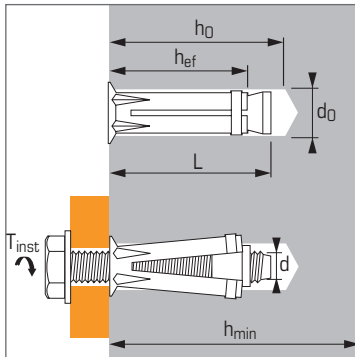




Universal female anchor for use in concrete and masonries



Technical data

| Anchor size | Min. anchor depth (mm) | Thread diameter (mm) | Drilling depth (mm) | Drilling diameter (mm) | Min. thick. of base material (mm) | Total anchor length (mm) | Tighten torque | | Code |
|------------------|------------------------|----------------------|---------------------|------------------------|-----------------------------------|--------------------------|----------------|------------|--------|
| | | | | | | | plein (Nm) | creux (Nm) | |
| | hef | d | h0 | d0 | hmin | L | Tinst | Tinst | |
| M6X40 | 35 | 6 | 50 | 10 | 85 | 42 | 8 | 5 | 053100 |
| M8X45 | 40 | 8 | 55 | 12 | 95 | 47 | 15 | 10 | 053110 |
| M10X55 | 45 | 10 | 60 | 15 | 105 | 53 | 30 | 20 | 053120 |
| M12X70 | 58 | 12 | 75 | 18 | 140 | 68 | 50 | 22 | 053130 |
| M6X40 + TH 6X50 | | | | | | | | | 053150 |
| M6X40 + QDC A2 | | | | | | | | | 053170 |
| M8X45 + TH 8X55 | | | | | | | | | 053200 |
| M12X70 + QDC GAL | | | | | | | | | 053140 |

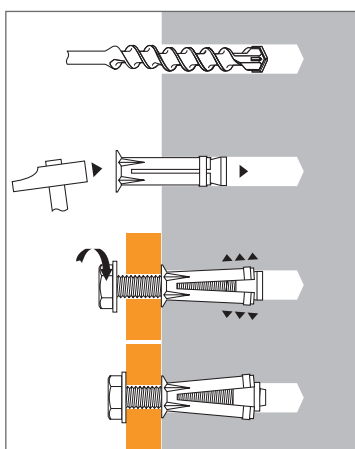
APPLICATION

- Fixing on hollow or solid materials
- Steel cupboards
- Overhead fixings

MATERIAL

- Sleeve : lead alloy
- Cone : S300Pb

INSTALLATION



Bending moments

| Anchor size | M6 | M8 | M10 | M12 |
|---------------------------------|-----|-----|------|-----|
| Screw grade 6.8 | | | | |
| Recommended bending moment (Nm) | 2,5 | 6,0 | 12,5 | 22 |

Ultimate loads (N_{RU,m}, V_{RU,m}) in kN

TENSILE

| Anchor size | M6 | M8 | M10 | M12 | M6 QDC | M12 QDC |
|---|-----|------|------|------|--------|---------|
| Concrete (C20/25) | | | | | | |
| N _{RU,m} | 4,8 | 11,4 | 16,5 | 28,5 | 1,5 | 24,0 |
| Concrete (C30/37) | | | | | | |
| N _{RU,m} | 5,4 | 15,6 | 20,1 | 35,4 | 1,5 | 24,0 |
| Solid concrete blocks B 120 (fc = 13,5 Mpa) | | | | | | |
| N _{RU,m} | 2,4 | 5,7 | 7,5 | 11,4 | 1,5 | 11,4 |
| Solid clay bricks (fc = 55 Mpa) | | | | | | |
| N _{RU,m} | 4,2 | 11,4 | 14,4 | 24,6 | 1,5 | 24,0 |
| Hollow concrete blocks B40 not rendered (fc = 6,5 Mpa) | | | | | | |
| N _{RU,m} | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 |
| Hollow clay bricks eco-30 not rendered (fc = 4,5 Mpa) | | | | | | |
| N _{RU,m} | 1,1 | 1,3 | 1,75 | 2,2 | 1,1 | 2,2 |

SHEAR

| Anchor size | M6 | M8 | M10 | M12 |
|---|------|------|------|------|
| Concrete (C20/25) | | | | |
| V _{RU,m} | 3,6 | 12,6 | 18,6 | 30,6 |
| Concrete (C30/37) | | | | |
| V _{RU,m} | 3,6 | 12,6 | 18,6 | 30,6 |
| Solid concrete blocks B 120 (fc = 13,5 Mpa) | | | | |
| V _{RU,m} | 3,0 | 10,5 | 13,2 | 18,9 |
| Solid clay bricks (fc = 55 Mpa) | | | | |
| V _{RU,m} | 3,3 | 11,4 | 18,0 | 24,0 |
| Hollow concrete blocks B40 not rendered (fc = 6,5 Mpa) | | | | |
| V _{RU,m} | 4,45 | 5,65 | 6,55 | 6,85 |
| Hollow clay bricks eco-30 not rendered (fc = 4,5 Mpa) | | | | |
| V _{RU,m} | 4,2 | 5,05 | 6,75 | 9,55 |



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

$$N_{Rd} = \frac{N_{Rum}^*}{4,3}$$

*Derived from test results

$$V_{Rd} = \frac{V_{Rum}^*}{4,3}$$

TENSILE

| Base material | Anchor size | M6 | M8 | M10 | M12 | M6 QDC | M12 QDC |
|--|-------------|------|------|------|------|--------|---------|
| Concrete (C20/25) | | | | | | | |
| N_{Rd} | | 1,12 | 2,66 | 3,85 | 6,85 | 0,84 | 5,60 |
| Concrete (C30/37) | | | | | | | |
| N_{Rd} | | 1,26 | 3,64 | 4,69 | 8,26 | 0,84 | 5,60 |
| Solid concrete blocks B 120 ($f_c = 13,5$ Mpa) | | | | | | | |
| N_{Rd} | | 0,56 | 1,33 | 1,75 | 2,66 | 0,84 | 5,60 |
| Solid clay bricks ($f_c = 55$ Mpa) | | | | | | | |
| N_{Rd} | | 0,98 | 2,66 | 3,36 | 5,74 | 0,56 | 2,66 |
| Hollow concrete blocks B40 not rendered ($f_c = 6,5$ Mpa) | | | | | | | |
| N_{Rd} | | 0,42 | 0,42 | 0,42 | 0,42 | 0,42 | 0,42 |
| Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ Mpa) | | | | | | | |
| N_{Rd} | | 0,26 | 0,30 | 0,41 | 0,51 | 0,26 | 0,51 |

SHEAR

| Base material | Anchor size | M6 | M8 | M10 | M12 |
|--|-------------|------|------|------|------|
| Concrete (C20/25) | | | | | |
| V_{Rd} | | 0,84 | 2,94 | 4,34 | 7,14 |
| Concrete (C30/37) | | | | | |
| V_{Rd} | | 0,84 | 2,94 | 4,34 | 7,14 |
| Solid concrete blocks B 120 ($f_c = 13,5$ Mpa) | | | | | |
| V_{Rd} | | 0,70 | 2,45 | 3,08 | 4,41 |
| Solid clay bricks ($f_c = 55$ Mpa) | | | | | |
| V_{Rd} | | 0,77 | 2,66 | 4,2 | 5,60 |
| Hollow concrete blocks B40 not rendered ($f_c = 6,5$ Mpa) | | | | | |
| V_{Rd} | | 1,04 | 1,32 | 1,53 | 1,60 |
| Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ Mpa) | | | | | |
| V_{Rd} | | 0,98 | 1,18 | 1,58 | 2,23 |

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

$$N_{rec} = \frac{N_{Rum}^*}{6}$$

*Derived from test results

$$V_{rec} = \frac{V_{Rum}^*}{6}$$

TENSILE

| Base material | Anchor size | M6 | M8 | M10 | M12 | M6 QDC | M12 QDC |
|--|-------------|------|------|------|------|--------|---------|
| Concrete (C20/25) | | | | | | | |
| N_{rec} | | 0,80 | 1,90 | 2,75 | 4,75 | 0,60 | 4,00 |
| Concrete (C30/37) | | | | | | | |
| N_{rec} | | 0,90 | 2,60 | 3,35 | 5,90 | 0,60 | 4,00 |
| Solid concrete blocks B 120 ($f_c = 13,5$ Mpa) | | | | | | | |
| N_{rec} | | 0,40 | 0,95 | 1,25 | 1,90 | 0,60 | 4,00 |
| Solid clay bricks ($f_c = 55$ Mpa) | | | | | | | |
| N_{rec} | | 0,70 | 1,90 | 2,40 | 4,10 | 0,40 | 1,90 |
| Hollow concrete blocks B40 not rendered ($f_c = 6,5$ Mpa) | | | | | | | |
| N_{rec} | | 0,30 | 0,30 | 0,30 | 0,30 | 0,30 | 0,30 |
| Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ Mpa) | | | | | | | |
| N_{rec} | | 0,18 | 0,22 | 0,29 | 0,37 | 0,18 | 0,37 |

SHEAR

| Base material | Anchor size | M6 | M8 | M10 | M12 |
|--|-------------|------|------|------|------|
| Concrete (C20/25) | | | | | |
| V_{rec} | | 0,60 | 2,10 | 3,10 | 5,10 |
| Concrete (C30/37) | | | | | |
| V_{rec} | | 0,60 | 2,10 | 3,10 | 5,10 |
| Solid concrete blocks B 120 ($f_c = 13,5$ Mpa) | | | | | |
| V_{rec} | | 0,50 | 1,75 | 2,20 | 3,15 |
| Solid clay bricks ($f_c = 55$ Mpa) | | | | | |
| V_{rec} | | 0,55 | 1,90 | 3,00 | 4,00 |
| Hollow concrete blocks B40 not rendered ($f_c = 6,5$ Mpa) | | | | | |
| V_{rec} | | 0,74 | 0,94 | 1,09 | 1,14 |
| Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ Mpa) | | | | | |
| V_{rec} | | 0,70 | 0,84 | 1,13 | 1,59 |

Spacing data

IN CONCRETE AND SOLID MASONRIES

| Anchor size | Minimum distance between anchors and from edges (mm) | | |
|-------------|--|-----------------|-----------------|
| | $S_{cr,1}$ mini without edge influence | $C_{cr,N}$ mini | $C_{cr,V}$ mini |
| M6 | 90 | 70 | 70 |
| M8 | 100 | 80 | 80 |
| M10 | 115 | 90 | 90 |
| M12 | 150 | 115 | 115 |