

## Mechanical Friction

Shaft Size (in.)	RPM									
	3450	2875	1770	1475	1160	965	880	730	700	580
	Line-Shaft Mechanical Friction Loss (HP per 100 feet)									
7/8	1.14	0.66	0.15	0.09						
1	1.70	0.98	0.23	0.13						
1 3/16	2.84	1.64	0.38	0.22	0.11					
1 1/4	3.31	1.92	0.45	0.26	0.13					
1 1/2	5.73	3.32	0.78	0.45	0.22	0.13	0.10			
1 11/16	8.16	4.73	1.11	0.64	0.31	0.18	0.14			
1 15/16	12.36	7.16	1.68	0.97	0.48	0.27	0.21	0.12	0.11	
2 3/16	17.79	10.31	2.42	1.40	0.68	0.40	0.30	0.17	0.15	0.09
2 7/16	24.63	14.27	3.35	1.94	0.95	0.55	0.42	0.24	0.21	0.12
2 11/16	33.01	19.13	4.49	2.60	1.27	0.73	0.56	0.32	0.28	0.16
2 15/16	43.11	24.98	5.86	3.40	1.66	0.96	0.73	0.42	0.37	0.21

Material	HP Correction Factor
Bronze	1.00
Aluminum Bronze	1.12
Carbon Graphite	0.34
Nitrile / Neoprene	1.56
Engineered Plastics	0.20

$$\text{Motor Thrust Bearing HP Loss} = \frac{\text{TOTAL THRUST X RPM X .0075}}{100,000}$$