Declaration of Performance

Unique identification code of the product-type: Internally Threaded Concrete Expansion Screw

1. Product information

Features and benefits

• Time-efficient installation through streamli-ned procedure - simply drill and drive
• Completely removable
• Unique design with patented thread form en-sures high performance for relatively small hole diameter
• Non-expansion functioning ensures low risk of damage to base material and makes ideal for installation near edges and adja-cent anchors
• High performance in both uncracked and cracked concrete
• Different head types for any application
• Oversize head for fixtures with elongated holes
• Excellent product for temporary fixing
• Suitable for standard and reduced embedment depth

Applications

• Through-fixing
• Temporary anchorages
• Formwork support systems
• Balustrading & handrails
• Fencing & gates manufacturing and installation
• Racking systems
• Public seating
• Scaffolding

Base materials

Approved for use in:

• Cracked concrete C20/25-C50/60
• Non-cracked concrete C20/25-C50/60
• Reinforced concrete
• Hollow-core Slab
C30/37-C50/60
• Unreinforced concrete

Also suitable for use in:

• Natural Stone (after site testing)

2. Installation guide:

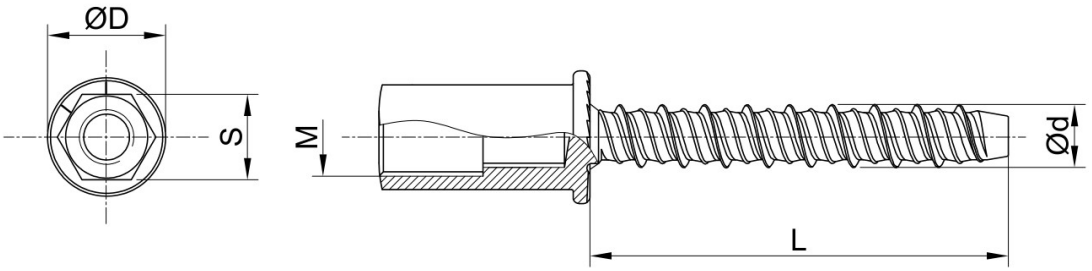
1). Drill the hole with rotary hammer drilling machine. Drill to a required depth.
2). Blow out dust at least 4 times with a hand pump.
3). Tighten the anchor to the substrate.
4). Tighten the anchor to the substrate.
5). After installation a further turning of the screw must not be possible. The head of the screw must be in contact with the substrate and is not damaged.

3.Actual material spec :10B21

Chemical composition:

Material Chemical Composition %					
C	Si	Mn	P	S	Cr
0.20	0.25	0.73	0.019	0.004	0.22
Alt	Ti	B			
0.029	0.024	0.0019			

4. Standard of product:



SIZE	Internally Thread M	Anchor		S	External diameter of washer D
		Diameter d	Length L		
5	M6	6.2	25	10	13
6	M6	7.5	35	13	16
	M8	7.5	35	13	16
	M8/M10	7.5	35	13	16
	M10	7.5	35	13	16
	M8	7.5	55	13	16

	M8/M10	7.5	55	13	16
	M10	7.5	55	13	16
8	M12	10	50	15	18
10	M16	12.4	50	21	24

5.Basic performance data

Installation data

SIZE		5	6	8	10
Thread diameter	mm	6.2	7.5	10	12.4
Hole diameter in substrate	mm	5	6	8	10
Wrench size	mm	8	10	13	15
External diameter of washer	mm	13	16	18	24
Max. torque for impact screw driver	Nm	200	400	900	950
Min. hole depth in substrate	mm	35	50	60	65
Real hole depth in substrate	mm	L+10	L+10-tfix	L+10-tfix	L+10-tfix
Min. installation depth	mm	25	43	50	55
Min. substrate thickness	mm	80	100	100	100
Min. spacing	mm	40	45	50	60
Min. edge distance	mm	40	45	50	60

Mechanical properties

SIZE		5	6	8	10
Nominal ultimate tensile strength - tension	N/mm^2	1300	1250	1200	1050
Nominal yield strength - tension	N/mm^2	1150	1100	1050	950
Cross sectional area - tension	mm^2	19.6	28.3	50.3	78.5
Elastic section modulus	mm^3	12.2	21.2	50.3	98.1
Characteristic bending resistance	Nm	19	31.8	72.4	123.6
Design bending resistance	Nm	12.7	21.2	48.3	82.4

Basic performance data

CHARACTERISTIC LOAD					
TENSION LOAD NRk					
SIZE		5	6	8	10
NON-CRACKED CONCRETE C20/25					
Reduced embedment depth	KN	3	8.9	10.63	12.45
CRACKED CONCRETE C20/25					
Reduced embedment depth	KN	1.67	6.23	7	8

7. Declared performance/s:

Essential characteristics	Performance	Technical specification
Materials	Comply requirement	ITEM 3
Dimensions and tolerances	Comply requirement	ITEM 4
Safety in case of fire	A1	EN 13501-1
Mechanical properties	Comply requirement	ITEM 5

The performance of the product identified above is in conformity with the set of declared performance/s, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:
[*name*]…….....
At [*place*] ……..…….....
on [*date of issue*].....2023.08.24.....
[*signature*].....