Advantages:

The Auburn Gear pin has a knurl retention that provides a positive means to eliminate the potential rotation of the pins within the carrier casting. The Heco design relies strictly on a light press fit. If the pin loosens over time the pin will rotate within the carrier casting. The hardened pin will gall the casting creating contamination within the gearbox and can ultimately lead to failure.

Fastener Comparison:



Heco uses Grade 5 hardware in the 16CF. Auburn Gear utilizes Grade 8 hardware in the 6HCF.

AGI Advantages:

The higher strength grade hardware will provide greater clamp load, when torqued per manufacturer specification, in the joint. This increase in clamp load provides resistance to joint loosening.

In Summary:

The Auburn Gear 6HCF will provide additional life as compared to the Heco Model 16CF, assuming the duty cycle and loading remain consistent.

Our pricing is competitive and we can provide better technical and service support when needed. We can simply offer you a better value.

If you wish to contact us or your local Auburn Gear distributor you can contact us at:

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