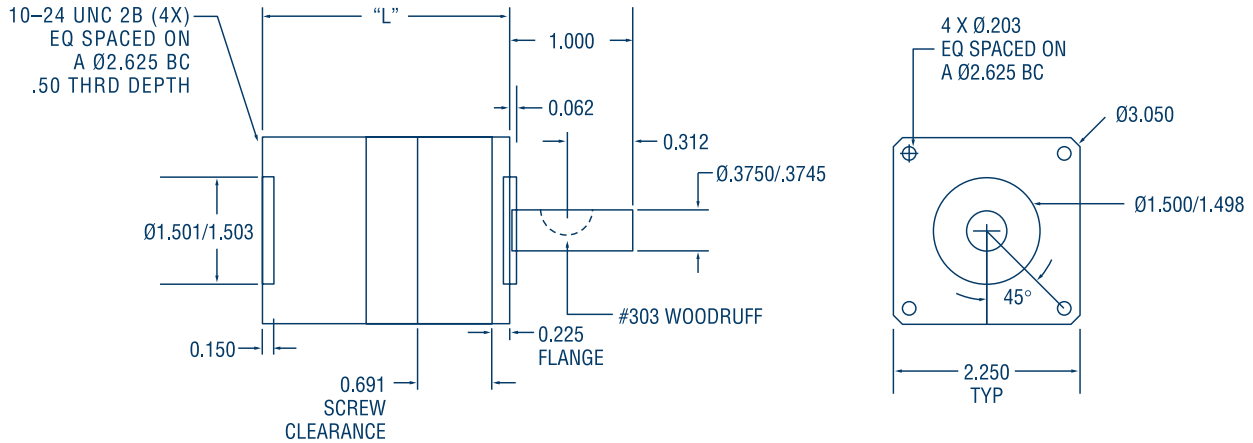




**23SP**

**SPECIFICATIONS**

DIMENSION “L”  
Single Stage (4:1 to 10:1) = 2.436± .015  
Double Stage (16:1 to 100:1) = 3.029 ± .015



**SINGLE STAGE**

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> )
23SP004	4:1	185	133	109	4.19 x 10 <sup>-5</sup>
23SP007	7:1	155	126	110	1.54 x 10 <sup>-5</sup>
23SP010	10:1	125	107	97	1.08 x 10 <sup>-5</sup>

**DOUBLE STAGE**

23SP016	16:1	214	190	175	4.26 x 10 <sup>-5</sup>
23SP028	28:1	223	208	197	1.57 x 10 <sup>-5</sup>
23SP049	49:1	164	158	154	1.52 x 10 <sup>-5</sup>
23SP070	70:1	166	161	158	1.06 x 10 <sup>-5</sup>
23SP100	100:1	126	124	122	1.06 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	4:1 to 10:1	12	6	95%	1.55	5000
Double Stage	16:1 to 100:1	16	10	90%	1.95	5000

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

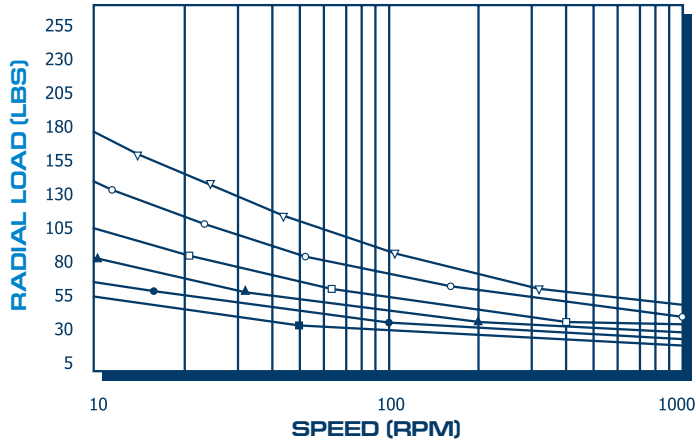
**NOTE:** Repeated peak torque loading may cause failure.



**23SP**

**BEARING LIFE VS SHAFT LOAD**

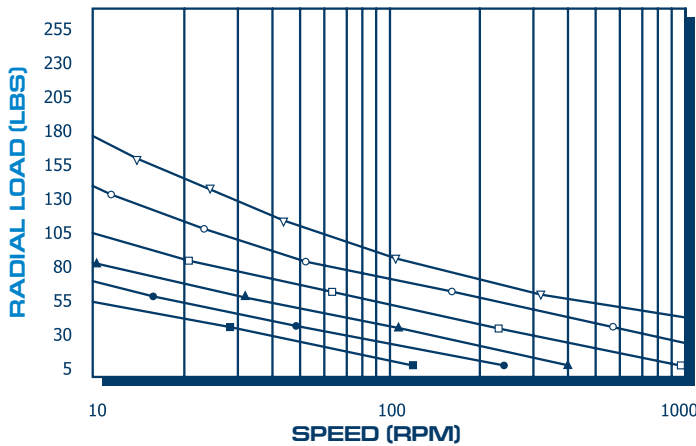
**AXIAL LOAD: 0 LBS.**



LIFE (HRS)

- ▽ 5000
- 10000
- 25000
- ▲ 50000
- 100000
- 200000

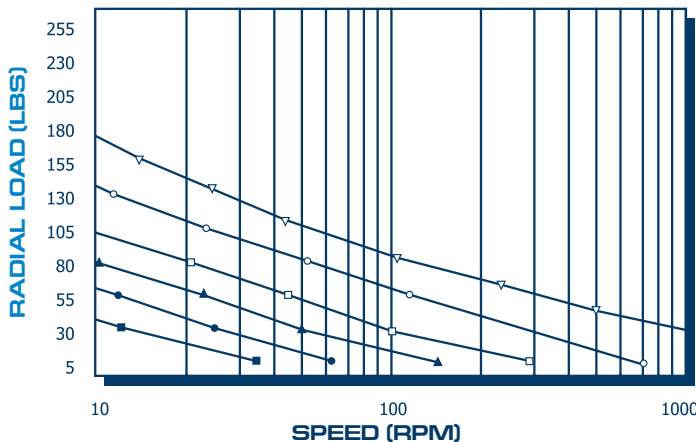
**AXIAL LOAD: 25 LBS.**



LIFE (HRS)

- ▽ 5000
- 10000
- 25000
- ▲ 50000
- 100000
- 200000

**AXIAL LOAD: 75 LBS.**



LIFE (HRS)

- ▽ 5000
- 10000
- 25000
- ▲ 50000
- 100000
- 200000

**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.

