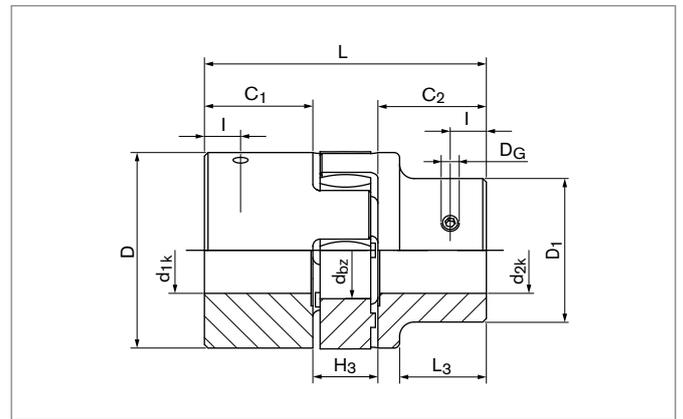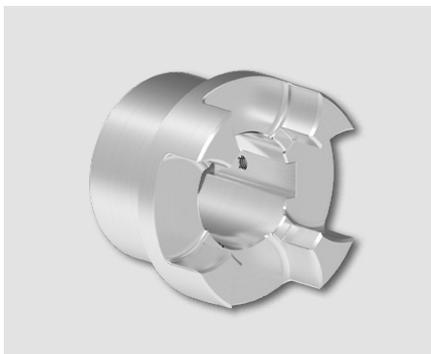# Elastomer Jaw Couplings
RINGFEDER® ECE 6118

Type with Freely Combinable Aluminum Hubs and Elastomer Spiders of Various Hardnesses

Hub Designs

Hub Design 1

Hub Design 1a

Hub Design 1b

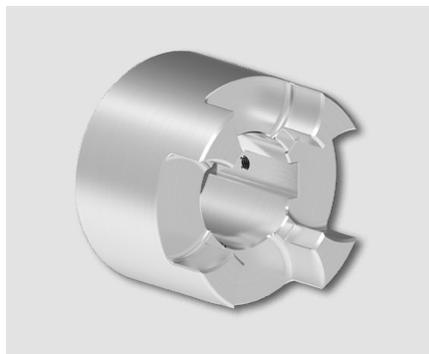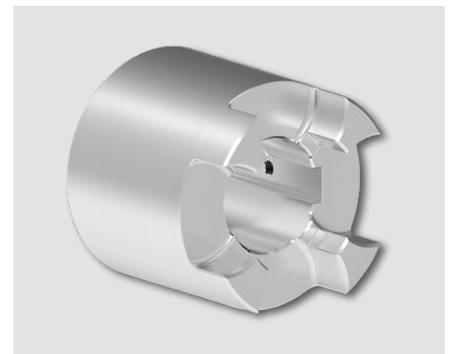| Size	Hub Design	d_{1kmin}-d_{1kmax}	d_{2kmin}-d_{2kmax}	D	C_1	C_2	D_1	H_3	I	L	L_3
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
19	1	6 - 19	6 - 19	40	25	25	32	16	10	66	20
19	1a	6 - 25	6 - 25	40	25	25	40	16	10	66	---
19	1b	6 - 25	6 - 25	40	37	37	40	16	10	90	---
24	1	6 - 24	6 - 24	55	30	30	40	18	10	78	24
24	1a	6 - 35	6 - 35	55	30	30	55	18	10	78	---
24	1b	6 - 35	6 - 35	55	50	50	55	18	10	118	---
28	1	6 - 28	6 - 28	65	35	35	48	20	15	90	28
28	1a	6 - 40	6 - 40	65	35	35	66	20	15	90	---
28	1b	6 - 40	6 - 40	65	60	60	65	20	15	140	---

Elastomer Jaw Couplings RINGFEDER® ECE 6118

Size	Hub Design	T_{KN} [1]	d_{bZ}	D_G	T_A	Gw
		Nm	mm	mm	Nm	kg
19	1	10	18	5	2	0,153
19	1a	10	18	5	2	0,201
19	1b	10	18	5	2	0,287
24	1	35	27	5	2	0,299
24	1a	35	27	5	2	0,451
24	1b	35	27	5	2	0,717
28	1	95	30	8	10	0,498
28	1a	95	30	8	10	0,73
28	1b	95	30	8	10	1,192

1) T_{KN} is specified for standard yellow elastomer spider (92 SH A).

Technical Data of Elastomer Spiders

Size	Hardness	n_{max}	T_{KN}	T_{KW}	T_{Kmax}	ψ	C_{Tdyn} at 1*T_{KN}	C_{Tdyn} at 0,5*T_{KN}	C_{Tdyn} at 0,25*T_{KN}	d_{bZ}	ΔK_a at n = 1500 1/min	ΔK_r at n = 1500 1/min	ΔK_w at n = 1500 1/min	φ at T_{Kmax}
		1/min	Nm	Nm	Nm		10^3 Nm/rad	10^3 Nm/rad	10^3 Nm/rad	mm	mm	mm	degrees	degrees
19	64 SH D	19000	21	5,5	42	0,75	1,99	1,37	0,98	18	-0,5 +1,2	0,13	1,1	3,6
19	92 SH A	19000	10	2,6	20	0,8	0,52	0,34	0,24	18	-0,5 +1,2	0,2	1,2	5
19	98 SH A	19000	17	4,4	34	0,8	1,59	1,16	0,8	18	-0,5 +1,2	0,2	1,2	5
24	64 SH D	14000	75	19,5	150	0,75	7,92	5,45	3,91	27	-0,5 +1,4	0,15	0,8	3,6
24	92 SH A	14000	35	9,1	70	0,8	1,96	1,29	0,92	27	-0,5 +1,4	0,22	0,9	5
24	98 SH A	14000	60	16	120	0,8	6,24	4,53	3,14	27	-0,5 +1,4	0,22	0,9	5
28	64 SH D	11800	200	52	400	0,75	18,88	12,98	9,31	30	-0,7 +1,5	0,18	0,8	3,6
28	92 SH A	11800	95	25	190	0,8	4,95	3,24	2,32	30	-0,7 +1,5	0,25	0,9	5
28	98 SH A	11800	160	42	320	0,8	15,32	11,12	7,71	30	-0,7 +1,5	0,25	0,9	5

T_{KN} = Nominal torque of coupling given in Nm
Continuous torque which can be transmitted throughout the entire speed range, taking into consideration operational factors such as ambient temperatures and torsional stiffness.

T_{Kmax} = Maximum torque of coupling given in Nm
Torque which can be transmitted as dynamic load $\geq 10^5$ times or 5×10^4 as alternating load, respectively, during the entire operating life of the coupling, taking into account the operating factors.

T_{KW} = Alternating torque of coupling given in Nm
Amplitude of the permissible continuous torque fluctuation with max. f = 10 Hz and a basic load up to T_{KN}.

Elastomer Jaw Couplings RINGFEDER® ECE 6118

Explanations

$d_{1k,2kmin}$	= Min. bore diameter with keyway acc. to DIN 6885-1	
$d_{1k,2kmax}$	= Max. bore diameter with keyway acc. to DIN 6885-1	
D	= Max. outer diameter	
C_1	= Guided length in hub bore d_1	
C_2	= Guided length in hub bore d_2	
D_1	= Outer diameter hub	
H_3	= Length of damping component	
I	= Distance between center screw hole and hub end	
L	= Totel length	
L_3	= Section length	
T_{KN}	= Transmissible torque at given T_A	
d_{bz}	= Inner diameter elastomer spider	

D_G	= Thread
T_A	= Max. tightening torque of the clamping screws
Gw	= Weight
n_{max}	= Max. rotational speed
T_{KW}	= Transmissible torque for changing direction of rotation
T_{Kmax}	= Max. transmissible torque
ψ	= Relative damping
C_{Tdyn} at $1*T_{KN}$	= Dynamic torsional stiffness at $1*T_{KN}$
C_{Tdyn} at $0,5*T_{KN}$	= Dynamic torsional stiffness at $0,5*T_{KN}$
C_{Tdyn} at $0,25*T_{KN}$	= Dynamic torsional stiffness at $0,25*T_{KN}$

ΔK_a at n = 1500 1/min	= Max. permissible axial misalignment at n = 1500 1/min
ΔK_r at n = 1500 1/min	= Max. permissible radial misalignment at n = 1500 1/min
ΔK_w at n = 1500 1/min	= Max. permissible angular misalignment at n = 1500 1/min
ϕ at T_{Kmax}	= Torsional angle at T_{Kmax}

Technical Information

- All dimensions are in millimeters, unless otherwise specified.
- Hubs made of aluminum, elastomer spiders made of polyurethane.
- Shaft tolerance to be within fit tolerance: g6, h7.
- As standard with yellow elastomer spider (92 SH A).
- Different hub designs can be combined. Hubs optionally available without bore.
- Available are: Complete couplings, single hubs, single elastomer spiders.
- The values given for max. permissible axial, angular and radial shaft misalignment may not occur simultaneously.

Ordering example

Series	Type	Size	Design Hub 1	Bore diameter d_{1k}	Design Hub 2	Bore diameter d_{2k}	Elastomer Spider Hardness
ECE	6118	24	1	22	1a	26	98 SH A

Further information on
RINGFEDER® ECE 6118
on **www.ringfeder.com**

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