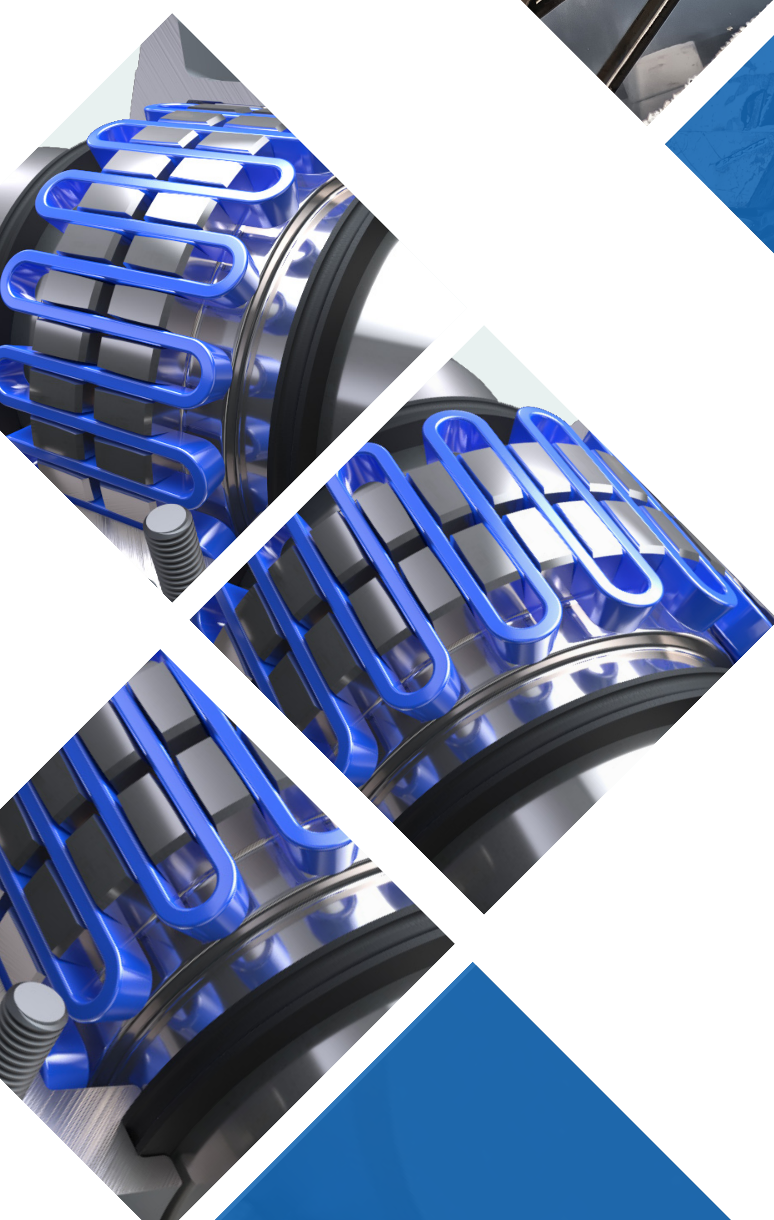
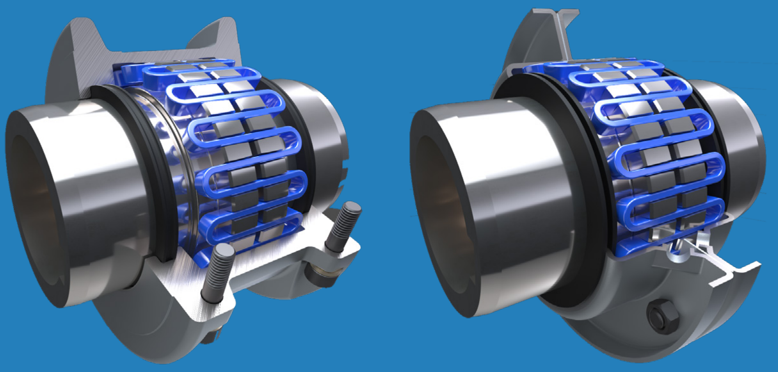


CONTENTS



LIFEMAX

GRID COUPLINGS

LIFEMAX

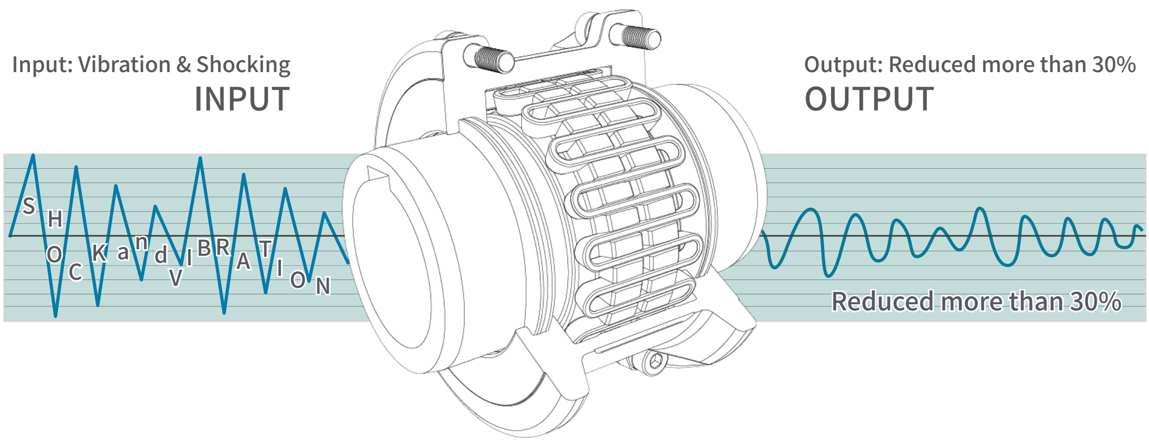
GRID COUPLINGS

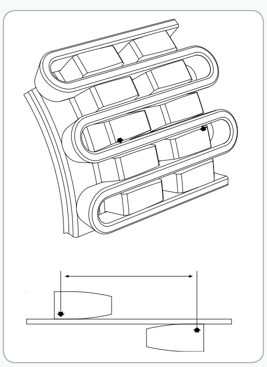
GRID COUPLINGS can carry considerable torques despite their compact sizes. This type of all-metal flexible coupling is mainly used to reduce the transmission of vibration and shock loading, while allowing both angular and parallel misalignments within their operational limits.

When a heavy overload happens, or an excessive misalignment occurs, the grid and its cover fail, acting as a safety device. This way, the transmission of torque is interrupted, and other costlier components of the drive are protected against damage.

Compared to others, this type of coupling has a simpler installation and repair. Besides, grid couplings have higher reliability. Therefore, they require less and shorter maintenance inspections.

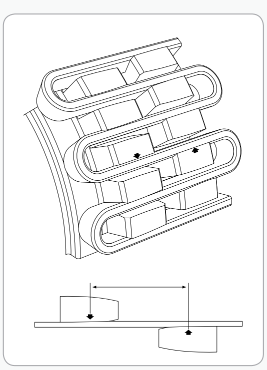
Absorption of vibration





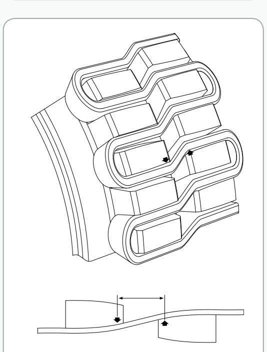
Condition of grid under light load

Each grid segment works as a long straight beam supported by the root side surfaces of the hub teeth. Coupling torsional rigidity is low, so light loads twist it gently.



Condition of grid under normal load

Each grid segment works as a slightly flexed beam supported by the lower half side surfaces of the hub teeth. Coupling torsional rigidity is high, so normal loads twist it gently.

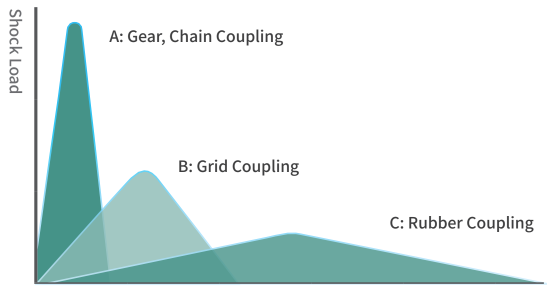


Condition of grid under shock or start load

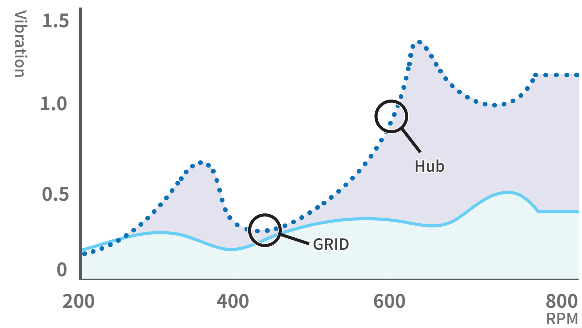
Each grid segment works as a very short flexed beam supported by the full side surfaces of the hub teeth. Coupling torsional rigidity is very high, so peak loads twist it gently.

Vibration/ Shock load absorption

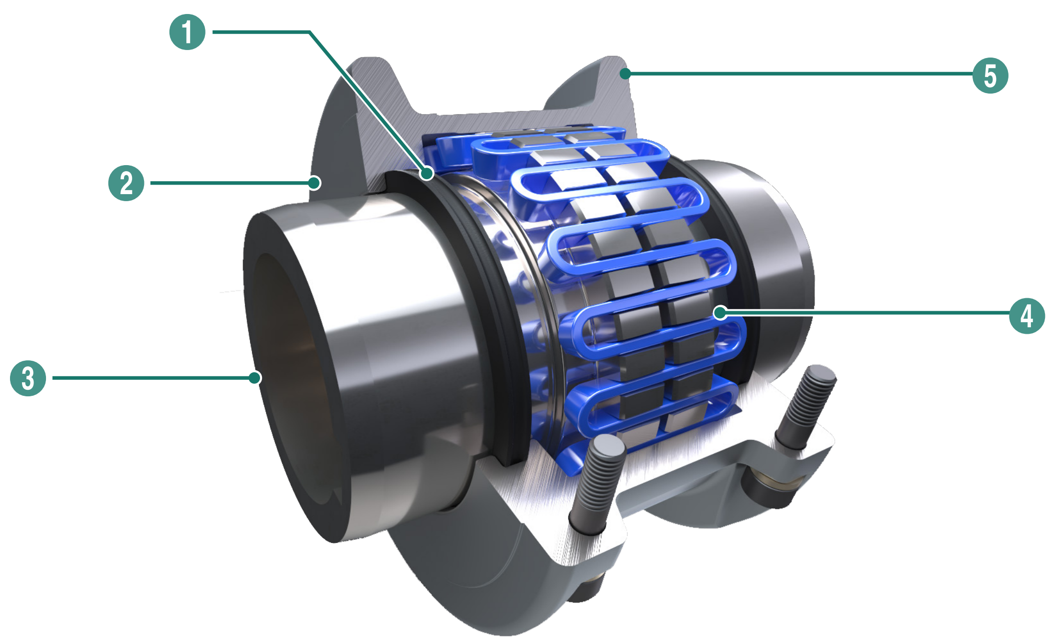
* PTC grid coupling demonstrate the excellent performance as shown below.



* PTC grid coupling demonstrate the excellent performance as shown below.



Parts

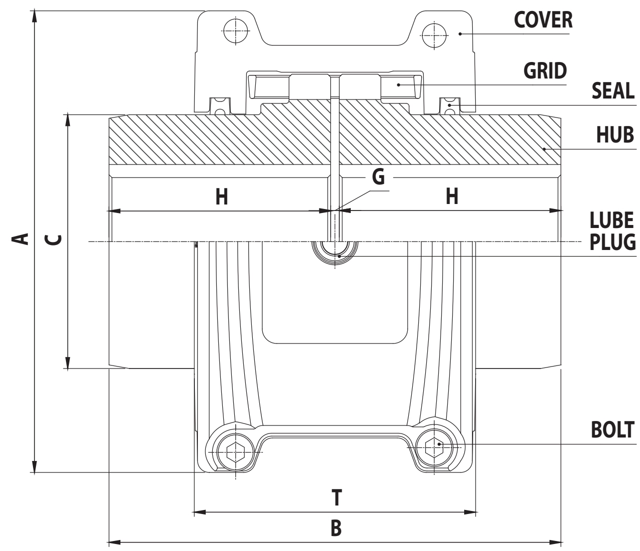


Name of each part

1. Oil seal : NBR
2. Cover : ALDC12
3. Hub : S45C
4. Grid : SWRH62B
5. Gasket : UG

Dimensions

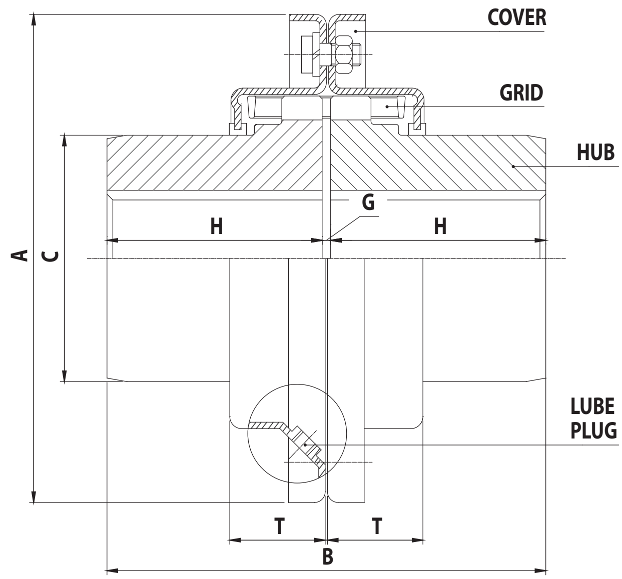
Type T10 (Horizontal Split Aluminum Cover)



SIZE	MAX SPEED (RPM)	BASIC TORQUE (Nm)	BORE DIA(mm)		DIMENSIONS(mm)					G			CPLG WT(kg)	LUBE WT(kg)
			MAX	MIN	A	B	C	H	T	MIN	NORMAL	MAX		
1020	4,500	52	30	12.7	97	98.0	39.7	47.5	66.58	1.5	3.0	4.5	1.7	0.03
1030	4,500	149	36	12.7	106.1	98.0	49.2	47.5	68.3	1.5	3.0	4.5	2.3	0.03
1040	4,500	249	44	12.7	114.6	104.6	57.1	50.8	69.6	1.5	3.0	4.5	3.1	0.05
1050	4,500	435	50	12.7	135.6	123.6	66.7	60.3	81.1	1.5	3.0	4.5	5.1	0.05
1060	4,350	684	57	19.1	148.1	130.0	76.2	63.5	93.78	1.5	3.0	4.5	7.0	0.09
1070	4,125	994	65	19.1	158.6	155.4	87.3	76.2	96.74	1.5	3.0	4.5	9.9	0.11
1080	3,600	2,051	79	27.0	190.3	180.8	104.8	88.9	115.47	1.5	3.0	6.0	17.0	0.17
1090	3,600	3,728	95	27.0	210.5	199.8	123.7	98.4	122.56	1.5	3.0	6.0	24.9	0.25
1100	2,400	6,276	107	41.3	251	245.7	142.0	120.6	155.05	1.5	4.5	9.5	40.9	0.43
1110	2,250	9,321	117	41.3	269.5	258.5	160.3	127.0	161.03	1.5	4.5	9.5	52.4	0.51
1120	2,025	13,671	136	60.3	308.7	304.4	179.4	149.2	191.39	1.5	6.0	12.5	80.5	0.73
1130	1,800	19,885	165	66.7	346.8	329.8	217.5	161.9	195.09	1.5	6.0	12.5	118.5	0.91
1140	1,650	28,585	184	66.7	384.8	371.6	254.0	182.8	200.89	1.5	6.0	12.5	179	1.13
1150	1,500	39,771	203	108.0	453.54	371.8	269.0	182.9	276.07	1.5	6.0	12.5	234.0	1.95
1160	1,350	55,927	228	120.7	503	402.2	305.0	198.1	280	1.5	6.0	12.5	317.0	2.81
1170	1,225	74,570	279	133.4	568.4	437.8	356.0	215.9	309.4	1.5	6.0	12.5	448.0	3.49
1180	1,100	103,381	311	152.4	631.6	483.6	394.0	238.8	322	1.5	6.0	12.5	619.0	3.76
1190	1,050	136,712	339	152.4	677	524.2	437.0	259.0	331.56	1.5	6.0	12.5	776.0	4.40
1200	900	186,425	361	177.8	760	564.8	497.8	279.4	359.48	1.5	6.0	12.5	1,057.0	5.62

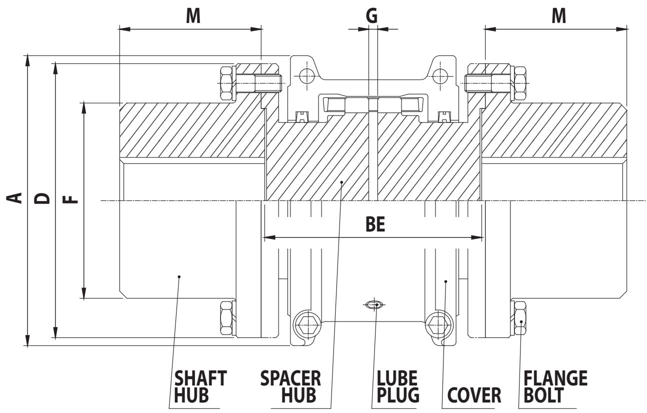
Dimensions

Type T20 (Vertical Steel Cover)

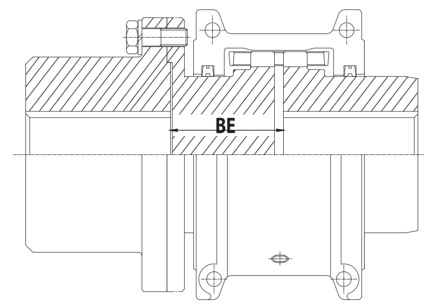


SIZE	MAX SPEED (RPM)	BASIC TORQUE (Nm)	BORE DIA (mm)		DIMENSIONS(mm)					G			CPLG WT (kg)	LUBE WT (kg)
			MAX	MIN	A	B	C	H	T	MIN	NORMAL	MAX		
1020	6,000	52	30	12.7	111.1	98.0	39.7	47.5	24.4	1.5	3	4.5	1.7	0.03
1030	6,000	149	36	12.7	120.65	98.0	49.2	47.5	25.2	1.5	3	4.5	2.3	0.03
1040	6,000	249	44	12.7	128.5	104.6	57.1	50.8	26	1.5	3	4.5	3.1	0.05
1050	6,000	435	50	12.7	147.6	123.6	66.7	60.3	31.4	1.5	3	4.5	4.9	0.05
1060	6,000	684	57	19.1	162	130.0	76.2	63.5	32.2	1.5	3	4.5	6.6	0.09
1070	5,500	994	65	19.1	173	155.4	87.5	76.2	33.8	1.5	3	4.5	9.4	0.11
1080	4,750	2,051	79	27.0	200	180.8	104.8	88.9	44.1	1.5	3	4.5	16	0.17
1090	4,000	3,728	95	27.0	231.77	199.8	123.8	98.4	47.3	1.5	3	6.0	23.7	0.25
1100	3,250	6,276	107	41.3	266.7	245.7	142.0	120.6	60.2	1.5	4.5	9.5	40.1	0.43
1110	3,000	9,321	117	41.3	285.75	258.5	160.3	127.0	63.3	1.5	4.5	9.5	51.7	0.51
1120	2,700	13,671	136	60.3	319	304.4	179.4	149.2	73.75	1.5	6	12.5	78.3	0.73
1130	2,400	19,885	165	66.7	377.8	371.6	217.5	161.9	75.4	1.5	6	12.5	114.8	0.91
1140	2,200	28,585	184	66.7	416	372	254.0	183	78.5	1.5	6	12.5	174.5	1.13
1150	2,000	39,771	203	108.0	479	372	269	183	106	1.5	6	12.5	238.0	1.95
1160	1,750	55,927	228	120.7	532	402.2	305	198.1	114	1.5	6	12.5	322.8	2.81
1170	1,600	74,570	279	133.4	590	437.8	356	215.9	119	1.5	6	12.5	448.8	3.49
1180	1,400	103,381	311	152.4	630	483.6	394	238.8	129	1.5	6	12.5	591	3.76
1190	1,300	136,712	339	152.4	685	524.2	437	259.1	144	1.5	6	12.5	761	4.40
1200	1,100	186,425	361	177.8	737	564.8	497.8	279.4	145	1.5	6	12.5	1021	5.62

T31, T35



<T31>



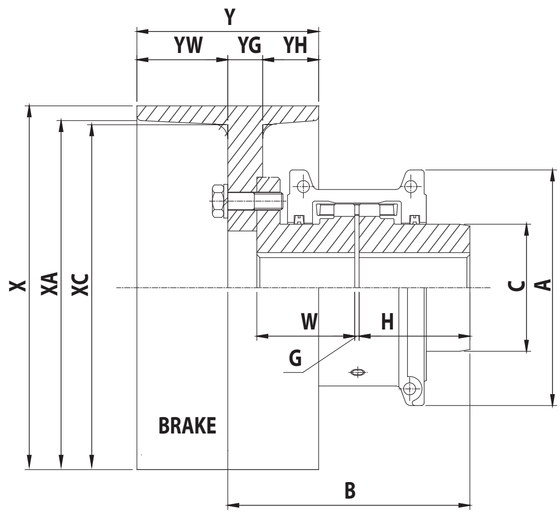
<T35>

SIZE	MAX SPEED (RPM)	BASIC TORGUE (Nm)	BORE DIA (mm)		DIMENSIONS(mm)									Flange Bolt No.	LUBE WT (kg)
					A	BE(T31)		BE(T35)		D	F	M	G		
			Max	Min		Min	Max	Min	Max						
1020	3600	48	36	12.7	97	89	203	45	102	86	52	35	5	4	0.0.3
1030	3600	135	44	12.7	106.1	89	216	45	109	94	59	41	5	8	0.03
1040	3600	226	57	12.7	114.6	89	216	45	109	113	78	54	5	8	0.05
1050	3600	395	64	12.7	135.6	112	216	57	109	126	87	59.5	5	8	0.05
1060	3600	621	79	19.1	148.1	127	330	64	166	145	103	73	5	8	0.09
1070	3600	904	83	19.1	158.6	127	330	64	166	153	109	79	5	12	0.11
1080	3600	1864	95	27	190.3	184	406	93	204	178	122	89	5	12	0.17
1090	3600	3389	108	27	210.5	184	406	93	204	210	142	102	5	12	0.25
1100	2400	5704	127	38.1	251	203	406	103	205	251	171	89	6.5	12	0.43
1110	2250	8472	149	50.8	269.5	210	406	106	205	277	196	103	6.5	12	0.51
1120	2025	12425	165	63.5	308.7	246	406	125	205	319	225	118.5	9.5	12	0.73
1130	1800	18072	178	76.2	346.8	257	406	130	205	346	238	135	9.5	12	0.91
1140	1650	25980	203	88.9	384.8	267	406	135	205	386	266	152	9.5	12	1.13
1150	1500	36145	254	101.6	453.54	345	371	175	187	425	334	173	9.5	14	1.95
1160	1350	50830	279	114.3	503	356	406	180	205	457	366	186	9.5	14	2.81
1170	1225	67773	330	127	568.4	384	445	194	224	527	425	220	9.5	16	3.49
1180	1100	93979	330	101.6	631.6	400	490	202	247	591	451	249	9.5	16	3.76
1190	1050	124251	362	114.3	677	411	530	207	267	660	508	276	9.5	18	4.4
1200	900	169433	381	127	760	445	575	224	289	711	530	305	9.5	18	5.62

※ BE means the distance between shaft ends. Please notice manufacturer BE value, when customer order this item.

Dimensions

BW



SIZE	Brake wheel Size(mm)		Max Brake Rating of CPLG(Nm)	BORE DIA (mm)		DIMENSIONS(mm)									LUBE WT (kg)
	X	Y		Max	Min	A	C	H	XA	XC	YH	YG	YW	G	
1020	-	-	10	30	12.7	97	39.7	47.5	-	-	-	-	-	3	0.03
1030	-	-	35	36	12.7	106.1	49.2	47.5	-	-	-	-	-	3	0.03
1040	160	80	65	44	12.7	114.6	57.1	50.8	145	140	28	12	40	3	0.05
1050	200	100	118	50	12.7	135.6	66.7	60.3	184	178	33	17	50	3	0.05
1060	200	100	208	57	19.1	148.1	76.2	63.5	184	178	33	17	50	3	0.09
1070	250	125	331	65	19.1	158.6	87.3	76.2	230	224	40.5	22	62.5	3	0.11
1080	315	160	637	79	27	190.3	104.8	88.9	292	285	57	23	80	3	0.17
1090	355	180	1084	95	27	210.5	123.7	98.4	330	320	64	26	90	3	0.25
1100	400	200	1898	107	41.3	251	142	120.6	374	362	72	28	100	5	0.43
1110	450	224	2846	117	41.3	269.5	160.3	127	422	410	80	32	112	5	0.51
1120	500	250	4337	136	60.3	308.7	178.4	149.2	462	445	90	35	125	6	0.73
1130	560	280	6491	165	66.7	346.8	217.5	161.9	516	495	95	45	140	6	0.91
1140	560	280	8810	184	66.7	384.8	254	182.8	516	495	95	45	140	6	1.13

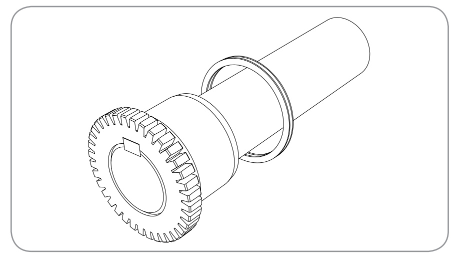
※ If you need BW type, First determine the size of brake of your coupling and the 'B', 'W' according to above dimension.
For further information, please contact us.

Installation

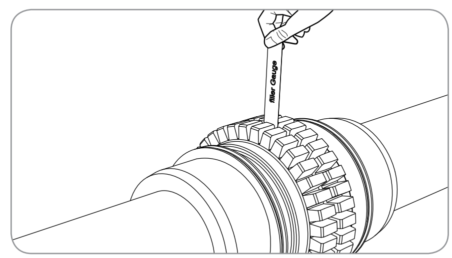
The operation and life of PTC grid coupling may be highly influenced by how it is installed and used. To successfully operate and use it without trouble, it must be installed and used in accordance with the provided manual. Only standard tools are required for installation: a wrench, a straight edge ruler, and a feeler or dial gauge.

Details for installation

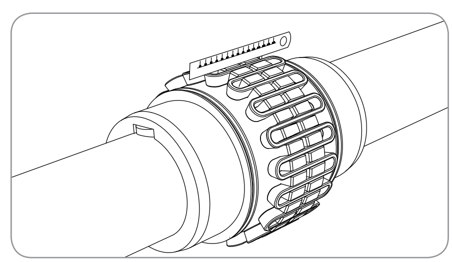
1 Clean all parts with cleansing oil, assemble the Oil seal and insert hub into the shaft.



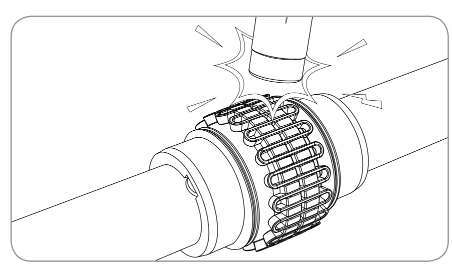
2 Insert clearance gauges to adjust the clearances and angular errors. At four points spaced 90 degrees around the coupling circumference.



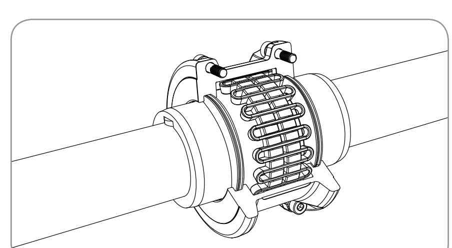
3 Adjust the parallel errors every 90 degrees in circumference using a straight edge ruler, and adjust errors for the shaft centers more accurately using a dial gauge.



4 Fill the groove on the teeth of the hub with grease, ensuring that the ends of the grid sections face the same direction, and then insert them tapping with a rubber hammer.



5 Apply enough Grease to the grid and place the oil seal where it fits well into the groove of the cover. Insert gasket and assemble the cover to ensure that match marks inside the latter are on the same side.



Disassembly

When disassembling the coupling, lift ends of the Grid ring using a screwdriver as shown in the figure, alternately both sides from the end of the Grid section.

Periodic maintenance

The maintenance should be done once a year according to the following procedure.

1. Check the alignment of the shaft. If the alignment is out of limits, re-install it to align again.

2. Ensure that all Fasteners are tightened for the torque.

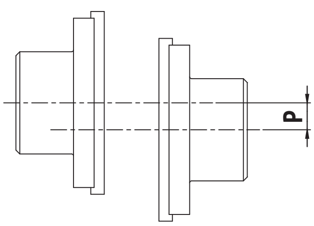
3. Check the conditions of Oil-Seal and Gasket. If even a small amount of Grease leaks, the parts must be replaced regardless of periodic maintenance.

4. After removing the cover, if you can find any parts that need to be replaced by visual inspection, replace them, apply Grease again, and assemble it with new Gasket and Oil Seal.

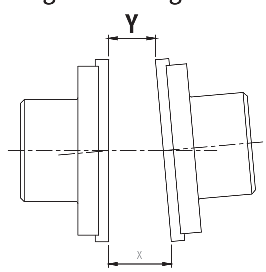
Alignment information

Accurate alignment enables couplings and the associated machineries to maximize the life and to minimize the maintenance. In particular, the life of the couplings is influenced by the power load, the speed at which it is operated, and the injection of lubricating oil. The values listed in the following table can be an indicator for maximizing the life of the couplings, and these values can be applied when they are based on the allowable RPM for each size, keep the specified clearance, use genuine parts, and assemble properly. Each value is also related to the installation of the couplings and the environment.

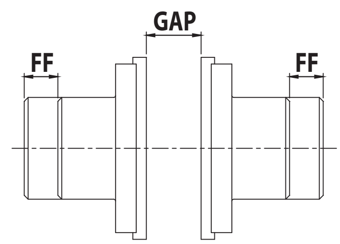
Parallel Misalignment



Angular Misalignment



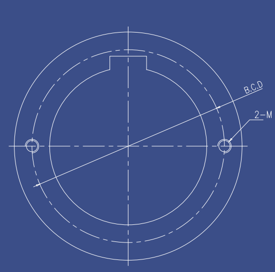
End Float



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)	
1020	0.15	0.08	0.30	0.25	11.30
1030	0.15	0.08	0.30	0.30	11.30
1040	0.15	0.08	0.30	0.33	11.30
1050	0.20	0.10	0.41	0.41	22.60
1060	0.20	0.13	0.41	0.46	22.60
1070	0.20	0.13	0.41	0.51	22.60
1080	0.20	0.15	0.41	0.61	22.60
1090	0.20	0.18	0.41	0.71	22.60
1100	0.25	0.20	0.51	0.84	35.00
1110	0.25	0.23	0.51	0.91	35.00
1120	0.28	0.25	0.56	1.02	73.00
1130	0.28	0.30	0.56	1.19	73.00
1140	0.28	0.33	0.56	1.35	73.00
1150	0.28	0.41	0.60	1.57	
1160	0.30	0.46	0.60	1.78	
1170	0.30	0.51	0.60	2.01	
1180	0.38	0.56	0.76	2.26	
1190	0.38	0.61	0.76	2.46	
1200	0.38	0.69	0.76	2.72	
1210	0.46	0.74	0.91	3.00	
1220	0.46	0.81	0.91	3.28	
1230	0.46	0.89	0.97	3.61	
1240	0.48	0.97	0.97	3.91	
1250	0.51	1.07	1.02	4.29	

Puller Holes



SIZE	B.C.D (mm)	Tap Size	SIZE	B.C.D(mm)	Tap Size
1150	227.5	M20 x P2.5 x 40	1210	497	M36 x P4.0 x 45
1160	260	M20 x P2.5 x 40	1220	541	M36 x P4.0 x 45
1170	306	M24 x P3 x 50	1230	586	M36 x P4.0 x 45
1180	341	M30 x P3.5 x 60	1240	633	M36 x P4.0 x 45
1190	373	M30 x P3.5 x 60	1250	690	M36 x P4.0 x 45
1200	410	M30 x P3.5 x 60	1260	749	M36 x P4.0 x 45