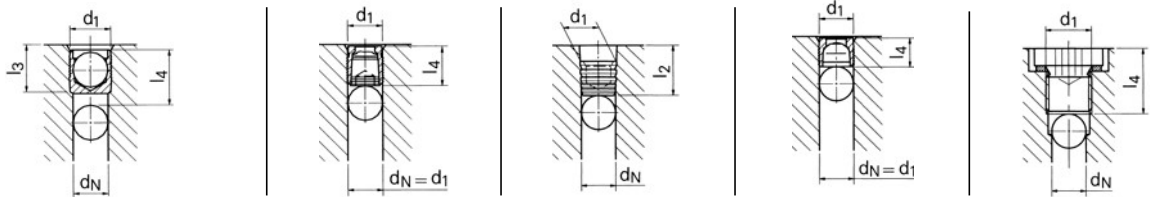


# DESIGN GUIDELINES

## Required Installation Lengths



| $d_N$ | Series MB |            |            | Series SK |            | Series LP |            | Series LK |            | Threaded Plugs<br>DIN 908 |            |
|-------|-----------|------------|------------|-----------|------------|-----------|------------|-----------|------------|---------------------------|------------|
|       | $d_1$     | $l_3$ min. | $l_4$ min. | $d_1$     | $l_4$ max. | $d_1$     | $l_2$ min. | $d_1$     | $l_4$ 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        | 4,40      | 7,0        | 4,0       | 4,0        |                           |            |
| 5,0   | 6,0       | 6,3        | 8,5        | 5,0       | 7,5        | 5,40      | 8,0        | 5,0       | 4,8        | M8x1,5                    | 11,5       |
| 6,0   | 7,0       | 7,3        | 9,5        | 6,0       | 8,0        | 6,40      | 8,5        | 6,0       | 5,3        | M8x1,5                    | 11,5       |
| 7,0   | 8,0       | 8,3        | 11,0       | 7,0       | 9,0        | 7,40      | 8,5        | 7,0       | 5,8        | M10x1,5                   | 12,0       |
| 8,0   | 9,0       | 9,8        | 12,5       | 8,0       | 10,5       | 8,45      | 9,5        | 8,0       | 6,8        | M10x1,5                   | 12,0       |
| 9,0   | 10,0      | 10,8       | 13,5       | 9,0       | 11,0       | 9,60      | 10,0       | 9,0       | 6,8        | M12x1,5                   | 16,0       |
| 10,0  | 12,0      | 12,8       | 16,0       | 10,0      | 12,5       | 10,65     | 11,0       | 10,0      | 6,8        | M12x1,5                   | 16,0       |
| 12,0  | 14,0      | 14,5       | 18,0       | 12,0      | 16,5       | 12,75     | 12,0       | 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       |           |            |           |            |           |            | M22x1,5                   | 19,5       |

$d_N$  = Given nominal bore / system bore size

### \*Installation Lengths Series MB

The required installation length ( $l_4$ ) min. for MB plugs is for base materials with hardness greater than HB = 90.

For softer materials, deeper installation is required.