

# Metal Bellows Coupling I Series KHS

// “high-speed” version // speeds up to 30.000 min<sup>-1</sup> // high balance quality  
 // rotational symmetry // low moment of inertia // stainless steel design

technical data:

| KHS size | T <sub>N</sub> [Nm] | moment of inertia [10 <sup>-3</sup> kgm <sup>2</sup> ] | torsional stiffness [Nm/arcmin] | max. shaft misalignment (mm) |         | axial spring rate [N/mm] | lateral spring rate [N/mm] | mass approx. [kg] | tightening torque of screw [Nm] |
|----------|---------------------|--------------------------------------------------------|---------------------------------|------------------------------|---------|--------------------------|----------------------------|-------------------|---------------------------------|
|          |                     |                                                        |                                 | axial ±                      | lateral |                          |                            |                   |                                 |
| 15       | 15                  | 0,03                                                   | 2                               | 0,5                          | 0,1     | 20                       | 90                         | 0,15              | 3                               |
| 40       | 40                  | 0,13                                                   | 9                               | 0,5                          | 0,1     | 70                       | 480                        | 0,30              | 4                               |
| 100      | 100                 | 0,37                                                   | 20                              | 0,6                          | 0,1     | 120                      | 1200                       | 0,55              | 8                               |
| 200      | 200                 | 0,86                                                   | 28                              | 0,7                          | 0,1     | 100                      | 1000                       | 0,83              | 12                              |
| 400      | 400                 | 2,5                                                    | 70                              | 0,7                          | 0,1     | 135                      | 1500                       | 1,6               | 30                              |
| 600      | 600                 | 5,3                                                    | 100                             | 0,7                          | 0,1     | 145                      | 3000                       | 2,5               | 45                              |

temperature range: -40°C up to +200°C

material:

bellows: stainless steel

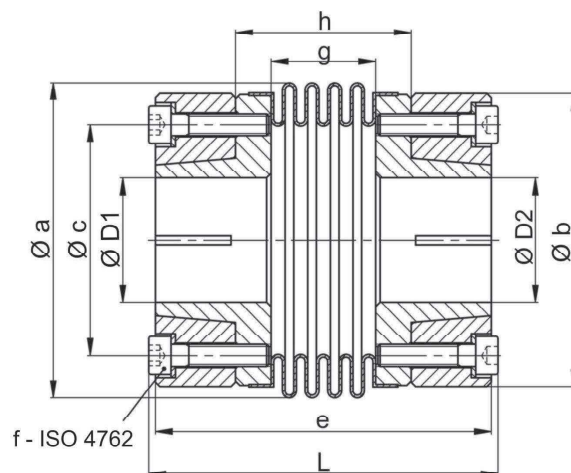
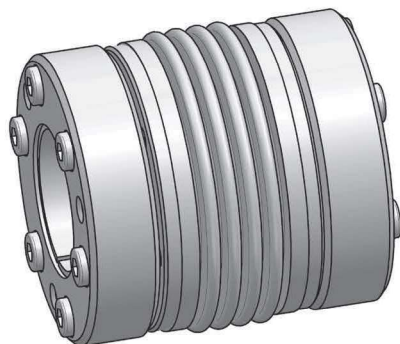
conical ring: high-tensile aluminum

conical hub: high-tensile aluminum

screws: ISO 4762 / 12.9



update version



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

| KHS | Ø a | Ø b | Ø c | e    | 6 x f | g  | h  | L    | Ø D 1/2 |     | prebored |
|-----|-----|-----|-----|------|-------|----|----|------|---------|-----|----------|
|     |     |     |     |      |       |    |    |      | min     | max |          |
| 15  | 40  | 38  | 27  | 61   | M 4   | 18 | 32 | 67   | 6       | 15  | 5        |
| 40  | 56  | 53  | 40  | 67   | M 4   | 21 | 35 | 71   | 14      | 22  | 8        |
| 100 | 71  | 66  | 52  | 77,5 | M 5   | 23 | 39 | 80,5 | 17      | 32  | 12       |
| 200 | 82  | 78  | 62  | 89   | M 6   | 28 | 46 | 94   | 22      | 40  | 15       |
| 400 | 101 | 98  | 78  | 106  | M 8   | 33 | 55 | 112  | 26      | 50  | 18       |
| 600 | 122 | 113 | 91  | 125  | M 10  | 36 | 62 | 130  | 30      | 60  | 22       |

**note:** A special conical clamping hub will be used for the force-fit shaft-hub-connection. At specified tightening torques, the conical ring is pulled against the conical hub at the ‘block-stop position.’ The clearance width is reduced to zero. Jamming or overload of the conical ring (taper ring) is impossible.

order example: KHS 400 - D1 = 28 <sup>H7</sup> D2 = 40 <sup>G6</sup>