METALASTIK FLEXIBLE COUPLINGS

ROTOFLEX®

For Motor Vehicle Propeller Shafts
Half-Shafts · Steering Columns
Industrial Drives, etc.

Accommodates large angular and axial displacements with minimum resistance.

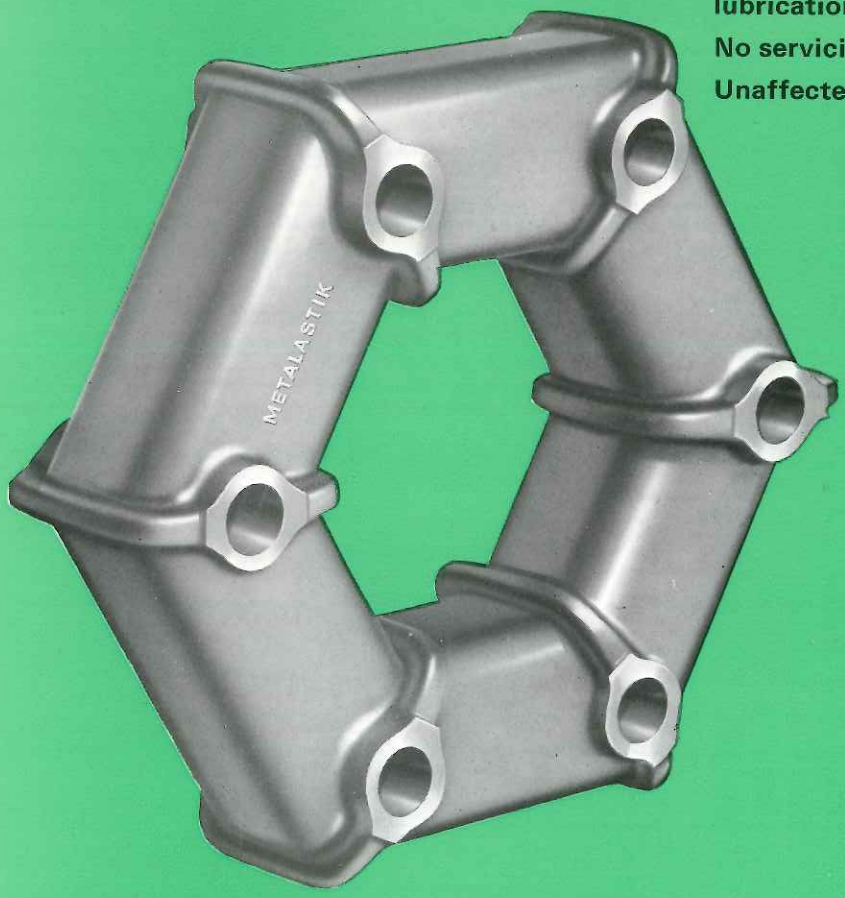
Reduces torsional vibration and noise.

Absorbs torque fluctuations.

Replaces mechanical joints, eliminating lubrication and metal-to-metal wear.

No servicing required.

Unaffected by dust, grit or moisture.



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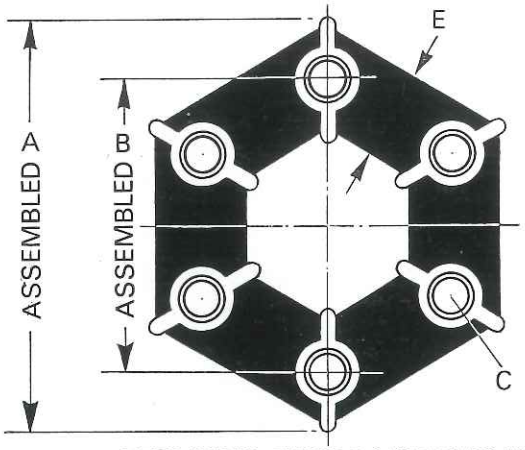
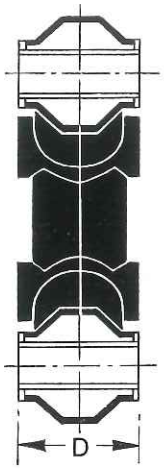
Ref. M134/9–4/76

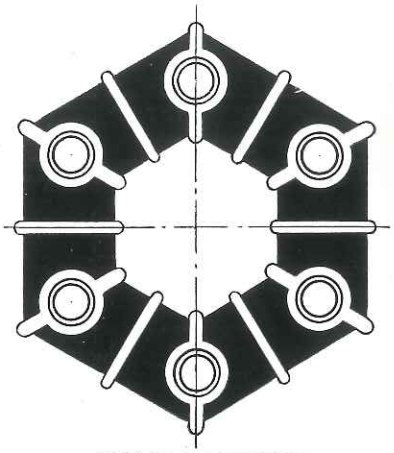
METALASTIK
ROTOFLEX® COUPLINGS

The Metalastik Rotoflex Coupling consists of a regular polygon of rubber with metal inserts bonded in position. It can have 4, 6 or 8 sides. After moulding, the rubber elements in the coupling are compressed by the fitting of a steel retaining band. This important design feature ensures maximum fatigue life. The retaining band is discarded after assembly. Metal interleaves bonded into the rubber elements provide increased torque capacity when required. Rotoflex couplings have proved highly successful for motor car propeller and half-shaft applications, for auxiliary drives on road vehicles and for many industrial drives.



RETAINING BANDS NOT SHOWN





INTERLEAF TYPE

PART No.		A OVERALL DIAMETER (ASSEMBLED)	B P.C.D. OF BOLT CENTRES (ASSEMBLED)	C DIAMETER OF FIXING HOLES	D WIDTH ACROSS METAL FACES	E DIAMETER OF RUBBER CROSS SECTION
21/555/1	mm.	91	65	8	28	22
	ins.	3·58	2·58	·32	1·10	·87
21/553/1	mm.	117	85	10	32	27
	ins.	4·61	3·35	·39	1·26	1·06
21/892/1	mm.	137	96	11	46	33 SQUARE
	ins.	5·38	3·78	·45	1·83	1·3 SQUARE
21/1004/1	mm.	141	100	12	45	35 SQUARE
	ins.	5·55	3·94	·47	1·77	1·38 SQUARE
21/932/1	mm.	162	113	13	47	37×42
	ins.	6·38	4·44	·52	1·84	1·44×1·66
21/967/1	mm.	137	96	11	46	33 SQUARE
	ins.	5·38	3·78	·45	1·83	1·3 SQUARE
21/979/1	mm.	162	113	13	47	37×42
	ins.	6·38	4·44	·52	1·84	1·44×1·66
21/924/1	mm.	187	133	16	57	44
	ins.	7·38	5·25	·64	2·25	1·75
21/524/1	mm.	234	170	20	62	50
	ins.	9·21	6·69	·79	2·44	1·97
21/933/1	mm.	187	133	16	70	44×57
	ins.	7·38	5·25	·64	2·75	1·75×2·25
21/525/1	mm.	254	186	20	68	56
	ins.	10·00	7·32	·79	2·68	2·20
21/526/1	mm.	281	210	20	78	60
	ins.	11·06	8·27	·79	3·07	2·36

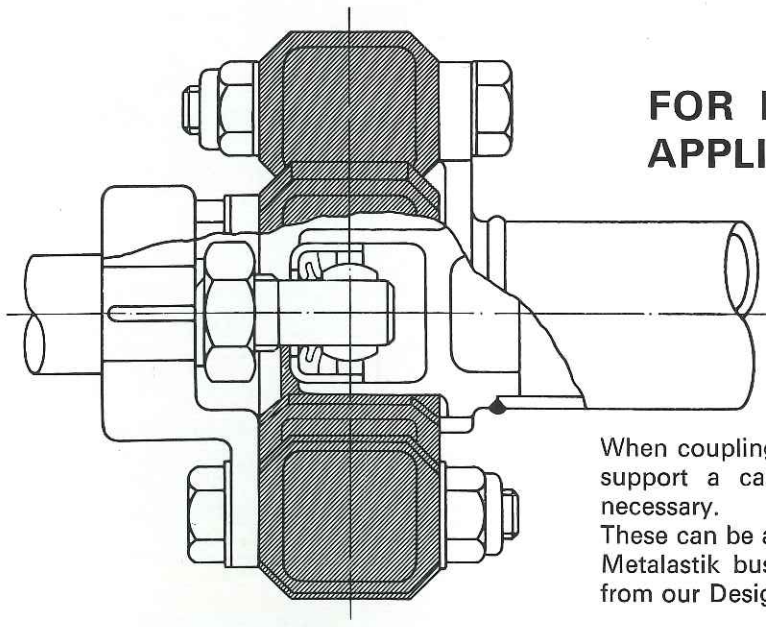
Part Nos. 21/967/1 and 21/979/1 have interleaves

Part No. 21/526/1 has 8 rubber elements.

PART No.	TORQUE		TORSIONAL STIFFNESS	AXIAL STIFFNESS	NORMAL CONTINUOUS AXIAL DEFLECTION	NORMAL CONTINUOUS CARDAN DEFLECTION
	NORMAL	MAXIMUM				
	Nm. lb.ft.	Nm. lb.ft.	Nm./deg. lb.ft./deg.	kN/m. lb./in.	mm. ins.	degrees
21/555/1	40	100	5,4	55	2,54	5
	30	75	4	310	0·10	
21/553/1	80	200	10,8	60	4,06	5
	60	145	8	345	0·16	
21/892/1	190	460	27	115	5,08	5
	140	340	20	650	0·20	
21/1004/1	220	540	35	190	5,08	5
	160	400	26	1075	0·20	
21/932/1	240	600	32	105	6,35	5
	180	440	24	590	0·25	
21/967/1	280	680	37	115	5,08	5
	210	500	27	650	0·20	
21/979/1	340	830	45	105	6,35	5
	250	610	33	590	0·25	
21/924/1	450	1080	65	160	7,62	5
	330	800	48	890	0·30	
21/524/1	550	1400	65	80	8,89	5
	405	1030	48	450	0·35	
21/933/1	570	1360	75	255	3,81	3
	420	1000	55	1450	0·15	
21/525/1	800	1990	102	105	9,40	5
	590	1470	75	600	0·37	
21/526/1	1190	2980	190	175	7,62	3
	880	2200	140	1000	0·30	

Larger continuous cardan deflections can be accommodated in certain applications. For shock and bump loads increase the above figures by a factor of 3.
The couplings listed will cater for running speeds up to 8,000 r.p.m. for the smallest size, and up to 2,000 r.p.m. for the largest size.

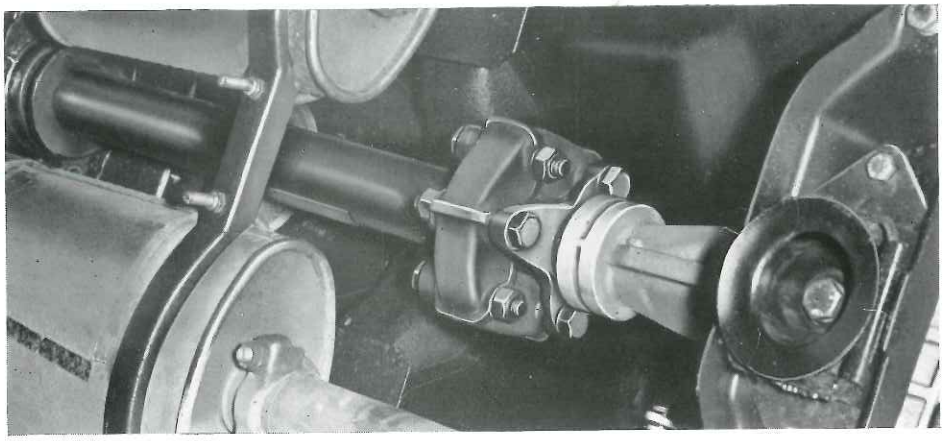
Our engineers will be pleased to advise on any application on receipt of the following - torque, speed and misalignment.



FOR HIGH-SPEED APPLICATIONS —

AUTOMOTIVE PROPELLER SHAFTS etc.

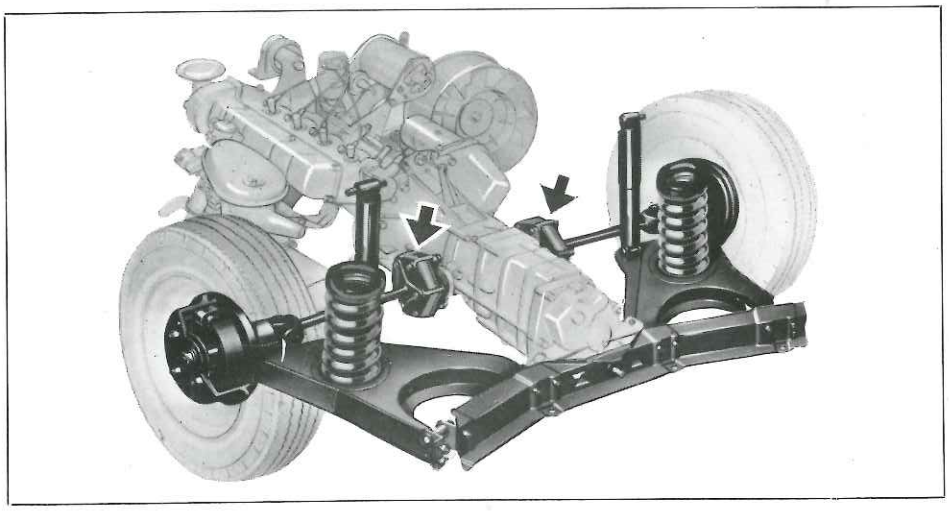
When couplings operate at very high speeds and support a cardan shaft, a centring device is necessary.
These can be all metal, as shown in diagram, or a Metalastik bush arrangement – details available from our Design Department.



Rotoflex couplings provide torsional and axial flexibility in the drive shaft system.

When applied to motor-car propeller shafts a centring device is necessary. See diagram on page 3.

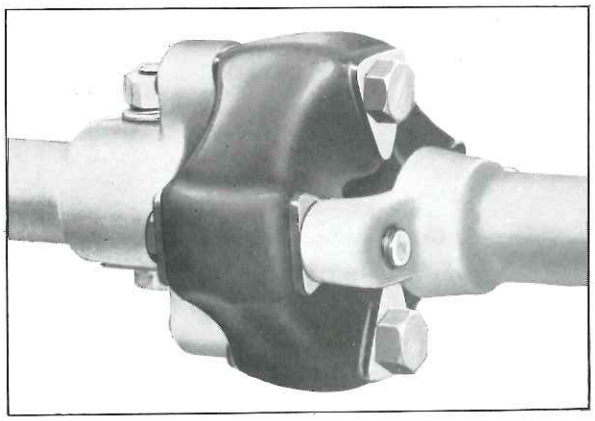
On the Ford Granada.

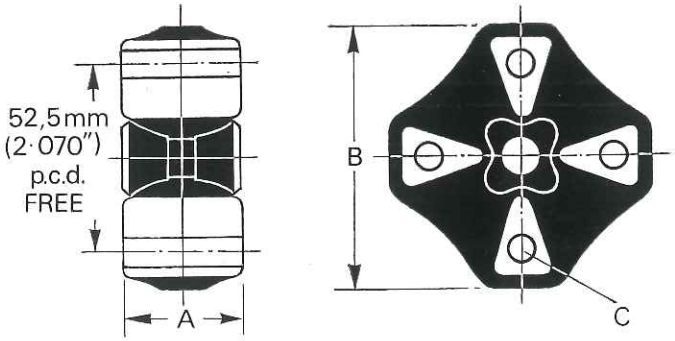


Accommodating axial as well as universal movements, Rotoflex couplings reduce loads on gearbox casing and bearings and obviate the need for sliding splines. Their flexibility promotes a smooth drive and helps to reduce noise.

On the Hillman Imp range.

ROTOFLEX STEERING COLUMN COUPLINGS





Assembled on P.C.D. 49 mm. (1·937")

PART No.		A	B	C	MAXIMUM ANGULAR MISALIGNMENT degrees	TORSIONAL STIFFNESS Nm./deg.	lb.ft./deg.	AXIAL STIFFNESS kN/m.	lb./in.
21/568/1	mm.	33,27	73	C/BORED	10°	4,3		150	
	ins.	1·312	2·875			3·2		860	
21/1014	mm.	33,27	73	PLAIN	10°	4,3		150	
	ins.	1·312	2·875			3·2		860	
21/940/1	mm.	25,40	70,4	KEYED	15°	3,1		105	
	ins.	1·00	2·77			2·3		600	

Part No. 21/940/1 has a retaining band.

Printed in United Kingdom.