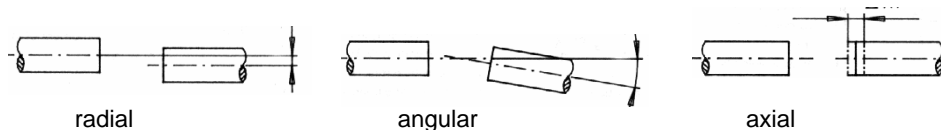


Assembly instructions for miniature metal bellows couplings



Tolerances of machining and assembly as well as temperature influences cause misalignments of shafts, which lead to excessive bearing loads. These in turn lead to increased wear which shortens the life cycle of the machine and may even cause a breakdown. Using metal bellows couplings reduces this risk to a minimum. We differentiate between three **types of misalignment**:



Angular and axial misalignment are easy to measure.

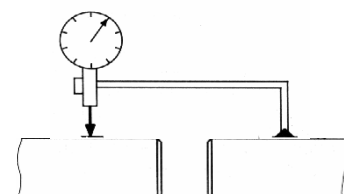
How to measure radial misalignment:

Fix dial gauge at shaft 1. Align the caliper of the gauge at shaft 2.

Turn the shaft and read the indication of the gauge.

The lateral misalignment is this indication divided by two.

This value has to be lower than the allowed value, indicated in the data sheet of the coupling.



Shaft hub connection

The hubs of the couplings are tolerated H 7 . For the shafts we recommend g 6.

Clearance between shaft and hub should be more than 0.01 mm and less than 0.04 mm.

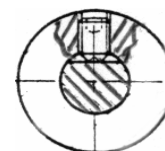
Oil shaft , hub and taper slightly to avoid frictional corrosion.

KB 1 clamping by set screws

Assembly: Tighten one respectively two set screws

Dismantling: loosen the setscrews

Tightening torque of the setscrews



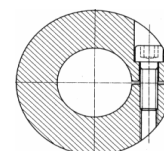
KB 1	1	5	10	15	20	45	100
DIN 916	M 3	M 3	M 3	2 x M 4	2 x M 4	2 x M 6	2 x M 6
Ncm	50	50	50	150	150	300	300

KB 2 collet clamp

Assembly: Tighten clamp screw with indicated torque

Dismantling: Loosen clamp screw

Tightening torque of clamp screw for collet clamp



KB 2	1	5	10	15	20	45	100
DIN 912	M 1,6	M 2	M 2	M 2,5	M 3	M 4	M 4
Ncm	10	43	43	85	200	350	450

KB 3 Expanding clamp

Assembly: Insert expanding clamp into hollow shaft.

tighten clamp screw exactly with prescribed torque

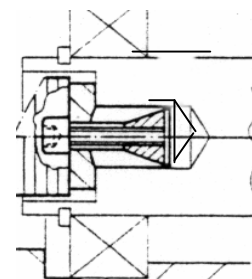
insert Speed sensor shaft or engine shaft into collet clamp.

avoid axial tension

tighten clamp screw of collet clamp with prescribed torque

Dismantling: Loosen clamp screw of collet clamp and expanding clamp

Tightening torque of clamp screw:



KB 3		5	10	15	20	45	100
DIN 912		M 2	M 2	M 2,5	M 3	M 4	M 4
Ncm		43	43	85	200	350	450
collet clamp							
DIN 912		M 3	M 3	M 4	M 4	M 5	M 6
Ncm		150	150	300	400	650	1100

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