

# Elastomer Coupling I Series ESM-A

// with conical hub and clamping ring // plug-in // backlash-free  
 // rotational symmetry // high speeds

technical data:

ESM-A size	T <sub>N</sub> [Nm]	hardness [Shore]	moment of inertia [10 <sup>-3</sup> kgm <sup>2</sup> ]	torsional stiffness (stat. at 0,5 x T <sub>N</sub> ) [Nm/arcmin]	max shaft misalignment (mm)		lateral spring rate [N/mm]	mass approx. [kg]	tightening torque of screws [Nm]	max. speed [min <sup>-1</sup> ]
					axial ±	lateral				
10	10	98Sh-A	0,015	0,09	0,5	0,1	600	0,11	2	30.000
17	17	98Sh-A	0,05	0,24	0,5	0,1	2100	0,28	4	24.000
25	25	72Sh-D	0,06	0,46	0,5	0,07	2900	0,28	4	24.000
43	43	98Sh-A	0,19	0,7	0,5	0,1	2500	0,4	8	19.000
50	50	72Sh-D	0,19	1,1	0,5	0,07	3600	0,4	8	19.000
60	60	98Sh-A	0,28	1,0	0,5	0,1	2600	0,6	8	17.500
90	90	72Sh-D	0,28	2,0	0,5	0,07	3700	0,6	8	17.500
150	150	98Sh-A	0,65	1,20	1	0,1	3300	0,9	8	15.000
200	200	72Sh-D	0,65	2,30	1	0,07	4600	0,9	8	15.000
320	320	98Sh-A	2,0	3,6	1	0,12	4500	1,9	35	12000
400	400	72Sh-D	2,0	7,0	1	0,1	6500	1,9	35	12.000
500	500	98Sh-A	5,6	4,5	1	0,15	5900	4,5	65	9.500
700	700	98Sh-A	13,0	8,0	1	0,15	7000	7,0	115	8.000
1000	1000	72Sh-D	13,0	12	1	0,10	9600	7,0	115	8.000
2000	2000	98Sh-A	75	21	1	0,15	9000	20,4	115	6.000

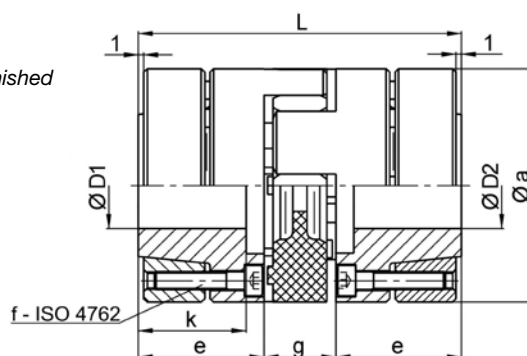
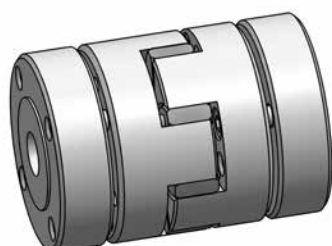
material:

elastomer spider: polyurethane  
(size 2000: tempered steel)  
screws: ISO 4762 / 12.9

conical hub: high-tensile aluminum  
clamping ring: heat treated steel - burnished



update version



Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

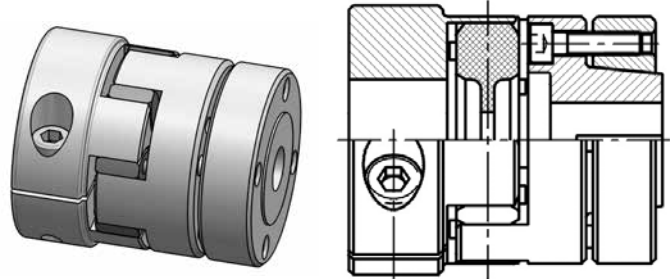
ESM-A	Ø a	e	f	g	k	L	Ø D 1/2 min.	Ø D 1/2 max.	Ø D 1/2 prebored
10	32	18,5	4x M 3	13	15,5	50	6	14	5
17	40	25	6x M 4	16	21	66	9	19	9
25	40	25	6x M 4	16	21	66	10	19	9
43	50	30	4x M 5	18	25	78	12	24	10
50	50	30	4x M 5	18	25	78	15	24	10
60	55	30	4x M 5	18	25	78	13	26	12
90	55	30	4x M 5	18	25	78	16	26	12
150	65	35	8x M 5	20	30	90	17	36	12
200	65	35	8x M 5	20	30	90	19	36	12
320	80	45	4x M 8	24	40	114	20	40	18
400	80	45	4x M 8	24	40	114	25	40	18
500	100	55	4x M 10	28	49	138	22	48	20
700	120	61	4x M 12	33	54	155	25	60	24
1000	120	61	4x M 12	33	54	155	25	60	24
2000	160	73	8x M 12	40	66	186	35	85	34

order example: ESM-A 150 - D1 = 17<sup>G7</sup> D2 = 22<sup>H6</sup>

# Elastomer Couplings I Further Series

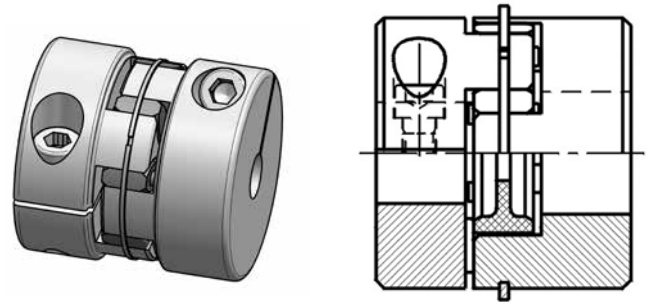
## Combination EKM – ESM

- ✓ for connection of shafts with huge differences between diameters
- ✓ facilitates the assembly of shaft-hub-connections:
  - 1.) ESM-hub from inside
  - 2.) plug-in assembly - elastomer spider
  - 3.) EKM-hub laterally from outside
- ✓ to achieve fitting of intermediate length



## Axial stop design

- ✓ by additional snap ring at the periphery
- ✓ for taking up and supporting large axial forces
- ✓ nevertheless compensation of parallel and angular misalignment
- ✓ may also be used for easier mounting



## Series EKS with expanding cone

- ✓ short design for hollow - shaft - assembly
- ✓ 7 sizes from 8 - 700 Nm
- ✓ variable conical shaft diameter
- ✓ data sheet on request or see [www.jakobantriebstechnik.de](http://www.jakobantriebstechnik.de)

