# INSTALLATION INSTRUCTIONS FOR SERIES MB / CV

## **PLUG REMOVAL**

With KOENIG EXPANDER® MB / CV Series removal of the plug is possible. The plug can be drilled out with a carbide tipped drill or with a high speed steel drill.

Plug Removal Drill Bit Recommendation									
MB 600-030 to 140	Ball HB ~ 250	High Speed Steel Drill							
MB 600-093 A	Ball HRC ~ 55	Carbide Tipped Drill							
MB 600-125 A to 281 A	Ball HB ~ 250	High Speed Steel Drill							
MB 700-030 to 220	Ball HRC ~ 45	Carbide Tipped Drill							
MB 850-030 to 220	Ball HRC ~ 45	Carbide Tipped Drill							
CV 173/CV 588 (all sizes)	Ball HB ~ 250	High Speed Steel Drill							

#### PROCEDURE:

- For KOENIG EXPANDER® smaller than 6mm or .250 inches in diameter:
  Drill out, in one process, to the next larger diameter according to the data sheet.
- For KOENIG EXPANDER® models larger than 6mm or .250 inches in diameter:
  Drill out in several steps with last step to the next larger diameter according to the data sheet.
- Clear chips, remnants of the sleeve, and oil and grease from the bore.
- Inspect bore to confirm that it meets all requirements.
- Install a new KOENIG EXPANDER®.

### Note:

After plug removal always use the next larger size plug.

# **INSTALLATION CHART**

Series CV 173 / 588										
	3	4	5	6	7	8	9	10	12	
S (mm)	Stroke (approx. values)	1.0	1.4	1.9	2.3	2.8	3.4	3.7	4.2	5.1
X (mm) ±0.1	Position of Top of Ball Relative to Top of Sleeve	Flush to .02 Below the Sleeve								

Series CV 173 / 588 Inch-Version											
	d1 (inch)	.156	.187	.218	.250	.281	.312	.343	.375	.406	.437
S (in)	Stroke (approx. values)	.053	.066	.078	.094	.110	.129	.140	.153	.162	.166
X (in) ±0.004	Position of Top of Ball Relative to Top of Sleeve	.080	Flush to .010 Below the Sleeve								

Series CV 173 / 588 Inch Short										
	d1 (inch)	.125	.156	.187	.218	.250	.281	.312	.343	.406
S (in)	Stroke (approx. values)	.042	.040	.066	.063	.083	.091	.107	.118	.143
X (in) ±0.004	Position of Top of Ball Relative to Top of Sleeve	.007	.000	.010	.000				010	

