

DRIVER F1	SF
ELECTRIC MOTOR	1.0
GAS OR STEAM TURBINE	1.0
GEAR BOX INCREASER / REDUCER	1.0
GAS OR DIESEL ENGINE 4+ CYL	3.0
GAS OR DIESEL ENGINE 1-3 CYL	4.0

DRIVEN F2	SF
GENERATORS, GEAR BOXES, LIGHT DUTY AGITATORS & CONVEYERS, STOKERS	1.0
CENTRIFUGAL PUMPS, COMPRESSORS, BLOWERS, FANS, ETC.	1.0
RECIPROCATING PUMPS, COMPRESSORS, FEEDERS, FREQUENT STOPS/STARTS, ETC.	2.0
PULP & PAPER MILL EQUIPMENT (REFER TO MILL STANDARD COUPLING SF GUIDE)	1-3
STEEL MILL EQUIPMENT (REFER TO MILL STANDARD COUPLING SF GUIDE)	1-3

1) Determine service factor (SF)
SF = F1 X F2 (not to exceed 4)

2) Calculate required coupling continuous torque rating (lb-in) using the formula: HP X SF X 63025 ÷ RPM = Torque (lb-in)

3) Determine suitable coupling insert type for application using the Insert Color Chart below

INSERT TYPE	DESCRIPTION	USE	MAX TEMP °F	MIN TEMP °F	DUROMETER
YELLOW	GENERAL USE, HIGH DAMPEN	GENERAL APPLICATIONS (STANDARD)	250	-60	60D
RED	HIGH TEMPERATURE, HIGH DAMPEN	HIGH TEMPERATURE RUNNING APPLICATIONS	350	20	90A
ORANGE	HIGH TORQUE, MEDIUM DAMPEN	HIGH TORQUE, LOW SPEED APPLICATIONS	250	-20	70D
BROWN	HIGH DAMPENING	HEAVY VIBRATION, SHOCK LOADS	250	-60	95A

4) Choose the coupling size that meets or exceeds the calculated required continuous torque rating using the color coded tables below. Intermittent (peak) ratings are reserved for system torque spikes, starts/stops, reversing etc.

Insert Tables: Torque ratings (lb-in) - HP ratings @ various RPMs - Max RPM's based on insert types

INSERT YELLOW	A00	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A11
CONTINUOUS (LB-IN)	105	265	340	1325	2650	5300	13230	21200	42350	79400	120300	300000
INTERMITTENT (LB-IN)	176	411	819	2205	4410	8820	22050	35280	70560	132300	200500	500000
HP @ 100 RPM (SF1)	0.17 0.28	0.42 0.70	0.54 1.30	2.10 3.50	4 7	8 14	21 35	34 56	67 112	126 210	191 318	476 793
HP @ 1200 RPM (SF1)	2.00 3.35	5.05 8	6 16	25 42	50 84	101 168	252 420	404 672	806 1343	1512 2519	2291 3818	5712 9520
HP @ 1750 RPM (SF1)	2.92 4.89	7 12	9 23	37 61	74 122	147 245	367 612	589 980	1176 1959	2205 3674	3340 5567	8330 13883
HP @ 3600 RPM (SF1)	6.00 10.05	15 25	19 47	76 126	151 252	303 504	756 1260	1211 2015	2419 4030	4535 7557	6872 11453	17136 28560
MAX RPM UNBALANCED	14000	9800	7300	5400	4200	3600	2600	2200	1900	1600	1360	1150
MAX RPM BALANCED G2.5	20200	12200	11000	9000	7000	5300	4200	3400	2900	2400	2100	1700

INSERT RED	A00	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A11
CONTINUOUS (LB-IN)	89	225	289	1126	2253	4505	11246	18020	35998	67490	102255	255000
INTERMITTENT (LB-IN)	150	349	696	1874	3749	7497	18743	29988	59976	112455	170425	425000
HP @ 100 RPM (SF1)	0.14 0.24	0.36 0.60	0.46 1.11	1.79 2.98	3 6	7 12	18 30	29 48	57 95	107 179	162 270	405 674
HP @ 1200 RPM (SF1)	1.70 2.85	4.29 7	5 14	21 36	43 71	86 143	214 357	343 571	685 1142	1285 2141	1947 3245	4855 8092
HP @ 1750 RPM (SF1)	2.48 4.16	6 10	8 20	31 52	63 104	125 208	312 520	501 833	1000 1665	1874 3123	2839 4732	7081 11801
HP @ 3600 RPM (SF1)	5.10 8.54	13 21	16 40	65 107	128 104	258 428	643 1071	1029 1713	2056 3426	3855 6423	5841 9735	14566 24276
MAX RPM UNBALANCED	14000	9800	7300	5400	4200	3600	2600	2200	1900	1600	1360	1150
MAX RPM BALANCED G2.5	20200	12200	11000	9000	7000	5300	4200	3400	2900	2400	2100	1700

INSERT ORANGE	A00	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A11
CONTINUOUS (LB-IN)	200	503	646	2518	5035	10070	25137	40280	80465	150860	228570	570000
INTERMITTENT (LB-IN)	334	838	1556	4190	8379	16758	41895	67032	134064	251370	380950	950000
HP @ 100 RPM (SF1)	0.32 0.53	0.80 1.33	1.02 2.47	4.00 6.65	8 13	16 27	40 66	64 106	128 213	239 399	363 604	904 1507
HP @ 1200 RPM (SF1)	3.81 6.36	9.58 16	12 30	48 80	96 160	192 319	479 798	767 1276	1532 2553	2872 4786	4352 7253	10853 18088
HP @ 1750 RPM (SF1)	5.55 9.27	14 23	18 43	70 116	140 233	280 465	698 1163	118 1861	2234 3723	4189 6980	6347 10578	15827 26378
HP @ 3600 RPM (SF1)	11.42 19.08	29 48	37 89	144 239	288 479	575 957	1436 2393	2301 3829	4030 6403	4535 7557	6872 11453	17136 28560
MAX RPM UNBALANCED	14000	9800	7300	5400	4200	3600	2600	2200	1900	1600	1360	1150
MAX RPM BALANCED G2.5	20200	12200	11000	9000	7000	5300	4200	3400	2900	2400	2100	1700

INSERT BROWN	A00	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A11
CONTINUOUS (LB-IN)	85	214	275	1070	2140	4280	10683	17119	34198	64116	97142	242250
INTERMITTENT (LB-IN)	142	356	661	1781	3561	7122	17805	28489	56977	106832	161904	403750
HP @ 100 RPM (SF1)	0.13 0.23	0.34 0.57	0.44 1.05	1.70 2.83	3 6	7 11	17 28	27 45	54 90	102 170	154 257	384 641
HP @ 1200 RPM (SF1)	1.62 2.70	4.07 7	5 13	20 34	41 68	81 136	203 339	326 542	651 1085	1221 2034	1850 3083	4612 7687
HP @ 1750 RPM (SF1)	2.36 3.94	6 10	8 18	30 49	59 99	119 198	297 494	475 791	950 1582	1780 2966	2697 4496	6726 11211
HP @ 3600 RPM (SF1)	4.86 8.11	12 20	16 38	61 102	122 203	244 407	610 1017	978 1627	1953 3255	3662 6102	5549 9248	9764 16273
MAX RPM UNBALANCED	14000	9800	7300	5400	4200	3600	2600	2200	1900	1600	1360	1150
MAX RPM BALANCED G2.5	20200	12200	11000	9000	7000	5300	4200	3400	2900	2400	2100	1700

5) Determine coupling type required for the application. Check dimensions/max bore tables to confirm the coupling sized will accommodate shafts and physically fit the application. Determine if the couplings hubs will be bored to size, or used with Taper Lock Bushings, QD Bushings, or other type of locking device. Standard couplings are machined carbon steel. Specify if stainless steel or Melonite Process is required based on atmosphere conditions, etc.

Listed service factors are intended as a general guide, and are typical of usual service requirements. Please refer to AGMA 922-A96: Load Classification and Service Factors for Flexible Couplings for a complete list.