POONA COUPLINGS PVT. LTD.

DCU COUPLINGS

INDUSTRIAL RANGE

The DCU range of flexible couplings have low weight and inertia yet retain the unrivalled quality and endurance features of the standard DCB.

Fail-safe Design

The intrinsically fail-safe design ensures continuous operation of the driveline area in the unlikely event of rubber damage.

OTHER FEATURES

Noise Attenuation

As there is no metal contact, the coupling design provides excellent noise attenuation giving quiet running in sensitive applications.

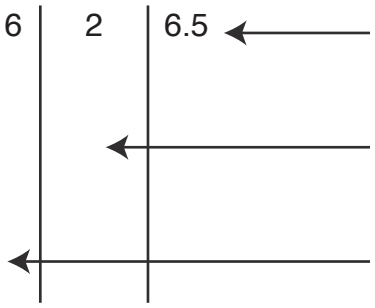
Misalignment

The flexibility of the rubber allows axial and radial misalignment between the driving and driven machine.

The Standard Range Comprises

- Flywheel to shaft
- Flywheel to flange
- Shaft to shaft

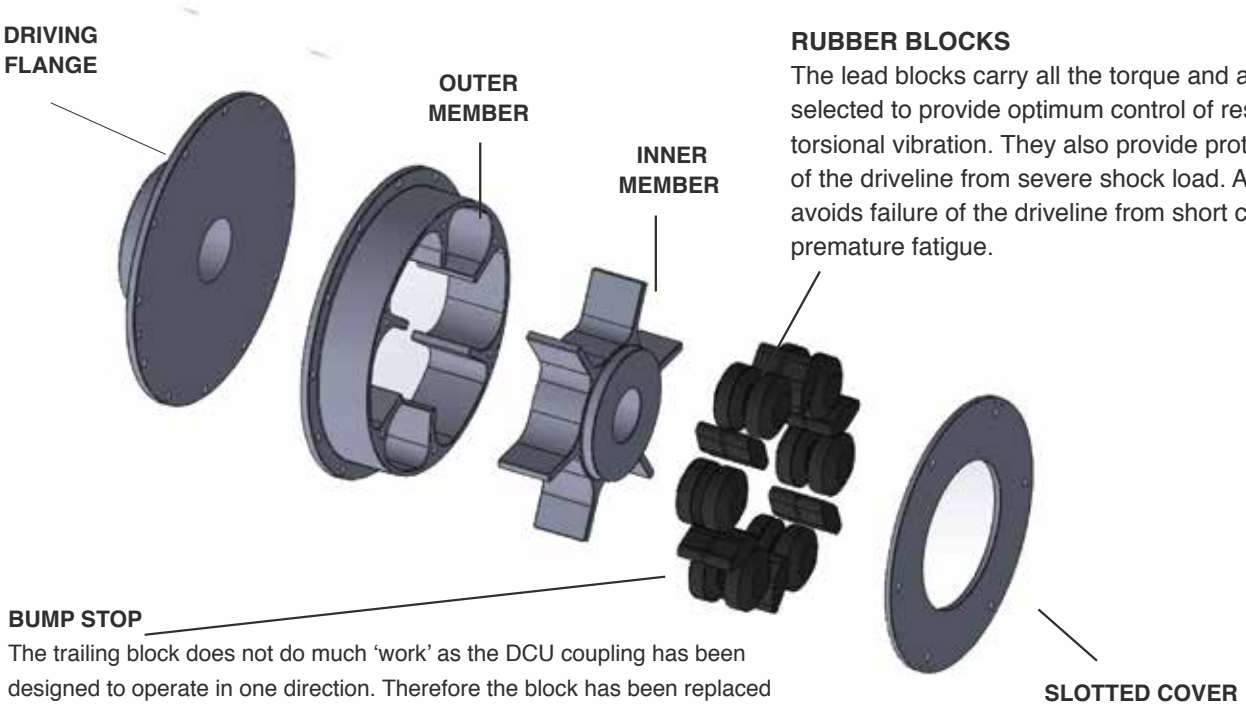
Construction Details



6.5" diameter driving element
2 rows of elements
6 driving elements spaced radially around the coupling.

Couplings are available as standard with up to five rows of elements

Inner and outer members available in Steel to BS3100 Grade A4 or S.G. Iron to BS1563 Grade 400/15.



RUBBER BLOCKS

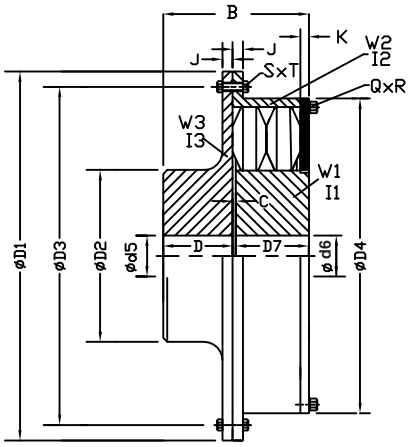
The lead blocks carry all the torque and are selected to provide optimum control of resonant torsional vibration. They also provide protection of the driveline from severe shock load. All this avoids failure of the driveline from short circuit or premature fatigue.

BUMP STOP

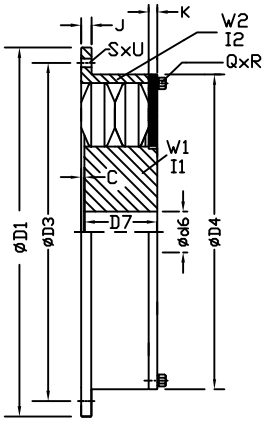
The trailing block does not do much 'work' as the DCU coupling has been designed to operate in one direction. Therefore the block has been replaced by a bump stop, which has enabled the overall size of the coupling to be reduced. The resulting decrease in weight and inertia decreases the bending moments on the drive shaft.

DCU FLEXIBLE COUPLINGS - DIMENSIONAL DATA

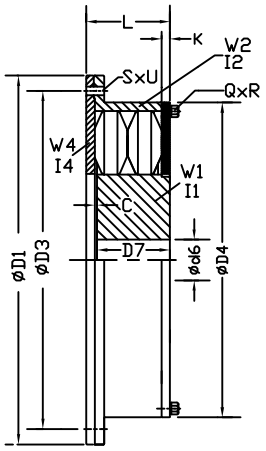
FULL COUPLING



FLEX HALF



FLEX HALF + KEEP PLATE

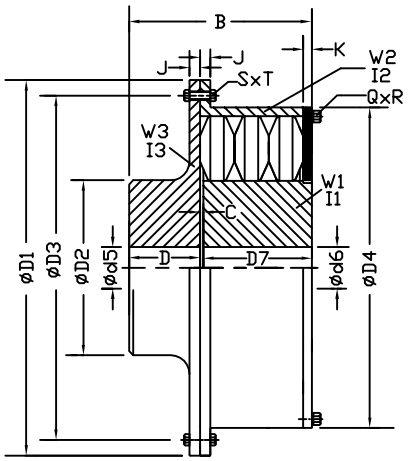


COUPLING SIZE		612.5	622.5	632.5	642.5	652.5	613.5	623.5	633.5	643.5	653.5	614.5	624.5
PREFERRED SIZE													*
DIMENSIONS (mm)	D1	344	344	344	344	344	470	470	470	470	470	604	604
	B	110	142	206	237	301	153	198	287	331	420	189	247
	C	3	3	3	3	3	4	4	4	4	4	6	6
	D	70	70	101	101	133	97	97	141	141	186	120	120
	D7	38	70	101	133	165	52	97	141	186	230	63	120
	D2	152	152	152	152	152	214	214	214	214	214	275	275
	D3	322	322	322	322	322	444	444	444	444	444	568	568
	D4	296	296	296	296	296	414	414	414	414	414	532	532
	J	10.00	10.00	10.00	10.00	10.00	13.50	13.50	13.50	13.50	13.50	17.00	17.00
	K	9	9	9	9	9	12	12	12	12	12	12	12
	L	53	85	116	148	180	68	113	157	202	246	81	138
	Q	12	12	12	12	12	12	12	12	12	12	12	12
	R	M 10	M10	M10	M10	M10	M14	M14	M14	M14	M14	M18	M18
	S	12	12	24	24	24	16	16	32	32	32	12	12
	T	M 10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M16	M16
	U	11	11	11	11	11	13	13	13	13	13	17	17
	Max. d5	95	95	95	95	95	134	134	134	134	134	171	171
	Max. d6	95	95	95	95	95	134	134	134	134	134	171	171
MAXIMUM SPEED (rpm) (1)		3940	3940	3940	3940	3940	2815	2815	2815	2815	2815	2190	2190
WEIGHT (kg) (2)	W1	4.44	8.98	13.36	17.87	22.37	12.05	24.44	36.58	48.98	61.12	24.64	50.79
	W2	9.14	13.02	16.76	20.61	24.46	23.57	34.10	44.38	54.87	65.15	45.20	67.30
	W3	11.32	11.32	13.86	13.86	16.48	29.84	29.84	36.96	36.96	44.24	61.44	61.44
	W4	6.63	6.63	6.63	6.63	6.63	12.20	12.20	12.20	12.20	12.20	20.15	20.15
INERTIA (kgm)^2 (2)	I1	0.03	0.06	0.09	0.12	0.15	0.15	0.31	0.48	0.64	0.80	0.51	1.08
	I2	0.16	0.23	0.29	0.36	0.43	0.79	1.15	1.49	1.85	2.20	2.56	3.79
	I3	0.12	0.12	0.13	0.13	0.14	0.59	0.59	0.64	0.64	0.70	2.01	2.01
	I4	0.12	0.12	0.12	0.12	0.12	0.41	0.41	0.41	0.41	0.41	1.11	1.11
ALLOWED MISALIGNMENT (3)	RADIAL (mm)	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.5	2.5
	AXIAL (mm)	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.5	2.5
	CONICAL (degree)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OPTION FOR SAE FLYWHEEL		11.5, 14	11.5, 14	11.5, 14	11.5, 14	11.5, 14	14, 18	14, 18	14, 18	14, 18	14, 18	21, 24	21, 24

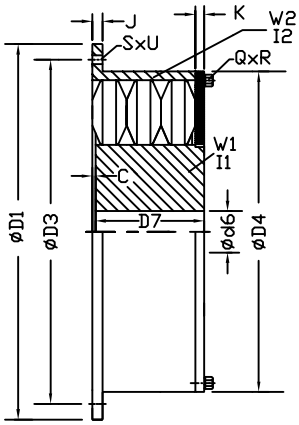
(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.
(2) Weights and inertias are based on the maximum bore size.
(3) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment overtime, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

DCU FLEXIBLE COUPLINGS - DIMENSIONAL DATA

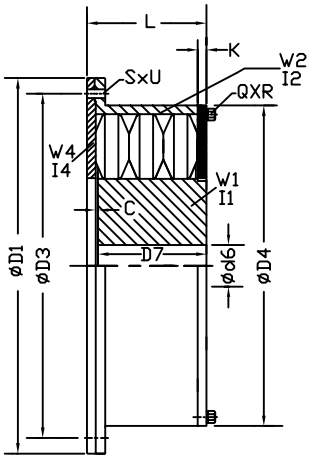
FULL COUPLING



FLEX HALF



FLEX HALF + KEEP PLATE



COUPLING SIZE		634.5	644.5	654.5	615.5	625.5	635.5	645.5	655.5	616.5	626.5	636.5	646.5
PREFERRED SIZE			*			*		*			*		*
DIMENSIONS (mm)	D1	604	604	604	740	740	740	740	740	872	872	872	872
	B	361	418	532	237	307	447	516	656	282	364	529	612
	C	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
	D	177	177	235	150	150	220	220	290	178	178	261	261
	D7	177	235	292	80	150	220	290	360	96	178	261	343
	D2	275	275	275	336	336	336	336	336	396	396	396	396
	D3	568	568	568	696	696	696	696	696	825	825	825	825
	D4	532	532	532	650	650	650	650	650	770	770	770	770
	J	17	17	17	21	21	21	21	21	25	25	25	25
	K	12	12	12	17	17	17	17	17	21	21	21	21
	L	195	253	310	103	173	243	312	382	125	207	290	372
	Q	12	12	12	12	12	12	12	12	12	12	12	12
	R	M18	M18	M18	M20	M20	M20	M20	M20	M24	M24	M24	M24
	S	24	24	24	16	16	32	32	32	16	16	32	32
	T	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24	M24
	U	17	17	17	21	21	21	21	21	25	25	25	25
	Max. d5	171	171	171	210	210	210	210	210	247	247	247	247
	Max. d6	171	171	171	210	210	210	210	210	247	247	247	247
MAXIMUM SPEED (rpm) (1)		2190	2190	2190	1795	1795	1795	1795	1795	1515	1515	1515	1515
WEIGHT (kg) (2)	W1	76.94	103.51	129.66	46.00	93.65	141.31	188.96	236.61	77.70	156.63	236.45	315.38
	W2	89.37	111.78	133.84	94.26	135.32	176.31	217.31	258.29	148.56	216.31	284.79	352.54
	W3	76.81	76.81	92.45	114.42	114.42	142.4	142.4	170.39	188.43	188.43	234.65	234.65
	W4	20.15	20.15	20.15	41.65	41.65	41.65	41.65	41.65	73.55	73.55	73.55	73.55
INERTIA (kgm)^2 (2)	I1	1.66	2.24	2.81	1.41	2.96	4.52	6.08	7.63	3.34	6.95	10.61	14.23
	I2	5.02	6.27	7.50	7.85	11.28	14.7	18.12	21.54	17.35	25.28	33.3	41.23
	I3	2.21	2.21	2.41	5.59	5.59	6.14	6.14	6.69	12.81	12.81	14.07	14.07
	I4	1.11	1.11	1.11	3.43	3.43	3.43	3.43	3.43	8.43	8.43	8.43	8.43
ALLOWED MISALIGNMENT (3)	RADIAL (mm)	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
	AXIAL (mm)	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
	CONICAL (degree)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OPTION FOR SAE FLYWHEEL		21, 24	21, 24	21, 24	24	24	24	24	24	-	-	-	

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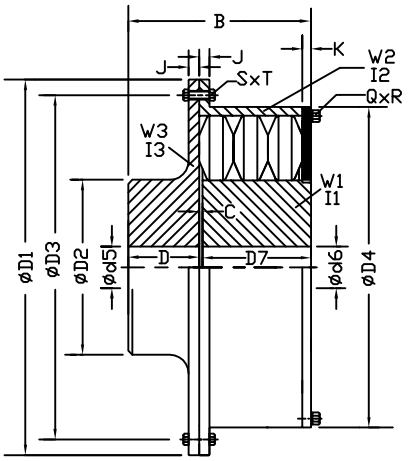
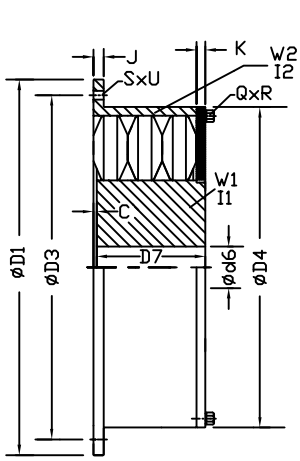
DCU FLEXIBLE COUPLINGS - DIMENSIONAL DATA

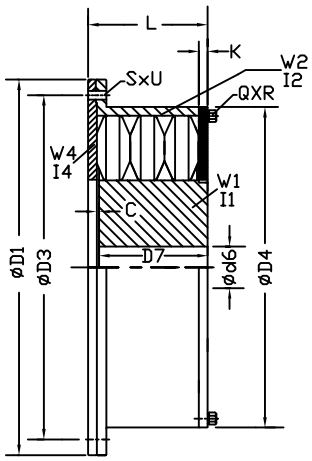
FULL COUPLING



FLEX HALF



FLEX HALF + KEEP PLATE



COUPLING SIZE		656.5	617.5	627.5	637.5	647.5	657.5	618	628	638	648	658	618.5
PREFERRED SIZE				*	*				*	*	*		*
DIMENSIONS (mm)	D1	872	1006	1006	1006	1006	1006	1074	1074	1074	1074	1074	1140
	B	777	319	414	605	700	890	348	449	653	754	957	366
	C	8	9	9	9	9	9	9	9	9	9	9	10
	D	343	203	203	298	298	393	220	220	322	322	423	232
	D7	426	107	203	298	393	488	119	220	322	423	525	124
	D2	396	457	457	457	457	457	488	488	488	488	488	518
	D3	825	947	947	947	947	947	1010	1010	1010	1010	1010	1074
	D4	770	888	888	888	888	888	946	946	946	946	946	1005
	J	25	28	28	28	28	28	30	30	30	30	30	32
	K	21	21	21	21	21	21	26	26	26	26	26	26
	L	455	137	233	328	423	518	153	254	356	457	559	159
	Q	12	12	12	12	12	12	12	12	12	12	12	12
	R	M24	M30	M30	M30	M30	M30	M30	M30	M30	M30	M30	M36
	S	32	12	24	24	24	24	16	16	32	32	32	16
	T	M24	M30	M30	M30	M30	M30	M30	M30	M30	M30	M30	M30
	U	25	31	31	31	31	31	31	31	31	31	31	31
	Max. d5	247	286	286	286	286	286	305	305	305	305	305	324
	Max. d6	247	286	286	286	286	286	305	305	305	305	305	324
MAXIMUM SPEED (rpm) (1)		1515	1315	1315	1315	1315	1315	1230	1230	1230	1230	1230	1160
WEIGHT (kg) (2)	W1	395.19	116.49	238.31	358.97	479.62	600.28	146.76	294.11	442.76	590.14	738.83	171.82
	W2	421.03	214.55	319.73	424.25	528.77	647.94	272.12	397.06	523.11	648.06	774.11	318.20
	W3	280.31	285.18	285.18	355.33	355.33	425.48	348.92	348.92	434.97	434.97	520.13	416.05
	W4	73.55	97.56	97.56	97.56	97.56	97.56	129.96	129.96	129.96	129.96	129.96	149.54
INERTIA (kgm) [2] (2)	I1	17.89	6.69	14.10	21.45	28.79	36.14	9.60	19.87	30.23	40.50	50.86	12.63
	I2	49.25	33.67	50.04	66.31	82.59	98.86	48.35	90.42	92.69	114.80	137.00	64.06
	I3	15.31	25.64	25.64	28.19	28.19	30.73	35.66	35.66	39.23	39.23	42.75	48.13
	I4	8.43	14.92	14.92	14.92	14.92	14.92	22.92	22.92	22.92	22.92	22.92	29.32
ALLOWED MISALIGNMENT (3)	RADIAL (mm)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.5
	AXIAL (mm)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.5
	CONICAL (degree)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OPTION FOR SAE FLYWHEEL		-	-	-	-	-	-	-	-	-	-	-	-

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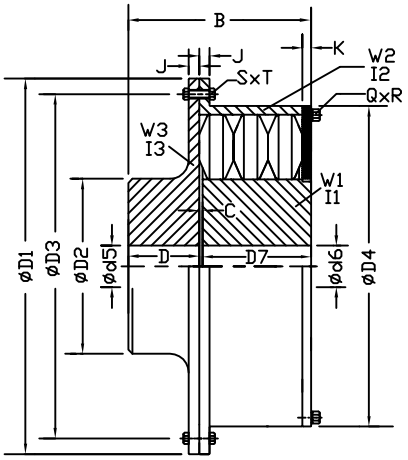
DCU FLEXIBLE COUPLINGS - DIMENSIONAL DATA

FULL COUPLING



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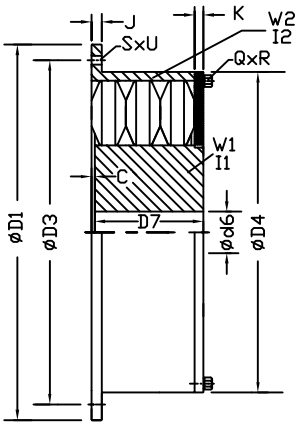
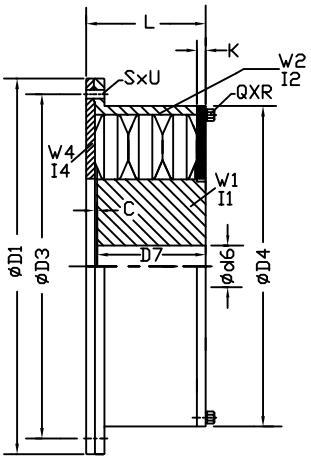


FLEX HALF + KEEP PLATE

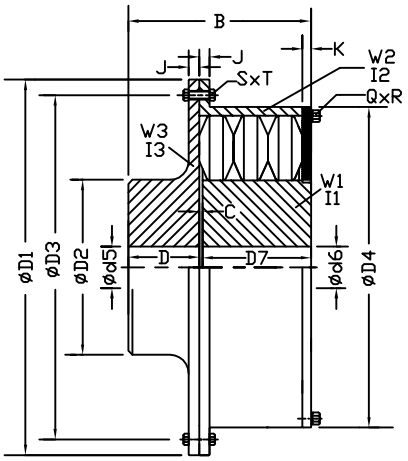


COUPLING SIZE		628.5	638.5	648.5	658.5	619.5	629.5	639.5	649.5	659.5	6111	6211	6311
PREFERRED SIZE			*	*	*				*				
DIMENSIONS (mm)	D1	1140	1140	1140	1140	1275	1275	1275	1275	1275	1476	1476	1476
	B	474	690	798	1014	411	532	773	894	1135	476	616	895
	C	10	10	10	10	11	11	11	11	11	13	13	13
	D	232	340	340	448	260	260	381	381	502	301	301	441
	D7	232	340	448	556	140	260	381	502	622	162	301	441
	D2	518	518	518	518	580	580	580	580	580	670	670	670
	D3	1074	1074	1074	1074	1202	1202	1202	1202	1202	1390	1390	1390
	D4	1005	1005	1005	1005	1124	1124	1124	1124	1124	1300	1300	1300
	J	32.00	32.00	32.00	32.00	36.00	36.00	36.00	36.00	36.00	41.00	41.50	41.50
	K	26	26	26	26	30	30	30	30	30	35	35	35
	L	267	375	483	591	181	301	422	543	663	210	349	489
	Q	12	12	12	12	12	12	12	12	12	12	12	12
	R	M36	M36	M36	M36	M36	M36	M36	M36	M36	M42	M42	M42
	S	16	32	32	32	12	12	24	24	24	16	16	32
	T	M30	M30	M30	M30	M36	M36	M36	M36	M36	M42	M42	M42
	U	31	31	31	37	37	37	37	37	37	43	43	43
	Max. d5	324	324	324	324	362	362	362	362	362	419	419	419
	Max. d6	324	324	324	324	362	362	362	362	362	419	419	419
MAXIMUM SPEED (rpm) (1)		1160	1160	1160	1160	1040	1040	1040	1040	1040	900	900	900
WEIGHT (kg) (2)	W1	347.90	523.99	700.08	876.17	246.09	495.67	747.16	998.64	1248.00	374.5	754.0	1136.0
	W2	468.59	618.99	769.38	919.77	455.99	665.46	876.92	1088.00	1298.00	712.90	1034.00	1356.00
	W3	416.05	518.58	518.58	621.11	584.51	584.51	728.93	728.93	873.34	903.63	903.63	1126.00
	W4	149.54	149.54	149.54	149.54	224.62	224.62	224.62	224.62	224.62	351.65	351.65	351.65
INERTIA (kgm) ^{2} (2)	I 1	26.38	40.13	53.89	67.64	23.08	48.01	73.13	98.24	123.20	46.00	95.61	145.50
	I 2	94.04	124.00	154.00	184.00	113.80	166.10	218.80	271.50	323.90	236.40	343.50	451.30
	I 3	48.13	52.92	52.92	57.70	84.65	84.65	93.09	92.09	101.50	175.30	175.30	192.60
	I 4	29.32	29.32	29.32	29.32	55.08	55.08	55.08	55.08	55.08	115.50	115.50	115.50
ALLOWED MISALIGNMENT (3)	RADIAL (mm)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0
	AXIAL (mm)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0
	CONICAL (degree)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OPTION FOR SAE FLYWHEEL		-	-	-	-	-	-	-	-	-	-	-	-

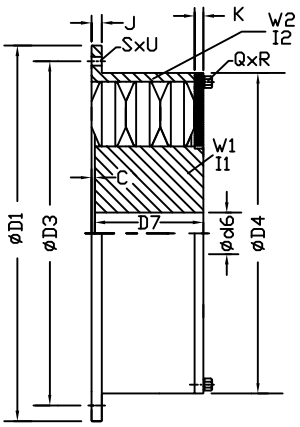
(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.
(2) Weights and inertias are based on the maximum bore size.
(3) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment overtime, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

DCU FLEXIBLE COUPLINGS - DIMENSIONAL DATA

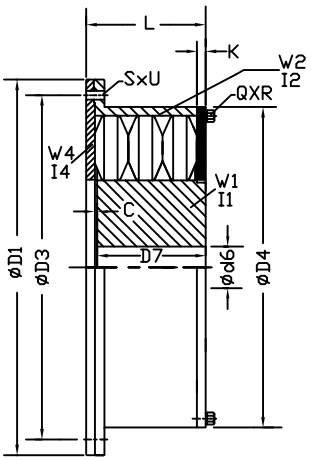
FULL COUPLING



FLEX HALF



FLEX HALF + KEEP PLATE



COUPLING SIZE		6411.0	6511.0	6113.0	6213.0	6313.0	6413.0	6513.0	6115.0	6215.0	6315.0	6415.0	6515.0
PREFERRED SIZE		*											
DIMENSIONS (mm)	D1	1476	1476	1750	1750	1750	1750	1750	2012	2012	2012	2012	2012
	B	1035	1314	560	725	1056	1221	1551	642	832	1213	1404	1785
	C	13	13	15	15	15	15	15	18	18	18	18	18
	D	441	581	355	355	520	520	685	407	407	598	598	788
	D7	581	721	190	355	520	685	851	217	407	598	788	979
	D2	670	670	793	793	793	793	793	914	914	914	914	914
	D3	1390	1390	1645	1645	1645	1645	1645	1900	1900	1900	1900	1900
	D4	1300	1300	1537	1537	1537	1537	1537	1774	1774	1774	1774	1774
	J	41.50	41.50	49.00	49.00	49.00	49.00	49.00	56.50	56.50	56.50	56.50	56.50
	K	35	35	40	40	40	40	40	44	44	44	44	44
	L	629	769	244	409	574	739	905	279	469	660	850	1041
	Q	12	12	12	12	12	12	12	12	12	12	12	12
	R	M42	M42	M48	M48	M48	M48	M48	M56	M56	M56	M56	M56
	S	32	32	24	24	48	48	48	24	24	48	48	48
	T	M42	M42	M42	M42	M42	M42	M42	M42	M42	M42	M42	M42
	U	43	43	43	43	43	43	43	43	43	43	43	43
	Max. d5	419	419	495	495	495	495	495	571	571	571	571	571
	Max. d6	419	419	495	495	495	495	495	571	571	571	571	571
MAXIMUM SPEED (rpm) (1)		900	900	760	760	760	760	760	660	660	660	660	660
WEIGHT (kg) (2)	W1	1518.00	1900.00	615.48	1243.00	1871.00	2498.00	3129.00	944.88	1913.00	2886.00	3854.00	4827.00
	W2	1679.00	2002.00	1162.00	1701.00	2240.00	2780.00	3322.00	1746.00	2573.00	3405.00	4232.00	5064.00
	W3	1126.00	1348.00	1499.00	1499.00	1867.00	1867.00	2235.00	2289.00	2289.00	2854.00	2854.00	3417.00
	W4	351.65	351.65	550.37	550.37	550.37	550.37	550.37	819.91	819.91	819.91	819.91	819.91
INERTIA (kgm) ^{2} (2)	I 1	195.40	245.30	105.50	219.90	334.20	448.50	563.40	217.20	453.00	689.90	925.70	1163.00
	I 2	559.00	666.80	545.10	796.40	1048.00	1300.00	1553.00	1091.00	1605.00	2121.00	2635.00	3152.00
	I 3	192.60	210.00	408.50	408.50	448.70	448.70	488.90	825.40	825.40	907.50	907.50	989.10
	I 4	115.50	115.50	254.10	254.10	254.10	254.10	254.10	501.00	501.00	501.00	501.00	501.00
ALLOWED MISALIGNMENT (3)	RADIAL (mm)	6	6	8	8	8	8	8	10	10	10	10	10
	AXIAL (mm)	6	6	8	8	8	8	8	10	10	10	10	10
	CONICAL (degree)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OPTION FOR SAE FLYWHEEL		-	-	-	-	-	-	-	-	-	-	-	-

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.
(2) Weights and inertias are based on the maximum bore size.
(3) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment overtime, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

1.0 Torque Capacity - Diesel Engine Drives
The DCU Coupling is selected on the Nominal Torque (T_{kn}) rating without service factors.
The full torque capacity of the coupling for transient vibration whilst passing through major criticals on run up is published as the Maximum Torque (T_{kmax}).
$T_{kmax} = 3 \times T_{kn}$.
There is additional torque capacity built into the coupling for short circuit torques.
The published Vibratory Torque (T_{kW}) relates to the amplitude of the permissible continous torque fluctuation.The vibratory torque values shown in the Technical Data are at a frequency of 10Hz. The measure of acceptability of the coupling for vibrating drives is published as 'Allowable Dissipated Heat at Ambient Temperature 30°C'.

1.1 Transient Torques -
Prediction of transient torques in marine drives can be complex. Normal installations are well provided for by selecting couplings based on the Nominal Torque (T_{kn}). Transients such as start up and clutch manoeuvre, are usually within the Maximum Torque rating (T_{kmax}) for the coupling.
Care needs to be taken in the design of couplings with shaft brakes to ensure coupling torques are not increased by severe deceleration.
Sudden torque applications of propulsion devices, such as thrusters or waterjets, need to be considered when designing the coupling connection.

2.0 Stiffness Properties -
The coupling remains fully flexible under all torque conditions. The DCU series is a non-bonded type operating under the Rubber-inCompression principle.

2.1 Axial Stiffness -
When subject to axial misalignment, the coupling will have an axial resistance which gradually reduces due to the effect of vibratory torque.
The axial stiffness of the coupling is torque dependent. The variation can be found in the Technical Data.

2.2. Radial Stiffness - The radial stiffness of the coupling is torque dependent, and is as shown in theTechnical Data pages of this catalogue.

2.3 Torsional Stiffness and Dynamic Magnifier
The torsional stiffness and dynamic magnifier of the coupling is dependent upon applied torque, rubber temperature, vibratory torque and frequency. In order to simplify the determination of the torsional stiffness and dynamic magnifier of the coupling with these variables a computer programme has been produced to calculate these values.

2.4 Prediction of the System Torsional Vibration Characteristics
A simple verification of the system's torsional vibration characteristic can be made by analysis at the extremes of the coupling allowable temperature to ensure that within this range there are no criticals which exceed the allowable heat dissipation values.
2.4.1 - Using the computer programme establish the torsional stiffness and dynamic magnifier of the coupling at 30°C rubber temperature, by entering the application torque and a frequency of 10 Hz.
2.4.2 - Analyse the torsional system to determine criticals within the speed range.
2.4.3 - Repeat the analysis after using the computer programme again for stiffness and magnifier, but with a rubber temperature of 100°C.
2.4.4 - Review the analysis and if the speed range is clear of criticals which exceed the heat dissipation values published in the technical data then the coupling can be considered suitable for the application, with respect to the torsional vibration characteristics.If there is a critical within the speed range, then the actual rubber temperature, vibratory torque and frequency should be calculated at this speed.

2.5 - Prediction of the Actual Coupling Torsional Stiffness and Dynamic Magnifier.
2.5.1 - Analyse the torsional system using as a starting point the torsional stiffness and dynamic magnifier as published in the catalogue. This is based on data measured at 30°C.
2.5.2- Compare the synthesis value of the calculated heat load in the coupling(P_k) at the speed of interest, to the 'Allowable Heat Dissipation'(P_{kw})

The rise in rubber temperature

$$^{o}C = Temp_{coup} = \left(\frac{P_k}{P_{kW}}\right) \times 70 \text{ (170 for Si70 rubber)}$$

The rubber temperature = ϑ
$\vartheta = Temp_{coup} + AmbientTemp.$

2.5.3 - Enter the calculated vibratory torque, frequency and rubber temperature and calculate the new value for torsional stiffness and dynamic magnifier.
2.5.4 - Recalculate the vibratory torque, frequency, and rubber temperature as
2.5.5 - Repeat the calculations until the coupling rubber temperature becomes almost constant after each calculation.

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

COUPLING SIZE			612.5	622.5	632.5	642.5	652.5	613.5	623.5	633.5	643.5	653.5	614.5	624.5
PREFERRED SIZE														*
NOMINAL TORQUE Tkn kNm			0.8	1.6	2.4	3.1	3.9	2.2	4.3	6.5	8.6	10.8	4.6	9.1
MAXIMUM TORQUE Tkmax kNm			2.4	4.7	7.1	9.4	11.8	6.5	12.9	19.4	25.8	32.3	13.7	27.4
ALLOWABLE VIBRATORY TORQUE TkW±Nm(4)			0.3	0.6	0.9	1.2	1.5	0.8	1.6	2.4	3.2	4.0	1.7	3.4
ALLOWABLE DISSIPATED HEAT AT 30°C AMBIENT(W)		NM45	68	136	204	272	340	101	202	303	403	504	136	272
		SM50	91	181	272	363	453	124	249	373	497	622	158	316
		SM60	100	200	300	401	501	135	269	404	539	674	169	337
		SM70	98	196	294	393	491	136	272	408	544	680	174	348
		SM80	106	213	319	425	531	149	297	446	595	744	192	384
		Si70 (3)	230	459	689	917	1147	307	616	923	1231	1539	384	769
DYNAMIC TORSIONAL STIFFNESS Ctdyn(MNm/rad) (1)	@ 0.10 Tkn	NM45	0.006	0.012	0.018	0.024	0.030	0.017	0.033	0.050	0.067	0.083	0.142	0.283
		SM50	0.007	0.013	0.020	0.027	0.033	0.018	0.036	0.055	0.073	0.091	0.155	0.309
		SM60	0.007	0.014	0.021	0.028	0.035	0.019	0.038	0.057	0.076	0.095	0.162	0.324
		SM70	0.010	0.020	0.031	0.041	0.051	0.028	0.056	0.084	0.113	0.141	0.239	0.478
		SM80	0.011	0.022	0.032	0.043	0.054	0.030	0.059	0.089	0.119	0.149	0.252	0.505
		Si70	0.007	0.014	0.020	0.027	0.034	0.019	0.037	0.056	0.075	0.093	0.159	0.318
	@ 0.25 Tkn	NM45	0.008	0.016	0.024	0.032	0.040	0.022	0.044	0.067	0.089	0.111	0.188	0.377
		SM50	0.009	0.018	0.027	0.036	0.046	0.025	0.050	0.075	0.100	0.125	0.212	0.425
		SM60	0.010	0.020	0.030	0.040	0.050	0.028	0.055	0.083	0.110	0.138	0.234	0.467
		SM70	0.015	0.029	0.044	0.058	0.073	0.040	0.080	0.120	0.160	0.199	0.339	0.677
		SM80	0.017	0.035	0.052	0.069	0.087	0.048	0.095	0.143	0.190	0.238	0.404	0.809
		Si70	0.008	0.017	0.025	0.033	0.042	0.023	0.046	0.068	0.091	0.114	0.194	0.388
	@ 0.50 Tkn	NM45	0.011	0.023	0.034	0.046	0.057	0.031	0.063	0.094	0.126	0.157	0.266	0.533
		SM50	0.013	0.026	0.040	0.053	0.066	0.036	0.073	0.109	0.145	0.182	0.309	0.618
		SM60	0.015	0.030	0.045	0.061	0.076	0.042	0.083	0.125	0.166	0.208	0.353	0.707
		SM70	0.020	0.041	0.061	0.081	0.102	0.056	0.112	0.168	0.224	0.280	0.475	0.950
		SM80	0.029	0.058	0.087	0.116	0.145	0.080	0.160	0.240	0.319	0.399	0.678	1.356
		Si70	0.012	0.025	0.037	0.050	0.062	0.034	0.069	0.103	0.137	0.172	0.292	0.583
	@ 0.75 Tkn	NM45	0.015	0.030	0.044	0.059	0.074	0.041	0.081	0.122	0.162	0.203	0.345	0.689
		SM50	0.017	0.035	0.052	0.069	0.087	0.048	0.095	0.143	0.191	0.238	0.405	0.810
		SM60	0.020	0.041	0.061	0.081	0.101	0.056	0.111	0.167	0.223	0.278	0.473	0.945
		SM70	0.026	0.052	0.079	0.105	0.131	0.072	0.144	0.216	0.288	0.360	0.611	1.222
		SM80	0.041	0.082	0.122	0.163	0.204	0.112	0.224	0.336	0.448	0.561	0.952	1.904
		Si70	0.019	0.038	0.056	0.075	0.094	0.052	0.103	0.155	0.207	0.259	0.439	0.879
	@ 1.0 Tkn	NM45	0.018	0.036	0.054	0.072	0.091	0.050	0.099	0.149	0.199	0.249	0.422	0.845
		SM50	0.021	0.043	0.064	0.086	0.107	0.059	0.118	0.177	0.236	0.295	0.501	1.003
		SM60	0.025	0.051	0.076	0.102	0.127	0.070	0.140	0.209	0.279	0.349	0.592	1.185
		SM70	0.032	0.064	0.096	0.128	0.160	0.088	0.176	0.264	0.352	0.440	0.747	1.494
		SM80	0.053	0.105	0.158	0.210	0.263	0.144	0.289	0.433	0.577	1.722	1.226	2.452
		Si70	0.027	0.055	0.082	0.109	0.136	0.075	0.150	0.225	0.300	0.375	0.637	1.274
RADIAL STIFFNESS NO LOAD N/mm		NM45	648	1296	1944	2592	3240	908	1817	2725	3633	4542	1166	2333
		SM50	649	1299	1948	2597	3247	910	1820	2731	3641	4551	1169	2337
		SM60	764	1527	2291	3054	3818	1070	2141	3211	4282	5352	1375	2749
		SM70	1279	2559	3838	5117	6397	1793	3587	5380	7174	8967	2303	4606
		SM80	1539	3077	4616	6154	7693	2157	4314	6471	8627	10784	2769	5539
		Si70	816	1631	2447	3262	4078	1143	2287	3430	4573	5717	1468	2936
RADIAL STIFFNESS @Tkn N/mm		NM45	539	1077	1616	2154	2693	755	1510	2265	3020	3775	969	1939
		SM50	535	1069	1604	2139	2673	750	1499	2249	2998	3748	962	1925
		SM60	713	1425	2138	2851	3564	999	1998	2997	3997	4996	1283	2566
		SM70	891	1782	2673	3564	4455	1249	2498	3747	4996	6245	1604	3208
		SM80	1247	2493	3740	4987	6234	1748	3495	5243	6991	8739	2244	4488
		Si70	762	1525	2287	3050	3812	1069	2138	3207	4275	5344	1372	2745
AXIAL STIFFNESS N/mm		NM45	918	1835	2753	3671	4588	1286	2573	3859	5145	6431	1652	3304
		SM50	918	1835	2753	3671	4588	1286	2573	3859	5145	6431	1652	3304
		SM60	918	1835	2753	3671	4588	1286	2573	3859	5145	6431	1652	3304
		SM70	918	1835	2753	3671	4588	1286	2573	3859	5145	6431	1652	3304
		SM80	918	1835	2753	3671	4588	1286	2573	3859	5145	6431	1652	3304
		Si70	684	1368	2052	2736	3420	959	1917	2876	3835	4794	1231	2462
MAXIMUM AXIAL LOAD AT POINT OF SLIP@Tkn (2)		NM45	906	1117	1482	1885	2304	1271	1565	2077	2643	3230	1631	2010
		SM50	1245	1534	2035	2590	3165	1745	2150	2853	3630	4437	2241	2761
		SM60	1594	1963	2605	3315	4052	2234	2752	3652	4646	5679	2868	3534
		SM70	1992	2454	3256	4144	5065	2793	3440	4565	5808	7099	3585	4418
		SM80	2291	2822	3745	4765	5824	3211	3956	5249	6679	8164	4123	5080
		Si70	677	834	1107	1409	1722	949	1170	1552	1975	2414	1219	1502

(1) These values should be corrected for rubber temperatures as shown in the technical data section.
(2) The coupling will slip axially when the maximum axial force is exceeded.
(3) For DNV survey use 70% of these values.
(4) At 10 Hz only, allow able vibratory torque at higher or lower frequencies fe $= TkW\sqrt{\frac{10Hz}{fe}}$

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

COUPLING SIZE			634.5	644.5	654.5	615.5	625.5	635.5	645.5	655.5	616.5	626.5	636.5	646.5
PREFERRED SIZE				*****										
NOMINAL TORQUE Tkn kNm			13.7	18.3	22.8	8.3	16.7	25.0	33.4	41.7	13.8	27.5	41.3	55.1
MAXIMUM TORQUE Tkmax kNm			41 1	54.8	68.5	25.0	50.1	75.1	100.1	125.1	41.3	82.5	123.9	165.2
ALLOWABLE VIBRATORY TORQUE TkW±Nm(4)			5.1	6.9	8.6	3.1	6.3	9.4	12.5	15.6	5.2	10.3	15.5	20.6
ALLOWABLE DISSIPATED HEAT AT 30°C AMBIENT(W)		NM45	408	544	680	174	347	521	694	868	212	424	635	847
		SM50	474	632	790	192	384	576	768	960	225	450	676	901
		SM60	506	675	844	202	405	607	810	1012	235	470	705	940
		SM70	523	697	871	213	426	638	851	1064	251	502	753	1004
		SM80	576	768	960	236	472	708	944	1180	280	559	839	1118
		Si70 (3)	1153	1537	1921	460	921	1381	1841	2301	534	1067	1601	2136
DYNAMIC TORSIONAL STIFFNESS Ctdyn (MNm/rad) (1)	@ 0.10 Tkn	NM45	0.425	0.567	0.708	0.065	0.129	0.194	0.259	0.323	0.107	0.213	0.320	0.427
		SM50	0.464	0.619	0.774	0.071	0.141	0.212	0.282	0.353	0.117	0.233	0.350	0.466
		SM60	0.485	0.647	0.809	0.074	0.148	0.222	0.295	0.369	0.122	0.244	0.366	0.487
		SM70	0.717	0.956	1.195	0.109	0.218	0.327	0.436	0.546	0.180	0.360	0.540	0.720
		SM80	0.757	1.009	1.262	0.115	0.230	0.346	0.461	0.576	0.190	0.380	0.570	0.760
		Si70	0.476	0.635	0.794	0.072	0.145	0.217	0.290	0.362	0.120	0.239	0.359	0.478
	@ 0.25 Tkn	NM45	0.565	0.754	0.942	0.086	0.172	0.258	0.344	0.430	0.142	0.284	0.426	0.568
		SM50	0.637	0.850	1.062	0.097	0.194	0.291	0.388	0.485	0.160	0.320	0.480	0.640
		SM60	0.701	0.935	1.169	0.107	0.213	0.320	0.427	0.533	0.176	0.352	0.528	0.704
		SM70	1.016	1.355	1.693	0.155	0.309	0.464	0.618	0.773	0.255	0.510	0.765	1.020
		SM80	1.213	1.617	2.021	0.185	0.369	0.554	0.738	0.923	0.304	0.609	0.913	1.218
		Si70	0.582	0.776	0.969	0.089	0.177	0.266	0.354	0.443	0.146	0.292	0.438	0.584
	@ 0.50 Tkn	NM45	0.799	1.066	1.332	0.122	0.243	0.365	0.487	0.608	0.201	0.401	0.602	0.803
		SM50	0.926	1.235	1.544	0.141	0.282	0.423	0.564	0.705	0.233	0.465	0.698	0.930
		SM60	1.060	1.413	1.766	0.161	0.323	0.484	0.645	0.806	0.266	0.532	0.798	1.064
		SM70	1.424	1.899	2.374	0.217	0.433	0.650	0.867	1.084	0.358	0.715	1.073	1.430
		SM80	2.035	2.713	3.391	0.310	0.619	0.929	1.238	1.548	0.511	1.021	1.532	2.043
		Si70	0.875	1.166	1.458	0.133	0.266	0.399	0.532	0.665	0.220	0.439	0.659	0.878
	@ 0.75 Tkn	NM45	1.034	1.378	1.723	0.157	0.315	0.472	0.629	0.786	0.259	0.519	0.778	1.038
		SM50	1.215	1.620	2.025	0.185	0.370	0.555	0.740	0.924	0.305	0.610	0.915	1.220
		SM60	1.418	1.890	2.363	0.216	0.431	0.647	0.863	1.079	0.356	0.712	1.068	1.423
		SM70	1.833	2.444	3.055	0.279	0.558	0.837	1.115	1.394	0.460	0.920	1.380	1.840
		SM80	2.856	3.808	4.760	0.435	0.869	1.304	1.738	2.173	0.717	1.434	2.151	2.868
		Si70	1.318	1.757	2.197	0.201	0.401	0.602	0.802	1.003	0.331	0.662	0.992	1.323
	@ 1.0 Tkn	NM45	1.267	1.689	2.112	0.193	0.386	0.578	0.771	0.144	0.318	0.636	0.954	1.272
		SM50	1.504	2.005	2.507	0.229	0.458	0.687	0.915	1.144	0.378	0.755	1.133	1.510
		SM60	1.777	2.369	2.962	0.270	0.541	0.811	1.081	1.352	0.446	0.892	1.338	1.784
		SM70	2.241	2.988	3.735	0.341	0.682	1.023	1.364	1.705	0.563	1.125	1.688	2.250
		SM80	3.678	4.904	6.130	0.560	1.119	1.679	2.239	2.798	0.923	1.846	2.769	3.693
		Si70	1.910	2.547	3.184	0.291	0.581	0.872	1.163	1.453	0.480	0.959	1.439	1.918
RADIAL STIFFNESS NO LOAD N/mm		NM45	3499	4665	5832	1426	2851	4277	5702	7128	1684	3367	5051	6734
		SM50	3506	4675	5844	1429	2857	4286	5714	7143	1687	3374	5061	6748
		SM60	4124	5498	6873	1680	3360	5040	6720	8400	1984	3968	5952	7936
		SM70	6909	9211	11514	2815	5629	8444	11259	14074	3324	6648	9972	13296
		SM80	8308	11078	13847	3385	6770	10155	13540	16925	3998	7995	11993	15990
		Si70	4404	5872	7340	1794	3589	5383	7177	8972	2119	4238	6357	8476
RADIAL STIFFNESS @Tkn N/mm		NM45	2908	3878	4847	1185	2370	3555	4740	5925	1399	2799	4198	5597
		SM50	2887	3850	4812	1176	2353	3529	4705	5882	1389	2778	4167	5557
		SM60	3849	5132	6415	1568	3136	4704	6272	7841	1852	3704	5555	7407
		SM70	4812	6415	8019	1960	3921	5881	7842	9802	2315	4630	6945	9260
		SM80	6732	8976	11220	2743	5486	8229	10972	13715	3239	6478	9718	12957
		Si70	4117	5490	6862	1678	3355	5033	6710	8388	1981	3962	5943	7924
AXIAL STIFFNESS N/mm		NM45	4956	6607	8259	2019	4038	6057	8076	10095	2384	4769	7153	9538
		SM50	4956	6607	8259	2019	4038	6057	8076	10095	2384	4769	7153	9538
		SM60	4956	6607	8259	2019	4038	6057	8076	10095	2384	4769	7153	9538
		SM70	4956	6607	8259	2019	4038	6057	8076	10095	2384	4769	7153	9538
		SM80	4956	6607	8259	2019	4038	6057	8076	10095	2384	4769	7153	9538
		Si70	3694	4925	6156	1505	3010	4515	6020	7524	1777	3555	5332	7109
MAXIMUM AXIAL LOAD AT POINT OF SLIP@Tkn (2)		NM45	2667	3394	4148	1994	2457	3260	4148	5070	2355	2901	3850	4899
		SM50	3663	4662	5698	2739	3375	4478	5698	6964	3234	3985	5288	6729
		SM60	4689	5967	7293	3506	4320	5732	7293	8914	4140	5101	6769	8613
		SM70	5862	7458	9117	4382	5399	7164	9116	11143	5175	6377	8461	10766
		SM80	6741	8577	10484	5040	6209	8239	10484	12814	5951	7333	9730	12381
		Si70	1993	2536	3100	1490	1836	2436	3100	3789	1760	2168	2877	3661

(1) These values should be corrected for rubber temperatures as shown in the technical data section.
(2) The coupling will slip axially when the maximum axial force is exceeded.
(3) For DNV survey use 70% of these values.
(4) At 10 Hz only, allow able vibratory torque at higher or lower frequencies fe $= TkW\sqrt{\frac{10Hz}{fe}}$

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

COUPLING SIZE			656.5	617.5	627.5	637.5	647.5	657.5	618.0	628.0	638.0	648.0	658.0	618.5
PREFERRED SIZE					*****									
NOMINAL TORQUE Tkn kNm			68.8	21.2	42.3	63.5	84.6	105.8	25.7	51.3	77.0	102.7	128.4	30.8
MAXIMUM TORQUE Tkmax kNm			206.4	63.5	126.9	190.4	253.9	317.3	77.0	154.0	231.1	308.1	385.1	92.4
ALLOWABLE VIBRATORY TORQUE TkW±Nm(4)			25.8	7.9	15.9	23.8	31.7	39.7	9.6	19.3	28.9	38.5	48.1	11.5
ALLOWABLE DISSIPATED HEAT AT 30°C AMBIENT(W)		NM45	1059	252	503	755	1007	1258	272	544	815	1087	1359	292
		SM50	1126	258	517	775	1034	1292	275	550	825	1100	1375	291
		SM60	1175	267	535	802	1070	1337	283	567	850	1134	1417	299
		SM70	1254	289	578	868	1157	1446	308	616	925	1233	1541	327
		SM80	1398	324	647	971	1294	1618	346	691	1037	1382	1728	368
		Si70 (3)	2670	607	1213	1820	2427	3034	643	1284	1927	2570	3213	679
DYNAMIC TORSIONAL STIFFNESS Ctdyn (MNm/rad) (1)	@ 0.10 Tkn	NM45	0.533	0.164	0.328	0.492	0.656	0.820	0.199	0.398	0.597	0.796	0.995	0.239
		SM50	0.583	0.179	0.358	0.537	0.716	0.895	0.217	0.435	0.652	0.869	1.087	0.261
		SM60	0.609	0.187	0.375	0.562	0.749	0.936	0.227	0.455	0.682	0.909	1.137	0.273
		SM70	0.900	0.277	0.553	0.830	1.107	1.383	0.336	0.672	1.007	1.343	1.679	0.403
		SM80	0.950	0.292	0.584	0.876	1.168	1.460	0.354	0.709	1.063	1.418	1.772	0.425
		Si70	0.598	0.184	0.368	0.551	0.735	0.919	0.223	0.446	0.669	0.892	1.115	0.268
	@ 0.25 Tkn	NM45	0.710	0.218	0.436	0.654	0.872	1.091	0.265	0.529	0.794	1.059	1.324	0.318
		SM50	0.800	0.246	0.492	0.738	0.984	1.230	0.298	0.597	0.895	1.194	1.492	0.358
		SM60	0.880	0.271	0.541	0.812	1.082	1.353	0.328	0.657	0.985	1.313	1.642	0.394
		SM70	1.275	0.392	0.784	1.176	1.568	1.960	0.476	0.951	1.427	1.903	2.379	0.571
		SM80	1.522	0.468	0.936	1.404	1.872	2.339	0.568	1.136	1.704	2.271	2.839	0.681
		Si70	0.730	0.224	0.449	0.673	0.898	1.122	0.272	0.545	0.817	1.089	1.362	0.327
	@ 0.50 Tkn	NM45	1.003	0.308	0.617	0.925	1.234	1.542	0.374	0.749	1.123	1.497	1.872	0.449
		SM50	1.163	0.357	0.715	1.072	1.430	1.787	0.434	0.867	1.301	1.735	2.169	0.520
		SM60	1.330	0.409	0.818	1.227	1.635	2.044	0.496	0.992	1.489	1.985	2.481	0.595
		SM70	1.788	0.550	1.099	1.649	2.198	2.748	0.667	1.334	2.001	2.668	3.335	0.800
		SM80	2.553	0.785	1.570	2.355	3.140	3.925	0.953	1.905	2.858	3.810	4.763	1.143
		Si70	1.098	0.337	0.675	1.012	1.350	1.687	0.410	0.819	1.229	1.638	2.048	0.491
	@ 0.75 Tkn	NM45	1.297	0.399	0.797	1.196	1.595	1.994	0.484	0.968	1.452	1.936	2.420	0.580
		SM50	1.525	0.469	0.938	1.406	1.875	2.344	0.569	1.138	1.707	2.276	2.845	0.682
		SM60	1.779	0.547	1.094	1.641	2.188	2.735	0.664	1.328	1.992	2.655	3.319	0.796
		SM70	2.300	0.707	1.414	2.121	2.828	3.535	0.858	1.716	2.574	3.433	4.291	1.029
		SM80	3.585	1.102	2.204	3.306	4.408	5.510	1.337	2.675	4.012	5.349	6.687	1.604
		Si70	1.654	0.508	1.017	1.525	2.034	2.542	0.617	1.234	1.851	2.468	3.086	0.740
	@ 1.0 Tkn	NM45	1.590	0.489	0.978	1.466	1.955	2.444	0.593	1.186	1.780	2.373	2.966	0.712
		SM50	1.888	0.580	1.161	1.741	2.321	2.901	0.704	1.408	2.113	2.817	3.521	0.845
		SM60	2.230	0.686	1.371	2.057	2.742	3.428	0.832	1.664	2.496	3.328	4.160	0.998
		SM70	2.813	0.865	1.729	2.594	3.459	4.323	1.049	2.099	3.148	4.197	5.247	1.259
		SM80	4.616	1.419	2.838	4.257	5.676	7.095	1.722	3.444	5.166	6.889	8.611	2.066
		Si70	2.398	0.737	1.474	2.211	2.948	3.685	0.895	1.789	2.684	3.578	4.473	1.073
RADIAL STIFFNESS NO LOAD N/mm		NM45	8418	1944	3888	5832	7775	9719	2073	4147	6220	8294	10367	2203
		SM50	8435	1948	3896	5844	7792	9740	2078	4156	6233	8311	10389	2208
		SM60	9920	2291	4582	6873	9163	11454	2444	4887	7331	9774	12218	2596
		SM70	16620	3838	7676	11514	15352	19190	4094	8188	12282	16376	20470	4350
		SM80	19988	4616	9232	13847	18463	23079	4923	9847	14770	19694	24617	5231
		Si70	10595	2447	4893	7340	9787	12234	2610	5220	7830	10439	13049	2773
RADIAL STIFFNESS @Tkn N/mm		NM45	6996	1616	3231	4847	6463	8078	1723	3447	5170	6894	8617	1831
		SM50	6946	1604	3208	4812	6416	8020	1711	3422	5133	6844	8555	1818
		SM60	9259	2138	4276	6415	8553	10691	2281	4562	6842	9123	11404	2423
		SM70	11575	2673	5346	8019	10692	13366	2851	5703	8554	11405	14257	3030
		SM80	16196	3740	7480	11220	14961	18701	3990	7979	11969	15958	19948	4239
		Si70	9905	2287	4575	6862	9150	11437	2440	4880	7320	9760	12200	2592
AXIAL STIFFNESS N/mm		NM45	11922	2753	5506	8259	11012	13765	2937	5873	8810	11746	14683	3120
		SM50	11922	2753	5506	8259	11012	13765	2937	5873	8810	11746	14683	3120
		SM60	11922	2753	5506	8259	11012	13765	2937	5873	8810	11746	14683	3120
		SM70	11922	2753	5506	8259	11012	13765	2937	5873	8810	11746	14683	3120
		SM80	11922	2753	5506	8259	11012	13765	2937	5873	8810	11746	14683	3120
		Si70	8886	2052	4104	6156	8208	10260	2189	4378	6566	8755	10944	2326
MAXIMUM AXIAL LOAD AT POINT OF SLIP@Tkn (2)		NM45	5988	2719	3350	4445	5656	6913	2900	3573	4741	6033	7374	3081
		SM50	8225	3735	4602	6106	7769	9496	3984	4908	6513	8287	10129	4233
		SM60	10528	4781	5890	7815	9945	12155	5099	6283	8336	10608	12966	5418
		SM70	13160	5976	7363	9769	12431	15194	6374	7853	10420	13259	16207	6773
		SM80	15134	6872	8467	11235	14295	17473	7330	9031	11984	15248	18638	7788
		Si70 1	4474	2032	2503	3322	4226	5166	2167	2670	3543	4508	5510	2303

(1) These values should be corrected for rubber temperatures as shown in the technical data section.
(2) The coupling will slip axially when the maximum axial force is exceeded.
(3) For DNV survey use 70% of these values.
(4) At 10 Hz only, allow able vibratory torque at higher or lower frequencies fe $= TkW\sqrt{\frac{10Hz}{fe}}$

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

COUPLING SIZE			628.5	638.5	648.5	658.5	619.5	629.5	639.5	649.5	659.5	6111.0	6211.0	6311.0
PREFERRED SIZE				****										
NOMINAL TORQUE Tkn kNm			61.6	92.4	123.2	154.0	43.0	86.0	129.0	172.0	215.0	67.0	133.0	200.0
MAXIMUM TORQUE Tkmax kNm			184.8	277.2	369.5	461.9	129.0	258.0	387.1	516.1	645.1	200.0	400.0	601.0
ALLOWABLE VIBRATORY TORQUE TkW±Nm(4)			23.1	34.6	46.2	57.7	16.1	32.3	48.4	64.5	80.6	25.0	50.0	75.0
ALLOWABLE DISSIPATED HEAT AT 30°C AMBIENT(W)		NM45	585	877	1170	1462	334	668	1003	1337	1671	398	796	1194
		SM50	583	874	1166	1457	324	649	973	1297	1622	373	746	1119
		SM60	599	898	1198	1497	331	662	993	1324	1655	377	754	1132
		SM70	655	982	1310	1637	365	731	1096	1462	1827	422	844	1266
		SM80	735	1103	1471	1838	412	824	1236	1647	2059	478	955	1433
		Si70 (3)	1357	2036	2713	3391	749	1499	2247	2996	3746	853	1706	2557
DYNAMIC TORSIONAL STIFFNESS Ctdyn (MNm/rad) (1)	@ 0.10 Tkn	NM45	0.477	0.716	0.955	1.193	0.333	0.668	1.005	1.343	1.683	0.517	1.034	1.552
		SM50	0.521	0.782	1.043	1.303	0.364	0.730	1.097	1.146	1.838	0.565	1.130	1.695
		SM60	0.545	0.818	1.091	1.363	0.381	0.763	1.148	1.534	1.922	0.591	1.182	1.773
		SM70	0.806	1.208	1.611	2.014	0.562	1.128	1.696	2.266	2.840	0.873	1.746	2.619
		SM80	0.850	1.275	1.701	2.126	0.594	1.190	1.790	2.392	2.998	0.921	1.843	2.764
		Si70	0.535	0.803	1.070	1.338	0.374	0.749	1.126	1.505	1.886	0.580	1.160	1.739
	@ 0.25 Tkn	NM45	0.635	0.953	1.270	1.588	0.443	0.889	1.337	1.787	2.239	0.688	1.376	2.065
		SM50	0.716	1.074	1.432	1.790	0.500	1.002	1.507	2.015	2.524	0.776	1.552	2.328
		SM60	0.788	1.181	1.575	1.969	0.550	1.103	1.658	2.216	2.777	0.854	1.707	2.561
		SM70	1.141	1.712	2.282	2.853	0.797	1.598	2.402	3.211	4.023	1.237	2.473	3.710
		SM80	1.362	2.043	2.724	3.406	0.951	1.907	2.868	3.833	4.803	1.476	2.953	4.429
		Si70	0.653	0.980	1.307	1.633	0.456	0.915	1.375	1.838	2.303	0.708	1.416	2.124
	@ 0.50 Tkn	NM45	0.898	1.347	1.796	2.245	0.627	1.257	1.890	2.526	3.166	0.973	1.946	2.919
		SM50	1.040	1.561	2.081	2.601	0.727	1.457	2.190	2.927	3.668	1.128	2.255	3.383
		SM60	1.190	1.786	2.381	2.976	0.831	1.667	2.506	3.349	4.197	1.290	2.580	3.870
		SM70	1.600	2.400	3.200	4.000	1.117	2.240	3.368	4.501	5.640	1.734	3.468	5.201
		SM80	2.285	3.428	4.570	5.713	1.596	3.199	4.811	6.430	8.057	2.477	4.953	7.430
		Si70	0.983	1.474	1.965	2.456	0.686	1.376	2.068	2.764	3.464	1.065	2.130	3.194
	@ 0.75 Tkn	NM45	1.161	1.741	2.322	2.902	0.811	1.625	2.444	3.266	4.093	1.258	2.516	3.774
		SM50	1.365	2.047	2.730	3.412	0.953	1.911	2.873	3.840	4.812	1.479	2.958	4.438
		SM60	1.592	2.389	3.185	3.981	1.112	2.229	3.352	4.481	5.614	1.726	3.452	5.177
		SM70	2.059	3.088	4.117	5.146	1.437	2.882	4.333	5.792	7.257	2.231	4.462	6.693
		SM80	3.208	4.812	6.417	8.021	2.240	4.491	6.754	9.027	11.311	3.477	6.954	10.430
		Si70	1.480	2.221	2.961	3.701	1.034	2.073	3.116	4.165	5.219	1.604	3.209	4.813
	@ 1.0 Tkn	NM45	1.423	2.135	2.846	3.558	0.994	1.992	2.996	4.004	5.017	1.542	3.084	4.627
		SM50	1.689	2.534	3.379	4.223	1.180	2.365	3.556	4.753	5.956	1.831	3.662	5.492
		SM60	1.996	2.994	3.992	4.990	1.394	2.794	4.202	5.616	7.037	2.163	4.326	6.489
		SM70	2.517	3.776	5.035	6.293	1.758	3.524	5.299	7.083	8.875	2.728	5.456	8.184
		SM80	4.131	6.197	8.263	10.328	2.885	5.784	8.697	11.624	14.565	4.477	8.954	13.431
		Si70	2.146	3.219	4.292	5.365	1.498	3.004	4.517	6.037	7.565	2.325	4.651	6.976
RADIAL STIFFNESS NO LOAD N/mm		NM45	4406	6609	8812	11015	2463	4926	7390	9853	12316	2851	5702	8553
		SM50	4415	6623	8831	11038	2468	4937	7405	9873	12342	2857	5714	8571
		SM60	5193	7789	10385	12981	2903	5806	8709	11612	14515	3360	6720	10080
		SM70	8700	13050	17399	21749	4864	9727	14591	19454	24318	5629	11259	16888
		SM80	10462	15694	20925	26156	5849	11698	17547	23396	29245	6770	13540	20310
		Si70	5546	8319	11092	13865	3100	6201	9301	12402	15502	3589	7177	10766
RADIAL STIFFNESS @Tkn N/mm		NM45	3662	5493	7324	9156	2047	4095	6142	8189	10237	2370	4740	7109
		SM50	3636	5454	7272	9089	2033	4065	6098	8130	10163	2353	4705	7058
		SM60	4847	7270	9693	12117	2709	5419	8128	10838	13547	3136	6272	9409
		SM70	6059	9089	12118	15148	3387	6775	10162	13549	16936	3921	7842	11762
		SM80	8478	12717	16955	21194	4739	9479	14218	18958	23697	5486	10972	16458
		Si70	5185	7777	10370	12962	2899	5797	8696	11594	14493	3355	6710	10065
AXIAL STIFFNESS N/mm		NM45	6240	9360	12481	15601	3488	6977	10465	13954	17442	4038	8076	12114
		SM50	6240	9360	12481	15601	3488	6977	10465	13954	17442	4038	8076	12114
		SM60	6240	9360	12481	15601	3488	6977	10465	13954	17442	4038	8076	12114
		SM70	6240	9360	12481	15601	3488	6977	10465	13954	17442	4038	8076	12114
		SM80	6240	9360	12481	15601	3488	6977	10465	13954	17442	4038	8076	12114
		Si70	4651	6977	9302	11628	2600	5200	7800	10401	13001	3010	6020	9029
MAXIMUM AXIAL LOAD AT POINT OF SLIP@Tkn (2)		NM45	3797	5038	6410	7835	3445	4245	5632	7167	8760	3988	4914	6520
		SM50	5215	6920	8805	10763	4733	5831	7737	9845	12033	5478	6749	8955
		SM60	6675	8857	11271	13776	6058	7464	9903	12601	15402	7012	8639	11463
		SM70	8344	11072	14088	17220	7572	9330	12379	15751	19253	8765	10799	14329
		SM80	9596	12733	16201	19803	8708	10729	14236	18114	22141	10080	12419	16478
		Si70	2837	3764	47901	58551	2575	3172	4209	5355	6546	2980	3672	4872

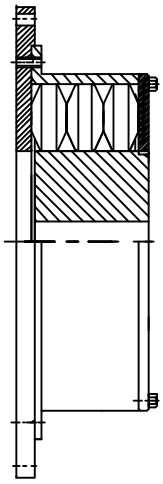
(1) These values should be corrected for rubber temperatures as shown in the technical data section.
(2) The coupling will slip axially when the maximum axial force is exceeded.
(3) For DNV survey use 70% of these values.
(4) At 10 Hz only, allow able vibratory torque at higher or lower frequencies fe =$TkW\sqrt{\frac{10Hz}{fe}}$

DCU FLEXIBLE COUPLINGS - TECHNICAL DATA

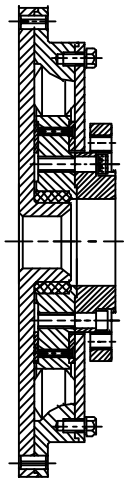
COUPLING SIZE			6411.0	6511.0	6113.0	6213.0	6313.0	6413.0	6513.0	6115.0	6215.0	6315.0	6415.0	6515.0
PREFERRED SIZE			*											
NOMINAL TORQUE Tkn kNm			267	334	110	220	331	441	551	169	338	508	677	846
MAXIMUM TORQUE Tkmax kNm			801	1001	331	661	992	1322	1653	508	1015	1523	2031	2539
ALLOWABLE VIBRATORY TORQUE TkW±Nm(4)			100	125	41	83	124	165	207	63	127	190	254	317
ALLOWABLE DISSIPATED HEAT AT 30°C AMBIENT(W)		NM45	1592	1989	487	973	1460	1947	2433	578	1156	1733	2311	2889
		SM50	1492	1865	438	876	1314	1752	2190	503	1005	1508	2010	2513
		SM60	1509	1886	439	877	1316	1755	2193	499	998	1497	1996	2495
		SM70	1688	2110	498	997	1495	1993	2492	574	1148	1723	2297	2871
		SM80	1911	2388	567	1134	1700	2267	2834	656	1312	1968	2624	3280
		Si70 (3)	3410	4263	990	1980	2970	3960	4950	1124	2250	3374	4499	5624
DYNAMIC TORSIONAL STIFFNESS Ctdyn (MNm/rad) (1)	@ 0.10 Tkn	NM45	2.069	2.586	0.854	1.707	2.561	3.415	4.269	1.311	2.623	3.934	5.246	6.557
		SM50	2.260	2.825	0.933	1.865	2.798	3.730	4.663	1.433	2.865	4.298	5.730	7.163
		SM60	2.364	2.955	0.976	1.951	2.926	3.902	4.877	1.498	2.997	4.495	5.994	7.492
		SM70	3.492	4.365	1.441	2.882	4.323	5.763	7.204	2.213	4.427	6.640	8.854	11.067
		SM80	3.686	4.607	1.521	3.042	4.563	6.084	7.605	2.336	4.673	7.009	9.346	11.682
		Si70	2.319	2.899	0.957	1.914	2.871	3.828	4.785	1.470	2.940	4.410	5.880	7.350
	@ 0.25 Tkn	NM45	2.753	3.441	1.136	2.272	3.408	4.544	5.679	1.745	3.490	5.235	6.980	8.725
		SM50	3.104	3.880	1.281	2.562	3.842	5.123	6.404	1.968	3.935	5.903	7.870	9.838
		SM60	3.414	4.268	1.409	2.818	4.227	5.635	7.044	2.164	4.329	6.493	8.657	10.821
		SM70	4.947	6.183	2.041	4.082	6.124	8.165	10.206	3.136	6.271	9.407	12.543	15.679
		SM80	5.905	7.381	2.437	4.873	7.310	9.747	12.183	3.743	7.486	11.230	14.973	18.716
		Si70	2.832	3.540	1.169	2.337	3.506	4.675	5.844	1.795	3.591	5.386	7.181	8.977
	@ 0.50 Tkn	NM45	3.892	4.866	1.606	3.212	4.819	6.425	8.031	2.467	4.935	7.402	9.870	12.337
		SM50	4.510	5.638	1.861	3.722	5.583	7.445	9.306	2.859	5.718	8.577	11.436	14.295
		SM60	5.160	6.450	2.129	4.259	6.388	8.517	10.646	3.271	6.542	9.813	13.084	16.355
		SM70	6.935	8.669	2.862	5.723	8.585	11.447	14.309	4.396	8.792	13.188	17.585	21.981
		SM80	9.906	12.383	4.088	8.175	12.263	16.351	20.438	6.279	12.559	18.838	25.118	31.397
		Si70	4.259	5.324	1.757	3.515	5.272	7.030	8.787	2.700	5.400	8.099	10.799	13.499
	@ 0.75 Tkn	NM45	5.032	6.290	2.076	4.153	6.229	8.306	10.382	3.190	6.380	9.569	12.759	15.949
		SM50	5.917	7.396	2.441	4.883	7.324	9.766	12.207	3.751	7.501	11.252	15.002	18.753
		SM60	6.903	8.629	2.849	5.697	8.546	11.394	14.243	4.376	8.752	13.128	17.503	21.879
		SM70	8.924	11.154	3.682	7.364	11.047	14.729	18.411	5.657	11.313	16.970	22.626	28.283
		SM80	13.907	17.384	5.739	11.477	17.216	22.955	28.693	8.816	17.631	26.447	35.263	44.078
		Si70	6.417	8.021	2.648	5.296	7.944	10.592	13.240	4.068	8.136	12.203	16.271	20.339
	@ 1.0 Tkn	NM45	6.169	7.711	2.546	5.091	7.637	10.182	12.728	3.910	7.821	11.731	15.642	19.552
		SM50	7.323	9.154	3.022	6.044	9.065	12.087	15.109	4.642	9.284	13.926	18.568	23.210
		SM60	8.652	10.815	3.570	7.140	10.710	14.281	17.851	5.484	10.969	16.453	21.938	27.422
		SM70	10.912	13.640	4.503	9.005	13.508	18.011	22.514	6.917	13.834	20.751	27.668	34.585
		SM80	17.908	22.385	7.390	14.779	22.169	29.559	36.948	11.352	22.704	34.056	45.408	56.760
		Si70	9.302	11.627	3.838	7.677	11.515	15.353	19.192	5.896	11.793	17.689	23.586	29.482
RADIAL STIFFNESS NO LOAD N/mm		NM45	11405	14256	3369	6739	10108	13478	16847	3888	7775	11663	15551	19439
		SM50	11428	14285	3376	6753	10129	13506	16882	3896	7792	11687	15583	19479
		SM60	13440	16800	3971	7942	11912	15883	19854	4582	9163	13745	18327	22909
		SM70	22518	28147	6653	13305	19958	26611	33264	7676	15352	23029	30705	38381
		SM80	27080	33851	8001	16001	24002	32003	40003	9232	18463	27695	36926	46158
		Si70	14355	17944	4241	8482	12723	16964	21205	4893	9787	14680	19574	24467
RADIAL STIFFNESS @Tkn N/mm		NM45	9479	11849	2801	5601	8402	11202	14003	3231	6463	9694	12926	16157
		SM50	9411	11763	2780	5561	8341	11121	13901	3208	6416	9624	12832	16040
		SM60	12545	15681	3706	7412	11119	14825	18531	4276	8553	12829	17106	21382
		SM70	15683	19604	4633	9267	13900	18534	23167	5346	10692	16039	21385	26731
		SM80	21943	27429	6483	12966	19449	25932	32415	7480	14961	22441	29921	37402
		Si70	13420	16775	3965	7930	11895	15859	19824	4575	9150	13724	18299	22874
AXIAL STIFFNESS N/mm		NM45	16152	20190	4772	9544	14316	19088	23860	5506	11012	16518	22024	27531
		SM50	16152	20190	4772	9544	14316	19088	23860	5506	11012	16518	22024	27531
		SM60	16152	20190	4772	9544	14316	19088	23860	5506	11012	16518	22024	27531
		SM70	16152	20190	4772	9544	14316	19088	23860	5506	11012	16518	22024	27531
		SM80	16152	20190	4772	9544	14316	19088	23860	5506	11012	16518	22024	27531
		Si70	12039	15049	3557	7114	10670	14227	17784	4104	8208	12312	16416	20520
MAXIMUM AXIAL LOAD AT POINT OF SLIP@Tkn (2)		NM45	8296	10140	4713	5807	7705	9804	11983	5438	6700	8890	11312	13827
		SM50	11395	13929	6474	7976	10583	13467	16460	7470	9203	12211	15538	18993
		SM60	14586	17829	8286	10209	13547	17237	21069	9561	11780	15631	19889	24311
		SM70	18233	22286	10358	12762	16933	21547	26337	11951	14725	19538	24861	30388
		SM80	20967	25629	11912	14676	19473	24779	30287	13744	16934	22469	28591	34947
		Si70	6199	7577	3522	4339	5757	7326	8954	4064	5007	6643	8453	10332

(1) These values should be corrected for rubber temperatures as shown in the technical data section.
(2) The coupling will slip axially when the maximum axial force is exceeded.
(3) For DNV survey use 70% of these values.
(4) At 10 Hz only, allow able vibratory torque at higher or lower frequencies fe $=TkW\sqrt{\frac{10Hz}{fe}}$

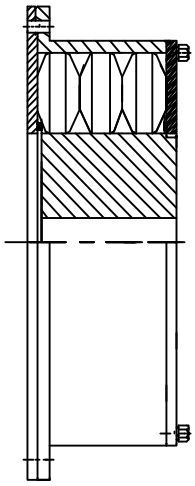
DESIGN VARIATIONS



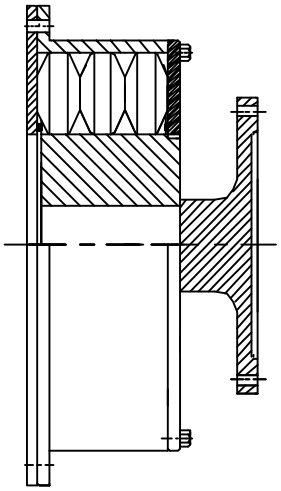
ADAPTOR PLATE
COUPLING



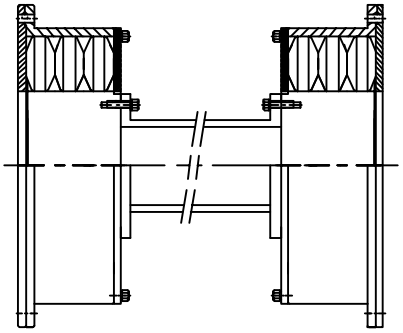
UNIVERSAL JOINT
COUPLING



LIMITED END FLOAT
COUPLING



STUB SHAFT
COUPLING



CARDON SHAFT
COUPLING

ENGINEERED TO ORDER COUPLINGS (ETO)

We design and manufacture couplings to custom fit the drive and driven components for one to one replacement. Our engineering expertise create value added offering for the products by taking efforts to design, develop, analyse, engineer and test.

Engineered to Order Couplings (ETO):

Cardan Shaft
Spacers of various dimensions
Floating / Long Shaft for large DBSE
Brake Disc / Brake Drum
Stub Shaft
Limited End Float
Underwater Coupling
Shear Pin Device
Long Boss Hubs for increased shaft engagement
Splined Hub
Special Adapters
Slim Line
Uni - Directional Couplings

PCPM 600 Spacer Coupling of 1200 mm dia used in a ball mill application for a gold mine in South Africa.

PCPM 27 Underwater Coupling with Shear Pin device on a river dredger in Greece.

Special PCRB 150 Coupling with splined hub for pump application.

PCPM 40 Cardan Shaft Coupling for fan drive where motor was coupled to VFD for power saving to replace fluid coupling. DBSE was more than 2 mtrs. This was for a steel plant.

High temperature blind assembly coupling.

GLOBAL PRESENCE

Representatives

Head Office

Manufacturing Plant

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