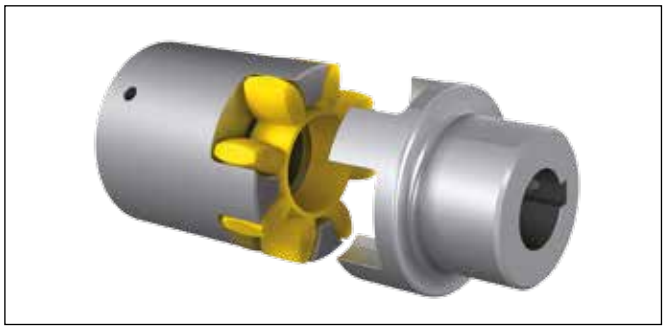
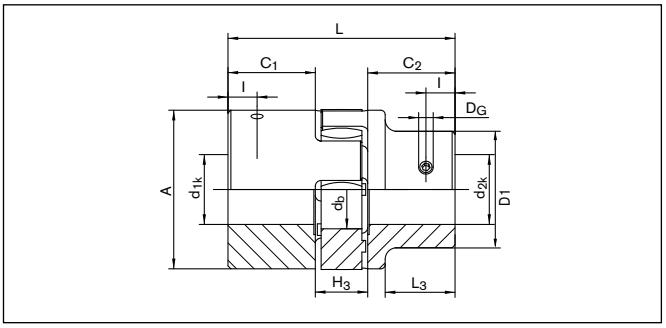
Servo-Insert Couplings

ECE 6118 ECOLOC





Sectional view

Dimensions

NA	=	Hub design
$d_{1k,2kmin}$	=	Min. bore diameter with keyway acc. to DIN 6885-1
$d_{1k,2kmax}$	=	Max. bore diameter with keyway acc. to DIN 6885-1

A	=	Max. outer diameter
C_1	=	Guided length in hub boring
C_2	=	Guided length in hub boring d_2
D_1	=	Outer diameter hub

H_3	=	Length of damping part
l	=	Distance between center screw hole and hub end
L	=	Totel length
L_3	=	Section length of hub

Metric dimension

Size	NA	d_{1kmin}-d_{1kmax}	d_{2kmin}-d_{2kmax}	A	C_1	C_2	D_1	H_3	l	L	L_3
		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	---

Hub design

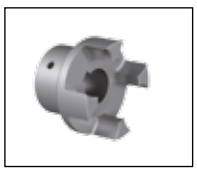


Fig. Hub 1

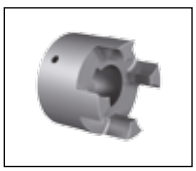


Fig. Hub 1a

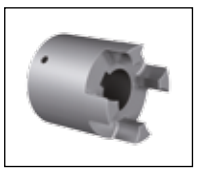


Fig. Hub 1b

Hub designs combinable. Optional without bore hole possible.

Available are single hubs, spiders or complete couplings.

Spider designs see page 3
Standard elastomeric spider with 92° A (yellow spider)

Servo-Insert Couplings

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Technical Data

NA = Hub design
T = Transmissible torque at given T_A
d_{bZ} = Inner diameter elastomeric spider
D_G = Thread
T_A = Max. tightened torque of the clamping screws
MN = Hub material
Gw = Weight

Technical Data

Size	NA	T	d_{bZ}	D_G	T_A	MN	Gw
		Nm	mm	mm	Nm		kg
19	1	17	18	5	2	AL	0,153
19	1a	17	18	5	2	AL	0,201
19	1b	17	18	5	2	Al	0,287
24	1	60	27	5	2	AL	0,299
24	1a	60	27	5	2	AL	0,451
24	1b	60	27	5	2	AL	0,717
28	1	160	30	8	10	AL	0,498
28	1a	160	30	8	10	AL	0,73
28	1b	160	30	8	10	AL	1,192

Characteristics

- Hub made of aluminum · Elastomeric spider made of Polyurethane
- The shaft tolerance should be within the fit tolerance “g6“, “h7“.

Spider designs see page 3
Standard elastomeric spider with 92° A (yellow spider)

Ordering example: ECE 6118 ECOLOC

Type, Size	NA	Bore diameter d_{1k}	NA	Bore diameter d_{2k}	Further details
ECE 6118-24	1a	22	1b	26	92 Sh A

Servo-Insert Couplings

ECE 6118 ECOLOC

Technical Data Spiders

Sh = Spider's material hardness
n_{max} = Max. rotation speed
T_N = Transmissible nominal torque from spider
T_W = Transmissible torque for changing direction of rotation
T_{max} = Max. transmissible torque
P_W = Damping performance
C_{Tstat} = Static torsional stiffness

C_{Tdyn} = Dynamic torsional stiffness
C_r = Radial spring stiffness
d_{bZ} = Inner diameter elastomeric spider
ΔKa (1500) = Max. permissible axial misalignment at n=1500 min^{-1}
ΔKr (1500) = Max. permissible radial misalignment at n=1500 min^{-1}
ΔKw (1500) = Max. permissible angular misalignment at n=1500 min^{-1}
ΔKw (T_{max}) = Max. permissible angular misalignment at T_{max}

Size	Sh	n_{max}	T_N	T_W	T_{max}	P_W	C_{Tstat}	C_{Tdyn}	C_r	d_{bZ}	ΔKa (1500)	ΔKr (1500)	ΔKw (1500)	ΔKw at T_{max}
		1/min	Nm			W	Nm/rad	10^3 Nm/rad	N/mm	mm	mm	mm	Degree	Degree
19	64 Sh D-H	19000	21	5.5	42	7.2	1240	3720	2930	18	-0.5 +1.2	0.13	1.1	3.6
19	92 Sh A	19000	10	2.6	20	4.8	570	1720	1120	18	-0.5 +1.2	0.2	1.2	5
19	98 Sh A	19000	17	4.4	34	4.8	860	2580	2010	18	-0.5 +1.2	0.2	1.2	5
24	64 Sh D-H	14000	75	19.5	150	9.9	2980	8934	3696	27	-0.5 +1.4	0.15	0.8	3.6
24	92 Sh A	14000	35	9.1	70	6.6	1430	4296	1480	27	-0.5 +1.4	0.22	0.9	5
24	98 Sh A	14000	60	16	120	6.6	2060	6189	2560	27	-0.5 +1.4	0.22	0.9	5
28	64 Sh D-H	11800	200	52	400	12.6	4350	13050	4348	30	-0.7 +1.5	0.18	0.8	3.6
28	92 Sh A	11800	95	25	190	8.4	2290	6876	1780	30	-0.7 +1.5	0.25	0.9	5
28	98 Sh A	11800	160	42	320	8.4	3440	10314	3200	30	-0.7 +1.5	0.25	0.9	5
38	64 Sh D-H	9500	405	105	810	15.3	10540	31620	6474	38	-0.7 +1.8	0.21	0.9	3.6
38	92 Sh A	9500	190	49	380	10.2	4580	13752	2350	38	-0.7 +1.8	0.28	1	5
38	98 Sh A	9500	325	85	650	10.2	7160	21486	4400	38	-0.7 +1.8	0.28	1	5
42	64 Sh D	8000	560	146	1120	18.0	27580	7170	7270	46	-1 +2	0.23	0.9	3.6
42	92 Sh A	8000	265	69	530	12	6300	2430	2430	46	-1 +2	0.32	1	5
42	98 Sh A	8000	450	117	900	12	19200	5570	5570	46	-1 +2	0.32	1	5
48	64 Sh D	7100	655	170	1310	20.7	36200	8274	8274	51	-1 +2.1	0.25	1	3.6
48	92 Sh A	7100	310	81	620	13.8	7850	2580	2580	51	-1 +2.1	0.36	1.1	5
48	98 Sh A	7100	525	137	1050	13.8	22370	5930	5930	51	-1 +2.1	0.36	1.1	5
55	64 Sh D	6300	825	215	1650	23.4	105730	130200	9248	60	-1 +2.2	0.27	1	3.6
55	92 Sh A	6300	410	107	820	15.6	15482	21375	2980	60	-1 +2.2	0.38	1.1	5
55	98 Sh A	6300	685	178	1370	15.6	42117	61550	6686	60	-1 +2.2	0.38	1.1	5
65	64 Sh D	5600	1175	306	2350	27	118510	189189	8870	68	-1 +2.6	0.3	1.1	3.6
65	95 Sh A	5600	940	244	1880	18	485200	71660	6418	68	-1 +2.6	0.42	1.2	5
75	64 Sh D	4750	2400	624	4800	32.4	182320	316377	11923	80	-1.5 +3	0.34	1.1	3.6
75	95 Sh A	4750	1920	499	3840	21.6	79150	150450	8650	80	-1.5 +3	0.48	1.2	5

T_N – Nominal torque of coupling (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_{max} – Maximum torque of coupling (Nm):

Torque which can be transmitted as dynamic load ≥10^5 times or 5 x 10^4 as alternating load, respectively, during the entire operating life of the coupling, taking into account the operating factors.

T_W – Alternating torque (Nm):

Amplitude of the permissible continuous torque fluctuation with max. f = 10 Hz and a basic load up to T_N.

Subject to technical changes.