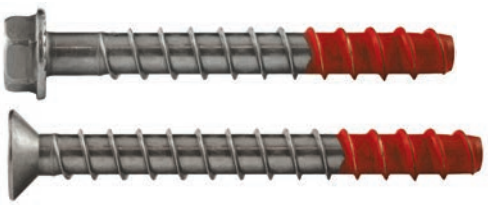
COMPLIES WITH AS 5216:2018

ETA-18/0644 (Part 6)
ETA-18/0643 (Option 1)

UNIQUE BI-METAL WELDING TECHNOLOGY

Stainless Steel



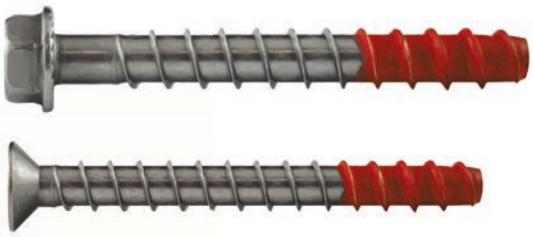
National Code Compliant | European Technical Assessment | Cracked Concrete Approved | Fire Rated Fasteners | 316 A4 Stainless Steel

ThunderBolt®Pro-XTM Stainless
has been introduced to complement the ICCONS suite of ThunderBolt®Pro-XTM anchors which is now available in zinc plated carbon steel, galvanised carbon steel and stainless steel grade 316. The ThunderBolt®Pro-XTM Stainless is a bi-metal design comprising of 316 stainless steel in the fastening section and heat treated carbon alloy in the thread cutting section for effective quick installation in all base material strengths. The ThunderBolt®Pro-XTM Stainless is designed for high load, close to edge applications in severe outdoor environments. The unique cutting action of the ThunderBolt®Pro-XTM Stainless provides stress free installation in concrete and masonry materials.

ThunderBolt®Pro-XTM Stainless Bi-metal Concrete Screw Anchor

- Bi-metal for use in hard concrete
- 316-A4 - Ideal of outdoor severe industrial and marine environments
- Available in flanged hex and countersunk head styles
- Fast installation at reduced torque
- Stamped Hex Head for fast and accurate anchor identification
- Flanged hex head locking serrations designed to resist loosening and improve dynamic load performance
- Chamfered tip centres anchor and aids installation
- Designed for cracked and non-cracked concrete
- No expansion, ideal for close to edge applications
- Removable
- Red tip for site traceability and quality
- Fire rated range
- ETA assessment – ETA-18/0644 and ETA-18/0643
- Complies with AS 5216:2018 and SA TS 101:2015 (Design of post-installed and cast-in fastenings in concrete)*

*Refer to select range



ETA-18/0644 (Part 6)
ETA-18/0643 (Option 1)

316 SS EXTERNAL

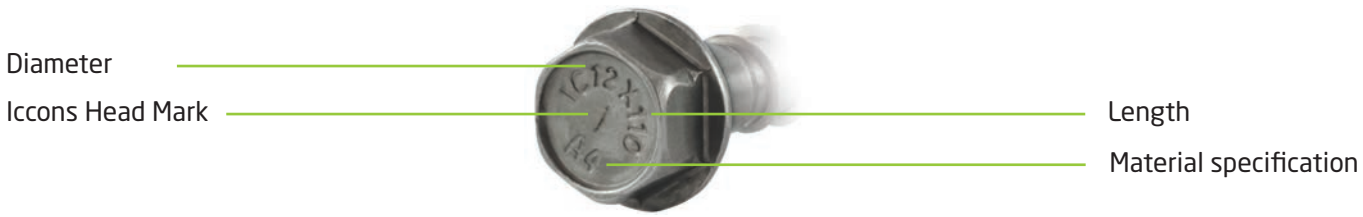
Part No.	Head Style	Description	Drill Size (mm)	Embedment Depth h_{nom} (mm)	Drill Depth h_1 (mm)	Fixture Thickness (mm)	Clearance Hole (mm)	Impact Screw Gun T_{max} (Nm)	Installation Socket/Torx	ETA Assessment	Qty Inner	Qty Outer
Approved range - Part 6 (multiple fixings)												
SXTM06075SS-A	Hex	6 x 75	6	70	80	5	9	80-120	10	Part 6	100	400
SXTM08070SS-A	Hex	8 x 70	8	52	62	18	11	120	13	Part 6	80	320
SXTMCS06080SS-A	CSK	6 x 80	6	70	80	10	9	80-120	T-40	Part 6	100	400
Approved range - Option 1 (single fixings)												
SXTM08090SS-A	Hex	8 x 90	8	85	95	5	11	120	13	Option 1	80	320
SXTM10120SS-A	Hex	10 x 120	10	100	110	20	13	185	17	Option 1	35	140
SXTM12125SS-A	Hex	12 x 125	12	120	130	5	15	185	19	Option 1	25	100
SXTMCS08095SS-A	CSK	8 x 95	8	85	95	10	11	120	T-45	Option 1	80	320
Non-approved range												
SXTM06060SS	Hex	6 x 60	6	55	65	5	9	80-120	10	-	100	400
SXTM10090SS	Hex	10 x 90	10	75	85	15	13	185	17	-	45	180
SXTM10100SS	Hex	10 x 100	10	75	85	25	13	185	17	-	45	180
SXTM12110SS	Hex	12 x 110	12	95	105	15	15	185	19	-	30	120

BI-METAL CONCRETE SCREW ANCHOR DIMENSIONS

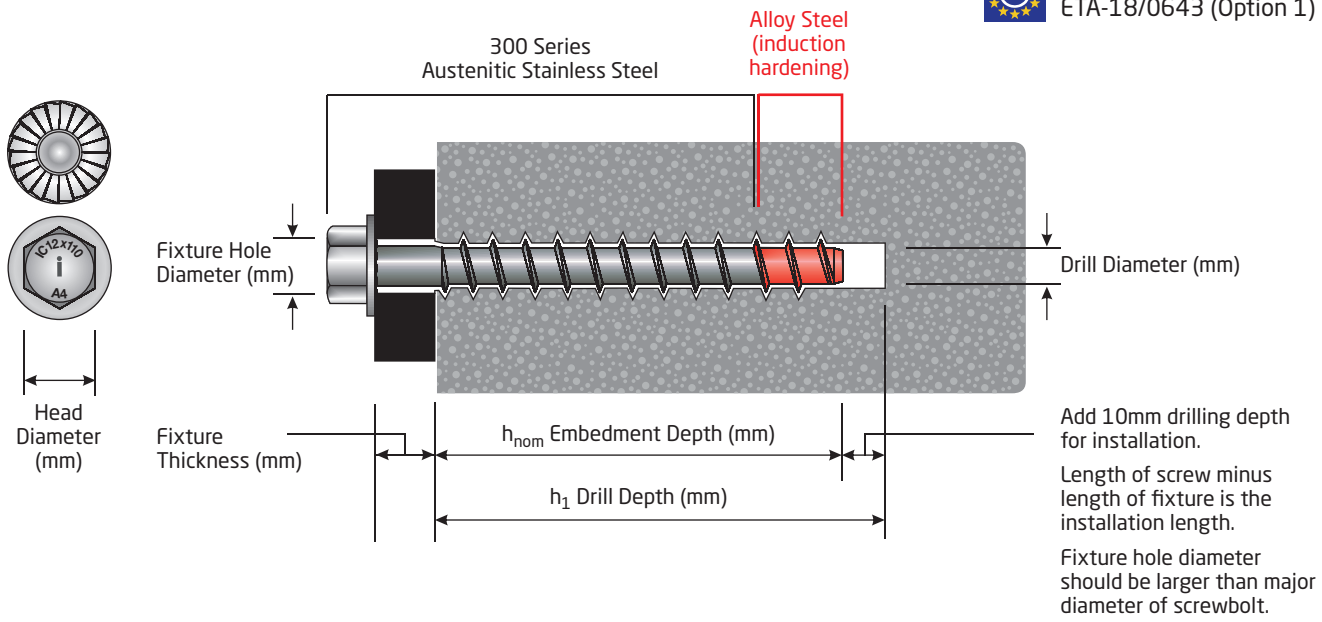
Anchor Size (mm)		6	8	10	12
Major diameter	mm	7.5	10	12.5	14.3
Length of the hardened tip	mm	17	21	27	27
Core diameter	mm	5.5	7.4	9.4	11.3
Thread pitch	mm	4.45	5.8	7.8	8.1
Material	A4 1.4401 according to EN10263-5				
Material of the hardened tip	Steel according to EN10263-4				

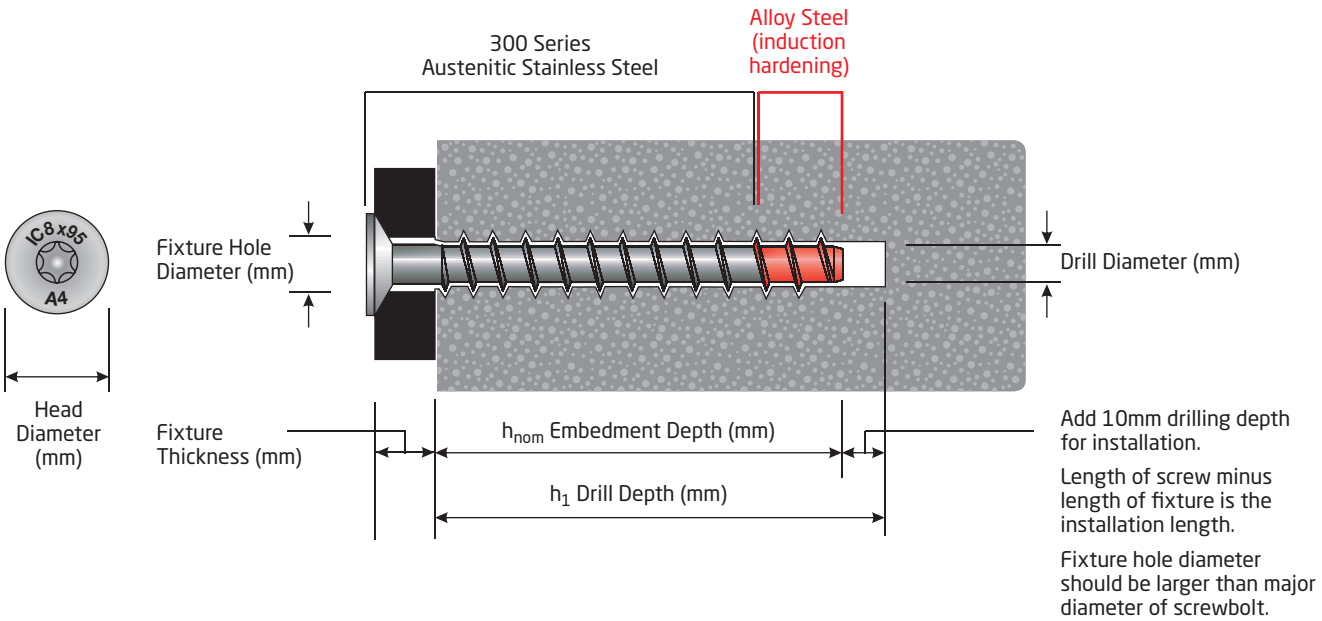
MATERIAL CONTENT

Bi-metal screw anchor uses stainless steel that conforms to the EN-10263-5 standard	
Steel type	Austenitic
Steel spec	A4-316
Strength level (min)	Tensile strength 500N / mm^2



ETA-18/0644 (Part 6)
ETA-18/0643 (Option 1)





INSTALLATION DATA

Anchor Size	mm	6	8		10	12
		ETA Assessment Part 6	ETA Assessment Part 6	ETA Assessment Option 1	ETA Assessment Option 1	ETA Assessment Option 1
Drill Dia.	(mm)	6	8		10	12
Embed. Depth h_{nom}	(mm)	70	52	85	100	120
Drill Depth h_1	(mm)	80	62	95	110	130
Clearance hole	(mm)	9	11		13	15
Impact Screw Gun T_{max}*	(Nm)	80-120	120		185	185
Installation - Socket/Torx	(mm)	10mm / T-40	13mm / T-45		17	19

*Maximum torque capacity of Impact Screw Gun for use during installation

ETA-18/0644 (Part 6)
ETA-18/0643 (Option 1)

Design Loads – Approved ThunderBolt®Pro-XTM Stainless

Part No.	Head Style	Description	Size (mm)	Embed. Depth h_{nom} (mm)	Non cracked concrete 20 MPa Tension (kN)	20 MPa Shear (kN)	32 MPa Tension (kN)	32 MPa Shear (kN)	40 MPa Tension (kN)	40 MPa Shear (kN)	Cracked concrete 20 MPa Tension (kN)	20 MPa Shear (kN)	32 MPa Tension (kN)	32 MPa Shear (kN)	40 MPa Tension (kN)	40 MPa Shear (kN)	ETA
Design Loads - Part 6 (Multiple Fixings) ETA-18/0644																	
SXTM06075SS-A	Hex	6 x 75	6	70	3.3	6.8	4.2	7.2	4.7	7.2	3.3	6.8	4.2	7.2	4.7	7.2	Part 6
SXTMCS06080SS-A	CSK	6 x 80	6	70	2.3	4.9	2.9	4.9	3.3	4.9	2.3	4.9	2.9	4.9	3.3	4.9	Part 6
SXTM08070SS-A	Hex	8 x 70	8	52	1.3	2.5	1.6	3.2	1.8	3.6	1.3	2.5	1.6	3.2	1.8	3.6	Part 6
Design Loads - Option 1 (Single Fixings) ETA-18/0643																	
SXTM08090SS-A	Hex	8 x 90	8	85	4.3	12.6	5.4	13.2	6.1	13.2	2.1	9.0	2.7	11.4	3.0	12.7	Option 1
SXTMCS08095SS-A	CSK	8 x 95	8	85	2.6	9.0	3.3	9.0	3.7	9.0	2.1	9.0	2.7	9.0	3.0	9.0	Option 1
SXTM10120SS-A	Hex	10 x 120	10	100	10.7	15.1	13.5	19.2	15.1	21.4	4.7	10.8	5.9	13.7	6.6	15.3	Option 1
SXTM12125SS-A	Hex	12 x 125	12	120	13.9	31.2	17.5	31.2	19.6	31.2	6.7	31.2	8.4	31.2	9.5	31.2	Option 1

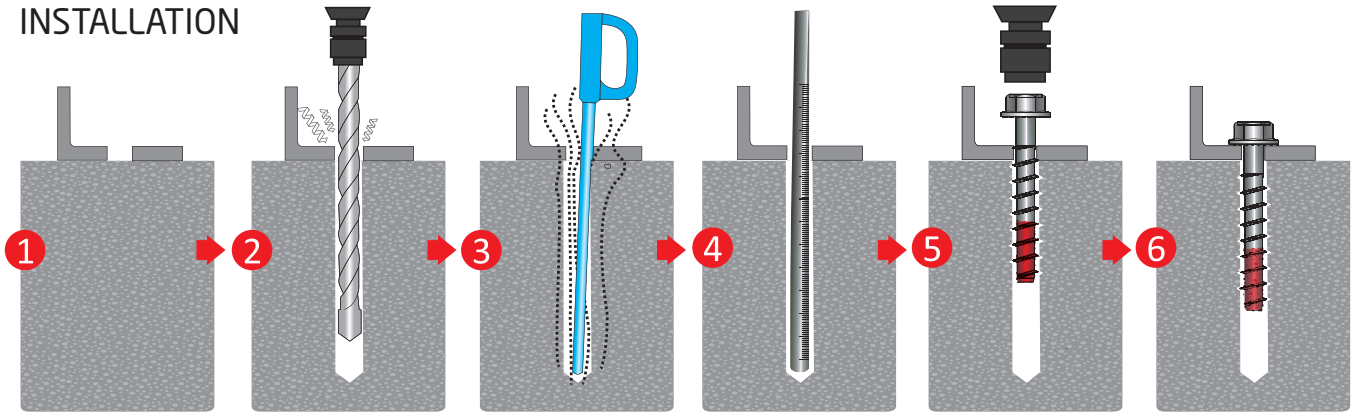
Note: The ThunderBolt®Pro-XTM stainless anchor may be used in applications subject to static or quasi-static loading in reinforced or unreinforced normal weight concrete of strength classes C20/25 - C50/60. The anchor may be used in cracked or non-cracked concrete. For specific design information including minimum edge, anchor spacing and fire information please refer to ETA-18/0644 & ETA-18/0643. Performance data in the above table has been calculated using the relevant published ETA documents and design and compliance is in accordance with TR 055 / SA TS 101:2015 / AS 5216:2018.

Design Loads – NON-Approved ThunderBolt®Pro-XTM Stainless

Part No.	Head Style	Description	Size (mm)	Embed. Depth h_{nom} (mm)	Non cracked concrete 20 MPa Tension (kN)	20 MPa Shear (kN)	32 MPa Tension (kN)	32 MPa Shear (kN)	40 MPa Tension (kN)	40 MPa Shear (kN)
SXTM06060SS	Hex	6 x 60	6	55	1.3	2.5	1.6	3.2	1.8	3.6
SXTM10090SS	Hex	10 x 90	10	75	4.3	12.6	5.4	13.2	6.1	13.2
SXTM10100SS	Hex	10 x 100	10	75	4.3	12.6	5.4	13.2	6.1	13.2
SXTM12110SS	Hex	12 x 110	12	95	10.7	15.1	13.5	19.2	15.1	21.4

Note: The ThunderBolt®Pro-XTM stainless non-approved anchor range may be used in applications that are considered NOT safety critical. For safety critical applications a design professional responsible for the application must review and approve the product as fit for purpose prior to use. Design loads left have an appropriate safety factor already incorporated in the loads based on the assessed mode of failure limits.

INSTALLATION



1. Position fixture.
2. With the correct diameter drill bit, drill a hole to a depth of at least 10mm deeper than the required embedment depth.
3. Clean dust and other material from the drilled hole.
4. Measure the drill depth and ensure it's equal to h_1.
5. Screw in the anchor using a torque wrench or impact screw gun. Refer to installation data for details.
6. Continue to tighten the anchor until head is firmly seated against fixture.

   Installation complete!

BASE MATERIALS