

WT1 Throughbolt Anchors

Product overview

The WT1 is the ultimate-performance zinc-plated throughbolt anchor for use in cracked and non-cracked concrete under normal and seismic C1 or C2 conditions.



ETA Option 1
ETA-21/0365



Fire Resistance
R120



Seismic
C1 and C2



Anchor Software

Material
Steel, zinc plated



Features and benefits

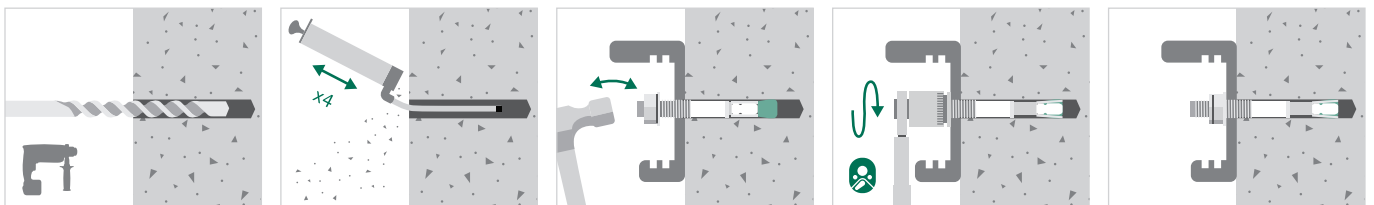
- ETA according to EAD 330747-00-0601 for use in cracked and non-cracked concrete (option 1).
- WT1 approved for seismic C1 and C2 Loads.
- Simple and quick installation procedure.
- For medium to heavy loads.
- Can be installed as pre-fixing (before application of a fixing plate) or as through-fixing (through hole of the fixing plate).
- Fire resistance class R30-R120 for design of anchorages under exposure to fire.
- Compliance with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements.

Substrate type

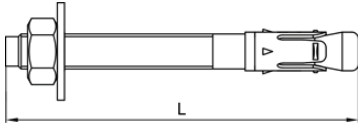
- Non-cracked concrete
- Cracked concrete



Installation guide



Product information



Part No.	Description	Anchor Size	L (mm)	Box qty (pcs)
608408075	WT1 M8x75	M8	75	100
608408080	WT1 M8x80	M8	80	100
608408095	WT1 M8x95	M8	90	100
608408115	WT1 M8x115	M8	115	100
608410090	WT1 M10x90	M10	90	100
608410105	WT1 M10x105	M10	105	50
608410115	WT1 M10x115	M10	115	50
608410135	WT1 M10x135	M10	135	50
608412100	WT1 M12x100	M12	100	50
608412110	WT1 M12x110	M12	110	50
608412120	WT1 M12x120	M12	120	50
608412130	WT1 M12x130	M12	130	50
608412150	WT1 M12x150	M12	150	50
608412180	WT1 M12x180	M12	180	50
608416145	WT1 M16x145	M16	145	25
608416175	WT1 M16x175	M16	175	25
608416220	WT1 M16x220	M16	220	25
608420170	WT1 M20x170	M20	170	20
608420200	WT1 M20x200	M20	200	20

Recommended loads*

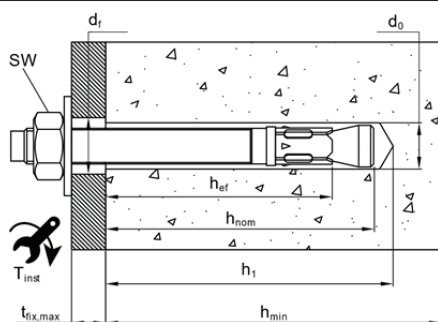
Option 1 ETA-21/0365 – Single anchors in cracked and non-cracked concrete

Recommended tension load in C20/25 concrete at standard embedment depth

Part No.	Description	Cracked	Non-Cracked	Partial Safety factor	Seismic C1	Seismic C2
		N_{rec} (kN)	N_{rec} (kN)	γ_{Mc}	$N_{Rd,C1}$ (kN)	$N_{Rd,C2}$ (kN)
608408075	WT1 M8x75	2.4	3.5	1.8	3.2	-
608408080	WT1 M8x80	2.4	3.5	1.8	3.2	-
608408095	WT1 M8x95	2.4	3.5	1.8	3.2	-
608408115	WT1 M8x115	2.4	3.5	1.8	3.2	-
608410090	WT1 M10x90	4.3	7.6	1.5	5.9	2.6
608410105	WT1 M10x105	4.3	7.6	1.5	5.9	2.6
608410115	WT1 M10x115	4.3	7.6	1.5	5.9	2.6
608410135	WT1 M10x135	4.3	7.6	1.5	5.9	2.6
608412100	WT1 M12x100	7.6	11.9	1.5	10.6	6.0
608412110	WT1 M12x110	7.6	11.9	1.5	10.6	6.0
608412120	WT1 M12x120	7.6	11.9	1.5	10.6	6.0
608412130	WT1 M12x130	7.6	11.9	1.5	10.6	6.0
608412150	WT1 M12x150	7.6	11.9	1.5	10.6	6.0
608412180	WT1 M12x180	7.6	11.9	1.5	10.6	6.0
608416145	WT1 M16x145	11.9	16.6	1.5	15.2	-
608416175	WT1 M16x175	11.9	16.6	1.5	15.2	-
608416220	WT1 M16x220	11.9	16.6	1.5	15.2	-
608420170	WT1 M20x170	14.3	23.4	1.5	19.5	14.0
608420200	WT1 M20x200	14.3	23.4	1.5	19.5	14.0

* Recommended loads: apply to correctly installed anchors at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4. The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.

Installation data



Part No.	Description	d ₀ (mm)	h ₁ (mm)	h _{min} (mm)	h _{nom} (mm)	h _{ef} (mm)	t _{fix, max} (mm)	T _{inst} (Nm)
608408075	WT1 M8x75	8	60	100	55	48	9	15
608408080	WT1 M8x80	8	60	100	55	48	14	15
608408095	WT1 M8x95	8	60	100	55	48	24	15
608408115	WT1 M8x115	8	60	100	55	48	49	15
608410090	WT1 M10x90	10	75	120	68	60	10	40
608410105	WT1 M10x105	10	75	120	68	60	25	40
608410115	WT1 M10x115	10	75	120	68	60	35	40
608410135	WT1 M10x135	10	75	120	68	60	55	40
608412100	WT1 M12x100	12	85	140	80	70	4	60
608412110	WT1 M12x110	12	85	140	80	70	14	60
608412120	WT1 M12x120	12	85	140	80	70	24	60
608412130	WT1 M12x130	12	85	140	80	70	34	60
608412150	WT1 M12x150	12	85	140	80	70	54	60
608412180	WT1 M12x180	12	85	140	80	70	84	60
608416145	WT1 M16x145	16	105	170	97	85	28	100
608416175	WT1 M16x175	16	105	170	97	85	58	100
608416220	WT1 M16x220	16	105	170	97	85	103	100
608420170	WT1 M20x170	20	125	200	114	100	32	200
608420200	WT1 M20x200	20	125	200	114	100	62	200