

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

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

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

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

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
GREEN	EXTRA HIGH DAMPENING	ENGINE OR RECIPROCATING WITH HIGH VIBRATORY TORQUES	250	-60	90A

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	M00	M0	M1	M1H	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
CONTINUOUS (LB-IN)	180	600	1260	2400	3000	5760	12600	28800	48000	111000	186600	273000	420000	686000	960000	1900000
INTERMITTENT (LB-IN)	300	1000	2100	4000	5000	9600	21000	48000	80000	185000	311000	455000	700000	1150000	1600000	3200000
HP @ 100 RPM (SF1)	0.29 0.48	0.95 1.59	2.00 3.33	3.81 6.35	4.76 7.93	9.14 15.23	20 33	46 76	76 127	176 294	296 493	433 722	666 1111	1088 1825	1523 2539	3015 5077
HP @ 1200 RPM (SF1)	3.43 5.71	11.42 19.04	23.99 40	45.70 76.16	57 95	110 183	240 400	548 914	914 1523	2113 3522	3553 5921	5198 8663	7997 13328	13061 21896	18278 30464	36176 90928
HP @ 1750 RPM (SF1)	5.00 8.33	16.66 27.77	35 58	66.64 111.07	83 139	160 297	350 583	800 1333	1333 2221	3082 5137	5181 8635	7580 12634	11662 19437	19048 31932	26656 44427	
HP @ 3600 RPM (SF1)	10.28 17.14	24.27 57.12	72 120	137.09 228.48	171 286	329 548	720 1200	1645 2742	2742 4570	6340 10567	10659 17764	15594 25990	23990 39984		54835 91392	
MAX RPM BALANCED G2.5	20200	12200	11000	9000	8800	7000	5300	4200	3400	2900	2400	2100	1900	1700	1400	1100
MAX RPM UNBALANCED	13483	8100	7280	6500	5800	4700	3600	2800	2300	2000	1700	1450	1300	1165	960	700

INSERT RED	M00	M0	M1	M1H	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
CONTINUOUS (LB-IN)	153	510	1071	2040	2550	4896	10710	24480	40800	94350	158610	232050	357000	583100	816000	1615000
INTERMITTENT (LB-IN)	255	850	1785	3400	4250	8160	17850	40800	68000	157250	264350	386750	595000	977500	1360000	2720000
HP @ 100 RPM (SF1)	0.25 0.41	0.81 1.35	1.70 2.83	3.24 5.40	4.05 6.74	7.77 12.95	17 28	39 65	65 108	150 250	252 419	368 614	566 944	925 1551	1295 2158	2563 4315
HP @ 1200 RPM (SF1)	2.92 4.85	9.71 16.18	20.39 34	38.85 64.74	48 81	94 156	204 340	466 777	777 1295	1796 2994	3020 5033	4418 7364	6797 11329	11102 18612	15536 25894	30750 77289
HP @ 1750 RPM (SF1)	4.25 7.08	14.16 23.60	30 49	56.64 94.41	71 118	136 252	298 496	680 1133	1133 1888	2620 4366	4404 7340	6443 10739	9913 16521	16191 27142	22658 37763	
HP @ 3600 RPM (SF1)	8.74 14.57	20.63 48.55	61 102	116.53 194.21	145 243	280 466	612 1020	1398 2331	2331 3885	5389 8982	9060 15099	13255 10739	20392 33986		46610 77683	
MAX RPM BALANCED G2.5	20200	12200	11000	9000	8800	7000	5300	4200	3400	2900	2400	2100	1900	1700	1400	1100
MAX RPM UNBALANCED	13498	8100	7280	6500	5800	4700	3600	2800	2300	2000	1700	1450	1300	1165	960	700

INSERT ORANGE	M00	M0	M1	M1H	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
CONTINUOUS (LB-IN)	342	1140	2394	4560	5700	10944	23940	54720	91200	210900	354540	518700	798000	1303400	1824000	3610000
INTERMITTENT (LB-IN)	570	1900	3990	7600	9500	18240	39900	91200	152000	351500	590900	864500	1330000	2185000	3040000	6080000
HP @ 100 RPM (SF1)	0.54 0.90	1.81 3.01	3.80 6.33	7.24 12.06	9.04 15.07	17.36 28.94	38 63	87 145	145 241	335 558	563 938	823 1372	1266 2110	2068 3467	2894 4823	5728 9647
HP @ 1200 RPM (SF1)	6.51 10.85	21.71 36.18	45.58 76	86.82 144.70	109 181	208 347	456 760	1042 1736	1736 2894	4016 6693	6750 11251	9876 16460	15194 25323	24817 41603	34729 57882	68735 115764
HP @ 1750 RPM (SF1)	9.50 15.83	31.65 52.76	66 111	126.62 211.03	158 264	304 506	665 1108	1519 2532	2532 4221	5856 9760	9844 16407	14403 24004	22158 36930	36191 60670		
HP @ 3600 RPM (SF1)	19.54 32.56	32.56 65.12	137 228	260.47 434.11	326 543	625 1042	1367 2279	3126 5209	5209 8682							
MAX RPM BALANCED G2.5	20200	12200	11000	9000	8800	7000	5300	4200	3400	2900	2400	2100	1900	1700	1400	1100
MAX RPM UNBALANCED	13483	8100	7280	6500	5800	4700	3600	2800	2300	2000	1700	1450	1300	1165	960	700

INSERT GREEN	M00	M0	M1	M1H	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
CONTINUOUS (LB-IN)	88	293	614	1170	1463	2808	6143	14040	23400	54113	90668	133088	204750	334425	468000	926250
INTERMITTENT (LB-IN)	146	488	1024	1950	2438	4680	10238	23400	39000	90188	151613	221813	341250	560625	780000	1560000
HP @ 100 RPM (SF1)	1.14 0.23	0.47 0.77	0.98 1.63	1.86 3.10	2.32 3.87	4.46 7.43	10 17	23 38	38 62	86 143	144 241	212 352	325 542	530 890	743 1238	1470 2475
HP @ 1200 RPM (SF1)	1.67 2.78	5.57 9.29	11.69 19.50	22.28 37.13	27.75 46.50	53 89	117 195	267 446	446 743	1031 1718	1732 2887	2534 4223	3899 6497	6368 10674	8911 14852	17636 29702
HP @ 1750 RPM (SF1)	2.44 4.06	8.12 13.54	17.25 28.50	32.49 54.14	40.50 67.50	78 130	170 284	390 650	650 1083	1502 2504	2526 4210	3695 6159	5685 9476	9286 15567		
HP @ 3600 RPM (SF1)	5.01 8.36	16.71 27.85	35.25 58.50	66.83 111.38	83.25 139.50	161 267	351 585	802 1337	1337 2228							
MAX RPM BALANCED G2.5	20200	12200	11000	9000	8800	7000	5300	4200	3400	2900	2400	2100	1900	1700	1400	1100
MAX RPM UNBALANCED	13483	8100	7280	6500	5800	4700	3600	2800	2300	2000	1700	1450	1300	1165	960	700

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.