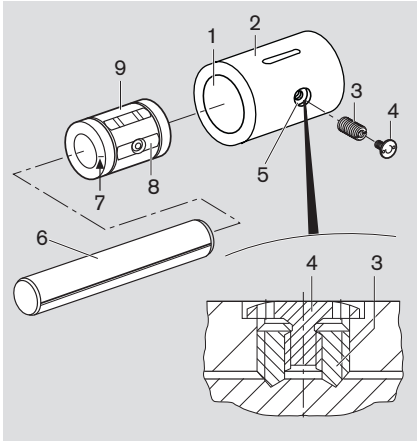


Installing torque-resistant compact linear bushings

Installation



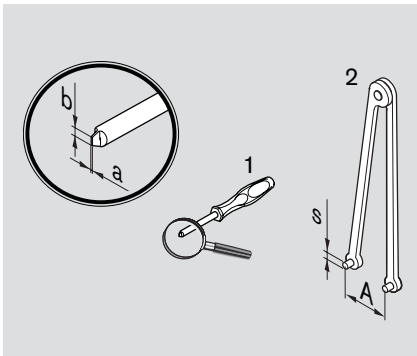
⚠ The linear sets come preassembled and set to zero clearance. When pulling out the shaft, the set screws must be loosened and the torque-resistant linear bushing reset.

- Chamfer and clean the hole (1) in the housing (2).
- Oil set screw (3) and lock screw (4).
- Make sure the lock screw (4) can move freely on the set screw (3).
- Make sure the set screw (3) can move freely in the thread (5). Deburr the thread runout if necessary.
- Remove the transport packing from the linear bushing.

⚠ Do not strike the linear bushings with a hammer.

- Place the linear bushing (9) in the housing (2) by hand.
- Align the countersunk steel bearing plate (8) to the thread (5) in the housing.
- Align one ball guide groove (6) to the mark (7) on the labeling field of the linear bushing.
- Insert the shaft **without skewing it**.

Adjusting the set screws



- Tighten the set screw until there is resistance.
- Move the shaft back and forth. While doing so, attempt to turn it in both directions. Use a screwdriver (1) to tighten the set screw.
- Tighten the set screw to M_{GA} for shaft diameters 12 and 16.
- For shaft diameters 20 to 50, tighten one set screw to $0.5 \times M_{GA}$, then the other to M_{GA} .
- Use a face wrench (2) to insert the lock screw into the set screw and tighten it to M_{GK} .
- After installation, the friction should be F_R . If the friction is considerably different, loosen and readjust the set screws.
- **Do not attempt to pull the shaft out.**

Shaft Ø d (mm)	Screwdriver (1) (mm)		Face wrench (2) (mm)		Tightening torque (Ncm) ¹⁾			Friction F_R about (one linear bushing) (N)
	a	b	s	A	Set screw M_{GA}	Lock screw M_{GK}		
12	0.8	5	1.5	5.5	8	110	1.5	
16	0.8	5	1.5	5.5	11	110	2.0	
20	1.0	8	2.0	8.0	30	180	3.8	
25	1.0	8	2.0	8.0	45	380	5.6	
30	1.2	10	2.5	10.0	70	800	7.5	
40	1.2	10	2.5	10.0	100	800	10.0	
50	1.6	14	3.0	13.0	180	1,300	15.0	

1) Tightening torque at friction factor 0.125

Installing the seal

- Insert the seal onto the shaft and align the lip in the groove.
- Press the seal into the locating hole.

Each installed seal increases the friction above F_R . Two installed seals increases the table value by roughly three times.