

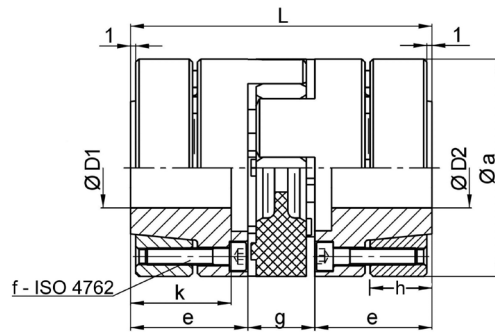
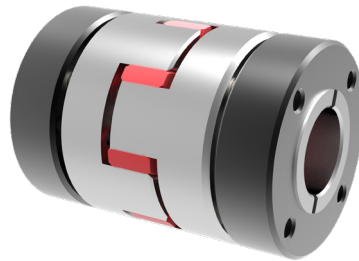
# Elastomer Coupling I Series ESM-A

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

## technical data:

| ESM-A<br>size | nominal<br>torque<br>[Nm] | hard-<br>ness<br>[shore] | moment of<br>inertia<br>[10 <sup>-3</sup> kgm <sup>2</sup> ] | torsional stiffness<br>(stat. 0,5 x T <sub>N</sub> )<br>[Nm/arcmin] | max. shaft<br>misalignment [mm] |         | lateral<br>spring rate<br>[N/mm] | tightening torque<br>of screws<br>"f" [Nm] | nmax<br>[upm] |
|---------------|---------------------------|--------------------------|--|---|---------------------------------|---------|----------------------------------|--|---------------|
|               |                           |                          |  |   | axial ±                         | lateral |                                  |  |               |
| 10            | 10                        | 98Sh-A                   | 0,015  | 0,09  | 0,5                             | 0,1     | 600                              | 2  | 35000         |
| 17            | 17                        | 98Sh-A                   | 0,05   | 0,24  | 0,5                             | 0,1     | 2100                             | 3  | 28000         |
| 25            | 25                        | 72Sh-D                   | 0,06   | 0,46  | 0,5                             | 0,07    | 2900                             | 3  | 28000         |
| 43            | 43                        | 98Sh-A                   | 0,19   | 0,7   | 0,5                             | 0,1     | 2500                             | 6  | 23000         |
| 50            | 50                        | 72Sh-D                   | 0,19   | 1,1   | 0,5                             | 0,07    | 3600                             | 6  | 23000         |
| 60            | 60                        | 98Sh-A                   | 0,28   | 1,0   | 0,5                             | 0,1     | 2600                             | 6  | 21000         |
| 90            | 90                        | 72Sh-D                   | 0,28   | 2,0   | 0,5                             | 0,07    | 3700                             | 6  | 21000         |
| 150           | 150                       | 98Sh-A                   | 0,65   | 1,2   | 1                               | 0,1     | 3300                             | 6  | 18000         |
| 200           | 200                       | 72Sh-D                   | 0,65   | 2,3   | 1                               | 0,07    | 4600                             | 6  | 18000         |
| 320           | 320                       | 98Sh-A                   | 2  | 3,6   | 1                               | 0,12    | 4500                             | 30   | 14000         |
| 400           | 400                       | 72Sh-D                   | 2  | 7,0   | 1                               | 0,1     | 6500                             | 30   | 14000         |
| 500           | 500                       | 98Sh-A                   | 5,6  | 4,5   | 1                               | 0,15    | 5900                             | 50   | 11000         |
| 700           | 700                       | 98Sh-A                   | 13   | 8   | 1                               | 0,15    | 7000                             | 100  | 9500          |
| 1000          | 1000                      | 72Sh-D                   | 13   | 12  | 1                               | 0,1     | 9600                             | 100  | 9500          |
| 2000          | 2000                      | 98Sh-A                   | 75   | 21  | 1                               | 0,15    | 9000                             | 100  | 7000          |

**material:**  
 elastomer spider: polyurethane  
 (size 2000: tempered steel)  
 screws: ISO 4762 / 12.9  
 conical hub: high-tensile  
 aluminum clamping ring:  
 heat treated steel - burnished



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

| ESM-A | Ø a | e    | f       | g  | h  | k    | L   | mass<br>~ [kg] | Ø D 1/2<br>min | Ø D 1/2<br>max | Ø D 1/2<br>prebored |
|-------|-----|------|---------|----|----|------|-----|----------------|----------------|----------------|---------------------|
| 10    | 32  | 18,5 | 4x M 3  | 13 | 12 | 15,5 | 50  | 0,11           | 6              | 14             | 5                   |
| 17    | 40  | 25   | 6x M 4  | 16 | 12 | 21   | 66  | 0,28           | 9              | 19             | 9                   |
| 25    | 40  | 25   | 6x M 4  | 16 | 12 | 21   | 66  | 0,28           | 10             | 19             | 9                   |
| 43    | 50  | 30   | 4x M 5  | 18 | 14 | 25   | 78  | 0,4            | 12             | 24             | 10                  |
| 50    | 50  | 30   | 4x M 5  | 18 | 14 | 25   | 78  | 0,4            | 15             | 24             | 10                  |
| 60    | 55  | 30   | 4x M 5  | 18 | 14 | 25   | 78  | 0,6            | 13             | 26             | 12                  |
| 90    | 55  | 30   | 4x M 5  | 18 | 14 | 25   | 78  | 0,6            | 17             | 26             | 12                  |
| 150   | 65  | 35   | 8x M 5  | 20 | 17 | 30   | 90  | 0,9            | 17             | 36             | 12                  |
| 200   | 65  | 35   | 8x M 5  | 20 | 17 | 30   | 90  | 0,9            | 19             | 36             | 12                  |
| 320   | 80  | 45   | 4x M 8  | 24 | 22 | 40   | 114 | 1,9            | 20             | 40             | 18                  |
| 400   | 80  | 45   | 4x M 8  | 24 | 22 | 40   | 114 | 1,9            | 25             | 40             | 18                  |
| 500   | 100 | 55   | 4x M 10 | 28 | 26 | 49   | 138 | 4,5            | 22             | 48             | 20                  |
| 700   | 120 | 61   | 4x M 12 | 33 | 31 | 54   | 155 | 7              | 25             | 60             | 24                  |
| 1000  | 120 | 61   | 4x M 12 | 33 | 31 | 54   | 155 | 7              | 25             | 60             | 24                  |
| 2000  | 160 | 73   | 8x M 12 | 40 | 40 | 66   | 186 | 20,4           | 35             | 85             | 34                  |

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