

Low profile hex or Countersunk head

High tensile class 8.8 bolt with extra thick-walled spacer and maximum fixture thickness indicator

Patented anti-rotation expansion sleeve with pull-down section and locking bars

Description

The SpaTec™ Plus Safety Anchor is a heavy duty, torque controlled expansion anchor, with an integrated pull-down section, designed for high performance in both static and dynamic load applications, in both cracked and non-cracked concrete*. The SpaTec™ Plus is ideally suited for through fixing into concrete when security and reliability are paramount.

* Whether a concrete element is classified as cracked or non-cracked is to be determined by a qualified structural engineer.

Specification

Material - Bolt	Class 8.8 High Tensile Carbon Steel (316 (A4) Stainless Steel available to order)
Corrosion Protection	Zinc Plating
Head Styles	Hex or Countersunk. (SP16145ESS-Hex Nut)
Fixing Method	Through Fixture
Setting Method	Torque Controlled
Anchoring Method	Expansion
Thread Diameters	M10, M12, M16, M20
Drilled Hole Diameters	15mm, 18mm, 24mm, 28mm
Anchor Lengths	105mm, 110mm, 120mm, 130mm, 145mm, 170mm
Maximum Fixture Thickness*	10mm, 20mm, 25mm, 27mm, 40mm
Indicative Working Loads in 32MPa Concrete*	Max Tensile 16.7kN - 46.0kN Max Shear 19.3kN - 75.8kN
Substrates	Concrete

* Refer to load table

Related Products

DynaDrill™	Hole Cleaning Brush
Carbide Drill Bits	Hole Cleaning Pump
Diamond Motor	Wet and Dry Vacuum
Diamond Core Drill Bits	



Features & Benefits

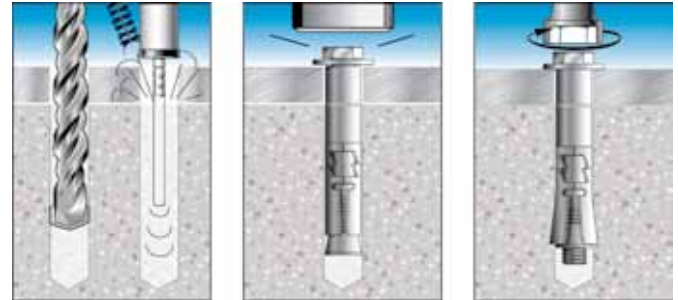
- The combination of a high tensile class 8.8 bolt with an extra thick-walled spacer allows a smaller diameter bolt to be used for easier installation while still providing both excellent tensile and shear performance. The spacer also incorporates a visual maximum fixture thickness indicator for ease of use.
- The patented anti-rotation expansion sleeve is designed with sharp angled protrusions that grip the sides of the hole, preventing anchor rotation during installation. As expansion of the sleeve begins, the locking bars also grip the sides of the hole, further embedding as expansion progresses, giving extra holding power. The sleeve pulls down during tightening ensuring excellent pressure between the fixture and the concrete.
- The low profile hex or countersunk heads provide a neat finish.

Trades & Applications

	Steel Fabricator	Maintenance Fitter	Plumbing Contractor	Electrical Contractor	Construction Contractor	Elevator Installer
Anchoring structural steel columns/beams	✓					
Anchoring HVAC units			✓	✓		
Machinery hold down		✓				
Anchoring crane rails					✓	
Anchoring Elevator Guide Rails						✓

Installation

1. Drill or core a hole to the recommended diameter and depth using the fixture as a template. Clean the hole thoroughly with a hole cleaning brush. Remove the debris with a hand pump, compressed air, or vacuum.
2. After ensuring that the anchor is assembled correctly, insert the anchor through the fixture and drive with a hammer until the washer contacts the fixture.
3. Tighten the bolt with a torque wrench to the specified assembly torque.



Heavy Duty Anchors



SpaTec™ Plus Safety Anchors - Hex Bolt - Zinc Plated

Part No	Thread Size	Max Fixture Thickness (mm)	Overall Anchor Length (mm)	Drilled Hole Ø (mm)	Fixture Hole Ø (mm)	Min Hole Depth (mm)	Effective Length (mm)	Order Qty
SP10105	M10	20	105	15	17	95	90	25
SP12105	M12	10	105	18	20	95	90	25
SP12120	M12	25	120	18	20	115	105	25
SP16145	M16	25	145	24	26	135	125	10
SP20170	M20	25	170	28	32	165	150	5



SpaTec™ Plus Safety Anchors - Countersunk Head - Zinc Plated

Part No	Thread Size	Max Fixture Thickness (mm)	Overall Anchor Length (mm)	Drilled Hole Ø (mm)	Fixture Hole Ø (mm)	Min Hole Depth (mm)	Effective Length (mm)	Order Qty
SP10105F	M10	27	105	15	17	95	97	25
SP12120F	M12	40	130	18	20	105	120	10



Available to order.
Lead times apply.

SpaTec™ Plus Safety Anchors - Hex Bolt - Stainless Steel Grade AISI 316 (A4)

Part No	Thread Size	Max Fixture Thickness (mm)	Overall Anchor Length (mm)	Drilled Hole Ø (mm)	Fixture Hole Ø (mm)	Min Hole Depth (mm)	Effective Length (mm)	Order Qty
SP10110SS	M10	25	110	15	17	100	90	25
SP12120SS	M12	25	120	18	20	115	105	25
SP16145ESS*	M16	25	145	24	26	130	125	10

*Hex nut assembly

SpaTec™ Plus Safety Anchors - Indicative Working Loads in 32MPa Concrete

Thread Size	Embedment Depth (mm)	Tightening Torque (Nm)	Min Edge Distance (mm)	Min Anchor Spacing (mm)	Max Tensile Load, N _a (kN)*	Max Shear Load, V _a (kN)*
M10	80	50	120	240	16.7	19.3
M12	95	80	145	285	22.6	27.6
M16	115	120	175	345	32.4	52.3
M20	140	200	210	420	46.0	75.8

*The design engineer should ensure the structural element is capable of supporting these loads. Refer to Ramset™ Specifiers Resource Book for more information or explanation of technical data.