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Note: All Measurement and Dimensions are In Inch

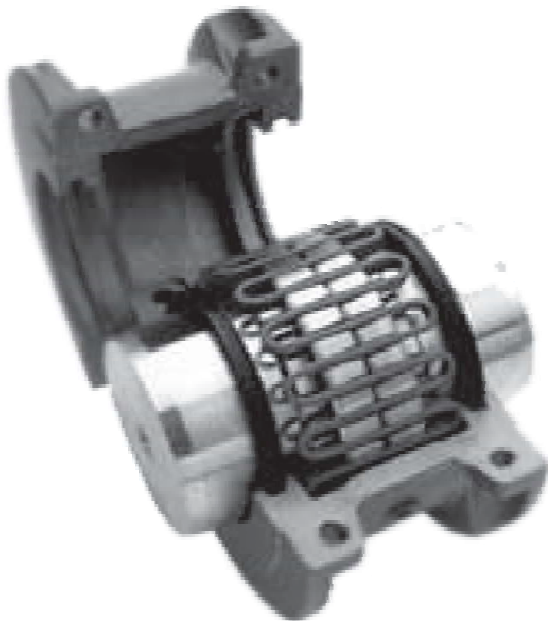
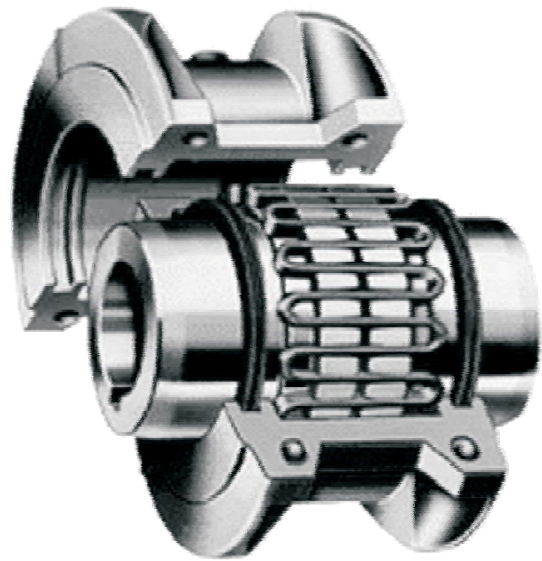
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GRID COUPLING



Selection Procedure

Standard Selection Method

The standard selection method can be used for most motor, turbine, or engine driven applications. The following information is required to select a flexible coupling:

- * Horsepower or torque.
- * Running rpm.
- * Application or type of equipment to be connected (motor to pump, gear drive to conveyor, etc.).
- * Shaft diameters
- * Shaft gaps
- * Physical space limitations.
- * Special bore or finish information and type of fit.

1. RATING:

Determine system torque. If torque is not given, calculate as shown below:

$$\text{System Torque (lb - in)} = \frac{\text{HP} \times 63,000}{\text{RPM}}$$

Where horsepower is the actual or transmitted power required by the application (if unknown, use the motor or turbine nameplate rating) and rpm is the actual speed the coupling is rotating. Applications that require rapid changes in direction or torque reversals should be referred to Powerdrive Engineering.

2. SERVICE FACTOR:

Determine appropriate service factor from Table 4, M-4.

3. Find Design Hp:

Determine the Design Hp rating as shown below.

$$\text{Design Hp} = \text{S.F.} \times \text{Actual Hp}$$

4. REQUIRED MINIMUM COUPLING RATING:

Determine the required minimum coupling rating as shown below:

$$\text{Minimum Coupling Rating} = \text{S.F.} \times \text{Torque (lb-in)}$$

5. TYPE:

select the coupling T-10 Or T-20 which is suitable for your application.

6. SIZE:

Refer to Table 2 & 3 - trace horizontally from the required speed to a Hp value equal to or larger than determined in 3 step. Read the coupling size at a top of column.

7. CHECK:

Check speed (rpm), bore, gap, dimensions and

Standard Selection Example:

Select a coupling to connect a 75 hp, 1750 rpm electric motor driving a lobe type blower. Motor shaft diameter is 2.375", blower shaft diameter is 1.750". Shaft extensions are 5.375" and 4.500". Selection is replacing a gear type coupling with a .125" gap.

1. DETERMINE REQUIRED RATING:

$$\text{System Torque (lb - in)} = \frac{75 \text{ HP} \times 63,000}{1750} = 2700$$

2. SERVICE FACTOR:

From Table 4 for lobe type blower S.F. = 1.25

3. Find Design Hp:

$$1.25 \times 75 = 93.75 \text{ hp}$$

4. REQUIRED MINIMUM COUPLING RATING:

$$1.25 \times 2700 \text{ lb-in} = 3375 \text{ lb-in}$$

5. SIZE:

From M- 2, A Size 1050T is the proper selection based on a hp rating of 107hp exceeding the required minimum coupling hp rating of 93.75hp.

6. CHECK:

Allowable speed capacity of 4125rpm (T10) exceeds the required speed of 1750 rpm. Maximum bore capacity of 2.500" that we can not find in size 1050T so we have to choose 1070T size. So selected size will be 1070T.

Table-1

Coupling Size	HP per 100 rpm	Torque Rating (lb-in)	Allowable Speeds - rpm	
			T10	T20
1020T	0.73	460	4500	6000
1030T	2.09	1,320	4500	6000
1040T	3.49	2,200	4500	6000
1050T	6.11	3,850	4500	6000
1060T	9.60	6,050	4350	6000
1070T	14.00	8,800	4125	5500
1080T	28.80	18,150	3600	4750
1090T	52.40	33,000	3600	4000
1100T	88.10	55,550	2440	3250
1110T	131.00	82,500	2250	3000
1120T	192.00	121,000	2025	2700
1130T	279.00	176,000	1800	2400
1140T	401.00	253,000	1650	2200
1150T	559.00	352,000	1500	2000
1160T	785.00	495,000	1350	1750
1170T	1047.00	660,000	1225	1600
1180T	1452.00	915,200	1100	1400
1190T	1920.00	1,210,000	1050	1300
1200T	2618.00	1,650,000	900	1200
1210T	3491.00	2,200,000	820	.
1220T	4712.00	2,970,000	730	.
1230T	6109.00	3,850,000	680	.
1240T	7854.00	4,950,000	630	.
1250T	10472.00	6,600,000	580	.
1260T	13090.00	8,250,000	540	.

Coupling Selection... Based on Equivalent hp Ratings

Table-2

Max Bore (in)	1020T	1030T	1040T	1050T	1060T	1070T	1080T	1090T	1100T	1110T	1120T	1130T
Max Speed T10	1.125	1.375	1.625	1.875	2.125	2.5	3	3.5	4	4.500	5	6
Max Speed T20	4500rpm	4500 rpm	4500rpm	4500 rpm	4350rpm	4125rpm	3600rpm	3600rpm	2440rpm	2025rpm	2025rpm	1800rpm
Torque (lb-in)	6000rpm	6000 rpm	6000rpm	6000rpm	6000rpm	5500rpm	4750 rpm	4000 rpm	3250 rpm	3000rpm	2700rpm	2400rpm
HP/10rpm	460	1320	2200	6050	6050	8,800	33,000	33,000	55,550	82,500	1,21,000	176000
	0.73	2.09	3.49	9.60	9.6	14	52.4	52.4	88.1	131	192	279
RPM	HP Ratings											
4500	32.80	94.20	157.00	275.00	432.00	628.00	1296.00					
3600	26.30	75.40	126.00	220.00	346.00	503.00	1037.00	1885.00				
3000	21.90	62.80	105.00	183.00	288.00	419.00	864.00	1571.00	2644.00	3927.00		
2500	18.20	52.40	87.00	153.00	240.00	349.00	720.00	1309.00	2203.00	3273.00	3456.00	
2100	15.30	44.00	73.30	128.00	202.00	293.00	605.00	1100.00	1851.00	2749.00	3456.00	5864.00
1800	13.10	37.70	62.80	110.00	173.00	251.00	518.00	942.00	1587.00	2356.00	3456.00	5027.00
1750	12.80	36.70	61.10	107.00	168.00	244.00	504.00	916.00	1542.00	2291.00	3360.00	4887.00
1450	10.60	30.40	50.60	89.00	139.00	202.00	418.00	759.00	1278.00	1898.00	2784.00	4049.00
1170	8.50	24.50	40.80	71.50	112.00	163.00	337.00	613.00	1031.00	1532.00	2246.00	3267.00
1000	7.30	20.90	34.90	61.10	96.00	140.00	288.00	524.00	881.00	1309.00	1920.00	2793.00
870	6.30	18.20	30.40	53.10	84.00	121.00	251.00	456.00	767.00	1139.00	1670.00	2430.00
720	5.30	15.10	25.10	44.00	69.00	101.00	207.00	377.00	635.00	942.00	1382.00	2011.00
650	4.70	13.60	22.70	39.70	62.40	91.00	187.00	340.00	573.00	851.00	1248.00	1815.00
580	4.20	12.10	20.20	35.40	55.70	81.00	167.00	304.00	511.00	759.00	1114.00	1620.00
520	3.80	10.90	18.20	31.80	49.90	73.00	150.00	272.00	458.00	681.00	998.00	1452.00
420	3.10	8.80	14.70	25.70	40.30	59.00	121.00	220.00	370.00	550.00	806.00	1173.00
350	2.60	7.30	12.20	21.40	33.60	49.00	101.00	183.00	308.00	458.00	672.00	977.00
280	2.00	5.90	9.80	17.10	26.90	39.10	81.00	147.00	247.00	367.00	538.00	782.00
230	1.70	4.80	8.00	14.00	22.10	32.10	66.00	120.00	203.00	301.00	442.00	642.00
190	1.40	4.00	6.60	11.60	18.20	26.50	55.00	99.00	167.00	249.00	365.00	531.00
155	1.10	3.20	5.40	9.50	14.90	21.60	44.60	81.00	137.00	203.00	298.00	433.00
125	0.90	2.60	4.40	7.60	12.00	17.50	36.00	65.00	110.00	164.00	240.00	349.00
100	0.73	2.10	3.50	6.10	9.60	14.00	28.80	52.00	88.00	131.00	192.00	279.00
84	0.61	1.80	2.90	5.10	8.10	11.70	24.20	44.00	74.00	110.00	161.00	235.00
68	0.50	1.40	2.40	4.20	6.50	9.50	19.60	35.60	60.00	89.00	131.00	190.00
56	0.41	1.17	2.00	3.40	5.40	7.80	16.10	29.30	49.00	73.00	108.00	156.00
45	0.33	0.94	1.60	2.70	4.30	6.30	13.00	23.60	39.70	59.00	86.00	126.00
37	0.27	0.77	1.30	2.30	3.60	5.20	10.70	19.40	32.60	48.40	71.00	103.00
30	0.22	0.63	1.00	1.80	2.90	4.20	8.60	15.70	26.40	39.30	58.00	84.00
25	0.18	0.52	0.90	1.50	2.40	3.50	7.20	13.10	22.00	32.70	48.00	70.00
20	0.15	0.42	0.70	1.20	1.90	2.80	5.80	10.50	17.60	26.20	38.40	56.00
16.5	0.12	0.35	0.58	1.00	1.60	2.30	4.80	8.60	14.50	21.60	31.70	46.10
13	0.10	0.27	0.45	0.79	1.20	1.80	3.70	6.80	11.50	17.00	25.00	36.30
11	0.08	0.23	0.38	0.67	1.10	1.50	3.20	5.80	9.70	14.40	21.10	30.70
9	0.07	0.19	0.31	0.55	0.86	1.30	2.60	4.70	7.90	11.80	17.30	25.10
7.5	0.06	0.16	0.26	0.46	0.72	1.00	2.20	3.90	6.60	9.80	14.40	20.90
5	0.04	0.10	0.17	0.31	0.48	0.70	1.40	2.60	4.40	6.50	9.60	14.00

☐ Ratings apply to Type T20 only

Coupling Selection... Based on Equivalent hp Ratings (Continued)

Table 3

	1140T	1150T	1160T	1170T	1180T	1190T	1200T	1210T	1220T	1230T	1240T	1250T
Max. Bore (in.)	7.25	8	9	10	11	12	13	14	15	16	17	18.5
Max Speed T10	1650 rpm	1500 rpm	1350 rpm	1225 rpm	1100 rpm	1050 rpm	900 rpm	820 rpm	730 rpm	680 rpm	630 rpm	580 rpm
Max. Speed T20	2200 rpm	2000 rpm	1750 rpm	1600 rpm	...	...	...	...	...	...	...	...
Torque (lb-in.)	253000	352000	495000	660000	915200	1210000	1,650,000	2200000	2970000	3850000	4950000	6600000
HP / 100 rpm	401	559	785	1047	1452	1920	2618	3491	4712	6109	7854	10472
RPM	HP RATING											
2100	8430											
1800	7226	10053										
1750	7025	9774	13745									
1450	5821	8098	11388	15184								
1170	4697	6535	9189	12252								
1000	4014	5585	7854	10472	14521	19199						
870	3492	4859	6833	9111	12633	16703	22777					
720	2890	4021	5655	7540	10455	13823	18850	25133	33929			
650	2609	3630	5105	6807	9439	12479	17017	22689	30631	39706		
580	2328	3239	4555	6074	8422	11135	15184	20246	27332	35430	45553	60738
520	2087	2904	4084	5445	7551	9983	13614	18152	24505	31765	40841	54455
420	1686	2346	3299	4398	6099	8063	10996	14661	19792	25656	32987	43983
350	1405	1955	2749	3665	5082	6720	9163	12217	16493	21380	27489	36652
280	1124	1564	2199	2932	4066	5376	7330	9774	13195	17104	21991	29322
230	923	1285	1806	2409	3340	4416	6021	8029	10839	14050	18064	24086
190	763	1061	1492	1990	2759	3648	4974	6632	8954	11607	14923	19897
155	622	866	1217	1623	2251	2976	4058	5411	7304	9468	12174	16232
125	502	698	982	1309	1815	2400	3273	4363	5891	7636	9818	13090
100	401	559	785	1047	1452	1920	2618	3491	4712	6109	7854	10472
84	337	469	660	880	1220	1613	2199	2932	3958	5131	6597	8797
68	273	380	534	712	987	1306	1780	2374	3204	4154	5341	7121
56	225	313	440	586	813	1075	1466	1955	2639	3421	4398	5864
45	181	251	353	471	653	864	1178	1571	2121	2749	3534	4712
37	149	207	291	387	537	710	969	1292	1744	2260	2906	3875
30	120	168	236	314	436	576	785	1047	1414	1833	2356	3142
25	100	140	196	262	363	480	655	873	1178	1527	1964	2618
20	80	112	157	209	290	384	524	698	942	1222	1571	2094
16.5	66	92	130	173	240	317	432	576	778	1008	1296	1728
13.5	54	75	106	141	196	259	353	471	636	825	1060	1414
11	44.2	61	86	115	160	211	288	384	518	672	864	1152
9	36.1	50	71	94	131	173	236	314	424	550	707	942
7.5	30.1	42	59	79	109	144	196	262	353	458	589	785
5	20.1	27.9	39	52	73	96	131	175	236	305	393	524

☐ Ratings apply to Type T20 only

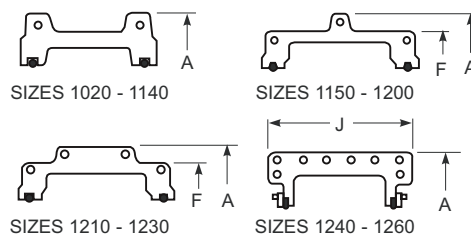
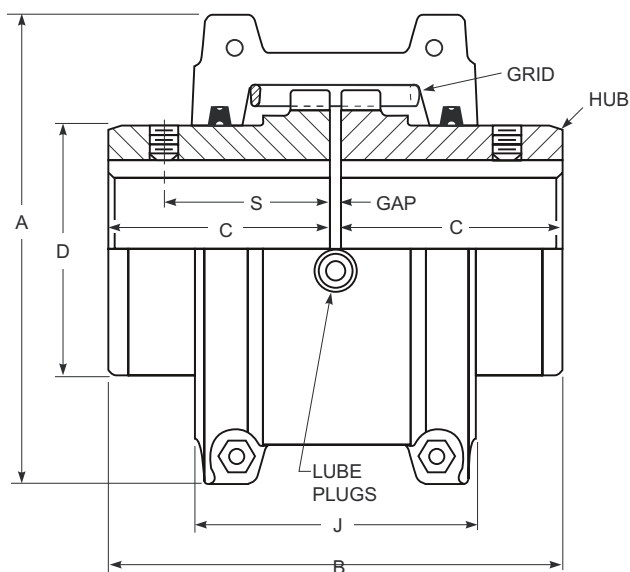
Service Factor

Table - 4

AERATOR	2.0
AGITATORS	
Vertical and Horizontal	
Screw, Propeller, Paddle	1.0
BARGE HAUL PULLER	1.5
BLOWERS	
Centrifugal	1.0
Lobe or Vane	1.25
CAR DUMPERS	2.5
CAR PULLERS	1.5
CLARIFIER OR CLASSIFIER	1.0
COMPRESSORS	
Centrifugal	1.0
Rotary, Lobe or Vane	1.25
Rotary, Screw	1.0
Reciprocating	
Direct Connected	Refer to Factory
Without Flywheel	Refer to Factory
With Flywheel and Gear between Compressor	
and Prime Mover	
1 cylinder, single acting	3.0
1 cylinder, double acting	3.0
2 cylinders, single acting	3.0
2 cylinders, double acting	3.0
3 cylinders, single acting	3.0
3 cylinders, double acting	2.0
4 or more cyl., single act.	1.75
4 or more cyl., double act.	1.75
CONVEYORS	
Apron, Assembly, Belt, Chain,	
Flight, Screw	1.0
Bucket	1.25
Live Roll, Shaker and	
Reciprocating	3.0
CRANES AND HOIST	
Main Hoist	1.75
Skip Hoist	1.75
Slope	1.5
Bridge, Travel or Trolley	1.75
DYNAMOMETER	1.0
ELEVATORS	
Bucket, Centrifugal Discharge	1.25
Freight or Passenger	Not Approved
Gravity Discharge	1.25
ESCALATORS	Not Approved
EXCITER, GENERATOR	1.0
EXTRUDER, PLASTIC	1.5
FANS	
Centrifugal	1.0
Cooling Tower	2.0
Forced Draft — Across the	
Line start	1.5
Forced Draft Motor	
Driven thru fluid or	
electric slip clutch	1.0
Gas Recirculating	1.5
Induced Draft with damper	
control or blade cleaner	1.25
Induced Draft without controls	2.0
FEEDERS	
Apron, Belt, Disc, Screw	1.0
Reciprocating	2.5
GENERATORS	
Even Load	1.0
Hoist or Railway Service	1.5

Welder Load	2.0
HAMMERMILL	1.75
LAUNDRY WASHER OR	
TUMBLER	2.0
LINE SHAFTS	
Any Processing Machinery	1.5
MACHINE TOOLS	
Auxiliary and Traverse Drive	1.0
Bending Roll, Notching Press,	
Punch Press, Planer, Plate	
Reversing	1.75
Main Drive	1.5
MAN LIFTS	Not Approved
METAL FORMING MACHINES	
Continuous Caster	1.75
Draw Bench Carriage and	
Main Drive	2.0
Extruder	2.0
Farming Machine and	
Forming Mills	2.0
Slitters	1.0
Wire Drawing or Flattening	1.75
Wire Winder	1.5
Coilers and Uncoilers	1.5
MIXERS (see Agitators)	
Concrete	1.75
Muller	1.5
PRESS, PRINTING	1.5
PUG MILL	1.75
PULVERIZERS	
Hammermill and Hog	1.75
Roller	1.5
PUMPS	
Boiler Feed	1.5
Centrifugal —	
Constant Speed	1.0
Frequent Speed Changes	
under Load	1.25
Descaling, with accumulators	1.25
Gear, Rotary, or Vane	1.25
Reciprocating, Plunger Piston	
1 cyl., single or double act.	3.0
2 cyl., single acting	2.0
2 cyl., double acting	1.75
3 or more cylinders	1.5
Screw Pump, Progressing Cavity	1.25
Vacuum Pump	1.25
SCREENS	
Air Washing	1.0
Grizzly	2.0
Rotary Coal or Sand	1.5
Vibrating	2.5
Water	1.0
SKI TOWS & LIFTS	Not Approved
STEERING GEAR	1.0
STOKER	1.0
TIRE SHREDDER	1.50
TUMBLING BARREL	1.75
WINCH, MANEUVERING	
Dredge, Marine	1.5
WINDLASS	1.5
WOODWORKING	
MACHINERY	1.0
WORK LIFT PLATFORMS	Not Approved

Grid Coupling TYPE T10



Sizes 1020 thru 1230T10 covers are cast aluminum alloy; Sizes 1240 thru 1260T10 are fabricated steel.

Type HD size range is from 1070-1140 as shown in shared areas below. Covers are powder-coated and seals are Nitrile

Table-5

SIZE	Torque Rating (lb-in)	Allow Speed rpm	Max Bore	Min Bore	Cplg Wt With No Bore-lb	Lube Wt lb	DIMENSIONS—INCHES							
							A	B	C	D	F	J	S	GAP
1020T	460	4500	1.125	0.500	4.2	0.06	3.82	3.88	1.88	1.56	.	2.62	1.54	0.125
1030T	1,320	4500	1.375	0.500	5.7	0.09	4.16	3.88	1.88	1.94	.	2.69	1.54	0.125
1040T	2,200	4500	1.625	0.500	7.4	0.12	4.50	4.12	2.00	2.25	.	2.75	1.58	0.125
1050T	3,850	4500	1.875	0.500	12.0	0.15	5.32	4.88	2.38	2.62	.	3.19	1.76	0.125
1060T	6,050	4350	2.125	0.750	16.0	0.19	5.82	5.12	2.50	3.00	.	3.68	2.06	0.125
1070T	8,800	4125	2.500	0.750	23.0	0.25	6.25	6.12	3.00	3.44	.	3.81	2.12	0.125
1080T	18,150	3600	3.000	1.062	39.0	0.38	7.50	7.12	3.50	4.12	.	4.55	2.54	0.125
1090T	33,000	3600	3.500	1.062	56.0	0.56	8.31	7.88	3.88	4.88	.	4.81	2.82	0.125
1100T	55,550	2440	4.000	1.625	93.0	0.94	9.88	9.69	4.75	5.59	.	6.12	.	0.125
1110T	82,500	2250	4.500	1.625	120.0	1.12	10.62	10.19	5.00	6.31	.	6.36	.	0.125
1120T	121,000	2025	5.000	2.375	179.0	1.62	12.12	12.00	5.88	7.06	.	7.54	.	0.125
1130T	176,000	1800	6.000	2.625	266.0	2.00	13.62	13.00	6.38	8.56	.	7.68	.	0.188.
1140T	253,000	1650	7.250	2.625	392.0	2.50	15.12	14.75	7.25	10.00	.	7.92	.	0.188.
1150T	352,000	1500	8.000	4.250	500.0	4.30	17.84	14.65	7.20	10.60	15.40	10.69	.	0.250
1160T	495,000	1350	9.000	4.750	681.0	6.20	19.76	15.85	7.80	12.00	17.20	10.96	.	0.250
1170T	660,000	1225	10.000	5.250	987.0	7.70	22.32	17.25	8.50	14.00	19.18	12.10	.	0.250
1180T	915,000	1100	11.000	6.000	1365.0	8.30	24.80	19.05	9.40	15.50	21.84	12.64	.	0.250
1190T	1,210,000	1050	12.000	6.000	1710.0	9.70	26.60	20.65	10.20	17.20	23.93	12.80	.	0.250
1200T	1,650,000	900	13.000	7.000	2331.0	12.40	29.80	22.25	11.00	19.60	26.00	14.00	.	0.250
1210T	2,200,000	820	14.000	7.000	3140.0	23.20	33.25	24.50	12.00	21.00	29.56	17.00	.	0.500
1220T	2,970,000	730	15.000	8.000	3935.0	35.40	36.25	26.10	12.80	22.50	32.37	19.30	.	0.500
1230T	3,850,000	680	16.000	8.000	4997.0	53.00	39.50	27.70	13.60	24.00	35.62	21.50	.	0.500
1240T	4,950,000	630	17.000	10.000	6504.0	74.50	42.80	29.50	14.50	25.50	.	25.50	.	0.500
1250T	6,600,000	580	18.500	10.000	8450.0	110.50	46.50	32.10	15.80	28.00	.	27.50	.	0.500
1260T	8,250,000	540	20.000	10.000	10322.0	148.10	49.64	34.50	17.00	30.00	.	30.00	.	0.500

Grid Coupling TYPE T20

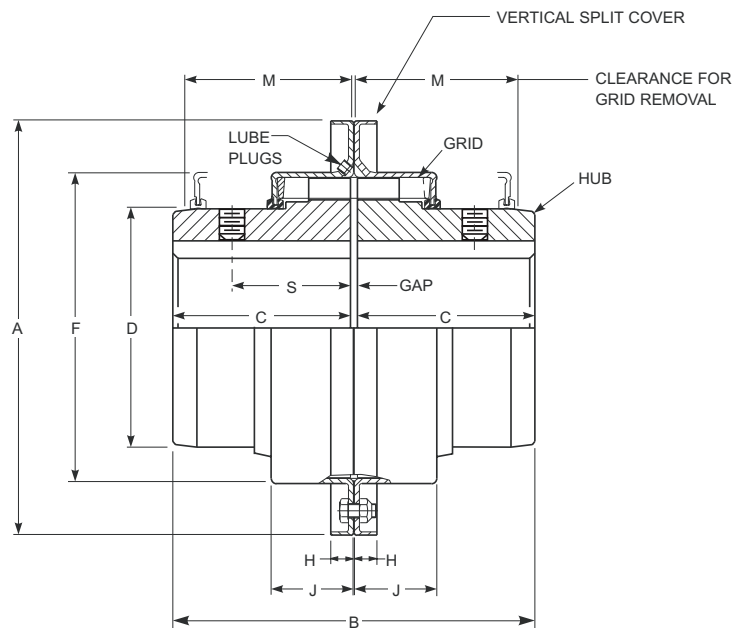
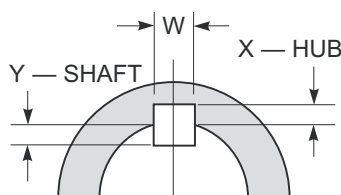


Table-6

SIZE	Torque Rating (lb-in)	Allow Speed rpm	Max Bore	Min Bore	Cplg Wt With No Bore-lb	Lube Wt lb	DIMENSIONS—INCHES									
							A	B	C	D	F	H	J	M	S	GAP
1020T	460	6000	1.125	0.500	4.3	0.06	4.42	3.88	1.88	1.56	2.50	0.38	0.94	1.88	1.54	0.13
1030T	1,320	6000	1.375	0.500	5.7	0.09	4.80	3.88	1.88	1.94	2.88	0.38	0.98	1.88	1.54	0.13
1040T	2,200	6000	1.625	0.500	7.4	0.12	5.11	4.12	2.00	2.25	3.25	0.38	1.02	2.00	1.58	0.13
1050T	3,850	6000	1.875	0.500	12.0	0.15	5.86	4.88	2.38	2.62	3.88	0.47	1.20	2.38	1.76	0.13
1060T	6,050	6000	2.125	0.750	15.0	0.19	6.42	5.12	2.50	3.00	4.38	0.50	1.25	2.50	2.06	0.13
1070T	8,800	5500	2.500	0.750	23.0	0.25	6.86	6.12	3.00	3.44	4.88	0.50	1.32	2.62	2.12	0.13
1080T	18,150	4750	3.000	1.062	39.0	0.38	7.92	7.12	3.50	4.12	5.88	0.50	1.72	3.50	2.54	0.13
1090T	33,000	4000	3.500	1.062	56.0	0.56	9.17	7.88	3.88	4.88	6.62	0.50	1.85	3.75	2.82	0.13
1100T	55,550	3250	4.000	1.625	93.0	0.94	10.55	9.69	4.75	5.59	7.75	0.62	2.35	4.75	.	0.19
1110T	82,500	3000	4.500	1.625	120.0	1.12	11.30	10.19	5.00	6.31	8.50	0.63	2.47	4.88	.	0.19
1120T	121,000	2700	5.000	2.375	180.0	1.62	12.61	12.00	5.88	7.06	9.62	0.69	2.90	5.62	.	0.25
1130T	176,000	2400	6.000	2.625	270.0	2.00	14.92	13.00	6.38	8.56	11.12	0.81	2.95	5.75	.	0.25
1140T	253,000	2200	7.250	2.625	397.0	2.50	16.42	14.75	7.25	10.00	12.62	0.81	3.08	6.12	.	0.25
1150T	352,000	2000	8.000	4.250	507.0	4.30	18.75	14.65	7.20	10.60	14.72	0.76	4.21	4.21	.	0.25
1160T	495,000	1750	9.000	4.750	708.0	6.20	21.00	15.85	7.80	12.00	16.68	1.18	4.50	4.50	.	0.25
1170T	660,000	1600	10.000	5.250	988.0	7.70	23.00	17.25	8.50	14.00	18.68	1.18	4.70	4.70	.	0.25

Engineering Data



Keyway Nomenclature

Table 7 - Type T10 & T20 Hub & Flanged Hub Bore Ranges with Square & Rectangular Keys

SIZE	For One Square Key				For One Rectangular Key						For Two Square Keys			For Two Rectangular Keys		
	Min Bore	Max Bore	Y=X		Max Bore	Y=X		Max Bore	Y=w/2		Max Bore	Y=X		Max. Bore	Y=X	
			W	X		W	X		W	X		W	X		W	X
20/1020T	0.50	1.13	0.250	0.125	1.187	0.250	0.093	1.25	0.250	0.062	.	.	.	.	.	.
30/1030T	0.50	1.38	0.312	0.156	1.437	0.375	0.125	1.56	0.375	0.062	.	.	.	.	.	.
40/1040T	0.50	1.63	0.375	0.187	1.750	0.375	0.125	1.75	0.375	0.062	.	.	.	.	.	.
50/1050T	0.50	1.88	0.500	0.250	2.000	0.500	0.187	2.13	0.500	0.125	.	.	.	.	.	.
60/1060T	0.75	2.13	0.500	0.250	2.250	0.500	0.187	2.38	0.625	0.125	.	.	.	.	.	.
70/1070T	0.75	2.50	0.625	0.312	2.687	0.625	0.218	2.88	0.750	0.125	.	.	.	.	.	.
80/1080T	1.06	3.00	0.750	0.375	3.250	0.750	0.250	3.38	0.875	0.187	.	.	.	.	.	.
90/1090T	1.06	3.50	0.875	0.437	3.750	0.875	0.312	3.88	1.000	0.250	.	.	.	.	.	.
100/1100T	1.63	4.00	1.000	0.500	4.250	1.000	0.375	4.50	1.000	0.250	.	.	.	.	.	.
110/1110T	1.63	4.50	1.000	0.500	4.625	1.250	0.437	5.00	1.250	0.250	.	.	.	.	.	.
120/1120T	2.38	5.00	1.250	0.625	5.375	1.250	0.437	5.75	1.500	0.250	.	.	.	.	.	.
130/1130T	2.63	6.00	1.500	0.750	6.500	1.500	0.500	6.50	1.500	0.250	.	.	.	.	.	.
140/1140T	2.63	7.00	1.750	0.875	7.250	1.750	0.750	7.75	2.000	0.500	.	.	.	.	.	.
150/1150T	4.25	7.50	1.750	0.875	8.000	2.000	0.750	.	.	.	.	.	.	.	.	.
160/1160T	4.75	8.50	2.000	1.000	9.000	2.000	0.750	.	.	.	.	.	.	.	.	.
1170T	5.25	9.75	2.500	1.250	10.000	2.500	0.875	.	.	.	10.75	1.75	0.88	11.00	1.75	0.75
1180T	6.00	10.75	2.500	1.250	11.000	2.500	0.875	.	.	.	12.00	1.75	0.88	12.25	2.00	0.75
1190T	6.00	11.75	3.000	1.500	12.000	3.000	1.000	.	.	.	13.00	2.00	1.00	13.25	2.00	0.75
1200T	7.00	12.75	3.000	1.500	13.000	3.000	1.000	.	.	.	14.00	2.50	1.25	14.25	2.50	0.88
1210T	7.00	13.75	3.500	1.750	14.000	3.500	1.250	.	.	.	15.00	2.50	1.25	15.25	2.50	0.88
1220T	8.00	14.75	3.500	1.750	15.000	3.500	1.250	.	.	.	16.00	2.50	1.25	16.25	3.00	1.00
1230T	8.00	15.75	4.000	2.000	16.000	4.000	1.500	.	.	.	17.00	3.00	1.50	17.25	3.00	1.00
1240T	10.00	16.75	4.000	2.000	17.000	4.000	1.500	.	.	.	18.00	3.00	1.50	18.25	3.00	1.00
1250T	10.00	18.00	4.000	2.000	18.500	5.000	1.750	.	.	.	19.25	3.50	1.75	19.75	3.50	1.25
1260T	10.00	19.50	5.000	2.500	20.000	5.000	1.750	.	.	.	20.75	3.50	1.75	21.25	3.50	1.25

All Dimensions are in inches

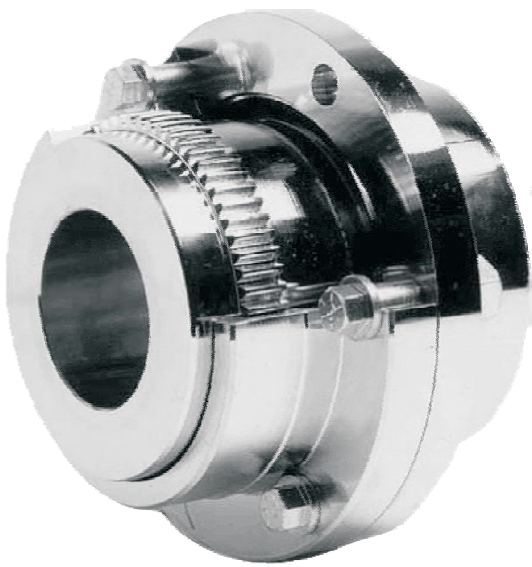
Metric keyways and keyway radiuses will be furnished per ISO /R773



POWER DRIVE

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GEAR COUPLING



Selection Procedure

STANDARD SELECTION METHOD

The standard selection method can be used for most motor, turbine, or engine driven applications. The following information is required to select a gear coupling.

- Horsepower or torque
- Running rpm.
- Application or type of equipment to be connected pump, drive to conveyor, etc.).
- Shaft diameters.
- Shaft gaps.
- Physical space limitations
- Special bore or finish information and type of fit

1. RATING:

Determine system torque. If torque is not given, calculate as shown below.

$$\text{System Torque (lb - in)} = \frac{\text{HP} \times 63,000}{\text{RPM}}$$

Where: HP (Horsepower) is the actual or transmitted power required by the application (if unknown, use the motor or turbine nameplate rating) and RPM is the actual speed the coupling is rotating.

2. SERVICE FACTOR:

Determine the appropriate service factor from Tables 3 on N-3

3. REQUIRED MINIMUM COUPLING RATING:

Determine the required minimum coupling rating as shown below:

$$\text{Minimum Coupling Rating} = \text{S.F.} \times \text{Torque (lb-in)}$$

4. Find Design Hp:

Determine the Design Hp rating as shown below.

$$\text{Design Hp} = \text{S.F.} \times \text{Actual Hp}$$

5. TYPE:

Refer to N-4 To N-7 and select the appropriate coupling type.

6. SIZE:

Refer to Table 2 - trace horizontally from the required speed to a Hp value equal to or larger than determined in 4 step. Read the coupling size at a top of column.

7. Check:

Check bore, speed, Dimensions and Torque rating of coupling.

Bores

Check shaft diameters against coupling maximum bore. If bore is inadequate, consider the use of a reduced key from engineering tables, or select a larger size coupling.

Speeds (rpm)

Check the operating rpm against the coupling allowable speed. If catalogued values are inadequate, consider balancing. Balancing may allow up to 50% increase in speeds shown.

Dimensions

Checks are: length of hubs and alignment clearances against shaft lengths, outside diameter of coupling against radial clearances

STANDARD SELECTION EXAMPLE:

Select a gear coupling to connect a 500 HP, 1170 RPM electric motor to a drive high speed shaft of a maneuvering winch. Maximum shaft separation is .250". Motor shaft diameter is 3.375" and keyway is .875" x .438". Winch shaft diameter is 3.000" and keyway is 50" x .375". Motor and winch extensions are both 6.000" long.

1. DETERMINE REQUIRED RATING:

$$\text{System Torque (lb - in)} = \frac{500\text{HP} \times 63000}{1170 \text{ rpm}} = 26,923$$

2. SERVICE FACTOR:

From Table-3, N-3 for maneuvering winch S.F.=1.5

3. REQUIRED MINIMUM COUPLING RATING:

$$1.5 \times 26,923 \text{ lb-in} = 40,385 \text{ lb-in}$$

4. Find Design Hp:

$$1.5 \times 500\text{hp} = 750\text{hp}$$

5. TYPE:

From N-4 & N-5 to connect close coupled shafts (.250" gap) the double engagement Type 1025GC02 or Type 1025G20 coupling is the selection.

6. SIZE:

From N-2, A Size 1025G is the proper selection based on a hp rating of 750hp exceeding the required minimum coupling hp rating of 1230hp.

CHECK:

Maximum speed capacity of 3,330 (1025GC02) and 5000 (1025G20) rpm exceeds required speed of 1170 rpm. Maximum bore capacity of 3.625" exceeds the actual shaft diameters and torque rating of 66, 150 lb-in exceeding the required minimum coupling rating of 40,385. So selected coupling will be 1025GC02 or 1025G20

TABLE 1 — Torque and Horsepower Ratings

Coupling Size	Torque Rating (lb-in)	HP per 100 RPM
1010G/GC	10,080	16
1015G/GC	20,790	33
1020G/GC	37,800	60
1025G/GC	66,150	105
1030G/GC	107,100	170
1035G/GC	163,800	260
1040G	270,900	430
1045G	371,700	590
1050G	500,900	795
1055G	655,200	1,040
1060G	800,100	1,270
1070G	1,197,000	1,900

Coupling Selection... Based on Equivalent hp Ratings

Table2

	1010G	1015G	1020G	1025G	1030G	1035G	1040G	1045G	1050G	1055G	1060G	1070G
Max Bore (G20) (Inch)	1.875	2.375	2.875	3.625	4.125	4.875	5.75	6.75	7.375	8.25	9.125	10.875
Max Speed (G20)	8000	6500	5600	5000	4400	3900	3600	3200	2900	2650	2450	2150
Torque (lb-in)	10080	20790	37800	66150	107100	163800	270900	371700	500,900	655,200	800,100	1,197,000
HP / 100 rpm	16	33	60	105	170	260	430	590	795	1040	1270	1900
HP	RATING											
4500	720.00	1480.00	2700.00	4720.00	7650.00	11700.00	19300.00					
3600	576.00	1190.00	2160.00	3780.00	6120.00	9360.00	15500.00					
3000	480.00	990.00	1800.00	3150.00	5100.00	7800.00	12900.00	17700.00				
2500	400.00	825.00	1500.00	2620.00	4250.00	6500.00	10700.00	14700.00	19900.00	26000.00		
2100	336.00	693.00	1260.00	2200.00	3570.00	5460.00	9000.00	12400.00	16700.00	21800.00	26700.00	39900
1800	288.00	594.00	1080.00	1890.00	3060.00	4680.00	7700.00	10600.00	14300.00	18700.00	22900.00	34200
1750	280.00	577.00	1050.00	1840.00	2970.00	4550.00	7522.00	10300.00	13900.00	18200.00	22200.00	33200
1450	232.00	478.00	870.00	1520.00	2460.00	3770.00	6230.00	8550.00	11500.00	15100.00	18400.00	27500
1170	187.00	386.00	702.00	1230.00	1990.00	3040.00	5030.00	6900.00	9300.00	12200.00	14900.00	22200
1000	160.00	330.00	600.00	1050.00	1700.00	2600.00	4300.00	5900.00	7950.00	10400.00	12700.00	19000
870	139.00	287.00	522.00	913.00	1480.00	2260.00	3740.00	5130.00	6910.00	9044.00	11000.00	16500
720	115.00	238.00	432.00	756.00	1220.00	1870.00	3090.00	4250.00	5720.00	7490.00	9140.00	13700
650	104.00	214.00	390.00	682.00	1100.00	1690.00	2790.00	3830.00	5170.00	6760.00	8250.00	12300
580	92.80	191.00	348.00	609.00	986.00	1507.00	2493.00	3420.60	4610.00	6030.00	7360.00	11000
520	83.20	172.00	312.00	546.00	884.00	1350.00	2240.00	3070.00	4130.00	5410.00	6600.00	9880
420	67.20	139.00	252.00	441.00	714.00	1090.00	1810.00	2480.00	3340.00	4370.00	5330.00	7980
350	56.00	115.00	210.00	367.00	595.00	910.00	1500.00	2060.00	2780.00	3640.00	4440.00	6650
280	44.80	92.40	168.00	294.00	476.00	728.00	1200.00	1650.00	2230.00	2910.00	3550.00	5320
230	36.80	75.90	138.00	241.00	391.00	598.00	989.00	1360.00	1830.00	2390.00	2920.00	4370
190	30.40	62.70	114.00	199.00	323.00	494.00	817.00	1120.00	1510.00	1980.00	2410.00	3610
155	24.80	51.10	93.00	163.00	263.00	403.00	666.00	914.00	1230.00	1610.00	1970.00	2940
125	20.00	41.20	75.00	131.00	212.00	325.00	537.00	737.00	993.00	1300.00	1590.00	2370
100	16.00	33.00	60.00	105.00	170.00	260.00	430.00	590.00	795.00	1040.00	1270.00	1900
84	13.40	27.70	50.40	88.20	143.00	218.00	361.00	495.00	668.00	873.00	1070.00	1600
68	10.90	22.40	40.80	71.40	116.00	177.00	292.00	401.00	540.00	707.00	863.00	1290
56	8.96	18.50	33.60	58.80	95.20	146.00	241.00	330.00	445.00	582.00	711.00	1060
45	7.20	14.80	27.00	47.20	76.50	117.00	193.00	265.00	358.00	468.00	571.00	855
37	5.92	12.20	22.20	38.80	62.90	96.20	159.00	218.00	294.00	385.00	470.00	703
30	4.80	9.90	18.00	31.50	51.00	78.00	129.00	177.00	238.00	312.00	381.00	570
25	4.00	8.25	15.00	26.20	42.50	65.00	107.00	147.00	199.00	260.00	317.00	475
20	3.20	6.60	12.00	21.00	34.00	52.00	86.00	118.00	159.00	208.00	254.00	380
16.5	2.64	5.44	9.90	17.30	28.00	42.90	70.90	97.30	131.00	172.00	209.00	313
13.5	2.16	4.45	8.10	14.20	22.90	35.10	58.00	79.60	107.00	140.00	171.00	256
11	1.76	3.63	6.60	11.50	18.70	28.60	47.30	64.90	87.40	114.00	140.00	209
9	1.44	2.97	5.40	9.45	15.30	23.40	38.70	53.10	71.50	93.60	114.00	171
7.5	1.20	2.47	4.50	7.87	12.70	19.50	32.20	44.20	59.60	78.00	95.20	142
5	0.80	1.65	3.00	5.25	8.50	13.00	21.50	29.50	39.70	52.00	63.50	95

Service Factors

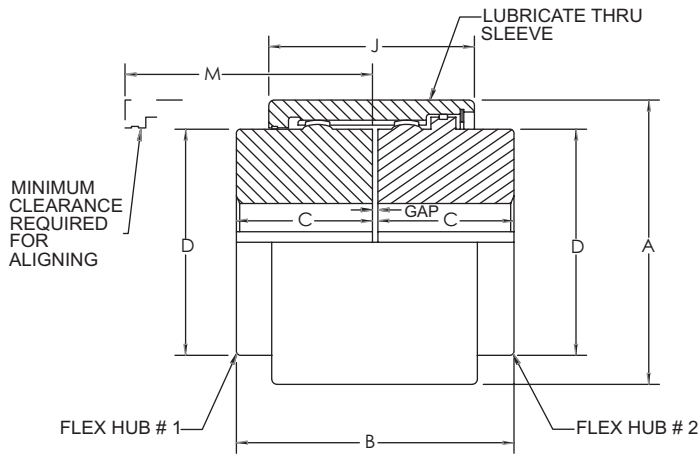
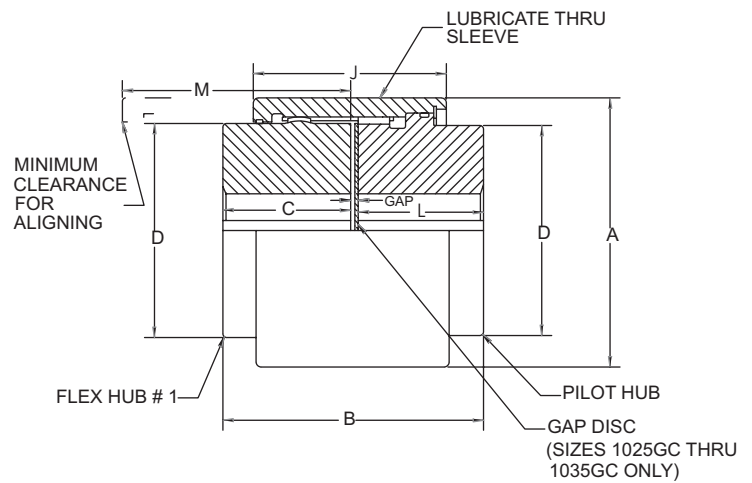
TABLE 3 - Gear Coupling Service Factors for Motor and Turbine Drives

Service factors listed are typical values based on normal operation of the drive systems.

Alphabetical listing of applications

Alphabetical listing of industries

Service Factor	Service Factor	Service Factor	Service Factor
AERATOR.....1.5	Hoist or Railway Service.....1.5	AGGREGATE PROCESSING, CEMENT, MINING KILNS; TUBE, ROD AND BALL MILLS	Skepl MillsRefer to Factory
AGITATORS	Welder Load2.0	Direct or on L.S. shaft of	Slitters, Steel Mill only1.75
Vertical and Horizontal	HAMMERMILL.....1.75	Reducer, with final drive	Soaking Pit Cover Drives —
Screw, Propeller, Paddle1.0	LAUNDRY WASHER OR	Machined Spur Gears2.0	Lift1.0
BARGE HAUL PULLER1.5	TUMBLER.....2.0	Single Helical or	Travel2.0
BLOWERS	LINE SHAFTS	Herringbone Gears1.75	Straighteners2.0
Centrifugal1.0	Any Processing Machinery.....1.5	Conveyors, Feeders, Screens, Elevators.....See General	Unscramblers (Billet Bundle Busters)2.0
Lobe or Vane.....1.25	MACHINE TOOLS	Listing	Wire Drawing Machinery.....1.75
CAR DUMPERS2.5	Auxiliary and Traverse Drive.....1.0	Crushers, Ore or Stone2.5	OIL INDUSTRY
CAR PULLERS1.5	Bending Roll, Notching Press, Punch Press, Planer, Plate	Dryer, Rotary.....1.75	Chiller1.25
CLARIFIER OR CLASSIFIER1.0	Reversing1.75	Grizzly2.0	Oilwell Pumping (not over 150% peak torque)2.0
COMPRESSORS	Main Drive1.5	Hammermill or Hog1.75	Paraffin Filter Press1.5
Centrifugal1.0	MAN LIFTSNot Approved	Tumbling Mill or Barrel1.75	Rotary Kiln2.0
Rotary, Lobe or Vane.....1.25	METAL FORMING MACHINES	BREWING AND DISTILLING	PAPER MILLS
Rotary, Screw1.0	Continuous Caster.....1.75	Bottle and Can	Barker Auxiliary, Hydraulic2.0
Reciprocating	Draw Bench Carriage and	Filling Machines1.0	Barker, Mechanical2.0
Direct Connected.....Refer to Factory	Main Drive2.0	Brew Kettle1.0	Barking Drum
Without FlywheelRefer to Factory	Extruder2.0	Cookers, Continuous Duty1.25	L.S. shaft of reducer with final drive - Helical
With Flywheel and Gear between compressor and Prime Mover	Farming Machine and	Lauter Tub1.5	or Herringbone Gear2.0
1 cylinder, single acting3.0	Forming Mills2.0	Mash Tub1.25	Machined Spur Gear2.5
1 cylinder, double acting3.0	Slitters1.0	Scale Hopper, Frequent Peaks1.75	Cast Tooth Spur Gear3.0
2 cylinders, single acting3.0	Wire Drawing or Flattening.....1.75	CLAY WORKING INDUSTRY	Beater & Pulper1.75
2 cylinders, double acting3.0	Wire Winder1.5	Brick Press, Briquette Machine, Clay Working Machine, Pug Mill.....1.75	Bleachers, Coaters1.0
3 cylinders, single acting3.0	Coilers and Uncoilers1.5	DREDGES	Calender & Super Calender.....1.75
3 cylinders, double acting2.0	MIXERS(see Agitators)	Cable Reel.....1.75	Chipper2.5
4 or more cyl., single act.....1.75	Concrete1.75	Conveyors.....1.25	Converting Machine.....1.25
4 or more cyl., double act.....1.75	Muller1.5	Cutter head, Jig Drive2.0	Couch1.75
CONVEYORS	PRESS, PRINTING1.5	Maneuvering Winch1.5	Cutter, Felt Whipper2.0
Apron, Assembly, Belt, Chain, Flight, Screw1.0	PUG MILL.....1.75	Pumps (uniform load)1.5	Cylinder.....1.75
Bucket.....1.25	PULVERIZERS	Screen Drive, Stackler1.75	Dryer.....1.75
Live Roll, Shaker and Reciprocating	Hammermill and Hog.....1.75	Utility Winch1.5	Felt Stretcher.....1.25
CRANES AND HOIST	Roller1.5	FOOD INDUSTRY	Fourdrinier.....1.75
Main Hoist.....1.75	PUMPS	Beet Slicer.....1.75	Jordan2.0
Skip Hoist.....1.75	Boiler Feed1.5	Bottling, Can Filling Machine1.0	Log Haul2.0
Slope1.5	Centrifugal —	Cereal Cooker1.25	Line Shaft1.5
Bridge, Travel or Trolley.....1.75	Constant Speed1.0	Dough Mixer, Meat Grinder1.75	Press.....1.75
DYNAMOMETER1.0	Frequent Speed Changes	LUMBER	Pulp Grinder.....1.75
ELEVATORS	under Load.....1.25	Band Resaw1.5	Reel, Rewinder, Winder1.5
Bucket, Centrifugal Discharge.....1.25	Descaling, with accumulators.....1.25	Circular Resaw, Cut-off1.75	Stock Chest, Washer, Thickener1.5
Freight or PassengerNot Approved	Gear, Rotary, or Vane.....1.25	Edger, Head Rig, Hog2.0	Stock Pumps, Centrifugal
Gravity Discharge.....1.25	Reciprocating, Plunger Piston	Gang Saw	Constant Speed1.0
ESCALATORS.....Not Approved	1 cyl., single or double act.3.0	(Reciprocating).....Refer to Factory	Frequent Speed Changes
EXCITER, GENERATOR1.0	2 cyl., single acting2.0	Log Haul2.0	Under Load.....1.25
EXTRUDER, PLASTIC1.5	2 cyl., double acting1.75	Planer.....1.75	Suction Roll.....1.75
FANS	3 or more cylinders1.5	Rolls, Non-Reversing1.25	Vacuum Pumps.....1.25
Centrifugal1.0	Screw Pump, Progressing Cavity.....1.25	Rolls, Reversing2.0	RUBBER INDUSTRY
Cooling Tower2.0	Vacuum Pump.....1.25	Sawdust Conveyor1.25	Calender2.0
Forced Draft — Across the	SCREENS	Slab Conveyor1.75	Cracker, Plasticator2.5
Line start1.5	Air Washing1.0	Sorting Table1.5	Extruder.....1.75
Forced Draft Motor	Grizzly2.0	Trimmer.....1.75	Intensive or Banbury Mixer2.5
Driven thru fluid or electric slip clutch1.0	Rotary Coal or Sand1.5	METAL ROLLING MILLS	Mixing Mill, Refiner or Sheeter
Gas Recirculating1.5	Vibrating2.5	Coilers (Up or Down) Cold	One or two in line2.5
Induced Draft with damper control or blade cleaner.....1.25	Water1.0	Mills only1.5	Three or four in line2.0
Induced Draft without controls2.0	SKI TOWS & LIFTS.....Not Approved	Coilers (Up or Down) Hot	Five or more in line.....1.75
FEEDERS	STEERING GEAR1.0	Mills only2.0	Tire Building Machine2.5
Apron, Belt, Disc, Screw1.0	STOKER.....1.50	Coke Plants	Tire & Tube Press Opener (Peak Torque)1.0
Reciprocating2.5	TIRE SHREDDER.....1.75	Pusher Ram Drive2.5	Tuber, Strainer, Pelletizer.....1.75
GENERATORS	TUMBLING BARREL.....1.75	Door Opener2.0	Warming Mill
Even Load1.0	WINCH, MANEUVERING	Pusher or Larry Car	One or two Mills in line2.0
	Dredge, Marine1.5	Traction Drive3.0	Three or more Mills in line.....1.75
	WINDLASS1.5	Continuous Caster1.75	Washer2.5
	WOODWORKING	Cold Mills —	SEWAGE DISPOSAL EQUIPMENT
	MACHINERY1.0	Strip MillsRefer to Factory	Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector1.0
	WORK LIFT PLATFORMS..Not Approved	Temper MillsRefer to Factory	SUGAR INDUSTRY
		Cooling Beds1.5	Cane Carrier & Leveler.....1.75
		Drawbench2.0	Cane Knife & Crusher2.0
		Feed Rolls - Blooming Mills3.0	Mill Stands, Turbine Driver
		Furnace Pushers2.0	With all helical or Herringbone gears1.5
		Hot and Cold Saws2.0	Electric Drive or Steam Engine
		Hot Mills —	Drive with Helical, Herringbone, or Spur Gears with any Prime Mover.....1.75
		Strip or Sheet Mills.....Refer to Factory	TEXTILE INDUSTRY
		Reversing BloomingRefer to Factory	Batcher.....1.25
		or Slabbing Mills.....Refer to Factory	Calender, Card Machine1.5
		Edger Drives.....Refer to Factory	Cloth Finishing Machine1.5
		Ingot Cars2.0	Dry Can, Loom1.5
		Manipulators3.0	Dyeing Machinery.....1.25
		Merchant Mills.....Refer to Factory	Knitting Machine.....Refer to Factory
		Mill Tables	Mangle, Napper, Soaper.....1.25
		Roughing Breakdown	Spinner, Tenter Frame, Winder1.5
		Mills	
		Hot Bed or Transfer, non-reversing1.5	
		Runout, reversing3.0	
		Runout, non-reversing, non-plugging2.0	
		Reel Drives.....1.75	
		Rod Mills.....Refer to Factory	
		Screwdown2.0	
		Seamless Tube Mills	
		Piercer3.0	
		Thrust Block2.0	
		Tube Conveyor Rolls2.0	
		Reeler2.0	
		Kick Out2.0	
		Shear, CroppersRefer to Factory	
		Sideguards3.0	

Continuous Sleeve Coupling Type Gc02 & Gc05**Type - GC02****Double Engagement****Type - GC05****Single Engagement****Table 4**

Type - GC02													
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE (sq key)	MIN BORE	CPLG Wt With No Bore-lb	LUBE Wt (oz)	DIMENSIONS (INCHES)						
							A	B	C	D	J	M	GAP
1010GC	10080	5300	1.875	0.50	7.60	0.40	3.50	3.50	1.69	2.70	2.41	2.57	0.125
1015GC	20790	4300	2.375	0.75	13.60	1.00	4.30	4.01	1.94	3.40	3.00	3.19	0.125
1020GC	37800	3700	2.875	1.00	25.00	1.50	5.20	5.00	2.44	4.14	3.72	3.90	0.125
1025GC	66150	3300	3.625	1.25	47.00	2.30	6.44	6.25	3.03	5.14	4.30	4.55	0.188
1030GC	107100	2900	4.125	1.50	75.00	3.30	7.50	7.37	3.59	6.00	4.72	4.97	0.188
1035GC	163800	2600	4.875	2.00	114.00	4.30	8.50	8.63	4.19	7.00	5.25	5.50	0.250

Table 5

Type - GC05														
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE (sq key)	MIN BORE	CPLG Wt With No Bore-lb	LUBE Wt (oz)	DIMENSIONS (INCHES)							
							A	B	C	D	J	L	M	GAP
1010GC	10080	5300	1.875	0.50	7.70	0.30	3.50	3.50	1.69	2.70	2.41	1.69	2.57	0.125
1015GC	20790	4300	2.375	0.75	14.10	0.70	4.30	4.08	1.94	3.40	3.00	2.01	3.19	0.125
1020GC	37800	3700	2.875	1.00	26.00	1.10	5.20	5.07	2.44	4.14	3.72	2.51	3.90	0.125
1025GC	66150	3300	3.625	1.25	48.00	1.80	6.44	6.25	3.03	5.14	4.30	3.03	4.55	0.188
1030GC	107100	2900	4.125	1.50	76.00	2.60	7.50	7.37	3.59	6.00	4.72	3.59	4.97	0.188
1035GC	163800	2600	4.875	2.00	115.00	3.40	8.50	8.63	4.19	7.00	5.25	4.19	5.50	0.250

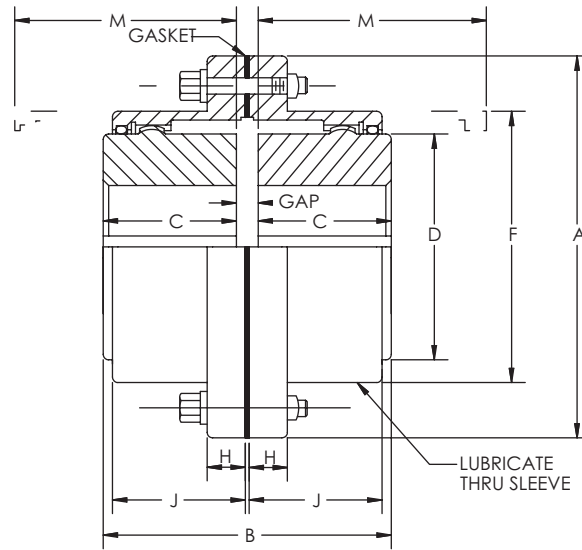
Gear Coupling Nomenclature**Type-GC**

1010	GC	02
Size	PRODUCT TYPE CLASSIFICATION	Type

Gear — Continuous Sleeve GC02 = Double Engagement

GC05 = Single Engagement/Floating Shaft

Flange Sleeve Coupling Type G20



Double Engagement

Table 6

Type - G20																	
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE (sq key)	MIN BORE	CPLG Wt With No Bore-lb		LUBE Wt (oz)	DIMENSIONS (INCHES)									
					G10	G20		A	B	C	D	F	H	J	M	GAP	
1010G	10080	8000	1.875	0.50	9	10	0.09	4.56	3.50	1.69	2.70	3.30	0.55	1.53	2.00	0.125	
1015G	20790	6500	2.375	0.75	17	20	0.16	6.00	4.00	1.94	3.40	4.14	0.75	1.88	2.40	0.125	
1020G	37800	5600	2.875	1.00	30	35	0.25	7.00	5.00	2.44	4.14	4.98	0.75	2.34	3.00	0.125	
1025G	66150	5000	3.625	1.25	55	65	0.50	8.38	6.25	3.03	5.14	6.10	0.86	2.82	3.60	0.188	
1030G	107100	4400	4.125	1.50	85	95	0.80	9.44	7.37	3.59	6.00	7.10	0.86	3.30	4.20	0.188	
1035G	163800	3900	4.875	2.00	135	150	1.20	11.00	8.63	4.19	7.00	8.32	1.12	3.84	5.10	0.250	
1040G	270900	3600	5.750	2.50	195	215	2.00	12.50	9.75	4.75	8.25	9.66	1.12	4.38	5.70	0.250	
1045G	371700	3200	6.750	3.00	280	300	2.30	13.62	10.93	5.31	9.25	10.79	1.12	4.84	6.50	0.312	
1050G	500900	2900	7.375	3.50	390	420	3.90	15.31	12.37	6.03	10.00	12.04	1.50	5.54	7.20	0.312	
1055G	655200	2650	8.250	4.00	525	550	4.90	16.75	13.56	6.62	11.00	13.16	1.50	6.22	8.00	0.312	
1060G	800100	2450	9.125	4.50	-	675	7.00	18.00	15.13	7.41	12.00	14.41	1.00	6.66	9.00	0.312	
1070G	1197000	2150	10.875	5.00	-	1070	9.60	20.75	17.75	8.69	14.00	16.73	1.12	7.70	10.50	0.375	

Gear Coupling Nomenclature

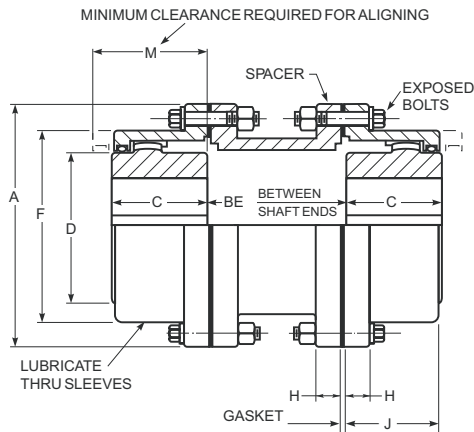
Type-G

1010	G	20
Size	PRODUCT TYPE CLASSIFICATION	Type

Gear — Standard Flanged Sleeve

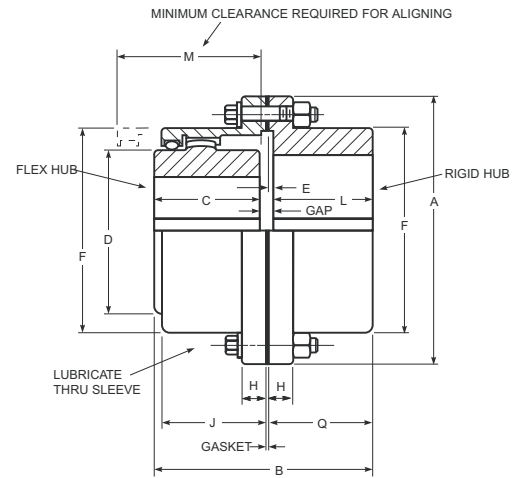
G20 = Double Engagement
 G32 = Spacer (Shrouded/Exposed)
 G52 = Insulated Single Engagement/Floating Shaft (Exposed)
 GV20 = Vertical Double Engagement

Flange Sleeve Coupling Type G32 & G52



Type - G32

Spacer type



Type - G52

Single Engagement

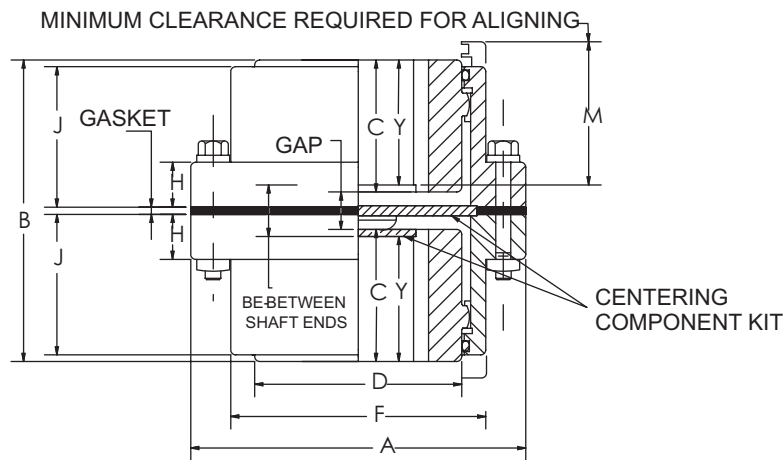
Table 7

Type - G32																	
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE (sq key)	MIN BORE	CPLG Wt-lb		LUBE Wt-lb		A	BE Min		C	D	F	H	J	M
					With No Bore and Min BE	Extra Spacer Wt per in of Length	Min Wt Less Spacer	Plus per in of Spacer Length		G31	G32						
1010G	10080	7000	1.875	0.50	15	0.67	0.09	-	4.56	3.25	3.25	1.69	2.70	3.30	0.55	1.53	1.90
1015G	20790	5500	2.375	0.75	30	0.71	0.16	-	6.00	3.25	3.25	1.94	3.40	4.14	0.75	1.88	2.20
1020G	37800	4600	2.875	1.00	45	0.93	0.25	0.03	7.00	3.25	3.25	2.44	4.14	4.98	0.75	2.34	2.70
1025G	60150	4000	3.625	1.25	85	1.15	0.50	0.06	8.38	4.25	3.75	3.03	5.14	6.10	0.86	2.82	3.20
1030G	107100	3600	4.125	1.50	120	1.32	0.80	0.06	9.44	4.25	3.75	3.59	6.00	7.10	0.86	3.30	3.70
1035G	163800	3100	4.875	2.00	195	2.01	1.20	0.12	11.00	5.12	4.75	4.19	7.00	8.32	1.12	3.84	4.20
1040G	270900	2800	5.750	2.50	270	2.80	2.00	0.20	12.50	5.12	4.75	4.75	8.25	9.66	1.12	4.38	4.80
1045G	371700	2600	6.750	3.00	365	4.12	2.30	0.20	13.62	5.25	4.75	5.31	9.25	10.79	1.12	4.84	5.30
1050G	500900	2400	7.375	3.50	525	4.56	3.90	0.20	15.31	7.25	5.75	6.03	10.00	12.04	1.50	5.54	6.00
1055G	655200	2200	8.250	4.00	675	5.01	4.90	0.20	16.75	7.25	5.75	6.62	11.00	13.16	1.50	6.22	6.80
1060G	800100	2100	9.125	4.50	790	6.54	7.00	0.20	18.00	-	5.75	7.41	12.00	14.41	1.10	6.66	7.20
1070G	1197000	1800	10.875	5.00	1240	7.91	9.60	0.20	20.75	-	5.75	8.69	14.00	16.73	1.12	7.70	8.20

Table 8

Type - G52																				
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE		MIN BORE	CPLG Wt With No Bore - lb		LUBE Wt-lb	A	B	C	D	E	F	H	J	L	M	Q	GAP
			FLEX HUB	RIGLD HUB		G51	G52													
1010G	10080	8000	1.875	2.375	0.50	9	10	0.05	4.56	3.41	1.69	2.70	0.10	3.30	0.55	1.53	1.56	2.00	1.66	0.156
1015G	20790	6500	2.375	2.938	0.75	18	20	0.09	6.00	3.92	1.94	3.40	0.10	4.14	0.75	1.88	1.82	2.40	1.92	0.156
1020G	37800	5600	2.875	3.625	1.00	30	35	0.15	7.00	4.90	2.44	4.14	0.10	4.98	0.75	2.34	2.30	3.00	2.40	0.156
1025G	66150	5000	3.625	4.375	1.25	55	60	0.26	8.38	6.12	3.03	5.14	0.10	6.10	0.86	2.82	2.90	3.60	3.00	0.156
1030G	107100	4400	4.125	5.125	1.50	85	95	0.40	9.44	7.24	3.59	6.00	0.10	7.10	0.86	3.30	3.46	4.20	3.56	0.188
1035G	163800	3900	4.875	5.875	2.00	135	150	0.60	11.00	8.43	4.19	7.00	0.10	8.32	1.12	3.84	4.02	5.10	4.12	0.218
1040G	270900	3600	5.750	7.250	2.50	200	220	1.03	12.50	9.56	4.75	8.25	0.16	9.66	1.12	4.38	4.54	5.70	4.70	0.281
1045G	371700	3200	6.750	8.125	3.00	285	330	1.25	13.62	10.75	5.31	9.25	0.16	10.79	1.12	4.84	5.14	6.50	5.30	0.312
1050G	500900	2900	7.375	9.000	3.50	400	430	2.00	15.31	12.17	6.03	10.00	0.20	12.04	1.50	5.54	5.80	7.20	6.00	0.344
1055G	655200	2650	8.250	10.000	4.00	555	580	2.50	16.75	13.76	6.62	11.00	0.20	13.16	1.50	6.22	6.80	8.00	7.00	0.344
1060G	800100	2450	9.125	11.000	4.50	-	715	3.75	18.00	15.16	7.41	12.00	0.26	14.41	1.00	6.66	7.34	9.00	7.60	0.406
1070G	1197000	2150	10.875	13.000	5.00	-	1120	5.00	20.75	17.86	8.69	14.00	0.33	16.73	1.12	7.70	8.67	10.50	9.00	0.500

Coupling Type Gv20



Vertical Double Engagement

Table 9

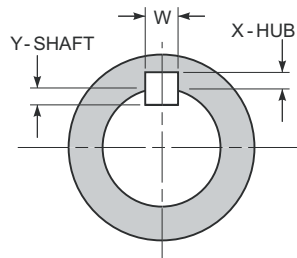
Type - GV20																		
SIZE *	TORQUE RATING (lb-in)	ALLOW SPEED RPM	MAX BORE (sq key)	MIN BORE	CPLG Wt With No Bore - lb		LUBE Wt-lb	A	B	C	D	F	H	J	M	Y	BE	GAP
					GV10	GV20												
1010GV	10080	8000	1.875	0.50	8	9	0.18	4.56	3.50	1.53	2.70	3.30	0.55	1.53	1.80	1.28	0.94	0.438
1015GV	20790	6500	1.375	0.75	17	19	0.30	6.00	3.98	1.77	3.40	4.14	0.75	1.88	2.20	1.52	0.94	0.438
1020GV	37800	5600	2.875	1.00	30	32	0.50	7.00	4.98	2.27	4.14	4.98	0.75	2.34	2.80	2.02	0.94	0.438
1025GV	66150	5000	3.625	1.25	52	58	0.90	8.38	6.20	2.82	5.14	6.10	0.86	2.82	3.40	2.57	1.06	0.562
1030GV	107100	4400	4.125	1.50	80	90	1.40	9.44	7.34	3.39	6.00	7.10	0.86	3.30	4.00	3.14	1.06	0.562
1035GV	163800	3900	4.875	2.00	130	145	2.20	11.00	8.59	3.95	7.00	8.32	1.12	3.84	4.90	3.70	1.19	0.688
1040GV	270900	3600	5.750	2.50	195	215	3.20	12.50	9.72	4.42	8.25	9.66	1.12	4.38	5.50	4.17	1.38	0.875
1045GV	371700	3200	6.750	3.00	270	290	4.40	13.62	10.90	4.95	9.25	10.79	1.12	4.84	6.20	4.58	1.74	1.000
1050GV	500900	2900	7.375	3.50	380	410	6.30	15.31	12.34	5.67	10.00	12.04	1.50	5.54	6.90	5.30	1.74	1.000
1055GV	655200	2650	8.250	4.00	510	535	8.00	16.75	13.52	6.26	11.00	13.16	1.50	6.22	7.70	5.89	1.74	1.000
1060GV	800100	2450	9.125	4.50	-	665	10.60	18.00	15.12	7.00	12.00	14.41	1.00	6.66	8.70	6.62	1.88	1.125
1070GV	1197000	2150	10.875	5.00	-	1050	15.60	20.75	17.74	8.18	14.00	16.73	1.12	7.70	10.00	7.67	2.40	1.375

Engineering Data

Standard flanged Sleeve & Continuous Sleeve

Table-10 Type G & GC Flex/Pilot Hub Maximum Bores — Inches

SIZE	With One Square Key			With One Rectangular Key						Max Bore	
	Max Bore	Y=X		Max Bore	Y=X		Max Bore	Y=W/2		Int Fit w/ Setscrew Over key way	With Puller Holes Per Table
		W	X		W	X		W	X		
1010G/GC	1.88	0.50	0.25	2.000	0.50	0.187	2.125	0.500	0.125	1.75	1.500
1015G/GC	2.38	0.63	0.31	2.500	0.63	0.218	2.750	0.625	0.125	2.25	2.125
1020G/GC	2.88	0.75	0.38	3.125	0.75	0.250	3.250	0.750	0.125	2.75	2.875
1025G/GC	3.63	0.88	0.44	3.875	1.00	0.375	4.000	1.000	0.250	3.25	3.625
1030G/GC	4.13	1.00	0.50	4.375	1.00	0.375	4.750	1.250	0.250	3.75	4.125
1035G/GC	4.88	1.25	0.63	5.250	1.25	0.437	5.750	1.500	0.250	4.50	4.875
1040G	5.75	1.50	0.75	6.250	1.50	0.500	6.500	1.500	0.250	5.50	5.750
1045G	6.50	1.50	0.75	6.750	1.75	0.750	.	.	.	5.75	6.750
1050G	7.00	1.75	0.88	7.375	1.75	0.750	.	.	.	6.50	7.375
1055G	7.75	2.00	1.00	8.250	2.00	0.750	.	.	.	7.50	8.250
1060G	8.75	2.00	1.00	9.125	2.50	0.875	.	.	.	8.00	9.125
1070G	10.00	2.50	1.25	10.875	2.50	0.875	.	.	.	9.00	10.875



Keyway Nomenclature

Table - 11 Type G & GC Rigid Hub & Maximum Bores — Inches

SIZE	With One Square Key			With One Rectangular Key						Max Bore	
	Max Bore	Y=X		Max Bore	Y=X		Max Bore	Y=W/2		Int Fit w/ Setscrew Over key way	With Puller Holes Per Table
		W	X		W	X		W	X		
1010G	2.375	0.625	0.312	2.50	0.625	0.22	2.75	0.63	0.13	2.25	2.000
1015G	2.937	0.750	0.375	3.25	0.750	0.25	3.38	0.88	0.19	2.75	2.750
1020G	3.625	0.875	0.437	3.88	1.000	0.38	4.00	1.00	0.25	3.25	3.625
1025G	4.375	1.000	0.500	4.63	1.250	0.44	4.88	1.25	0.25	3.88	4.375
1030G	5.125	1.250	0.625	5.50	1.250	0.44	5.88	1.50	0.25	4.50	5.125
1035G	5.875	1.500	0.750	6.50	1.500	0.50	.	.	.	5.50	5.875
1040G	6.750	1.750	0.875	7.25	1.750	0.75	.	.	.	6.00	7.250
1045G	7.625	1.750	0.875	8.13	2.000	0.75	.	.	.	7.00	8.125
1050G	8.750	2.000	1.000	9.00	2.000	0.75	.	.	.	8.25	9.000
1055G	9.750	2.000	1.000	10.00	2.500	0.88	.	.	.	8.75	10.000
1060G	10.500	2.500	1.250	11.00	2.500	0.88	.	.	.	9.75	11.000
1070G	12.000	3.000	1.500	13.00	3.000	1.00	.	.	.	11.00	13.000

All Dimensions are in inches

Metric keyways and keyway radiuses will be furnished per ISO /R773

Engineering Data

Table - 12 Recommended Commercial Keys for Bores with One Key

Shaft Diameter		Key	Shaft Diameter		Key	Shaft Diameter		Key	Shaft Diameter		Key
Over	Through		Over	Through		Over	Through		Over	Through	
0.438	0.562	0.125x0.125	1.75	2.25	0.5x0.5	4.5	5.5	1.25x	11	13	3x2
0.562	0.875	0.188x0.188	2.25	2.75	0.625x0.625	5.5	6.5	1.5x	13	15	3.5x2.5
0.875	1.25	0.25x0.25	2.75	3.25	0.75x0.75	6.5	7.5	1.75x1.5	15	18	4x3
1.25	1.375	0.312x0.312	3.25	3.75	0.875x0.875	7.5	9	2x1.5	18	22	5x3.5
1.375	1.75	0.375x0.375	3.75	4.5	1x1	9	11	2.5x1.75			

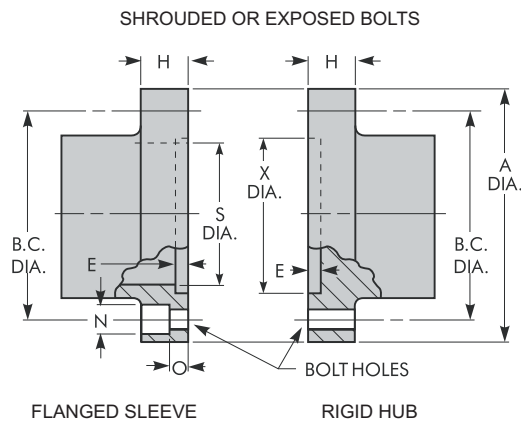


Table - 13 Flanged Sleeve and Rigid Hub Details

SIZE	A +0.000 -0.004	E ± .010	H	S ± .010	X ± .010	B.C	BOLT NO- DIA.	N	O	B.C.	BOLT NO-DIA
1010G		0.10	0.55	3.06	3.18	3.750	6-.250	0.46	0.25	3.75	6-.250
1015G	6.000	0.10	0.75	3.81	3.92	4.812	8-.375	0.58	0.25	4.81	8-.375
1020G	7.000	0.10	0.75	4.64	4.80	5.812	10-.375	0.58	0.25	5.88	6-.500
1025G	8.375	0.10	0.86	5.70	5.86	7.000	10-.500	0.78	0.32	7.13	6-.625
1030G	9.438	0.10	0.86	6.66	6.82	8.000	12-.500	0.78	0.32	8.13	8-.625
1035G	11.000	0.10	1.12	7.69	7.86	9.281	12-.625	0.97	0.40	9.50	8-.750
1040G	12.500	0.16	1.12	9.06	9.25	10.625	14-.625	0.97	0.40	11.00	8-.750
1045G	13.625	0.16	1.12	10.06	10.25	11.750	14-.625	0.97	0.40	12.00	10-.750
1050G	15.313	0.20	1.50	11.06	11.42	13.188	14-.750	1.16	0.56	13.50	8-.875
1055G	16.750	0.20	1.50	12.09	12.42	14.438	16-.750	1.16	0.56	14.50	14-.875



POWER DRIVE

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JAW COUPLING



Selection Procedure

Jaw Type Coupling Selection Process

The selection process for determining the proper jaw coupling size and elastomer requires using the table shown on the following pages. There are three components to be selected, two hubs and one elastomer. When the shaft size of the driver and driven of the application are of the same diameter, the hubs selected will be the same. When shaft diameters differ, hubs selected will differ accordingly

Information necessary before a coupling can be selected:

HP (or KW) and RPM or Torque of driver
 Shaft sizes of driver and driven equipment and corresponding keyways
 Application description
 Environmental conditions (i.e. extreme temperature, corrosive conditions, space limitations)

List of Tables provided for Selection:

Table 1 – Application Service Factors
 Table 2 – Spider Performance Data
 Table 3 – Nominal Rated Torque
 Table 4 - Elastomers Dimensional Data
 Table 5 - L Type Jaw Coupling Dimensions
 Table 6 - L Type Inch Bore/ Keyway
 Table 7 - L Type Metric Bore/ Keyway

Steps In Selecting A Jaw Coupling

Step 1:

Determine the Nominal Torque of your application by using the following formula:

$$\text{Nominal Torque} = \frac{(\text{HP} \times 63025)}{\text{RPM}} \text{ in-lb}$$

OR

$$\text{Nominal Torque} = \frac{(\text{KW} \times 9550)}{\text{RPM}} \text{ Nm}$$

Step 2:

Using the Application Service Factors Table- 1 (Page O-3) select the service factor which best corresponds to your application.

Step 3:

Calculate the Design Torque of your application by multiplying the Nominal Torque calculated in Step 1 by the Application Service Factor determined in Step 2.

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$

Step 4:

Using the Spider Performance Data Table-2 (Page O-4), select the elastomer material which best corresponds to your application.

Step 5:

Using the Jaw Nominal Rated Torque Table- 3 (Page O-4), locate the appropriate elastomer material column for the elastomer selected in Step 4.

Scan down this column to the first entry where the Torque Value in the appropriate column is greater than or equal to the Design Torque calculated in Step 3.

Once this value is located, refer to the corresponding coupling size in the first column of the Jaw Nominal Rated Torque Table-3 (page O-4)

Step 6:

Compare the application driver/driven shaft sizes to the maximum bore size available on the coupling selected. If coupling bore size is not large enough for the shaft diameter, select the next largest coupling that will accommodate the driver/driven shaft diameters. Refer to Table- 3 (Page O-4).

Step 7:

Using L Type Bore/ Keyway Tables (Inch/Metric size-pages O-6&7), find the appropriate Bore and Keyway sizes required and check all dimensions which are given in table 4-5 and (Page O-5&6).
 Select appropriate coupling as per your application.

Selection Procedure Example

Example:

A coupling is needed to connect a 20 HP standard electric motor rated at 1,800 RPM to a rotary pump. The shaft size of the electric motor (driver) is 2.0 inches and the pump (driven) is 1.75 inches. There are no special environmental conditions and the general operating temperature is normal room temperature of 72° F. Less than 1° of misalignment is expected.

Step 1:

$$\begin{aligned} \text{Determine the Nominal Torque:} \\ \text{Nominal Torque} &= \frac{(\text{HP} \times 63025)}{\text{RPM}} \\ &= \frac{(20 \times 63025)}{1800} \\ &= 700.28 \text{ in-lb} \end{aligned}$$

Step 2:

Using the Application Service Factors Table 1 (Page O-3), select the service factor which best corresponds to your application. The Application Service Factor for an electric motor with standard torque driving a rotary pump is 1.25. The value of 1.25 is found under the application category Pumps, Rotary, column: Electric Motor w/Standard Torque in Table 3.

Step 3:

Calculate the Design Torque of your application:

$$\begin{aligned} \text{Design Torque} &= \text{Nominal Torque} \times \text{Service Factor} \\ &= 700.28 \times 1.25 \\ &= 875.35 \text{ in-lb} \end{aligned}$$

Step 4:

Using the Spider Performance Data Table 2 (Page O-4), select the elastomer material which best corresponds to your application. Since there are no special environmental conditions, the operating temperature is 72° F and less than 1° of angular misalignment is required, the NBR elastomer material is selected.

Step 5:

Using the Jaw Nominal Rated Torque Table 3 (Page O-4), the NBR elastomer column is used to determine the proper coupling size. Scanning down the NBR column, the first entry to accommodate the Design Torque value of 875.35 in-lb is the size L 150 with a nominal torque rating of 1,240 in-lb.

Step 6:

Compare the application driver/driven shaft size to the maximum bore available in the coupling selected (Page O-4). The electric motor (driver) of this application has a shaft size of 2.0 inches and the pump (driven) has a shaft size of 1.75 inches. The L150 coupling has a maximum bore less than the driver shaft size. Continuing down the Maximum Bore column, in Table 3 (Page O-4), the L190 size is found to have a maximum bore size of 2.125 and is able to accommodate the driver/driven shaft sizes. Therefore, the proper coupling size for this application is a L190 with an NBR elastomer.

Step 7:

Using the L Type Inch Bore / Keyway Selection table, select the appropriate Bore / Keyway size which is Available or not check it in Table-6 (Page O-7). The L Type Spider Table-4 (page O-5), and the L Type hub table-5 (page O-6), provides easy reference to the L Type Hub / Keyway table-6.

Locate the L Type Hub Table-6 (Page O-7). The first bore size to be located is for the 2 inch shaft on the electric motor. Scan down the Bore/Keyway column to the 2 inch bore entry. Read across to the L190 column.

The second bore size to be located is for the 1.75 inch shaft on the pump. Scan down the Bore/Keyway column to the 1-3/4 inch bore entry. Read across to the L190 column.

Service Factors

Table 1

Service Factors						Service Factors						Service Factors					
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & Engines w/4 or more cyl*	Reciprocating Engines*			Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & Engines w/4 or more cyl*	Reciprocating Engines*			Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & Engines w/4 or more cyl*	Reciprocating Engines*	
				1Cyl	2Cyl					1Cyl	2Cyl					1Cyl	2Cyl
Agitators	1.00	1.25	1.00	1.7	1.3	Feeders											
Band Resaw (lumber)	1.50	1.75	1.50	2.2	1.8	Belt, Screw.....	1.00	1.25	1.00	1.7	1.3	Beater, Pulper,					
Barge Haul Puller	2.00	2.25	2.00	2.7	2.3	Reciprocating.....	2.50	2.75	2.50	3.2	2.8	Jordans, Dresses.....	2.00	2.25	2.00	2.7	2.3
Beaters	1.50	1.75	1.50	2.2	1.8	Filter, Press-oil	1.50	1.75	1.50	2.2	1.8	Calenders, Dryers, Washers,					
Blowers						Generators						Thickener.....	1.50	1.75	1.50	2.2	1.8
Centrifugal.....	1.00	1.25	1.00	1.7	1.3	Not Welding.....	1.00	1.25	1.00	1.7	1.3	Converting Machines,					
Lobe, Vane.....	1.25	1.50	1.25	2.0	1.6	Welding.....	2.00	2.25	2.00	2.7	2.3	Conveyors.....	1.20	1.45	1.20	1.9	1.5
Bottling Machinery	1.25	1.50	1.25	2.0	1.6	Hoist.....	1.50	1.75	1.50	2.2	1.8	Printing Presses	1.50	1.75	1.50	1.7	1.3
Brew Kettles (distilling).....	1.25	1.50	1.25	2.0	1.6	Hammermills	2.00	2.25	2.00	2.7	2.3	Pug Mill	1.75	2.00	1.75	2.0	1.6
Can Filling Machinery	1.00	1.25	1.00	1.7	1.3	Kilns	1.50	1.75	1.50	2.2	1.8	Pumps					
Car Dumpers	2.50	2.75	2.50	3.2	2.8	Laundry Washers —						Centrifugal.....	1.00	1.25	1.00	1.7	1.3
Car Pullers	1.50	1.75	1.50	2.2	1.8	Reversing.....	2.00	2.25	2.00	2.7	2.3	Gear, Rotary, Vane.....	1.25	1.50	1.25	2.0	1.6
Card Machine	1.75	2.00	1.75	2.5	2.0	Lumber Machinery						Reciprocating:					
Chiller (oil)	1.50	2.00	1.25	2.0	2.0	Barkers, Edger Feeder,						1—Cyl. Single or					
Compressors						Live Roll.....	2.00	2.25	2.00	2.7	2.3	Double Acting.....	2.00	2.25	2.00	2.7	2.3
Centrifugal.....	1.00	1.25	1.00	1.7	1.3	Planer, Slab Conveyor...	2.00	2.25	2.00	2.7	2.3	2—Cyl. Single Acting....	2.00	2.25	2.00	2.7	2.3
Screw, Lobe.....	1.25	1.50	1.25	2.0	1.6	Machine Tools						2—Cyl. Double Acting.....	1.75	2.00	1.75	2.5	2.0
Reciprocating.....	See Note					Punch Press-gear Driven,						3 or more Cyl.....	1.50	1.75	1.50	2.2	1.8
Conveyors, Uniformly Fed						Plate Planer.....	2.00	2.25	2.00	2.7	2.3	Rubber Machinery					
Assembly, Belt, Screw...	1.00	1.25	1.00	1.7	1.3	Tapping Machinery,						Mixers.....	2.50	2.75	2.50	3.2	2.8
Bucket, Sawdust.....	1.25	1.50	1.25	2.0	1.6	Bending Roll.....	2.00	2.25	2.00	2.7	2.3	Rubber Calender.....	2.00	2.25	2.00	2.7	2.3
Live Roll, Shaker,						Main Drive.....	1.50	1.75	1.50	2.2	1.8	Screens					
Reciprocating.....	3.00	3.25	3.00	3.7	3.3	Auxiliary Drives.....	1.00	1.25	1.00	1.7	1.3	Air washing, Water.....	1.00	1.25	1.00	1.7	1.3
Conveyors, Not Uniformly Fed						Metal Forming Machines						Rotary—stone or gravel,					
Assembly, Belt,						Draw Bench-carriage						Dewatering.....	1.50	1.75	1.50	2.2	1.8
Oven, Screw.....	1.20	1.45	1.20	1.9	1.5	& Main Drive.....	2.00	2.25	2.00	2.7	2.3	Vibrating.....	2.50	2.75	2.50	3.2	2.8
Reciprocating.....	2.50	2.75	2.50	3.2	2.8	Extruder, Forming Machine,						Grizzly.....	2.00	2.25	2.00	2.7	2.3
Shaker.....	3.00	3.25	3.00	3.7	3.3	Wire Drawing.....	2.00	2.25	2.00	2.7	2.3	Shredders	1.50	1.75	1.50	2.2	1.8
Cookers—Brewing, Distilling,						Table Conveyors.....	2.50	2.75	2.50	3.2	2.8	Steering Gears	1.00	1.25	1.00	1.7	1.3
Food.....	1.25	1.50	1.25	2.0	1.6	Wire Winding, Coilers,						Stokers	1.00	1.25	1.00	1.7	1.3
Cranes & Hoist 1.....	2.00	2.25	2.00	2.7	2.3	Slitters.....	1.50	1.75	1.50	2.2	1.8	Suction Roll (paper)	1.50	1.75	1.50	2.2	1.8
Crushers—Cane (sugar), Stone, or Ore						Mills, Rotary Type						Textile Machinery					
.....	3.00	3.25	3.00	3.7	3.3	Ball, Kilns, Pebble,						Dryers, Dyeing Machinery,					
Dredges						Rolling, Tube.....	2.00	2.25	2.00	2.7	2.3	Mangle.....	1.20	1.45	1.20	2.0	1.6
Cable reels.....	2.00	2.25	2.00	2.7	2.3	Cement Kilns,						Loom, Spinner,					
Conveyors, Pumps,						Dryers, Coolers.....	2.00	2.25	2.00	2.7	2.3	Tenter frames.....	1.50	1.75	1.50	2.2	1.8
Maneuvering Winches..	1.50	1.75	1.50	2.2	1.8	Tumbling.....	1.50	1.75	1.50	2.2	1.8	Tumbling Barrels	1.75	2.00	1.75	2.5	2.0
Cutter Head Drives.....	2.50	2.75	2.50	3.2	2.8	Mixers						Windlass	2.00	2.25	2.00	2.7	2.3
Dynamometer	1.50	1.75	1.50	2.2	1.8	Concrete, continuous....	1.75	2.00	1.75	2.5	2.0	Woodworking Mach.	1.00	1.25	1.00	1.7	1.3
Evaporators	1.00	1.25	1.00	1.7	1.3	Muller.....	1.50	1.75	1.50	2.2	1.8						
Fans						Paper Mills											
Centrifugal.....	1.00	1.25	1.00	1.7	1.3	Agitator (mixers),											
Cooling Towers.....	2.00	2.25	2.00	2.7	2.3	Reel, Winder.....	1.20	1.45	1.20	1.9	1.5						
Forced Draft,						Winder.....	1.20	1.45	1.20	1.9	1.5						
Propeller.....	1.50	1.75	1.50	2.2	1.8	Barker (mechanical),											
Induced draft						Log Haul, Chipper.....	2.00	2.25	2.00	2.7	2.3						
w/damper control.....	2.00	2.25	2.00	2.7	2.3	Barking Drum											
Induced draft w/o						(spur gear).....	2.50	2.75	2.50	3.2	2.8						
damper control.....	1.25	1.50	1.25	2.0	1.6	Beater, Pulper,											

Performance Data & Nominal Rated Torque Data

Performance Data

Table 2

Characteristics	Temperature Range	Misalignment		Shore Hardness	Dampening Capacity	Chemical Resistance ²	Color
		Angular Degree	Parallel Inch				
SOX (NBR) Rubber – Nitrile Butadiene (Buna N) Rubber is a flexible elastomer material that is oil resistant, resembles natural rubber in resilience and elasticity and operates effectively in temperature range of -40° to 212° F (-40° to 100° C). Good resistance to oil. Standard elastomer. (Also applies to SXB Cushions.)	-40° to 212° F -40° to 100° C	1°	0.015	80A	HIGH	GOOD	BLACK
URETHANE – Urethane has greater torque capability than NBR (1.5 times), provides less dampening effect, and operates at a temperature range of -30° to 160° F (-34° to 71° C). Good resistance to oil and chemicals. Not recommended for cyclic or start/stop applications.	-30° to 160° F -34° to 71° C	1°	0.015	55D L050-L110 90-95A L150-L225	LOW	VERY GOOD	BLUE
HYTREL® – Hytrel is a flexible elastomer designed for high torque and high temperature operations. Hytrel can operate in temperatures of -60° to 250° F (-51° to 121° C) and has an excellent resistance to oil and chemicals. Not recommended for cyclic or start/stop applications.	60° to 250° F 51° to 121° C	1/2°	0.015	55D	LOW	EXCELLENT	TEN

Nominal Rated Torque Data

Table 3

Size	Max Bore		Spider Material					
	in	mm	SOX (NBR) Torque		Urethane Torque		Hytrel Torque	
			in-lbs	Nm	in-lbs	Nm	in-lbs	Nm
L035	0.375	9	3.5	0.4	—	—	—	—
L050	0.625	16	26.3	3	39	4.5	50	5.6
L070	0.75	19	43.2	4.9	65	7.3	114	12.9
L075	0.875	22	90	10.2	135	15.3	227	25.6
L090	1	25	144	16.3	216	24.4	401	45.3
L095	1.125	28	194	21.9	291	32.9	561	63.4
L099	1.188	30	318	35.9	477	53.9	792	89.5
L100	1.375	35	417	47.1	626	70.7	1,134	128
L110	1.625	42	792	89.5	1,188	134	2,268	256
L150	1.875	48	1,240.00	140	1,860	210	3,708	419
L150	1.875	48	1,450.00	163.8	—	—	—	—
L190	2.125	55	1,728.00	195	2,592	293	4,680	529
L225	2.625	65	2,340.00	264	3,510	397	6,228	704

Elastomers Dimensional Data

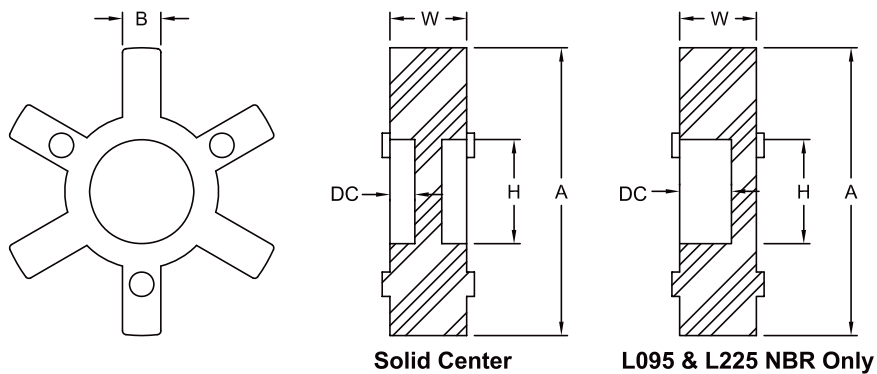
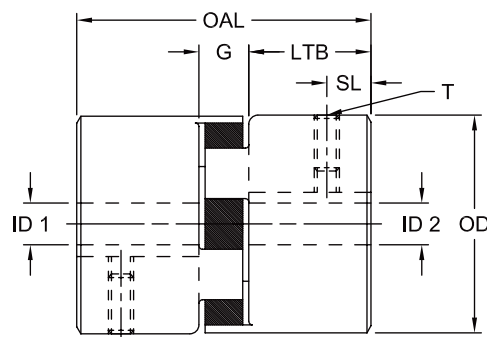


Table 4

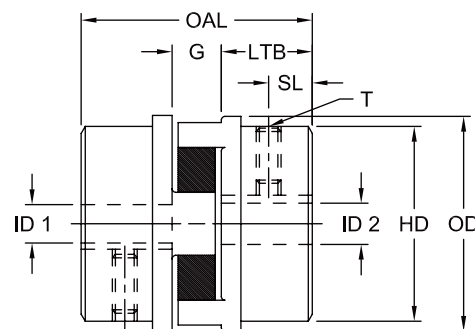
Size	Solid Center Spiders							
	Material Available			A	DC	H	W	B
	NBR SOX	Urethane URE	Hytrel® HYT					
L035	X	X	-	0.62	-	-	0.28	0.21
L050	X	X	X	1.07	-	-	0.42	0.27
L070	X	X	X	1.38	-	-	0.42	0.27
L075	X	X	X	1.75	-	-	0.44	0.27
L090/L095	X	X	X	2.12	0.18	0.88	0.44	0.36
L099/L100	X	X	X	2.54	0.25	1.03	0.61	0.43
L110	X	X	X	3.31	NBR.25 HYT.18	1.19	0.75	0.45
L150	X	X	X	3.75	NBR.31 HYT.21	1.25	0.88	0.59
L190	X	X	X	4.5	NBR.31 HYT.18	1.38	0.88	0.60
L225	X	X	X	4.98	NBR.38 HYT.18	1.75	0.88	0.73

X indicates available & - indicates not available.
All dimensions are in inch.

L Type Jaw Coupling



Style 1



Style 2

Table 5

Size	Type	OAL in	G in	LTB in	SL in	T in	ID1-ID2				OD in	HD in	Min Bore lbs	Max bore lbs	Moment of inertia (Solid) WR ² lb-in ²
							Min Bore		Max. Bore						
							in	mm	in	mm					
L035	1	0.81	0.28	0.27	0.13	6-32	0.125	3	0.375	10	0.63	0.63	0.1	0.1	0.003
L050	1	1.71	0.48	0.62	0.31	1/4-20	0.25	6	0.625*	16	1.08	1.08	0.3	0.2	0.054
L070	1	1.98	0.48	0.75	0.38	1/4-20	0.25	6	0.75	19	1.36	1.36	0.6	0.4	0.115
L075	1	2.13	0.5	0.82	0.31	1/4-20	0.25	6	0.875	22	1.75	1.75	1	0.8	0.388
L090	1	2.15	0.52	0.82	0.44	1/4-20	0.25	6	1	25	2.11	2.11	1.5	1.2	0.772
L095	1	2.51	0.52	1	0.44	5/16-18	0.437	11	1.125	29	2.11	2.11	1.8	1.3	0.89
L099	1	2.84	0.71	1.06	0.44	5/16-18	0.437	11	1.188	30	2.54	2.54	2.5	2	2.048
L100	1	3.48	0.71	1.38	0.44	5/16-18	0.437	11	1.375	35	2.54	2.54	3.2	2.4	2.783
L110	1	4.22	0.88	1.68	0.75	3/8-16	0.625	16	1.625	41	3.32	3.32	6.6	5.3	8.993
L150	1	4.5	1	1.75	0.75	3/8-16	0.625	16	1.875	48	3.75	3.75	8.8	7	11.477
L190	2	4.86	1	1.94	0.88	1/2-13	0.75	19	2.125	54	4.5	4	15.3	12.3	39.256
L225	2	5.34	1	2.18	1	1/2-13	0.75	19	2.625	67	5	4.25	19.6	15	65
L276	2	7.82	1.58	3.12	1.56	1/2-13	0.875	22	2.875	73	6.18	5	40	30.5	188

Notes:

* indicate without keyway

hubs are standard with one set screw.

L Type Inch Bore / Keyway**Table 6**

Bore	Keyway	L035	L050	L075	L075	L090	L095	L099	L100	L110	L150	L190	L225
1/8	No Keyway	x	—	—	—	—	—	—	—	—	—	—	—
3/16	No Keyway	x	—	—	—	—	—	—	—	—	—	—	—
1/4	No Keyway	x	x	x	x	x	—	—	—	—	—	—	—
1/4	1/8 x 1/16	—	—	—	x	—	—	—	—	—	—	—	—
5/16	No Keyway	x	x	x	x	x	—	—	—	—	—	—	—
3/8	No Keyway	x	x	x	x	x	—	—	—	—	—	—	—
3/8	3/32 x 3/64	—	x	x	x	x	—	—	—	—	—	—	—
3/8	1/8 x 1/16	—	x	x	x	x	—	—	—	—	—	—	—
7/16	No Keyway	—	x	x	x	x	x	x	x	—	—	—	—
7/16	3/32 x 3/64	—	x	x	x	x	x	x	x	—	—	—	—
7/16	1/8 x 1/16	—	—	x	x	x	x	x	x	—	—	—	—
1/2	No Keyway	—	x	x	x	x	x	x	x	—	—	—	—
1/2	1/8 x 1/16	—	x	x	x	x	x	x	x	—	—	—	—
9/16	No Keyway	—	x	x	x	x	x	x	x	—	—	—	—
9/16	1/8 x 1/16	—	x	x	x	x	x	x	x	—	—	—	—
5/8	No Keyway	—	x	x	x	x	x	x	x	x	x	—	—
5/8	5/32 x 5/64	—	—	x	x	x	x	x	x	x	x	—	—
5/8	3/16 x 3/32	—	—	x	x	x	x	x	x	x	x	—	—
11/16	3/16 x 3/32	—	—	x	x	x	x	x	x	x	x	—	—
3/4	No Keyway	—	—	x	x	x	x	x	x	—	—	x	x
3/4	1/8 x 1/16	—	—	x	x	x	x	x	x	x	x	x	—
3/4	3/16 x 3/32	—	—	x	x	x	x	x	x	x	x	x	x
13/16	3/16 x 3/32	—	—	—	x	x	x	x	x	x	x	x	x
7/8	No Keyway	—	—	—	x	—	—	x	—	—	—	—	—
7/8	3/16 x 3/32	—	—	—	x	x	x	x	x	x	x	x	x
7/8	1/4 x 1/8	—	—	—	—	x	x	x	x	x	x	x	x
15/16	1/4 x 1/8	—	—	—	—	x	x	x	x	x	x	x	x
1	1/4 x 1/8	—	—	—	—	x	x	x	x	x	x	x	x
1	3/16 x 3/32	—	—	—	—	x	x	x	x	x	x	x	x
1-1/16	1/4 x 1/8	—	—	—	—	—	x	x	x	x	x	x	x
1-1/8	1/4 x 1/8	—	—	—	—	—	x	x	x	x	x	x	x
1-3/16	1/4 x 1/8	—	—	—	—	—	—	x	x	x	x	x	x
1-1/4	1/4 x 1/8	—	—	—	—	—	—	—	x	x	x	x	x
1-1/4	5/16 x 5/32	—	—	—	—	—	—	—	x	x	x	x	x
1-5/16	5/16 x 5/32	—	—	—	—	—	—	—	x	x	x	x	x
1-3/8	5/16 x 5/32	—	—	—	—	—	—	—	x	x	x	x	x
1-3/8	3/8 x 3/16	—	—	—	—	—	—	—	x	x	x	x	x
1-7/16	3/8 x 3/16	—	—	—	—	—	—	—	—	x	x	x	x
1-1/2	5/16 x 5/32	—	—	—	—	—	—	—	—	x	x	x	x
1-1/2	3/8 x 3/16	—	—	—	—	—	—	—	—	x	x	x	x
1-9/16	3/8 x 3/16	—	—	—	—	—	—	—	—	x	x	x	x
1-5/16	3/8 x 3/16	—	—	—	—	—	—	—	—	x	x	x	x
1-11/16	3/8 x 3/16	—	—	—	—	—	—	—	—	—	x	x	x
1-3/4	3/8 x 3/16	—	—	—	—	—	—	—	—	—	x	x	x
1-3/4	7/16 x 7/32	—	—	—	—	—	—	—	—	—	x	x	x
1-13/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	x	x	x
1-7/8	1/2 x 1/4	—	—	—	—	—	—	—	—	—	x	x	x
1-15/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	x	x
2	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	x	x
2-1/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	x	x
2-1/8	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	x	x
2-3/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	—	x
2-1/4	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	—	x
2-3/8	5/8 x 5/16	—	—	—	—	—	—	—	—	—	—	—	x
2-5/8	5/8 x 5/16	—	—	—	—	—	—	—	—	—	—	—	x
2-7/8	3/4 x 3/8	—	—	—	—	—	—	—	—	—	—	—	—

Note:

x Available Size

- Not Available

L Type Metric Bore / Keyway**Table 7**

Bore	keyway	L035	L050	L075	L075	L090	L095	L099	L100	L110	L150	L190	L225
4	No Keyway	x	—	—	—	—	—	—	—	—	—	—	—
5	No Keyway	x	x	—	—	—	—	—	—	—	—	—	—
6	No Keyway	x	x	—	—	—	—	—	—	—	—	—	—
7	No Keyway	x	x	x	—	—	—	—	—	—	—	—	—
8	No Keyway	x	x	x	—	x	—	—	—	—	—	—	—
9	3 × 1.4	—	x	x	x	—	—	—	—	—	—	—	—
10	No Keyway	—	x	x	x	—	—	—	—	—	—	—	—
10	3 × 1.4	—	x	x	x	x	—	—	—	—	—	—	—
11	4 × 1.8	—	x	x	x	—	x	—	—	—	—	—	—
12	No Keyway	—	x	x	—	x	—	—	—	—	—	—	—
12	4 × 1.8	—	x	x	x	x	x	—	x	—	—	—	—
14	No Keyway	—	x	x	—	x	x	—	—	—	—	—	—
14	5 × 2.3	—	x	x	x	x	x	x	x	—	—	—	—
15	No Keyway	—	x	—	x	—	x	x	x	—	—	—	—
15	5 × 2.3	—	x	x	x	x	x	x	x	—	—	—	—
16	5 × 2.3	—	x	x	x	x	x	x	x	x	x	—	—
17	5 × 2.3	—	—	x	x	—	x	—	x	x	x	—	—
18	6 × 2.8	—	—	x	x	x	x	x	x	x	—	—	—
19	No Keyway	—	—	—	—	x	—	—	—	x	—	—	—
19	6 × 2.8	—	—	x	x	x	x	x	x	x	x	x	—
20	6 × 2.8	—	—	—	x	x	x	x	x	x	x	x	—
22	6 × 2.8	—	—	—	x	x	x	x	x	x	x	—	—
24	8 × 3.3	—	—	—	—	x	x	x	x	x	x	x	—
25	8 × 3.3	—	—	—	—	x	x	x	x	x	x	x	—
28	No Keyway	—	—	—	—	—	—	—	—	—	x	x	—
28	8 × 3.3	—	—	—	—	—	x	x	x	x	x	x	—
30	8 × 3.3	—	—	—	—	—	—	x	x	x	x	x	x
32	No Keyway	—	—	—	—	—	—	—	—	—	x	x	x
32	10 × 3.3	—	—	—	—	—	—	—	—	—	x	x	x
35	No Keyway	—	—	—	—	—	—	—	x	x	x	x	x
35	10 × 3.3	—	—	—	—	—	—	—	—	—	x	x	x
38	10 × 3.3	—	—	—	—	—	—	—	x	x	x	x	x
40	12 × 3.3	—	—	—	—	—	—	—	—	x	x	x	x
42	12 × 3.3	—	—	—	—	—	—	—	—	x	x	x	x
45	14 × 3.8	—	—	—	—	—	—	—	—	x	x	x	x
48	No Keyway	—	—	—	—	—	—	—	—	—	x	—	—
48	14 × 3.8	—	—	—	—	—	—	—	—	—	x	x	x
50	No Keyway	—	—	—	—	—	—	—	—	—	—	x	x
50	14 × 3.8	—	—	—	—	—	—	—	—	—	—	x	x
55	No Keyway	—	—	—	—	—	—	—	—	—	—	x	x
55	16 × 4.3	—	—	—	—	—	—	—	—	—	—	x	x
60	No Keyway	—	—	—	—	—	—	—	—	—	—	—	x
60	18 × 4.4	—	—	—	—	—	—	—	—	—	—	—	x
65	No Keyway	—	—	—	—	—	—	—	—	—	—	—	—
65	18 × 4.4	—	—	—	—	—	—	—	—	—	—	—	x
70	20 × 4.9	—	—	—	—	—	—	—	—	—	—	—	—

Note:

x Available Size

- Not Available