

KCP

Gear Couplings

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KOREA COUPLING CO., LTD.
PTE Manufacturer, Sales & Trade Biz

Coupling Selection

How to Select

Standard Selection

The Standard Selection may be used for engine driven, motor, or turbine applications. The following information is required:

- Application or equipment type (motor to pump, reducer to conveyor, etc.)
- Shaft diameters (mm)
- Gaps between shafts (mm)
- Speed (RPM)
- Horsepower or torque (Nm)

1. Rating : Determine system torque. Torque is calculated as follows :

$$\text{I . Torque (Nm)} = \frac{\text{kW} \times 9,550}{\text{RPM}} \quad \text{II . Torque (Kg.m)} = \frac{\text{kW} \times 974}{\text{RPM}}$$

2. Service Factor : Determine appropriate service factor from page. 5-6

3. Minimum Coupling Rating : Determine the required minimum coupling rating as follows :

$$\text{Minimum Coupling Rating} = \text{Service Factor} \times \text{Torque (Nm)}$$

4. Type : Select the appropriate coupling type

5. Size : Trace the Torque column to find the value that is equal or greater than value from Step 3.

6. Check : Check speed (RPM), bore, gap and dimensions.

Formula Selection

The Standard Selection should be used for most coupling selections.

The Formula Selection procedure below should be used for:

- High Peak Loads.
- Brake Applications (Brake disc or brake wheel is an integral part of coupling)

Using the Formula Selection and providing system peak torque and frequency, duty cycle, and brake torque rating will allow for a more refined selection.

1. High Peak Loads : Use formula A or B for applications which involve motors with higher than normal torque characteristics. Applications should also be those with intermittent operations, including shock loading, inertia effects due to starting and stopping, system-induced repetitive high peak torques. System Peak Torque is the maximum torque that can exist in the system. Select a coupling with a Torque Rating equal or greater than the Selection Torque calculated below:

A. Non-Reversing High Peak Torque : Selection torque (Nm) = System Peak Torque or

$$\text{System Torque (Nm)} = \frac{\text{System peak kW} \times 9549}{\text{RPM}}$$

B. Reversing High Peak Torque : Selection Torque (Nm) = 2 x System Peak Torque or

$$\text{System Torque (Nm)} = \frac{2 \times \text{Peak kW} \times 9549}{\text{RPM}}$$

2. Brake Applications : If the torque rating of the brake exceeds the motor torque, use brake rating as blow :

$$\text{Selection Torque (Nm)} = \text{Brake Torque Rating} \times \text{Service Factor}$$

Service Factors

Service Factors for Operation of Drive System

Application	Service Factor
AERATOR	2.0
AGITATORS	
Vertical and Horizontal Scenv, 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
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 cylinders, single acting	1.75
4 or more cylinders, double acting	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
Gravity Discharge	1.25
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
GENERATORS	
Even Load	1.0

Application	Service Factor
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
METAL FORMING MACHINES	
Continous 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	
Concrete	1.75
Muller	1.5
PRESS, PRINTING	1.5
PUG MILL	1.75
PULVERIZERS	
Hammermil 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 Cylinder, single or double acting	3.0
2 Cylinders, single acting	2.0
2 Cylinders, 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
STEERING GEAR	1.0
STOKER	1.0
TIRE SHREDDER	1.5
TUMBLING BARREL	1.75
WINCH, MANEUVERING	
Dredge, Marine	1.5
WINDLASS	1.5
WOODWORKING MACHINERY	1.0

Service Factors and Reference

Service Factors for Operation of Drive System

Industry	Service Factor
AGGREGATE PROCESSING, CEMENT, MINING KILNS; TUBE, ROD and MILLS	
Direct or on L.S. shaft of Reducer, with final drive Machined Spur Gears	2.0
Single Helical or Herringbone Gears	1.75
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
Botting, 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
Log Haul	2.0
Planer	1.75
Rolls, Non-Reversing	1.25
Rolls, Reversing	2.0
Sawdust Conveyor	1.25
Slab Conveyour	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
Colling Beds	1.5
Drawbench	2.0
Feed Rolls-Blooming Mills	3.0
Furnace Pushers	2.0
Hot and Cold Saws	2.0
Ingot Cars	2.0
Manipulators	3.0
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
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
Sideguards	3.0

Industry	Service Factor
Slitters, Steel Mill only	1.75
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
Dryer	1.75
Cylinder	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, 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
Mangle, Napper, Soaper	1.25
Spinner, Tenter Frame, Winder	1.5

Service Factors







Standard Selection

Service Factors for engine drives are required for applications where good flywheel regulation prevents torque fluctuations greater than $\pm 20\%$. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

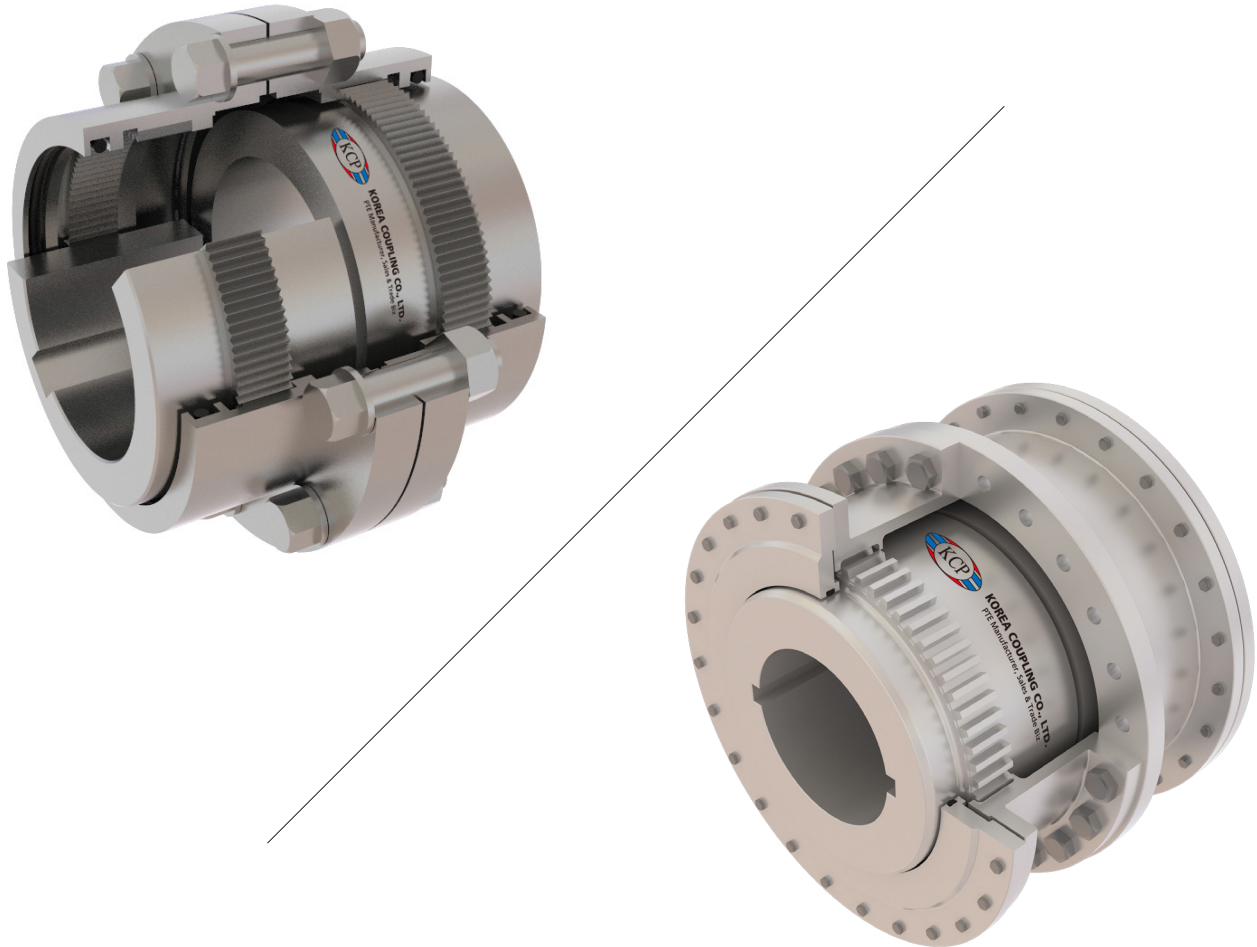
Number of Cylinders	4 or 5					6 or more				
Service Factor	1.5	1.75	2	2.25	2.5	1.5	1.75	2	2.25	2.5
Engine Service Factor	2.5	2.75	3	3.25	3.5	2.5	2.75	3	3.25	3.5

To use Engine Drive Service Factors, first determine application Service Factor from page 5-6. When Service Factor is greater than 2.0, or where 1, 2 or 3 cylinder engines are involved, refer complete application details to Korea Coupling for engineering review.

Service Factors are a guide, based on experience, of the ratio between coupling catalogue rating and system characteristics. The system characteristics are best measured with a torque meter.

Torque Demands Driven Machine	Typical applications for Driven Equipment	Typical Service Factor
	Constant torque such as Centrifugal Pumps, Blowers and Compressors.	1.0
	Continuous duty with some torque variations including Plastic Extruders, Forced Draft Fans.	1.5
	Light shock loads from Metal Extruders, Cooling Towers, Cane Knife, Log Haul.	2.0
	Moderate shock loading as expected from a Car Dumper, Stone Crusher, Vibrating Screen.	2.5
	Heavy shock load with some negative torques from Roughing Mills, Reciprocating Pumps, Compressors, Reversing Runout Talbes.	3.0
	Applications like Reciprocating Compressors with frequent torque reversals, which do not necessarily cause reverse rotations.	Refer to KCP

Gear Couplings



KCP Gear Couplings serve as a mechanical device which connect the shafts of two distinct machines and can accommodate large axial moments as well as small amounts of shaft misalignment.

Commercial Gear Couplings transmit more torque than other types of couplings of similar physical size. Because of this superior load transmitting capability, Gear Couplings have become widely used for higher speed applications, as well as for applications that require a combination of high torque capacity and a low inertia of the drive system.

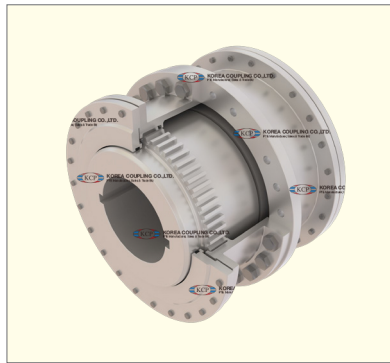
Gear Couplings are torsionally rigid and couple two designs, one of which is completely flexible and one of which is rigid. Gear Couplings consist of two shaft hubs with external teeth, which are then connected by means of a sleeve, usually two pieces, containing internal teeth. A flexible spline with the hubs and sleeves rotating together is the working action of a Gear Coupling. The proper type of lubrication, applied frequently and adequately, is essential for the successful operation of this system.

This coupling is made up of one flexible geared half and on rigid half. A flexible & rigid coupling such as this is primarily used for "floating shaft" applications. The coupling accommodates angular misalignment but does not accommodate parallel displacement of shafts.

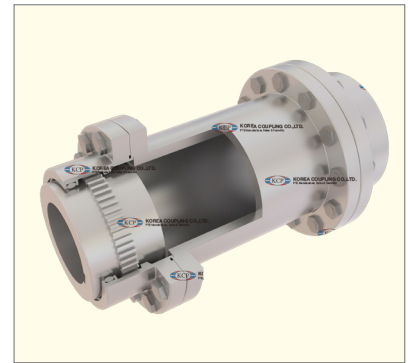
Gear Coupling Types



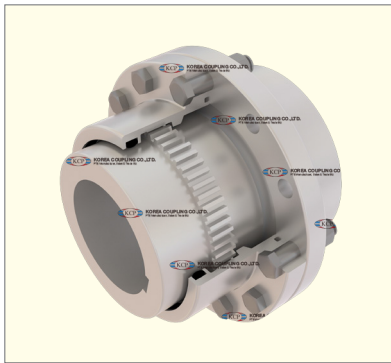
G20 Type



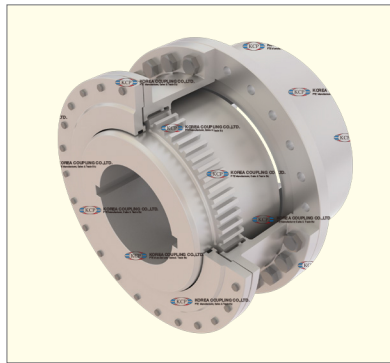
G20 Type (Large)



G32 Type



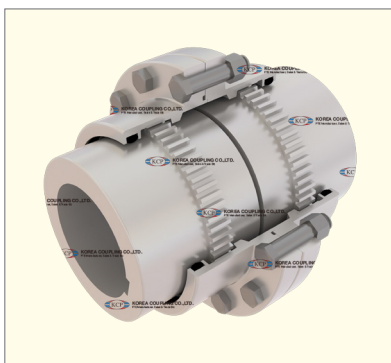
G52 Type



G52 Type (Large)



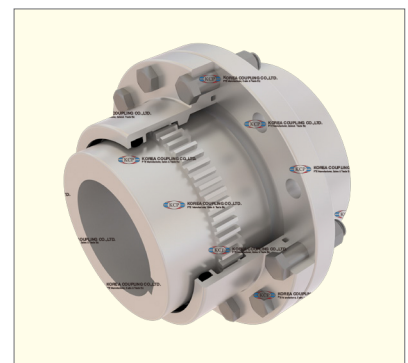
G52 Type (Floating Shaft)



KSS Type



KCC Type



KSE Type



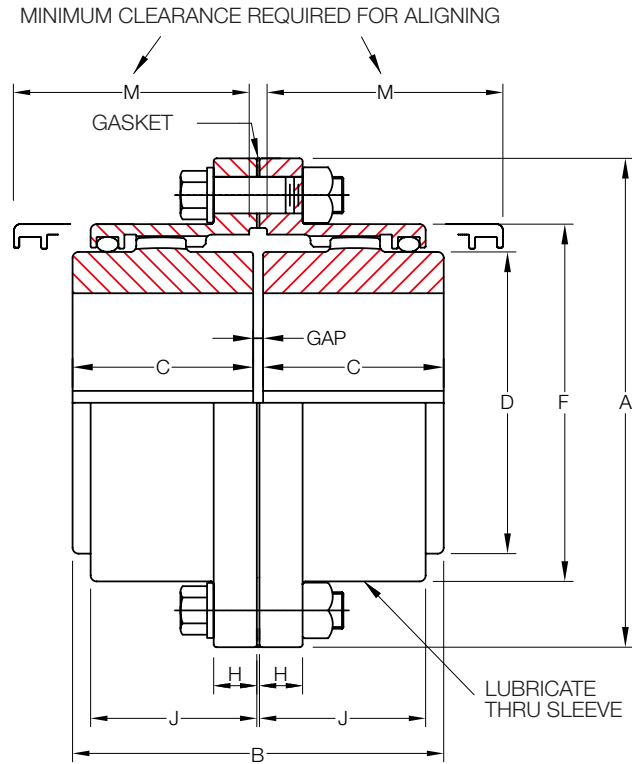
KCE Type



KSP Type

G20 Type

Standard Flanged Sleeve Double Engagement

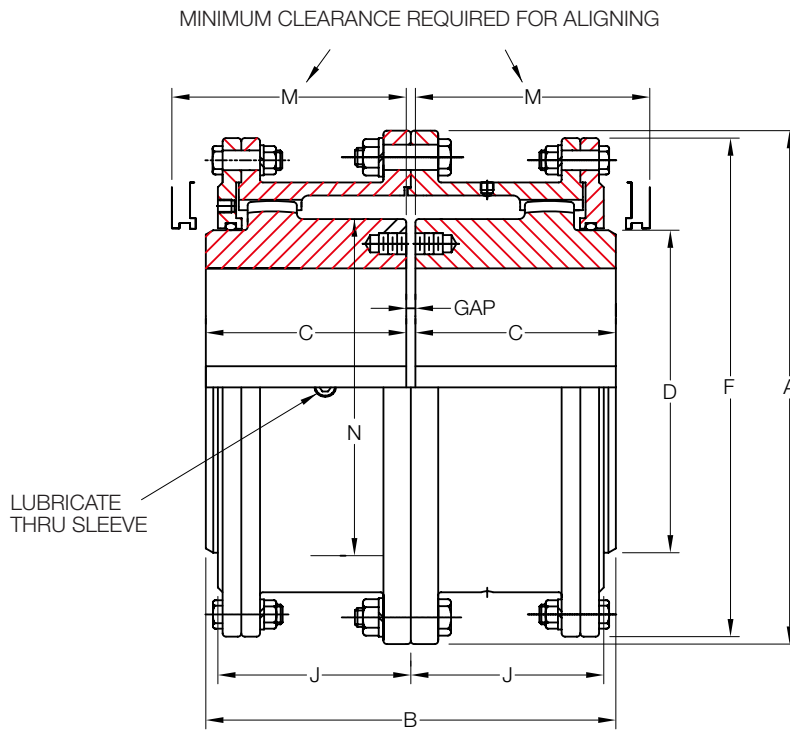


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Cplg Weight G20 (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)								
							A	B	C	D	F	H	J	M	GAP
1010	1,140	8,000	50	13	4.54	0.0408	115.9	88.9	42.9	68.6	83.8	14.0	38.9	51	3
1015	2,350	6,500	65	20	9.07	0.0726	152.4	101.6	49.3	86.4	105.2	19.0	47.8	61	3
1020	4,270	5,600	78	26	15.90	0.1130	177.8	127.0	62.0	105.2	126.5	19.0	59.4	77	3
1025	7,470	5,000	98	32	29.50	0.2127	212.7	158.9	77.0	130.6	154.9	21.8	71.6	92	5
1030	12,100	4,400	111	39	43.10	0.3630	239.7	187.4	91.2	152.4	180.3	21.8	83.8	107	5
1035	18,500	3,900	134	51	68.00	0.5440	279.4	218.9	106.4	177.8	211.3	28.4	97.5	130	6
1040	30,600	3,600	160	64	97.50	0.9070	317.5	247.3	120.6	209.6	245.4	28.4	111.3	145	6
1045	42,000	3,200	183	77	136.00	1.0400	346.1	277.7	134.9	235.0	274.1	28.4	122.9	166	8
1050	56,600	2,900	200	89	191.00	1.7700	388.9	314.3	153.2	254.0	305.8	38.1	140.7	183	8
1055	74,000	2,650	220	102	249.00	2.2200	425.4	344.3	168.1	279.4	334.3	38.1	158.0	204	8
1060	90,400	2,450	244	115	306.00	3.1800	457.2	384.4	188.2	304.8	366.0	25.4	169.2	229	8
1070	135,000	2,150	289	127	485.00	4.3500	527.0	451.5	220.7	355.6	424.9	28.4	195.6	267	10

* Coupling Weight is without Bore Machining

G20 Type (Large)

Large Flanged Sleeve Double Engagement

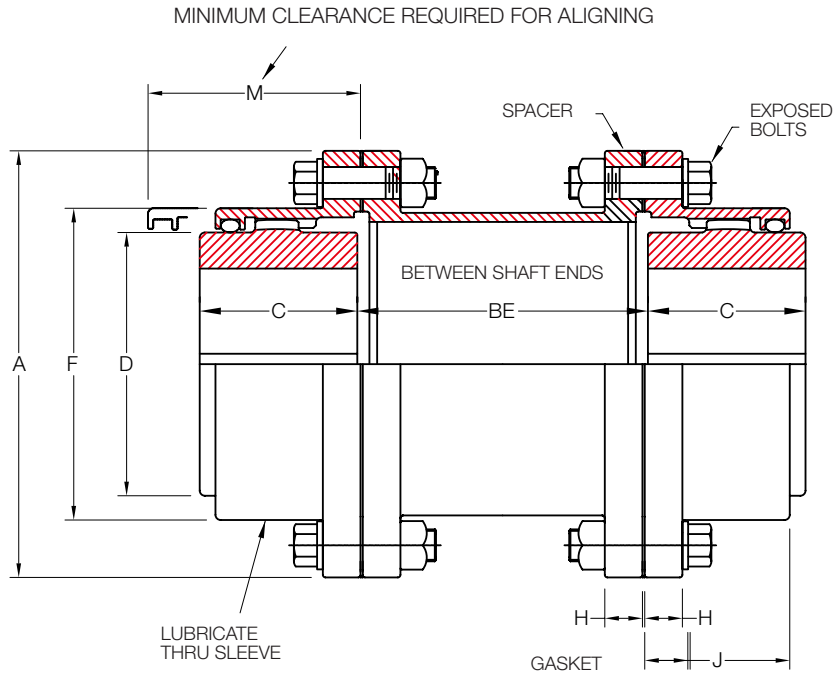


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)								
							A	B	C	D	F	J	M	N	GAP
1080	170,000	1,750	266	101.60	703	9.5	590.6	508.5	249.2	355.6	571.5	242.8	300.0	368.3	10
1090	226,000	1,550	290	114.30	984	12.2	660.4	565.4	276.4	393.7	641.4	265.2	327.2	419.1	13
1100	310,000	1,450	320	127.00	1,302	15.0	711.2	622.3	304.8	444.5	698.5	293.6	355.6	469.9	13
1110	413,000	1,330	373	139.70	1,678	17.7	774.7	679.2	333.2	495.3	479.3	322.3	384.0	520.7	13
1120	555,000	1,200	400	152.40	2,114	20.9	838.2	717.8	352.6	546.1	825.5	341.4	403.4	571.5	13
1130	719,000	1,075	440	165.10	2,595	32.7	911.4	761.7	371.3	584.2	886	362.0	434.8	609.6	19
1140	911,000	920	460.0	177.80	3,107	33.1	965.2	806.4	393.2	635.0	939.8	378.0	457.2	660.4	19
1150	1,100,000	770	490.0	190.50	3,765	40.8	1,028.7	857.2	419.1	685.8	1,003.3	407.9	482.6	711.2	19
1160	1,310,000	650	525	254.00	4,708	43.1	1,111.2	908.0	441.3	736.6	1,085.9	419.1	504.6	762	25
1180	1,660,000	480	600	285.75	6,260	49.9	1,219.2	939.8	457.2	838.2	1,193.8	434.8	520.7	863.6	25
1200	2,140,000	370	660	317.50	8,582	68.0	1,358.9	1,098.60	536.6	927.1	1,308.1	514.4	635.0	965.2	25
1220	2,720,000	290	725	349.25	11,685	107.0	1,511.3	1,193.80	584.2	1,016.0	1,473.2	565.2	685.8	1,066.8	25

* Coupling Weight is without Bore Machining

G32 Type

Standard Flanged Sleeve Spacer



Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Cplg Weight (Kg)		Lube Weight (Kg)		Dimensions (Millimeters)								
					Cplg (Kg)	Spacer (Kg)	Less Spacer (Kg)	Add Spacer mm (Kg)	A	BE Min		C	D	F	H	J	M
										G31	G32						
1010	1,140	7,000	50	13	6.8	0.0120	0.0408	-	115.9	82	82	42.9	68.6	83.8	14.0	38.9	48
1015	2,350	5,500	65	20	13.6	0.0127	0.0726	-	152.4	82	82	49.3	86.4	105.2	19.0	47.8	56
1020	4,270	4,600	78	26	20.4	0.0166	0.1130	0.00054	177.8	82	82	62.0	105.2	126.5	19.0	59.4	69
1025	7,470	4,000	98	32	38.6	0.0205	0.2270	0.00107	212.7	108	95	77.0	130.6	154.9	21.8	71.6	81
1030	12,100	3,600	111	39	54.4	0.0236	0.3630	0.00107	239.7	108	95	91.2	152.4	180.3	21.8	83.8	94
1035	18,500	3,100	134	51	88.5	0.0359	0.5440	0.00214	279.4	130	120	106.4	177.8	211.3	28.4	97.5	107
1040	30,600	2,800	160	64	122.5	0.0500	0.9070	0.00357	317.5	130	120	120.6	209.6	245.4	28.4	111.3	122
1045	42,000	2,600	183	77	166.0	0.0736	1.0400	0.00357	346.1	130	120	134.9	235.0	274.1	28.4	122.9	135
1050	56,600	2,400	200	89	238.0	0.0814	1.7700	0.00357	388.9	184	146	153.2	254.0	305.8	38.1	140.7	152
1055	74,000	2,200	220	102	306.0	0.0895	2.2200	0.00357	425.4	184	146	168.1	279.4	334.3	38.1	158.0	173
1060	90,400	2,100	244	115	358.0	0.1170	3.1800	0.00357	457.2	-	146	188.2	304.8	366.0	25.4	169.2	183
1070	135,000	1,800	289	127	562.0	0.1410	4.3500	0.00357	527.0	-	146	220.7	355.6	424.9	25.4	195.6	208

* Plus Spacer Weight is Plus per Millimeters of Spacer Length

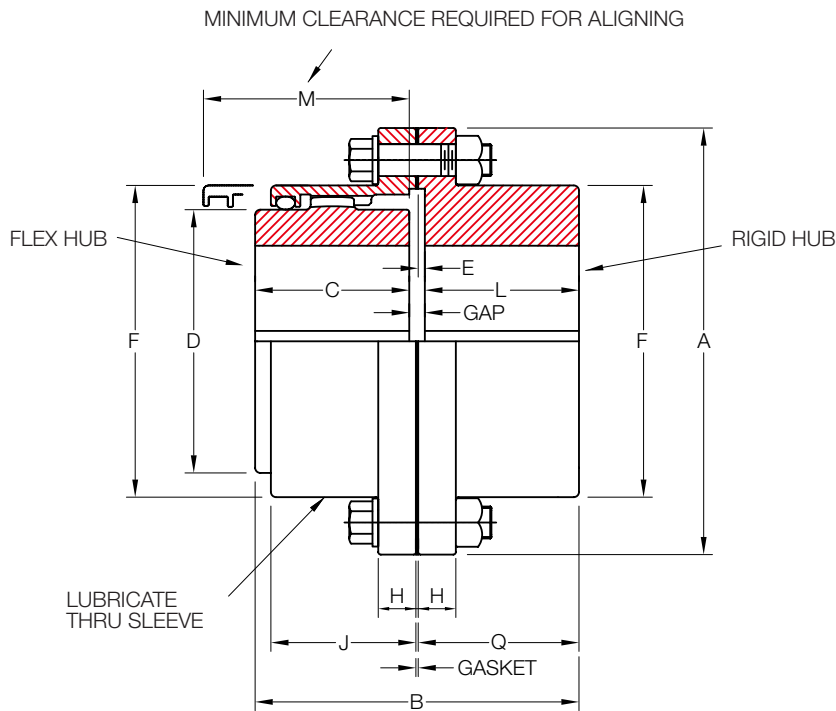
* Coupling Weight is without Bore Machining

* Spacer Weight is Extra Spaer Weight per Millimeters of Length

* Less Spacer Weight is Minimum Weight Less Spacer

G52 Type

Standard Flanged Sleeve Single Engagement

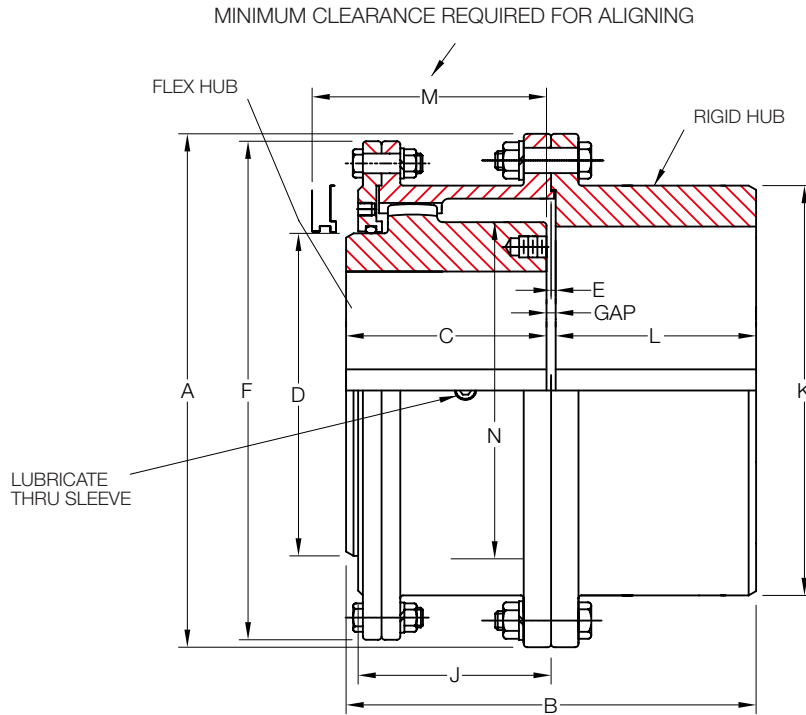


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore		Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kgt)	Dimensions (Millimeters)											
			Flex (mm)	Rigid (mm)				A	B	C	D	E	F	H	J	L	M	Q	GAP
1010	1,140	8,000	50	65	13	4.08	0.023	115.9	86.6	42.9	68.6	2.5	83.8	14.0	38.9	39.6	51	42.2	4
1015	2,350	6,500	65	80	20	8.16	0.041	152.4	99.6	49.3	86.4	2.5	105.2	19.0	47.8	46.2	61	48.8	4
1020	4,270	5,600	78	98	26	13.6	0.068	177.8	124.5	62.0	105.2	2.5	126.5	19.0	59.4	58.4	76	61.0	4
1025	7,470	5,000	98	118	32	24.9	0.118	212.7	155.4	77.0	130.6	2.5	154.9	21.8	71.6	73.7	91	76.2	5
1030	12,100	4,400	111	140	39	38.6	0.181	239.7	183.9	91.2	152.4	2.5	180.3	21.8	83.8	87.9	107	90.4	5
1035	18,500	3,900	134	163	51	61.2	0.272	279.4	214.1	106.4	177.8	2.5	211.3	28.4	97.5	102.1	130	104.6	6
1040	30,600	3,600	160	196	64	90.7	0.467	317.5	242.8	120.6	209.6	4.1	245.4	28.4	111.3	115.3	145	119.4	7
1045	42,000	3,200	183	216	77	129.3	0.557	346.1	273.1	134.9	235.0	4.1	274.1	28.4	122.9	130.6	165	134.6	8
1050	56,600	2,900	200	235	89	181.4	0.907	388.9	309.1	153.2	254.0	5.1	305.8	38.1	140.7	147.3	183	152.4	9
1055	74,000	2,650	220	266	102	251.7	1.130	425.4	349.5	168.1	279.4	5.1	334.3	38.1	158.0	172.7	203	177.8	9
1060	90,400	2,450	244	290	115	-	1.700	457.2	385.1	188.2	304.8	6.6	366.0	25.4	169.2	186.4	229	193.0	10
1070	135,000	2,150	289	340	127	-	2.270	527.0	453.6	220.7	355.6	8.4	424.9	28.4	195.6	220.2	267	228.6	13

* Coupling Weight is without Bore Machining

G52 Type (Large)

Large Flanged Sleeve Single Engagement



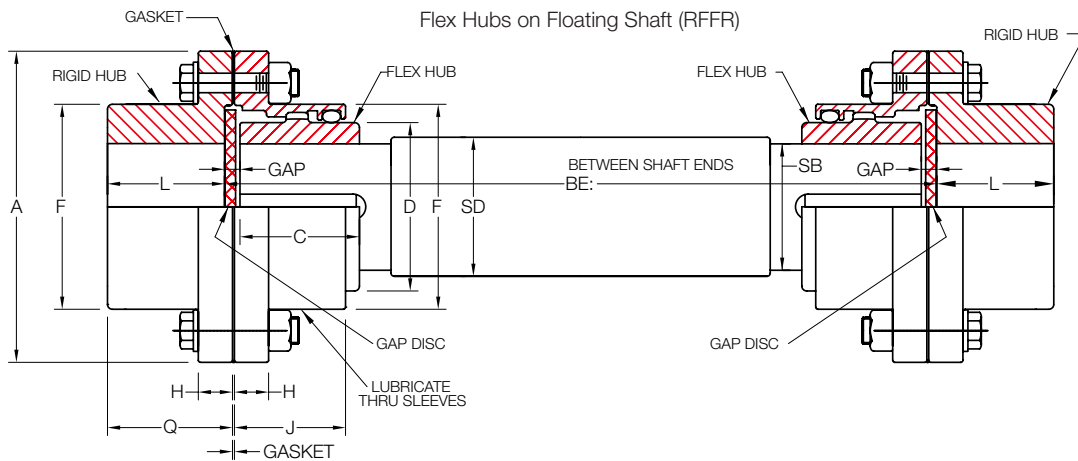
※ IMPORTANT : When couplings are mounted on a floating shaft, do not exceed allowable shaft speed for the assembly.

Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore		Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)											
			Flex (mm)	Rigid (mm)				A	B	C	D	E	F	J	K	L	M	N	GAP
1080	170,000	1,750	266	340	101.60	699	5	590.6	511.0	249.4	355.6	8.1	571.5	242.8	450.8	248.9	300.0	368.3	13
1090	226,000	1,550	290	380	114.30	984	6	660.4	566.4	276.4	393.7	8.1	641.4	265.2	508.0	275.8	327.2	419.1	14
1100	310,000	1,450	320	400	127.00	1,252	8	711.2	625.3	304.8	444.5	9.7	698.5	293.6	530.4	304.8	355.6	469.9	16
1110	413,000	1,330	373	440	139.70	1,637	9	774.7	682.2	333.2	495.3	9.7	749.3	322.3	584.2	333.2	384.0	520.7	16
1120	555,000	1,200	400	483	152.40	2,077	11	838.2	720.6	352.6	546.1	9.7	825.5	341.4	647.7	352.3	403.4	571.5	16
1130	719,000	1,075	440	500	165.10	2,572	17	911.4	761.7	371.3	584.2	9.7	886.0	362.0	708.2	371.3	434.8	609.6	19
1140	911,000	920	460	535	177.80	3,062	17	965.2	805.9	393.2	635.0	9.7	939.8	378.0	749.3	393.7	457.2	660.4	19
1150	1,100,000	770	490	580	190.50	3,751	21	1,028.7	857.2	419.1	685.8	9.7	1,003.3	407.9	812.8	419.1	482.6	711.2	19
1160	1,310,000	650	525	630	254.00	4,631	22	1,111.2	908.3	441.3	736.6	12.7	1,085.8	419.1	886.0	441.5	501.6	762.0	25
1180	1,660,000	480	600	710	285.75	6,069	25	1,219.2	939.8	457.2	838.2	12.7	1,193.8	434.8	993.6	457.2	520.7	863.6	25
1200	2,140,000	370	660	780	371.50	8,482	34	1,358.9	1,098.6	536.6	927.1	12.7	1,308.1	514.4	1,095.2	536.4	635.0	965.2	25
1220	2,720,000	290	725	890	349.25	11,680	54	1,511.3	1,196.8	584.2	1,016.0	12.7	1,473.2	565.2	1,244.6	584.2	685.8	1,066.8	28

* Coupling Weight is without Bore Machining

G52 Type

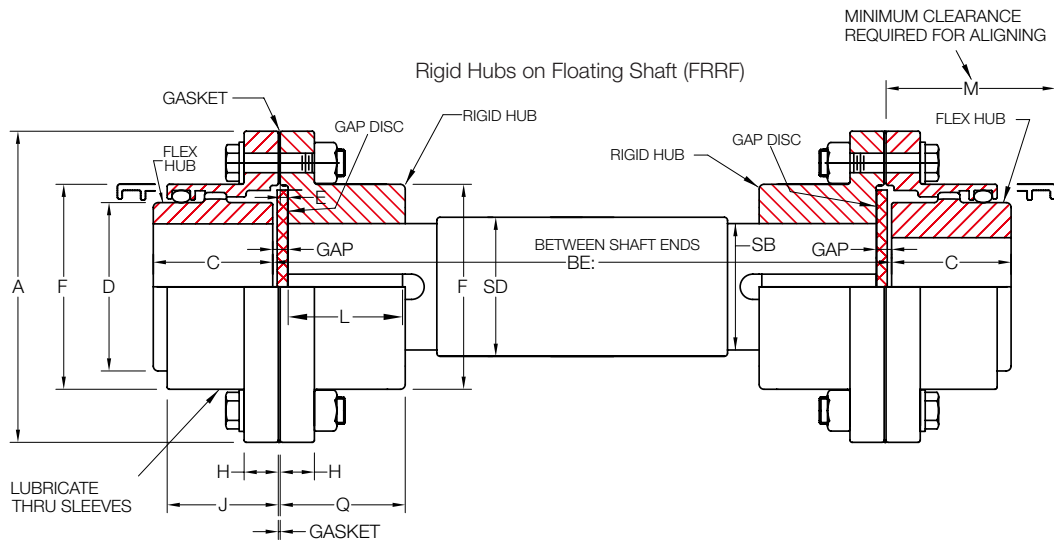
Standard Flanged Sleeve Single Engagement Floating Shaft



Size	Max Bore		Min Bore (mm)	Cplg Weight		Lube Weight (Kg)	Dimensions (Millimeters)		
	Flex (mm)	Rigid (mm)		G51 (Kg)	G52 (Kg)		A	BE Min	
								RFFR	FRRF
1010	50	65	13	4.08	4.54	0.0227	115.9	133	92
1015	65	80	20	8.16	9.07	0.0408	152.4	159	105
1020	78	98	26	13.6	15.9	0.0680	177.8	197	129
1025	98	118	32	24.9	27.2	0.1180	212.7	241	162
1030	111	140	39	38.6	43.1	0.1810	239.7	279	189
1035	134	163	51	61.2	68.0	0.2720	279.4	324	219
1040	160	196	64	90.7	99.8	0.4670	317.5	419	248
1045	183	216	77	129.3	136.0	0.5570	346.1	508	281
1050	200	235	89	181.4	195.0	0.9070	388.9	533	316
1055	220	266	102	251.7	263.0	1.1300	425.4	572	367
1060	244	290	115	-	324.0	1.7000	457.2	597	397
1070	289	340	127	-	508.0	2.2700	527.0	673	470

G52 Type

Standard Flanged Sleeve Single Engagement Floating Shaft



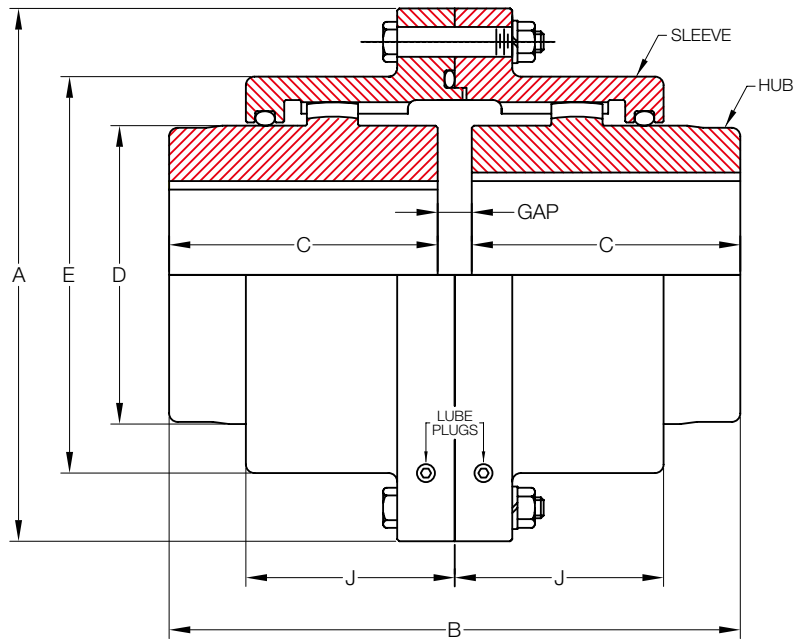
Size	Dimensions (Millimeters)									
	C	D	E	F	H	J	L	M	Q	GAP
1010	42.9	68.6	2.5	83.8	14.0	38.9	39.6	48	42.2	4
1015	49.3	86.4	2.5	105.2	19.0	47.8	46.2	56	48.8	4
1020	62.0	105.2	2.5	126.5	19.0	59.4	58.4	69	61.0	4
1025	77.0	130.6	2.5	154.9	21.8	71.6	73.7	81	76.2	5
1030	91.2	152.4	2.5	180.3	21.8	83.8	87.9	94	90.4	5
1035	106.4	177.8	2.5	211.3	28.4	97.5	102.1	107	104.6	6
1040	120.6	209.6	4.1	245.4	28.4	111.3	115.3	122	119.4	7
1045	134.9	235.0	4.1	274.1	28.4	122.9	130.8	135	134.6	8
1050	153.2	254.0	5.1	305.8	38.1	140.7	147.3	152	152.4	9
1055	168.1	279.4	5.1	334.3	38.1	158.0	172.7	173	177.8	9
1060	188.2	304.8	6.6	366.0	25.4	169.2	186.4	183	193.0	10
1070	220.7	355.6	8.4	424.9	28.4	195.6	220.2	208	228.6	13

* Coupling Weight is without Bore Machining

* Lubrication Weight is per Coupling

KSS Type

Standard Flanged Sleeve Double Engagement

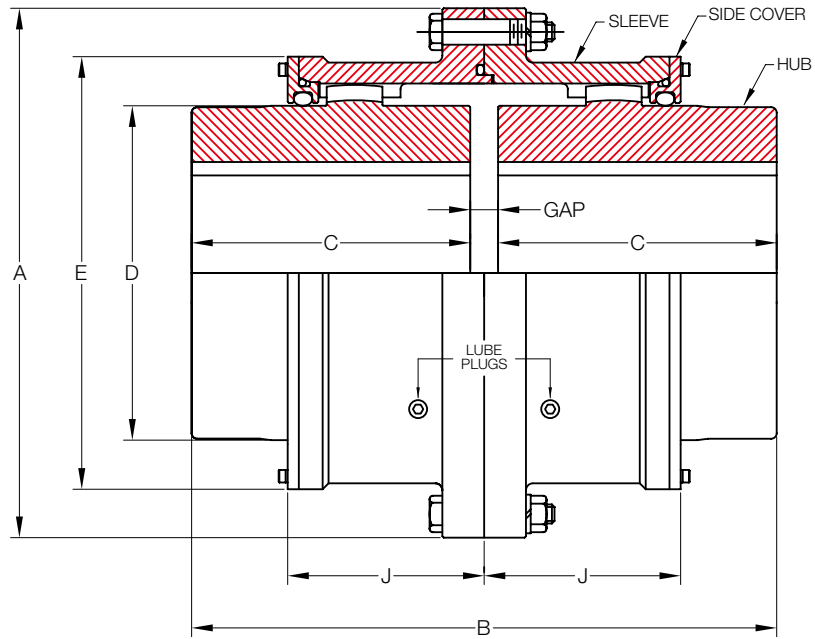


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)						KSSH Torque (Nm)	
							A	B	C	D	E	J		GAP
112	560	4,000	40	16	4.3	0.05	112	108	50	58	79	40	8	960
125	1,050	4,000	50	31	6.6	0.06	125	134	63	70	92	43	8	1,650
140	1,510	4,000	56	31	9.3	0.09	140	150	71	80	107	47	8	2,490
160	2,310	4,000	65	31	14.0	0.12	160	170	80	95	120	52	10	3,900
180	3,550	4,000	75	45	19.0	0.15	180	190	90	105	134	56	10	5,940
200	5,060	3,810	85	45	26.0	0.20	200	210	100	120	149	61	10	8,290
224	7,350	3,410	100	51	39.0	0.31	224	236	112	145	174	65	12	14,140
250	9,920	3,050	115	51	55.0	0.45	250	262	125	165	200	74	12	20,450
280	17,170	2,720	135	51	81.0	0.59	280	294	140	190	224	82	14	29,170
315	27,070	2,420	160	112	129.0	0.94	315	356	170	225	260	98	16	38,270
355	39,880	2,150	180	125	177.0	1.11	355	396	190	250	288	108	16	56,450
400	56,000	1,900	200	140	242.0	1.70	400	418	200	285	329	114	18	88,890

* Coupling Weight is without Bore Machining

KCC Type (Large)

Large Flanged Sleeve Double Engagement

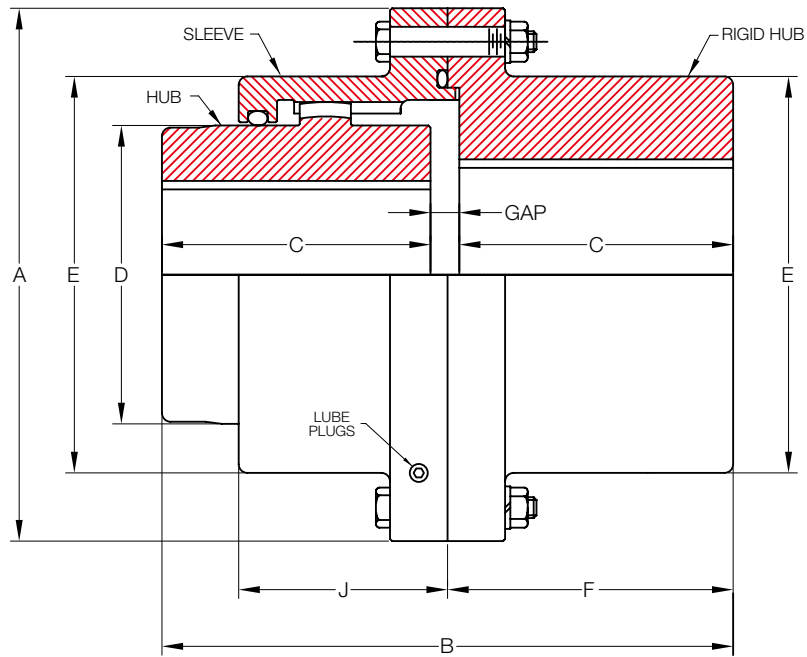


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)						KCH Torque (Nm)	
							A	B	C	D	E	J		GAP
450	93,100	1,690	205	140	298	2.11	450	418	200	290	372	151	18	135,240
500	127,400	1,520	236	170	446	3.23	500	494	236	335	425	168	22	225,400
560	203,840	1,360	275	190	642	3.91	560	552	265	385	475	187	22	337,120
630	308,700	1,210	325	224	1,010	5.70	630	658	315	455	548	213	28	458,640
710	449,820	1,070	360	250	1,440	7.99	710	738	355	510	622	242	28	634,060
800	642,880	950	405	280	2,030	11.01	800	832	400	570	690	267	32	862,400
900	915,320	840	475	315	3,030	14.40	900	932	450	670	792	295	32	1,215,200
1000	1,254,400	760	510	355	4,120	19.50	1,000	1,040	500	720	858	322	40	1,646,400
1120	1,764,000	682	600	400	5,920	26.30	1,120	1,160	560	840	990	360	40	2,254,000
1250	2,450,000	610	710	500	9,410	38.20	1,250	1,460	710	960	1,126	399	40	3,067,400

* Coupling Weight is without Bore Machining

KSE Type

Standard Flanged Sleeve Single Engagement

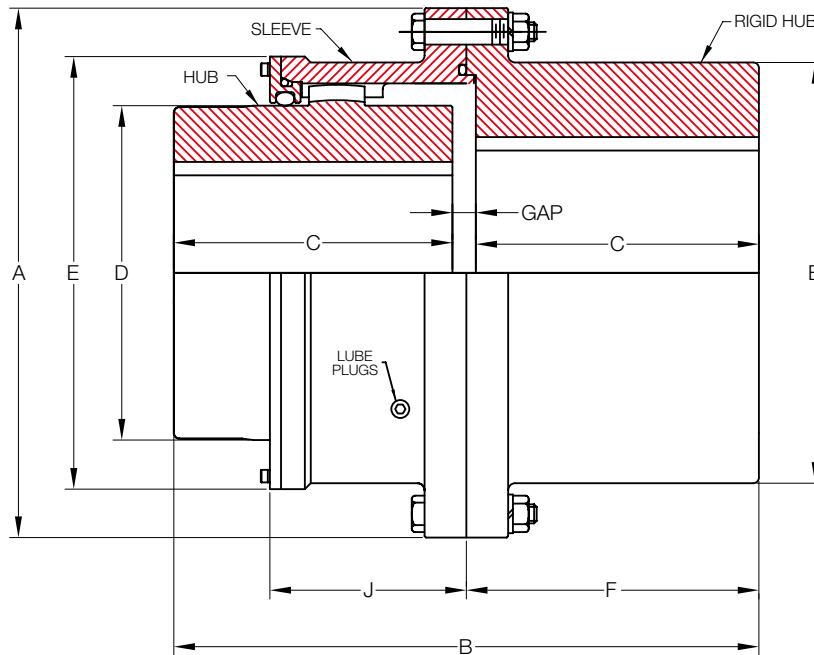


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore		Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)								KSEH Torque (Nm)
			Flex (mm)	Rigid (mm)				A	B	C	D	E	F	J	GAP	
112	560	4,000	40	50	16	4.6	0.04	112	108	50	58	79	54	40	8	960
125	1,050	4,000	50	56	31	6.7	0.05	125	134	63	70	92	67	43	8	1,650
140	1,510	4,000	56	63	31	9.3	0.07	140	150	71	80	107	75	47	8	2,490
160	2,310	4,000	65	75	31	14.0	0.09	160	170	80	95	120	85	52	10	3,900
180	3,550	4,000	75	80	45	19.0	0.12	180	190	90	105	134	95	56	10	5,940
200	5,060	3,810	85	95	45	26.0	0.15	200	210	100	120	149	105	61	10	8,290
224	7,350	3,410	100	105	51	38.0	0.25	224	236	112	145	174	118	65	12	14,140
250	9,920	3,050	115	125	51	56.0	0.35	250	262	125	165	200	131	74	12	20,450
280	17,170	2,720	135	150	51	83.0	0.48	280	294	140	190	224	147	82	14	29,170
315	27,070	2,420	160	180	112	135.0	0.77	315	356	170	225	260	178	98	16	38,270
355	39,880	2,150	180	200	125	184.0	0.94	355	396	190	250	288	198	108	16	56,450
400	56,000	1,900	200	236	140	261.0	1.36	400	418	200	285	329	209	114	18	88,890

* Coupling Weight is without Bore Machining

KCE Type (Large)

Large Flanged Sleeve Single Engagement

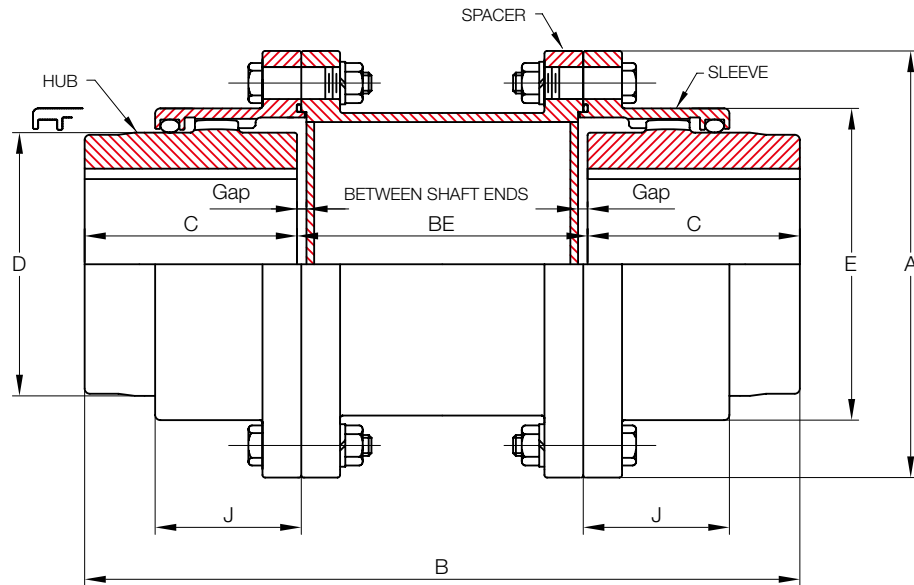


Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)		Min Bore (mm)	Cplg Weight (Kg)	Lube Weight (Kg)	Dimensions (Millimeters)								KCEH Torque (Nm)
			Flex (mm)	Rigid (mm)				A	B	C	D	E	F	J	GAP	
450	93,100	1,690	205	250	140	304	1.79	450	418	200	290	372	209	151	18	135,240
500	127,400	1,520	236	265	170	458	2.64	500	494	236	335	425	247	168	22	225,400
560	203,840	1,360	275	300	190	664	3.23	560	552	265	385	475	276	187	22	337,120
630	308,700	1,210	325	355	224	1,020	4.93	630	658	315	455	548	329	213	28	458,640
710	449,820	1,070	360	400	250	1,460	6.63	710	738	355	510	622	369	242	28	634,060
800	642,880	950	405	450	280	2,090	9.35	800	832	400	570	690	416	267	32	862,400
900	915,320	840	475	510	315	3,020	11.90	900	932	450	670	792	466	295	32	1,215,200
1000	1,254,400	760	510	570	355	4,130	17.00	1,000	1,040	500	720	858	520	322	40	1,646,400
1120	1,764,000	682	600	640	400	5,970	22.10	1,120	1,160	560	840	990	580	360	40	2,254,000
1250	2,450,000	610	710	800	500	9,820	31.40	1,250	1,460	710	960	1,126	730	399	40	3,067,400

* Coupling Weight is without Bore Machining

KSP Type

Standard Flanged Sleeve Spacer



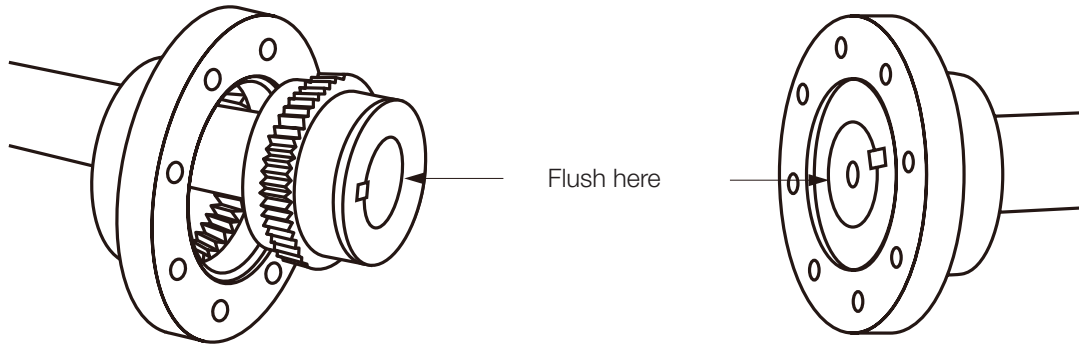
Size	Torque Rating (Nm)	Allow Speed RPM	Max Bore (mm)	Min Bore (mm)	Lube Weight (Kg)	Dimensions (Millimeters)									KSPH Torque (Nm)
						A	BE	B	C	D	E	F	J	GAP	
112	560	4,000	40	16	0.05	112	C U S T O M	2C + BE	50	58	79	54	40	8	960
125	1,050	4,000	50	31	0.06	125			63	70	92	67	43	8	1,650
140	1,510	4,000	56	31	0.09	140			71	80	107	75	47	8	2,490
160	2,310	4,000	65	31	0.12	160			80	95	120	85	52	10	3,900
180	3,550	4,000	75	45	0.15	180			90	105	134	95	56	10	5,940
200	5,060	3,810	85	45	0.20	200			100	120	149	105	61	10	8,290
224	7,350	3,410	100	51	0.31	224			112	145	174	118	65	12	14,140
250	9,920	3,050	115	51	0.45	250			125	165	200	131	74	12	20,450
280	17,170	2,720	135	51	0.59	280			140	190	224	147	82	14	29,170
315	27,070	2,420	160	112	0.94	315			170	225	260	178	98	16	38,270
355	39,880	2,150	180	125	1.11	355			190	250	288	198	108	16	56,450
400	56,000	1,900	200	140	1.70	400			200	285	329	209	114	18	88,890

* Coupling Weight is without Bore Machining
 * Refer to KCP for size 450 ~ 1250

Gear Couplings

Installation

KCP Gear Couplings are designed to provide a mechanical connection between the rotating shafts of mechanical equipment, using gear mesh accommodate inherent misalignment while transmitting the power and torque between the connected shaft.



1) Mount Flanged Sleeves, Seals and Hub

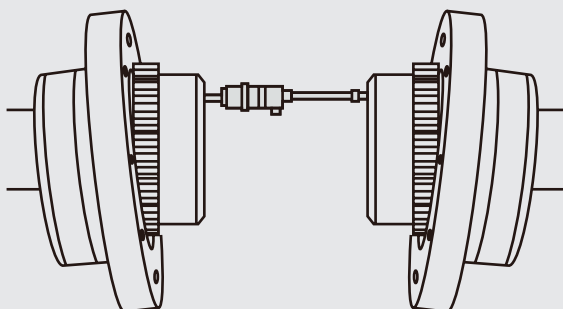
- Examine the coupling assembly to insure there is no visible damage.
- Clean the hub bores and shafts using lint free cloth. Remove any nicks or burrs.
- When assembled, the keys should have a close side to side fit in the keyways in the hub and shaft with a slight clearance over the top of the keys.
- Place the flanged sleeves with oil rings on shafts before mounting flex hubs.

2) Straight Bore with Clearance / Slip Fit

- Install the keys in the shaft.
- Check to be sure that the set screws in the hub do not protrude into the keyway or the bore. Remove or back out the set screw to provide clearance during assembly.
- Slide the hub up the shaft to the desired axial position.
- Assemble and tighten the set screws using a calibrated torque wrench.

3) Straight Bore with interference Fit

- Accurately measure the bore and shaft diameters to assure proper fit.
- Install the keys in the shaft.
- Heat the hub (135°C) in an oven until the bore is efficiently larger than the shaft.
- When the hub expanded, install it on the shaft to the desired axial position.

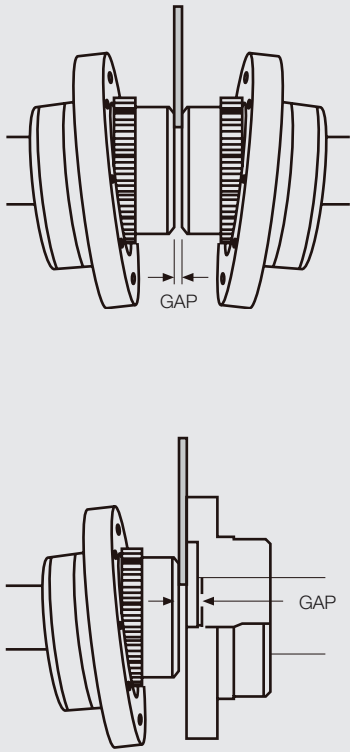


4) Taper Bore

- Check for acceptable contact pattern between the hub and the shaft.
- Put the hub on the shaft, keeping the keyways aligned.
- Lightly tap the face of the hub with a soft mallet. The resultant position will provide a starting point for the hub axial draw up.
- Use a depth micrometer to measure the distance from the shaft end to the hub face, and record the dimension.
- Mount a dial indicator to read axial hub advancement. Alternatively, the indicator can be positioned to contact the end of the hub.
- Remove the hub and install the keys in the shaft.
- Heat the hub (177 °C) in an oven until the bore is sufficiently larger than the shaft. Do not exceed 260 °C.
- When the hub expanded, install it quickly on the shaft to the "zero" set point. Continue to advance the hub up the taper to the desired axial position.

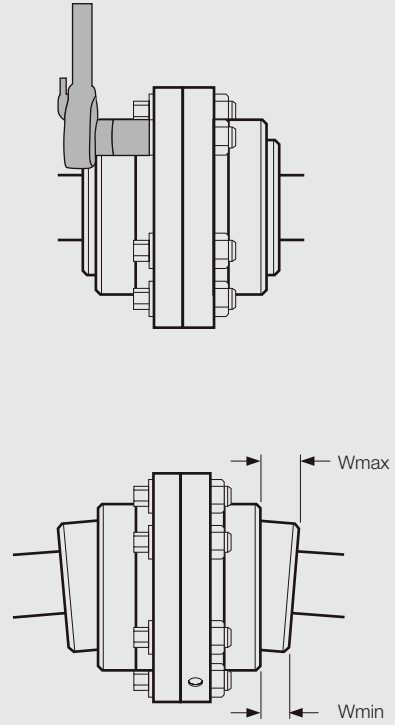
5) Shaft Alignment

- Use an inside micrometer or a spacer bar equal in thickness and at 90° intervals to measure the distance between hubs to gap.
- The "Angular Misalignment" value is the maximum difference between the measurements X and Y taken at opposite ends of the flanges.



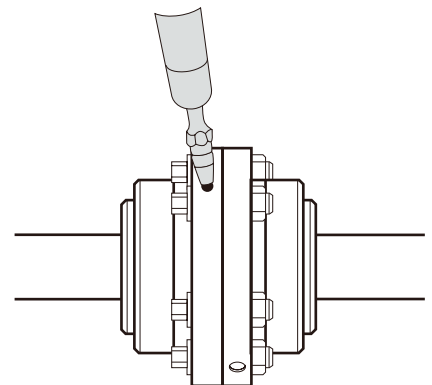
6) Sleeve Installation

- Insert gasket between flanges and gap disc into counter bore of each rigid hub for floating shaft assemblies, and bolt flanges together.
- Check the alignment of the coupling. Determine "W" by measuring distances "W"max and "W"min between flex hub and sleeve using a depth micrometer or feeler gauges. The difference between "W"max and "W"min must not exceed the "W" value.



Annual Maintenance

1. Check alignment. If the maximum operating misalignment values are exceeded, realign the coupling.
2. Inspect oil-ring and gasket to determine if replacement is required.
3. Re-lubricate coupling if using general purpose grease until an excess appears at an open hole.

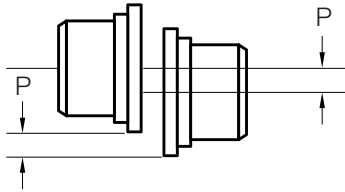


Gear Couplings

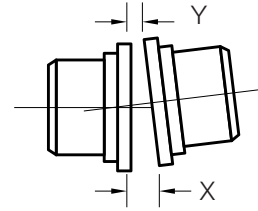
Alignment Data

To improve the service life of the coupling, shafts should be aligned to minimize deflection of the flexing elements. Shaft alignment is required in the axial, parallel, and angular directions, with each of these values not to exceed the recommended installation limits. Shaft alignment can be measured using various established methods, including Laser Alignment, Reverse Dial Indicator, and Rim and Face.

Parallel Misalignment



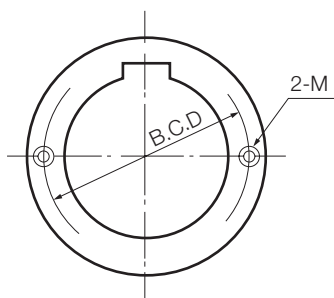
Angular Misalignment



Misalignment Capacity

Size	Recommended Installation		Operating		Fastener Tightening Torque Values (Nm)
	Parallel Offset-P Max (mm)	Angular (X-Y) Max (mm)	Parallel Offset-P Max (mm)	Angular (X - Y) Max (mm)	
1010G	0.05	0.15	0.66	1.80	12
1015G	0.08	0.18	0.86	2.26	42
1020G	0.08	0.23	1.02	2.74	102
1025G	0.10	0.28	1.27	3.43	203
1030G	0.13	0.33	1.52	3.99	203
1035G	0.15	0.38	1.83	4.65	339
1040G	0.18	0.46	2.13	5.49	339
1045G	0.20	0.51	2.39	6.15	339
1050G	0.23	0.56	2.72	6.65	339
1055G	0.28	0.61	3.12	7.32	339
1060G	0.28	0.66	3.35	9.98	339
1070G	0.33	0.79	3.94	9.32	339
1080G	0.41	0.81	2.46	4.83	-
1090G	0.43	0.91	2.64	5.49	-
1100G	0.48	1.02	2.97	6.15	-
1110G	0.56	1.14	3.30	6.81	-
1120G	0.58	1.24	3.51	7.49	-
1130G	0.61	1.32	3.61	7.98	-
1140G	0.64	1.45	3.81	8.64	-
1150G	0.69	1.55	4.17	9.32	-
1160G	0.71	1.60	4.37	10.97	-
1180G	0.74	1.83	4.22	9.65	-
1200G	0.89	2.03	5.28	12.14	-
1220G	0.99	2.21	5.87	13.31	-

Puller Holes



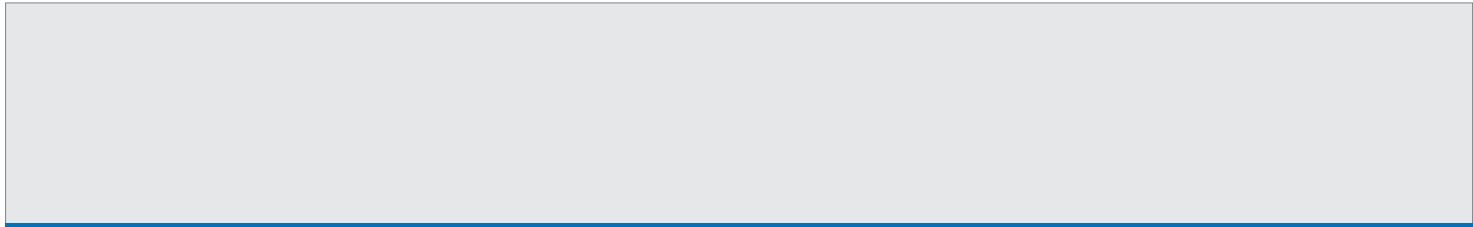
Size	B.C.D (mm)	Bolt
1010	52.32	M10 x 1.5 x 13
1015	69.85	M10 x 1.5 x 13
1020	88.90	M10 x 1.5 x 13
1025	112.78	M10 x 1.5 x 13
1030	128.52	M10 x 1.5 x 13
1035	162.40	M12 x 1.75 x 16
1040	180.98	M16 x 2.0 x 20
1045	200.03	M16 x 2.0 x 20
1050	215.90	M20 x 2.5 x 22
1055	238.13	M20 x 2.5 x 22
1060	263.53	M20 x 2.5 x 22
1070	311.15	M24 x 3.0 x 30



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