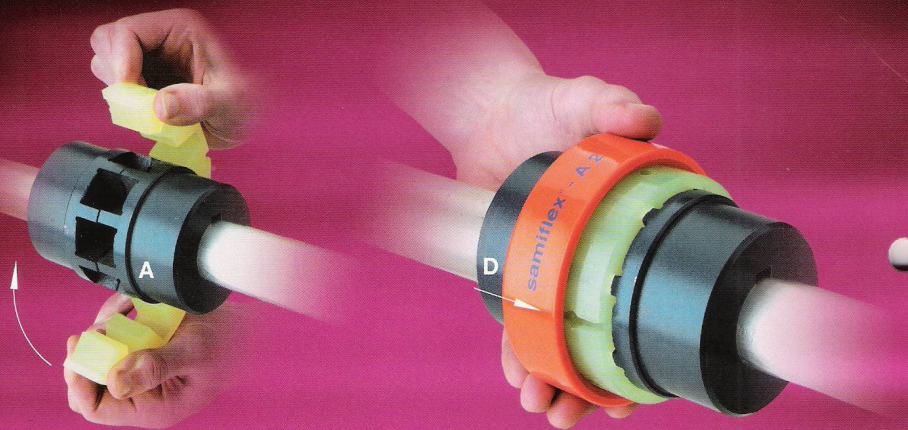


SAMIFLEX
ELASTIC COUPLINGS



SAMIFLEX ELASTOMERIC COUPLINGS

Now there's a new solution to one of the most costly and troublesome problems facing maintenance personnel - coupling failure and the expensive down time associated with fixing it.



Only four parts to the Samiflex Coupling

The two identical hubs (items A & B) are manufactured in cast iron, cast steel or aluminium alloy and incorporate four, six or eight teeth, depending on size rating of the coupling. A precision cast and machined polyurethane insert (item C) fits between the hubs and is split axially so fitting and removal can be achieved without moving hubs. The holding ring, manufactured in steel, polyamide or bronze (item D) is fitted over the insert securing both insert and ring between hubs. The coupling requires no bolts or nuts.

Assembly & Disassembly

Once hubs (A) and (B) and holding ring (D) have been installed and aligned on the shafts the coupling hubs will not have to be moved again during the life of the equipment. The elastic insert (C) can then be installed between the parallel slots formed by the hub teeth.

With the insert in position, slide the retaining ring (D) into position over the polyurethane insert. Centrifugal force will expand the insert under operation ensuring a tight, secure fit inside the retaining ring.

Removing and replacing the coupling insert is very simple and requires no special tools. By removing the retaining ring, the insert can be quickly and easily removed and replaced without the need to undo screws, bolts or other fasteners.

ATEX Approval

The range of Samiflex Couplings has been approved under ATEX directive 94/9/EC - for use in potentially explosive atmospheres.

Features and Benefits

- Coupling insert removable without the need to remove either driving or driven equipment.
- Change out of coupling insert is faster than any other coupling.
- No lubrication or maintenance required over the life of the insert.
- The polyurethane insert can be supplied in a variety of hardnesses to optimise torque capacity and damping.
- Polyurethane insert is very resistant to chemical attack.
- Standard insert can handle large temperature range from -40 to 80 °C.
- High temperature insert available up to 150 °C.
- Hubs can be rotated independently during motor test.
- No metal to metal contact
- Large bore to torque capacity
- Vertical operation possible with standard coupling.
- Retaining rings provided with locking screws as standard.

The specification contained within this brochure are correct at time of going to print. Autogard are continually reviewing and updating the specification on all its product range and therefore reserve the right to change any detail.

SAMIFLEX THE ELASTIC INSERT

The Samiflex elastic insert is manufactured from a special blend of polyurethane compound manufactured to best meet the demanding characteristics of a high performance elastic coupling.

Samiflex elastic inserts are offered in three styles of compound and five hardness ratings allowing the most appropriate insert to be selected for the application.

The standard elastic insert is supplied at 95 shore and is a yellow colour. High performance inserts type HD and HDT are coloured ochre and red respectively and enable Samiflex torque ratings to be increased by 40% (consult factory).

Insert	Ref.	Hardness	Colour	Temp. Rating
Standard	STD	80 Shore A	Clear	-40 / 80 C
		90 Shore A	Blue	
		95 Shore A	Yellow	
High Temp.	HT	95 Shore A	Orange	-40 / 140 C
High Performance	HD	97 Shore A	Ochre	-40 / 80 C
	HDT	97 Shore A	Red	-40 / 140 C
	HR	65 Shore D	Green	-40 / 140 C



Coupling Selection

Method

Data required for Coupling Selection.

- Application details (for service factor)
- Kilowatt and rpm of the driver.
- Shaft details of the driving and driven equipment.

(1) Determine the service factor (SF) from the application and classification lists noted below.

(2) Calculate the maximum Kw/1000 rpm rating:

$$\text{Kw/1000 rpm} = (\text{Kw} \times 1000 \times \text{SF}) / \text{rpm}$$

Select the coupling which has a higher max rating.

(3) Compare the maximum rpm capacity & bore requirements to the catalogue limits for the coupling selected.

Example

Driver: Water Turbine (75 Kw at 1500 rpm)

Driven equipment: Screw Compressor

Turbine Bore: 60 mm Compressor Bore: 50 mm

Distance Between Shaft Ends: 140 mm

Service Factor for the Water Turbine & Screw Compressor: SF = 2

$$\text{Kw/1000 rpm} = (75 \text{ Kw} \times 1000 \times 2) / 1500$$

$$\text{Kw/1000 rpm} = 100$$

Coupling selection based on max rating: A4B







Coupling Bore Capacity: 75 mm

Maximum Speed for the A4B is 3275 rpm unbalanced.

DBSE for the A4B Type SP is 140 mm

The A4B Type SP is acceptable in this application.

Service Factors - SF

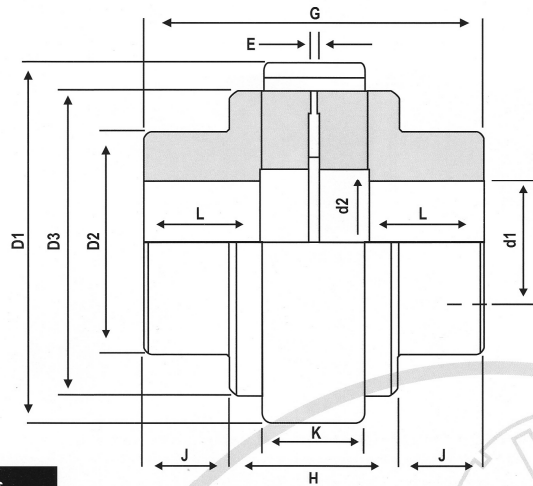
Load Characteristics	Electric Motor, Steam Turbine, Gas Turbine	Steam Engine, Water Turbine, 8 Cyl. Recip. Engine	6 Cyl. Recip. Engine	4 Cyl. Recip. Engine
 Constant Torque eg. Centrifugal pumps, compressors & blowers, light duty agitators and fans.	1.0	1.5	2.0	2.5
 Slight Fluctuations eg. Slurry pumps, Screw compressors, Lobe and Vane Blowers.	1.5	2.0	2.5	3.0
 Moderate Fluctuations and/or Slight Shock Loads Double acting pumps, Recip. Comp.	2.0	2.5	3.0	3.5
 Large Fluctuations and/or Moderate Shock Loads 1 or 2 Cylinder Recip. pumps.	2.5	3.0	3.5	4.0
 Shock Loads or Light Torque Reversals Sitters, Rod Mill, Hot Mill	3.0	3.5	4.0	Consult Factory
 Heavy Shock Loads or Large Torque Reversals Feed Rolls, Reversing Mills	Consult Factory	Consult Factory	Consult Factory	Consult Factory

(1) Use a minimum Service Factor of 1.25 when driving through a gearbox or using a direct on-line electric motor.

(2) Consult Autogard when using a reciprocating engine with fewer than 4 cylinders.

(3) Service Factors provided are for reference only. Customer experience may dictate the selection of different service factors.

COUPLINGS TYPE A



Technical Details & Dimensions

Coupling Type		A00	A0	A1	A2	A3	A3B	A4	A4B	A45	A5	A5B	A55	A6	A7	A8	A9	A10	A11
Style STD	Maximum KW per 1000	2.55	6.0	11	30	60	60	120	120	212	303	303	358	485	966	1815	3023	4845	5895
	Max. Cont. Torque Nm	24.2	56.9	107	286	569	569	1139	1139	2014	2876	2876	3400	4598	9168	17225	28684	45981	55945
Style HD	Maximum KW per 1000	-	-	15	40	78	78	163	163	275	398	398	475	658	1170	2205	3510	5663	7920
	Max. Cont. Torque Nm	-	-	142	337	740	740	1545	1545	2605	3772	3772	4500	6242	11104	20926	33311	53739	75163
Technical Data	Max. Speed - Unbal.	9100	8200	7250	5440	4200	4200	3275	3275	2800	2600	2600	2350	2200	1900	1800	1350	1100	1100
	Max. Speed - Bal.	10 000	9000	8000	6500	4800	4800	3600	3600	3100	2900	2900	2600	2500	2200	1850	1600	1250	1250
	Moment of Inertia (Kg-m ²)	-	-	0.0012	0.005	0.012	0.020	0.050	0.075	0.102	0.155	0.210	0.275	0.437	0.825	2.326	4.95	12	16
	Weight (Kg)	0.2	1	1.8	3.8	6.2	8.5	12.5	16	19	26	31	36	47	75	137	218	350	410
Displacement Values	Axial Tolerance	+0.3	+0.3	+0.5	+0.5	+0.7	+0.7	+0.8	+0.8	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.5	+1.5	+2.0	+2.0
	Radial / Parallel	0.20	0.30	0.30	0.50	0.50	0.50	0.70	0.70	0.70	0.70	0.70	0.80	0.80	1.00	1.00	1.00	1.50	1.50
	Angular Tolerance	2	2	2	2	2	2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1	1	1	1	1
Coupling Type		A00	A0	A1	A2	A3	A3B	A4	A4B	A45	A5	A5B	A55	A6	A7	A8	A9	A10	A11
Dimensions (Mm)	Max. Bore d1	22.2	34.9	41.3	53.97	54.0	69.8	70.0	95.2	82.5	85.0	114.3	101.6	114.3	139.7	150	180	210	210
	Pilot Bore	4	8	14	17	19	19	24	24	25	29	29	30	39	48	63	73	96	96
	D1	44	65	83	111	144	144	182	182	202	225	225	250	265	306	363	42.5	523	503
	D2	35	52	65	80	85	105	110	140	125	140	160	155	180	205	242	280	330	350
	D3	35	52	65	86	116	116	150	150	170	190	190	215	233	267	326	385	483	458
	d2	22	32	39	45	52	52	70	70	90	89	89	115	112	135	157	188	218	216
	G	51	73	91	127	156	156	180	180	198	216	216	246	260	310	382	420	482	512
	L	19	28	34	47	56	56	63	63	70	77	77	90	95	116	147	162	188	190
	Standard "DBSE"	13	17	23	33	44	44	54	54	58	62	62	66	70	78	88	95	106	132
	Dist. Between Hubs "E"	1.5	1.5	1.5	2.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	5	5	6	6
	H	-	-	-	55	65	65	85	85	93	101	101	109	119	134	154	162	192	216
	J	-	-	-	36	45	45	47	47	52	57	57	68	70	88	114	129	145	148
	K	12	16	22	32	42	42	51	51	56	59	59	64	67	75	85	92	102	128

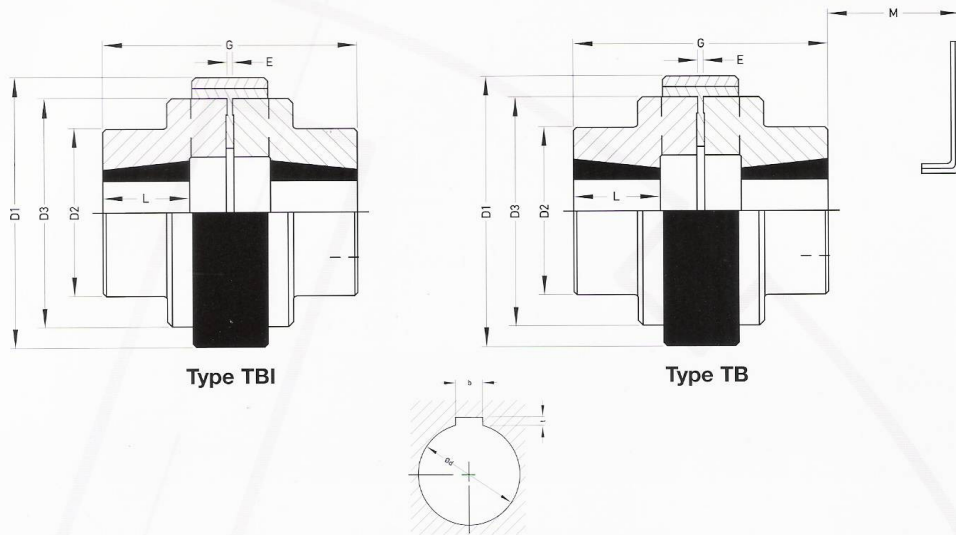
1) STD inserts will be supplied as standard unless specified. High Torque (HD) Inserts can be supplied upon request.

2) maximum speeds are based on Cast Iron Hubs. Higher speeds may be attained using Ductile Iron or Steel Hubs - Consult Autogard.

3) Distance Between Shaft ends (DBSE) is based on the shafts mating flush with the end of the hub face. Short or longer shaft separations may be obtained by overhanging the shaft or hub.

4) Weights & Inertias are based on solid hubs.

SAMIFLEX COUPLING FOR TAPER BUSH



Samiflex Coupling Bored to Suit Taper Lock Bushings

Coupling Size	Taper Bush	Bore Range		Dimensions						
		min.	max.	L	G	E	D1	D2	D3	M
A1 -TB/TBI	1108	9	28	27	77	1.5	83	65	65	29
A2 -TB/TBI	1210	11	32	32	97	2.5	111	80	86	38
A3 -TB/TBI	1610	14	42	32	107	2.5	144	85	116	38
A4 -TB/TBI	2012	14	50	38	130	3.5	182	110	150	42
A45 -TB/TBI	2517	16	60	50	158	3.5	202	125	170	50
A5B -TB/TBI	3020	25	75	56	173	3.5	225	160	190	55
A6 -TB	3535	35	90	95	259	3.5	265	180	233	67
A7 -TB	4545	55	110	120	318	4	306	205	267	70

Dimensions - Taper Bushes																																			
d	9	10	11	12	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90	95	100	105	110	
b	3	3	4	4	5	5	6	6	6	6	8	8	8	8	10	10	10	12	12	14	14	14	16	18	18	20	20	22	22	25	25	28	28	28	
t	1.4	1.4	1.8	1.8	2.3	2.3	2.8	2.8	2.8	2.8	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.8	3.8	3.8	4.3	4.4	4.4	4.9	4.9	5.4	5.4	5.4	6.4	6.4	6.4	6.4	
1108	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1210			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1610					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2012					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2517						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3020											*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3535																*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4545																	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

1) Refer to bush manufacturers for recommended torque capacity of each bush.

SUPER SOFT START FLUID COUPLING

TYPE PSS SIZES 320 TO 1040

The Premium Pembriil PSS Fluid Coupling is an advanced design of Constant Fill Fluid Couplings, when used in conjunction with a fixed speed motor, it will give the motor a very light load start, provides smooth acceleration and will ensure overload protection for the motor and driven machine. Using a Fluid Coupling in the drive line often makes it possible to employ a smaller motor because the Fluid Coupling allows the Motor to run quickly up to speed, where its overload capacity may be used for starting the machine.

Pembriil PSS Fluid Couplings are installed between coaxial shafts. Normally PSS Fluid Coupling is mounted between the motor and machine shaft and connected by flexible couplings, which absorb the small assembly misalignments. During starting condition PSS Fluid Coupling Chamber withdraws almost 30-40% quantity of oil from main circuit to reduce transmitted torque.

After motor reaches the full speed, this retained oil flows back into main circuit, it can be controlled as required by means of nozzles externally.

The PSS Fluid Coupling is a rugged unit. The major components being made from high tensile Aluminium Alloy Casting, it comprises of a basic Fluid Coupling, with the added advantage of Delayed Chamber and Flexible Coupling. Flexible coupling and hollow shaft bore and keyways may be finished to suit the customer requirements. Filling and Fusible plugs are fitted on the casing wall and the periphery of the coupling.

The main features of Pembriil 'PSS' Fluid Coupling are-

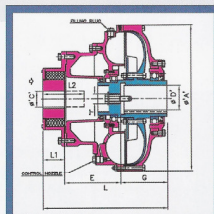
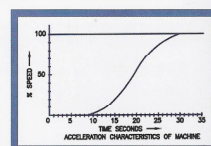
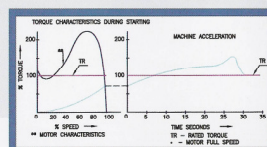
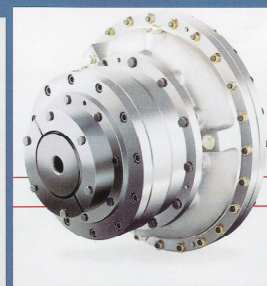
1. Can be engineered at site to meet the desired acceleration time /oil flow rate requirement by replacing the oil filling nozzles without opening the unit.
2. Torque transmission by the Fluid Coupling during Motor start-up can be reduced to approximately 50 to 60% of the rated torque.
3. Progressively increases the torque applied to the machine.
4. Design to achieve good heat-dissipation as compared to other Fluid Couplings.
5. Hollow Shaft design for compactness.
6. Manufactured in high tensile aluminum alloy for lighter weight.
7. Very high efficiency due to low slip at rated duty.

OPTIONAL ACCESSORIES:

1. Fusible Trip device Assembly.
2. Brake drum.
3. Oversize Half Coupling to accommodate larger shaft dia.
4. Solid shaft Couplings can be supplied on request.

TYPICAL APPLICATIONS:

Conveyors, Crushers, Ball mills, Ring granulators, Centrifuges, Mixers, Pumps, Frans, etc.



- C & D ● Maximum standard bores with standard keyways.
 E ● Shaft to Shaft end distance.
 L2 ● Maximum Shaft insertion length.
 W ● Approx. Total weight of unit without oil-kgs.
 W1 ● Approx. Total weight of unit with oil-kgs.
 Z1 ● Moment of inertia of fluid Cplg & Flex. Cplg kgm²
 Z2 ● Moment of inertia of Shaft and Runner of Cplg - Kgm²
 Q ● Approximate max. Oil quantity - Litres.

Selection Data

Max. Transmission Capacity in kW at various speeds - RPM

Size	720	870	960	1450	1750	2950
320	4.0	7.0	10.0	34.0	56.0	85.0
370	5.92	11.20	15.83	56.0	100.0	140.0
410	10.87	19.18	26.00	89.0	140.0	275.0
450	16.67	29.52	39.73	134.0	185.0	450.0
500	30.90	55.5	74.1	175.0	275.0	-
580	59.80	105.2	143.0	346.0	500.0	-
660	105.3	187.0	255.0	600.0	700.0	-
740	199.5	337.0	388.0	783.0	-	-
810	290.0	490.0	600.0	1150	-	-
910	532.0	760.0	860.0	-	-	-
1040	870.0	1150	1252	-	-	-

The chart may be used for selecting PSS Fluid Couplings. It shows maximum operating power rating for approved applications with direct on line squirrel cage motors, allow for 2 to 4 % slip in fluid coupling - low to high loadings.

ALL DIMENSIONS ARE IN MM

CPLG.	A	C	D	E	G	L	L1	L2	T	W	W1	Z1	Z2	Q
320	380	55	60	129	115	295	51	105	M30X3.5	41	47.5	1.68	0.374	7.2
370	434	70	60	161.5	140	355.5	54	140	M30X3.5	63.6	73	3.12	0.627	10.8
410	454	75	80	186	155	401	60	160	M30X3.5	85	99.2	5.15	0.876	15.8
450	521	85	80	218	170	455	67	197	M30X3.5	116	134.5	7.4	1.770	25
500	595	95	90	218	170	474	86	210	M30X3.5	145	172.7	13.8	2.530	30.8
580	660	115	110	258	176	529	95	243	M30X3.5	200	242.3	32.5	5.560	47
660	749	115	110	320	180	595	95	285	M30X3.5	275	336	43	8.535	68
740	838	115	145	334	240	669	95	279	M30X3.5	325	405.1	72	17.85	89
810	914	115	145	439	210	763	114	323	M30X3.5	330	438	112	27.25	120
910	1032	140	190	351	300	765	114	275	48X81	740	878.6	215	38.15	154
1040	1162	170	190	380	315	822	127	335	48X81	990	1186	308	66.50	218

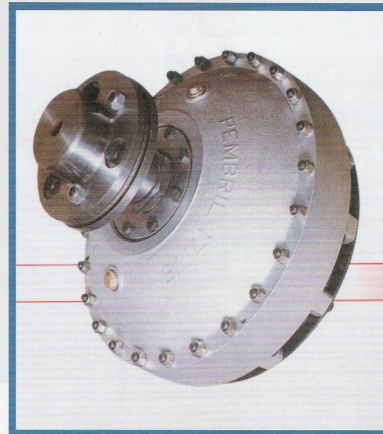
CONSTANT FILLINGS FLUID COUPLINGS

The type FCU fluid coupling when used in conjunction with a fixed speed motor will give the motor a light-load start, provide smooth acceleration and ensure overload protection for the motor and driven machine. Using a fluid coupling in the drive-line often makes it possible to employ a smaller motor, because the fluid coupling will allow the motor to run quickly up to speed, where its overload capacity may be used for starting the machine.

Starting or stalling torque may be determined precisely by selection of the initial oil filling. Further adjustment, to suit drive requirements, may easily be made at site. The type FCU fluid coupling is a compact, rugged unit, the major components being aluminium alloy castings. It comprises the basic fluid coupling, diaphragm input mounting and multidisc type semi-flexible coupling on the output side. Bores and keyways may be finished to suit customer's requirements.

Fusible plugs are fitted to all except the smaller model fluid couplings to provide protection against excess temperature rise should the motor overload trip fail to operate during stall or overload conditions. Vertical applications can be catered for in most sizes.

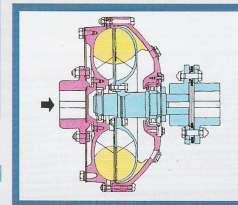
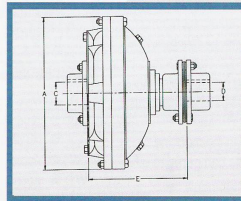
Units are available in sixteen sizes, covering ratings from 0.1 kW to 1000kW.



SOME OF THE TYPICAL APPLICATIONS INCLUDE:

- Belt Conveyors
- Barking Drums
- Chain Conveyors
- Hammer Mills
- Mixers and Agitators
- Rotary Dryers
- Crushers
- Centrifuges
- Haulages
- Reciprocating Pumps
- Ball Mills
- Marine Transmission
- Cranes
- Winches

TYPE FCU SIZES 8 TO 41



TECHNICAL DATA - Dimensions in mm

Size	A	C	D	E	Filled Weight (Kgs)	GD2-PR1 (Kg m ²)	Oil Qty Ltr.
8	237	42	35	165	13.2	0.246	1.7
9.25	268	48	48	194	17.7	0.332	2.6
10.5	308	48	48	210	22.2	0.54	3.7
11.5	333	60	55	232	35	0.75	4.6
12.75	368	60	55	262	41	1.38	6.8
14.5	419	80	70	287	57.6	2.53	10.2
16.25	454	80	70	335	74	4.2	13.6
17.75	502	85	76	354	106	6.4	17
20	578	85	76	390	142	11.5	26
23	660	110	100	457	207	23	40
26	749	110	100	492	272	38	57
29	838	130	115	552	358	65	78
32	914	130	115	587	520	95	106
36	1032	150	150	626	678	182	136
41	1162	150	150	660	948	316	205

The chart may be used for selecting a type FCU fluid coupling. It shows maximum operating power ratings for approved application with direct-on started squirrel cage motors, and will allow 200% full load torque for starting. Selections may be different from those shown, for drives having frequent cyclic duty, very high inertia starting, or diesel engine drives, such cases should be referred to Premium Energy Transmission Ltd. Office or representative who will prepare specific proposals.

These ratings are also generally suitable for drives employing slip-ring motors; for drives using DC motors consult Premium Energy Transmission Ltd. Allow for 3% to 5% slip in fluid coupling - low to high loadings.

TYPE FCU SELECTION TABLE

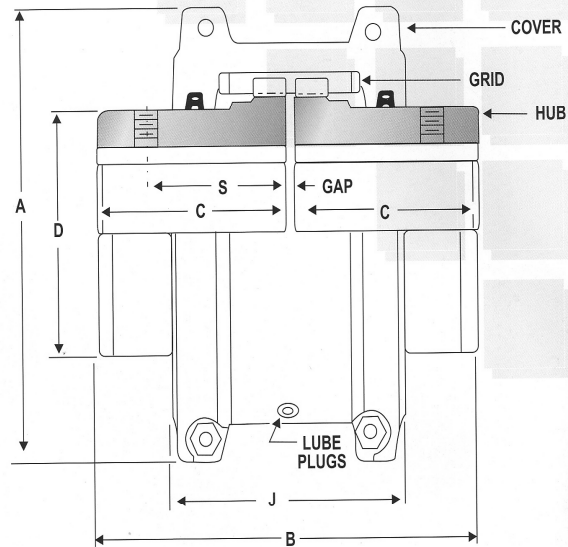
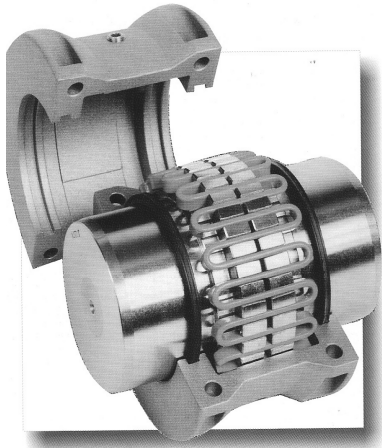
Size	Max. Operating kW rating at various motor speeds.			
	580	720	960	1450
8	-	0.29	0.69	2.36
9.25	0.31	0.60	1.42	4.88
10.5	0.59	1.13	2.68	9.21
11.5	0.96	1.83	4.35	14.01
12.75	1.64	3.13	7.53	26.10
14.5	3.0	5.67	13.42	46.20
16.25	5.44	10.44	24.76	75.00
17.75	8.13	15.51	37.29	120.00
20	15.73	30.13	75.00	151.00
23	30.00	56.70	130.00	275.00
26	58.20	112.00	210.00	455.00
29	101.00	187.00	340.00	615.00
32	155.00	271.00	420.00	837.00
36	273.00	345.00	725.00	-
41	410.00	634.00	1000.00	-

Grid and Gear Couplings



GRID & GEAR COUPLINGS

HORIZONTALLY SPLIT COVERS



CPLG. SIZE	CPLG. RATING Nm	MAX RPM	MIN BORE mm	(2) MAX BORE mm	(1) WT kg	(1) WK ² Kgm	A mm	B mm	C mm	D mm	J mm	GAP mm	S mm
1020TG	48	4500	13	27	1.8	0.0014	102	98	47.5	39.7	66.7	3.2	35
1030TG	136	4500	13	35	2.4	0.0022	111	98	47.5	49.2	68.3	3.2	40
1040TG	226	4500	13	44	3.2	0.033	118	105	50.8	57.2	69.9	3.2	40
1050TG	395	4500	13	51	5.2	0.0073	138	124	60.3	66.7	79.4	3.2	45
1060TG	621	4350	19	57	7.1	0.0119	151	130	63.5	76.2	92.0	3.2	53
1070TG	904	4125	19	68	10.1	0.0185	162	156	76.2	87.3	95.3	3.2	54
1080TG	1864	3600	25	83	17.7	0.0451	194	181	88.9	104.8	115.9	3.2	65
1090TG	3390	3600	25	95	24.5	0.0787	213	200	98.4	123.8	122.2	3.2	72
1100TG	5706	2440	42	108	41.3	0.1782	251	246	120.6	142.1	155.6	4.8	-
1110TG	8475	2250	42	117	53.6	0.2701	270	259	127.0	160.4	162.6	4.8	-
1120TG	12428	2025	60	137	78.7	0.5136	308	305	149.2	179.4	192.0	6.4	-
1130TG	18078	1800	66	165	118.0	0.9885	347	330	161.9	217.5	195.2	6.4	-
1140TG	25987	1650	66	184	176.0	1.8454	384	375	182.8	254.0	201.5	6.4	-
1150TG	36130	1500	108	203	227	-	453	372	182.8	269.0	271.2	6.4	-
1160TG	50810	1350	120	228	307	-	501	402	198.1	304.8	278.9	6.4	-
1170TG	67740	1225	133	254	434	-	566	438	215.9	355.6	304.3	6.4	-
1180TG	93930	1100	152	279	600	-	629	483	238.7	393.7	321.0	6.4	-
1190TG	124000	1050	-	335	4.40	-	675.6	524.2	259.1	436.9	325.1	6	-
1200TG	169000	900	-	360	5.62	-	756.9	564.8	279.4	497.8	355.6	6	-

DOUBLE ENGAGEMENT COUPLINGS FOR HORIZONTAL SHAFTS

Coupling Rating			MAX SPEED RPM ①	Bore Dia mm ②		Dimensions in mm ③										Mass kg Inertia kgm² ④ Mr²	
SIZE	kW/rpm	kNm		MAX	MIN	A	B	C	D	F	H	J	M	GAP			
10	0.125	1.2	8000	52	16	116	89	43	69	84	14	39	51	3	4.37	0.0052	
15	0.261	2.5	6500	65	24	152	102	50	86	105	19	48	61	3	8.96	0.0192	
20	0.521	5.0	5600	80	28	178	127	62	105	127	19	60	76	3	14.80	0.041	
25	0.907	8.7	5000	98	35	213	159	77	131	155	22	72	92	5	26.40	0.105	
30	1.344	12.9	4400	115	42	240	187	91	152	181	22	84	106	5	39.60	0.195	
35	2.022	19.4	3900	135	50	279	219	107	178	211	29	98	130	6	65	0.454	
40	3.179	30.5	3600	160	50	318	247	121	210	246	29	111	145	6	96	0.860	
45	4.356	41.8	3200	180	55	346	278	135	235	274	29	123	165	8	131	1.39	
50	5.940	57.0	2900	195	75	389	314	153	254	306	38	141	183	8	186	2.53	
55	8.441	81.0	2650	215	75	425	344	168	279	334	38	158	203	8	247	3.83	
60	9.900	95.0	2450	235	80	457	384	188	305	366	26	169	228	8	299	5.21	
70	15.310	147.0	2150	280	100	527	451	221	356	425	29	196	266	10	473	11.0	



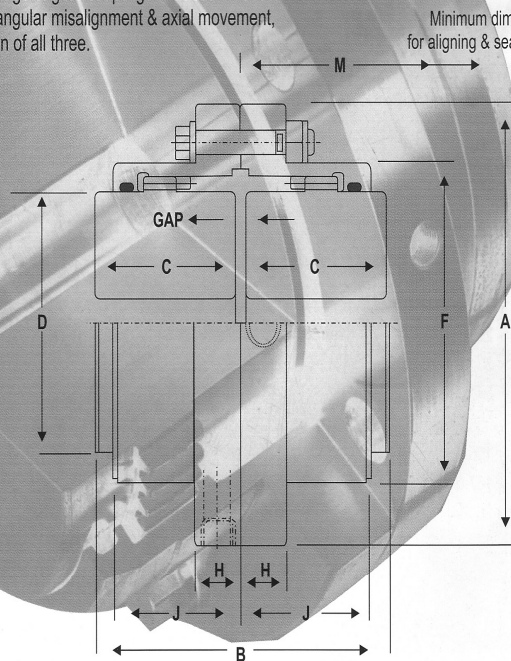
STYLE SG - SIZES 10 TO 70

The standard range of gear couplings will accommodate parallel offset, angular misalignment & axial movement, or a combination of all three.

Minimum dimension for aligning & seal removal.

OPERATING MISALIGNMENT

SIZE	PARALLEL	ANGULAR
10	.005	.005
15	.005	.005
20	.010	.010
25	.010	.010
30	.012	.015
35	.012	.015
40	.012	.020
45	.012	.020
50	.012	.020
55	.012	.030
60	.012	.030
70	.012	.030



- 1 The maximum speeds specified above are generally based on the limit of the lubricant being used. To attain these speeds a separate balance operation may be necessary depending on the requirements of the application. Special couplings can be supplied for higher speeds or more sensitive applications.
- 2 Maximum bores specified are for uniformly loaded drives only.
- 3 All dimensions are subject to confirmation. General arrangement drawings are available which show certified dimensions.



GO-A, GO-AR & GO-ARR COUPLINGS

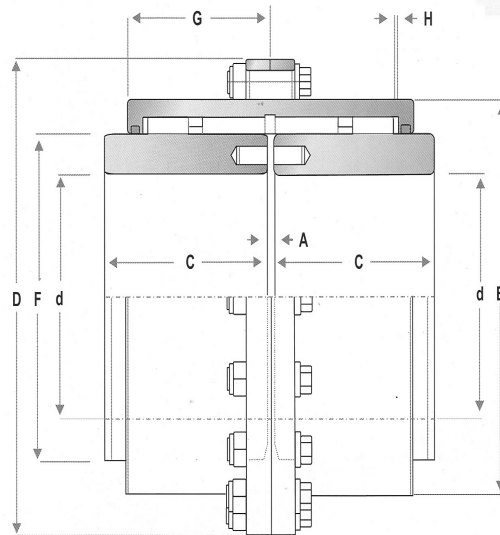


Fig. 01 - GO - A Coupling

TECHNICAL DATA

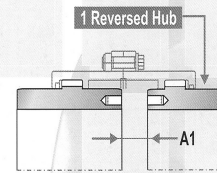


Fig. 02 - GO - AR Coupling

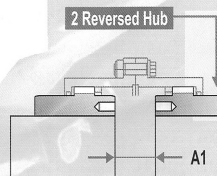


Fig. 03 - GO-ARR Coupling

GO-A Coupling

DENOMINATION EXAMPLE: GO-A GEAR COUPLING SIZE 6

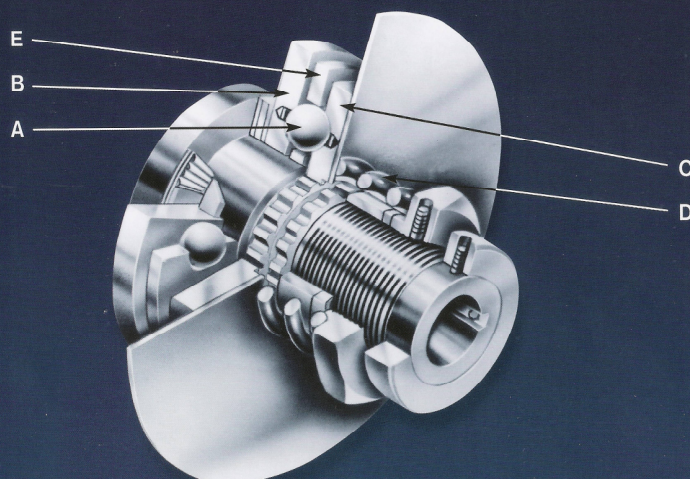
TAB.11

SIZE	Nominal Torque (kNm) Tk	Max Torque (kNm) Tf	Max Speed (1/min) nk	Min Max (Mm) d	DIMENSIONS (MM)									Mass Ⓚ M [Kg]	Moment of Inertia Ⓚ J [Kg·m²]	Grease Quantity [Kg]	Torsional Stiffness Ⓚ Kx10 [Nm/rad]
					D	C	A	A1	A2	E	F	G	H				
0	1.80	4.32	6000	12-52	111	43	3	5	7	82.5	69	39	1.5	8	0.007	0.08	4.360
1	2.76	6.62	4620	18-62	142	50	3	8	13	104.5	85	45.5	1.5	13	0.018	0.09	7.310
2	5.55	13.30	4140	28-78	168	62	3	14	25	130.5	107	59	1.5	23	0.046	0.16	13.45
3	8.70	20.90	4000	40-98	200	76	5	12	19	158.5	133	68.5	2.5	41	0.120	0.27	24.58
4	14.10	33.80	3860	50-112	225	90	5	24	43	183.5	152	82.5	2.5	60	0.229	0.47	30.34
5	22.80	54.70	3720	60-132	265	105	6	27	48	211.5	178	93	3	91	0.501	0.68	47.68
6	34.80	83.50	3190	70-156	300	120	6	32	58	245.5	209	106	3	141	1.005	0.93	68.27
7	44.00	105.6	2900	85-174	330	135	8	37	66	275	234	118	4	199	1.734	1.54	97.85
8	69.80	167.6	2570	95-190	370	150	8	50	92	307	254	138	4	285	3.029	2.28	136.1
9	83.80	201.1	2330	110-210	406	175	8	53	98	335	279	154	4	352	4.556	3.10	159.9
10	152.0	364.8	2150	120-233	438	190	8	58	108	367	305	166	4	428	6.165	3.90	203.3
11	203.5	488.4	1800	130-280	505	220	10	72	134	423	355	193	5	596	12.55	6.20	283.0



TORQUE LIMITER SERIES 200

Quality and Autogard are synonymous with overload protection. The company's reputation for high quality products is derived from over 40 years of design innovation and production. Autogard products are manufactured to meet ISO 9001 using the latest machine tools and high quality materials.



The Series 200 torque limiter is a state of the art mechanical device that will disengage at a pre-set torque value. The trip torque is set above the normal start-up and operating torque, but below a torque setting which would normally damage the driving and / or driven equipment. In the event of a jam, the torque limiter eliminates the threat of damage by disconnecting the inertia in the drive train.

In the normal drive condition, torque is transmitted through the drive balls (A) which are seated in detents in the drive plate (B) and the slide plate (C). These are all held together under pressure from spring (D).

Disengagement on overload

When the driven machine either jams or an overload occurs which is greater than the torque setting, the balls roll out of their seats and force apart the drive plate (B) and the slide plate (C). The balls are retained by the cage plate (E) and roll freely on the flat surface of the drive plate (B) and slide plate (C).

Re-engagement

Re-engagement occurs in one of three ways depending upon which reset type is selected.

Type AC - Automatic Random Reset

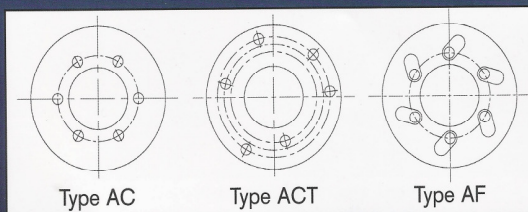
The ball detents in the drive plate (B) and the slide plate (C), as well as the retaining holes in cage plate (E) are equally spaced on the same pitch circle diameter so that the balls will roll into the next detents after tripping in either direction. Immediate shutdown is required to prevent wear of the detents.

Type ACT - Automatic Synchronous Reset

They are positioned in a scattered pattern so that the balls must return to their original position before they can reset. Re-engagement will occur within two revolutions in either direction. Immediate shutdown is required to prevent wear of the detents.

Type AF - Free Wheeling Disengagement

As with the AC the detents in drive plate (B) and slide plate (C) are equally spaced. The retaining holes in the engaging plate (E) are elongated so that as the balls roll from the detents they can follow a cam profile onto a different running track away from the detents. The AF can run at higher speeds as the balls will not ratchet in the detents. Re-setting is achieved by manually locking the plates and reversing the drive.



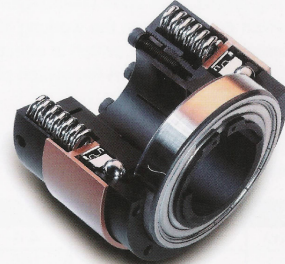
OTHER AUTOGARD PRODUCTS



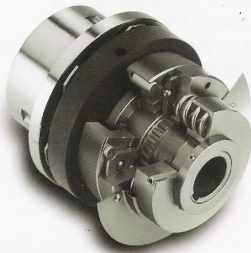
Autoflex Couplings



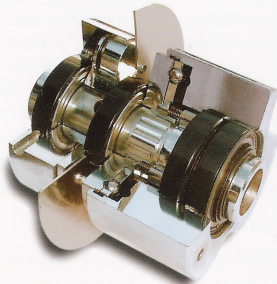
Samiflex Elastic Coupling



Autogard Series 320 Torque Limiters



Autogard Series 400 Torque Limiters



Autogard Series 600 Torque Limiters



Autogard Series 800 Torque Limiters

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