

***Shaft Horsepower Limitation 60 HZ***

		Thrust (1000 lbs)								
Dia	RPM	1	2	5	7.5	10	15	20	25	30
1.00	3550	120	119	116	110					
	1770	60	59	58	55					
	1180	40	40	38	37					
1.19	3550	213	212	209	205					
	1770	106	106	104	102					
	1180	71	71	70	68					
1.50	3550	435	435	433	429	424	410			
	1770	217	217	216	214	212	205			
	1180	145	145	144	143	141	136			
	880	108	108	107	106	105	102			
1.69	3550	639	639	637	631	615	570	500		
	1770	319	319	318	314	307	284	249		
	1180	213	212	212	210	205	190	166		
	880	158	158	158	156	153	141	124		
1.94	1770	498	498	497	496	494	489	456	419	369
	1180	332	332	332	331	329	326	304	279	246
	880	248	248	247	247	246	243	226	208	184
2.19	1770	735	735	734	733	731	727	721	699	664
	1180	490	490	489	489	488	485	480	466	442
	880	365	365	365	364	364	361	358	347	330
2.44	1770	1037	1037	1036	1035	1029	1016	996	970	938
	1180	691	691	691	690	686	677	664	647	625
	880	515	515	515	515	512	505	495	482	466
2.69	1770	1358	1358	1358	1357	1356	1352	1347	1340	1332
	1180	906	906	905	905	904	901	898	893	888
	880	675	675	675	675	674	672	670	666	662
2.94	1770	1803	1803	1802	1802	1800	1797	1793	1787	1779
	1180	1202	1202	1202	1201	1200	1198	1195	1191	1186
	880	896	896	896	896	895	894	891	888	885
3.19	1770	2336	2336	2335	2334	2333	2330	2326	2321	2314
	1180	1557	1557	1557	1556	1555	1553	1551	1547	1543
	880	1161	1161	1161	1161	1160	1159	1156	1154	1150
3.44	1770	2740	2740	2738	2736	2732	2722	2708	2690	2667
	1180	1827	1827	1826	1824	1822	1815	1805	1793	1778
	880	1362	1362	1362	1360	1358	1353	1346	1337	1326

**Use 0.75 multiplier keyed shaft.**

For bowl shaft use only the hydraulic thrust load.

For lineshaft use the total thrust.

Hydraulic thrust = "K" times TDH

Total thrust = Hydraulic thrust + Lineshaft weight

Use the following multiplier for the different material.

Material	Code	Multiplier
C1045	2205	1.00
316SS	2216	0.79
416SS	2227	1.18
17-4PH	2259	1.59
K-MONEL	2159	1.65

**Shaft Horsepower Limitation 50 HZ**

Dia	RPM	Thrust (1000 lbs)								
		1	2	5	7.5	10	15	20	25	30
1.00	2960	100	100	97	92					
	1475	50	50	48	46					
	980	33	33	32	30					
1.19	2960	177	177	175	171					
	1475	88	88	87	85					
	980	59	59	58	57					
1.50	2960	363	363	361	358	354	342			
	1475	181	181	180	178	176	171			
	980	120	120	119	118	117	113			
	730	89	89	89	88	87	84			
1.69	2960	533	533	531	526	513	475	417		
	1475	266	266	265	262	256	237	208		
	980	176	176	176	174	170	157	138		
	730	131	131	131	130	127	117	103		
1.94	2960	833	833	832	829	827	818	762	701	618
	1475	415	415	414	413	412	408	380	349	308
	980	276	276	275	275	274	271	252	232	205
	730	205	205	205	205	204	202	188	173	152
2.19	1475	612	612	612	611	609	606	601	582	553
	980	407	407	406	406	405	402	399	387	367
	730	303	303	303	302	302	300	297	288	274
2.44	1475	864	864	863	862	858	846	830	808	781
	980	574	574	574	573	570	562	551	537	519
	730	428	428	427	427	425	419	411	400	387
2.69	1475	1132	1132	1131	1131	1130	1127	1122	1117	1110
	980	752	752	752	751	751	748	746	742	738
	730	560	560	560	560	559	558	555	553	549
2.94	1475	1503	1503	1502	1501	1500	1498	1494	1489	1483
	980	998	998	998	998	997	995	992	989	985
	730	744	744	743	743	743	741	739	737	734
3.19	1475	1946	1946	1946	1945	1944	1942	1938	1934	1928
	980	1293	1293	1293	1292	1292	1290	1288	1285	1281
	730	963	963	963	963	962	961	959	957	954
3.44	1475	2284	2283	2282	2280	2277	2269	2257	2241	2222
	980	1517	1517	1516	1515	1513	1507	1499	1489	1477
	730	1130	1130	1129	1128	1127	1123	1117	1109	1100

**Use 0.75 multiplier keyed shaft.**

For bowl shaft use only the hydraulic thrust load.

For lineshaft use the total thrust.

Hydraulic thrust = "K" times TDH

Total thrust = Hydraulic thrust + Lineshaft weight

Use the following multiplier for the different material.

Material	Code	Multiplier
C1045	2205	1.00
316SS	2216	0.79
416SS	2227	1.18
17-4PH	2259	1.59
K-MONEL	2159	1.65