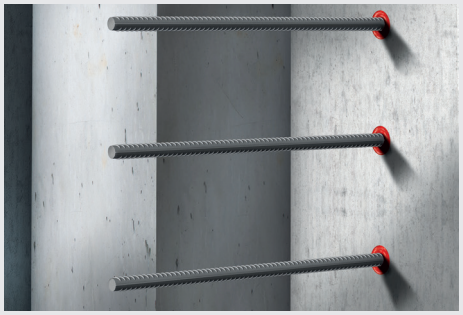
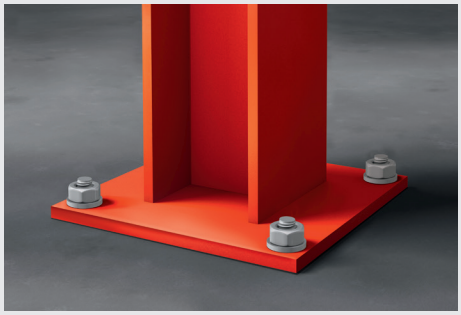

WÜRTH
BETON MULTI
MULTI CONCRETE
WIT-UH 300
Für Beton und Bewehrungsanschlüsse
For concrete and reinforcement bars
Styrolfrei
Styrene free
NSF
LEED tested
ANCHORING | VERANKERN | ANCHORING
WÜRTH
ALLROUNDER
WIT-VM 250
Für Beton, Mauerwerk
For concrete, masonry
LEED tested
EPD
NSF
ANCHORING | VERANKERN | ANCHORING

ANCHORING

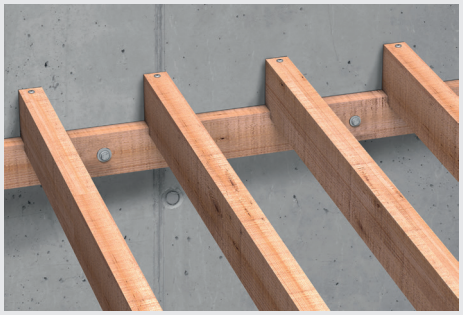
Typical applications



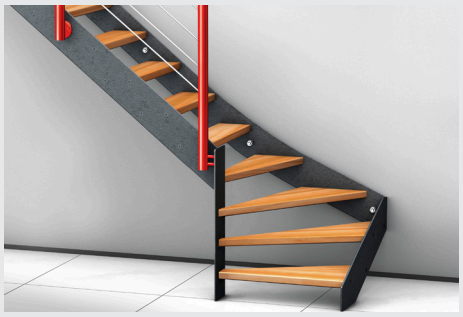
Post-installed reinforcing bar connections (rebar)



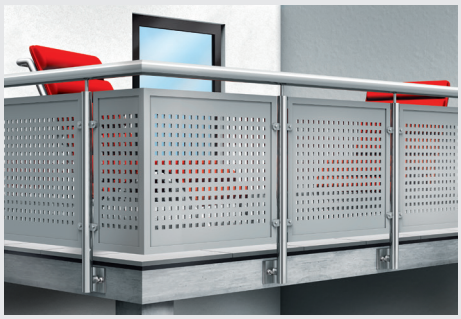
Heavy steel structures



Wood structures



Stairs



Railing fastening

Post support brackets

INJECTION-MORTAR-PURE EPOXY(WIT-PE1000)-585ML

Art. no. 5918 605585

Application gun

DUAL CARTRIDGE GUN FOR 585 ML 3:1

Art.No. 0891 003110

CHEMICAL INJECTION MORTAR PURE EPOXY WIT-PE 1000

Pure epoxy mortar with a long processing time, ideal for large anchoring depths and drilling holes as well as high temperatures. For bonded anchor, concrete and post-installed rebar connection with subsequent mortaring (REBAR)

- Two-component reactive resin mortar, pure epoxy
- Individual fixing point in cracked and uncracked concrete, seismic performance category C1 (M8 to M30) and C2 (M12 to M30): Anchor rod W-VI-A, anchor rod W-VD-A, standard threaded rod with acceptance test certificate 3.1, female thread anchor W-VI-IG
- Areas subject to the German Federal Water Act (Wasserhaushaltsgesetz - WHG): Würth WIT-PE 1000 injection system (bonded anchor), anchorage in coated concrete surfaces in SFH facilities
- Post-installed rebar connection
- Anchoring of threaded rods in natural stone (without approval/assessment)

Post-installed rebar connection with subsequent mortaring
Anchoring of threaded rods in natural stone
(without approval/assessment)

Details/Application

- Suitable for attaching metal structures, metal profiles, wooden structures, brackets etc.
- Suitable for structural expansions, ceiling and wall attachments, expansion of load-bearing structures, reinforcement of load-bearing structures, attachment of balconies and canopies, sealing of temporary openings and „forgotten" reinforcement bars

Technical Data	
Chemical basis	Pure-Epoxy, styrene free
Colour	Grey
Min./max. processing temperature /conditions	0 to 40 °C / temperature in the anchorage ground during processing and hardening
Min./max. ambient temper-ature / Conditions	-40 to 72 °C / after completely curing process
Temperature resistance, long-term temperatures max.	24 °C
Temperature resistance, short-term temperatures max.	72 °C
Shelf life from production/conditions	24 Month / cool and dry storage area, 5°C to 25°C
Curing time at 20 C (dry)	12h
Working time at 20 C	30 min.s
Cartridge ratio	1:3
Concrete strength	C12/15 to C50/60
Working life	100 years
Available cartridge sizes	585 ml
Approval	ETA-19/0542 ETA-19/0543

585ML **Art.No. 5918 605585**

The latest generation of heavy-duty composite mortars.

This **Hybrid- Vinylyester** composite mortar system, which was developed internally by Würth, makes highest loads possible even in very low anchorage depths.
This expands application possibilities by filigree members and greatly
reduces assembly time and material costs.

The concrete fastening solution for all kinds of applications.

WIT-UH 300 is perfectly suited for fixing heavy loads in cracked and non-cracked concrete. The new all-round anchor is the ideal solution for post-installed rebar connections.

Variable anchoring depths.

Can be flexibly adjusted to your individual assembly situation.

High performance even at highest temperatures.

ANC-MORT-(WIT-UH300)-CART-420ML

Art. no. 5918 500420

Application gun

DUAL CARTRIDGE GUN 380ML/420ML

Art.No. 0891 003003

CHEMICAL INJECTION MORTAR CONCRETE MULTI (WIT-UH 300)

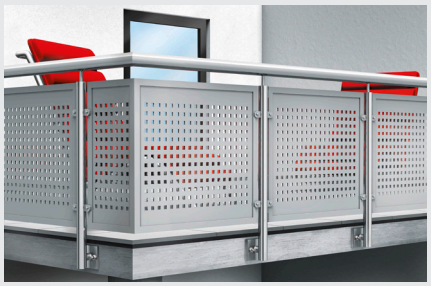
High-performance mortar for concrete and post-installed rebar connections

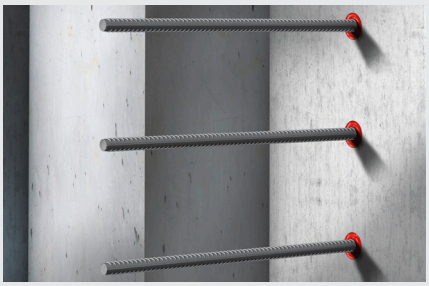
- Two-component reactive resin mortar, urethane vinyl ester hybrid mortar, styrene-free
- Individual fixing point in cracked and uncracked concrete, seismic performance category C1 (M8 to M30) and C2 (M12 to M24): Anchor rod W-VI-A, anchor rod W-VD-A, standard threaded rod with acceptance test certificate 3.1, female thread anchor W-VI-IG
- Areas subject to the German Federal Water Act (Wasserhaushaltsgesetz - WHG): Würth injection system WIT-UH 300 (bonded anchor) for use in uncoated LI/LIP concrete surfaces in SFH facilities

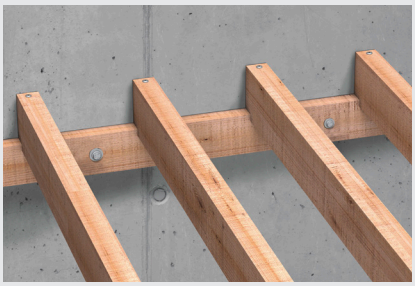
Details/Application

- Suitable for fastening metal structures, metal profiles, wooden structures, brackets, pipes, cable conduits etc.
- Suitable for structural expansions, ceiling and wall outlets, expansion of load-bearing structures, reinforcement of load-bearing structures, attachment of balconies and canopies, sealing of temporary openings and „forgotten" reinforcing bars
- Fastening system for use in collection trays, collection facilities and surfaces made from uncoated LI and LIP concrete in systems for storing, filling and handling substances that are hazardous to water

Technical Data	
Chemical basis	Two-component resin
Colour	Grey
Min./max. processing temperature /conditions	-5 to 40 °C / temperature in the anchorage ground during processing and hardening
Min./max. ambient temper-ature / Conditions	-40 to 160 °C / after completely curing process
Temperature resistance, long-term temperatures max.	100 °C
Temperature resistance, short-term temperatures max.	160 °C
Curing time at 20 C (dry)	30 min.s
Working time at 20 C	3 min.s
Cartridge ratio	1:10
Concrete strength	C12/15 to C50/60
Working life	100 years
Available cartridge sizes	420 ml
Shelf life from production/conditions	18 Month / cool and dry storage area, 5°C to 25°C
Approval	ETA-17/0036 ETA-17/0127


Fastening of railings


Wooden structures


Post-installed rebar connection (REBAR)

420ML **Art.No. 5918 500420**

DUAL CARTRIDGE GUN

For injection mortar WIT 10:1 BLACK-380/420ML

Application area

For pressing out WIT cartridges (380 ml, 420 ml) and silicone cartridges

380/420ML **Art.No. 08910 03003**

DUAL CARTRIDGE GUN FOR 585 ML 3:1

High-quality design, made of sheet steel.

- Easy to use and quick feed
- With quick-release device
- Excellent force transmission, thus easier applicat

585ml **Art.No. 0891 003110**

THREADED ROD-DIN976

THREADED ROD DIN 976-1 (SHAPE A) WITH STANDARD METRIC ISO THREAD, ZINC-PLATED STEEL 4.8, 8.8 BLUE PASSIVATED (A2K)

Techincal Data	
Standards	DIN 976-1
Material	Steel
Surface	Zinc plated
Form	A
Thread type	Metric thread
RoHS-compliant	Yes

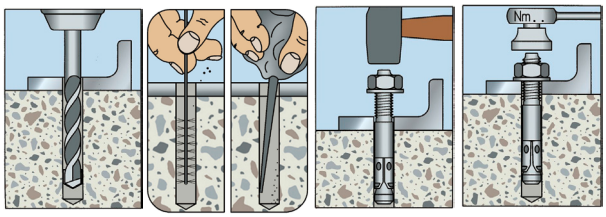
Thread type x nominal diameter (d1)	Length (l1)	Art. no.	Property class
M6	3000 mm	0958 006	4.8
M8	3000 mm	0958 008	4.8
M10	3000 mm	0958 0010	4.8
M12	3000 mm	0958 0012	4.8
M6	3000 mm	0959 0036	8.8
M8	3000 mm	0959 0038	8.8
M10	3000 mm	0959 00310	8.8
M12	3000 mm	0959 00312	8.8
M16	3000 mm	0959 00316	8.8
M20	3000 mm	0959 00320	8.8
M24	3000 mm	0959 00324	8.8

FIXANCHOR W-FAZ/S

- High loads, small distance and edge distance
- Immediate load-bearing capacity, no waiting times
- Reduced effective anchorage depth
- Minimised drilling, time-saving
- All the many approvals guarantee its reliable function for all applications even in cracked and non-cracked concrete
- The optimized unit of cone bolt and expansion sleeve avoids concrete spalling at smallest edge distances too.
- The length identifier on the front end of the bolt facilitates the inspection of correct installation.
- The multitude of types offers the most economic anchor for all applications in any case. In particular the one with the big washer is mainly used in timber construction.

Approved for:
Concrete C20/25 to C50/60

Techincal Data	
Material composition	Steel, galvanized
Surface	Zinc plated
Head configuration	Externally threaded
Environmental conditions	Indoor, dry conditions
Type of fastening	Through-fastening
Suitable for	Cracked concrete - Non-cracked concrete
Approval	ETA-99/0011



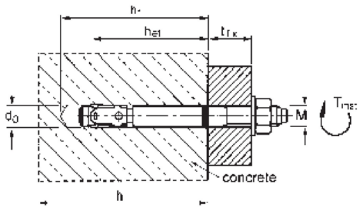
Applications:

Metal structures, metal profiles, brackets, foot plates, supports, cable conduits, piping, railings, wooden structures, beams.

Thread size				M8	M10	M12	M16	M20	M24	M27
Effective anchorage depth		h_{ef}	[mm]	46	60	70	85	100	115	125
Non-cracked concrete										
Tensile	C20/25	N_{rec}	[kN]	5.7	7.6	11.9	16.7	24.0	29.7	33.6
	C50/60	N_{rec}	[kN]	7.5	11.8	18.5	25.8	37.3	46.0	52.1
Shear	≥ C20/25	V_{rec}	[kN]	8.6	12.6	17.1	34.3	37.1	59.3	67.2
Cracked concrete										
Tensile	C20/25	N_{rec}	[kN]	2.4	4.3	7.6	11.9	17.2	21.2	24.0
	C50/60	N_{rec}	[kN]	3.7	6.6	11.8	18.5	26.6	32.8	37.2
Shear	≥ C20/25	V_{rec}	[kN]	8.6	12.6	17.1	26.9	34.4	42.4	48.0

[1] Material safety factor y_M and safety factor for action y_L = 1.4 are included. The material safety factor depends on the failure mode.

FIXANCHOR W-FAZ/S



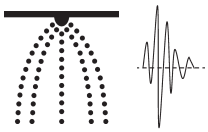
M x Anchor length (mm)	Standard anchorage depth					Reduced anchorage depth			Thread length	Wrench size SW	Art. No.
	Max. fixture thickness	Drill Ø x drill hole depth	Eff. anchorage depth	Seismic performance category		Max. fixture thickness	Drill Ø x drill hole depth	Eff. anchorage depth			
	t_{fix}/mm	h_1/mm	h_{ef}/mm	C1	C2	$t_{fix,red}$/mm	$h_{1,red}$/mm	$h_{ef,red}$/mm	mm	mm	
M8 x 65	–	–	–	–	–	11	8 x 49	35	22	13	5928 258 011
M8 x 75	10	8 x 60	46	–	–	21			32		5928 208 010
M8 x 80	15			–	–	26			37		5928 208 015
M8 x 95	30			–	–	41			52		5928 208 030
M8 x 115	50			–	–	61			72		5928 208 050
M8 x 165	100			–	–	111			122		5928 208 100
M10 x 70	–	–	–	–	–	10	10 x 55	40	22	17	5928 251 010
M10 x 80	–	–	–	–	–	20			32		5928 251 020
M10 x 90	10	10 x 75	60	✓	✓	30			42		5928 210 010
M10 x 95	15			✓	✓	35			47		5928 210 015
M10 x 100	20			✓	✓	40			52		5928 210 020
M10 x 110	30			✓	✓	50			62		5928 210 030
M10 x 130	50			✓	✓	70			82		5928 210 050
M10 x 155	75			✓	✓	95			107		5928 210 075
M10 x 180	100			✓	✓	120			132		5928 210 100
M10 x 230	150			–	–		–	–	80		0904 521 005
M12 x 85	–	–	–	–	–	10	12 x 70	50	26	19	5928 252 010
M12 x 95	–	–	–	–	–	20			36		5928 252 020
M12 x 110	15	12 x 90	70	✓	✓	35			51		5928 212 015
M12 x 115	20			✓	✓	40			56		5928 212 020
M12 x 125	30			✓	✓	50			66		5928 212 030
M12 x 145	50			✓	✓	70			86		5928 212 050
M12 x 160	65			✓	✓	85			101		5928 212 065
M12 x 180	85			✓	✓	105			121		5928 212 085
M12 x 200	105			✓	✓	125			141		5928 212 105
M12 x 220	125			–	–		–	–	80		0904 521 217
M12 x 240	145			–	–				80		0904 521 218
M12 x 255	160			–	–				80		0904 521 219
M16 x 115	–	–	–	–	–	15	16 x 90	65	36	24	5928 256 015
M16 x 125	5	16 x 110	85	✓	✓	25			46		5928 216 005
M16 x 135	15			✓	✓	35			56		5928 216 015
M16 x 145	25			✓	✓	45			66		5928 216 025
M16 x 170	50			✓	✓	70			91		5928 216 050
M16 x 200	80			✓	✓	100			121		5928 216 080
M16 x 220	100			–	–	–	–	–	80		0904 521 603
M16 x 260	140			–	–	–			80		0904 521 604
M16 x 300	180			–	–	–			80		0904 521 605
M20 x 165	30	20 x 125	100	✓	✓	–	–	–	50	30	5928 220 030
M20 x 195	60			✓	✓	–			70		5928 220 060
M20 x 265	130			–	–	–			80		0904 522 003
M20 x 285	150			–	–	–			80		0904 522 004
M24 x 190	30	24 x 145	115	–	–	–	–	–	55	36	0904 522 401
M24 x 220	60			–	–	–			85		0904 522 402
M24 x 235	75			–	–	–			100		0904 522 403
M24 x 260	100			–	–	–			125		0904 522 404
M27 x 210	30	27 x 160	125	–	–	–	–	–	62	41	0904 522 701
M27 x 240	60			–	–	–			92		0904 522 702
M27 x 280	100			–	–	–			132		0904 522 703

FIXANCHOR W-FAZ/A4, W-FAZ/HRC

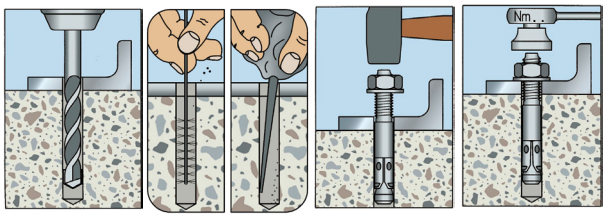
Stud anchor for high loads in cracked and noncracked concrete. A4 stainless steel

- High working loads, small axis and edge distances
- Immediate load-bearing capacity - no waiting
- Torque-controlled expansion anchor made of stainless steel A4
- All the many approvals guarantee its reliable function for all applications even in cracked and non-cracked concrete
- The optimized unit of cone bolt and expansion sleeve avoids concrete spalling at smallest edge distances too.
- The length identifier on the front end of the bolt facilitates the inspection of correct installation.
- The multitude of types offers the most economic anchor for all applications in any case. In particular the one with the big washer is mainly used in timber construction.

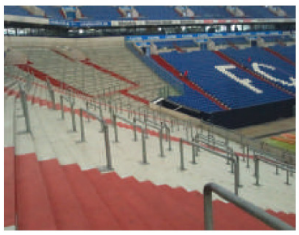
Approved for:
Concrete C20/25 to C50/60



Techincal Data	
Material composition	Stainless steel A4/ HRC Highly corrosion-resistant steel
Surface	Coated
Head configuration	Externally threaded
Environmental conditions	Indoor, Outdoor
Type of fastening	Through-fastening
Suitable for	Cracked concrete - Non-cracked concrete



Applications:

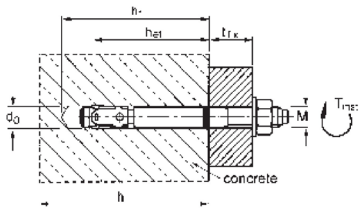


Metal structures, metal profiles, brackets, foot plates, supports, cable conduits, piping, railings, wooden structures, beams.

Thread size				M8	M10	M12	M16	M20	M24	M24
Effective anchorage depth		h_{ef}	[mm]	46	60	70	85	100	100	125
Non-cracked concrete										
Tensile	C20/25	N_{rec}	[kN]	5.7	7.6	11.9	16.7	24.0	24.0	33.6
	C50/60	N_{rec}	[kN]	7.6	11.8	18.5	25.8	37.3	37.3	52.1
Shear	≥ C20/25	V_{rec}	[kN]	7.4	11.4	17.1	31.4	43.9	48.1	67.2
Cracked concrete										
Tensile	C20/25	N_{rec}	[kN]	2.4	4.3	7.6	11.9	17.2	17.2	19.0
	C50/60	N_{rec}	[kN]	3.7	6.6	11.8	18.5	26.6	26.6	29.5
Shear	≥ C20/25	V_{rec}	[kN]	7.4	11.4	17.1	26.9	34.4	34.4	48.0

[1] Material safety factor y_M and safety factor for action y_L = 1.4 are included. The material safety factor depends on the failure mode.

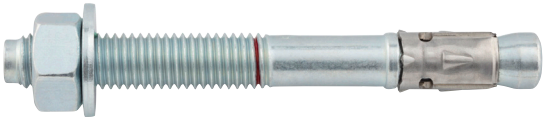
FIXANCHOR W-FAZ/A4, W-FAZ/HRC



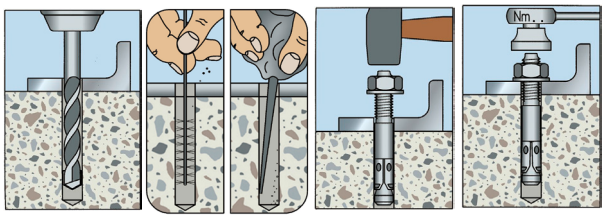
M x Anchor length (mm)	Standard anchorage depth					Reduced anchorage depth			Thread length	Wrench size SW	Art. No.
	Max. fixture thickness	Drill Ø x drill hole depth	Eff. anchorage depth	Seismic performance category		Max. fixture thickness	Drill Ø x drill hole depth	Eff. anchorage depth			
	t_{fix}/mm	h_1/mm	h_{ef}/mm	C1	C2	$t_{fix,red}$/mm	$h_{1,red}$/mm	$h_{ef,red}$/mm	mm	mm	
M8 x 65	–	–	–	–	–	11	8 x 49	35	22	13	5928 458 011
M8 x 75	10	8 x 60	46	–	–	21			32		5928 458 010
M8 x 80	15			–	–	26			37		5928 458 015
M8 x 95	30			–	–	41			52		5928 458 030
M8 x 115	50			–	–	61			72		5928 458 050
M8 x 165	100			–	–	111			122		5928 458 100
M10 x 70	–	–	–	–	–	10	10 x 55	40	22	17	5928 451 010
M10 x 80	–	–	–	–	–	20			32		5928 451 020
M10 x 90	10	10 x 75	60	✓	✓	30			42		5928 410 010
M10 x 95	15			✓	✓	35			47		5928 410 015
M10 x 110	30			✓	✓	50			62		5928 410 030
M10 x 130	50			✓	✓	70			82		5928 410 050
M10 x 155	75			✓	✓	95			107		5928 410 075
M10 x 180	100			✓	✓	120			132		5928 410 100
M12 x 85	–	–	–	–	–	10	12 x 70	50	26	19	5928 452 010
M12 x 95	–	–	–	–	–	20			36		5928 452 020
M12 x 110	15	12 x 90	70	✓	✓	35			51		5928 412 015
M12 x 115	20			✓	✓	40			56		5928 412 020
M12 x 125	30			✓	✓	50			66		5928 412 030
M12 x 145	50			✓	✓	70			86		5928 412 050
M12 x 160	65			✓	✓	85			101		5928 412 065
M12 x 180	85			✓	✓	105			121		5928 412 085
M12 x 200	105			✓	✓	125	–	–	141		5928 412 105
M12 x 220	125			–	–	–			80		0904 621 206
M12 x 255	160			–	–	–			80		0904 621 207
M12 x 275	180			–	–	–			80		0904 621 208
M12 x 285	190			–	–	–			80		0904 621 209
M12 x 300	205			–	–	–			80		0904 621 210
M12 x 325	230			–	–	–			80		0904 621 211
M16 x 115	–	–	–	–	–	15	16 x 90	65	36	24	5928 456 015
M16 x 125	5	16 x 110	85	✓	✓	25			46		5928 416 005
M16 x 135	15			✓	✓	35			56		5928 416 015
M16 x 145	25			✓	✓	45			66		5928 416 025
M16 x 170	50			✓	✓	70			91		5928 416 050
M16 x 200	80			✓	✓	100			121		5928 416 080
M16 x 220	100			–	–	–	–	–	80		0904 616 100
M16 x 280	160			–	–	–			80		0904 616 160
M16 x 300	180			–	–	–			80		0904 616 180
M16 x 325	205			–	–	–			80		0904 616 205
M16 x 340	220			–	–	–			80		0904 616 220
M20 x 165	30	20 x 125	100	✓	✓	–	–		50	30	5928 420 030
M20 x 195	60			✓	✓	–			70		5928 420 060
M20 x 265	130			–	–	–			80		0904 620 130
M20 x 285	150			–	–	–			80		0904 620 150
M24 x 200	30	24 x 155	125	–	–	–	–	–	58	36	0904 624 030
M24 x 230	60			–	–	–			88		0904 624 060
M24 x 245	75			–	–	–			103		0904 624 075

FIXANCHOR W-FAZ PRO/S

High-performance wedge anchor for high load in cracked and uncracked concrete, zinc-plated steel
Highest load values at low spacing and edge distances
Extra-large effective anchorage depths maximise the already high load values per anchor
Quick installation with fewer reinforcement hits
Extra-small effective anchorage depths minimise the drilling and embedment time
Economical and flexible application
Freely selectable embedment depth allows optimum utilisation of the anchors depending on the embedment depth and application
Minimal edge distances and spacing
Allows for fixings close to edges, small anchor plates and installation in thin concrete parts
For earthquake-proof construction
High performance under seismic action, seismic performance categories C1 and C2



Techincal Data	
Material	Steel
Surface	Zinc plated
Suitable for	Cracked concrete - Non-cracked concrete

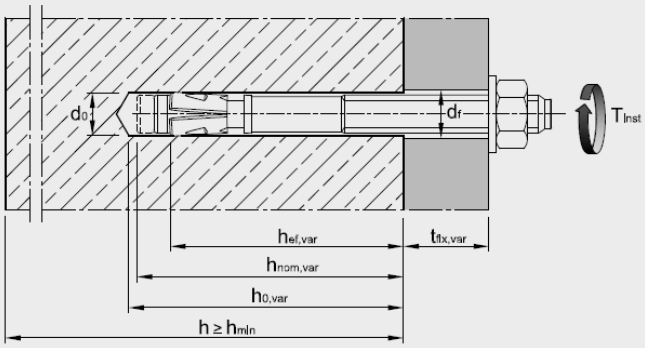


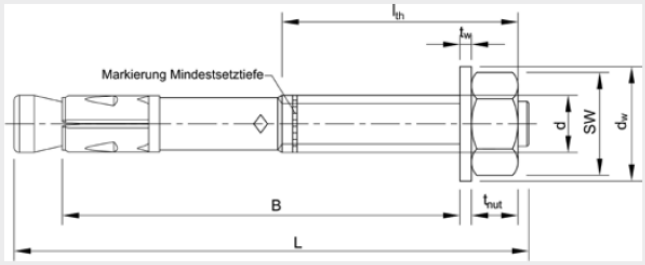
Metric anchor diameter	Anchor length (l)	Min./max. height of the fixture (t fix)	Attach-ment height standard (t fix,std)	Anchoring depth (h ef, min/max)	Usable length (B)	Art. no.	P. Qty.
M8	60 mm	0-5 mm		35-40 mm	40 mm	**5930 208 905**	100
M8	65 mm	0-10 mm		35-45 mm	45 mm	**5930 208 910**	100
M8	75 mm	0-20 mm	10 mm	35-55 mm	55 mm	**5930 208 010**	100
M8	80 mm	0-25 mm	15 mm	35-60 mm	60 mm	**5930 208 015**	100
M8	95 mm	0-40 mm	30 mm	35-75 mm	75 mm	**5930 208 030**	100
M8	115 mm	5-60 mm	50 mm	35-90 mm	95 mm	**5930 208 050**	100
M8	165 mm	55-110 mm	100 mm	35-90 mm	145 mm	**5930 208 100**	50
M10	70 mm	0-10 mm		40-50 mm	50 mm	**5930 210 910**	50
M10	80 mm	0-20 mm		40-60 mm	60 mm	**5930 210 920**	50
M10	90 mm	0-30 mm	10 mm	40-70 mm	70 mm	**5930 210 010**	50
M10	95 mm	0-35 mm	15 mm	40-75 mm	75 mm	**5930 210 015**	50
M10	100 mm	0-40 mm	20 mm	40-80 mm	80 mm	**5930 210 020**	50
M10	110 mm	0-50 mm	30 mm	40-90 mm	90 mm	**5930 210 030**	50
M10	130 mm	10-70 mm	50 mm	40-100 mm	110 mm	**5930 210 050**	50
M10	155 mm	35-95 mm	75 mm	40-100 mm	135 mm	**5930 210 075**	50
M10	180 mm	60-120 mm	100 mm	40-100 mm	160 mm	**5930 210 100**	50
M12	85 mm	0-10 mm		50-60 mm	60 mm	**5930 212 910**	25
M12	95 mm	0-20 mm		50-70 mm	70 mm	**5930 212 920**	25

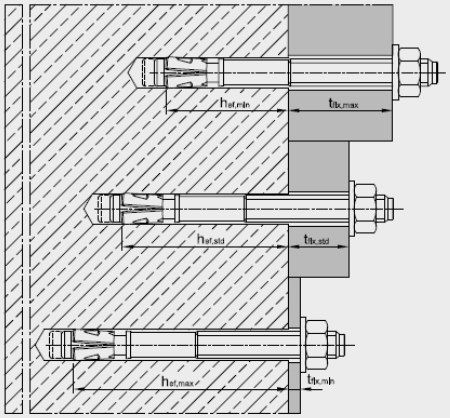
FIXANCHOR W-FAZ PRO/S

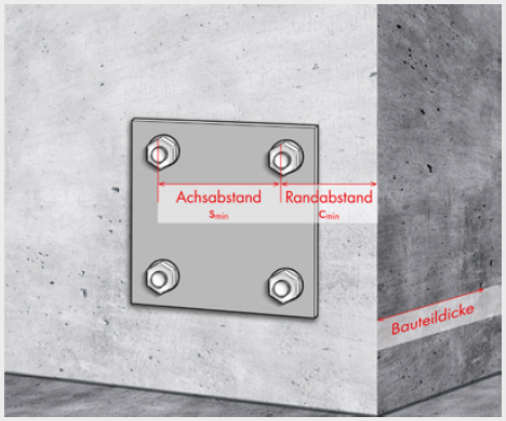
Metric anchor diameter	Anchor length (l)	Min./max. height of the fixture (t fix)	Attach-ment height standard (t fix,std)	Anchoring depth (h ef, min/max)	Usable length (B)	Art. no.	P. Qty.
M12	105 mm	0-30 mm	10 mm	50-80 mm	80 mm	**5930 212 010**	25
M12	110 mm	0-35 mm	15 mm	50-85 mm	85 mm	**5930 212 015**	25
M12	115 mm	0-40 mm	20 mm	50-90 mm	90 mm	**5930 212 020**	25
M12	125 mm	0-50 mm	30 mm	50-100 mm	100 mm	**5930 212 030**	25
M12	145 mm	0-70 mm	50 mm	50-120 mm	120 mm	**5930 212 050**	25
M12	160 mm	10-85 mm	65 mm	50-125 mm	135 mm	**5930 212 065**	25
M12	180 mm	30-105 mm	85 mm	50-125 mm	155 mm	**5930 212 085**	25
M12	200 mm	50-125 mm	105 mm	50-125 mm	175 mm	**5930 212 105**	25
M16	115 mm	0-15 mm		65-80 mm	80 mm	**5930 216 915**	20
M16	125 mm	0-25 mm	5 mm	65-90 mm	90 mm	**5930 216 005**	20
M16	135 mm	0-35 mm	15 mm	65-100 mm	100 mm	**5930 216 015**	20
M16	145 mm	0-45 mm	25 mm	65-110 mm	110 mm	**5930 216 025**	20
M16	170 mm	0-70 mm	50 mm	65-135 mm	135 mm	**5930 216 050**	20
M16	200 mm	5-100 mm	80 mm	65-160 mm	165 mm	**5930 216 080**	10
M20	165 mm	0-40 mm		90-140 mm	130 mm	**5930 220 030**	10

Technical Information









FIXANCHOR W-HAZ/S

High-performance anchor W-HAZ/S

- The bolt is attuned to the sleeve to make this anchor a reliable specialist for highest shear load demands.
- Various head types allow tidy finishes and avoid risk of injury when using for machine bases.
- The optimized combination of expansion sleeve and cone bolt allow smallest spacing and thus small cost-efficient anchor plates.

W-HAZ-B

W-HAZ-S

W-HAZ-SK

Applications:

Suitable for fastening metal constructions, metal profit less, brackets, foot plates, supports, cable conduits, pipes, railings, machines, etc.

Techincal Data	
Material composition	Steel, galvanized
Head configuration	Inner threaded
Environmental conditions	Indoor, dry conditions
Type of fastening	Through-fastening
Suitable for	Cracked concrete - Non-cracked concrete

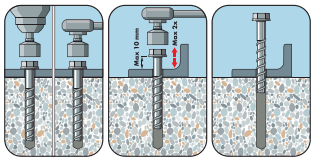
Thread size					10/M6	12/M8	15/M10	18/M12	24/M16	24/M16L	28/M20
Effective anchorage depth			h_{ef}	[mm]	50	60	71	80	100	115	125
Non-cracked concrete											
Tensile		C20/25	N_{rec}	[kN]	7.6	9.5	14.3	16.7	23.8	29.7	33.6
		C50/60	N_{rec}	[kN]	7.6	13.8	21.9	25.8	36.9	46.0	52.1
Shear	B	≥ C20/25	V_{rec}	[kN]	9.1	14.3	20.6	34.4	48.1	52.0	67.2
	S and SK				10.3	17.1	27.4	34.4	48.1	59.3	67.2
Cracked concrete											
Tensile		C20/25	N_{rec}	[kN]	2.4	5.7	7.6	11.9	17.1	21.0	23.8
		C50/60	N_{rec}	[kN]	3.7	8.9	11.8	18.5	26.6	32.5	36.9
Shear	B	≥ C20/25	V_{rec}	[kN]	9.1	14.3	20.6	24.6	34.4	42.4	48.0
	S and SK				10.3	16.0	20.6	24.6	34.4	42.4	48.0

[1] Material safety factor y_M and safety factor for action y_L = 1.4 are included. The material safety factor depends on the failure mode.

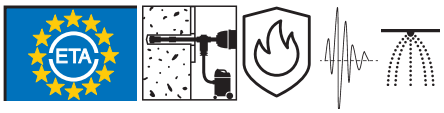
CONCRETE SCREW WITH HEXAGON HEAD W-BS/S

Highest loads and efficient installation. Ideal for fastening metal structures, zinc-plated steel

- For anchorage in concrete and masonry
- Extremely flexible application thanks to up to three effective anchorage depths
- Fastening can be adjusted up to two times after installation (size 6-14), for example in order to align railings or anchor plates (please refer to the installation instructions)
- Very high loads
- Very low spacing and edge distances thanks to very low expansion effect
- Very fast and easy installation and immediate load-bearing capacity



Material	Steel
Surface	Zinc plated

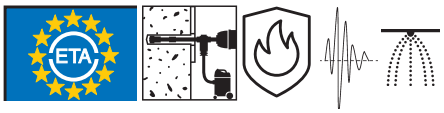


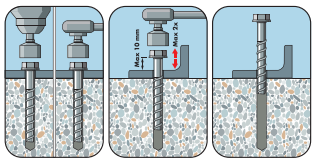
Anchor size	Anchor length (l)	Attachment height (t fix 1-2-3)	External drive	Art. no.	P. Qty.
5 mm	40 mm	5/-/- mm	WS10	**5929 125 005**	100
5 mm	50 mm	15/-/- mm	WS10	**5929 125 015**	100
5 mm	60 mm	25/-/- mm	WS10	**5929 125 025**	100
6 mm	40 mm	5/-/- mm	WS13	**5929 126 005**	100
6 mm	50 mm	15/10/- mm	WS13	**5929 126 015**	100
6 mm	60 mm	25/20/5 mm	WS13	**5929 126 025**	100
6 mm	80 mm	45/40/25 mm	WS13	**5929 126 045**	100
6 mm	100 mm	65/60/45 mm	WS13	**5929 126 065**	100
8 mm	50 mm	5/-/- mm	WS13	**5929 128 005**	50
8 mm	60 mm	15/5/- mm	WS13	**5929 128 015**	50
8 mm	70 mm	25/15/5 mm	WS13	**5929 128 025**	50
8 mm	80 mm	35/25/15 mm	WS13	**5929 128 035**	50
8 mm	90 mm	45/35/25 mm	WS13	**5929 128 045**	50
8 mm	100 mm	55/45/35 mm	WS13	**5929 128 055**	50
8 mm	120 mm	75/65/55 mm	WS13	**5929 128 075**	50
8 mm	140 mm	95/85/75 mm	WS13	**5929 128 095**	50
8 mm	160 mm	115/105/95 mm	WS13	**5929 128 115**	50
10 mm	60 mm	5/-/- mm	WS15	**5929 121 005**	25
10 mm	80 mm	25/5/- mm	WS15	**5929 121 025**	25
10 mm	90 mm	35/15/5 mm	WS15	**5929 121 035**	25
10 mm	100 mm	45/25/15 mm	WS15	**5929 121 045**	25
10 mm	120 mm	65/45/35 mm	WS15	**5929 121 065**	25
10 mm	140 mm	85/65/55 mm	WS15	**5929 121 085**	25
10 mm	160 mm	105/85/75 mm	WS15	**5929 121 105**	25
12 mm	80 mm	15/-/- mm	WS17	**5929 122 015**	25
12 mm	110 mm	45/25/10 mm	WS17	**5929 122 045**	25
14 mm	80 mm	5/-/- mm	WS21	**5929 124 005**	25
14 mm	110 mm	35/10/- mm	WS21	**5929 124 035**	25
14 mm	130 mm	55/30/15 mm	WS21	**5929 124 055**	25

CONCRETE SCREW WITH HEXAGON HEAD W-BS 2/A4 TYPE H

High working loads and easy installation. The new generation of concrete screws in A4 stainless steel. Ideal for mounting metal structures in concrete

- The new thread geometry ensures smooth screwing into the concrete and thus greater efficiency
- The fastest type of fastening for medium and heavy loads
- Three effective anchorage depths allow flexible application
- Attachments can be adjusted up to twice retrospectively, for example to be able to align staircase railings or anchor plates (observe installation instructions)
- Minimum spacing and edge distances due to very low expansion effect





Material	Stainless steel A4
Surface	Plain

Anchor size	Anchor length (l)	Attachment height (t fix 1-2-3)	External drive	Art. no.	P. Qty.
6 mm	50 mm	15/5/- mm	WS13	**5931 226 050**	100
6 mm	60 mm	25/15/5 mm	WS13	**5931 226 060**	100
8 mm	70 mm	25/15/5 mm	WS13	**5931 228 070**	50
8 mm	80 mm	35/25/15 mm	WS13	**5931 228 080**	50
10 mm	90 mm	35/15/5 mm	WS15	**5931 221 090**	25
10 mm	100 mm	45/25/15 mm	WS15	**5931 221 100**	25
10 mm	120 mm	65/45/35 mm	WS15	**5931 221 120**	25

Performance data in concrete - fixing point according to ETA-22/0123

Anchor size [mm]			**6**			**8**			**10**		
Nominal length of thread engagement		**h_{nom} [mm]**		45	55	45	55	65	55	75	85
Admissible centric tension load[1] on an individual anchor without the influence of the edge distance	**Tensile zone (cracked concrete C20/25**[2]**, s ≥ 3 h_{ef} c ≥ 1.5 h_{ef})**	**$N_{adm.}$ [kN] = C20/25**[2]	1.2	0.7	1.4	1.4	2.6	3.8	2.9	6.2	8.1
	Compressive zone (non-cracked concrete C20/25[2]**, s ≥ 3 h_{ef} c ≥ 1.5 h_{ef})**		1.7	1.9	4.0	4.3	5.7	8.1	5.2	9.0	11.9

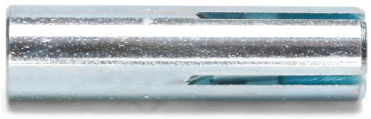
[1] The partial safety factors of the resistances γ_M regulated in the approval/assessment and a partial safety factor of the effects of $\gamma F = 1.4$ have been taken into account. Please refer to the appropriate guidelines, e.g. DIN EN 1992-4, for information on combining tensile and shear loads, the influence of the edge distance and groups of anchors
[2] The concrete has normal reinforcement. Higher values are possible for higher concrete compressive strengths
[3] Only statically indeterminate non-load-bearing systems (anchors in a redundant non-structural system) according to EN 1992-4, only in dry indoor conditions

DROP IN ANCHOR W-ED/S

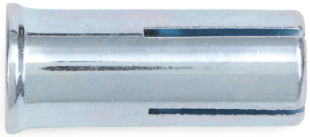
Benefites:

- Easy installation due to low drive-in energy
- Visual setting check and hand protection when installing with marking spreading tool can be loaded immediately - no waiting time.
- Attachment can easily be demounted at any time.

Approved for:
Concrete C20/25 to C50/60

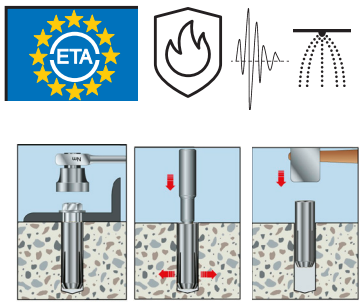


W-ED/S



W-ED/S-BND

Techincal Data	
Surface	Coated
Head configuration	Inner thread
Environmental conditions	Indoor, Dry conditions
Type of fastening	Pre-fastening
Suitable for	Non-cracked concrete - Cracked with redundant fastening



Applications:

Attaching threaded rods, metal structures, metal profiles, grids, cable conduits, pipelines, mounting rails

Range of loading: C20/25										
Size		M5	M6	M8		M10		M12	M16	M20
hef	[mm]	25	30	30	40	30	40	50	65	80
Non-cracked concrete										
N_{rec}	[kN]	1.4	3.3	2.8	3.6	3.3	5.1	7.1	10.5	14.3
V_{rec}	[kN]	1.5	2.1	3.9	3.9	3.9	4.1	9.0	16.8	26.2

DROP IN ANCHOR W-ED/S

Article description	Art. No.	Drill dia.	Min. drill hole depth	Anchor Length	Min. internal thread length	Min. internal thread length	PU
		d_o	h_2	l	$L_{sd,min}$	L_{th}	
		mm	mm	mm	mm		Qty.
W-ED/S M5 x 25	**0904 5**	8	25	25	6	10	100
W-ED/S M6 x 30	**0904 010 06**	8	30	30	7	13	100
W-ED/S M8 x 30	**0904 010 08**	10	30	30	9	13	100
W-ED/S M8 x 40	**0904 010 081**	10	40	40	9	20	100
W-ED/S M10 x 40	**0904 010 10**	12	40	40	11	15	50
W-ED/S M12 x 50	**0904 010 12**	15	50	50	13	18	50
W-ED/S M16 x 65	**0904 010 16**	20	65	65	18	23	25
W-ED/S M20 x 80	**0904 010 20**	25	80	80	22	34	25

							
W-ED/S-BND M8 x 30	**0904 040 08**	10	30	30	9	13	100
W-ED/S-BND M8 x 40	**0904 040 081**	10	40	40	9	20	100
W-ED/S-BND M10 x 30	**0904 040 101**	12	30	30	10	12	50
W-ED/S-BND M10 x 40	**0904 040 10**	12	40	40	11	15	50
W-ED/S-BND M12 x 50	**0904 040 12**	15	50	50	13	18	50

Marking-spreading tool with hand protection (visual setting check) 	Art. No.	Suitable for	PU Qty.
	0904 022 08	W-ED M8 x 30	1
	0904 022 081	W-ED M8 x 40	1
	0904 022 101	W-ED M10 x 30	1
	0904 022 10	W-ED M10 x 40	1
	0904 022 12	W-ED M12 x 50	1
	0904 022 16	W-ED M16 x 65	1
	0904 022 20	W-ED M20 x 85	1

Spreading tool (no visual setting Qcheck) 			
	0904 05	W-ED M5 x 25	1
	0904 020 06	W-ED M6 x 30	1
	0904 020 08	W-ED M8 x 30	1
	0904 020 081	W-ED M8 x 40	1
	0904 020 101	W-ED M10 x 30	1
	0904 020 10	W-ED M10 x 40	1
	0904 020 12	W-ED M12 x 50	1
	0904 020 16	W-ED M16 x 65	1
	0904 020 20	W-ED M20 x 85	1

1/2 INCH TORQUE WRENCH PUSH-THROUGH RATCHET

Torque wrench with 1/2 inch pass-through square mount and ratchet head

- Trigger accuracy of +/- 3 % tolerance from the set scale value
- Non-slip two-component handle
- Easy-to-read, large double scale in N.m and lbf-ft.
- The torque can be easily and precisely adjusted by turning the handle
- The torque wrench does not have to be released after use, i.e. it does not have to be reset to the lowest scale value
- Settings can be securely locked and easily unlocked using the locking knob
- Clear acoustic and tangible torque triggering for precise screwing operations
- Includes declaration of conformity and serial number
- Sustainable, sturdy, moisture- and oil-resistant product packaging made of 100 % PCR (recycled plastic from household waste), 100 % recyclable

Application

Wide range of possible applications for controlled tightening of screws and nuts, for example, for repair and maintenance work on bicycles and vehicles/commercial vehicles or for industry and trade or anchor technology

Technical Data	
Tip size	1/2 inch
Torque measuring accuracy	+/- 3 %
Suitable for right-hand tight-ening	Yes
Suitable for left-hand tight-ening	Yes
Design	With 72 teeth - 5 degree angle of rotation

Min./max. torque measuring range	Min./max. torque measuring range (inches)	Number of turns from min. to max. torque value	Length (L1)	Length of lever (L2)	Ratchet head width (D2)	Art. no.
20-100 Nm	15-73 lbf.ft	17	388 mm	295 mm	45 mm	**0714 720 101**

Open packaging
1 Turn the lower part of the packaging sleeve to the left
2 Remove the packaging sleeve

Seal packaging
1 Plug on packaging sleeve
2 Turn the lower part of the packaging sleeve to the right

WÜRTH

ANCHORING

#READY FOR WORK

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Riyadh
Website: www.wurth.sa
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شركة وورث السعودية العربية ذ.م.م.طريق الملك فهد
الفرعي، حي العليا، شارع رقم ٧٠, ص.ب. ٥٠٣, ١٢٢١٤
الرياض