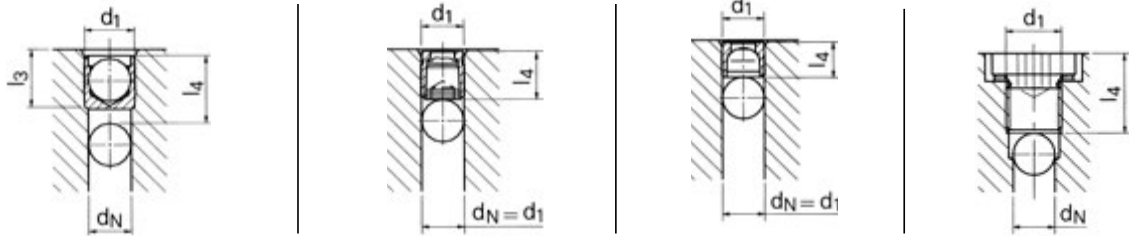


# DESIGN GUIDELINES

## Required Installation Lengths



$d_N$	Series MB / CV			Series SK / SKC		Series LK		Threaded Plugs DIN 908	
	Expander Size $d_1$	$l_3$ min.	$l_4$ min.	$d_1$	$l_4$ max.	$d_1$	$l_4$ max.	$d_1$	$l_4$ max.
2.0	3.0	3.4	5.0						
3.0	4.0	3.8	5.5						
4.0	5.0	5.3	7.0	4.0	6.5	4.0	4.0		
5.0	6.0	6.3	8.5	5.0	7.5	5.0	4.8	M8x1.5	11.5
6.0	7.0	7.3	9.5	6.0	8.5	6.0	5.3	M8x1.5	11.5
7.0	8.0	8.3	11.0	7.0	9.5	7.0	5.8	M10x1.5	12.0
8.0	9.0	9.8	12.5	8.0	10.5	8.0	6.8	M10x1.5	12.0
9.0	10.0	10.8	13.5	9.0	11.0	9.0	6.8	M12x1.5	16.0
10.0	12.0	12.8	16.0	10.0	12.5	10.0	6.8	M12x1.5	16.0
12.0	14.0	14.5	18.0	12.0	16.5	12.0	7.8	M14x1.5	16.0
14.0	16.0	16.5	20.0			14.0	8.7	M16x1.5	16.5
16.0	18.0	18.5	22.5			16.0	11.5	M18x1.5	17.5
18.0	20.0	21.5	25.5			18.0	13.0	M20x1.5	19.5
20.0	22.0	24.5	28.5			20.0	13.0	M22x1.5	19.5

$d_N$  = Given nominal bore / system bore size

### \*Installation Lengths Series MB / CV

The required installation length ( $l_4$ ) min. for MB / CV plugs is for base materials with hardness greater than HB = 90. For softer materials, deeper installation is required.