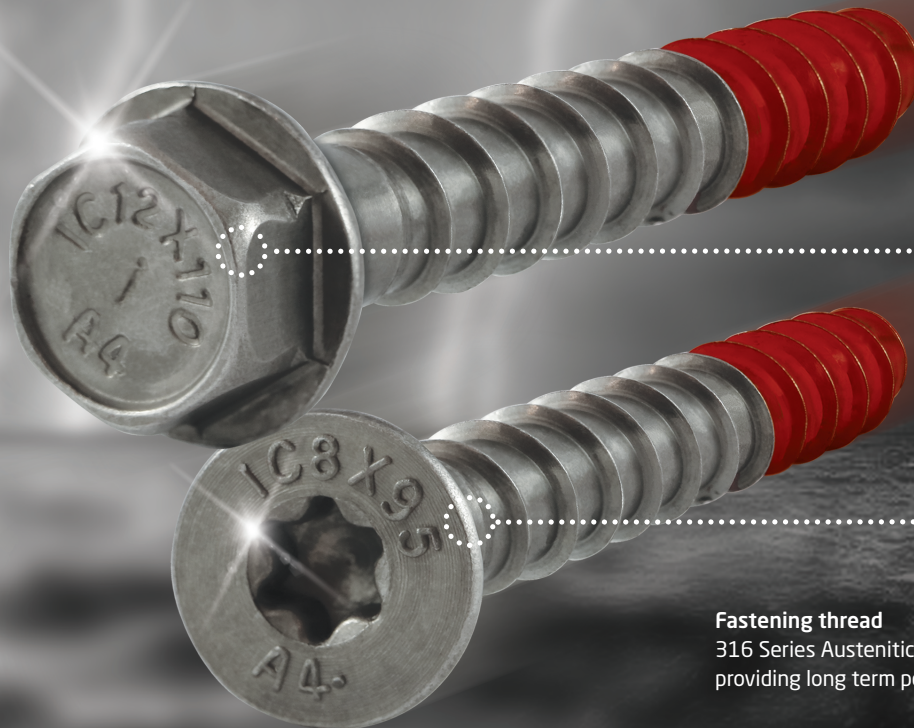




**COMPLIES WITH AS 5216:2018**



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



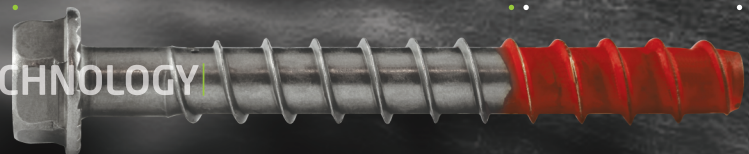
Stamped head for fast and accurate anchor identification

Stamped CSK head for fast and accurate anchor identification

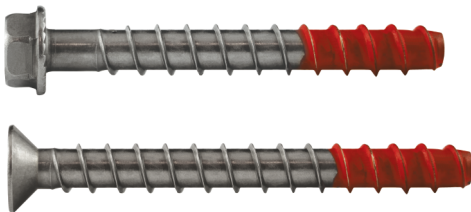
**Fastening thread**  
316 Series Austenitic Stainless Steel  
providing long term performance.

**Carbon alloy tapping thread**  
Unique hardening process  
provides good tapping  
performance in concrete

**UNIQUE BI-METAL WELDING TECHNOLOGY**



## Stainless Steel



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.



National  
Code  
Compliant



European  
Technical  
Assessment



Cracked  
Concrete  
Approved



Fire  
Rated  
Fasteners

316  
A4

Stainless  
Steel

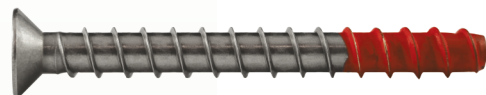
## ThunderBolt® Pro-XTM Stainless Bi-metal Concrete Screw Anchor

- 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)	CSK Head Diameter (mm)	Installation Socket/Torx	ETA Assessment	Qty Inner	Qty Outer
Approved range - Part 6 (multiple fixings)													
<b>SXTM06075SS-A</b>	Hex	6 x 75	6	70	80	5	9	80-120		10	Part 6	100	400
<b>SXTM08070SS-A</b>	Hex	8 x 70	8	52	62	18	11	120		13	Part 6	80	320
<b>SXTMCS06080SS-A</b>	CSK	6 x 80	6	70	80	10	9	80-120	15.6	T-40	Part 6	100	400
Approved range - Option 1 (single fixings)													
<b>SXTM08090SS-A</b>	Hex	8 x 90	8	85	95	5	11	120		13	Option 1	80	320
<b>SXTM10120SS-A</b>	Hex	10 x 120	10	100	110	20	13	185		17	Option 1	35	140
<b>SXTM12125SS-A</b>	Hex	12 x 125	12	120	130	5	15	185		19	Option 1	25	100
<b>SXTMCS08095SS-A</b>	CSK	8 x 95	8	85	95	10	11	120	18.0	T-45	Option 1	80	320
Range not included in ETA Assessment													
<b>SXTM06060SS</b>	Hex	6 x 60	6	55	65	5	9	80-120		10	-	100	400
<b>SXTM10090SS</b>	Hex	10 x 90	10	75	85	15	13	185		17	-	45	180
<b>SXTM10100SS</b>	Hex	10 x 100	10	75	85	25	13	185		17	-	45	180
<b>SXTM12110SS</b>	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				

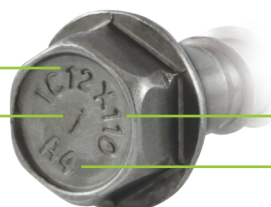
## MATERIAL CONTENT

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 <sup>2</sup>

Diameter

Icons Head Mark

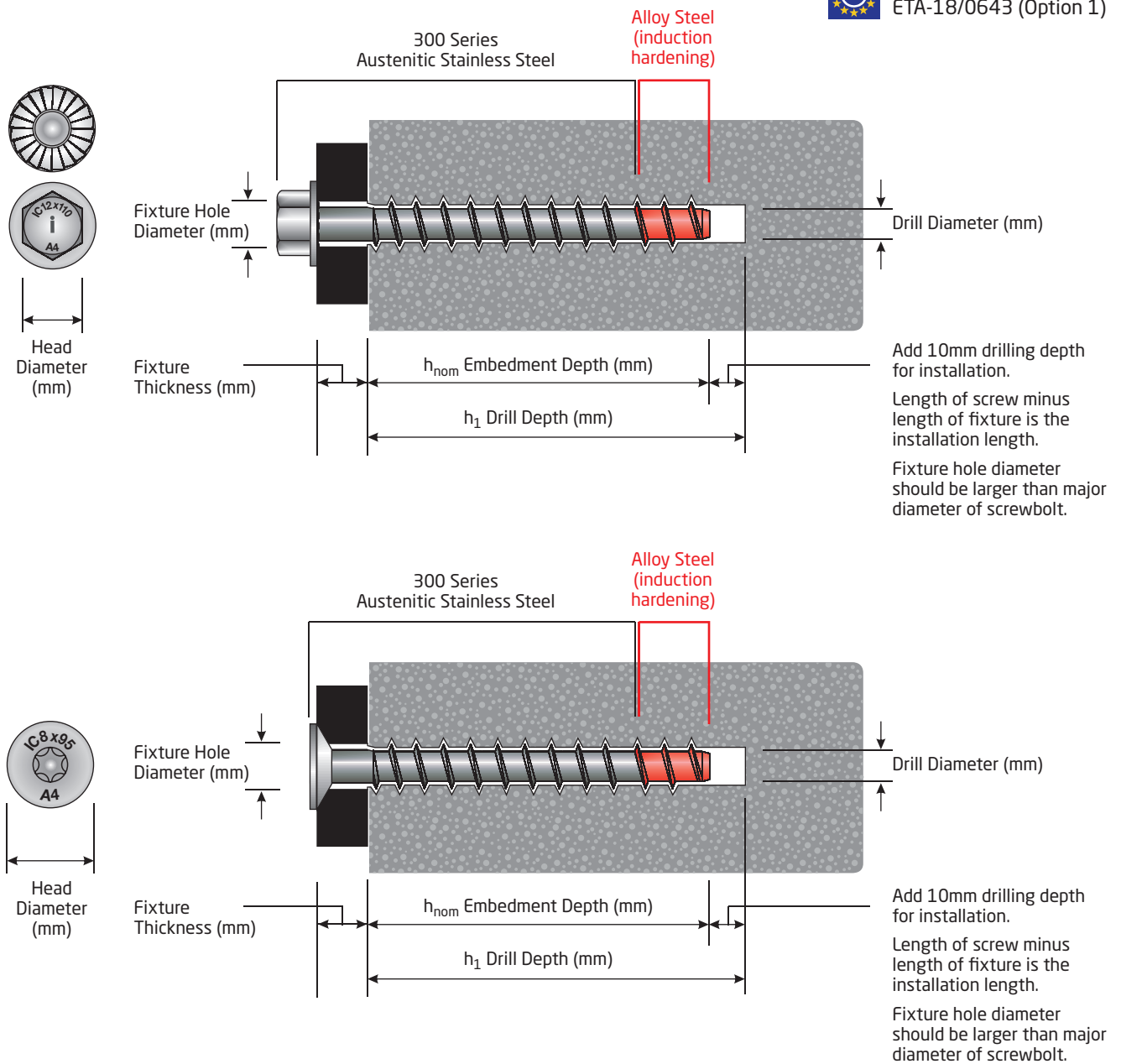


Length

Material specification



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

					Non cracked concrete						Cracked concrete							
Part No.	Head Style	Description	Size (mm)	Embed. Depth $h_{nom}$ (mm)	20 MPa		32 MPa		40 MPa		20 MPa		32 MPa		40 MPa		 ETA	
					Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)		

#### 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.

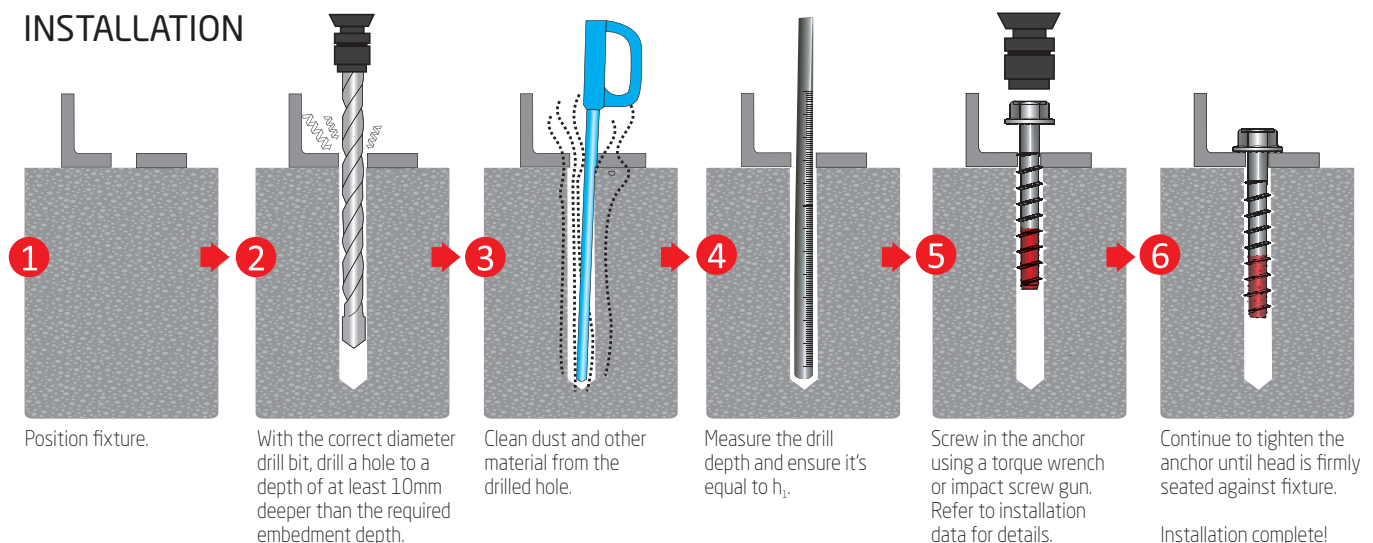
### Design Loads - ThunderBolt®Pro-XTM Stainless (sizes not included in ETA Assessment)

Part No.	Head Style	Description	Size (mm)	Embed. Depth $h_{nom}$ (mm)	Non cracked concrete					
					20 MPa		32 MPa		40 MPa	
					Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	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



## BASE MATERIALS

