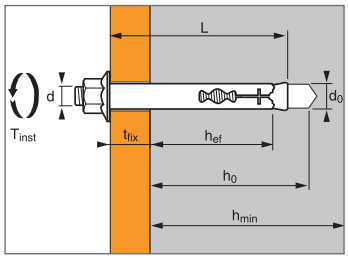
Sleeve type expansion anchor



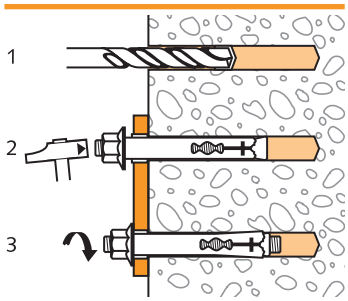
Applications

- Wall plates
- Porches
- Signs
- Angle iron, hand rails

Material

- **Threaded stud with cone:** Steel grade 5.8 ISO 898/1
- **Hex nut:** DIN 6923 grade 8
- **Bolt:** Steel grade 8.8 ISO 898/1
- **Washer:** Width DIN 9021
- **Zinc coating:** White zinc plated ≥ 5µm ISO 4042

Installation



1 Drill a hole corresponding to the external diameter of the anchor with a depth equal to the minimum anchor depth plus the diameter of the anchor.

2 Position the anchor into the hole until it just touches the part to be fixed.

3 Tighten the anchor until the recommended torque is achieved.

Technical data

HEX NUT	Max. anchor depth (mm)	Max. thick of part to be fixed (mm)	Min thick of base material (mm)	Ø thread (mm)	Drilling depth (mm)	Ø drill bit (mm)	Total rod length (mm)	Max. tighten torque (Nm)	Eurocode
	h_{ef}	t_{fix}	h_{min}	d	h_o	d_o	L	T_{inst}	
HN 6x40/8	26	8	100	M4.5	35	6	40	5	922752
HN 8x40/5	29	5	100	M6	45	8	40	7	922754
HN 8x65/30	29	30	100	M6	45	8	65	7	922755
HN 10x50/10	34	10	100	M8	50	10	50	15	922757
HN 10x77/37	34	37	100	M8	50	10	77	15	922758
HN 10x97/57	34	57	100	M8	50	10	97	15	922759
HN 12x75/25	44	25	100	M10	60	12	75	30	922760
HN 12x99/49	44	49	100	M10	60	12	99	30	922761
HN 12x129/79	44	79	100	M10	60	12	129	30	922762
HN 16x65/10	46	10	100	M12	65	16	65	50	922763
HN 16x111/56	46	56	100	M12	65	16	111	50	922764
HN 16x147/92	46	92	100	M12	65	16	147	50	922765

Anchor mechanical properties

Threaded part		M4,5	M6	M8	M10	M12	M16
f_{uk} (N/mm²)	Min. tensile strength	600	600	600	600	600	600
f_{yk} (N/mm²)	Yield strength	480	480	480	480	480	480
W_{el} (mm³)	Elastic section modulus	5,4	12,7	31,2	62,3	109,2	277,5
$M^0_{Rk,s}$ (Nm)	Characteristic bending moment	3,8	9,15	22,5	44,8	72	166
M (Nm)	Recommended bending moment		7,0	17,0	34,0	60,0	

The loads specified on this page are derived from internal test results. For results derived from CC Methodology, please see overleaf. The data given in the pages "CC - Method" have to be applied.

Ultimate ($N_{Ru,m}$, $V_{Ru,m}$) / characteristic loads (N_{Rk}, V_{Rk}) in kN

Mean Ultimate loads are derived from test results in admissible service conditions, and characteristic loads are statistically determined.

TENSILE

Anchor size	M6	M8	M10	M12
Anchorage depth				
h_{ef}	23	31	36	45
$N_{Ru,m}$	4,8	6,4	8,8	15,2
N_{Rk}	3,6	4,4	6,6	11,4

SHEAR

Anchor size	M6	M8	M10	M12
$V_{Ru,m}$	4,8	6,4	8,8	15,2
V_{Rk}	6,1	11,0	17,4	25,3

Design Loads (N_{Rd}, V_{Rd}) for one anchor without edge or spacing influence in kN

$$N_{Rd} = \frac{N_{Rk}^{*}}{\gamma_{Mc}}$$

$$V_{Rd} = \frac{V_{Rk}^{*}}{\gamma_{Ms}}$$

*Derived from test results

TENSILE

Anchor size	M6	M8	M10	M12
Anchorage depth				
h_{ef}	23	31	36	45
N_{Rd}	2,2	3,0	4,2	7,2

γ_{Mc} = 2,1

SHEAR

Anchor size	M6	M8	M10	M12
V_{Rd}	2,2	3,0	4,2	7,2

γ_{Ms} = 1,6

Recommended loads (N_{rec}, V_{rec}) for one anchor without edge or spacing influence in kN

$$N_{Rec} = \frac{N_{Rk}^{*}}{\gamma_{M}\gamma_{F}}$$

$$V_{Rec} = \frac{V_{Rk}^{*}}{\gamma_{M}.\gamma_{F}}$$

*Derived from test results

TENSILE

Anchor size	M6	M8	M10	M12
Anchorage depth				
h_{ef}	23	31	36	45
N_{Rec}	1,2	1,6	2,2	3,8

γ_{Mc} = 1.9

SHEAR

Anchor size	M6	M8	M10	M12
V_{Rec}	1,2	1,6	2,2	3,8

γ_{Ms} = 1,9