

TUC M6 CONCRETE BOLT RANGE

Features:

- Through fixing
- Suitable for redundant non-structural systems
- Rapid installation
- Hardened steel with min 5µm zinc plating

Benefits:

- Quick and simple installation
- One anchor for concrete from C20/25 to C50/60
- Suitable for precast pre-stressed hollow core planks
- Adjustable fixture thickness
- Easily removable for use with temporary structures



Concrete Ranges: C20/25 to C50/60 according to EN 206:2013+A1:2016

Certification: ETA 25/0814 & ETA 25/0817

Product Range

Product Code	Thread Diameter	Anchor Length	Drill Hole Diameter	Drill Hole Depth	Embedment Depth		Fixture Thickness		Head Drive	
	d	L	d ₀	h ₁	h _{nom}		t _{fix}			
	mm	mm	mm	mm	mm		mm			
Flange Head										
TUC06035	8	35	6	45	65	35	55	0	N/A	10mm A/F
TUC06040		40						5	N/A	
TUC06050		50						15	N/A	
TUC06060		60						25	5	
TUC06075		75						40	20	
TUC06100		100						65	45	
TUC06120		120						85	65	
TUC06150		150						115	95	
Countersunk Head										
TUC06050CS	8	50	6	45	65	35	55	15	N/A	Torx30
TUC06075CS		75						25	5	
TUC06100CS		100						40	20	
Pan Head										
TUC06050PH	8	50	6	45	65	35	55	15	N/A	Torx30
TUC06075PH		75						25	5	
TUC06100PH		100						40	20	
M10 Rod Hanger										
TUCRH3510	8	35	6	45	65	35	55	N/A	N/A	13mm A/F
TUCRH5510		55						N/A	N/A	
M8 Rod Hanger										
TUCRH3508	8	35	6	45	65	35	55	N/A	N/A	13mm A/F
TUCRH5508		55						N/A	N/A	
Dual Thread Rod Hanger										
TUCRH35D	8	35	6	45	65	35	55	N/A	N/A	13mm A/F
TUCRH55D		55						N/A	N/A	

Installation Data - Concrete

Anchor Diameter			M6	
Nominal Embedment Depth	h_{nom}	[mm]	35	55
Effective Embedment Depth	h_{eff}	[mm]	25	41
Minimum Concrete Thickness	h_{min}	[mm]	80	80
Minimum Spacing	s_{min}	[mm]	80	110
Minimum Edge Distance	c_{min}	[mm]	40	55
Maximum Installation Torque (impact wrench)	T_{inst}	[Nm]	200	
Design Spacing Spacing- Tension	$S_{cr,N,ucr}$	[mm]	3 x h_{ef}	
Design Edge Distance - Tension	$C_{cr,N,ucr}$	[mm]	1.5 x h_{ef}	

Installation Data - Hollow Concrete Slabs

Anchor Diameter			M6	
Nominal Embedment Depth	h_{nom}	[mm]	35	
Effective Embedment Depth	h_{eff}	[mm]	25	
Minimum Spacing	s_{min}	[mm]	80	
Minimum Edge Distance	c_{min}	[mm]	40	
Minimum Distance between anchor groups	a_{min}	[mm]	80	
Maximum Installation Torque	T_{inst}	[Nm]	200	
Design Spacing Spacing- Tension	$S_{cr,N,ucr}$	[mm]	80	
Design Edge Distance - Tension	$C_{cr,N,ucr}$	[mm]	40	

For location in hollow core concrete slabs refer to ETA

Load Data

Characteristics Resistance

Anchor Diameter	M6
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Cracked and Non-Cracked Concrete

F_{Rk}	Load in any direction	[kN]	1.0	4.0
$M_{Rk,s}^0$	Shear with lever arm	[Nm]	16.2	16.2

Design Resistance

Anchor Diameter	M6
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Non-Cracked Concrete

F_{Rd}	Load in any direction	[kN]	0.6	2.2
$M_{Rd,s}^0$	Shear with lever arm	[Nm]	10.8	10.8

Recommended Resistance

Anchor Diameter	M6
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Non-Cracked Concrete

F_{Rec}	Load in any direction	[kN]	0.4	1.6
$M_{Rec,s}^0$	Shear with lever arm	[Nm]	7.7	7.7

Includes Partial Safety Factor $\gamma = 1.4$ in the absence of national regulations and type of loading Data is for Static and Quasi Static Loads.

Characteristics Resistance

Anchor Diameter	M6
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Pre-stressed hollow concrete slabs

F_{Rk}	Load in any direction	[kN]	4.5
$M_{Rk,s}^0$	Shear with lever arm	[Nm]	16.2

Design Resistance

Anchor Diameter	M6
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Pre-stressed hollow concrete slabs

F_{Rd}	Load in any direction	[kN]	2.5
$M_{Rd,s}^0$	Shear with lever arm	[Nm]	10.8

Recommended Resistance

Anchor Diameter	M6
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Pre-stressed hollow concrete slabs

F_{Rec}	Load in any direction	[kN]	1.8
$M_{Rec,s}^0$	Shear with lever arm	[Nm]	7.7

Includes Partial Safety Factor $\gamma = 1.4$ in the absence of national regulations and type of loading Data is for Static and Quasi Static Loads.

Characteristic Resistance under fire exposure in concrete C20/25 to C50/60

Anchor Diameter			6
Effective Embedment Depth	h_{ef}	[mm]	41
Nominal Embedment Depth	h_{nom}	[mm]	55

All Load directions

Characteristic Resistance $F_{Rk,fi}^{(1)}$	R30	[kN]	0.22
	R60	[kN]	0.20
	R90	[kN]	0.16
	R120	[kN]	0.11
Characteristic Bending Resistance $M_{Rk,fi}^0$	R30	[Nm]	0.18
	R60	[Nm]	0.16
	R90	[Nm]	0.13
	R120	[Nm]	0.09
Spacing	$S_{cr,fi}$	[mm]	$2 \times h_{ef}$
Edge Distance	$C_{cr,fi}$	[mm]	$4 \times h_{ef}$

The design method covers anchors where a fire attack is from one side only. In case of fire attack from more than one side the edge distance shall be $\geq 300\text{mm}$

(1) In the absence of other national regulations a partial safety factor $\gamma_{M,fi} = 1.0$ is recommended

Trutek Impact Sockets available for all diameters

