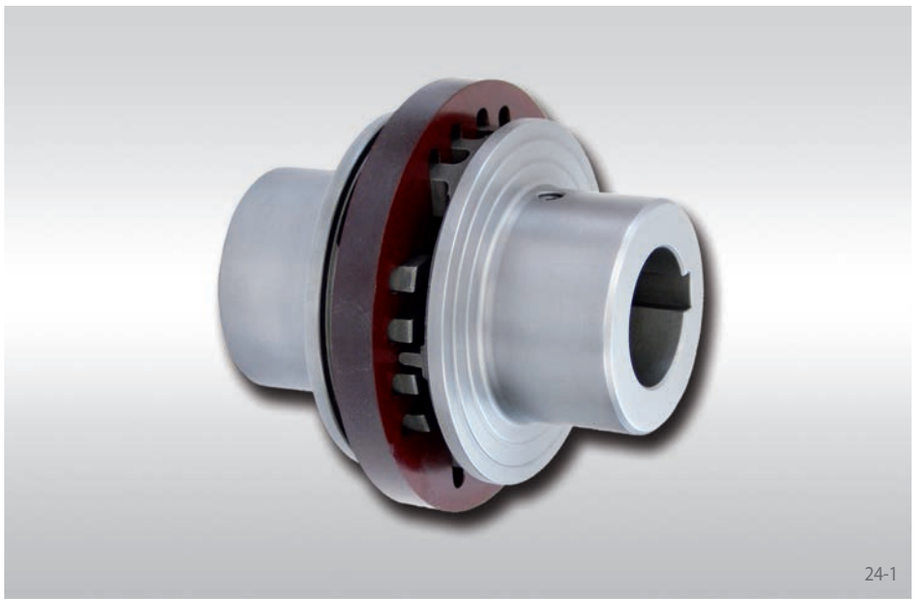
Flexible Couplings RDA … ESO

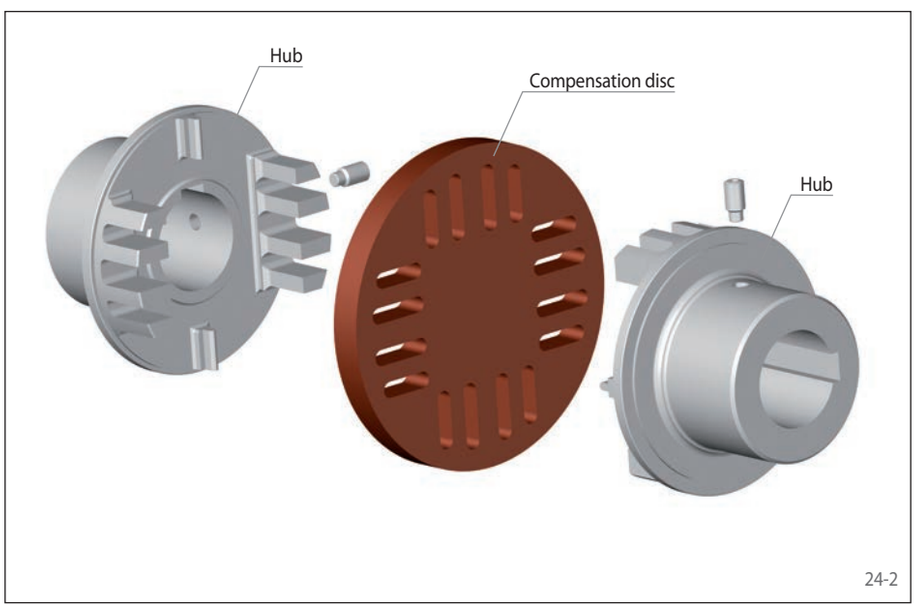
RINGSPANN®

Design RDA … ESO-…-0…
Hub with keyway


24-1

Features

- Compact design
- Simple robust design
- Electrical insulation
- No stick-slip effect
- Large radial shaft misalignment permissible
- Torsionally rigid
- Minimal restoring forces to adjacent machine parts
- Typical applications: Printing machines, machine tools



24-2

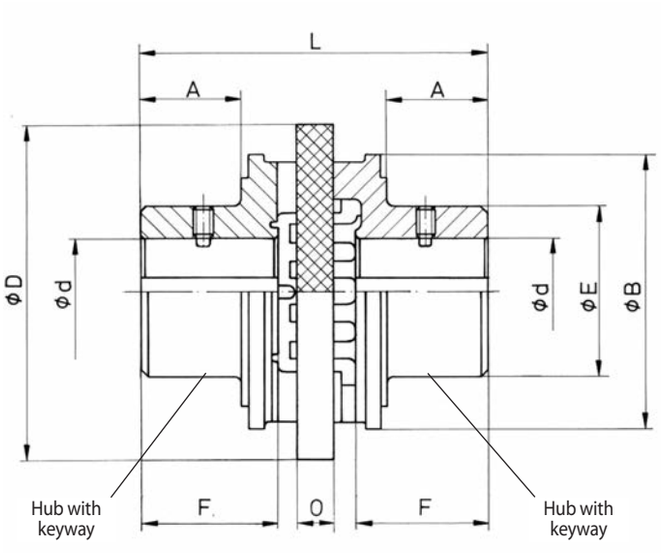
Order example	Code
Coupling design	RDA
Coupling size	0010
Type	ESO
Material of the hub: • Steel • Nodular cast iron	 STA GJS
Hub A, type: • 0, standard	0
Hub A, design: • finish bored with keyway • roughbored	 FB VA
Bore diameter hub A	010
Hub B, type: • 0, standard	0
Hub B, design: • finish bored with keyway • roughbored	 FB VA
Bore diameter hub B	015
Material of the compensation disc: • HGW 2082 in accordance with DIN 7735	 HG82

RDA 0010 ESO-GJS-0FB010-0FB015-HG82

Flexible Couplings RDA … ESO

RINGSPANN®

Design RDA … ESO-…-0…
Hub with keyway



25-1

Coupling size	Material of the hub		Max. torque	Max. speed	Moment of inertia	Max. misalignments*		Pilot bore d	Finish bore d		A	B	D	E	F**	L	O	Weight with rough bore
	Steel	Nodular cast iron				Axial +/-	Radial		min.	max.								
	STA	GJS	Nm	min^{-1}	kgm^2	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0010	x	-	2	13000	0,0001	0,75	0,50	4,3	5	15	-	-	32	26	13	35	6	0,10
0012	x	-	4	10500	0,0002	0,75	0,60	5	6	18	-	-	40	32	16	42	4	0,20
0016	x	-	8	8400	0,0003	0,75	0,80	7	8	25	-	-	50	40	18,5	51	6	0,38
0020	x	-	16	6800	0,0004	1,00	1,00	9	10	30	-	-	63	50	25	64	6	0,78
0027	x	-	32	5350	0,0008	1,25	1,35	11	12	40	-	-	80	65	32	85	8	1,70
0035	-	x	85	4100	0,0013	1,50	1,75	15	16	35	33	90	110	53	42	112	12	1,90
0042	-	x	190	3400	0,0039	1,50	2,10	19	20	42	41	110	135	66	53	136	14	3,70
0050	-	x	500	2670	0,0097	2,00	2,50	29	30	50	51	135	160	85	62	159	16	6,30
0070	-	x	1000	2140	0,0268	2,00	3,50	33	34	70	65	163	200	104	79	200	20	12,10
0090	-	x	2000	1700	0,1110	2,50	4,50	48	50	90	81	202	250	150	100	247	25	28,90
0110	-	x	4000	1350	0,2911	4,00	5,50	58	60	110	101	254	315	175	124	312	32	50,90
0140	-	x	8000	1050	0,9767	4,50	7,00	72	75	140	130	330	400	216	160	402	40	104,00

For finish bores, please specify bore diameter hub A and hub B. Tolerance of finish bores H7. Keyways in accordance with DIN 6885, sheet 1. Keyway tolerance P9.
* max. angular displacement 3°.
**The hub length F can be shortened, which would change the dimensions A, C and L accordingly.

Elastomer element	Material	Temperature range °C	Colour
HGW 2082	Cotton fabric-phenolic	up to +100	red

Flexible Couplings RDA … ESO

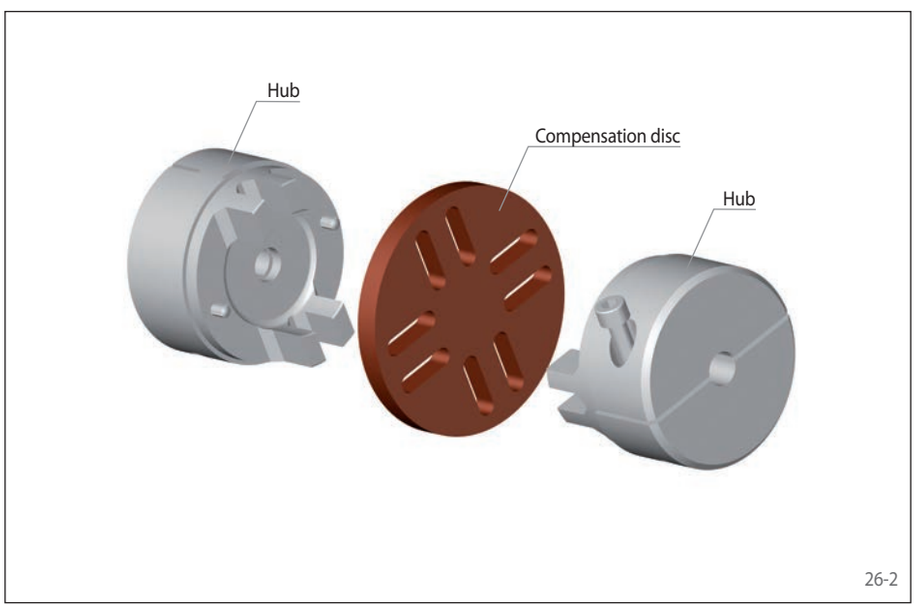
RINGSPANN®

Design RDA … ESO-STA-1KA …
Hub with backlash free clamping connection


26-1

Features

- Compact design
- Simple robust design
- Electrical insulation
- No stick-slip effect
- Large radial shaft misalignment permissible
- Torsionally rigid
- Minimal restoring forces to adjacent machine parts
- Typical applications: Printing machines, machine tools



26-2

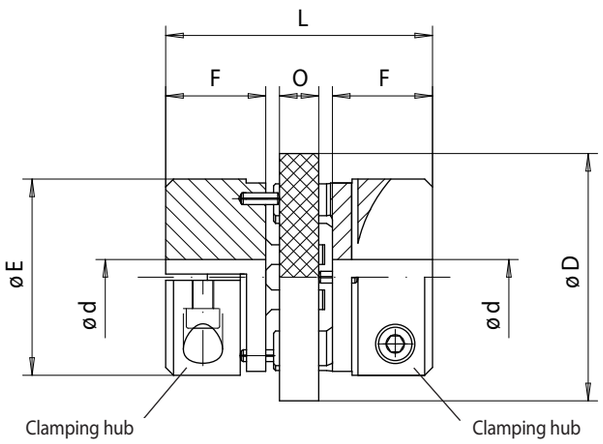
Order example	Code
Coupling design	RDA
Coupling size	0010
Type	ESO
Material of the hub: • Steel	STA
Hub A, type: • I, clamping hub	1
Hub A, design: • Clamping hub, single slotted, metric bore, H7, without keyway	KA
Bore diameter hub A	005
Hub B, type: • I, clamping hub	1
Hub B, design: • Clamping hub, single slotted, metric bore, H7, without keyway	KA
Bore diameter hub B	010
Material of the compensation disc: • HGW 2082 in accordance with DIN 7735	HG82

RDA 0010 ESO-STA-1KA005-1KA010-HG82

Flexible Couplings RDA … ESO

RINGSPANN®

Design RDA … ESO-STA-1KA …
Hub with backlash free clamping connection



27-1

Coupling size	Max. torque $T_{K\,max}$	Max. speed n_{max}	Moment of inertia J_K	Max. misalignments*		Finish bore d		D	E	F	L	O	Weight with rough bore
				Axial +/-	Radial	min.	max.						
	Nm	min^{-1}	kgm^2	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0010	2	13000	0,0001	0,75	0,5	5	10	32	26	13	35	6	0,10
0012	4	10500	0,0002	0,75	0,6	6	14	40	32	16	42	4	0,20
0016	8	8400	0,0003	0,75	0,8	8	20	50	40	18,5	51	6	0,38
0020	16	6800	0,0004	1,00	1,0	10	25	63	50	25	64	6	0,78
0027	32	5350	0,0008	1,25	1,35	12	35	80	65	32	85	8	1,70

For finish bores, please specify bore diameter hub A and hub B. Tolerance of finish bores H7. Keyway tolerance P9.
* max. angular displacement 3°.

Elastomer element	Material	Temperature range °C	Colour
HGW 2082	Cotton fabric-phenolic	up to +100	red

Flexible Couplings RDA … ESO

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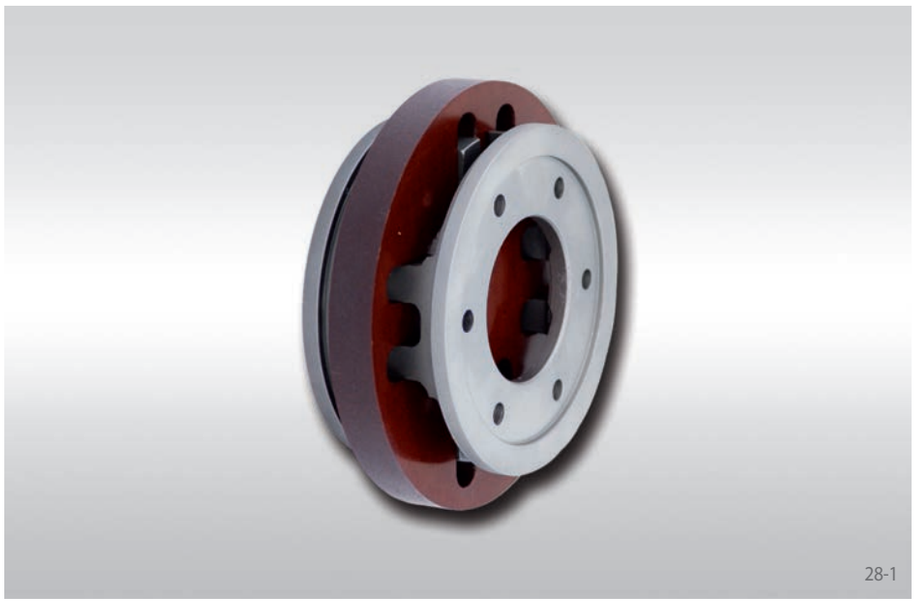
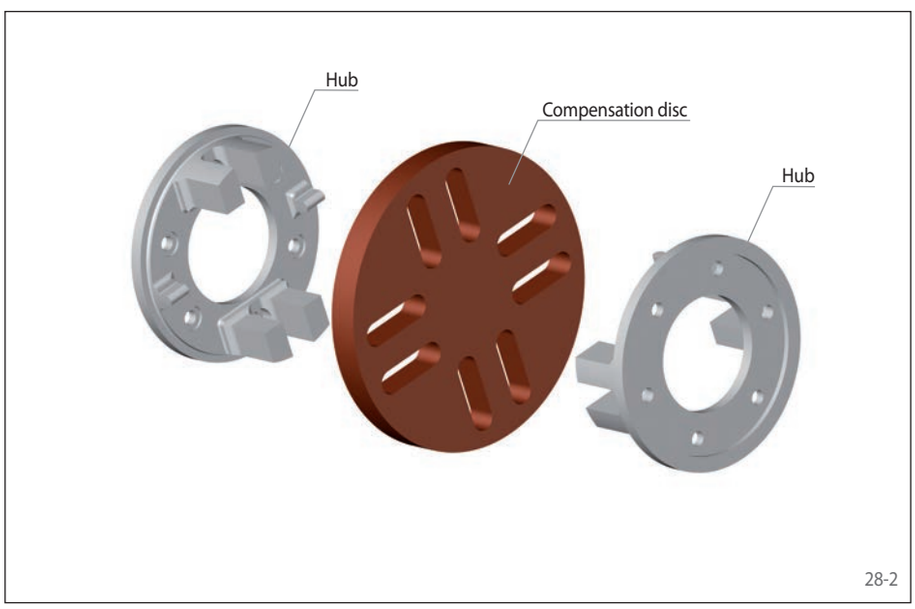
Design RDA … ESO-GJS-2PE …
Hub with mounting flange with through bores


28-1

Features

- Compact design
- Simple robust design
- Electrical insulation
- No stick-slip effect
- Large radial shaft misalignment permissible
- Torsionally rigid
- Minimal restoring forces to adjacent machine parts
- Typical application: Printing machines, machine tools



28-2

Order example	Code
Coupling design	RDA
Coupling size	0110
Type	ESO
Material of the hub: • Nodular cast iron	GJS
Hub A, type: • II, flange hub	2
Hub A, design: • Mounting flange with through bore, arrangement of the fastening holes according to hole pattern	PE
Pitch diameter T hub A	180
Hub B, type: • II, flange hub	2
Hub B, design: • Mounting flange with through bore, arrangement of the fastening holes according to hole pattern	PE
Pitch diameter T hub B	180
Material of the compensation disc: • HGW 2082 in accordance with DIN 7735	HG82

RDA 0110 ESO-GJS-2PE180-2PE180-HG82

Flexible Couplings RDA … ESO

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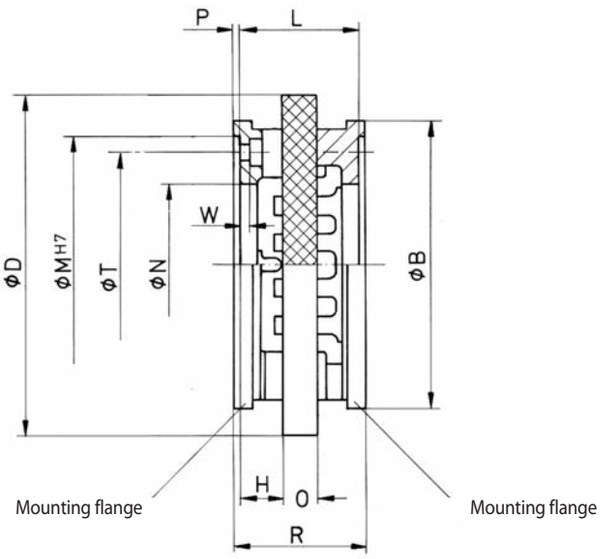
Design RDA … ESO-GJS-2PE …
Hub with mounting flange with through bores



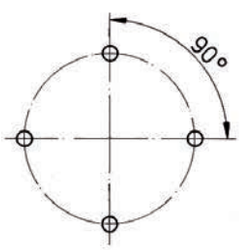
29-1

Coupling size	Max. torque $T_{K\,max}$ Nm	Max. speed n_{max} min^{-1}	Moment of inertia J_K kgm^2	Max. misalignments* Axial +/- mm	Radial mm	B mm	D mm	H mm	L mm	M^{H7} mm	N mm	O mm	P mm	R mm	T mm	W mm	Z	Hole pattern **	Weight with rough bore kg
0035	85	4100	0,0009	1,50	1,75	90	110	14,5	41	75	45	12	2,5	46	65	3,5	M 6	1	0,7
0042	190	3400	0,0026	1,50	2,1	110	135	15,5	45	90	52	14	2,5	50	75	4,5	M 6	2	1,4
0050	500	2670	0,0053	2,00	2,5	135	160	18,0	52	100	65	16	4,5	61	88	4,5	M 8	2	1,9
0051	500	2670	0,0051	2,00	2,5	135	160	17,5	51	125	76	16	3,0	57	108	5,0	M 8	3	1,7
0070	1000	2140	0,0138	2,00	3,5	163	200	21,0	62	135	90	20	4,0	70	115	5,5	M 10	2	3,2
0090	2000	1700	0,0453	2,50	4,5	202	250	26,5	78	170	104	25	4,5	87	150	7,0	M 10	4	7,0
0110	4000	1350	0,1314	4,00	5,5	254	315	32,0	96	200	146	32	5,0	106	180	5,0	M 12	3	12,3
0140	8000	1050	0,5203	4,50	7,0	330	400	44,0	128	250	157	40	5,0	138	225	8,0	M 16	3	31,2

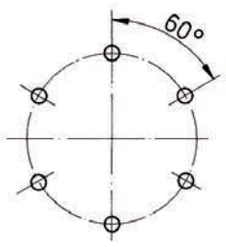
* max. angular displacement 3°.
** Arrangement of the fastening holes for screws Z (DIN EN ISO 4762) on pitch diameter T. The hole pattern of the respective other coupling half is offset by 90°.

Elastomer element	Material	Temperature range °C	Colour
HGW 2082	Cotton fabric-phenolic	up to +100	red

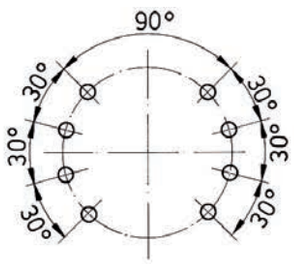
Arrangement of the fastening holes



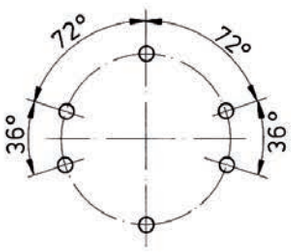
Hole pattern 1



Hole pattern 2



Hole pattern 3

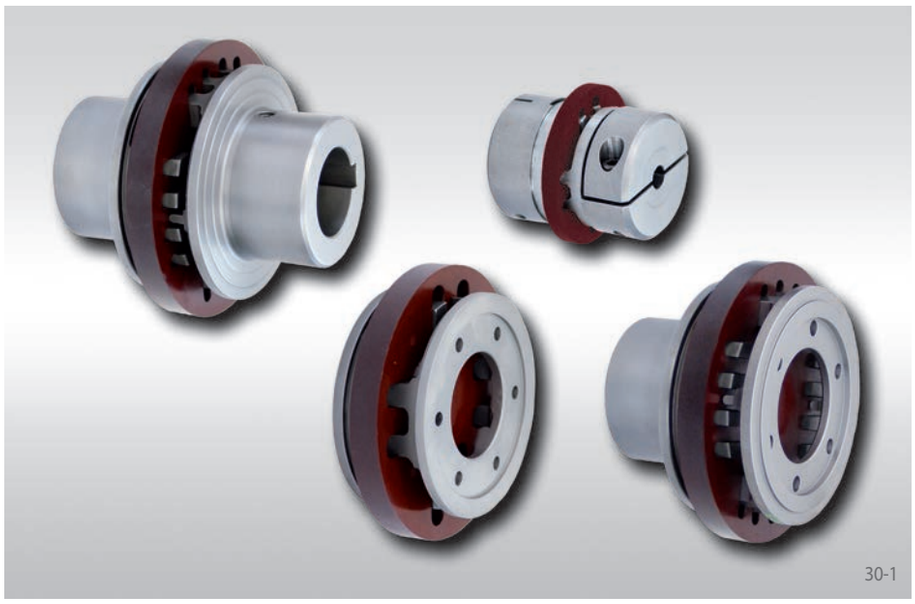


Hole pattern 4

Flexible Couplings RDA … ESO

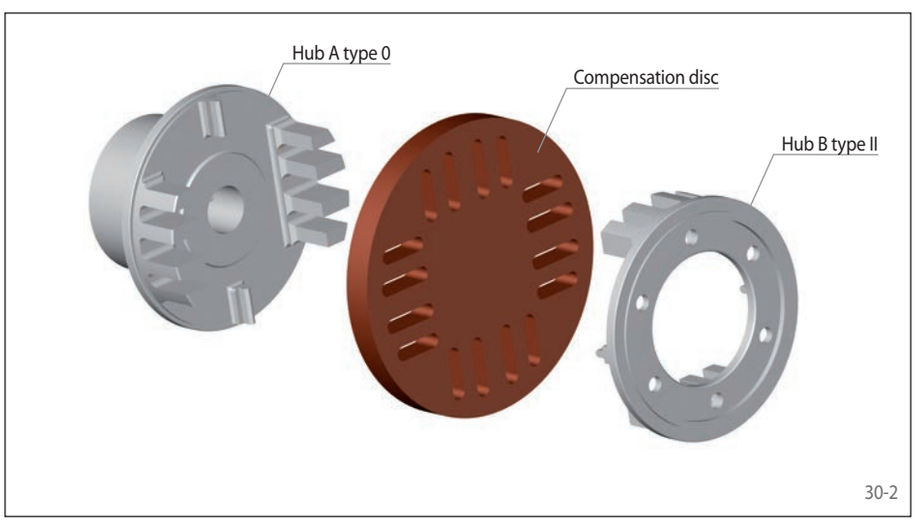
RINGSPANN®

Combination of hub designs



The design of the flexible coupling RDA … ESO allows for the combination of various hub forms to suit available space.

	Type 0	Type I	Type II
Type 0	●	●	●
Type I	●	●	
Type II	●		●



Order example	Code
Coupling design	RDA
Coupling size	0035
Type	ESO
Material of the hub: • Nodular cast iron	GJS
Hub A, type: • 0, standard	0
Hub A, design: • finish bored with keyway • roughbored	FB VA
Bore diameter hub A	028
Hub B, type: • II, flange hub	2
Hub B, design: • Mounting flange with through bore, arrangement of the fastening holes according to hole pattern	PE
Pitch diameter T hub B	065
Material of the compensation disc: • HGW 2082 in accordance with DIN 7735	HG82

RDA 0035 ESO-GJS-0FB028-2PE065-HG82

Flexible Couplings RDA … ESO

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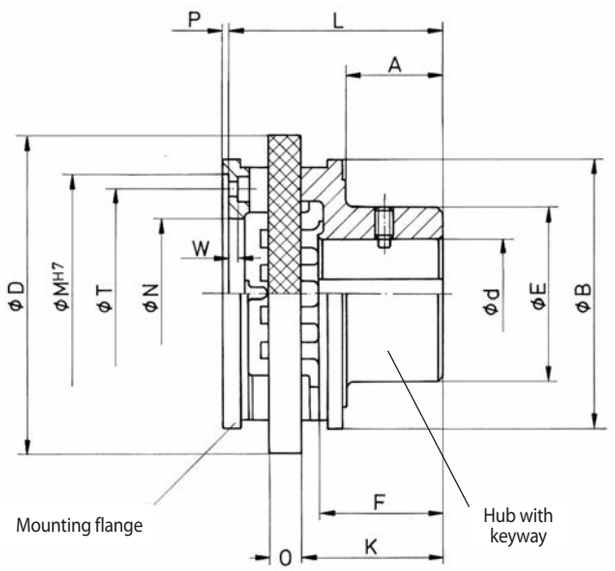
Example hub combination
Hub with mounting flange – hub with keyway

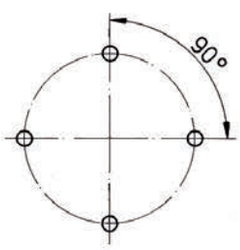


31-1

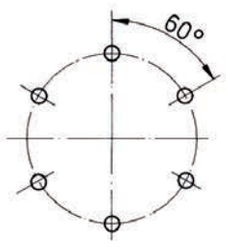
Coupling size	Max. torque $T_{K\,max}$	Max. speed n_{max}	Moment of inertia J_K	Max. misalignments*		Pilot bore d	Finish bore d		A	B	D	E	F**	K	L	M^{H7}	N	O	P	T	W	Z	Hole pattern ***	Weight with rough bore
				Axial +/-	Radial		min.	max.																
	Nm	min^{-1}	kgm^2	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg
0035	85	4100	0,0011	1,50	1,75	15	16	35	33	90	110	53	42	50,0	76,5	75	45	12	2,5	65	3,5	M 6	1	1,3
0042	190	3400	0,0032	1,50	2,1	19	20	42	41	110	135	66	53	61,0	90,5	90	52	14	2,5	75	4,5	M 6	2	2,6
0050	500	2670	0,0075	2,00	2,5	29	30	50	51	135	160	85	62	71,5	105,5	100	65	16	4,5	88	4,5	M 8	2	4,1
0051	500	2670	0,0074	2,00	2,5	29	30	50	51	135	160	85	62	71,5	105,0	125	76	16	3,0	108	5,0	M 8	3	4,0
0070	1000	2140	0,0203	2,00	3,5	33	34	70	65	163	200	104	79	90,0	131,0	135	90	20	4,0	115	5,5	M 10	2	7,7
0090	2000	1700	0,0782	2,50	4,5	48	50	90	81	202	250	150	100	111	162,5	170	104	25	4,5	150	7,0	M 10	4	18,0
0110	4000	1350	0,2113	4,00	5,5	58	60	110	101	254	315	175	124	140	204,0	200	146	32	5,0	180	5,0	M 12	3	31,6
0140	8000	1050	0,7485	4,50	7,0	72	75	140	130	330	400	216	160	181	265,0	250	157	40	5,0	225	8,0	M 16	3	67,6

Tolerance of finish bores H7. Keyways in accordance with DIN 6885, sheet 1. Keyway tolerance P9.
* max. angular displacement 3°.
** The hub length F can be shortened, which would change the dimensions A, C, K and L accordingly.
*** Arrangement of the fastening holes for screws Z (DIN EN ISO 4762) on pitch diameter T for coupling half with flange mounting.

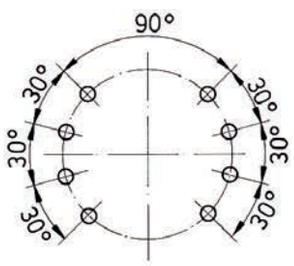
Arrangement of the fastening holes



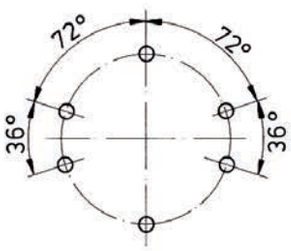
Hole pattern 1



Hole pattern 2



Hole pattern 3



Hole pattern 4