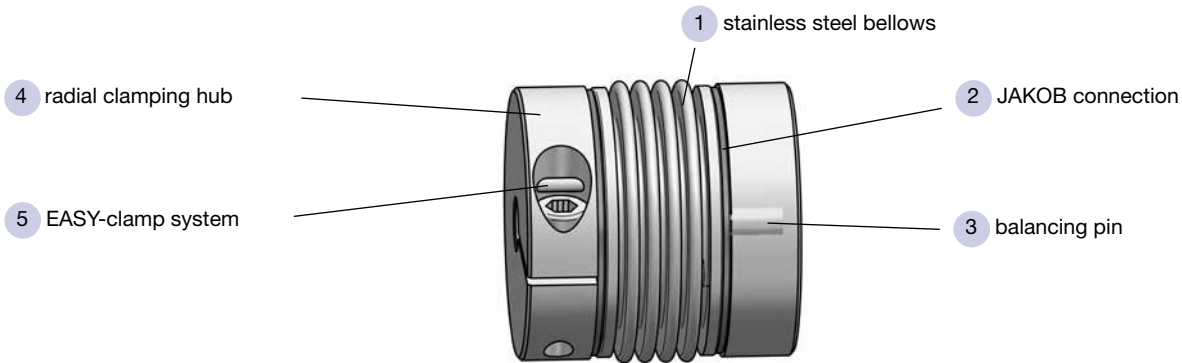


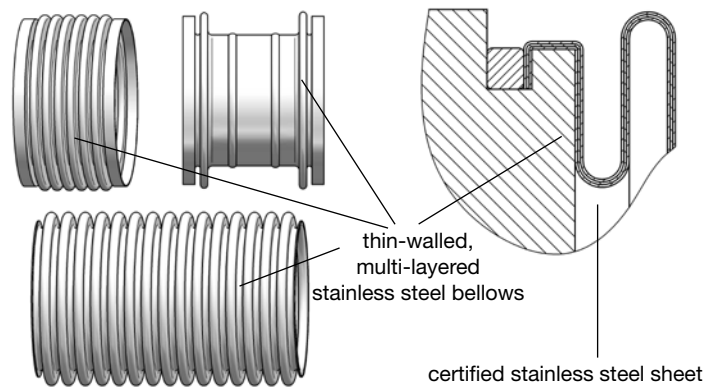
# Metal Bellows Servo Couplings | Technical Details



## 1. Stainless Steel Bellows

### advantages:

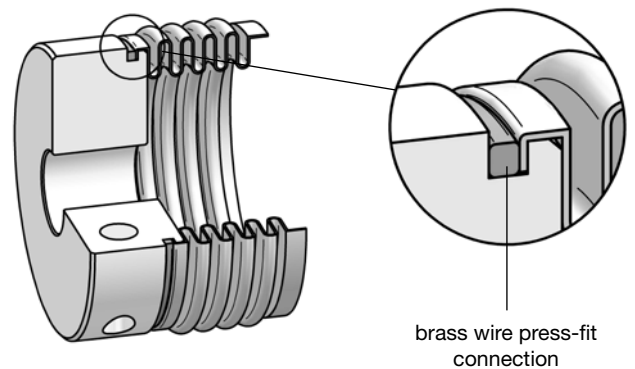
- ✓ absolutely backlash-free, precise torque transmission
- ✓ extremely high torsional stiffness
- ✓ high flexibility for compensation of shaft misalignments
- ✓ minimized moment of inertia
- ✓ maintenance and wear-free up to 300°C
- ✓ high-quality precision manufacture
- ✓ system modules with a multitude of different bellows variations
- ✓ maximized JAKOB-KNOW-HOW of the specific bellows dimensioning
- ✓ 100% final inspection



## 2. Connection Method

### advantages:

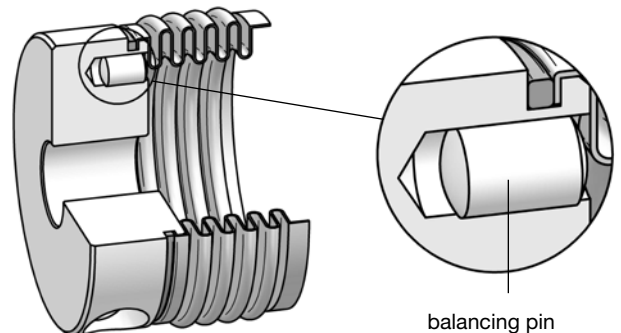
- ✓ JAKOB developed and patented the brass-wire press-fit method in 1974, which is the optimal, backlash-free connection of aluminum hubs with multi-layered stainless steel bellows. Alternatively, the steel or stainless steel hubs are connected to the metal bellows via plasma welding
- ✓ in contrast to glue connections, these methods are long-life and the torque is safely induced into the hubs



## 3. Balancing of the Hub

### advantages:

- ✓ the balancing pin ensures a standard balancing quality of Q16
- ✓ high speeds of up to 20.000 rpm
- ✓ smooth running to prevent oscillations
- ✓ can be specially balanced for balancing quality Q1 - Q2,5

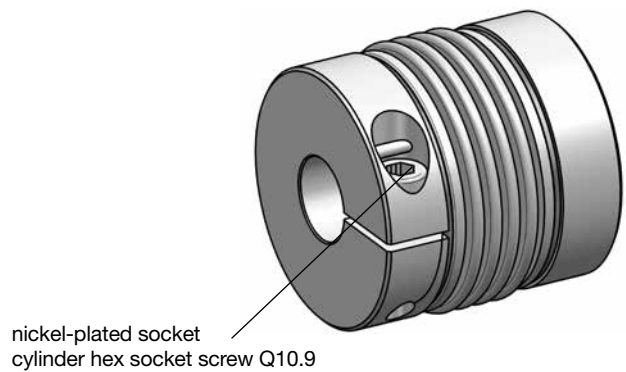


# Metal Bellows Servo Couplings | Technical Details

## 4. Radial Clamping Hub

### advantages:

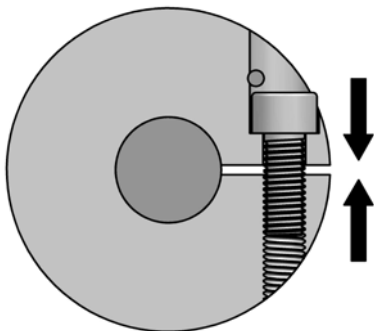
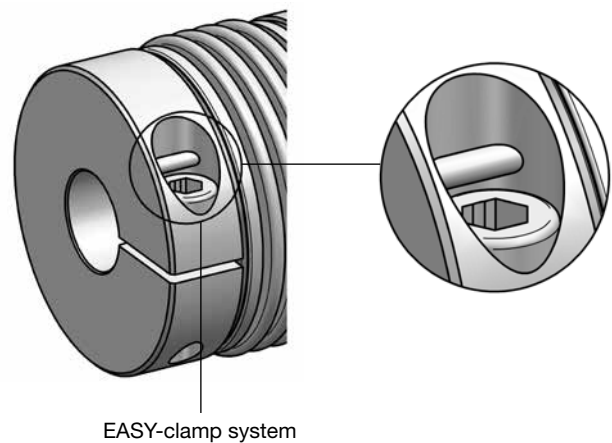
- /// clamping hub made from high-tensile aluminum
- /// simple radial fitting of shaft-hub-connection
- /// ensures the backlash-free, force-fitted transfer of the declared nominal torque value (no keyway necessary)
- /// minimized moment of inertia, low mass, stainless design
- /// short delivery time due to modularity system
- /// hub bores (D1/D2 standard tolerance G6); customization possible
- /// keyway possible on request



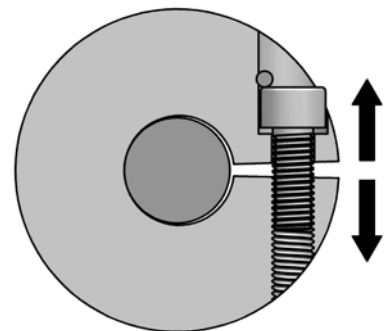
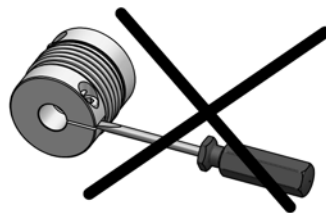
## 5. EASY-Clamp System

### advantages:

- /// revolution of coupling fitting
- /// no shortening or extension of bellows
- /// grave time saving, no reworking
- /// blind assembly possible, hole in bell housing is enough
- /// compensation of tolerance deviation of shaft-hub-fit
- /// no additional tools necessary
- /// no damage of hub bores and bellows at demounting of motor



The clamping hub is backlash-free and force-fitted with the shaft.

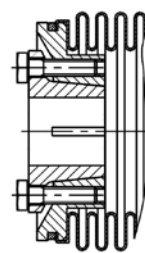


For assembly and disassembly, the hub has to be expanded elastically.

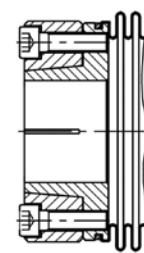
## 6. Conical Connection

### advantages:

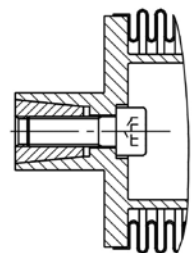
- /// through force amplification (wedge principal), a safe transmission of torque for smaller bore sizes (hub additionally sliced) can be guaranteed
- /// backlash- and maintenance-free, force-fitted
- /// no keyway necessary
- /// rotational symmetry, good balancing for high speed
- /// expanding conical hub for axial mounting in hollow shaft



conical clamping hub



conical ring hub



expanding conical hub