

Fixing bolt anchor W-FAZ PRO/S

High-performance stud anchors for highest loads in cracked and non-cracked concrete, zinc plated steel

Highest load values at low axial and edge clearances

Extra-large anchoring depths maximise the already high load values per anchor

Quick assembly with fewer reinforcement impacts

Extra small anchoring depths minimise drilling and setting time

Economical and flexible application

Freely selectable setting depth allows optimum utilisation of the anchors depending on the setting depth and application

Minimum edge distance and spacing

Allows for near-edge fixings, small anchor plates and mounting in thin concrete parts

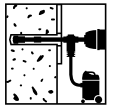
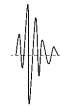
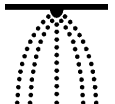
For earthquake-proof building

High performance under seismic influence, earthquake performance categories C1 and C2

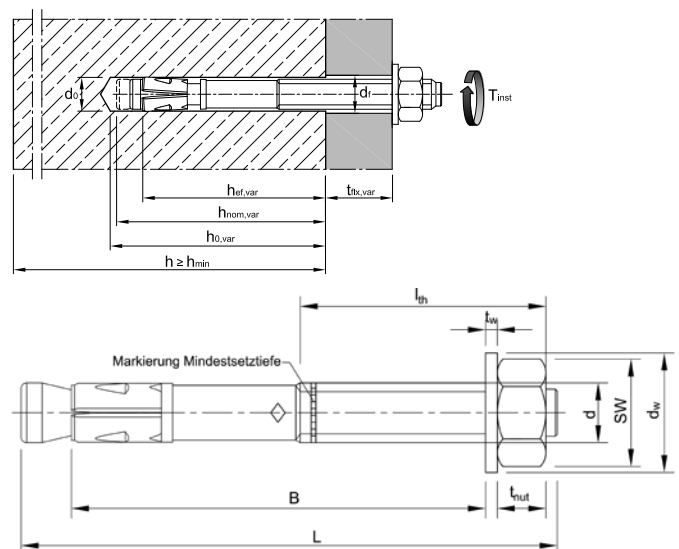
Time-saving through-bolt mounting

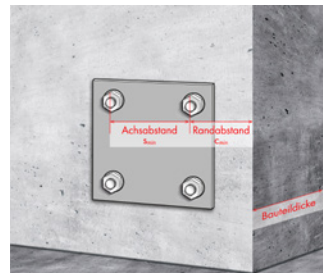
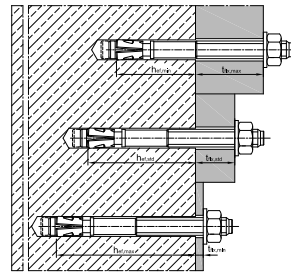


2.1



Metric anchor diameter	M8
Material	Steel
Surface	Zinc plated





Anchor length (l)	Min./max. height of the fixture (t fix)	Attachment height standard (t fix, std)	Anchoring depth (h ef, min/max)	Effective length (B)	Art. no.	P. Qty.
60 mm	0-5 mm		35-40 mm	40 mm	5930 208 905	100
65 mm	0-10 mm		35-45 mm	45 mm	5930 208 910	100
80 mm	0-25 mm	15 mm	35-60 mm	60 mm	5930 208 015	100
95 mm	0-40 mm	30 mm	35-75 mm	75 mm	5930 208 030	100

Installation parameters¹⁾

Anchor diameter		[mm]	M8				M10			
Variable effective anchoring depths	h_{ef}	[mm]	$h_{ef,var}$	$h_{ef,min}$	$h_{ef,max}$	$h_{ef,std}$	$h_{ef,var}$	$h_{ef,min}$	$h_{ef,max}$	$h_{ef,std}$
		[mm]	h_{ef}	35	90	45	h_{ef}	40	100	60
Setting depth	h_{nom}	[mm]	$h_{ef}+8$	43	98	53	$h_{ef}+9$	49	109	69
Minimum component thickness	h_{min}	[mm]	max ($1.5 \cdot h_{ef}$; 80)	80	135	80	max ($1.5 \cdot h_{ef}$; 80)	80	150	90
Minimum axis distance	s_{min}	[mm]	35				40			
Minimum edge spacing	c_{min}	[mm]	40				45			
Nom. drill dia.	d_0	[mm]	8				10			
Drill cutting dia.	$d_{cut} \leq$	[mm]	8,45				10,45			
Drill hole depth	h_0	[mm]	$h_{ef}+8$	43	98	53	$h_{ef}+9$	49	109	69
Through hole in attachment part	$d_f \leq$	[mm]	9				12			
Width across flats	AF	[mm]	13				17			
Torque while installing anchor	$T_{inst} =$	[Nm]	15				40			
Height of the hexagon nut	t_{nut}	[mm]	6,5				8			
Height x dia. washer	$t_w \times d_w$	[mm]	1.5 x 16				2 x 20			

1) For anchor groups and anchoring close to the edge, the combinations of the minimum values (component thickness, axis and edge distances) and the associated loads must be determined in accordance with the calculation methods of European Technical Assessment (ETA-20/00229), depending on the anchoring depth.

Installation parameters¹⁾

Anchor diameter		[mm]	M12				M16			
Variable effective anchoring depths	h_{ef}	[mm]	$h_{ef,var}$	$h_{ef,min}$	$h_{ef,max}$	$h_{ef,std}$	$h_{ef,var}$	$h_{ef,min}$	$h_{ef,max}$	$h_{ef,std}$
		[mm]	h_{ef}	50	125	70	h_{ef}	65	160	85
Setting depth	h_{nom}	[mm]	$h_{ef}+10$	60	135	80	$h_{ef}+14$	79	174	99
Minimum component thickness	h_{min}	[mm]	max ($1.5 \cdot h_{ef}$; 100)	100	187,5	105	max ($1.5 \cdot h_{ef}$; 120)	120	240	127,5
Minimum axis distance	s_{min}	[mm]	50				65			
Minimum edge spacing	c_{min}	[mm]	55				65			
Nom. drill dia.	d_o	[mm]	12				16			
Drill cutting dia.	$d_{cut} \leq$	[mm]	12,5				16,5			
Drill hole depth	h_o	[mm]	$h_{ef}+10$	60	135	80	$h_{ef}+14$	79	174	99
Through hole in attachment part	$d_f \leq$	[mm]	14				18			
Width across flats	AF	[mm]	19				24			
Torque while installing anchor	$T_{inst} =$	[mm]	60				110			
Height of the hexagon nut	t_{nut}	[mm]	10				13			
Height x dia. washer	$t_w \times d_w$	[mm]	2.5 x 24				3 x 30			

1) For anchor groups and anchoring close to the edge, the combinations of the minimum values (component thickness, axis and edge distances) and the associated loads must be determined in accordance with the calculation methods of European Technical Assessment (ETA-20/00229), depending on the anchoring depth.

Details/Application

Single or multiple mounting with approval

- In standard concrete C20/25 to C50/60 (cracked and non-cracked concrete)
- Suitable for cotter-pin installation, push-through installation and distance mounting

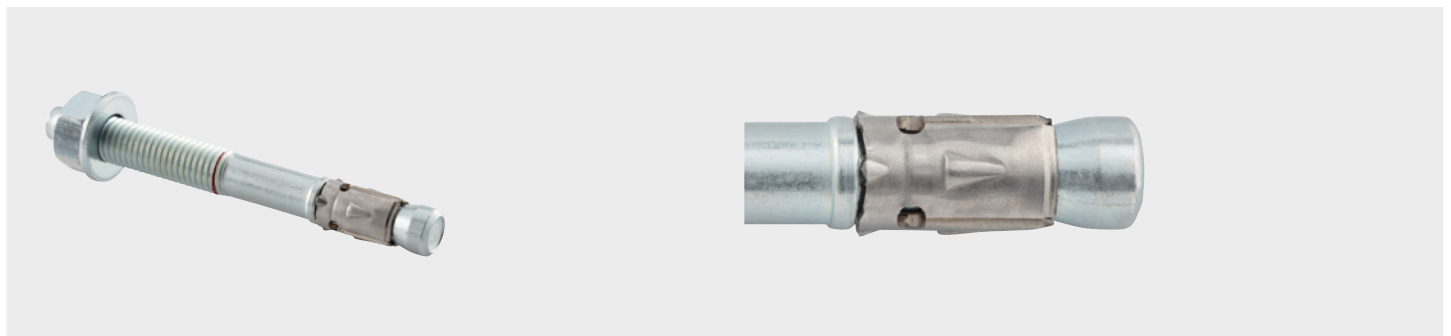
Suitable for anchoring medium to heavy loads in concrete:

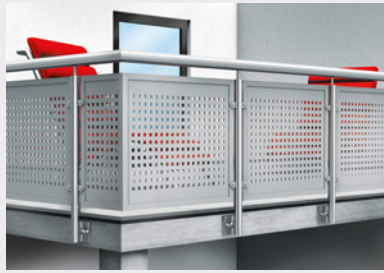
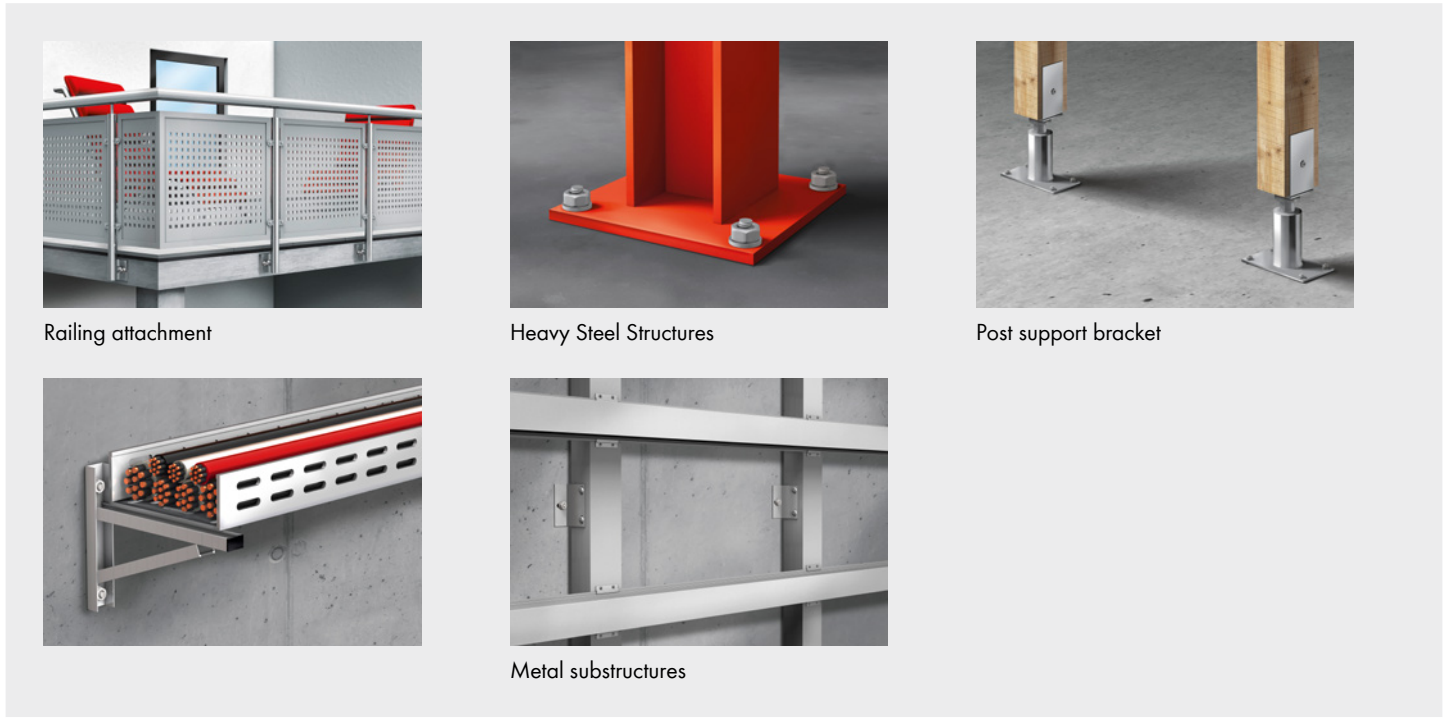
Mounting of e.g. metal constructions, supports, steel supports, consoles, railings, cable conduits, pipe sections, wooden constructions, beams, joist brackets, etc.

Fastenings under seismic conditions in earthquake areas

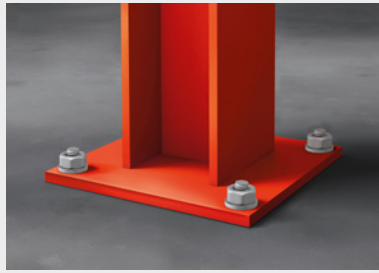
Fastenings under exposure to fire

The W-FAZ PRO/S, galvanised steel, may only be used in dry indoor room conditions





Railing attachment



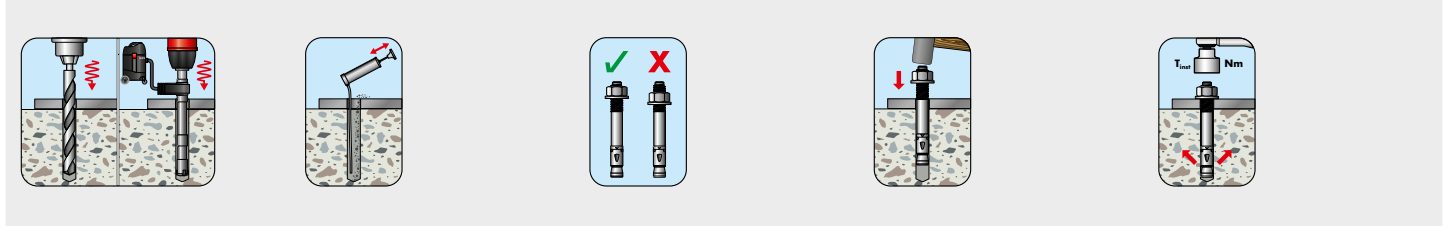
Heavy Steel Structures



Post support bracket



Metal substructures



Proof of performance

European Technical Approval ETA-20/0229 for individual attachment, option 1, cracked and non-cracked concrete:

- Static or quasi-static exposure (M8 - M16)
- Seismic exposure, performance category C1 and C2 (M8-M16)
- Fire load R30, R60, R90, R120

Load-bearing behaviour and fire load (uniform temperature curve) - expert opinion no. GS 6.1/20-018-1:

- Fire duration 180 minutes (M8-M16)

Related products	Art. no.
1/2 inch torque wrench	0714 71 22
Hammer drill bit Plus Quadro-L Vario	0648 051 221