

## Spit Fix II Assembled Through Bolt Anchor Range



### Spit Fix self expanding stud anchor range

Torque controlled mechanical through fixing, for speed and efficiency on site. The Fix family is now available in a range of finishes.

### Product Advantages

- Load assisted through fixing
- Anti-rotation expansion sleeve
- Drill bit required is same diameter as anchor
- Chamfered head to protect the threads during installation
- Expansion sleeve design ensures maximum expansion
- Nut of Class 8 European Standard
- Rolled thread to increase the strength
- Sleeve with gradient to ensure quick tightening
- Zinc coated expansion sleeve
- Sleeve with 3 legs to distribute the expansion stress on the whole cone
- Lugs to avoid the rotation of the sleeve during tightening
- The new expansion sleeve offers 3 legs for better expansion, 6 lugs for better fixing and a zinc coated expansion sleeve (high quality)
- There is now an improved efficiency. On average the Fix II needs 25% less hammer blows to install the anchor and 20% less turns of the anchor to achieve full torque
- The new Spit Fix II now comes assembled

### Substrates

- Concrete
- For non cracked concrete

### Approvals



#### ETA option 7

Achieved in non-cracked concrete for Spit Fix II BZP

### Typical Applications

- Steel and timber framework and beams
- Lift guide rails
- Industrial doors and gates
- Brickwork support angles
- Storage systems / pallet racking
- Stadium seating
- Brick ties

### Specification

#### Spit Fix II

Torque controlled expansion anchor, installed by hammering the bolt through the fixture. Expansion clip profile ensures the anchor pre-grips the hole surface prior to setting. Tightening the anchor, the body pulls into the expansion sleeve, expanding the clip. The anchor exerts a clamping force onto the fixture, securing it against the surface of the substrate.

Bolt grade: S 300 Pb NFA 35561 or FR 28 NFA 35053

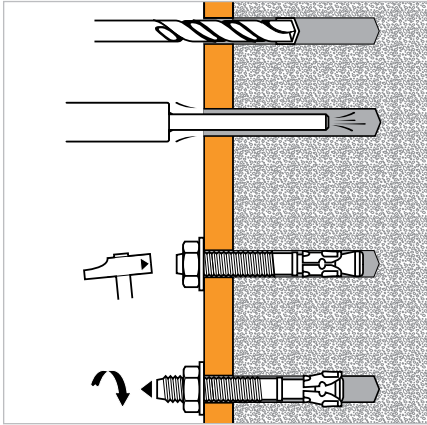
Expansion sleeve: F12T1 NFA 37501 or XE NFA 36401

Washer: E24 or equivalent to NFE25 - 513

Nut grade: 6 or 8 NF EN 20898 - 2, zinc plated to 5µm

## Spit Fix II Assembled Through Bolt Anchor Range

### Installation



1. Drill the correct diameter hole to the required depth for the Spit Fix selected.
2. Remove debris from hole by blowing out with compressed air or hand held blow out pump.
3. Pre assemble nut and washer.
4. Install the anchor in the hole with a hammer until washer seats on fixture.
5. Tighten bolt with a torque wrench to recommended assembly torque.

### Product Range - Spit Fix II Assembled Through Bolt Anchor Zinc Plated



Eurocode	Thread Diameter	Drill Diameter	Max Fixture Thickness*	Min Anchor Depth	Drilling Depth	Min Thickness of Base Material	Overall Anchor Length	Max Tightening Torque	Box Qty
050510	M6	6mm	10mm	25.6mm	41mm	100	45mm	10Nm	100
050520	M6	6mm	20mm	25.6mm	41mm	100	55mm	10Nm	100
050530	M6	6mm	50mm	25.6mm	41mm	100	85mm	10Nm	100
050435	M8	8mm	5 - 0mm	35mm	52mm	100	55mm	15Nm	100
056410	M8	8mm	20 - 7mm	35mm	52mm	100	70mm	15Nm	100
056420	M8	8mm	40 - 27mm	35mm	52mm	100	90mm	15Nm	50
056430	M8	8mm	80 - 67mm	35mm	52mm	100	130mm	15Nm	50
050436	M10	10mm	5 - 0mm	42mm	62mm	100	65mm	30Nm	50
056530	M10	10mm	15 - 5mm	42mm	62mm	100	75mm	30Nm	50
056540	M10	10mm	36 - 25mm	42mm	62mm	100	96mm	30Nm	50
050375	M10	10mm	60 - 50mm	42mm	62mm	100	120mm	30Nm	25
056550	M10	10mm	80 - 70mm	42mm	62mm	100	140mm	30Nm	25
050376	M12	12mm	5 - 0mm	50mm	75mm	100	80mm	50Nm	20
056580	M12	12mm	25 - 8mm	50mm	75mm	100	100mm	50Nm	20
050374	M12	12mm	40 - 23mm	50mm	75mm	100	115mm	50Nm	25
056590	M12	12mm	65 - 48mm	50mm	75mm	100	140mm	50Nm	25
050377	M12	12mm	85 - 65mm	50mm	75mm	100	160mm	50Nm	25
056650	M12	12mm	105 - 88mm	50mm	75mm	100	180mm	50Nm	25
056660	M12	12mm	145 - 128mm	50mm	75mm	100	220mm	50Nm	25
050378	M16	16mm	5 - 0mm	64mm	95mm	128	100mm	100Nm	25
056700	M16	16mm	30 - 8mm	64mm	95mm	128	125mm	100Nm	25
050379	M16	16mm	55 - 33mm	64mm	95mm	128	150mm	100Nm	10
056710	M16	16mm	75 - 53mm	64mm	95mm	128	170mm	100Nm	10
050382	M20	20mm	10 - 0mm	74mm	110mm	148	120mm	160Nm	10
056730	M20	20mm	50 - 25mm	74mm	110mm	148	160mm	160Nm	10
056740	M20	20mm	105 - 80mm	74mm	110mm	148	215mm	160Nm	10

\* Where there are two figures given, the second is maximum fixture thickness in case of deep embedment

## Spit Fix II Assembled Through Bolt Anchor Range

### Spit Fix II Recommended Loads (for one anchor without edge or spacing influence)

Anchor Size	Tensile Load (kN)		Tensile Load (kN)		Shear Load (kN)
	h <sub>ef</sub>	N <sub>rec</sub>	h <sub>ef</sub>	N <sub>rec</sub>	V <sub>rec</sub>
M8	35.0	2.7	48.0	4.0	3.0
M10	42.0	3.8	52.0	4.7	8.9
M12	50.0	8.7	68.0	9.5	14.6
M16	64.0	14.3	86.0	19.2	17.4
M20	74.0	16.7	100.0	25.0	38.0

### Product Range - Spit Fix II Assembled Through Bolt Anchor Range - Hot Dipped Galvanised (Replaces Trubolt)



Eurocode	Thread Diameter	Drill Diameter	Max Fixture Thickness*	Min Anchor Depth	Drilling Depth	Min Thickness of Base Material	Overall Anchor Length	Max Tightening Torque	Box Qty
050310	8mm	8mm	20mm	35mm	52mm	100mm	70mm	15Nm	100
050320	8mm	8mm	40mm	35mm	52mm	100mm	90mm	15Nm	50
050330	8mm	8mm	80mm	35mm	52mm	100mm	130mm	15Nm	50
050350	10mm	10mm	15mm	42mm	62mm	100mm	75mm	30Nm	50
050360	10mm	10mm	35mm	42mm	62mm	100mm	95mm	30Nm	50
050340	10mm	10mm	60mm	42mm	62mm	100mm	120mm	30Nm	25
050370	10mm	10mm	80mm	42mm	62mm	100mm	140mm	30Nm	25
050390	12mm	12mm	25mm	50mm	75mm	100mm	100mm	50Nm	20
050400	12mm	12mm	65mm	50mm	75mm	100mm	140mm	50Nm	25
050410	12mm	12mm	105mm	50mm	75mm	100mm	180mm	50Nm	25
050440	16mm	16mm	30mm	64mm	95mm	128mm	125mm	100Nm	25
050450	16mm	16mm	75mm	64mm	95mm	128mm	170mm	100Nm	10

## Spit Fix Z Assembled Through Bolt Anchor Range



### Substrates

- Concrete
- For non cracked concrete

### Approvals



#### ETA option 1

Achieved in cracked concrete for Spit Fix Z A4 + BZP

### Spit Fix Z self expanding stud anchor range

The latest addition to the 'Fix' Throughbolt Range. ETA Option 1 approved for an assured fix into cracked and non-cracked concrete.

### Product Advantages

- Load assisted through fixing
- Anti-rotation expansion sleeve
- Drill bit required is same diameter as anchor
- Chamfered head to protect the threads during installation
- Expansion sleeve design ensures maximum expansion
- Nut of Class 8 European Standard
- Rolled thread to increase the strength
- Sleeve with gradient to ensure quick tightening
- Zinc coated expansion sleeve
- Sleeve with 3 legs to distribute the expansion stress on the whole cone
- Lugs to avoid the rotation of the sleeve during tightening
- Spit Fix Z A4 offers a stainless steel body for better corrosion resistance and better behaviour in cracked concrete. Therefore achieving ETA option 1 for cracked concrete
- The new expansion sleeve offers 3 legs for better expansion, 6 lugs for better fixing and a zinc coated expansion sleeve (high quality)

### Typical Applications

- Steel and timber framework and beams
- Lift guide rails
- Industrial doors and gates
- Brickwork support angles
- Storage systems

### Specification

Torque controlled expansion anchor, installed by hammering the bolt through the fixture. Expansion clip profile ensures the anchor pre-grips the hole surface prior to setting. Tightening the anchor, the body pulls into the expansion sleeve, expanding the clip. The anchor exerts a clamping force onto the fixture, securing it against the surface of the substrate.

#### Spit Fix Z A4

Bolt grade: A4 - 70 grade X2 Cr Ni Mo 17-12-2 NF ISO / DIS 3506-1

Expansion sleeve: A4 grade X2 Cr Ni Mo 17 - 12 - 2 NF EN 10088 - 2

Washer: A4 grade X5 Cr Ni Mo 17 - 12 - 2

Nut grade: A4 - 80 grade X5 Cr Ni Mo 17 - 12 - 2 F ISO / DIS 3506 - 2 100 134

#### Spit Fix Z BZP

Bolt M8-M16: Cold formed steel, DIN 1654 part 2 or 4 / Zinc electroplated Zn5C/Fe (5µm), NFA 91102

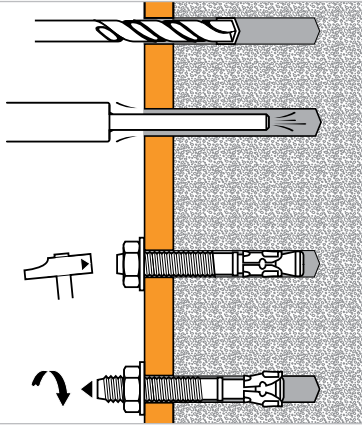
Sleeve: Cold-rolled stainless steel, 1.4404, finish 2B, EN 10088

Washer: Steel, NFE 25514

Hexagonal nut: Strength grade 8, EN 20898-2 / Zinc electroplated (5µm), NFE 25009

## Spit Fix Z Assembled Through Bolt Anchor Range

### Installation



1. Drill the correct diameter hole to the required depth for the Spit Fix selected.
2. Remove debris from hole by blowing out with compressed air or hand held blow out pump.
3. Pre assemble nut and washer.
4. Install the anchor in the hole with a hammer until washer seats on fixture.
5. Tighten bolt with a torque wrench to recommended assembly torque.

### Product Range - Spit Fix Z Assembled Through Bolt Anchor Range - Stainless Steel A4-316



Eurocode	Thread Diameter	Drill Diameter	Max Fixture Thickness*	Min Anchor Depth	Drilling Depth	Min Thickness of Base Material	Overall Anchor Length	Max Tightening Torque	Box Qty
050441	M8	8mm	5mm	35mm	52mm	100mm	55mm	20mm	100
054610	M8	8mm	20 - 7mm	35mm	52mm	100mm	70mm	20mm	100
054620	M8	8mm	40 - 7mm	35mm	52mm	100mm	90mm	20mm	100
050367	M8	8mm	80 - 67mm	35mm	52mm	100mm	130mm	20mm	50
050466	M10	10mm	5mm	42mm	62mm	100mm	65mm	35mm	50
054630	M10	10mm	15mm	42mm	62mm	100mm	75mm	35mm	50
054640	M10	10mm	35 - 20mm	42mm	62mm	100mm	95mm	35mm	50
050442	M10	10mm	60 - 45mm	42mm	62mm	100mm	120mm	35mm	25
054670	M12	12mm	5mm	50mm	75mm	100mm	80mm	50mm	20
054650	M12	12mm	25 - 6mm	50mm	75mm	100mm	100mm	50mm	20
050368	M12	12mm	40 - 21mm	50mm	75mm	100mm	115mm	50mm	25
054680	M12	12mm	65 - 46mm	50mm	75mm	100mm	140mm	50mm	25
050443	M16	16mm	30 - 8mm	64mm	95mm	128mm	125mm	100mm	25
054700	M16	16mm	55 - 33mm	64mm	95mm	128mm	150mm	100mm	10
050444	M16	16mm	75 - 58mm	64mm	95mm	128mm	170mm	100mm	10

\* Where there are two figures given, the second is maximum fixture thickness in case of deep embedment

### Spit Fix Z A4 Recommended Loads (for one anchor without edge or spacing influence)

Anchor Size	Tensile Load (kN) Non Cracked Concrete				Tensile Load (kN) Cracked Concrete				Shear Load (kN)
	Non Cracked Concrete		Cracked Concrete		Cracked Concrete		Cracked and Non Cracked Concrete		V <sub>rec</sub>
	hef min	N <sub>rec</sub>	hef max	N <sub>rec</sub>	hef min	N <sub>rec</sub>	hef max	N <sub>rec</sub>	
M8	35.0	3.8	48.0	8.2	35.0	3.6	48.0	7.0	8.2
M10	42.0	4.7	58.0	9.1	42.0	4.3	58.0	9.0	11.9
M12	50.0	6.5	70.0	10.2	50.0	6.8	70.0	12.8	17.2
M16	64.0	11.5	86.0	21.0	64.0	11.8	86.0	23.6	20.4

## Spit Fix Z Assembled Through Bolt Anchor Range

### Product Range - Spit Fix Z BZP Assembled Through Bolt Anchor



Eurocode	Thread	Drill	Max Fixture	Min Anchor	Drilling	Min Thickness of	Overall Anchor	Max Tightening	Box
	Diameter	Diameter	Thickness	Depth	Depth	Base Material	Length	Torque	Qty
056330	M8	8mm	9mm	46mm	65mm	100mm	70mm	20Nm	100
056340	M8	8mm	29mm	46mm	65mm	100mm	90mm	20Nm	50
056350	M8	8mm	49mm	46mm	65mm	100mm	110mm	20Nm	50
056370	M10	10mm	9mm	58mm	80mm	120mm	85mm	35Nm	50
056380	M10	10mm	20mm	58mm	80mm	120mm	96mm	35Nm	50
056390	M10	10mm	64mm	58mm	80mm	120mm	140mm	35Nm	25
056600	M12	12mm	8mm	68mm	95mm	140mm	100mm	50Nm	20
056610	M12	12mm	23mm	68mm	95mm	140mm	115mm	50Nm	25
056620	M12	12mm	48mm	68mm	95mm	140mm	140mm	50Nm	25
056630	M12	12mm	88mm	68mm	95mm	140mm	180mm	50Nm	25
056640	M12	12mm	128mm	68mm	95mm	140mm	220mm	50Nm	25
056670	M16	16mm	22mm	82mm	115mm	160mm	135mm	100Nm	10
056680	M16	16mm	57mm	82mm	115mm	160mm	170mm	100Nm	10
056690	M16	16mm	97mm	82mm	115mm	160mm	210mm	100Nm	10

### Spit Fix Z BZP Recommended Loads (for one anchor without edge or spacing influence)

Anchor Size	Tensile Load (kN)		Tensile Load (kN)		Shear Load (kN)		Shear Load (kN)	
	Non Cracked Concrete (C20/25)		Cracked Concrete (C20/25)		Non Cracked Concrete (C20/25)		Cracked Concrete (C20/25)	
	h <sub>ef</sub>	N <sub>rec</sub>	h <sub>ef</sub>	N <sub>rec</sub>	V <sub>rec</sub>	V <sub>rec</sub>	V <sub>rec</sub>	V <sub>rec</sub>
M8	-	-	-	-	5.5	5.5	-	-
M10	46.0	3.3	46.0	3.0	13.3	10.5	-	-
M12	58.0	3.9	58.0	4.3	17.9	17.9	-	-
M16	68.0	5.7	68.0	6.7	28.6	24.2	-	-
M16	82.0	13.7	82.0	9.4	-	-	-	-