Direct fixing concrete screw, for use in cracked and non cracked concrete

TH-DEX

Assessed ETA Option 1. Steel with Silver Ruspert coating.

PRODUCT INFORMATION

DESCRIPTION
Metallic screw, with thread for fixing in cracked and non-cracked concrete.

OFFICIAL DOCUMENTATION
- CE-1219-CPR-0091.
- ETA 15/0017 option 1.
- Declaration of Performance DoP THDEX.

SIZES
Ø7,5x35(6) to Ø16x160(14).

DESIGN LOAD RANGE
From 5,0 to 22,2 kN (non-cracked).
From 3,3 to 19,1 kN (cracked).

BASE MATERIAL
Concrete class C20/25 to C50/60 cracked or non-cracked.

Stone | Concrete | Reinforced Concrete | Cracked Concrete

ASSESSMENTS
- Option 1 (Cracked and non cracked conrete).
- Fire Resistance R30-120.

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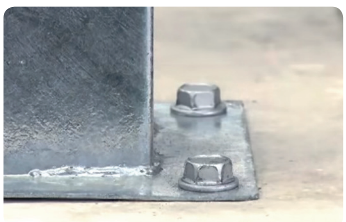
Técnicas Expansivas S.L.
Segador 13. Logroño. Spain
ETA 15/0017
1219
Structural fixings in concrete

FIRE RESISTANCE

CHARACTERISTICS AND BENEFITS
- Easy installation
- Use in cracked and non-cracked concrete.
- Use for medium-heavy duty loads.
- Countersunk head version for Ø7,5.
- Variety of length and diameters: flexibility in assembly
- Suitable when reduced distance to edge and between anchors is required.
- Working by mechanical interlock between concrete and thread.
- For static and quasi static loads.
- Direct fixing; no wrench needed.
- Can be unninstalled leaving the surface clear.
- Available at INDEXcal.

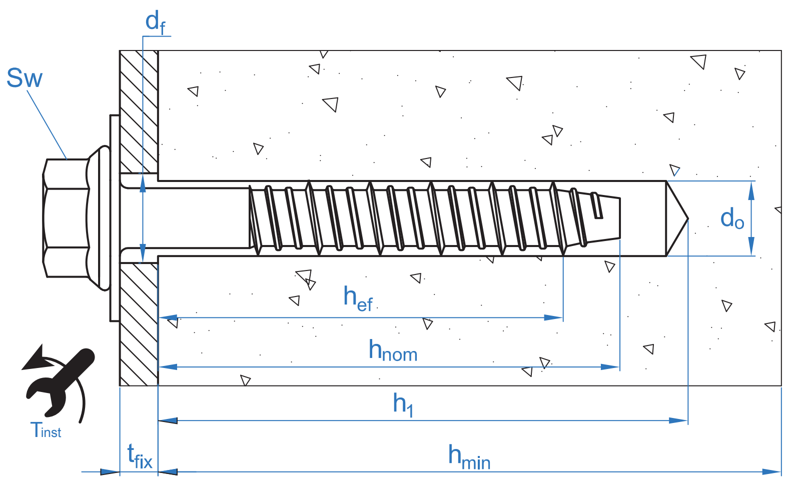
MATERIALS
Screw: Carbon steel; Silver Ruspert coating.

APPLICATIONS
- Structural fixings cracked and non cracked concrete, including industrial and marine environments.
- Glazing, windows and shop windows.
- Industrial racks.
- Installation of railings and handrails in interiors.
- Fixation of steel structures, canals, machinery, boilers, signs, stadium seats, facade substructures, etc.
- Fixing of wood structures in concrete.



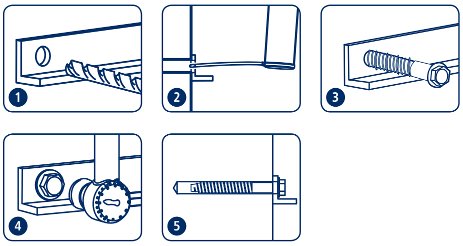
MECHANICAL PROPERTIES						
			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
Threaded area section						
A_s	(mm²)	Threaded area section	23,3	40,8	64,0	144,8
$f_{u,s}$	(N/mm²)	Chracteristic tension resistance	720	720	720	720
$f_{y,s}$	(N/mm²)	Yield strength	600	600	600	600

INSTALLATION DATA						
SIZE (Øscrew / Ødrill)			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
Código			THDEX07XXX	THDEX10XXX	THDEX12XXX	THDEX16XXX
d_0	Nominal diameter of drill bit	[mm]	6	8	10	14
T_{ins}	Installation torque moment	[Nm]	20	50	80	120
$d_f \leq$	Diameter of clearance hole in the fixture	[mm]	9	12	14	18
h_1	Minimum drill hole depth	[mm]	65	7	85	130
h_{nom}	Installation depth	[mm]	55	60	70	110
h_{ef}	Effective embedment depth	[mm]	42	45	52	86
h_{min}	Minimum base material thickness	[mm]	100	100	105	175
t_{fix}	Maximum thickness of fixture	[mm]	L - 55	L - 60	L - 70	L - 110
$s_{cr,N}$	Critical spacing	[mm]	126	135	156	258
$c_{cr,N}$	Critical edge distance	[mm]	63	67	78	129
$s_{cr,sp}$	Critical distance (splitting)	[mm]	126	135	177	292
$c_{cr,sp}$	Critical edge distance (splitting)	[mm]	63	67	88	146
s_{min}	Minimum spacing	[mm]	45	50	60	100
c_{min}	Minimum edge distance	[mm]	45	50	60	100
SW	Installation wrench		10	13	15	18



Code	INSTALLATION PRODUCTS
	Hammer drill
BHDSXXXXX	Concrete Drill bits
MOBOMBA	Blow pump
MORCEPKIT	Cleaning Brush
	Torque wrench
	Hexagonal socket

INSTALLATION



TH-DEX

Resistances in C20/25 concrete for an isolated anchor, without effects of edge distance or spacing

Characteristic Resistance N_{Rk} and V_{Rk}

TENSION							
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
N_{Rk}	Non-cracked concrete	[kN]	9,0	12,0	20,0	40,0
N_{Rk}	Cracked concrete	[kN]	6,0	9,0	12,0	28,7

SHEAR						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
V_{Rk}	Non-cracked concrete	[kN]	7,5	16,3	35,6	57,9
V_{Rk}	Cracked concrete	[kN]	7,5	16,3	35,6	57,9

Design Resistance N_{Rd} and V_{Rd}

TENSION						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
N_{Rd}	Non-cracked concrete	[kN]	5,0	6,7	11,1	22,2
N_{Rd}	Cracked concrete	[kN]	3,3	5,0	6,7	19,1

SHEAR						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
V_{Rd}	Non-cracked concrete	[kN]	6,0	13,0	28,5	46,3
V_{Rd}	Cracked concrete	[kN]	6,0	13,0	28,5	46,3

Maximum Loads Recommended N_{rec} and V_{rec}

TENSION						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
N_{rec}	Non-cracked concrete	[kN]	3,6	4,8	7,9	15,9
N_{rec}	Cracked concrete	[kN]	2,4	3,6	4,8	13,7

SHEAR						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
V_{rec}	Non-cracked concrete	[kN]	4,3	9,3	20,3	33,1
V_{rec}	Cracked concrete	[kN]	4,3	9,3	20,3	33,1

Simplified calculation method

European Technical Assessment ETA 15/0017

Simplified version of the calculation method according to ETAG 001, annex C. Resistance is calculated according to the data shown in assessment ETA 15/0017.

- Influence of concrete strength.
- Influence of edge distance.
- Influence of spacing between anchors.
- Influence of reinforcements.
- Influence of base material thickness.
- Influence of load application angle.
- Valid for a group of two anchors.

The calculation method is based on the following simplification: **Different loads do not act on individual anchors, without eccentricity.**

INDEXcal

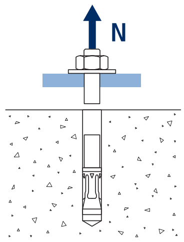
For a more accurate calculation and to take more constructive provisions into account, we recommend using our calculation program INDEXcal. It may be easily downloaded from our website **www.indexfix.com**

TH-DEX

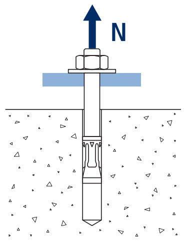
TENSION LOADS

- Steel design resistance: $N_{Rd,s}$
- Pull-out design resistance: $N_{Rd,p} = N^{o}_{Rd,p} \cdot \Psi_{c}$
- Concrete cone design resistance: $N_{Rd,c} = N^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{s,N} \cdot \Psi_{c,N} \cdot \Psi_{re,N}$
- Concrete splitting design resistance: $N_{Rd,sp} = N^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{s,sp} \cdot \Psi_{c,sp} \cdot \Psi_{re,N} \cdot \Psi_{h,sp}$

Steel Design resistance						
$N_{Rd,s}$						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
N^{o}_{Rd}	Non-cracked concrete	[kN]	12,5	21,8	34,1	77,3

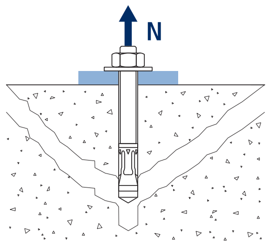


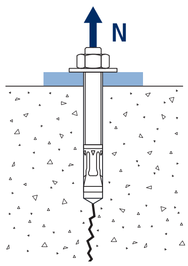
Pull-out design resistance						
$N_{Rd,p} = N^{o}_{Rd,p} \cdot \Psi_{c}$						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
$N^{o}_{Rd,p}$	Non-cracked concrete	[kN]	5,0	6,7	11,1	22,2
$N^{o}_{Rd,p}$	Cracked concrete	[kN]	3,3	5,0	6,7	16,7



Concrete cone design resistance						
$N_{Rd,c} = N^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{s,N} \cdot \Psi_{c,N} \cdot \Psi_{re,N}$						
Concrete splitting design resistance*						
$N_{Rd,sp} = N^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{s,sp} \cdot \Psi_{c,sp} \cdot \Psi_{re,N} \cdot \Psi_{h,sp}$						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
$N^{o}_{Rd,c}$	Non-cracked concrete	[kN]	7,6	8,5	10,5	22,4
$N^{o}_{Rd,c}$	Cracked concrete	[kN]	5,4	6,0	7,5	16,0

*Concrete splitting design resistance must only be considered for non-cracked concrete.

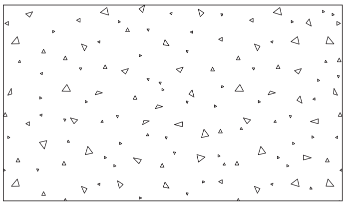




TH-DEX

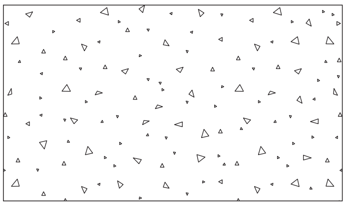
Coefficients of influence

Influence of concrete strength resistance in pul-out failure Ψ_c					
		Ø7,5 / M6	Ø10 / M8	Ø12 / M10	Ø16 / M14
$\Psi_{c,ucr}$ (Non-cracked concrete)	C 20/25	1,00			
	C 30/37	1,22	1,08	1,04	1,04
	C 40/50	1,41	1,15	1,07	1,07
	C 50/60	1,55	1,19	1,09	1,09



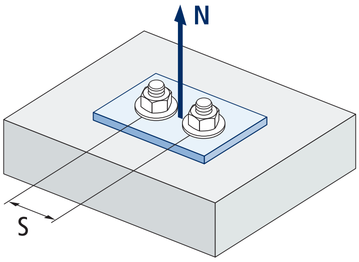
Influence of concrete strength resistance in pul-out failure Ψ_c					
		Ø7,5 / M6	Ø10 / M8	Ø12 / M10	Ø16 / M14
$\Psi_{c,cr}$ (Cracked concrete)	C 20/25	1,00			
	C 30/37	1,22	1,22	1,22	1,12
	C 40/50	1,41	1,41	1,41	1,23
	C 50/60	1,55	1,55	1,55	1,30

Influence of concrete strength in concret cone and splitting failure Ψ_b					
		Ø7,5 / M6	Ø10 / M8	Ø12 / M10	Ø16 / M14
Ψ_b	C 20/25	1,00			
	C 30/37	1,22			
	C 40/50	1,41			
	C 50/60	1,55			



$$\Psi_b = \sqrt{\frac{f_{ck,cube}}{25}} \geq 1$$

TH-DEX

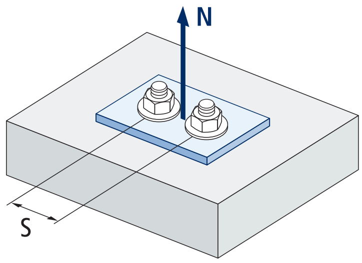


$$\Psi_{s,N} = 0{,}5 + \frac{s}{2 \cdot s_{cr,N}} \leq 1$$

Influence of spacing (concrete cone) $\Psi_{s,N}$				
s [mm]	TH-DEX			
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
45	0,68			
50	0,70	0,69	**Invalid value**	
55	0,72	0,70		
60	0,74	0,72	0,69	
70	0,78	0,76	0,72	
80	0,82	0,80	0,76	
90	0,86	0,83	0,79	
100	0,90	0,87	0,82	0,69
110	0,94	0,91	0,85	0,71
120	0,98	0,94	0,88	0,73
126	1,00	0,97	0,90	0,74
130		0,98	0,92	0,75
135		1,00	0,93	0,76
140			0,95	0,77
150			0,98	0,79
156			1,00	0,80
160				0,81
170				0,83
177				0,84
180				0,85
190				0,87
200				0,89
210				0,91
220		**Value without reduction = 1**		0,93
230				0,95
240				0,97
250				0,98
258				1,00

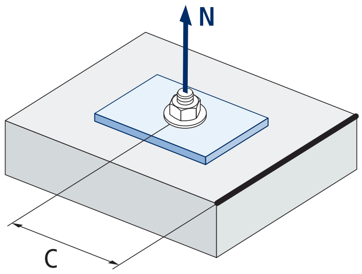
TH-DEX

Influence of spacing (concrete splitting) $\Psi_{s,sp}$				
s [mm]	TH-DEX			
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
45	0,68			
50	0,70	0,69	**Invalid value**	
55	0,72	0,70		
60	0,74	0,72	0,67	
70	0,78	0,76	0,70	
80	0,82	0,80	0,73	
90	0,86	0,83	0,75	
100	0,90	0,87	0,78	0,67
110	0,94	0,91	0,81	0,69
120	0,98	0,94	0,84	0,71
126	1,00	0,97	0,86	0,72
130		0,98	0,87	0,72
135		1,00	0,88	0,73
140			0,90	0,74
150			0,92	0,76
156			0,94	0,77
160			0,95	0,77
170			0,98	0,79
177			1,00	0,80
180				0,81
190				0,83
200				0,84
210				0,86
220		**Value without reduction = 1**		0,88
230				0,89
240				0,91
250				0,93
258				0,94
260				0,95
270				0,96
280				0,98
292				1,00



$$\Psi_{s,sp} = 0{,}5 + \frac{s}{2 \cdot s_{cr,sp}} \leq 1$$

TH-DEX



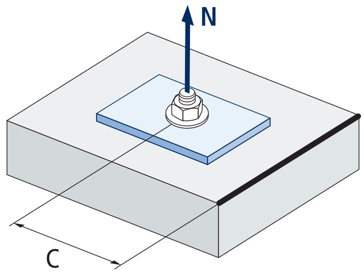
$$\Psi_{c,sp} = 0{,}35 + \frac{0{,}5 \cdot c}{C_{cr,sp}} + \frac{0{,}15 \cdot c^2}{C_{cr,sp}^{\;2}} \le 1$$

Influence of concrete edge distance (splitting) $\Psi_{c,sp}$

s [mm]	TH-DEX			
	Ø7,5 / M6	Ø10 / M8	Ø12 / M10	Ø16 / M14
45	0,78			
50	0,84	0,81	**Invalid value**	
55	0,90	0,86		
60	0,96	0,92	0,76	
63	1,00	0,95	0,78	
65		0,98	0,80	
67		1,00	0,82	
70			0,84	
75			0,89	
78			0,91	
80			0,93	
85			0,97	
88			1,00	
90				
95				
100				0,76
105				0,79
110				0,81
115				0,84
120				0,86
125		**Value without reduction = 1**		0,89
129				0,91
130				0,91
135				0,94
140				0,97
146				1,00

TH-DEX

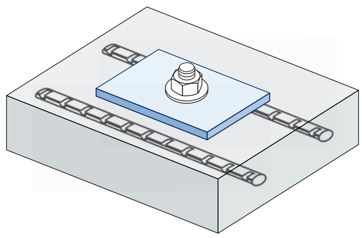
Influence of concrete edge distance (concrete cone) $\Psi_{c,N}$				
s [mm]	TH-DEX			
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
45	0,78			
50	0,84	0,81	**Invalid value**	
55	0,90	0,86		
60	0,96	0,92	0,82	
63	1,00	0,95	0,85	
65		0,98	0,87	
67		1,00	0,89	
70			0,92	
75			0,97	
78			1,00	
80				
85				
88				
90				
95				0,80
100				0,83
105		**Value without reduction = 1**		0,86
110				0,89
115				0,91
120				0,94
125				0,98



$$\Psi_{c,N} = 0{,}35 + \frac{0{,}5 \cdot c}{C_{cr,N}} + \frac{0{,}15 \cdot c^2}{C_{cr,N}^{\ 2}} \leq 1$$

Influence of reinforcements $\Psi_{re,N}$				
$\Psi_{re,N}$	TH-DEX			
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
	0,71	0,725	0,76	0,93

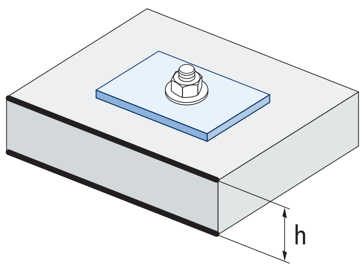
*This factor only applies for a high density of reinforcements. If in the area of the anchor there are reinforcements with a distancing of ≥ 150 mm (any diameter) or with a diameter ≤ 10 mm and a distancing of ≥ 100 mm, a $f_{re,N}$ = 1 factor may be applied.



$$\Psi_{re,N} = 0{,}5 + \frac{h_{ef}}{200} \leq 1$$

Influence of base material thickness $\Psi_{h,sp}$											
$\Psi_{h,sp}$	TH-DEX										
	h/hef	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	≥3,68
	fh	1,00	1,07	1,13	1,19	1,25	1,31	1,37	1,42	1,48	1,50

$$\Psi_{h,sp} = \left(\frac{h}{2 \cdot h_{ef}}\right)^{2/3} \leq 1{,}5$$

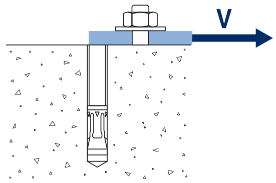


TH-DEX

SHEAR LOADS

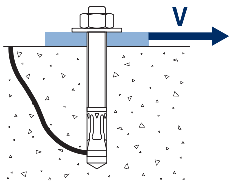
- Steel design resistance without lever arm: $V_{Rd,s}$
- Pry-out design resistance: $V_{Rd,cp} = k \cdot N^{o}_{Rd,c}$
- Concrete edge design resistance: $V_{Rd,c} = V^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{se,V} \cdot \Psi_{c,V} \cdot \Psi_{re,V} \cdot \Psi_{\alpha,V} \cdot \Psi_{h,V}$

Steel design resistance					
$V_{Rd,s}$					
Size		Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
$V_{Rd,s}$	[kN]	6,0	13,0	28,5	46,3

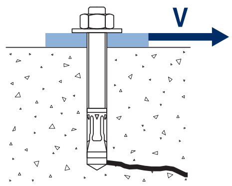


Pry-out design resistance*				
$V_{Rd,cp} = k \cdot N^{o}_{Rd,c}$				
Size	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
k	1	1	1	2

* $N^{o}_{Rd,c}$ Concrete cone design resistance for tension loads



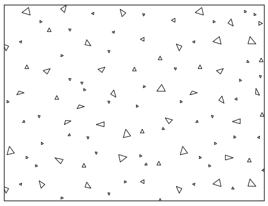
Concrete edge resistance						
$V_{Rd,c} = V^{o}_{Rd,c} \cdot \Psi_{b} \cdot \Psi_{se,V} \cdot \Psi_{c,V} \cdot \Psi_{re,V} \cdot \Psi_{\alpha,V} \cdot \Psi_{h,V}$						
Size			Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
$V^{o}_{Rd,c}$	Non-cracked concrete	[kN]	4,1	4,6	5,8	16,3
	Cracked concrete	[kN]	2,9	3,3	4,1	11,6



TH-DEX

Coefficients of influence

Influence of concrete strength in concrete edge failure Ψ_b		Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
Ψ_b	C 20/25	1,00			
	C 30/37	1,22			
	C 40/50	1,41			
	C 50/60	1,55			



$$\Psi_b = \sqrt{\frac{f_{ck,cube}}{25}} \geq 1$$

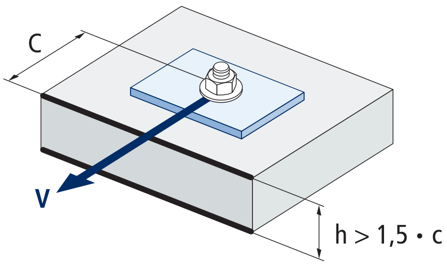
Influence of edge distance and spacing $\Psi_{se,V}$

FOR ONE ANCHOR ONLY

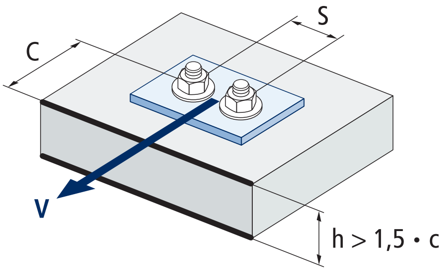
c/h_{ef}	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,50	5,00
Isolated	0,35	0,65	1,00	1,40	1,84	2,32	2,83	3,38	3,95	4,56	5,20	5,86	6,55	7,26	8,00	9,55	11,18

FOR TWO ANCHORS

	c/h_{ef}	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,50	5,00
s/c	1,0	0,24	0,43	0,67	0,93	1,22	1,54	1,89	2,25	2,64	3,04	3,46	3,91	4,37	4,84	5,33	6,36	7,45
	1,5	0,27	0,49	0,75	1,05	1,38	1,74	2,12	2,53	2,96	3,42	3,90	4,39	4,91	5,45	6,00	7,16	8,39
	2,0	0,29	0,54	0,83	1,16	1,53	1,93	2,36	2,81	3,29	3,80	4,33	4,88	5,46	6,05	6,67	7,95	9,32
	2,5	0,32	0,60	0,92	1,28	1,68	2,12	2,59	3,09	3,62	4,18	4,76	5,37	6,00	6,66	7,33	8,75	10,25
	3,0	0,35	0,65	1,00	1,40	1,84	2,32	2,83	3,38	3,95	4,56	5,20	5,86	6,55	7,26	8,00	9,55	11,18

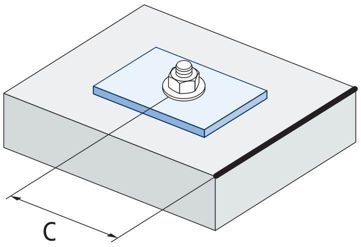


$$\Psi_{se,V} = \left(\frac{c}{h_{ef}}\right)^{1,5}$$



$$\Psi_{se,V} = \left(\frac{c}{h_{ef}}\right)^{1,5} \cdot \left(1 + \frac{s}{3 \cdot c}\right) \cdot 0,5$$

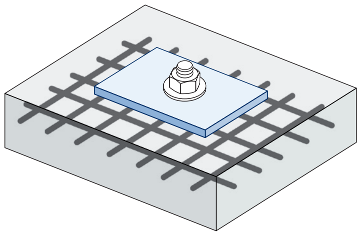
TH-DEX



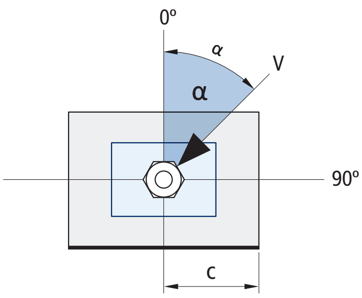
$$\Psi_{c,V} = \left(\frac{d}{c}\right)^{0,20}$$

Influence of concrete edge distance $\Psi_{c,V}$				
s [mm]	TH-DEX			
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
45	0,67		**Invalid value**	
50	0,65	0,69		
60	0,63	0,67	0,70	
65	0,62	0,66	0,69	
70		0,65	0,68	
80			0,66	
85			0,65	
90			0,64	
100				0,67
110				0,66
120				0,65
125		**Value without reduction = 1**		0,65
130				0,64
140				0,63
150				0,62

Influence of reinforcements $\Psi_{re,V}$			
	Without perimetral reinforcements	Perimetral reinforcements ≥ Ø12 mm	Perimetral reinforcements with brackets ≤ 100 mm
Non-cracked concrete	1	1	1
Cracked concrete	1	1,2	1,4

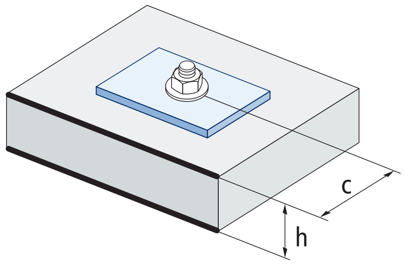


Influence of load application angle $\Psi_{\alpha,V}$										
Angle, α(º)	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
$\Psi_{\alpha,V}$	1,00	1,01	1,05	1,13	1,24	1,40	1,64	1,97	2,32	2,50



$$\Psi_{\alpha,V} = \sqrt{\frac{1}{(\cos \alpha_V)^2 + \left(\frac{\sin \alpha_V}{2,5}\right)^2}} \geq 1$$

Influence of base material thickness $\Psi_{h,V}$										
TH-DEX										
c/h	0,67	0,75	0,85	0,95	1,10	1,30	1,65	2,25	3,30	6,65
$f_{h,V}$	1,00	1,06	1,13	1,19	1,28	1,40	1,57	1,84	2,22	3,16



$$\Psi_{h,V} = \left(\frac{1,5 \cdot C}{h}\right)^{1/2} \geq 1$$

TH-DEX

FIRE RESISTANCE

Characteristic Resistance*				
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
RF30	0,2	0,6	1,3	2,9
RF60	0,2	0,5	1,0	2,2
RF90	0,2	0,4	0,8	1,9
RF120	0,1	0,3	0,6	1,5

Maximum Load Recommended				
	Ø7,5 / 6	Ø10 / 8	Ø12 / 10	Ø16 / 14
RF30	0,2	0,4	0,9	2,1
RF60	0,2	0,4	0,7	1,6
RF90	0,1	0,3	0,6	1,3
RF120	0,1	0,2	0,5	1,0

*The safety factor for design resistance under fire exposure is $\gamma_{M,fi}$=1 (in abscence of other national regulations). As a eresult the Characteristic Resistance is the same as Design Resistance.

RANGE

TH-DEX

Code	Size		Maximum thickness of fixture		
• THDEX06030	6 x 30 Ø5	8	2	100	1.200
• THDEX06040	6 x 40 Ø5	8	12	100	1.200
• THDEX06050	6 x 50 Ø5	8	5	100	1.200
• THDEX06060	6 x 60 Ø5	8	15	100	1.200
• THDEX07035	7,5 x 35 Ø6	10	2	100	1.200
• THDEX07045	7,5 x 45 Ø6	10	12	100	1.200
THDEX07060	7,5 x 60 Ø6	10	5	100	1.200
THDEX07080	7,5 x 80 Ø6	10	25	100	600
THDEX07100	7,5 x 100 Ø6	10	45	100	600
• THDEX10055	10 x 55 Ø8	13	5	50	600
THDEX10065	10 x 65 Ø8	13	5	50	600
THDEX10075	10 x 75 Ø8	13	15	50	300
THDEX10090	10 x 90 Ø8	13	30	50	300

TH-DEX

Code	Size		Maximum thickness of fixture		
THDEX10110	10 x 110 Ø8	13	50	50	300
THDEX10130	10 x 130 Ø8	13	70	50	300
• THDEX12065	12 x 65 Ø10	15	5	50	300
THDEX12075	12 x 75 Ø10	15	5	50	300
THDEX12085	12 x 85 Ø10	15	15	50	300
THDEX12100	12 x 100 Ø10	15	30	50	300
THDEX12120	12 x 120 Ø10	15	50	50	200
THDEX12140	12 x 140 Ø10	15	70	50	200
• THDEX16080	16 x 80 Ø14	18	5	25	150
THDEX16115	16 x 115 Ø14	18	5	25	150
THDEX16135	16 x 135 Ø14	18	25	25	100
THDEX16160	16 x 160 Ø14	18	50	25	75

TH-DAV

Code	Size		Maximum thickness of fixture		
THDAV07072	7,5 x 72 Ø6	T30	17	100	1.200
THDAV07092	7,5 x 92 Ø6	T30	37	100	600
THDAV07112	7,5 x 112 Ø6	T30	57	100	600
THDAV07132	7,5 x 132 Ø6	T30	77	100	600
THDAV07152	7,5 x 152 Ø6	T30	97	100	400

TH-PAN

Code	Size		Maximum thickness of fixture		
• THPAN07050	7,5 X 50 Ø6	T40	17	100	1.200

TH-TRU

Code	Size		Maximum thickness of fixture		
• THTRU07050	7,5 X 50 Ø6	T30	17	100	1.200

• Non assessed sizes. Resistance values and installation data are not applicable to these references. For further information, please contact Technical Department.