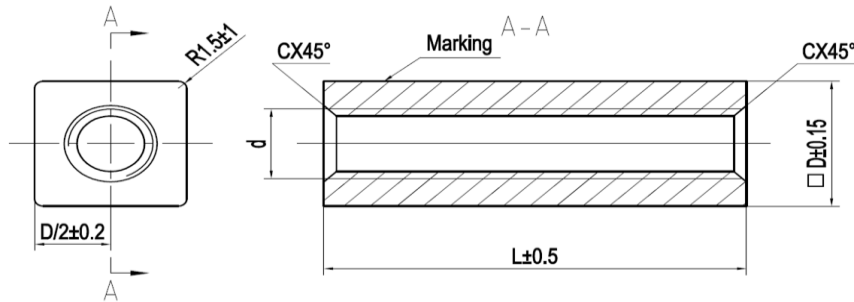


Kapacitetsberegning iht. EC af Muffe B2000-8 UBH/FZV/FZB



Forudsætninger:

f_y = stålets nominelle flydespænding

f_u = Stålets nominelle brudstyrke

$Y_{M0} = 1,1$

$Y_{M2} = 1,35$

Eurocode, EN 1993-1-1 DK NA:2015 Pkt. 6.1(1)2B

Muffe

A_{sh} = Areal af muffe

Muffe af kvalitet: $f_y = 420 \text{ Mpa}$, $f_{sd0} = 420/Y_{M0} = 381,8 \text{ MPa}$

$N_{Rd,sh} = f_{sd0} * A_{sh}$ og $V_{Rd,sh} = f_{sd0} * A_{sh} / \sqrt{3}$

Eurocode, EN 1993-1-1 + AC:2007

Bolt

A_s = Spændingsareal af bolte iht. EN ISO 898-1:2013

Bolt af kvalitet 8.8: $f_u = 800 \text{ Mpa}$, $f_{sd2} = 800/Y_{M2} = 592,6 \text{ MPa}$

$N_{Rd,s} = 0,9 * f_{sd2} * A_s$ og $V_{Rd,s} = \alpha_v * f_{sd2} * A_s$

$\alpha_v = 0,6$ for 4.6, 5.6 og 8.8

Eurocode, EN1993-1-8 + AC:2007 Tabel 3.4

| Dimension | M10 | M12 | M16 | M20 | M24 | M27 | M30 | M33 | M36 | | | | |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| d(mm) | 12 | 12 | 16 | 20 | 24 | 30 | 30 | 33 | 36 | | | | |
| D(mm) | 18 | 18 | 22 | 30 | 32 | 40 | 45 | 50 | 55 | | | | |
| L(mm) | 50 | 50 | 60 | 70 | 80 | 90 | 100 | 115 | 115 | | | | |
| $A_{sh} \text{ (mm}^2\text{)}$ | 251 | 219 | 295 | 605 | 600 | 1059 | 1359 | 1690 | 2063 | | | | |
| $A_s \text{ (mm}^2\text{)}$ | 58 | 84,3 | 157 | 245 | 352 | 561 | 561 | 694 | 817 | | | | |
| $N_{Rd,sh}$ | 86,25 | 75,25 | 101,4 | 207,9 | 206,2 | 363,9 | 467 | 580,7 | 708,9 | | | | |
| $V_{Rd,sh}$ | 55,33 | 48,28 | 65,03 | 133,4 | 132,3 | 233,4 | 299,6 | 372,5 | 454,8 | | | | |
| $N_{Rd,s}$ | 30,93 | 44,96 | 83,73 | 130,7 | 187,7 | 299,2 | 299,2 | 370,1 | 435,7 | | | | |
| $V_{Rd,s}$ | 20,62 | 29,97 | 55,82 | 87,11 | 125,2 | 199,5 | 199,5 | 246,8 | 290,5 | | | | |

Ref. Tegning PTC-005