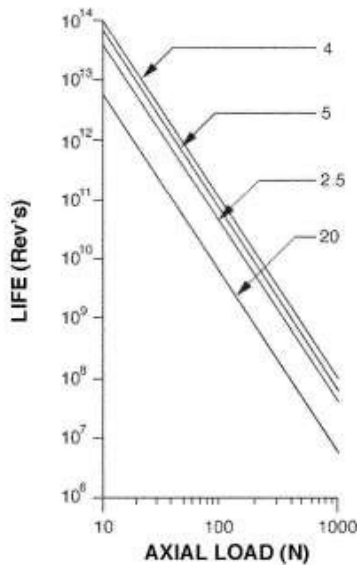


Technical Information

BALL & ACME LEAD SCREW ASSEMBLY

LIFE EXPECTANCY

16 mm LIFE EXPECTANCY



SPECIFICATIONS			
Pitch	Screw Dia.	Axial Load (N)	
		Dynamic (C_a)	Static
2.5	16	3500	5500
4	16	2600	4200
5	16	4600	7200
5	25	5100	12600
10	16	4200	6500
10	25	5100	12600
20	16	1900	2500
20	25	3570	8800

$$L = \left[\frac{C_a}{F_m} \right]^3 \times 10^6$$

L = life expectancy expressed in number of revolutions

C_a = dynamic load rating (N) [for acme nuts, see design load column on catalog pages].

F_m = average axial load (N).

Example: For 10 mm pitch screw, 16 mm dia., $C_a = 4200$ N carrying an average axial load, $F_m = 200$ N (45 lbs) the expected life is:

$$L = \left[\frac{4200}{200} \right]^3 \times 10^6 = 9.261 \times 10^9 \text{ revolutions.}$$

At an average of 1000 rpm this will result in:

$$\frac{9.261 \times 10^9 \text{ revolutions}}{1000 \text{ rpm}} \times \frac{1 \text{ hour}}{60 \text{ minutes}} = 154,000 \text{ hours}$$

of expected operational life. Note that the nature of the motion (jerky, smooth, etc.) will affect the life expectancy.

25 mm LIFE EXPECTANCY

