

THD

Tornillo de altas prestaciones para hormigón

El tornillo para hormigón THD es un sistema de fijación autoblocante para cargas pesadas en el hormigón fisurado y no fisurado. Permite una instalación más rápida que los anclajes habituales para aplicaciones permanentes o provisionales. La rosca en forma de dientes de sierra garantiza un agarre muy eficaz.

Features

Materia

- Acero electrocincado

Ventajas

- Instalación más rápida en comparación con los anclajes tradicionales,
- Fijación con buena estética gracias a su cabeza hexagonal,
- Arandela grande integrada que posibilita una sujeción óptima de la pieza a fijar,
- Tornillo desmontable para fijaciones provisionales,
- Distancia entre centros y distancia respecto a los bordes pequeñas,
- Solicitación inmediata...

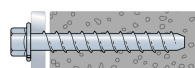
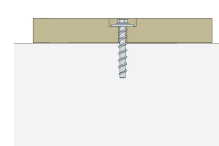
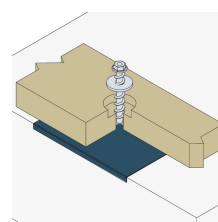
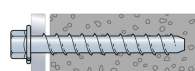
Applications

Soporte

- Hormigón fisurado y no fisurado

Campos de aplicación

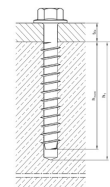
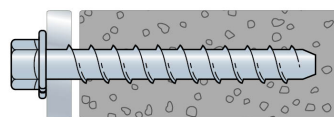
- **Fijaciones provisionales:** tapiales, puntales...
- **Fijaciones de elementos pesados:** estribos de estructuras, máquinas, barandillas...
- **Fijaciones en serie:** bandejas para cables, asientos de estadios y salas, pasamanos, racks y ménsulas...



THD

Tornillo de altas prestaciones para hormigón

Datos técnicos



Dimensiones y Valores Característicos

Referencia	Dimensiones de las fijaciones metálicas								Datos de instalación
	Código	Dimensiones y Valores Característicos[mm]		Otro					Datos de instalación
		Ø Rosca[mm]	Longitud[mm]	Ø agujero de la pieza a fijar[mm]	Grosor máx. de pieza a fijar[mm]	Ø agujero[mm]	Cantidad[pcs]	Peso[kg]	Prof. mín. de perforación - h ₁
THD M8-70/5	THD08070	10.3	70	12	5	8	50.0	-	75
THD M8-80/15	THD08080	10.3	80	12	15	8	50.0	-	75
THD M8-120/55	THD08120	10.3	120	12	55	8	50.0	-	75
THD M8-140/75	THD08140	10.3	140	12	75	8	50.0	-	75
THD M8-160/95	THD08160	10.3	160	12	95	8	50.0	0.073	75
THD M10-80/5	THD10080	12.5	80	14	5	10	50.0	-	85
THD M10-90/15	THD10090	12.5	90	14	15	10	50.0	-	85
THD M10-100/25	THD10100	12.5	100	14	25	10	50.0	-	85
THD M10-120/45	THD10120	12.5	120	14	45	10	50.0	-	85
THD M10-140/65	THD10140	12.5	140	14	65	10	50.0	-	85
THD M10-160/85	THD10160	12.5	160	14	85	10	50.0	-	85
THD M10-170/95	THD10170	12.5	170	14	95	10	50.0	0.12	85
THD M12-110/15	THD12110	14.4	110	16	15	12	20.0	-	105
THD M12-130/35	THD12130	14.4	130	16	35	12	20.0	-	105
THD M12-150/55	THD12150	14.4	150	16	55	12	20.0	-	105
THD M12-190/95	THD12190	14.4	190	16	95	12	20.0	0.19	105
THD M16-150/35	THD16150	19.6	150	22	35	16	10.0	-	130

THD

Tornillo de altas prestaciones para hormigón

Resistencia de cálculo

Referencia	Metallic fixings loads																Cap de
	Resistencia de cálculo See full table online → 																hor
																	fis
																	Mc
	Horizontally embedded																de
	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	- M

Recommended loads - cracked concrete

Referencia	Metallic fixings loads								Capacidad de cálculo - hormigón fisurado
	Cargas recomendadas - hormigón fisurado								
	Tracción - N _{reC}				Cizallamiento - V _{reC}				
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
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 M8-120/55	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 M16-150/35	9.9	12.1	14	15.4	27.3	33.3	33.3	33.3	153.5

THD

Tornillo de altas prestaciones para hormigón

Charges de service - béton non fissuré

Referencia	Metallic fixings loads							
	Recommended loads - Non-cracked concrete							
	Cizallamiento - V_{rec}				Tracción - N_{rec}			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
THD M8-70/5	8.3	8.3	8.3	8.3	3	3.6	4.2	4.6
THD M8-80/15	8.3	8.3	8.3	8.3	3	3.6	4.2	4.6
THD M8-120/55	8.3	8.3	8.3	8.3	3	3.6	4.2	4.6
THD M8-140/75	8.3	8.3	8.3	8.3	3	3.6	4.2	4.6
THD M8-160/95	8.3	8.3	8.3	8.3	3	3.6	4.2	4.6
THD M10-80/5	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-90/15	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-100/25	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-120/45	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-140/65	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-160/85	13	13	13	13	4.2	5.1	5.9	6.5
THD M10-170/95	13	13	13	13	4.2	5.1	5.9	6.5
THD M12-110/15	18	18	18	18	9.9	12.1	14	15.4
THD M12-130/35	18	18	18	18	9.9	12.1	14	15.4
THD M12-150/55	18	18	18	18	9.9	12.1	14	15.4
THD M12-190/95	18	18	18	18	9.9	12.1	14	15.4
THD M16-150/35	33.3	33.3	33.3	33.3	11.9	14.5	16.8	18.5

- 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.

Technical Sheet

SIMPSON**Strong-Tie**[®]

THD

Tornillo de altas prestaciones para hormigón

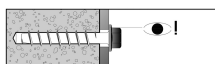
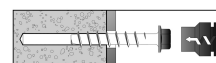
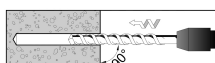
permissible loads

Referencia	Metallic fixings loads	
	Recommended capacity[kN]	
	N _{zul} [kN]	Cizallamiento - V[kN]
THD M8-70/5	2.4	8.3
THD M8-80/15	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	13.0
THD M10-90/15	3	13.0
THD M10-100/25	3	13.0
THD M10-120/45	3	13.0
THD M10-140/65	3	13.0
THD M10-160/85	3	13.0
THD M10-170/95	3	13.0
THD M12-110/15	4.8	18.0
THD M12-130/35	4.8	18.0
THD M16-150/35	9.9	27.3

Instalación

Instalación

- Fijación autoblocante : al apretar el tornillo, su rosca perfora el soporte de anclaje,
- Para el hormigón debe utilizarse una llave de impacto.



Simplest Strong-Tie Screw anchor THD		Screw size					
		8	10	12	16	20	
Cracked concrete	Minimum member thickness	$t_{min} [mm]$	106	125	156	193	230
	Minimum edge distance	$e_{min} [mm]$	80	80	80	103	125
	Minimum spacing	$s_{min} [mm]$	80	80	80	103	125
	Minimum member thickness	$t_{min} [mm]$	106	125	156	193	230
Non-cracked concrete	Minimum member thickness	$t_{min} [mm]$	106	125	156	193	230
	Minimum edge distance	$e_{min} [mm]$	80	80	80	103	125
	Minimum spacing	$s_{min} [mm]$	80	80	80	103	125
	Minimum member thickness	$t_{min} [mm]$	106	125	156	193	230

Datos de instalación

Dimensiones de las fijaciones metálicas		Datos de instalación	
Otro	Dimensiones y Valores	Datos de instalación	Separaciones y distancias al borde
Referencia	Ø agujero [mm]	Datos de instalación See full table online ➔ 	Distancia característica al borde [mm] Distancia mínima al borde

1) Cargas de servicio:

