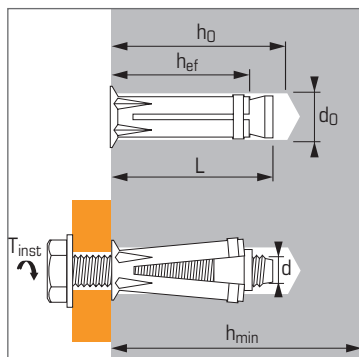




Universal female anchor for use in concrete and masonries



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	
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

APPLICATION

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

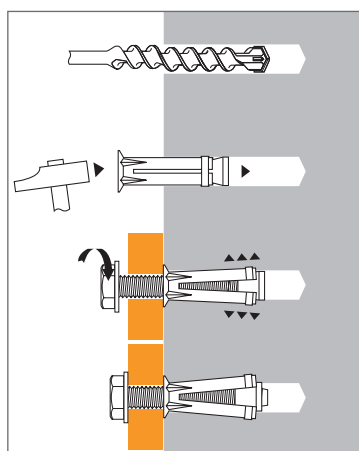
MATERIAL

- Sleeve : lead alloy
- Cone : S300Pb

Bending moments

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

INSTALLATION



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

TENSILE

Anchor size	M8	M10	M12
Base material			
Concrete (C20/25)			
$N_{Ru,m}$	11,4	16,5	28,5
Concrete (C30/37)			
$N_{Ru,m}$	15,6	20,1	35,4
Solid concrete blocks B 120 ($f_c = 13,5$ MPa)			
$N_{Ru,m}$	5,7	7,5	11,4
Solid clay bricks ($f_c = 55$ MPa)			
$N_{Ru,m}$	11,4	14,4	24,6
Hollow concrete blocks B40 not rendered ($f_c = 6,5$ MPa)			
$N_{Ru,m}$	1,8	1,8	1,8
Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ MPa)			
$N_{Ru,m}$	1,3	1,75	2,2

SHEAR

Anchor size	M8	M10	M12
Base material			
Concrete (C20/25)			
$V_{Ru,m}$	12,6	18,6	30,6
Concrete (C30/37)			
$V_{Ru,m}$	12,6	18,6	30,6
Solid concrete blocks B 120 ($f_c = 13,5$ MPa)			
$V_{Ru,m}$	10,5	13,2	18,9
Solid clay bricks ($f_c = 55$ MPa)			
$V_{Ru,m}$	11,4	18,0	24,0
Hollow concrete blocks B40 not rendered ($f_c = 6,5$ MPa)			
$V_{Ru,m}$	5,65	6,55	6,85
Hollow clay bricks eco-30 not rendered ($f_c = 4,5$ MPa)			
$V_{Ru,m}$	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

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

SHEAR

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

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

SHEAR

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

Spacing data

IN CONCRETE AND SOLID MASONRIES

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