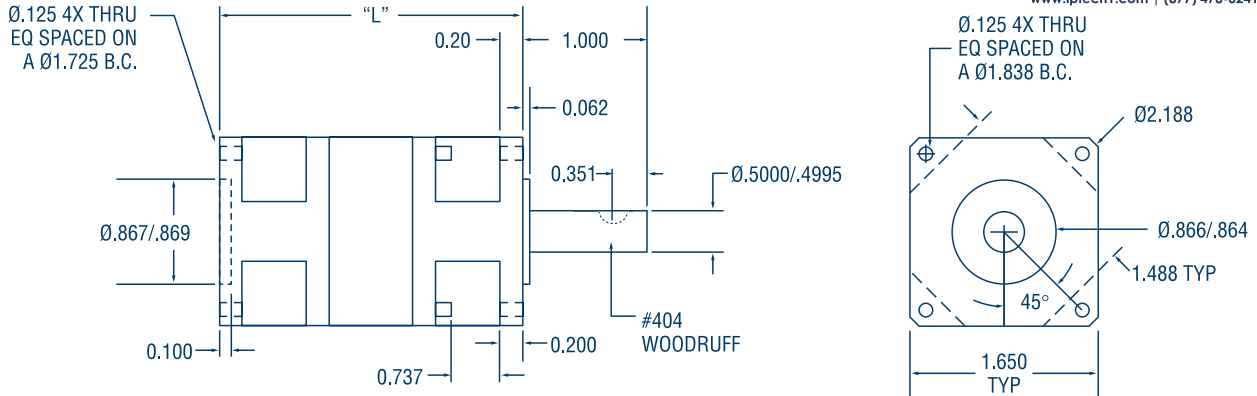


**17PL**

**SPECIFICATIONS**

**In-Position Technologies**  
www.iptech1.com | (877) 478-3241 | help@iptech1.com

**DIMENSION "L"**  
Single Stage (3:1 to 10:1) = 2.869 ± .015  
Double Stage (16:1 to 100:1) = 3.738 ± .015



	Part #	Ratio	Continuous output torque at 1500 rpm input (in-lbs)	Continuous output torque at 3500 rpm input (in-lbs)	Continuous output torque at 5000 rpm input (in-lbs)	Gearhead inertia at input (lb-in-sec <sup>2</sup> )
<b>SINGLE STAGE</b>	17PL003	3:1	243	169	137	3.25 x 10 <sup>-5</sup>
	17PL004	4:1	220	166	140	1.60 x 10 <sup>-5</sup>
	17PL005	5.5:1	197	159	139	1.10 x 10 <sup>-5</sup>
	17PL007	7:1	180	151	135	9.56 x 10 <sup>-6</sup>
	17PL010	10:1	143	126	116	8.36 x 10 <sup>-6</sup>
<b>DOUBLE STAGE</b>	17PL016	16:1	304	276	259	1.59 x 10 <sup>-5</sup>
	17PL022	22:1	311	289	275	1.10 x 10 <sup>-5</sup>
	17PL028	28:1	394	296	285	9.54 x 10 <sup>-6</sup>
	17PL040	40:1	319	306	296	8.35 x 10 <sup>-6</sup>
	17PL049	49:1	230	224	219	9.44 x 10 <sup>-6</sup>
	17PL055	55:1	264	256	251	8.31 x 10 <sup>-6</sup>
	17PL070	70:1	231	226	224	8.30 x 10 <sup>-6</sup>
	17PL100	100:1	176	174	173	8.29 x 10 <sup>-6</sup>

**GENERAL SPECIFICATIONS**

Construction Type	Ratio	Backlash: Standard (arc-minutes)	Backlash: Low Backlash (arc-minutes)	Efficiency	Weight (lbs)	Maximum Tested Input rpm
Single Stage	3:1 to 10:1	6	3	90%	1.00	5000
Double Stage	16:1 to 100:1	10	7	85%	1.60	5000

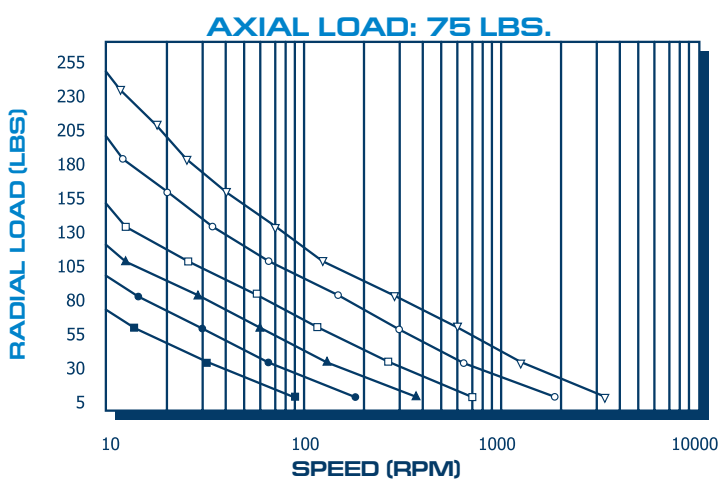
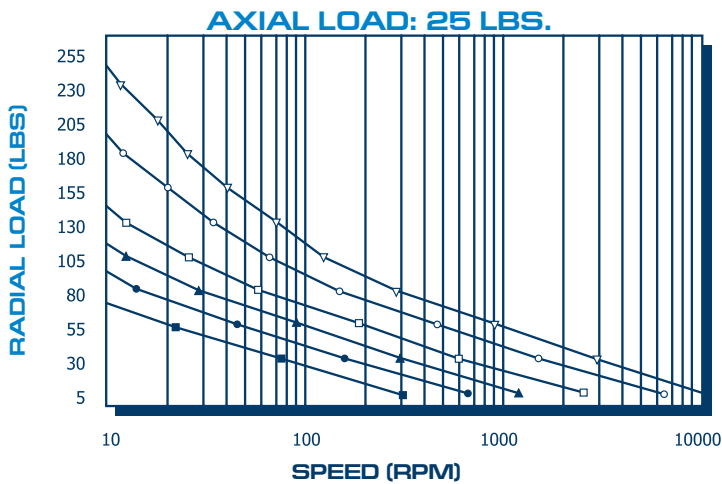
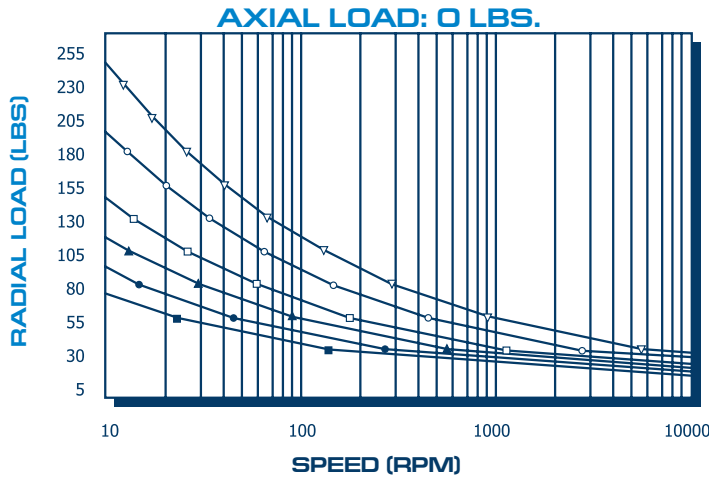
**PEAK TORQUE:** 15% above continuous rating.

**NOTE:** Repeated peak torque loading may cause failure.



**17PL**

**BEARING LIFE VS SHAFT LOAD**



**SPEED (RPM)**

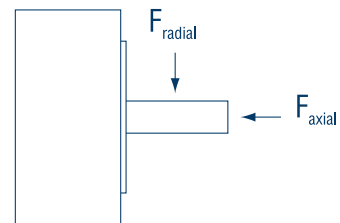
Refers to the gearheads output shaft speed.

**LIFE (HRS)**

# of lifetime revolutions ÷ (60 x rpm)

**F<sup>RADIAL</sup>**

Calculated at 1/2 the shaft length.

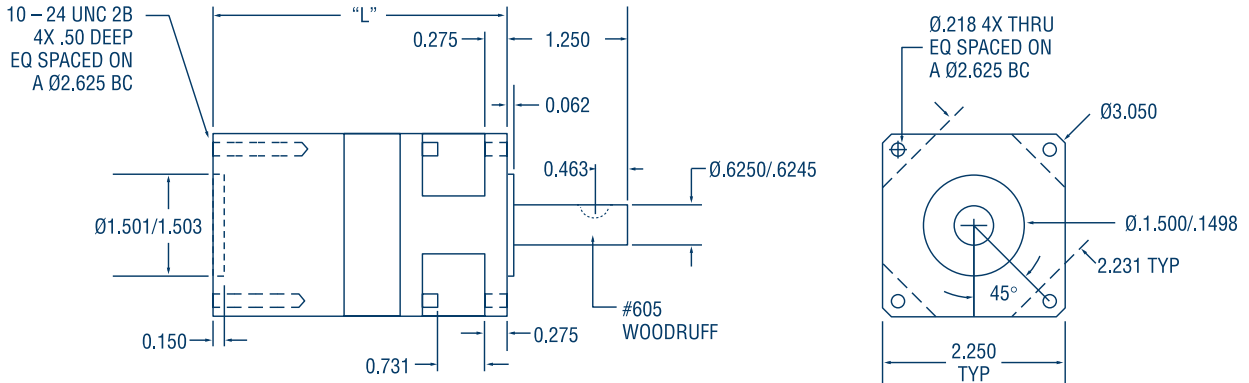




**23PL**

**SPECIFICATIONS**

DIMENSION "L"  
Single Stage (3:1 to 10:1) = 3.146 ± .015  
Double Stage (16:1 to 100:1) = 4.249 ± .015



	Part #	Ratio	Continuous output torque at 1500 rpm input (in-lbs)	Continuous output torque at 3500 rpm input (in-lbs)	Continuous output torque at 5000 rpm input (in-lbs)	Gearhead inertia at input (lb-in-sec <sup>2</sup> )
<b>SINGLE STAGE</b>	23PL003	3:1	520	343	273	1.22 x 10 <sup>-4</sup>
	23PL004	4:1	482	346	285	5.24 x 10 <sup>-5</sup>
	23PL005	5.5:1	439	339	290	2.65 x 10 <sup>-5</sup>
	23PL007	7:1	405	329	288	1.93 x 10 <sup>-5</sup>
	23PL010	10:1	325	280	253	1.35 x 10 <sup>-5</sup>
<b>DOUBLE STAGE</b>	23PL016	16:1	698	619	571	5.32 x 10 <sup>-5</sup>
	23PL022	22:1	716	654	614	2.70 x 10 <sup>-5</sup>
	23PL028	28:1	728	676	643	1.96 x 10 <sup>-5</sup>
	23PL040	40:1	740	703	676	1.36 x 10 <sup>-5</sup>
	23PL049	49:1	535	515	501	1.90 x 10 <sup>-5</sup>
	23PL055	55:1	615	593	578	1.34 x 10 <sup>-5</sup>
	23PL070	70:1	540	525	515	1.33 x 10 <sup>-5</sup>
	23PL100	100:1	411	404	399	1.33 x 10 <sup>-5</sup>

**GENERAL SPECIFICATIONS**

Construction Type	Ratio	Backlash: Standard (arc-minutes)	Backlash: Low Backlash (arc-minutes)	Efficiency	Weight (lbs)	Maximum Tested Input rpm
Single Stage	3:1 to 10:1	6	3	90%	2.05	5000
Double Stage	16:1 to 100:1	10	7	85%	3.30	5000

**PEAK TORQUE:** 15% above continuous rating.

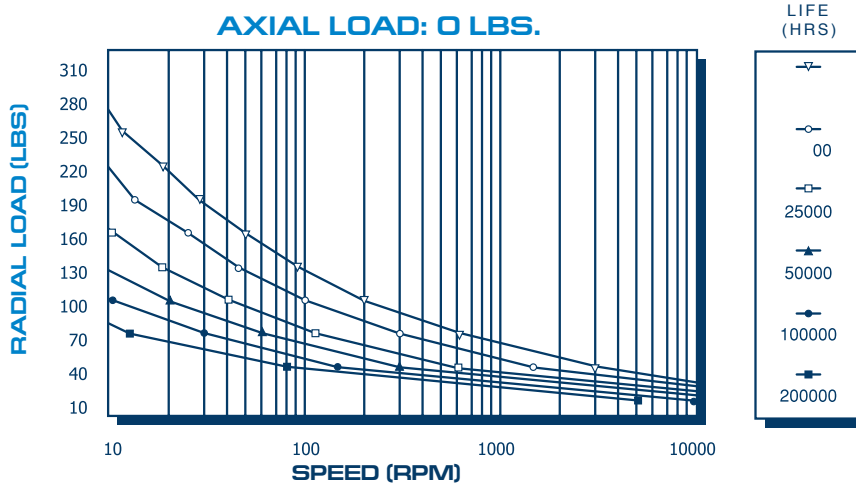
**NOTE:** Repeated peak torque loading may cause failure.



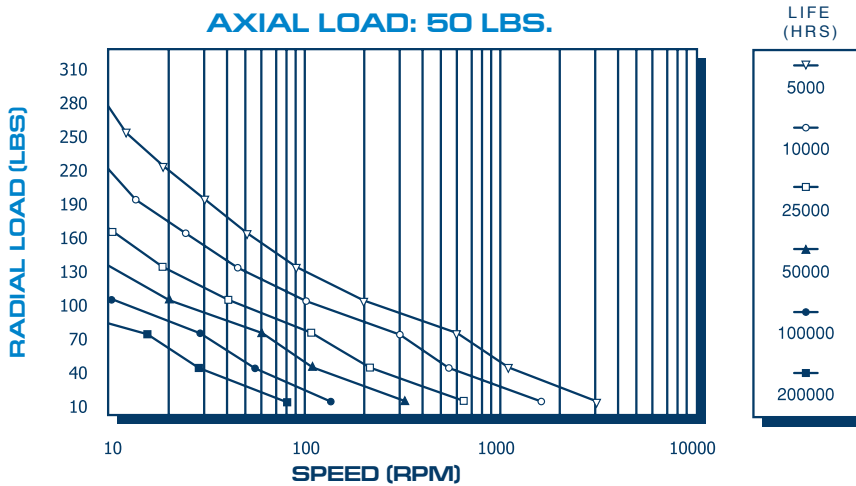
**23PL**

**BEARING LIFE VS SHAFT LOAD**

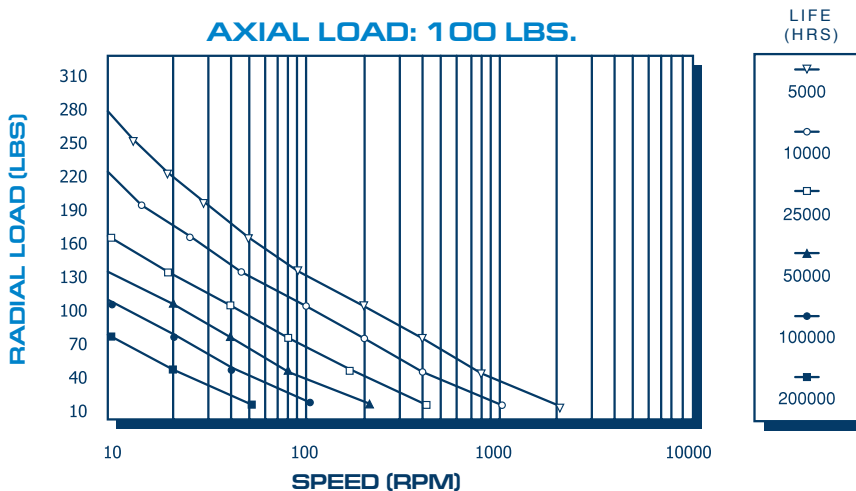
**AXIAL LOAD: 0 LBS.**



**AXIAL LOAD: 50 LBS.**



**AXIAL LOAD: 100 LBS.**



**SPEED (RPM)**

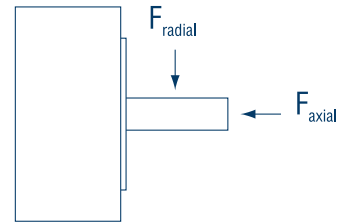
Refers to the gearheads output shaft speed.

**LIFE (HRS)**

# of lifetime revolutions ÷ (60 x rpm)

**F<sup>RADIAL</sup>**

Calculated at 1/2 the shaft length.





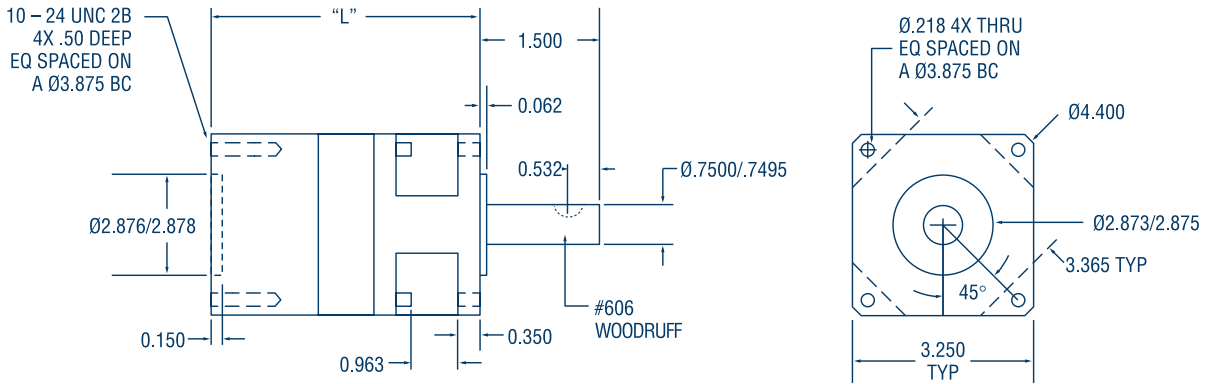
**34PL**

**SPECIFICATIONS**

**DIMENSION "L"**

Single Stage (3:1 to 10:1) = 4.063 ± .015

Double Stage (16:1 to 100:1) = 5.431 ± .015



Part #	Ratio	Continuous output torque at 1500 rpm input (in-lbs)	Continuous output torque at 3500 rpm input (in-lbs)	Continuous output torque at 5000 rpm input (in-lbs)	Gearhead inertia at input (lb-in-sec <sup>2</sup> )	
<b>SINGLE STAGE</b>	34PL003	3:1	1189	724	560	6.77 x 10 <sup>-4</sup>
	34PL004	4:1	1144	757	604	2.77 x 10 <sup>-5</sup>
	34PL005	5.5:1	1074	773	638	1.51 x 10 <sup>-5</sup>
	34PL007	7:1	1011	768	651	1.11 x 10 <sup>-5</sup>
	34PL010	10:1	832	677	594	7.90 x 10 <sup>-5</sup>
<b>DOUBLE STAGE</b>	34PL016	16:1	1805	1531	1374	2.86 x 10 <sup>-5</sup>
	34PL022	22:1	1874	1650	1515	1.55 x 10 <sup>-5</sup>
	34PL028	28:1	1915	1728	1609	1.14 x 10 <sup>-5</sup>
	34PL040	40:1	1963	1821	1728	8.04 x 10 <sup>-5</sup>
	34PL049	49:1	1428	1351	1298	1.11 x 10 <sup>-5</sup>
	34PL055	55:1	1640	1558	1501	7.94 x 10 <sup>-5</sup>
	34PL070	70:1	1445	1390	1351	7.90 x 10 <sup>-5</sup>
	34PL100	100:1	1106	1078	1056	7.87 x 10 <sup>-5</sup>

**GENERAL SPECIFICATIONS**

Construction Type	Ratio	Backlash: Standard (arc-minutes)	Backlash: Low Backlash (arc-minutes)	Efficiency	Weight (lbs)	Maximum Tested Input rpm
Single Stage	3:1 to 10:1	6	3	90%	5.47	5000
Double Stage	16:1 to 100:1	10	7	85%	8.85	5000

**PEAK TORQUE:** 15% above continuous rating.

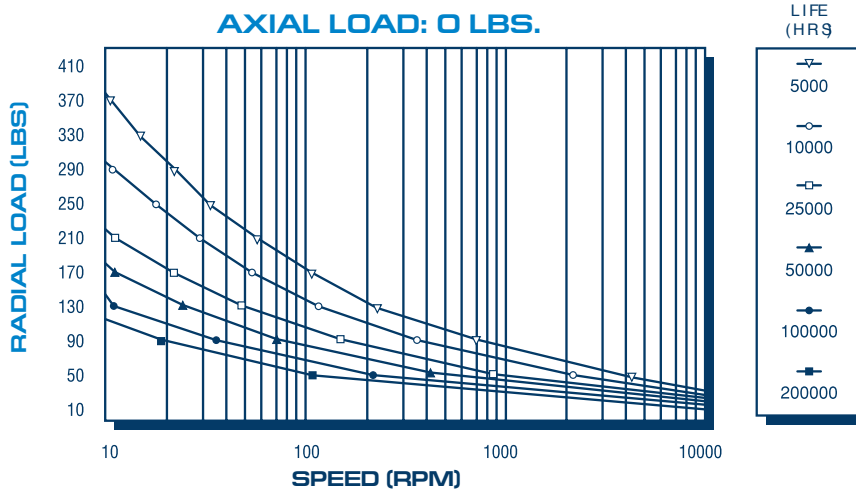
**NOTE:** Repeated peak torque loading may cause failure.



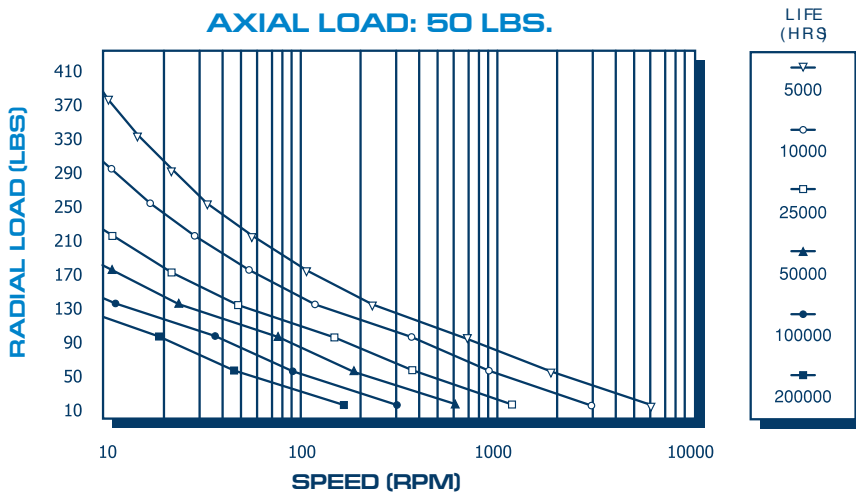
**34PL**

**BEARING LIFE VS SHAFT LOAD**

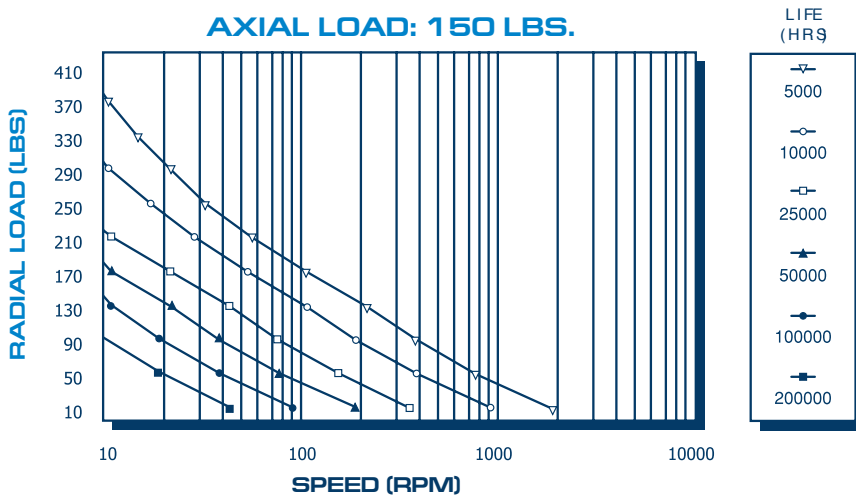
**AXIAL LOAD: 0 LBS.**



**AXIAL LOAD: 50 LBS.**



**AXIAL LOAD: 150 LBS.**



**SPEED (RPM)**

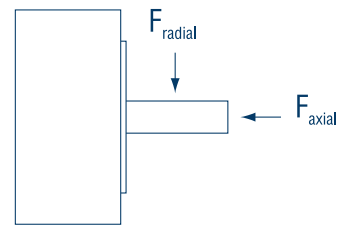
Refers to the gearheads output shaft speed.

**LIFE (HRS)**

# of lifetime revolutions ÷ (60 x rpm)

**F<sup>RADIAL</sup>**

Calculated at 1/2 the shaft length.

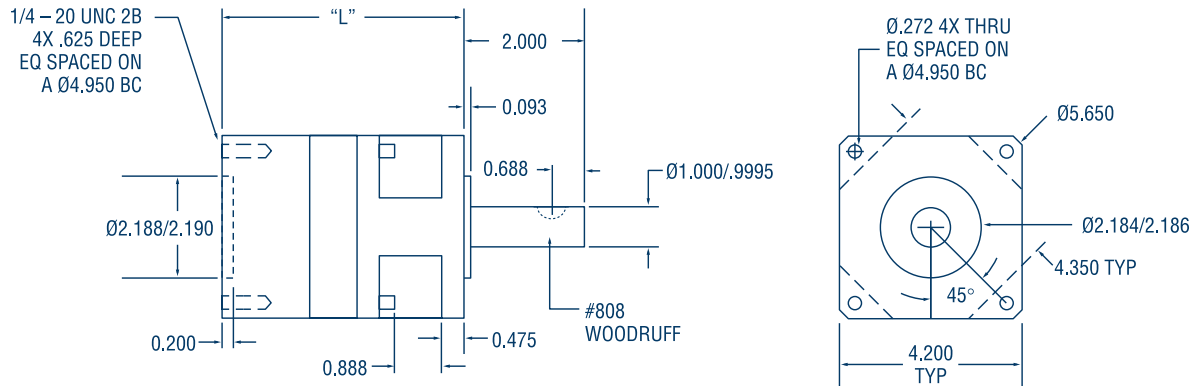




**42PL**

**SPECIFICATIONS**

DIMENSION "L"  
Single Stage (3:1 to 10:1) = 4.624 ± .015  
Double Stage (16:1 to 100:1) = 6.237 ± .015



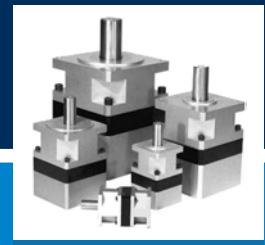
Part #	Ratio	Continuous output torque at 1500 rpm input (in-lbs)	Continuous output torque at 3500 rpm input (in-lbs)	Continuous output torque at 5000 rpm input (in-lbs)	Gearhead inertia at input (lb-in-sec <sup>2</sup> )	
<b>SINGLE STAGE</b>	42PL003	3:1	2022	1175	894	2.27 x 10 <sup>-3</sup>
	42PL004	4:1	1993	1256	983	1.02 x 10 <sup>-3</sup>
	42PL005	5.5:1	1913	1312	1062	5.87 x 10 <sup>-4</sup>
	42PL007	7:1	1826	1327	1101	4.56 x 10 <sup>-4</sup>
	42PL010	10:1	1527	1196	1029	3.52 x 10 <sup>-4</sup>
<b>DOUBLE STAGE</b>	42PL016	16:1	3346	2745	2419	1.05 x 10 <sup>-3</sup>
	42PL022	22:1	3503	3003	2711	6.01 x 10 <sup>-4</sup>
	42PL028	28:1	3599	3173	2913	4.65 x 10 <sup>-4</sup>
	42PL040	40:1	3711	3383	3173	3.57 x 10 <sup>-4</sup>
	42PL049	49:1	2710	2530	2411	4.56 x 10 <sup>-4</sup>
	42PL055	55:1	3118	2923	2793	3.53 x 10 <sup>-4</sup>
	42PL070	70:1	2754	2621	2530	3.52 x 10 <sup>-4</sup>
	42PL100	100:1	2113	2043	1994	3.51 x 10 <sup>-4</sup>

**GENERAL SPECIFICATIONS**

Construction Type	Ratio	Backlash: Standard (arc-minutes)	Backlash: Low Backlash (arc-minutes)	Efficiency	Weight (lbs)	Maximum Tested Input rpm
Single Stage	3:1 to 10:1	6	3	90%	10.37	5000
Double Stage	16:1 to 100:1	10	7	85%	16.89	5000

**PEAK TORQUE:** 15% above continuous rating.

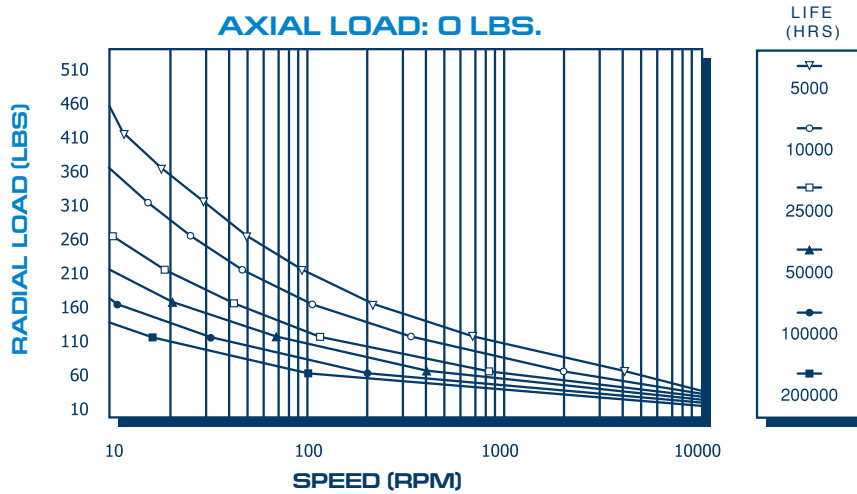
**NOTE:** Repeated peak torque loading may cause failure.



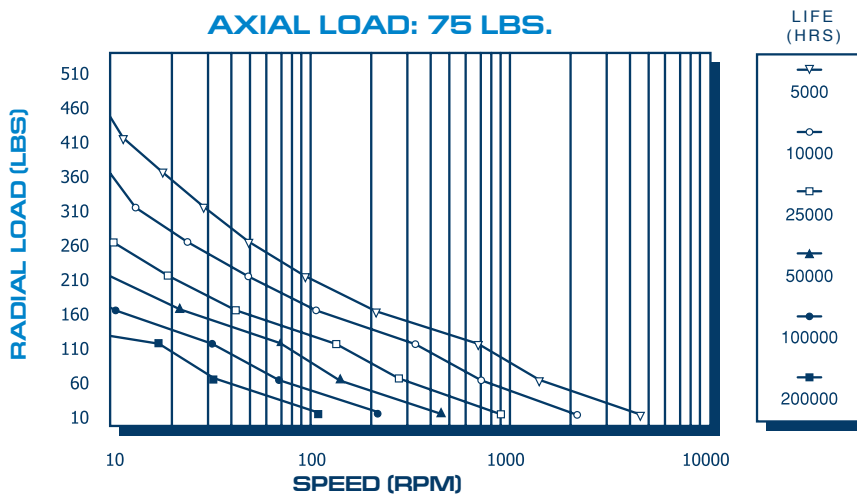
**42PL**

**BEARING LIFE VS SHAFT LOAD**

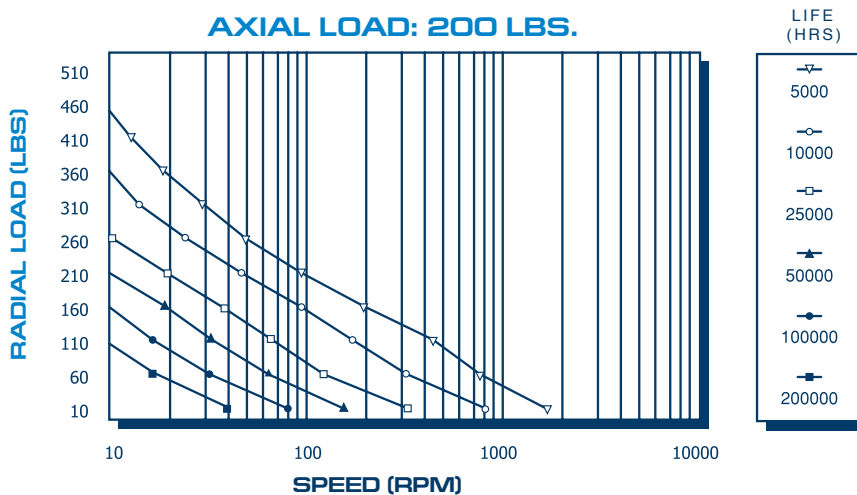
**AXIAL LOAD: 0 LBS.**



**AXIAL LOAD: 75 LBS.**



**AXIAL LOAD: 200 LBS.**



**SPEED (RPM)**

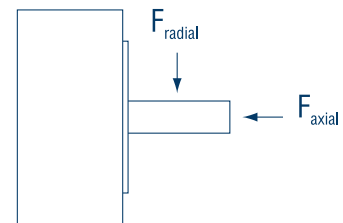
Refers to the gearheads output shaft speed.

**LIFE (HRS)**

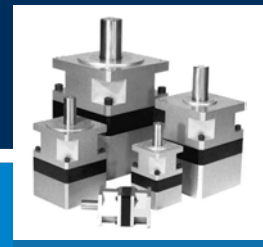
# of lifetime revolutions ÷ (60 x rpm)

**F<sup>RADIAL</sup>**

Calculated at 1/2 the shaft length.

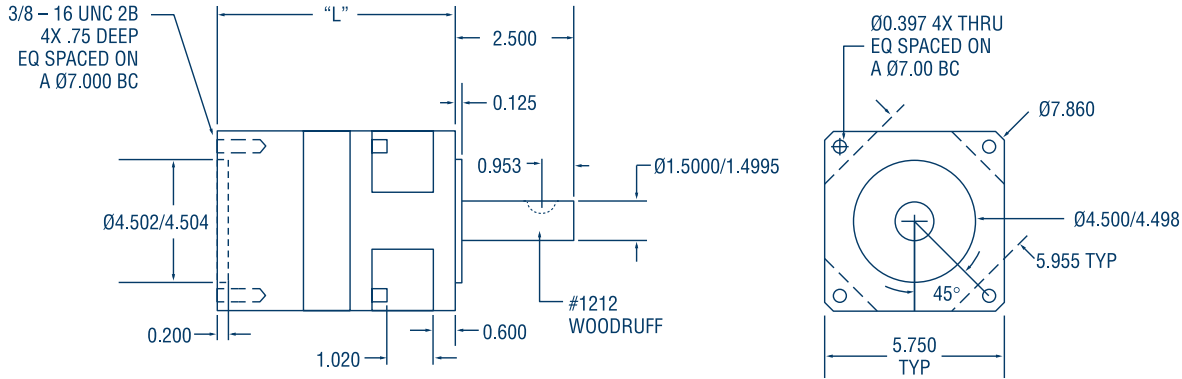






**56PL SPECIFICATIONS**

DIMENSION "L"  
Single Stage (3:1 to 10:1) = 6.475 ± .015  
Double Stage (16:1 to 100:1) = 8.588 ± .015



	Part #	Ratio	Continuous output torque at 1500 rpm input (in-lbs)	Continuous output torque at 3500 rpm input (in-lbs)	Continuous output torque at 5000 rpm input (in-lbs)	Gearhead inertia at input (lb-in-sec <sup>2</sup> )
<b>SINGLE STAGE</b>	56PL003	3:1	4176	2292	1713	1.12 x 10 <sup>-2</sup>
	56PL004	4:1	4244	2512	1923	5.58 x 10 <sup>-3</sup>
	56PL005	5.5:1	4203	2702	2131	4.06 x 10 <sup>-3</sup>
	56PL007	7:1	4093	2793	2256	3.51 x 10 <sup>-3</sup>
	56PL010	10:1	3509	2597	2174	3.08 x 10 <sup>-3</sup>
<b>DOUBLE STAGE</b>	56PL016	16:1	7801	6086	5225	5.67 x 10 <sup>-3</sup>
	56PL022	22:1	8278	6800	5996	4.11 x 10 <sup>-3</sup>
	56PL028	28:1	8578	7288	6549	3.54 x 10 <sup>-3</sup>
	56PL040	40:1	8934	7913	7288	3.09 x 10 <sup>-3</sup>
	56PL049	49:1	6569	6000	5635	3.50 x 10 <sup>-3</sup>
	56PL055	55:1	7566	6948	6548	3.08 x 10 <sup>-3</sup>
	56PL070	70:1	6713	6286	6000	3.07 x 10 <sup>-3</sup>
	56PL100	100:1	5174	4946	4788	3.07 x 10 <sup>-3</sup>

**GENERAL SPECIFICATIONS**

Construction Type	Ratio	Backlash: Standard (arc-minutes)	Backlash: Low Backlash (arc-minutes)	Efficiency	Weight (lbs)	Maximum Tested Input rpm
Single Stage	3:1 to 10:1	6	3	90%	27.11	5000
Double Stage	16:1 to 100:1	10	7	85%	43.48	5000

**PEAK TORQUE:** 15% above continuous rating.

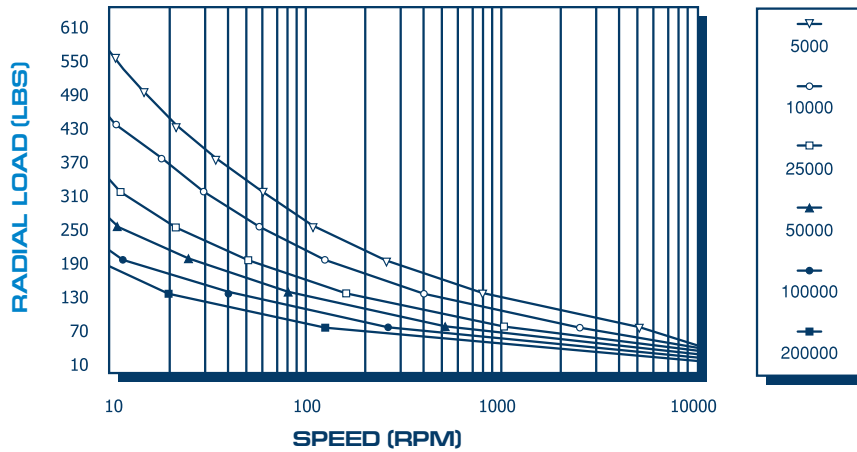
**NOTE:** Repeated peak torque loading may cause failure.



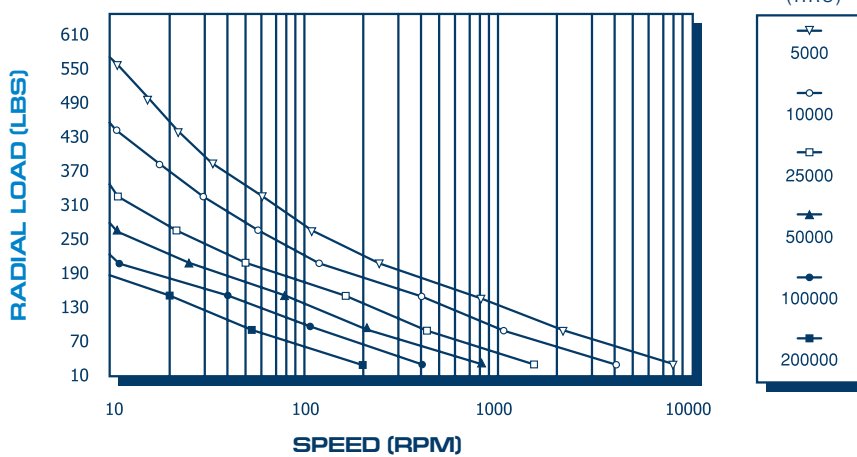
**56PL**

**BEARING LIFE VS SHAFT LOAD**

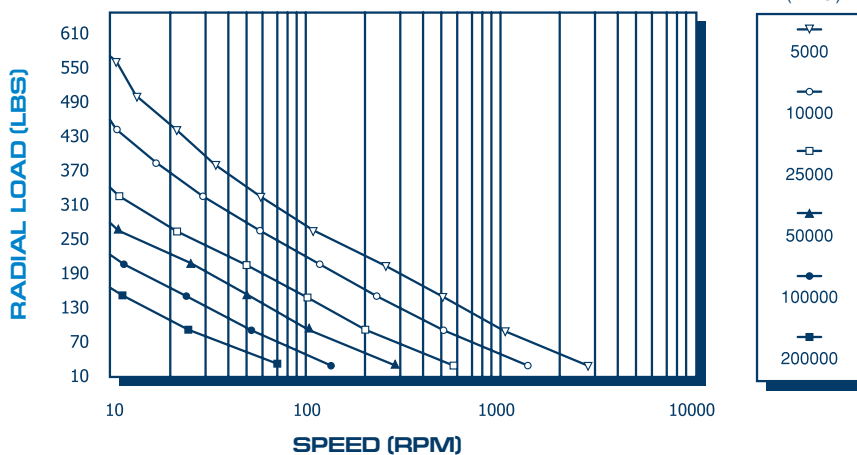
**AXIAL LOAD: 0 LBS.**



**AXIAL LOAD: 75 LBS.**



**AXIAL LOAD: 200 LBS.**



**SPEED (RPM)**

Refers to the gearheads output shaft speed.

**LIFE (HRS)**

# of lifetime revolutions ÷ (60 x rpm)

**F<sup>RADIAL</sup>**

Calculated at 1/2 the shaft length.

