

THD Betongskruv

Betongskruv för användning i både sprucken och osprucken betong. THD erbjuder lågt installationsmotstånd och enastående prestanda. THD är designad och utvecklad för torra, icke-korrosiva inomhusmiljöer.

Egenskaper

Material

- Elektrogalvaniserat stål

Fördelar

- Optimerad gängdesign som effektivt överför lasten till underlaget
- Speciell värmebehandling för att öka hårdheten på spetsen och förenkla installationen
- Sexkanshuvud med underliggande bricka, kan installeras enkelt utan att addera en extra bricka
- Kan demonteras efter montage vid temporära konstruktioner som exempelvis avstyvning

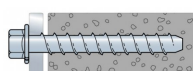
Användning

Lämplig för

- Sprucken/osprucken betong samt lättklinkerbetong

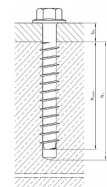
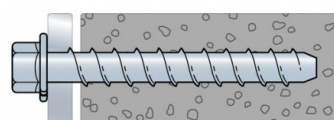
Användningsområden

- Typisk användning:
Fästning av stålkonstruktioner, fasader, installationer, trappor, räcken, elementstöd, beslag



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Teknisk data



Mått

Art. nr.	Art. nr.	Gäng- dimension [mm] [mm]	Totallängd [mm]	Max. materialtjocklek [mm]	Max. diameter af hål [mm]	Ø x djup i borrhål [mm]	Antal paket	Vikt [kg]
THD M8-70/5	THD08070	10.3	70	5	12	8 x 75	50	-
THD M8-80/15	THD08080	10.3	80	15	12	8 x 75	50	-
THD M8-100/35	THD08100	10.3	100	35	12	8 x 75	50	-
THD M8-120/55	THD08120	10.3	120	55	12	8 x 75	50	-
THD M8-140/75	THD08140	10.3	140	75	12	8 x 75	50	-
THD M8-160/95	THD08160	10.3	160	95	12	8 x 75	50	0.073
THD M10-80/5	THD10080	12.5	80	5	14	10 x 85	50	-
THD M10-90/15	THD10090	12.5	90	15	14	10 x 85	50	-
THD M10-100/25	THD10100	12.5	100	25	14	10 x 85	50	-
THD M10-120/45	THD10120	12.5	120	45	14	10 x 85	50	-
THD M10-140/65	THD10140	12.5	140	65	14	10 x 85	50	-
THD M10-160/85	THD10160	12.5	160	85	14	10 x 85	50	-
THD M10-170/95	THD10170	12.5	170	95	14	10 x 85	50	0.12
THD M12-110/15	THD12110	14.4	110	15	16	12 x 105	20	-
THD M12-130/35	THD12130	14.4	130	35	16	12 x 105	20	-
THD M12-150/55	THD12150	14.4	150	55	16	12 x 105	20	-
THD M12-190/95	THD12190	14.4	190	95	16	12 x 105	20	0.19
THD M16-130/15	THD16130	19.6	130	15	22	16 x 130	10	-
THD M16-150/35	THD16150	19.6	150	35	22	16 x 130	10	-
THD M20-150/15	THD20150	23.5	150	15	26	20 x 160	5	-
THD M20-170/35	THD20170	23.5	170	35	26	20 x 160	5	-

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Design Resistance

Art. nr.	Konstruktionsmotstånd																	Böjmoment M _{Rd} [kNm]
	Spänning - N _{Rd} [kN]								Skjuvning - V _{Rd} [kN]									
	Sprickbildad betong				Icke-sprickbildad betong				Cracked concrete				Non-cracked concrete					
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60		
THD M8-70/5	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M8-80/15	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M8-100/35	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M8-120/55	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M8-140/75	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M8-160/95	3.3	4.1	4.7	5.2	4.2	5.1	5.9	6.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	26	
THD M10-80/5	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-90/15	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-100/25	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-120/45	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-140/65	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-160/85	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	
THD M10-170/95	4.2	5.1	5.9	6.5	5.8	7.1	8.2	9	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	52	

- 1) The design resistances have been calculated using the partial safety factors for resistances stated in ETA-12/0060.
- 2) The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-12/0060 and with a partial safety factor for actions of $\gamma_F=1.4$.
- 3) The load figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing $s \geq 15$ cm (ϕ diameter) or with a rebar spacing $s \geq 10$ cm, if the rebar diameter is 10 mm or smaller.
- 4) "For combined tension and shear loads or anchor groups and/or in case of edge influence, a calculation per ETAG 001, Annex C, design method A or according to CEN/TS 1992-4:2009 design method A shall be performed. Anchors under fire exposures are to be designed in accordance with EOTA -TR 020:2004 or CEN/TS 1992-4:2009 Annex D. For details see ETA-12/0060.

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Art. nr.	Konstruktionsmotstånd																
	Spänning - N _{Rd} [kN]								Skjuvning - V _{Rd} [kN]								Böjmoment M _{Rd} [kNm]
	Sprickbildad betong				Icke-sprickbildad betong				Cracked concrete				Non-cracked concrete				
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
THD M12-110/15	6.7	8.1	9.4	10.3	13.9	16.9	19.6	21.5	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	85
THD M12-130/35	6.7	8.1	9.4	10.3	13.9	16.9	19.6	21.5	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	85
THD M12-150/55	6.7	8.1	9.4	10.3	13.9	16.9	19.6	21.5	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	85
THD M12-190/95	6.7	8.1	9.4	10.3	13.9	16.9	19.6	21.5	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	85
THD M16-130/15	13.9	16.9	19.6	21.5	16.7	20.3	23.5	25.8	38.3	46.7	46.7	46.7	46.7	46.7	46.7	46.7	214
THD M16-150/35	13.9	16.9	19.6	21.5	16.7	20.3	23.5	25.8	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	214
THD M20-150/15	19.4	23.7	27.4	30.1	27.8	33.9	39.2	43.1	49.4	60.3	69.7	73.6	69.4	73.6	73.6	73.6	42
THD M20-170/35	19.4	23.7	27.4	30.1	27.8	33.9	39.2	43.1	49.4	60.3	69.7	73.6	69.4	73.6	73.6	73.6	42

- 1) The design resistances have been calculated using the partial safety factors for resistances stated in ETA-12/0060.
- 2) The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-12/0060 and with a partial safety factor for actions of $\gamma_F=1.4$.
- 3) The load figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing $s \geq 15$ cm (ϕ diameter) or with a rebar spacing $s \geq 10$ cm, if the rebar diameter is 10 mm or smaller.
- 4) "For combined tension and shear loads or anchor groups and/or in case of edge influence, a calculation per ETAG 001, Annex C, design method A or according to CEN/TS 1992-4:2009 design method A shall be performed. Anchors under fire exposures are to be designed in accordance with EOTA -TR 020:2004 or CEN/TS 1992-4:2009 Annex D. For details see ETA-12/0060.

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Recommended loads - cracked concrete

Art. nr.	Draghållfasthet ⁽¹⁻²⁾ [Rds,N] [kN]				Skjuvhållfasthet ⁽¹⁻³⁾ [Rds,V] [kN]				Böjmoment ⁽¹⁻⁶⁾ [Mrds] [Nm]
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	sprucken betong C20/25
THD M8-70/5	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M8-80/15	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M8-100/35	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M8-120/55	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M8-140/75	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M8-160/95	2.4	2.9	3.4	3.7	8.3	8.3	8.3	8.3	19
THD M10-80/5	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-90/15	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-100/25	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-120/45	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-140/65	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-160/85	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M10-170/95	3	3.6	4.2	4.6	13	13	13	13	37.6
THD M12-110/15	4.8	5.8	6.7	7.4	18	18	18	18	61
THD M12-130/35	4.8	5.8	6.7	7.4	18	18	18	18	61
THD M12-150/55	4.8	5.8	6.7	7.4	18	18	18	18	61
THD M12-190/95	4.8	5.8	6.7	7.4	18	18	18	18	61
THD M16-130/15	9.9	12.1	14	15.4	27.3	33.3	33.3	33.3	153.5
THD M16-150/35	9.9	12.1	14	15.4	27.3	33.3	33.3	33.3	153.5
THD M20-150/15	13.9	16.9	19.6	21.5	35.3	43.1	49.8	52.6	303.6
THD M20-170/35	13.9	16.9	19.6	21.5	35.3	43.1	49.8	52.6	303.6

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Servicekostnader – obrutet betong

Art. nr.	Draghållfasthet ⁽¹⁻²⁾ [Rds,N] [kN]				Skjuvhållfasthet ⁽¹⁻³⁾ [Rds,V] [kN]			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
THD M8-70/5	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M8-80/15	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M8-100/35	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M8-120/55	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M8-140/75	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M8-160/95	3	3.6	4.2	4.6	8.3	8.3	8.3	8.3
THD M10-80/5	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-90/15	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-100/25	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-120/45	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-140/65	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-160/85	4.2	5.1	5.9	6.5	13	13	13	13
THD M10-170/95	4.2	5.1	5.9	6.5	13	13	13	13
THD M12-110/15	9.9	12.1	14	15.4	18	18	18	18
THD M12-130/35	9.9	12.1	14	15.4	18	18	18	18
THD M12-150/55	9.9	12.1	14	15.4	18	18	18	18
THD M12-190/95	9.9	12.1	14	15.4	18	18	18	18
THD M16-130/15	11.9	14.5	16.8	18.5	33.3	33.3	33.3	33.3
THD M16-150/35	11.9	14.5	16.8	18.5	33.3	33.3	33.3	33.3
THD M20-150/15	19.8	24.2	28	30.8	49.5	52.6	52.6	52.6
THD M20-170/35	19.8	24.2	28	30.8	49.5	52.6	52.6	52.6

1) The recommended loads have been calculated using the characteristic capacities stated in the ETA with the partial safety factors given in the ETAG001 and the partial safety factor for loads: $f = 1.4$.

2) The recommended axial loads are valid for unreinforced concrete and reinforced concrete with a rebar spacing $s \geq 15$ cm (any diameter) or with a rebar spacing $s \geq 10$ cm, if the rebar diameter is 10 mm or smaller.

3) The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges ($c \leq \max [10 \text{ hef}; 60d]$) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.

4) Concrete is considered non-cracked when the tensile stress within the concrete is $\sigma_L + \sigma_R \leq 0$. In the absence of detailed verification $\sigma_R = 3 \text{ N/mm}^2$ can be assumed (σ_L equals the tensile stress within the concrete induced by external loads, anchors loads included).

5) If spacings or edge distances are lower than characteristic ones ($S \leq S_{cr,N}$ and/or $C \leq C_{cr,N}$) then the calculation should be made according to ETAG001, annex Cn A method. For further information see ETA-06/0123

6) The recommended bending moment is only valid for threaded rods.

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Tillåtna belastningar

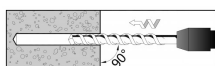
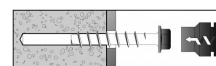
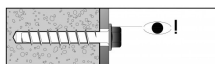
Art. nr.	tillåtna belastningar i C20/25 **)	
	N _{zul} [kN]	V _{zul} [kN]
THD M8-70/5	2.4	8.3
THD M8-80/15	2.4	8.3
THD M8-100/35	2.4	8.3
THD M8-120/55	2.4	8.3
THD M8-140/75	2.4	8.3
THD M8-160/95	2.4	8.3
THD M10-80/5	3	13
THD M10-90/15	3	13
THD M10-100/25	3	13
THD M10-120/45	3	13
THD M10-140/65	3	13
THD M10-160/85	3	13
THD M10-170/95	3	13
THD M12-110/15	4.8	18
THD M12-130/35	4.8	18
THD M16-130/15	9.9	27.3
THD M16-150/35	9.9	27.3

**) Permissible loads apply to single anchors in cracked concrete without the influence of center and edge distances

Montering

Installation

- Borra ett hål i underlaget med en hårdmetallbör med samma diameter som den nominella diametern på det förankringselement som ska installeras. Borra hålet till angivet infästningsdjup plus minsta totala håldjup (se tabell nedan till höger) så att gängspån kan sedimentera, och blåsa rent med tryckluft. (Överliggande installationer behöver inte blåsas rena.) Alternativt kan hålet borraras tillräckligt djupt för att rymma infästningsdjupet och borr- och gängspån.
- För in ankaret genom fästet och in i hålet.
- Dra åt ankaret i basmaterialet tills sexkantsbrickan kommer i kontakt med fixturen.

*Drill hole**Clean hole**Setting screw anchor with an impact screw driver**Check connection*

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Montering

Art. nr.	Borrdiameter [mm]	Min. drill depth - h ₁ [mm]	Ø gennefnaldshål [mm]	Skiftnyckel storlek	Installationsmomentet [Nm]	Impact screw driver (7) - T _{sd} [Nm]	Sättdjup [mm]	Rekommenderade avståndet ⁽⁵⁾ - S _{Cr,N} [mm]	Min. avstånd mellan verandrer [mm]	Karakteristisk kantavstånd [mm]	Min. kantavst [mm]
THD M8-70/5	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M8-80/15	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M8-100/35	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M8-120/55	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M8-140/75	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M8-160/95	8	75	12	13	NA	≤ 200	47	141	50	70.5	50
THD M10-80/5	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-90/15	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-100/25	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-120/45	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-140/65	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-160/85	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M10-170/95	10	85	14	15	75	≤ 515	55	165	60	82.5	60
THD M12-110/15	12	105	16	18	NA	≤ 515	70	210	80	105	80
THD M12-130/35	12	105	16	18	NA	≤ 515	70	210	80	105	80
THD M12-150/55	12	105	16	18	NA	≤ 515	70	210	80	105	80
THD M12-190/95	12	105	16	18	NA	≤ 515	70	210	80	105	80
THD M16-130/15	16	130	22	24	280	≤ 515	86	258	100	129	100

Tekniskt datablad

SIMPSON**Strong-Tie®**

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Art. nr.	Borrdiameter [mm]	Min. drill depth - h ₁ [mm]	Ø genomfaldshål [mm]	Skiftnyckel storlek	Installationsmomentet [Nm]	Impact screw driver (7) - T _{sd} [Nm]	Sättdjup [mm]	Rekommenderade avståndet ⁽⁵⁾ - S _{cr,N} [mm]	Min. avstånd mellan verandre [mm]	Karakteristisk kantavstånd [mm]	Min. kantavst [mm]
THD M16- 150/35	16	130	22	24	280	≤ 515	86	258	100	129	100
THD M20- 150/15	20	160	26	30	350	≤ 515	102	306	120	153	120
THD M20- 170/35	20	160	26	30	350	≤ 515	102	306	120	153	120

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2025-11-24



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