HEAVY-DUTY ANCHOR W-TM

Individual attachment:
Uncracked concrete
Galvanized steel

Type A anchor

Type S hexagon bolt

Type O eyelet

Type H hook

Proof of Performance

Approvals
European Technical Approval Option 7 for uncracked concrete
ETA

1. Applications

- Can be used for medium and heavy load range
- **Suitable for fastening:**

Transfer lines on the ground for which installation flush with the surface is specified; steel structures, metal profiles, brackets, foot plates, cable conduits, piping, mounting rails, etc.

- With European Technical Approval, the anchor may be used in reinforced or non-reinforced standard concrete of a strength class of at least C20/25 and at most C50/60 in accordance with EN 206:2000-12
- Can be used in < C20/25 concrete, pressure-resistant natural stone and solid stone masonry (without approval)
- The anchor may be used for anchorages with primarily static loads or quasi-static loads
- **Individual attachment:** Anchoring with European Technical Approval in uncracked concrete
- W-TM may only be used under the conditions **of dry interior rooms**

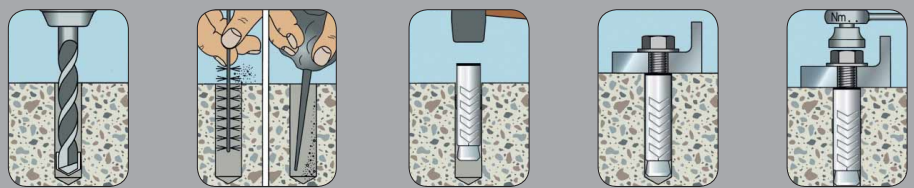
2. Advantages

- Minimal force needed when setting the anchor
- Can be loaded immediately – no waiting times
- No setting tools required
- Can be set flush with the surface: Attached parts can be removed/mounted again at any time
- Even spreading effect and load distribution due to triple expansion sleeve
- Heavy-duty anchor Type A suitable for bolts and screws with metric threads[3)]
- Reliable installation due to application of prescribed torque during anchoring

3. Features

- Force controlled/torque controlled spreading anchor of electrogalvanized steel in the sizes M6 – M12
- Cotter-pin mounting
- Heavy-duty anchor Type O and Type H without approval
- Approval (Type A + Type S):
- **ETA-10/0255 for individual fastening**
  Option 7, uncracked concrete, galvanized steel M6 – M12; dimensioned in accordance with the "European Technical Approval Guideline (ETAG) of Metal Anchors for Use in Concrete" Appendix C, Method A

Setting instructions



Drill hole | Clean the borehole | Knock in anchor until flush | Mount component | Apply torque

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Performance Data						
Anchor diameter [mm]			**M6**	**M8**	**M10**	**M12**
Perm. centered tensile load[1] of a single anchor without edge influence **Type A + Type S**	**Pressure zone** (uncracked concrete C20/25[2]), $s \geq 3h_{ef}$, $c \geq 1.5\ h_{ef}$	N_{perm} [kN] = C20/25[2]	3.6	4.1	5.4	9.5
Permissible transverse load[1] of a single anchor without edge influence **Type A + Type S**	**Pressure zone** (uncracked concrete C20/25[2]), $s \geq 3h_{ef}$, $c \geq 1.5\ h_{ef}$	V_{perm} [kN] = C20/25[2]	4.6	7.1	8.9	19.3
Permissible bending torque Type A + Type S		M_{perm} [Nm]	7.0	17.1	34.2	59.9

Recommended load of a single anchor without edge influence **Type O**	**Pressure zone** (uncracked concrete C20/25[2]), $s \geq 3h_{ef}$, $c \geq 1.5\ h_{ef}$	N_{rec} [kN] = C20/25[2]	1.4	2.4	3.6	6.0
Recommended load of a single anchor without edge influence **Type H**	**Pressure zone** (uncracked concrete C20/25[2]), $s \geq 3h_{ef}$, $c \geq 1.5\ h_{ef}$	N_{rec} [kN] = C20/25[2]	0.3	0.7	1.0	1.6

Characteristic Values					
Minimum component thickness	$h_{min\geq}$ [mm]	135	135	140	160
Minimum axial spacing	$s_{min\geq}$ [mm]	65	90	135	165
Minimum edge spacing	$c_{min\geq}$ [mm]	45	70	85	115
Axial spacing	$s_{cr,N}$ [mm]	119	134	155	189
Edge spacing	$c_{cr,N}$ [mm]	60	67	78	95
Effective anchoring depth	h_{ef} [mm]	39.5	44.5	51.5	63.0
Nom. drill dia.	d_0 [mm]	10	12	14	18
Drill cutting dia.	$d_{cut\leq}$ [mm]	10.45	12.50	14.50	18.50
Drilled hole depth[4]	$h_{1\geq}$ [mm]	55	61	70	85
Through-hole in the component being connected	$d_{f\leq}$ [mm]	7	9	12	14
Torque during anchoring (Type A + Type S)	T_{inst} [Nm]	10	25	40	75
Torque during anchoring (Type O + Type H)	T_{inst} [Nm]	5	12	20	35

Anchor Dimensions					
Designation		**W-TM M6**	**W-TM M8**	**W-TM M10**	**W-TM M12**
Thread dia.	d_{thr} [mm]	6	8	10	12
Length of anchor	l [mm]	45	51	60	75
Maximum fastening height Type A	$t_{fix\ max}$ [mm]	150	200	250	300
Maximum fastening height Type S	t_{fixmax} [mm]	10	14	20	25
Length of screw Type A	l_s [mm]	= Length of anchor + fastening height + any plaster/insulation thickness			
Length of screw Type S	l_s [mm]	55	65	80	100
Length of screw Type O + Type H	l_o/l_h [mm]	55	65	73	90
Wrench size Type S	Size [mm]	10	13	17	19

Art. No. Type A		**0904 901 850**	**0904 901 851**	**0904 901 852**	**0904 901 853**
Art. No. Type S		**0904 901 860**	**0904 901 861**	**0904 901 862**	**0904 901 863**
Packing unit	**P. Qty. [pieces]**	50	50	50	25

Art. No. Type O		**0904 901 865**	**0904 901 866**	**0904 901 867**	**0904 901 868**
Packing unit	**P. Qty. [pieces]**	50	50	25	10

Art. No. Type H		**0904 901 870**	**0904 901 871**	**0904 901 872**	**0904 901 873**
Packing unit	**P. Qty. [pieces]**	50	50	25	5

Can be stored in ORSY® System

Würth System Components

1) The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of γF = 1.4 have been taken into account. For the combination of tensile and transverse loads, for edge influence and anchor groups, please refer to the Directive for European Technical Approval (ETAG) Appendix C.
2) The concrete has normal reinforcement. Higher values are possible for higher concrete strengths.
3) Approval-conformant, when screws and threaded rods with acceptance test certificate 3.1 in accordance with EN 10204:2004 can prove the required material and the mechanical properties in accordance with ETA-10/0255.
4) Type S: Drill drilled hole deeper accordingly for a lower fastening height.

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