

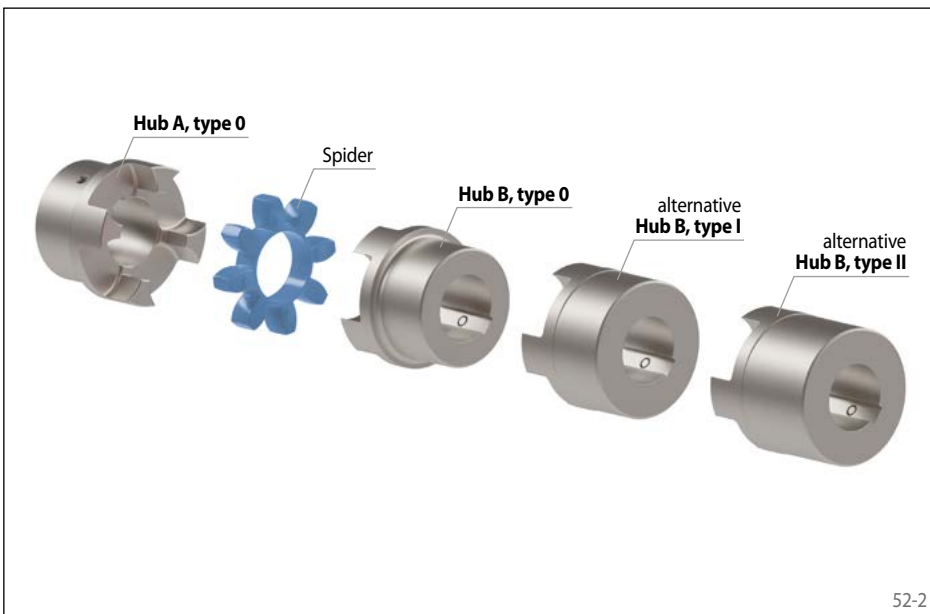
Jaw Couplings REK ... DCO

elastic for dynamic applications
with curved jaws



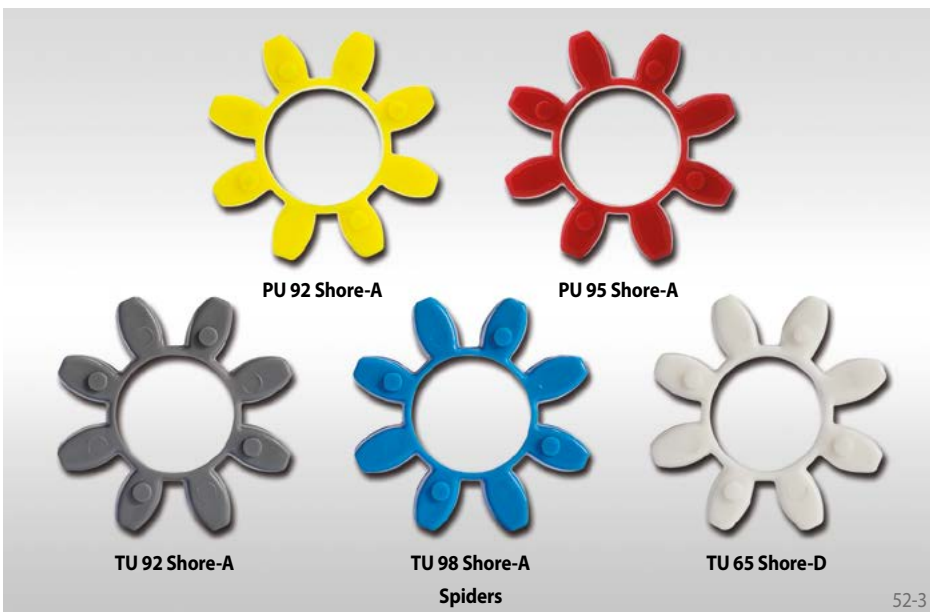
Features

- Compensation of axial, radial and angular misalignments
- Adsorbs vibrations
- Symmetrical design allows for high running speeds without additional balancing
- Fail-safe in the event of the failure of the spider
- Maintenance free, no lubrication necessary
- Complies with ATEX 2014/34/EU
- Typical application: Pump drives, ventilator drives, crane trolleys, machine tools, conveyor belts



Order example

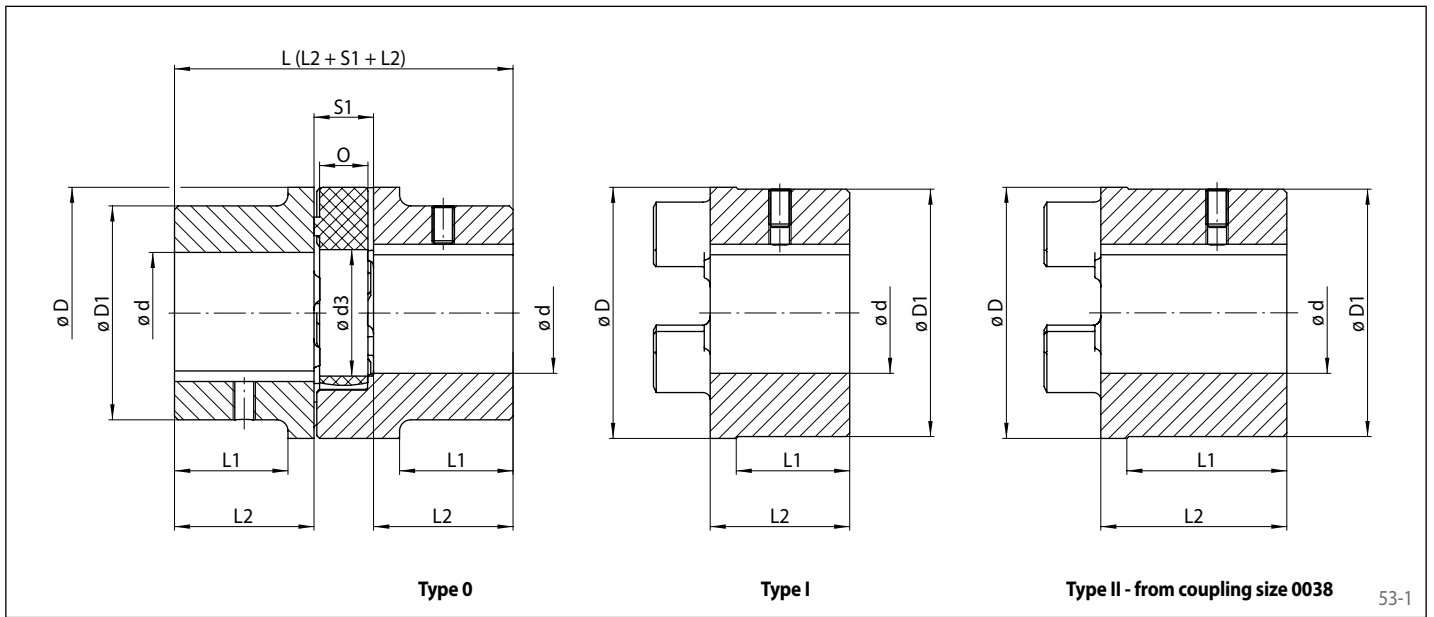
Order example	Code
Coupling design	REK
Coupling size	0019
Type	DCO
Material of the hub*:	
• Steel	STA
• Cast iron	GJL
• Aluminum	ALU
Hub A, type:	
• 0, standard	0
• I, increased max. bore	1
• II, extended, increased max. bore (from size 0038)	2
Hub A, design:	
• finish bored with keyway	FB
• roughbored	VA
Bore diameter hub A	019
Hub B, type:	
• 0, standard	0
• I, increased max. bore	1
• II, extended, increased max. bore (from size 0038)	2
Hub B, design:	
• finish bored with keyway	FB
• roughbored	VA
Bore diameter hub B	019
Spiders:	
• PU 92 Shore-A	PU92
• PU 95 Shore-A	PU95
• TU 92 Shore-A	TU92
• TU 98 Shore-A	TU98
• TU 65 Shore-D	TU65



REK 0019 DCO-ALU-0FB019-0FB019-PU92

* See opposite table for availability

elastic for dynamic applications
with curved jaws



53-1

Coupling size	Material of hub			Max. speed n_{max}			Permissible misalignments		
	Steel	Cast iron	Aluminum	Steel	Cast iron	Aluminum	Axial	Radial	Angulaire
	STA	GJL	ALU	min^{-1}	min^{-1}	min^{-1}	mm	mm	°
0019	x	-	x	18650	-	19000	1,6	0,15	0,8
0024	x	-	x	13650	-	14000	1,8	0,20	0,8
0028	x	-	x	11600	-	11800	2,0	0,20	0,8
0038	x	x	-	9500	7100	-	2,2	0,25	0,9
0042	x	x	-	8000	6000	-	2,3	0,30	0,9
0048	x	x	-	7200	5600	-	3,0	0,35	1,0
0055	x	x	-	6350	4750	-	3,0	0,35	1,0
0065	x	x	-	5650	4250	-	3,5	0,40	1,0
0075	x	x	-	4750	3550	-	3,5	0,45	1,1
0090	x	x	-	3800	2800	-	4,5	0,50	1,1

Coupling size	Pilot bore d^* mm	Min. bore d^* Hub type			Max. bore d^* Hub type						d_3 mm	D mm	D1 Hub type		L1 Hub type				L2 Hub type		O mm	S1 mm
		0	I	II	0		I		II				0	I/II	0/I		II		0/I	II		
		mm	mm	mm	STA mm	GJL/ ALU mm	STA mm	GJL/ ALU mm	STA mm	GJL/ ALU mm			mm	mm	STA mm	GJL/ ALU mm	STA mm	GJL/ ALU mm	STA mm	GJL/ ALU mm		
0019	-	6	19	-	21	19	25	24	-	-	18	41	32	41	20	20	-	-	25	-	12	16
0024	-	9	22	-	26	24	35	28	-	-	27	56	40	56	24	24	-	-	30	-	14	18
0028	-	10	28	-	32	28	40	38	-	-	30	66	48	66	28	28	-	-	35	-	15	20
0038	10	12	38	12	48	40	48	48	48	48	38	80	66	78	27	37	52	62	45	70	18	24
0042	12	14	42	14	55	45	55	55	55	55	46	95	75	94	28	40	53	65	50	75	20	26
0048	13	15	48	15	62	52	62	62	62	62	51	105	85	104	32	45	56	69	56	80	21	28
0055	18	20	55	20	74	60	74	74	74	74	60	120	98	118	37	52	62	77	65	90	22	30
0065	20	22	65	22	80	70	80	80	80	80	68	135	115	133	47	61	72	86	75	100	26	35
0075	28	30	75	30	95	80	95	95	95	95	80	160	135	158	53	69	78	84	85	110	30	40
0090	38	40	90	40	110	97	110	110	110	110	100	200	160	198	62	81	87	106	100	125	34	45

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 JS9.

See following pages for weights, moments of inertia and performance data.

* Bores also available in inch size, see page 65.

Weights and moments of inertia

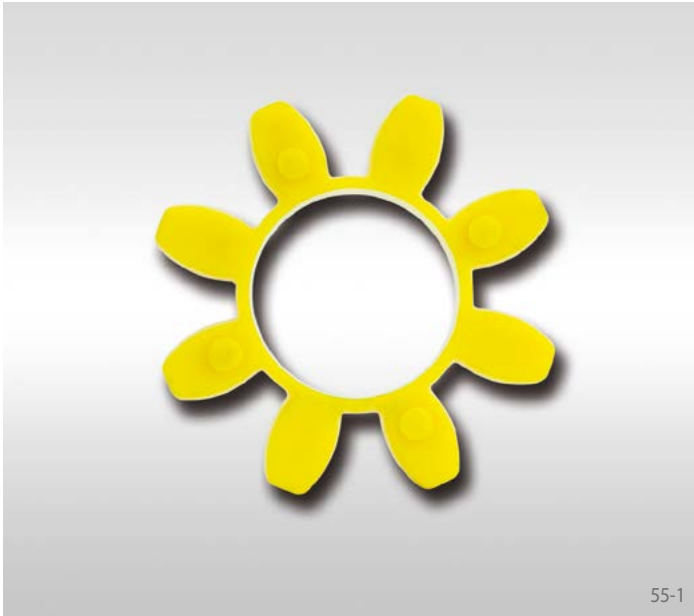
Weights in kg with max. bore diameter

Coupling size	Steel			Cast iron			Aluminum		
	Hub type			Hub type			Hub type		
	0	I	II	0	I	II	0	I	II
0019	0,14	0,18	0,26	-	-	-	0,05	0,07	-
0024	0,29	0,37	0,61	-	-	-	0,12	0,16	-
0028	0,45	0,64	1,07	-	-	-	0,19	0,25	-
0038	1,00	1,27	1,90	1,0	1,2	1,8	-	-	-
0042	1,81	1,84	2,76	1,6	1,8	2,3	-	-	-
0048	2,43	2,74	3,80	2,2	2,6	3,1	-	-	-
0055	3,70	3,93	5,23	3,3	3,7	5,1	-	-	-
0065	4,50	5,85	7,58	5,0	5,7	7,3	-	-	-
0075	7,18	9,06	11,50	7,9	9,0	10,5	-	-	-
0090	12,5	17,00	21,15	13,6	18,2	22,3	-	-	-

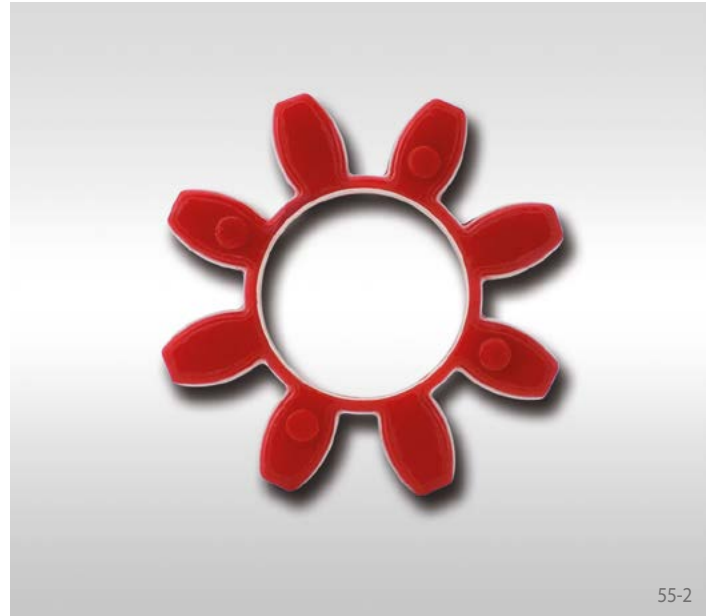
Moments of inertia [$10^{-3} \times \text{kgm}^2$] with max. bore diameter

Coupling size	Steel			Cast iron			Aluminum		
	Hub type			Hub type			Hub type		
	0	I	II	0	I	II	0	I	II
0019	0,04	0,05	0,07	-	-	-	0,011	0,021	-
0024	0,16	0,21	0,35	-	-	-	0,045	0,085	-
0028	0,34	0,48	0,80	-	-	-	0,100	0,210	-
0038	0,98	1,40	0,03	0,93	1,23	1,86	-	-	-
0042	2,50	2,55	3,82	2,05	2,95	4,27	-	-	-
0048	4,10	5,20	7,21	3,10	4,80	6,70	-	-	-
0055	8,20	10,00	10,00	6,15	8,65	11,85	-	-	-
0065	10,00	20,00	30,00	12,25	13,90	18,15	-	-	-
0075	30,00	40,00	50,00	27,00	30,70	35,75	-	-	-
0090	70,00	120,00	150,00	69,00	91,50	112,50	-	-	-

Spiders



55-1



55-2

Spider PU 92 Shore-A

Material: Polyurethane
 Hardness: 92 ±2 Shore-A
 Temperature range: -30 °C to +80 °C
 Colour: yellow

Spider PU 95 Shore-A

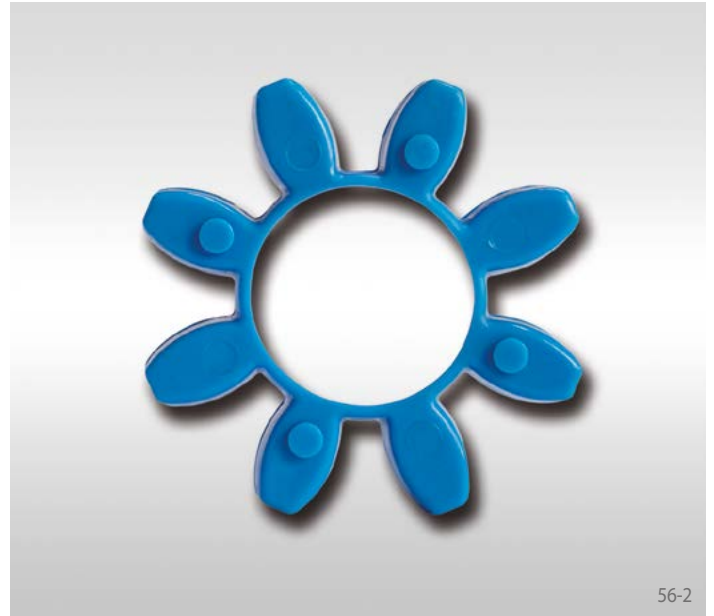
Material: Polyurethane
 Hardness: 95 ±2 Shore-A
 Temperature range: -30 °C to +90 °C
 Colour: red

Coupling size	Nominal torque T_{KN} Nm	Nominal power at 100 min^{-1} P_{K100} kW	Max. torque $T_{K \max}$ Nm	Alternating torque T_{KW} Nm	Torsional stiffness $C_{T \text{ dyn}}$ Nm/rad x 10^3			Relative damping ψ at 0,5 T_{KN}
					1,0 T_{KN}	0,5 T_{KN}	0,25 T_{KN}	
0019	9,6	0,1	19	2,5	0,5	0,4	0,2	0,9
0024	33	0,3	69	8,9	2,0	1,3	0,9	
0028	91	1,0	186	24	5,1	3,4	2,3	
0038	181	1,9	372	48	10,2	6,7	4,6	
0042	253	2,6	510	67	14,4	9,4	6,5	
0048	296	3,1	600	79	16,6	10,9	7,5	
0055	392	4,1	800	105	22,9	15,0	10,4	
0065	590	6,3	1220	160	26,0	19,3	13,9	
0075	1220	12,8	2500	326	54,4	40,4	29,0	
0090	2290	24,0	4700	610	86,7	64,0	47,0	

Coupling size	Nominal torque T_{KN} Nm	Nominal power at 100 min^{-1} P_{K100} kW	Max. torque $T_{K \max}$ Nm	Alternating torque T_{KW} Nm	Torsional stiffness $C_{T \text{ dyn}}$ Nm/rad x 10^3			Relative damping ψ at 0,5 T_{KN}
					1,0 T_{KN}	0,5 T_{KN}	0,25 T_{KN}	
0019	16	0,2	32	4,2	1,3	0,9	0,6	0,9
0024	57	0,6	114	15,2	4,8	3,2	2,1	
0028	153	1,6	304	40,0	12,1	8,2	5,4	
0038	310	3,2	610	81,0	24,0	16,2	10,6	
0042	430	4,5	850	111	33,9	22,9	12,3	
0048	500	5,2	990	130	39,2	26,4	16,9	
0055	650	6,8	1300	169	53,9	36,4	25,3	
0065	890	9,4	1780	232	69,3	47,6	33,3	
0075	1830	19,2	3640	474	84,6	58,9	41,4	
0090	3430	36,0	6800	889	150,9	118,5	85,5	



56-1



56-2

Spider TU 92 Shore-A

Material: Polyurethane
 Hardness: 92 ±2 Shore-A
 Temperature range: -30 °C to +120 °C
 Colour: gray

Spider TU 98 Shore-A

Material: Polyurethane
 Hardness: 98 ±2 Shore-A
 Temperature range: -30 °C to +120 °C
 Colour: blue

Coupling size	Nominal torque T_{KN} Nm	Nominal power at 100 min^{-1} P_{K100} kW	Max. torque $T_{K \max}$ Nm	Alternating torque T_{KW} Nm	Torsional stiffness $C_{T \text{ dyn}}$ Nm/rad x 10^3			Relative damping ψ at 0,5 T_{KN}
					1,0 T_{KN}	0,5 T_{KN}	0,25 T_{KN}	
0019	9,6	0,1	19	2,5	0,52	0,34	0,24	0,9
0024	33	0,3	69	8,9	1,96	1,29	0,92	
0028	91	1	186	24	4,95	3,24	2,32	
0038	181	1,9	372	48	9,80	6,42	4,59	
0042	253	2,6	510	67	15,41	10,37	7,39	
0048	296	3,1	600	79	17,82	11,99	8,55	
0055	392	4,1	800	105	24,51	16,50	11,76	
0065	590	6,2	1220	160	40,37	27,75	19,75	
0075	1220	12,8	2500	326	84,55	58,11	41,36	
0090	2290	24	4700	610	158,74	109,11	77,65	

Coupling size	Nominal torque T_{KN} Nm	Nominal power at 100 min^{-1} P_{K100} kW	Max. torque $T_{K \max}$ Nm	Alternating torque T_{KW} Nm	Torsional stiffness $C_{T \text{ dyn}}$ Nm/rad x 10^3			Relative damping ψ at 0,5 T_{KN}
					1,0 T_{KN}	0,5 T_{KN}	0,25 T_{KN}	
0019	18	0,2	36	4,50	1,59	1,16	0,80	0,9
0024	62	0,6	124	15,50	6,24	4,53	3,14	
0028	167	1,7	334	41,75	15,32	11,12	7,71	
0038	332	3,5	664	83,00	30,89	22,41	15,54	
0042	477	5,0	954	119,25	45,49	33,16	22,98	
0048	525	5,5	1050	131,25	52,25	38,09	26,39	
0055	694	7,3	1388	173,50	70,55	51,44	35,64	
0065	973	10,2	1946	243,25	100,65	73,71	51,04	
0075	1980	20,7	3960	495,00	209,61	153,50	106,29	
0090	3523	36,9	7046	880,75	413,38	272,95	134,19	



Spider TU 65 Shore-D

Material: Polyurethane
 Hardness: 65 ±2 Shore-D
 Temperature range: -30 °C to +120 °C
 Colour: white

Coupling size	Nominal torque T_{KN} Nm	Nominal power at 100 min^{-1} P_{K100} kW	Max. torque T_{Kmax} Nm	Alternating torque T_{KW} Nm	Torsional stiffness $C_{T \text{ dyn}}$ Nm/rad x 10^3			Relative damping ψ at 0,5 T_{KN}
					1,0 T_{KN}	0,5 T_{KN}	0,25 T_{KN}	
0019	21	0,2	42	5,25	1,99	1,37	0,98	1,0
0024	76	0,8	152	19,00	7,92	5,45	3,91	
0028	198	2,1	396	49,50	18,88	12,98	9,31	
0038	402	4,2	804	100,50	38,14	22,41	15,54	
0042	560	5,9	1 120	140,00	60,36	45,49	29,75	
0048	667	7,0	1 334	166,75	71,04	53,54	35,01	
0055	834	8,7	1 668	208,50	92,27	69,54	45,47	
0065	1 155	12,1	2 310	288,75	141,08	102,45	59,79	
0075	2 380	24,9	4 760	595,00	294,43	213,82	124,77	
0090	4 514	47,3	9 028	1 128,50	550,50	338,37	183,26	

Selection of IEC standard motors

Frame size	A.C. motor 50 Hz		Motor power n = 3 000 min ⁻¹ 2 pole		REK ... DCO	Motor power n = 1 500 min ⁻¹ 4 pole		REK ... DCO	Motor power n = 1 000 min ⁻¹ 6 pole		REK ... DCO	Motor power n = 750 min ⁻¹ 8 pole		REK ... DCO
	Shaft end d x l 2 pole	4, 6, 8 pole	Power P _{AN}	Torque T _{AN}	Coupling size	Power P _{AN}	Torque T _{AN}	Coupling size	Power P _{AN}	Torque T _{AN}	Coupling size	Power P _{AN}	Torque T _{AN}	Coupling size
56	9 x 20		0,09 0,12	0,32 0,41	0019 Hub type 0	0,06 0,09	0,43 0,64	0019 Hub type 0	0,037 0,045	0,43 0,52	0019 Hub type 0	-	-	-
63	11 x 23		0,18 0,25	0,62 0,86		0,12 0,18	0,88 1,3		0,06 0,09	0,7 1,1		-	-	-
71	14 x 30		0,37 0,55	1,3 1,9		0,25 0,37	1,8 2,5		0,18 0,25	2 2,8		0,09 0,12	1,4 1,8	0019 Hub type 0
80	19 x 40		0,75 1,1	2,5 3,7		0,55 0,75	3,7 5,1		0,37 0,55	3,9 5,8		0,18 0,25	2,5 3,5	0019 Hub type 0
90S	24 x 50		1,5	5	0019 Hub type I	1,1	7,5	0019 Hub type I	0,75	8	0019 Hub type I	0,37	5,3	0019 Hub type I
90L			2,2	7,4		1,5	10		1,1	12		0,55	7,9	
100L	28 x 60		3	9,8	0024 Hub type I	2,2 3	15 20	0024 Hub type I	1,5	15	0024 Hub type I	0,75 1,1	11 16	0024 Hub type I
112M			4	13		4	27		2,2	22		1,5	21	
132S	38 x 80		5,5 7,5	18 25	0028 Hub type I	5,5	36	0028 Hub type I	3	30	0028 Hub type I	2,2	30	0028 Hub type I
132M			-	-		7,5	49		4 5,5	40 55		3	40	
160M	42 x 110		11 15	36 49	0038 Hub type I (II)	11	72	0038 Hub type I (II)	7,5	75	0038 Hub type I (II)	4 5,5	54 74	0038 Hub type I (II)
160L			18,5	60		15	98		11	109		7,5	100	
180M	48 x 110		22	71	0042 Hub type I (II)	18,5	121	0042 Hub type I (II)	-	-	0042 Hub type I (II)	-	-	0042 Hub type I (II)
180L			-	-		22	144		15	148		11	145	
200L	55 x 110		30 37	97 120	0042 Hub type I (II)	30	196	0042 Hub type I (II)	18,5 22	181 215	0042 Hub type I (II)	15	198	0042 Hub type I (II)
225S	55 x 110	60 x 140	-	-		37	240		0048 Hub type I (II)	-		-	0048 Hub type I (II)	
225M			45	140	45	292	30	293		22	290			
250M	60 x 140	65 x 140	55	177	0048 Hub type I (II)	55	356	0055 Hub type I (II)	37	361	0055 Hub type I (II)	30	392	0055 Hub type I (II)
280S	75 x 140		75	241	0065 Hub type I (II)	75	484	0065 Hub type I (II)	45	438	0065 Hub type I (II)	37	483	0065 Hub type I (II)
280M			90	289		90	581		55	535		45	587	
315S	65 x 140		110	353	0065 Hub type I (II)	110	707	0075 Hub type 0	75	727	0075 Hub type 0	55	712	0075 Hub type 0
315M			132	423		132	849		90	873		75	971	
315L	80 x 170		160 200	513 641	0090 Hub type 0	160 200	1030 1290	0090 Hub type 0	110 132	1070 1280	0090 Hub type 0	90 110	1170 1420	0090 Hub type 0
355L			75 x 140	95 x 170		250 315	802 1010		250 315	1600 2020		160 200 250	1550 1930 2410	
400	80 x 170	110 x 210	355 400	1140 1280	0090 Hub type I (II)	355 400	2280 2570	0090 Hub type I (II)	315	3040	0090 Hub type I (II)	250	3220	0090 Hub type I (II)

During selection, the nominal torque of the coupling at +30 °C was factored in with a start-up factor SZ of 1 and a co-efficient of impact SA/SL of 1. Detailed selection in accordance with the technical information on page 62 et seq.

Standard bores

Coupling size	Material	Hub type	Bore d							
			mm	mm	mm	mm	mm	mm	mm	mm
0019	STA	0	9	11	14	15	18	19	-	-
		I	20	24	-	-	-	-	-	-
	ALU	0	9	11	14	15	18	19	-	-
		I	20	24	-	-	-	-	-	-
0024	STA	0	11	14	15	18	19	20	22	24
		I	28	-	-	-	-	-	-	-
	ALU	0	11	14	15	18	19	20	22	24
		I	28	-	-	-	-	-	-	-
0028	STA	0	14	15	18	19	20	22	24	-
		I	28	32	38	-	-	-	-	-
	ALU	0	14	15	18	19	20	22	24	-
		I	28	32	38	-	-	-	-	-
0038	STA	0	20	24	28	32	38	-	-	-
		I	42	48	-	-	-	-	-	-
		II	32	38	42	48	-	-	-	-
	GJL	0	18	19	20	22	24	28	32	38
		I	42	48	-	-	-	-	-	-
		II	32	38	42	48	-	-	-	-
0042	STA	0	28	32	38	40	42	-	-	-
		I	48	55	-	-	-	-	-	-
		II	38	42	48	55	-	-	-	-
	GJL	0	20	22	24	28	32	38	40	42
		I	48	55	-	-	-	-	-	-
		II	38	42	48	55	-	-	-	-
0048	STA	0	32	38	42	48	-	-	-	-
		I	55	60	-	-	-	-	-	-
		II	42	48	55	60	-	-	-	-
	GJL	0	24	28	32	38	42	48	-	-
		I	55	60	-	-	-	-	-	-
		II	42	48	55	60	-	-	-	-
0055	STA	0	32	38	42	48	55	-	-	-
		I	60	65	-	-	-	-	-	-
		II	48	55	60	65	-	-	-	-
	GJL	0	28	32	38	42	48	55	-	-
		I	60	65	-	-	-	-	-	-
		II	48	55	60	65	-	-	-	-
0065	STA	0	48	55	60	65	-	-	-	-
		I	75	80	-	-	-	-	-	-
		II	60	65	75	80	-	-	-	-
	GJL	0	32	38	42	48	55	60	65	-
		I	75	80	-	-	-	-	-	-
		II	60	65	75	80	-	-	-	-
0075	STA	0	48	55	60	65	75	-	-	-
		I	80	85	-	-	-	-	-	-
		II	65	75	80	85	-	-	-	-
	GJL	0	42	48	55	60	65	75	-	-
		I	80	-	-	-	-	-	-	-
		II	60	65	75	80	-	-	-	-
0090	STA	0	65	75	80	90	-	-	-	-
		I	100	110	-	-	-	-	-	-
		II	80	90	100	110	-	-	-	-
	GJL	0	48	55	60	65	75	80	90	-
		I	95	110	-	-	-	-	-	-
		II	80	90	95	110	-	-	-	-