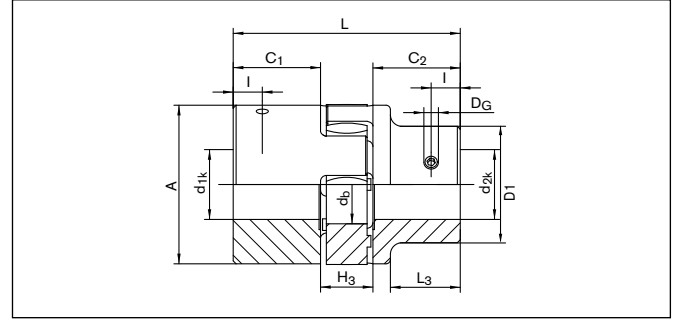
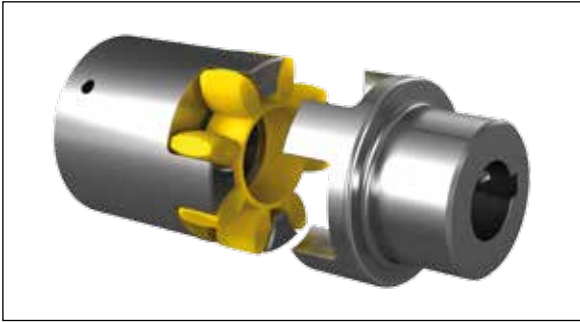


Servo-Insert Couplings

ECE 6418 ECOLOC



Sectional view

Dimensions

- NA** = Hub design
- d_{1k,2kmin}** = Min. bore diameter with keyway
- d_{1k,2kmax}** = Max. bore diameter with keyway
- A** = Max. outer diameter
- C₁** = Guided length in shaft boring d_{1k,d_{2k}}
- C₂** = Guided length in shaft boring d_{1k,d_{2k}}
- D₁** = Outer diameter
- H₃** = Length of damping part (spider)
- I** = Distance between center screw hole and hub end
- L** = Total length coupling
- L₃** = 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	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	65	20	15	90	---
28	1b	6 - 40	6 - 40	65	60	60	65	20	15	140	---
38	1	6 - 48	6 - 48	80	45	45	66	24	15	114	37
38	1a	6 - 48	6 - 48	80	45	45	70	24	15	114	---
38	1b	6 - 48	6 - 48	80	70	70	80	24	15	164	---
42	1	6 - 42	6 - 42	95	50	50	75	26	20	126	40
42	1a	6 - 55	6 - 55	95	50	50	95	26	20	126	---
42	1b	6 - 55	6 - 55	95	75	75	95	26	20	176	---
48	1	6 - 48	6 - 48	105	56	56	85	28	20	140	45
48	1a	6 - 62	6 - 62	105	56	56	105	28	20	140	---
48	1b	6 - 62	6 - 62	105	80	80	105	28	20	188	---
55	1	6 - 55	6 - 55	120	65	65	98	30	20	160	52
55	1a	6 - 74	6 - 74	120	65	65	118	30	20	160	---
55	1b	6 - 74	6 - 74	120	90	90	120	30	20	210	---
65	1	6 - 65	6 - 65	135	75	75	115	35	20	185	61
65	1a	6 - 80	6 - 80	135	75	75	132	35	20	185	---
65	1b	6 - 80	6 - 80	135	100	100	135	35	20	235	---
75	1	6 - 75	6 - 75	160	85	85	135	40	25	210	69
75	1a	6 - 95	6 - 95	160	85	85	158	40	25	210	---
75	1b	6 - 95	6 - 95	160	110	110	160	40	25	260	---
90	1	6 - 90	6 - 90	200	100	100	160	45	30	245	81
90	1a	6 - 110	6 - 110	200	100	100	196	45	30	245	---
90	1b	6 - 110	6 - 110	200	125	125	200	45	30	295	---

Servo-Insert Couplings

ECE 6418 ECOLOC

Technical Data

NA = Hub design
T = Transmissible torque at given T_A
d_b = Bore diameter in the elastomeric spider
D_G = Thread

T_A = Max. tightened torque of the screws
MN = Hub material
Gw = Weight

Technical Data							
Size	NA	T	d _b	D _G	T _A	MN	Gw
		Nm	mm	mm	Nm		kg
19	1	17	18	5	2	ST	0,415
19	1a	17	18	5	2	ST	0,551
19	1b	17	18	5	2	ST	0,791
24	1	60	27	5	2	ST	0,809
24	1a	60	27	5	2	ST	1,233
24	1b	60	27	5	2	ST	1,971
28	1	160	30	8	10	ST	1,342
28	1a	160	30	8	10	ST	3,795
28	1b	160	30	8	10	ST	3,288
38	1	325	38	8	10	ST	2,961
38	1a	325	38	8	10	ST	3,795
38	1b	325	38	8	10	ST	5,711
42	1	450	46	8	10	ST	4,408
42	1a	450	46	8	10	ST	5,97
42	1b	450	46	8	10	ST	8,69
48	1	525	51	8	10	ST	6,181
48	1a	525	51	8	10	ST	7,927
48	1b	525	51	8	10	ST	10,971
55	1	685	60	10	17	ST	9,377
55	1a	685	60	10	17	ST	12,109
55	1b	685	60	10	17	ST	16,389
65	1	940	68	10	17	ST	14,407
65	1a	940	68	10	17	ST	17,549
65	1b	940	68	10	17	ST	22,915
75	1	1920	80	10	17	ST	22,374
75	1a	1920	80	10	17	ST	28,074
75	1b	1920	80	10	17	ST	35,746
90	1	3600	100	12	40	ST	38,166
90	1a	3600	100	12	40	ST	50,854
90	1b	3600	100	12	40	ST	62,648

Hub Design



Fig. Hub 1



Fig. Hub 1a

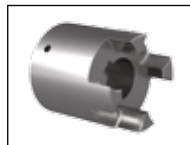


Fig. Hub 1b

Characteristics

- Hub made of steel · Elastomeric spider made of polyamide
- The shaft tolerance should be within the fit tolerance "g6", "h7".

Hub designs combinable. Optional without bore hole possible. Available are single hubs, spiders or complete couplings.

Spider designs see page 3.

Spider standard version size 19-55 with 92 Sh A (yellow spider)

Spider standard version size 65-90 with 95 Sh A (red spider)

Ordering example: ECE 6418 ECOLOC

Type, Size	NA	bore diameter d _{1k}	NA	bore diameter d _{2k}	Further details
ECE 6418-24	1a	22	1b	26	92 ShA

Servo-Insert Couplings
ECE 6418 ECOLOC
Technical Data Spiders

Sh	= Spider's material hardness	C_r	= Radial spring stiffness
n_{max}	= Max. rotation speed	d_b	= Bore diameter in the elastomeric spider
T_N	= Transmissible nominal torque from spider	ΔKa	= Max. permissible axial misalignment at n=1500 min ⁻¹
T_W	= Transmissible torque for changing direction of rotation	ΔKr	= Max. permissible radial misalignment at n=1500 min ⁻¹
T_{max}	= Max. transmissible torque	ΔKw	= Max. permissible angular misalignment at n=1500 min ⁻¹
P_W	= Damping performance	ΔKw at T_{max}	= Max. permissible angular misalignment at T _{max}
C_{Tstat}	= Static torsional stiffness		
C_{Tdyn}	= Dynamic torsional stiffness		

Size	Sh	n _{max}	T _N	T _W	T _{max}	P _W	C _{Tstat}	C _{Tdyn}	C _r	d _b	ΔKa (1500)	ΔKr (1500)	ΔKw (1500)	ΔKw at T _{max}
		1/min	Nm	Nm	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	21	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	1650	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 $\geq 10^5$ times or 5×10^4 as alternating load, respectively, during the entire operating life of the coupling, taking into account the operating factors.

T_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.