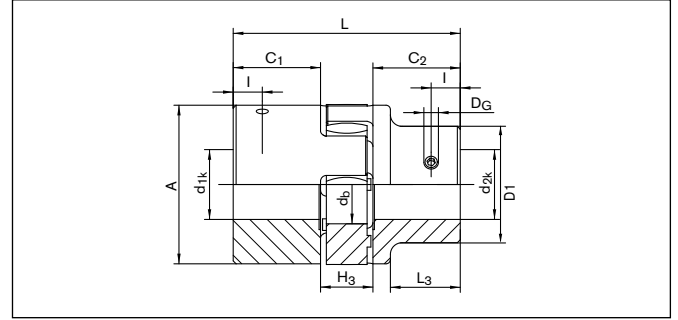
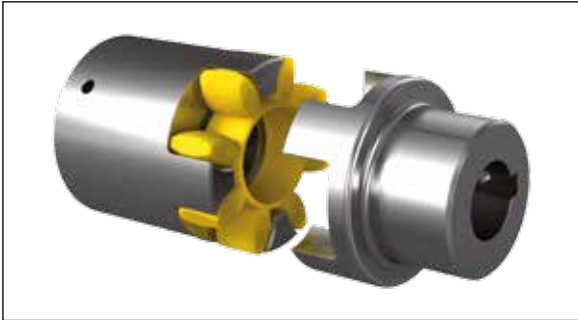


Servo-Insert Couplings

# ECE 6418 ECOLOC



Sectional view

**Dimensions**

- NA** = Hub design
- d<sub>1k,2kmin</sub>** = Min. bore diameter with keyway acc. to DIN 6885-1
- d<sub>1k,2kmax</sub>** = Max. bore diameter with keyway acc. to DIN 6885-1
- A** = Max. outer diameter
- C<sub>1</sub>** = Guided length in hub boring d<sub>1</sub>
- C<sub>2</sub>** = Guided length in hub boring d<sub>2</sub>
- D<sub>1</sub>** = Outer diameter hub
- H<sub>3</sub>** = Length of damping part
- I** = Distance between center screw hole and hub end
- L** = Total length
- L<sub>3</sub>** = Section length of hub

Inch Dimension											
Size	NA	d <sub>1kmin</sub> - d <sub>1kmax</sub>	d <sub>2kmin</sub> - d <sub>2kmax</sub>	A	C <sub>1</sub>	C <sub>2</sub>	D <sub>1</sub>	H <sub>3</sub>	I	L	L <sub>3</sub>
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
19	1	0.236 - 0.748	0.236 - 0.748	1.575	0.984	0.984	1.26	0.630	0.394	2.598	0.787
19	1a	0.236 - 0.984	0.236 - 0.984	1.575	0.984	0.984	1.575	0.630	0.394	2.598	---
19	1b	0.236 - 0.984	0.236 - 0.984	1.575	1.457	1.457	1.575	0.630	0.394	3.543	---
24	1	0.236 - 0.945	0.236 - 0.945	2.165	1.181	1.181	1.575	0.709	0.394	3.071	0.945
24	1a	0.236 - 1.378	0.236 - 1.378	2.165	1.181	1.181	2.165	0.709	0.394	3.071	---
24	1b	0.236 - 1.378	0.236 - 1.378	2.165	1.969	1.969	2.165	0.709	0.394	4.646	---
28	1	0.236 - 1.102	0.236 - 1.102	2.559	1.378	1.378	1.89	0.787	0.591	3.543	1.102
28	1a	0.236 - 1.575	0.236 - 1.575	2.559	1.378	1.378	2.559	0.787	0.591	3.543	---
28	1b	0.236 - 1.575	0.236 - 1.575	2.559	2.362	2.362	2.559	0.787	0.591	5.512	---
38	1	0.236 - 1.890	0.236 - 1.890	3.150	1.772	1.772	2.598	0.945	0.591	4.488	1.457
38	1a	0.236 - 1.890	0.236 - 1.890	3.150	1.772	1.772	2.756	0.945	0.591	4.488	---
38	1b	0.236 - 1.890	0.236 - 1.890	3.150	2.756	2.756	3.150	0.945	0.591	6.457	---
42	1	0.236 - 1.654	0.236 - 1.654	3.740	1.969	1.969	2.953	1.024	0.787	4.961	1.575
42	1a	0.236 - 2.165	0.236 - 2.165	3.740	1.969	1.969	3.740	1.024	0.787	4.961	---
42	1b	0.236 - 2.165	0.236 - 2.165	3.740	2.953	2.953	3.740	1.024	0.787	6.929	---
48	1	0.236 - 1.890	0.236 - 1.890	4.134	2.205	2.205	3.346	1.102	0.787	5.512	1.772
48	1a	0.236 - 2.441	0.236 - 2.441	4.134	2.205	2.205	4.134	1.102	0.787	5.512	---
48	1b	0.236 - 2.441	0.236 - 2.441	4.134	3.150	3.150	4.134	1.102	0.787	7.402	---
55	1	0.236 - 2.165	0.236 - 2.165	4.724	2.559	2.559	3.858	1.181	0.787	6.299	2.047
55	1a	0.236 - 2.913	0.236 - 2.913	4.724	2.559	2.559	4.646	1.181	0.787	6.299	---
55	1b	0.236 - 2.913	0.236 - 2.913	4.724	3.543	3.543	4.724	1.181	0.787	8.268	---
65	1	0.236 - 2.559	0.236 - 2.559	5.315	2.953	2.953	4.528	1.378	0.787	7.283	2.402
65	1a	0.236 - 3.150	0.236 - 3.150	5.315	2.953	2.953	5.197	1.378	0.787	7.283	---
65	1b	0.236 - 3.150	0.236 - 3.150	5.315	3.937	3.937	5.315	1.378	0.787	9.252	---
75	1	0.236 - 2.953	0.236 - 1.181	6.299	3.346	3.346	5.315	1.575	0.984	8.268	2.717
75	1a	0.236 - 3.740	0.236 - 3.740	6.299	3.346	3.346	6.220	1.575	0.984	8.268	---
75	1b	0.236 - 3.740	0.236 - 3.740	6.299	4.331	4.331	6.299	1.575	0.984	10.236	---
90	1	0.236 - 3.543	0.236 - 3.543	7.874	3.937	3.937	6.299	1.772	1.181	9.646	3.189
90	1a	0.236 - 4.331	0.236 - 4.331	7.874	3.937	3.937	7.717	1.772	1.181	9.646	---
90	1b	0.236 - 4.331	0.236 - 4.331	7.874	4.921	4.921	7.874	1.772	1.181	11.614	---

Servo-Insert Couplings

## ECE 6418 ECOLOC

**Technical Data**

**NA** = Hub design  
**T** = Transmissible torque at given  $T_A$   
**d<sub>bz</sub>** = Inner diameter elastomeric spider  
**D<sub>G</sub>** = Thread

**T<sub>A</sub>** = Max. tightened torque of the clamping screws  
**MN** = Hub material  
**Gw** = Weight

Technical Data						
Size	NA	T	d <sub>bz</sub>	D <sub>G</sub>	MN	Gw
		ft-lbs	inch	mm		lbs
19	1	13	0.709	5	ST	0.9
19	1a	13	0.709	5	ST	1.2
19	1b	13	0.709	5	ST	1.7
24	1	45	1.063	5	ST	1.8
24	1a	45	1.063	5	ST	2.7
24	1b	45	1.063	5	ST	4.3
28	1	118	1.181	8	ST	3.0
28	1a	118	1.181	8	ST	8.4
28	1b	118	1.181	8	ST	7.2
38	1	240	1.496	8	ST	6.5
38	1a	240	1.496	8	ST	8.4
38	1b	240	1.496	8	ST	12.6
42	1	332	1.811	8	ST	9.7
42	1a	332	1.811	8	ST	13.2
42	1b	332	1.811	8	ST	19.2
48	1	387	2.008	8	ST	13.6
48	1a	387	2.008	8	ST	17.5
48	1b	387	2.008	8	ST	24.2
55	1	505	2.362	10	ST	20.7
55	1a	505	2.362	10	ST	26.7
55	1b	505	2.362	10	ST	36.1
65	1	693	2.677	10	ST	31.8
65	1a	693	2.677	10	ST	38.7
65	1b	693	2.677	10	ST	50.5
75	1	1416	3.150	10	ST	48.3
75	1a	1416	3.150	10	ST	61.9
75	1b	1416	3.150	10	ST	78.8
90	1	2655	3.937	12	ST	84.1
90	1a	2655	3.937	12	ST	112.1
90	1b	2655	3.937	12	ST	138.1

**Hub Design**



Fig. Hub 1



Fig. Hub 1a

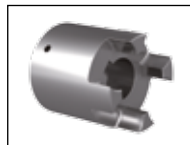


Fig. Hub 1b

**Characteristics**

- Hub made of steel · Elastomeric spider made of Polyurethane
- 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 <sub>1k</sub>	NA	bore diameter d <sub>2k</sub>	Further details
ECE 6418-24	1a	22	1b	26	92 ShA

**Servo-Insert Couplings**
**ECE 6418 ECOLOC**
**Technical Data Spiders**

<b>Sh</b> =	Spider's material hardness	<b>C<sub>r</sub></b> =	Radial spring stiffness
<b>n<sub>max</sub></b> =	Max. rotation speed	<b>d<sub>bz</sub></b> =	Inner diameter elastomeric spider
<b>T<sub>N</sub></b> =	Transmissible nominal torque from spider	<b>ΔKa (1500)</b> =	Max. permissible axial misalignment at n=1500 min <sup>-1</sup>
<b>T<sub>W</sub></b> =	Transmissible torque for changing direction of rotation	<b>ΔKr (1500)</b> =	Max. permissible radial misalignment at n=1500 min <sup>-1</sup>
<b>T<sub>max</sub></b> =	Max. transmissible torque	<b>ΔKw (1500)</b> =	Max. permissible angular misalignment at n=1500 min <sup>-1</sup>
<b>P<sub>W</sub></b> =	Damping performance	<b>ΔKw T<sub>max</sub></b> =	Max. permissible angular misalignment at T <sub>max</sub>
<b>C<sub>Tstat</sub></b> =	Static torsional stiffness		
<b>C<sub>Tdyn</sub></b> =	Dynamic torsional stiffness		

Size	Sh	n <sub>max</sub>	T <sub>N</sub>	T <sub>W</sub>	T <sub>max</sub>	P <sub>W</sub>	C <sub>Tstat</sub>	C <sub>Tdyn</sub>	C <sub>r</sub>	d <sub>bz</sub>	ΔKa (1500)	ΔKr (1500)	ΔKw (1500)	ΔKw at T <sub>max</sub>
		rpm	ft-lbs	ft-lbs	ft-lbs	ft-lbs/s	ft-lbs/rad	10 <sup>3</sup> ft-lbs/rad	lbs/inch	inch	inch	inch	degree	degree
19	64 Sh D-H	748.03	15	4.1	31	5.311	915	2744	16731	0.709	-0.020 +0.047	0.005	1.1	3.6
19	92 Sh A	748.03	7	1.9	15	3.540	420	1269	6395	0.709	-0.020 +0.047	0.008	1.2	5
19	98 Sh A	748.03	13	3.2	25	3.540	634	1903	11477	0.709	-0.020 +0.047	0.008	1.2	5
24	64 Sh D-H	551.18	55	14.0	111	7.302	2198	6589	21105	1.063	-0.020 +0.055	0.006	0.8	3.6
24	92 Sh A	551.18	26	6.7	52	4.868	1055	3169	8451	1.063	-0.020 +0.055	0.009	0.9	5
24	98 Sh A	551.18	44	12.0	89	4.868	1519	4565	14618	1.063	-0.020 +0.055	0.009	0.9	5
28	64 Sh D-H	464.566	148	38.0	295	9.294	3208	9625	24828	1.181	-0.028 +0.059	0.007	0.8	3.6
28	92 Sh A	464.566	70	18.0	140	6.196	1689	5072	10164	1.181	-0.028 +0.059	0.01	0.9	5
28	98 Sh A	464.566	118	31.0	236	6.196	2537	7607	18273	1.181	-0.028 +0.059	0.01	0.9	5
38	64 Sh D-H	374.015	299	77.0	597	11.285	7774	23322	36968	1.496	-0.028 +0.071	0.008	0.9	3.6
38	92 Sh A	374.015	140	36.0	280	7.524	3378	10143	13419	1.496	-0.028 +0.071	0.011	1	5
38	98 Sh A	374.015	240	63.0	479	7.524	5281	15847	25125	1.496	-0.028 +0.071	0.011	1	5
42	64 Sh D	314.96	413	108.0	826	13.277	20342	5288	41513	1.811	-0.039 +0.079	0.009	0.9	3.6
42	92 Sh A	314.96	195	51.0	391	8.851	4647	1792	13876	1.811	-0.039 +0.079	0.013	1	5
42	98 Sh A	314.96	332	86.0	664	8.851	14161	4108	31806	1.811	-0.039 +0.079	0.013	1	5
48	64 Sh D	279.527	483	125.0	966	15.268	26700	6103	47246	2.008	-0.039 +0.083	0.01	1	3.6
48	92 Sh A	279.527	229	60.0	457	10.179	5790	1903	14732	2.008	-0.039 +0.083	0.014	1.1	5
48	98 Sh A	279.527	387	101.0	774	10.179	16499	4374	33861	2.008	-0.039 +0.083	0.014	1.1	5
55	64Sh D	248.031	608	159.0	1217	17.260	77983	96032	52808	2.362	-0.039 +0.087	0.011	1	3.6
55	92Sh A	248.031	302	79.0	605	11.507	11419	15766	17016	2.362	-0.039 +0.087	0.015	1.1	5
55	98Sh A	---	505	---	1010	---	31064	45398	38178	---	---	---	---	---
65	64Sh D	---	867	---	1733	---	87410	139540	50649	---	---	---	---	---
65	95Sh A	---	693	---	1387	---	357870	52854	36648	---	---	---	---	---
75	64Sh D	---	1770	---	3540	---	134474	233351	68082	---	---	---	---	---
75	95Sh A	---	1416	---	2832	---	58379	110968	49393	---	---	---	---	---

**T<sub>N</sub> – 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<sub>max</sub> – Maximum torque of coupling (Nm):**

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

**T<sub>W</sub> – Alternating torque (Nm):**

 Amplitude of the permissible continuous torque fluctuation with max.  $f = 10$  Hz and a basic load up to T<sub>N</sub>.

Subject to technical changes.