

INSTALLATION INSTRUCTIONS FOR SERIES MB / CV

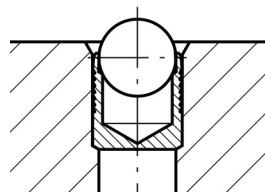


Fig. 1

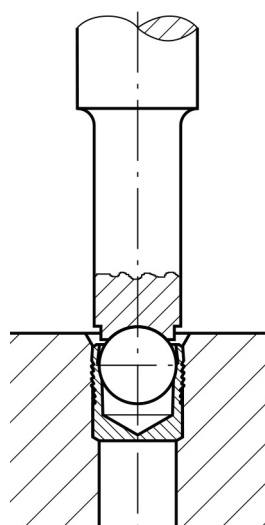


Fig. 2

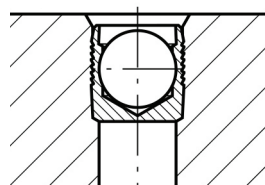


Fig. 3

DRILLED HOLE

- The drilled hole must be within the tolerances shown on the preceding dimensional sheets.
- The counterbored hole (d_2) must be properly sized for the through hole (d_3) according to the dimensional sheets.
- Holes must be round within 0.05 mm.
- With hard materials the bore roughness should be from $R_z = 10 - 30 \mu\text{m}$ for best results.
- With soft materials $< 150 \text{ HB}$ $R_z = 4 - 30 \mu\text{m}$ is allowed
- Longitudinal rifles, spiral grooves and cavities should be avoided. These influence the sealing effectiveness.
- The bore must be free of oil, grease and chips.

SETTING PROCEDURE

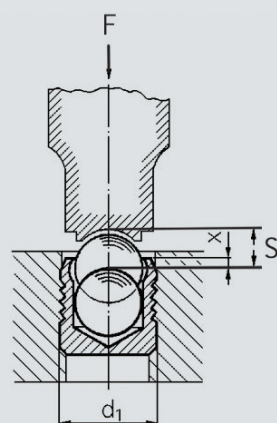
- With the ball facing out the KOENIG EXPANDER® is inserted in the counterbored hole. The top sleeve should not be above the surface of the base material (Fig. 1).
- With only a slight or no counterbore, the base of the sleeve must be adequately supported during installation.
- The ball is now pressed in until the top of the ball is below the edge of the sleeve (Fig. 2 and 3). Corresponding approximate values for stroke S as well as the dimensions X can be found in the table below.

Note:

- Use the proper size setting tool for the KOENIG EXPANDER® according to the data sheet.
- Spray cleaning with air drying is the only way to clean/degrease plugs before installation. Do not dip and vacuum dry the plugs.

PRESS

Small quantities or single parts can be installed with a hammer and a setting tool. Installation can also be done with an arbor press. It is preferred to limit stroke travel when using a press because insertion force is difficult to control. KOENIG EXPANDER® plugs are also ideal for automated installation because they are problem free.



INSTALLATION CHART

Series MB 600 / 700 / 850													
d1 (mm)		3	4	5	6	7	8	9	10	12	14	16	18
S (mm)	Stroke (approx. values)	1.2	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.5	6.35	7.0	8.0
X (mm) ±0.2	Position of Top of Ball Relative to Top of Sleeve	0.4	0.2	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.6

Series MB 600 Inch-Version							
d1 (inch)		.093	.125	.156	.187	.218	.250
S (in)	Stroke (approx. values)	.031	.047	.059	.079	.094	.109
X (in) 0/-0.012	Position of Top of Ball Relative to Top of Sleeve	Flush to .012 Below the Sleeve					