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.

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

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:

Minimum Coupling Rating = S.F. x Torque(lb-in)

4. Find Design Hp:
Determine the Design Hp rating as shown below.
Design Hp = S.F. x 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 form 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:

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

2. SERVICE FACTOR:
From Table-3, N-3 for maneuvering winch S.F.=1.5

3. REQUIRED MINIMUM COUPLING RATING:
1.5 x 26,923 lb-in = 40,385 lb-in

4. Find Design Hp:
1.5 x 500hp=750hp

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

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.

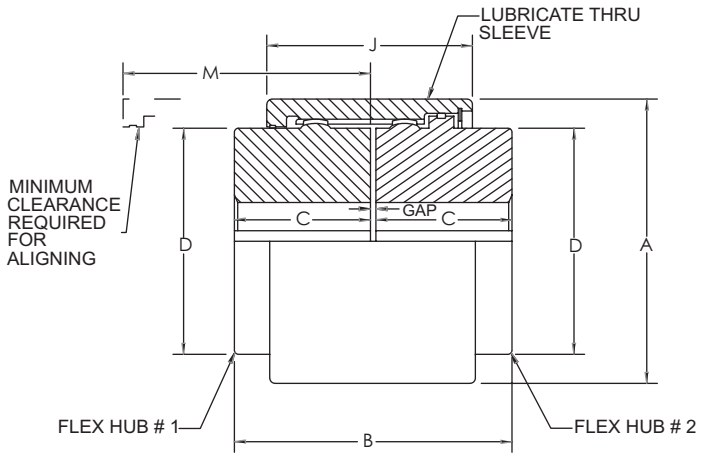
Alphabetical listing of applications

	Service Factor
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 cly., 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

Alphabetical listing of industries

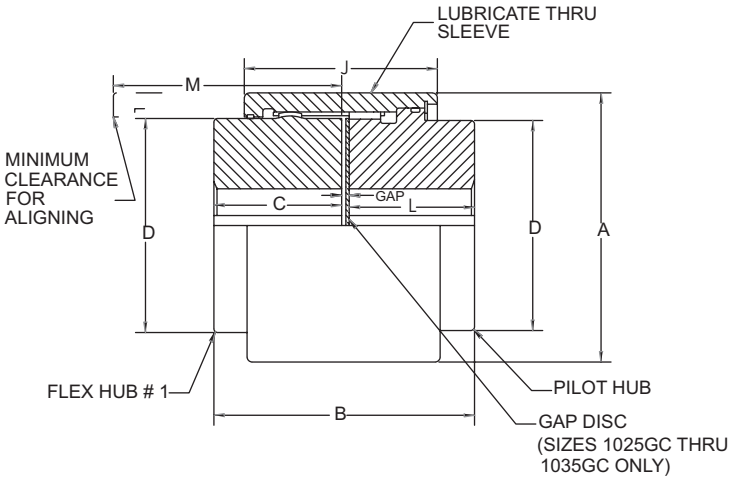
	Service Factor
AGGREGATE PROCESSING, CEMENT, MINING KILNS; TUBE, ROD AND BALL MILLS	
Direct or on L.S. shaft of Reducer, with final drive	
Machined Spur Gears	2.0
Single Helical or Herringbone Gears	1.75
Conveyors, Feeders, Screens, Elevators	See General Listing
Crushers, Ore or Stone	2.5
Dryer, Rotary	1.75
Grizzly	2.0
Hammermill or Hog	1.75
Tumbling Mill or Barrel	1.75
BREWING AND DISTILLING	
Bottle and Can Filling Machines	1.0
Brew Kettle	1.0
Cookers, Continuous Duty	1.25
Lauter Tub	1.5
Mash Tub	1.25
Scale Hopper, Frequent Peaks	1.75
CLAY WORKING INDUSTRY	
Brick Press, Briquette Machine, Clay Working Machine, Pug Mill	1.75
DREDGES	
Cable Reel	1.75
Conveyors	1.25
Cutter head, Jig Drive	2.0
Maneuvering Winch	1.5
Pumps (uniform load)	1.5
Screen Drive, Stacker	1.75
Utility Winch	1.5
FOOD INDUSTRY	
Beet Slicer	1.75
Bottling, Can Filling Machine	1.0
Cereal Cooker	1.25
Dough Mixer, Meat Grinder	1.75
LUMBER	
Band Resaw	1.5
Circular Resaw, Cut-off	1.75
Edger, Head Rig, Hog	2.0
Gang Saw (Reciprocating)	Refer to Factory
Log Haul	2.0
Planer	1.75
Rolls, Non-Reversing	1.25
Rolls, Reversing	2.0
Sawdust Conveyor	1.25
Slab Conveyor	1.75
Sorting Table	1.5
Trimmer	1.75
METAL ROLLING MILLS	
Coilers (Up or Down) Cold Mills only	1.5
Coilers (Up or Down) Hot Mills only	2.0
Coke Plants	
Pusher Ram Drive	2.5
Door Opener	2.0
Pusher or Larry Car Traction Drive	3.0
Continuous Caster	1.75
Cold Mills —	
Strip Mills	Refer to Factory
Temper Mills	Refer to Factory
Cooling Beds	1.5
Drawbench	2.0
Feed Rolls - Blooming Mills	3.0
Furnace Pushers	2.0
Hot and Cold Saws	2.0
Hot Mills —	
Strip or Sheet Mills	Refer to Factory
Reversing Blooming	Refer to Factory
or Slabbing Mills	Refer to Factory
Edger Drives	Refer to Factory
Ingot Cars	2.0
Manipulators	3.0
Merchant Mills	Refer to Factory
Mill Tables	
Roughing Breakdown Mills	3.0
Hot Bed or Transfer, non-reversing	1.5
Runout, reversing	3.0
Runout, non-reversing, non-plugging	2.0
Reel Drives	1.75
Rod Mills	Refer to Factory
Screwdown	2.0
Seamless Tube Mills	
Piercer	3.0
Thrust Block	2.0
Tube Conveyor Rolls	2.0
Reeler	2.0
Kick Out	2.0
Shear, Croppers	Refer to Factory
Sideguards	3.0
Skelp Mills	Refer to Factory
Slitters, Steel Mill only	1.75
Soaking Pit Cover Drives —	
Lift	1.0
Travel	2.0
Straighteners	2.0
Unscramblers (Billet Bundle Busters)	2.0
Wire Drawing Machinery	1.75
OIL INDUSTRY	
Chiller	1.25
Oilwell Pumping (not over 150% peak torque)	2.0
Paraffin Filter Press	1.5
Rotary Kiln	2.0
PAPER MILLS	
Barker Auxiliary, Hydraulic	2.0
Barker, Mechanical	2.0
Barking Drum	
L.S. shaft of reducer with final drive - Helical or Herringbone Gear	2.0
Machined Spur Gear	2.5
Cast Tooth Spur Gear	3.0
Beater & Pulper	1.75
Bleachers, Coaters	1.0
Calender & Super Calender	1.75
Chipper	2.5
Converting Machine	1.25
Couch	1.75
Cutter, Felt Whipper	2.0
Cylinder	1.75
Dryer	1.75
Felt Stretcher	1.25
Fourdrinier	1.75
Jordan	2.0
Log Haul	2.0
Line Shaft	1.5
Press	1.75
Pulp Grinder	1.75
Reel, Rewinder, Winder	1.5
Stock Chest, Washer, Thickener	1.5
Stock Pumps, Centrifugal	
Constant Speed	1.0
Frequent Speed Changes Under Load	1.25
Suction Roll	1.75
Vacuum Pumps	1.25
RUBBER INDUSTRY	
Calender	2.0
Cracker, Plasticator	2.5
Extruder	1.75
Intensive or Banbury Mixer	2.5
Mixing Mill, Refiner or Sheeter	
One or two in line	2.5
Three or four in line	2.0
Five or more in line	1.75
Tire Building Machine	2.5
Tire & Tube Press Opener (Peak Torque)	1.0
Tuber, Strainer, Pelletizer	1.75
Warming Mill	
One or two Mills in line	2.0
Three or more Mills in line	1.75
Washer	2.5
SEWAGE DISPOSAL EQUIPMENT	
Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector	1.0
SUGAR INDUSTRY	
Cane Carrier & Leveler	1.75
Cane Knife & Crusher	2.0
Mill Stands, Turbine Driver With all helical or Herringbone gears	1.5
Electric Drive or Steam Engine Drive with Helical, Herringbone, or Spur Gears with any Prime Mover	1.75
TEXTILE INDUSTRY	
Batcher	1.25
Calender, Card Machine	1.5
Cloth Finishing Machine	1.5
Dry Can, Loom	1.5
Dyeing Machinery	1.25
Knitting Machine	Refer to Factory
Mangle, Napper, Soaper	1.25
Spinner, Tenter Frame, Winder	1.5

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 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

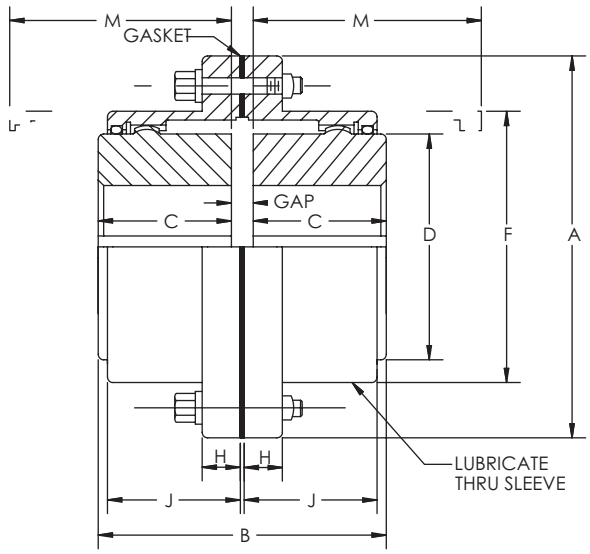
Gear Coupling Nomenclature

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 WtWith 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

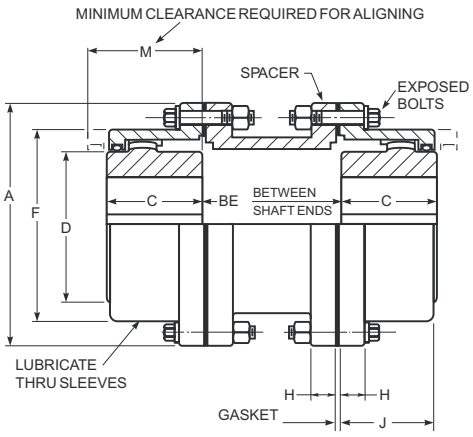
Gear Coupling Nomenclature

Type-G

1010	G	20
Size	PRODUCT TYPE CLASSIFICATION	Type

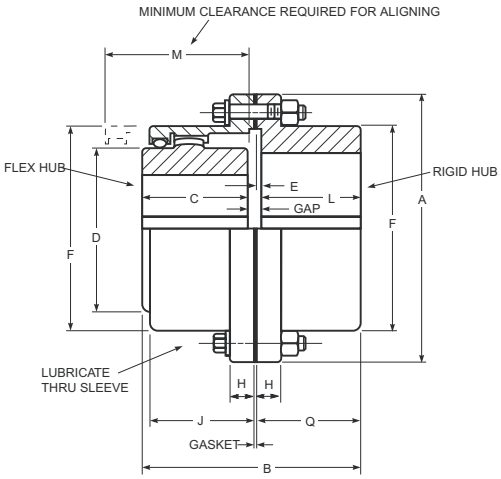
Gear — Standard Flanged Sleeve
G20 = Double Engagement
G32 = Spacer (Shrouded/Exposed)
G52 = Insulated Single Engagement/Floating Shaft (Exposed)
GV20 = Vertical Double Engagement

Flange Sleeve Coupling Type G32 & G52



Type - G32

Spacer type



Type - G52

Single Engagement

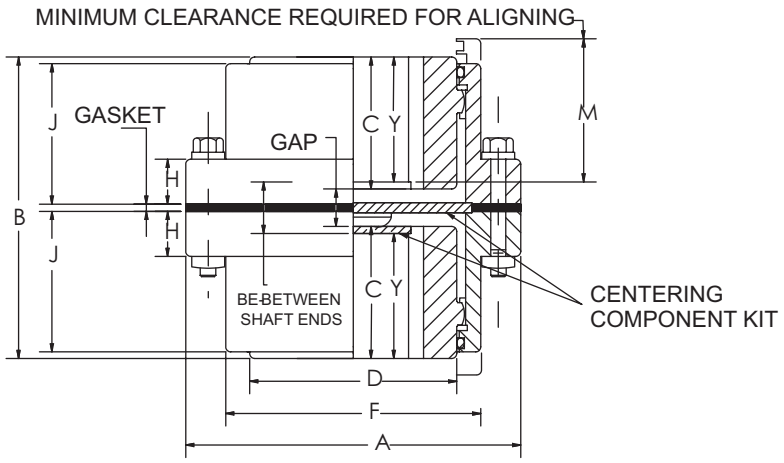
Table 7

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

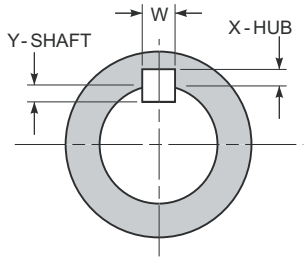
Table 9

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

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

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			

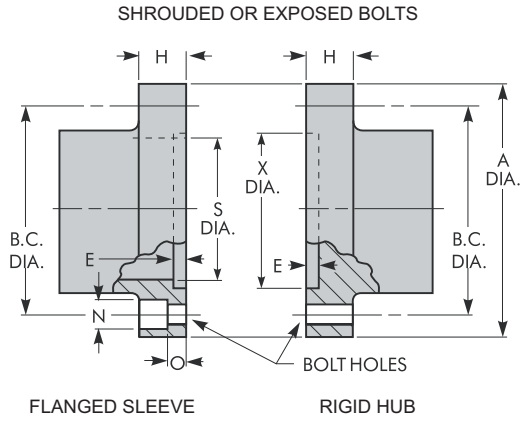


Table - 13 Flanged Sleeve and Rigid Hub Details

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