Hilti HST4(-R) Wedge Anchor

Submission Folder

Hilti (HK) | askHilti 工程師技術支援平台 ask.hilti.com.hk | 香港客戶熱線 +852 8228 8118 澳門客戶熱線(免費) 00800 8228 8118 | 香港門市：大角咀洋松街1號形品星寓地下2號舖 澳門門市：澳門布魯塞爾街70號建興龍廣場地下W座地舖 | 電郵：hksales@hilti.com 傳真：+852 2954 1751

Stud anchor HST4(-R)

BASE MATERIALS

- Concrete (cracked)
- Concrete (uncracked)

APPLICATIONS

- Wide range of safety-relevant applications
- Structural steel, facade, mechanical equipment, racks, hand rails, etc.

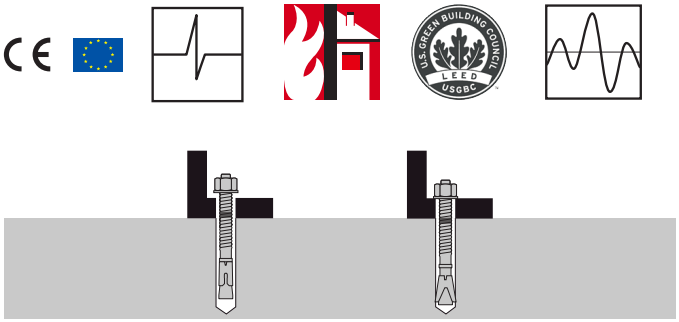
ADVANTAGES

- High performance stud anchor in cracked concrete
- Highest resistance for geometrically challenging requirements, e.g. reduced member thickness, small spacing and edge distances
- Approved for use with variable embedment depths included in ETA

Technical data	
Material composition	(Galvanized) Steel, zinc-plated (min. 5 µm); (Stainless steel) Steel, A4 (SS316)
Head configuration	Externally threaded
Type of fastening	Pre-fastening, Through-fastening
Approvals / test reports	ETA, Fire, Seismic

Approvals	
ZTV-ING	GS 6.1/22-065-3-r1
ETA, Seismic	ETA-21/0878 / 25-10-2023

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



These are abbreviated instructions which may vary according to the application.

HST4 wedge anchor

Order Now

Ordering Designation	Anchor Size	Anchor Length	Drill Bit Diameter	hnom at Std Embedment	Drill Hole Depth at Std	Max. Fixture Thickness at Std	Baseplate Hole Clearance	Required Tightening Torque	Sales Pack Qty	Item No.
HST4 M8x50 5	M8	50 mm	8 mm	36 mm	56 mm	5 mm	9 mm	20 Nm	100	2328937
HST4 M8x65 5-20	M8	65 mm	8 mm	46 mm	66 mm	10 mm	9 mm	20 Nm	100	2328938
HST4 M8x75 5-30	M8	75 mm	8 mm	46 mm	66 mm	20 mm	9 mm	20 Nm	100	2328939
HST4 M8x95 5-50	M8	95 mm	8 mm	46 mm	66 mm	40 mm	9 mm	20 Nm	100	2329050
HST4 M8x115 5-70	M8	115 mm	8 mm	46 mm	66 mm	60 mm	9 mm	20 Nm	100	2329051
HST4 M10x60 5-10	M10	60 mm	10 mm	38 mm	58 mm	10 mm	12 mm	40 Nm	72	2329052
HST4 M10x70 5-20	M10	70 mm	10 mm	38 mm	58 mm	20 mm	12 mm	40 Nm	72	2329053
HST4 M10x80 5-30	M10	80 mm	10 mm	63 mm	83 mm	5 mm	12 mm	40 Nm	72	2329054
HST4 M10x90 5-40	M10	90 mm	10 mm	63 mm	83 mm	15 mm	12 mm	40 Nm	72	2329055
HST4 M10x100 5-50	M10	100 mm	10 mm	63 mm	83 mm	25 mm	12 mm	40 Nm	60	2329056
HST4 M10x110 5-60	M10	110 mm	10 mm	63 mm	83 mm	35 mm	12 mm	40 Nm	60	2329057
HST4 M10x130 5-80	M10	130 mm	10 mm	63 mm	83 mm	55 mm	12 mm	40 Nm	40	2329058
HST4 M10x160 5-110	M10	160 mm	10 mm	63 mm	83 mm	85 mm	12 mm	40 Nm	40	2329059
HST4 M10x180 5-130	M10	180 mm	10 mm	63 mm	83 mm	105 mm	12 mm	40 Nm	40	2329060
HST4 M12x75 5-10	M12	75 mm	12 mm	49 mm	69 mm	5 mm	14 mm	60 Nm	40	2329061
HST4 M12x85 5-20	M12	85 mm	12 mm	49 mm	69 mm	10 mm	14 mm	60 Nm	40	2329062
HST4 M12x95 5-30	M12	95 mm	12 mm	74 mm	94 mm	20 mm	14 mm	60 Nm	40	2408287
HST4 M12x105 5-40	M12	105 mm	12 mm	74 mm	94 mm	15 mm	14 mm	60 Nm	40	2329063
HST4 M12x115 5-50	M12	115 mm	12 mm	74 mm	94 mm	25 mm	14 mm	60 Nm	40	2329064
HST4 M12x125 5-60	M12	125 mm	12 mm	74 mm	94 mm	35 mm	14 mm	60 Nm	32	2329065
HST4 M12x135 5-70	M12	135 mm	12 mm	74 mm	94 mm	45 mm	14 mm	60 Nm	32	2329066
HST4 M12x145 5-80	M12	145 mm	12 mm	74 mm	94 mm	55 mm	14 mm	60 Nm	32	2329067
HST4 M12x165 5-100	M12	165 mm	12 mm	74 mm	94 mm	75 mm	14 mm	60 Nm	20	2329068
HST4 M12x180 5-115	M12	180 mm	12 mm	74 mm	94 mm	90 mm	14 mm	60 Nm	20	2329069
HST4 M12x200 5-135	M12	200 mm	12 mm	74 mm	94 mm	110 mm	14 mm	60 Nm	20	2329070
HST4 M12x260 35-195	M12	260 mm	12 mm	77 mm	97 mm	135 mm	14 mm	60 Nm	20	2329071
HST4 M16x115 5-15	M16	115 mm	16 mm	92 mm	112 mm	10 mm	18 mm	120 Nm	20	2329072
HST4 M16x125 5-25	M16	125 mm	16 mm	92 mm	112 mm	20 mm	18 mm	120 Nm	20	2329073
HST4 M16x135 5-35	M16	135 mm	16 mm	92 mm	112 mm	30 mm	18 mm	120 Nm	20	2329074
HST4 M16x145 5-45	M16	145 mm	16 mm	92 mm	112 mm	55 mm	18 mm	120 Nm	20	2329075
HST4 M16x170 5-70	M16	170 mm	16 mm	92 mm	112 mm	75 mm	18 mm	120 Nm	12	2329076
HST4 M16x190 5-90	M16	190 mm	16 mm	92 mm	112 mm	105 mm	18 mm	120 Nm	12	2329077
HST4 M16x220 5-120	M16	220 mm	16 mm	92 mm	112 mm	145 mm	18 mm	120 Nm	12	2329078
HST4 M16x260 5-160	M16	260 mm	16 mm	92 mm	112 mm	195 mm	18 mm	120 Nm	12	2329079
HST4 M20x170 5-30	M20	170 mm	20 mm	92 mm	112 mm	30 mm	22 mm	180 Nm	5	2329080
HST4 M20x200 5-60	M20	200 mm	20 mm	116 mm	136 mm	60 mm	22 mm	180 Nm	5	2329081
HST4 M20x260 60-120	M20	260 mm	20 mm	116 mm	136 mm	90 mm	22 mm	180 Nm	5	2329082

Please visit Hilti website for the latest item numbers and related products

HST4-R Stainless steel wedge anchor

Order Now

Ordering Designation	Anchor Size	Anchor Length	Drill Bit Diameter	hnom at Std Embedment	Drill Hole Depth at Std	Max. Fixture Thickness at Std	Baseplate Hole Clearance	Required Tightening Torque	Sales Pack Qty	Item No.
HST4-R M8x50 5	M8	50 mm	8 mm	36 mm	56 mm	5 mm	9 mm	20 Nm	100	2329093
HST4-R M8x65 5-25	M8	65 mm	8 mm	46 mm	66 mm	10 mm	9 mm	20 Nm	100	2329094
HST4-R M8x75 5-35	M8	75 mm	8 mm	46 mm	66 mm	20 mm	9 mm	20 Nm	100	2329095
HST4-R M8x95 5-50	M8	95 mm	8 mm	46 mm	66 mm	40 mm	9 mm	20 Nm	100	2329096
HST4-R M8x115 5-70	M8	115 mm	8 mm	46 mm	66 mm	60 mm	9 mm	20 Nm	100	2329097
HST4-R M10x60 5-10	M10	60 mm	10 mm	38 mm	58 mm	10 mm	12 mm	40 Nm	72	2329098
HST4-R M10x70 5-20	M10	70 mm	10 mm	38 mm	58 mm	20 mm	12 mm	40 Nm	72	2329099
HST4-R M10x80 5-30	M10	80 mm	10 mm	63 mm	83 mm	5 mm	12 mm	40 Nm	72	2329100
HST4-R M10x90 5-40	M10	90 mm	10 mm	63 mm	83 mm	15 mm	12 mm	40 Nm	72	2329101
HST4-R M10x100 5-50	M10	100 mm	10 mm	63 mm	83 mm	25 mm	12 mm	40 Nm	60	2329102
HST4-R M10x110 5-60	M10	110 mm	10 mm	63 mm	83 mm	35 mm	12 mm	40 Nm	60	2329103
HST4-R M10x130 5-80	M10	130 mm	10 mm	63 mm	83 mm	55 mm	12 mm	40 Nm	40	2329104
HST4-R M10x160 5-110	M10	160 mm	10 mm	63 mm	83 mm	85 mm	12 mm	40 Nm	40	2329105
HST4-R M10x180 5-130	M10	180 mm	10 mm	63 mm	83 mm	105 mm	12 mm	40 Nm	40	2329106
HST4-R M12x75 5-10	M12	75 mm	12 mm	49 mm	69 mm	5 mm	14 mm	60 Nm	40	2329107
HST4-R M12x85 5-20	M12	85 mm	12 mm	49 mm	69 mm	10 mm	14 mm	60 Nm	40	2329108
HST4-R M12x95 5-30	M12	95 mm	12 mm	74 mm	94 mm	20 mm	14 mm	60 Nm	40	2408286
HST4-R M12x105 5-40	M12	105 mm	12 mm	74 mm	94 mm	15 mm	14 mm	60 Nm	40	2329109
HST4-R M12x115 5-50	M12	115 mm	12 mm	74 mm	94 mm	25 mm	14 mm	60 Nm	40	2329110
HST4-R M12x125 5-60	M12	125 mm	12 mm	74 mm	94 mm	35 mm	14 mm	60 Nm	32	2329111
HST4-R M12x135 5-70	M12	135 mm	12 mm	74 mm	94 mm	45 mm	14 mm	60 Nm	32	2329112
HST4-R M12x145 5-80	M12	145 mm	12 mm	74 mm	94 mm	55 mm	14 mm	60 Nm	32	2329113
HST4-R M12x165 5-100	M12	165 mm	12 mm	74 mm	94 mm	75 mm	14 mm	60 Nm	20	2329114
HST4-R M12x180 5-115	M12	180 mm	12 mm	74 mm	94 mm	90 mm	14 mm	60 Nm	20	2329115
HST4-R M12x200 5-135	M12	200 mm	12 mm	74 mm	94 mm	110 mm	14 mm	60 Nm	20	2329116
HST4-R M16x115 5-15	M16	115 mm	16 mm	77 mm	97 mm	15 mm	18 mm	120 Nm	20	2329117
HST4-R M16x125 5-25	M16	125 mm	16 mm	92 mm	112 mm	10 mm	18 mm	120 Nm	20	2329118
HST4-R M16x135 5-35	M16	135 mm	16 mm	92 mm	112 mm	20 mm	18 mm	120 Nm	20	2329119
HST4-R M16x145 5-45	M16	145 mm	16 mm	92 mm	112 mm	30 mm	18 mm	120 Nm	20	2329120
HST4-R M16x170 5-70	M16	170 mm	16 mm	92 mm	112 mm	55 mm	18 mm	120 Nm	12	2329121
HST4-R M16x190 5-90	M16	190 mm	16 mm	92 mm	112 mm	75 mm	18 mm	120 Nm	12	2329122
HST4-R M16x220 5-120	M16	220 mm	16 mm	92 mm	112 mm	105 mm	18 mm	120 Nm	12	2329123
HST4-R M16x260 5-160	M16	260 mm	16 mm	92 mm	112 mm	145 mm	18 mm	120 Nm	12	2329124
HST4-R M20x170 5-30	M20	170 mm	20 mm	116 mm	136 mm	30 mm	22 mm	180 Nm	5	2329125
HST4-R M20x200 5-60	M20	200 mm	20 mm	116 mm	136 mm	60 mm	22 mm	180 Nm	5	2329126

Please visit Hilti website for the latest item numbers and related products

Setting tool and adaptive torque system

① 

② 

③ 

④ 

⑤ 

Ordering designation	Wrench size	Length	Sales pack quantity	Item number
SIW 4AT-22 ½ ①	-	-	1 pc	**2291205**
SI-AT-22 Adaptive Torque Module ②	-	-	1 pc	**2291198**
Impact socket SI-S 1/2"-13 S ③	13 mm	40 mm	1 pc	**2070371**
Impact socket SI-S 1/2"-15 S ③	15 mm	40 mm	1 pc	**2070372**
Impact socket SI-S 1/2"-17 S ③	17 mm	40 mm	1 pc	**2070374**
Impact socket SI-S 1/2"-18 S ③	18 mm	40 mm	1 pc	**2070375**
Impact socket SI-S 1/2"-19 S ③	19 mm	40 mm	1 pc	**2070376**
Impact socket SI-S 1/2"-21 S ③	21 mm	40 mm	1 pc	**2070377**
Impact socket SI-S 1/2"-22 S ③	22 mm	40 mm	1 pc	**2070378**
Impact socket SI-S 1/2"-24 S ③	24 mm	40 mm	1 pc	**2070379**
Impact socket SI-S 1/2"-27 S ③	27 mm	40 mm	1 pc	**2070380**
Impact socket SI-S 1/2"-30 S ③	30 mm	40 mm	1 pc	**2070381**
Impact socket SI-S 1/2"-13 L ④	13 mm	80 mm	1 pc	**2070389**
Impact socket SI-S 1/2"-15 L ④	15 mm	80 mm	1 pc	**2070390**
Impact socket SI-S 1/2"-17 L ④	17 mm	80 mm	1 pc	**2070392**
Impact socket SI-S 1/2"-18 L ④	18 mm	80 mm	1 pc	**2070393**
Impact socket SI-S 1/2"-19 L ④	19 mm	80 mm	1 pc	**2070394**
Impact socket SI-S 1/2"-21 L ④	21 mm	80 mm	1 pc	**2070395**
Impact socket SI-S 1/2"-22 L ④	22 mm	80 mm	1 pc	**2070396**
Impact socket SI-S 1/2"-24 L ④	24 mm	80 mm	1 pc	**2070397**
Impact socket SI-S 1/2"-27 L ④	27 mm	80 mm	1 pc	**2070398**
Impact socket SI-S 1/2"-30 L ④	30 mm	80 mm	1 pc	**2070399**
HS-SC M8-M16 ⑤	-	-	1 pc	**2051443**

Please visit Hilti website for the latest item numbers and related products

HST4(-R) Expansion anchor

High-performance expansion anchor for cracked concrete and seismic

Anchor version	Benefits

HST4
HST4-R
(M8-M20)

- High capacity anchor with ability to be used in reduced member thickness, small spacing and edge distances
- Suitable for uncracked and cracked concrete C12/15 to C90/105
- Highly reliable and safe anchor for structural seismic design with ETA C1/ C2 assessment
- Longer embedment depth option to get higher resistance, closer distance to the edge or smaller spacing
- Full design flexibility with variable embedment depth and edge & spacing
- Faster and reliable installation thanks to approved non-cleaning and adaptive torqueing tool
- Dome-nut variant available for more aesthetic application finish
- Product and length identification mark facilitates quality control and inspection

Base material

Concrete (uncracked)

Concrete (cracked)

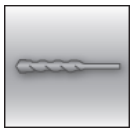
Load conditions

Static/ quasi-static

Seismic C1/C2

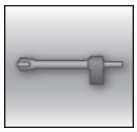
Fire resistance

Installation conditions



Hammer drilled holes (with no cleaning)

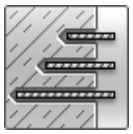
Diamond drilled holes



Hollow drill-bit drilling

Impact wrench with adaptative torque module

Other information



Variable embedment depth

European Technical Assessment

PROFIS Engineering design software

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
European technical assessment	CSTB, France	ETA-21/0878 / 09-10-2025
Fire data ZTV-ING Tunnel	MFPA, Leipzig	GS 6.1/22-065-3-r1 30-11-2023

Static and quasi-static loading based on ETA-21/0878
Design according to EN 1992-4

All data in this section applies to:

- Correct setting (see setting details table)
- A single anchor
- No edge distance and spacing influence (see Setting details table for characteristic distances)
- *Steel* failure (only indicated for characteristic resistances)
- Minimum base material thickness (see Geometrical condition table)
- Concrete C20/25
- Values valid for hammer drilled and diamond cored holes (M8 to M20), hammer drilled holes with Hilti hollow drill bit (M10-M20)

Note: according to the EAD 330232-01-0601 effective embedment depths smaller than 40 mm are allowed only for dry indoor applications in statically indeterminate structural components, when in case of failure the load can be distributed to other fasteners.

Geometrical condition

Anchor size		M8			M10			M12			M16			M20	
Variable anchorage depth	h_{ef} [mm]	30-90			30-100			40-125			65-160			101-180	
Effective anchorage depth [a]	h_{ef} [mm]	30	40*	90	30	55*	100	40	65*	125	65	80*	160	101*	180
Nominal embedment depth	h_{nom} [mm]	36	46	96	38	63	108	49	74	134	77	92	172	116	195
Thickness of concrete member	$h \geq$ [mm]	80	80	135	80	94	150	100	110	190	120	132	240	160	270

a) Effective anchorage depth used for calculation of values below. For other embedment depths PROFIS Engineering can be used.

Characteristic resistance

Anchor size		M8			M10			M12			M16			M20	
Non-cracked concrete															
Tension	HST4 N_{Rk} [kN]	8,1	12,5	19,1	8,7	21,6	30,0	14,4	29,9	42,0	29,7	40,7	55,1	50,0	50,0
	HST4-R	8,1	12,5	19,1	9,3	23,2	32,0	14,4	29,8	46,0	29,7	40,6	60,0	50,0	50,0
Shear	HST4 V_{Rk} [kN]	16,5	16,3	16,3	16,2	24,8	24,8	35,8	37,4	37,4	62,9	62,9	62,9	83,9	83,9
	HST4-R	16,5	*17,4*	*17,4*	17,4	*27,5*	*27,5*	*34,4*	*41,3*	*41,3*	*72,4*	*72,4*	*72,4*	*97,2*	*97,2*
Cracked concrete															
Tension	HST4 N_{Rk} [kN]	5,7	8,7	12,0	6,6	16,2	19,1	10,1	20,9	28,1	20,9	28,4	38,0	35,0	35,0
	HST4-R	5,7	8,7	11,0	6,6	16,2	20,0	10,1	20,9	28,1	20,9	28,5	38,0	35,0	35,0
Shear	HST4 V_{Rk} [kN]	11,6	16,3	16,3	12,2	24,8	24,8	25,2	37,4	37,4	62,6	62,9	62,9	83,9	83,9
	HST4-R	11,6	*17,4*	*17,4*	12,2	*27,5*	*27,5*	25,2	*41,3*	*41,3*	62,6	*72,4*	*72,4*	*97,2*	*97,2*

Design resistance

Anchor size		M8			M10			M12			M16			M20	
Non-cracked concrete															
Tension	HST4 N_{Rk} [kN]	5,4	8,3	12,7	5,8	14,4	20,0	9,6	19,9	28,0	19,8	27,1	36,7	33,3	33,3
	HST4-R	5,4	8,3	12,7	6,2	15,5	21,3	9,6	19,9	30,7	19,8	27,1	40,0	33,3	33,3
Shear	HST4 V_{Rk} [kN]	11,0	13,0	13,0	10,8	19,8	19,8	23,9	29,9	29,9	50,3	50,3	50,3	67,1	67,1
	HST4-R	11,0	13,9	13,9	11,6	18,3	22,0	23,9	27,5	33,0	57,9	57,9	57,9	77,8	77,8
Cracked concrete															
Tension	HST4 N_{Rk} [kN]	3,8	5,8	8,0	4,4	10,8	12,7	6,7	13,9	18,7	13,9	18,9	25,3	23,3	23,3
	HST4-R	3,8	5,8	7,3	4,4	10,8	13,3	6,7	13,9	18,7	13,9	19,0	25,3	23,3	23,3
Shear	HST4 V_{Rk} [kN]	7,7	13,0	13,0	8,1	19,8	19,8	16,8	29,9	29,9	41,7	50,3	50,3	67,1	67,1
	HST4-R	7,7	11,6	13,9	8,1	21,6	22,0	16,8	27,5	33,0	41,7	57,0	57,9	74,6	77,8

Recommended loads[b)]

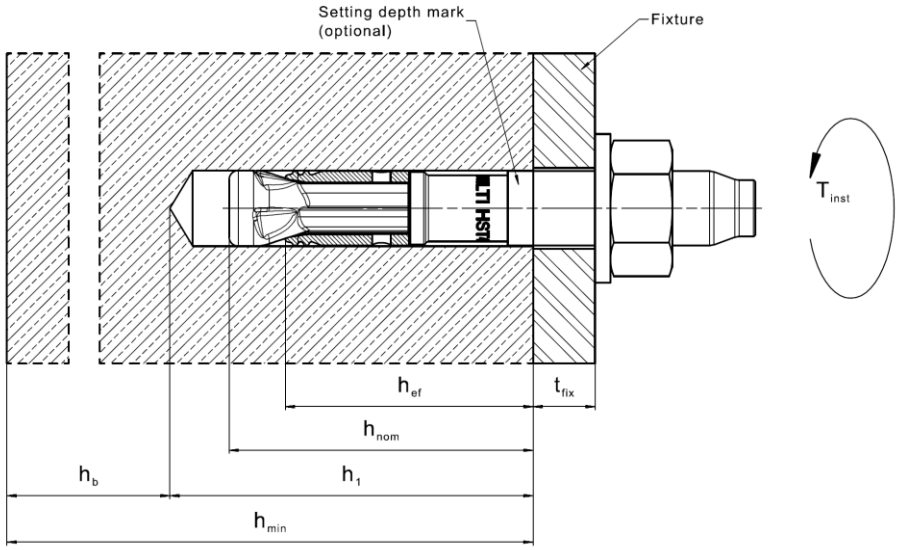
Anchor size			M8			M10			M12			M16			M20	
Non-cracked concrete																
Tension	HST4	N_{Rk} [kN]	2,7	4,2	6,4	2,9	7,2	10,0	4,8	10,0	14,0	9,9	13,6	18,4	16,7	16,7
	HST4-R		2,7	4,2	6,4	3,1	7,7	10,7	4,8	9,9	15,3	9,9	13,5	20,0	16,7	16,7
Shear	HST4	V_{Rk} [kN]	5,5	5,4	5,4	5,4	8,3	8,3	11,9	12,5	12,5	21,0	21,0	21,0	28,0	28,0
	HST4-R		5,5	5,8	5,8	5,8	9,2	9,2	11,5	13,8	13,8	24,1	24,1	24,1	32,4	32,4
Cracked concrete																
Tension	HST4	N_{Rk} [kN]	1,9	2,9	4,0	2,2	5,4	6,4	3,4	7,0	9,4	7,0	9,5	12,7	11,7	11,7
	HST4-R		1,9	2,9	3,7	2,2	5,4	6,7	3,4	7,0	9,4	7,0	9,5	12,7	11,7	11,7
Shear	HST4	V_{Rk} [kN]	3,9	5,4	5,4	4,1	8,3	8,3	8,4	12,5	12,5	20,9	21,0	20,9	28,0	28,0
	HST4-R		3,9	5,8	5,8	4,1	9,2	9,2	8,4	13,8	13,8	20,9	24,1	24,1	32,4	32,4

b) With overall partial safety factor for action γ = 3. The partial safety factors for action depend on the type of loading and shall be taken from national regulations

Remarks: Loading Performance of each size in the middle column is revised according to the Standard Embedment (Red Ring)

Mechanical properties

Anchor size			M8	M10	M12	M16	M20
Nominal tensile strength	HST4	$f_{uk,thread}$ [N/mm²]	800	800	800	700	700
	HST4-R		755	740	730	710	650
Yield strength	HST4	$f_{yk,thread}$ [N/mm²]	640	640	640	560	560
	HST4-R		604	592	584	568	520
Stressed cross-section		A_s [mm²]	36,6	58,0	84,3	157	245



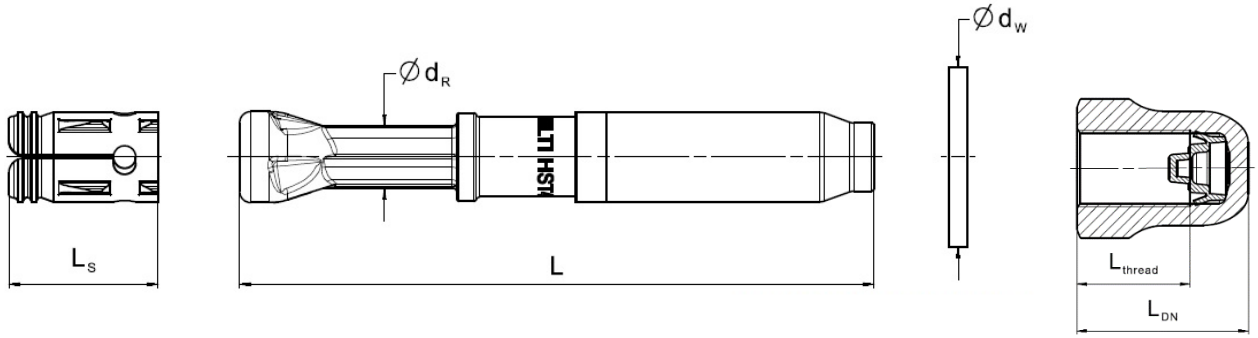
Installation equipment

Anchor size	M8	M10	M12	M16	M20
Rotary hammer	TE2(-A) – TE30(-A)				TE40 – TE80
Diamond coring tool	DD-30W				
Torqueing tool	Hilti SIW 4AT 22 – SI-AT-22				-
Setting tool	HS-SC				-
Hollow drill bit	-		TE-CD, TE-YD		
Other tools	hammer, torque wrench, blow out pump				

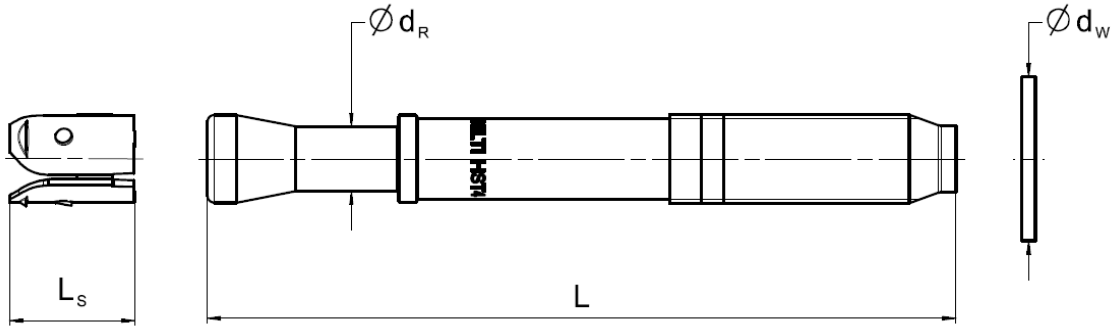
Anchor dimensions

Anchor size			M8	M10	M12	M16	M20
Maximum length of anchor	L	[mm]	115	180	200	260	200
Shaft diameter at the cone	d_R	[mm]	5,70	6,90	8,30	11,5	14,62
Length of expansion sleeve	L_s	[mm]	15,0	18,0	20,0	26,0	28,3
Diameter of washer	d_w	[mm]	15,57	19,48	23,48	29,48	36,38
Length of dome nut thread	L_{thread}≥	[mm]	-	16,8	17,8	-	-
Length of dome nut	L_{DN} ≥	[mm]	-	21,9	24,0	-	-

HST4-R (M8-M16)



HST4-R (M20)

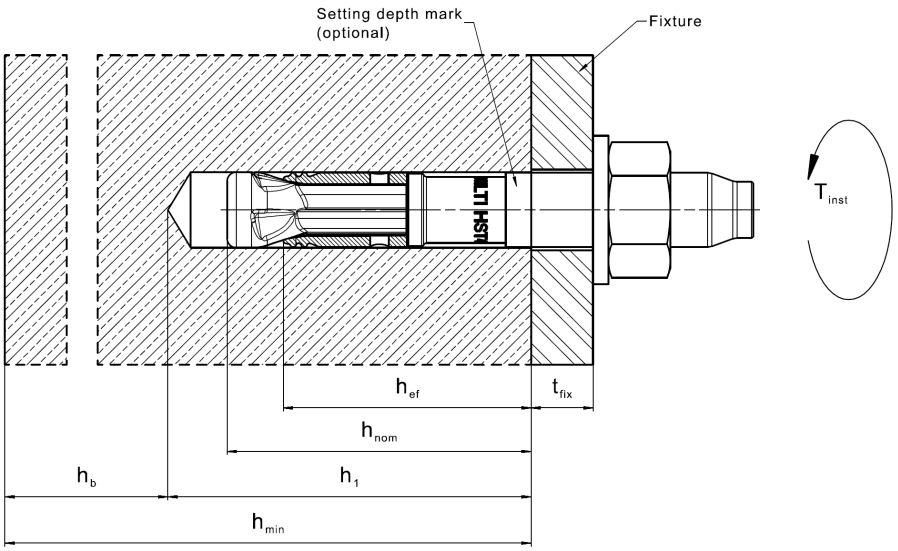


Setting information

Setting details

Anchor size				M8			M10			M12			M16			M20	
Nominal diameter of drill bit		d_o	[mm]	8			10			12			16			20	
Maximum diameter of clearance hole in the fixture		d_f	[mm]	9			12			14			18			22	
Torque moment		T_{inst}	[Nm]	20			40			60			120			180	
Effective anchorage depth		h_{ef}	[mm]	30	40	90	30	55	100	40	65	125	65	80	160	101	180
Nominal embedment depth		h_{nom}	[mm]	36	46	96	38	63	108	49	74	134	77	92	172	116	195
Drill hole depth																	
Hammer drill	not cleaned	$h_1 \geq$	[mm]	56	66	116	58	83	128	69	94	154	97	112	192	136	215
				$h_{nom}+20$													
	cleaned	$h_1 \geq$	[mm]	39	49	99	42	67	112	53	78	138	83	98	178	124	203
				$h_{nom}+3$			$h_{nom}+4$						$h_{nom}+6$			$h_{nom}+8$	
Hollow drill		$h_1 \geq$	[mm]	-			-			53	78	138	83	98	178	124	203
										$h_{nom}+4$			$h_{nom}+6$			$h_{nom}+8$	
Diamond coring		$h_1 \geq$	[mm]	46	56	106	48	73	118	59	84	144	87	102	182	126	205
				$h_{nom}+10$													
Concrete thickness below borehole		$h_b \geq$	[mm]	21			27			32			34			36	
Minimum concrete thickness		$h_{min} \geq$	[mm]	max(80; 1,5· h_{ef}; h_1+h_b)			max(80; 1,5· h_{ef}; h_1+h_b)			max(100; 1,5· h_{ef}; h_1+h_b)			max(120; 1,5· h_{ef}; h_1+h_b)			max(160; 1,5· h_{ef}; h_1+h_b)	
Characteristic spacing for splitting failure and concrete cone failure [a]		$s_{cr,sp}$	[mm]	122	200	143	173	304	218	199	306	224	381	515	368	384	684
		$s_{cr,N}$	[mm]	90	141	270	90	180	300	120	210	375	195	255	480	303	540
Characteristic edge distance for splitting failure and concrete cone failure [a]		$c_{cr,sp}$	[mm]	61	100	72	86	152	109	99	153	112	190	258	184	192	342
		$c_{cr,N}$	[mm]	45	71	135	45	90	150	60	105	188	98	128	240	152	270

a) Values calculated under the hypothesis of uncracked concrete C20/25, cleaned, hammer drilled borehole.

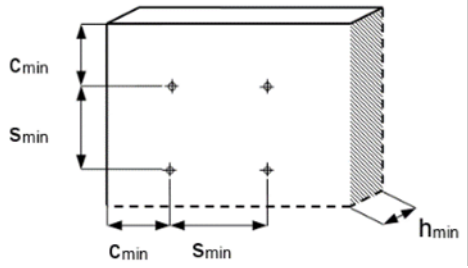


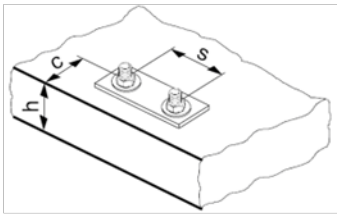
Installation equipment

Anchor size	M8	M10	M12	M16	M20
Rotary hammer	TE2(-A) – TE30(-A)				TE40 – TE80
Diamond coring tool	DD-30W				
Torquing tool	torque wrench				
	SIW 4AT-22 + SI-AT-22			-	
	-		SIW 4AT-22 + SI-AT-22		
Setting tool	HS-SC				-
Hollow drill bit	-		TE-CD, TE-YD		
Other tools	hammer, torque wrench, blow out pump				

Minimum spacing s_{min}, edge distance c_{min} and required splitting area $A_{sp,req}$

We recommend checking your designs in Hilti's PROFIS Engineering software to verify the edge & spacing values. ETA-21/0878 provides formulae for the calculation of flexible edge & spacing for each anchor layout configuration depending on base material thickness.
Minimum spacing and edge distance values on the tables below are recommendations for specific anchor layout and base material dimensions.





Anchor size			**M8**					
Effective anchorage depth	h_{ef}	[mm]	30		40		90	
Drill hole conditions			cleaned	non cleaned	cleaned	non cleaned	cleaned	non cleaned
Min. base material thickness	h_{min}	[mm]	80	80	80	100	135	140
Uncracked concrete								
Minimum spacing	s_{min}	[mm]	35	35	35	35	35	35
	for c ≥	[mm]	70	70	70	55	45	45
Minimum edge distance	c_{min}	[mm]	40	40	40	40	40	40
	for s ≥	[mm]	120	120	120	70	65	55
Required splitting area	$A_{sp,req}$	[mm²]	18910					
Cracked concrete								
Minimum spacing	s_{min}	[mm]	35	35	35	35	35	35
	for c ≥	[mm]	50	50	50	50	40	40
Minimum edge distance	c_{min}	[mm]	40	40	40	40	40	40
	for s ≥	[mm]	55	55	55	35	35	35
Required splitting area	$A_{sp,req}$	[mm²]	13667					

Anchor size			**M10**					
Effective anchorage depth	h_{ef}	[mm]	30		55		100	
Drill hole conditions			cleaned	non cleaned	cleaned	non cleaned	cleaned	non cleaned
Min. base material thickness	h_{min}	[mm]	80	90	100	115	150	155
Uncracked concrete								
Minimum spacing	s_{min}	[mm]	40	40	40	40	40	40
	for c ≥	[mm]	100	90	80	70	55	55
Minimum edge distance	c_{min}	[mm]	45	45	45	45	45	45
	for s ≥	[mm]	205	170	140	105	100	90
Required splitting area	$A_{sp,req}$	[mm²]	27082					
Cracked concrete								
Minimum spacing	s_{min}	[mm]	40	40	40	40	40	40
	for c ≥	[mm]	80	70	65	55	50	50
Minimum edge distance	c_{min}	[mm]	45	45	45	45	45	45
	for s ≥	[mm]	145	115	90	60	55	50
Required splitting area	$A_{sp,req}$	[mm²]	22279					

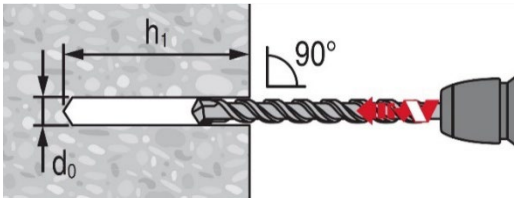
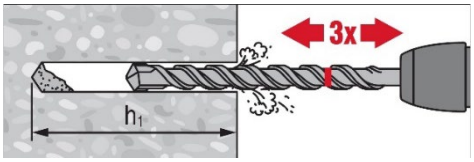
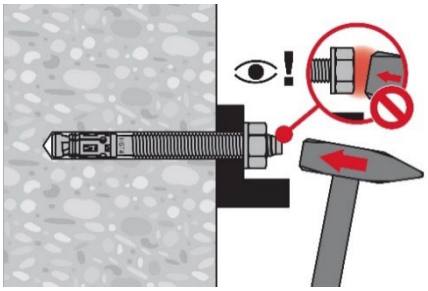
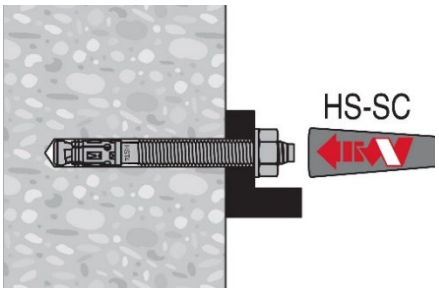
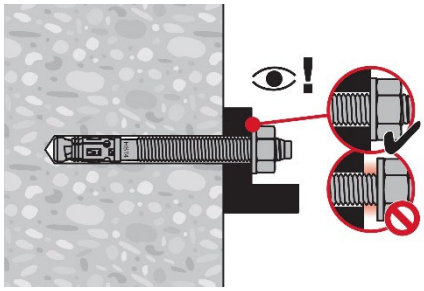
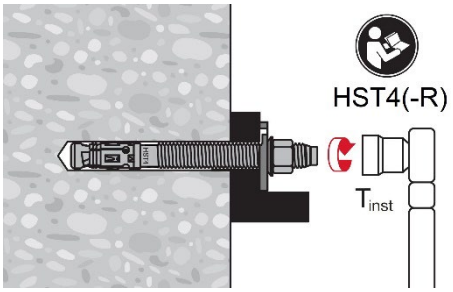
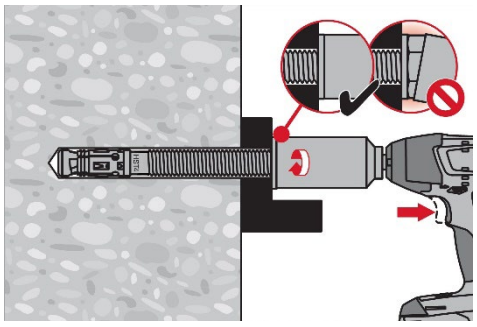
Anchor size			**M12**					
Effective anchorage depth	h_{ef}	[mm]	40		65		125	
Drill hole conditions			cleaned	non cleaned	cleaned	non cleaned	cleaned	non cleaned
Min. base material thickness	h_{min}	[mm]	100	105	115	135	190	190
Uncracked concrete								
Minimum spacing	s_{min}	[mm]	50	50	50	50	50	50
	for c ≥	[mm]	125	120	105	90	70	70
Minimum edge distance	c_{min}	[mm]	55	55	55	55	55	55
	for s ≥	[mm]	255	235	200	145	120	120
Required splitting area	$A_{sp,req}$	[mm²]	41557					
Cracked concrete								
Minimum spacing	s_{min}	[mm]	50	50	50	50	50	50
	for c ≥	[mm]	95	90	80	65	60	60
Minimum edge distance	c_{min}	[mm]	55	55	55	55	55	55
	for s ≥	[mm]	160	145	120	75	55	55
Required splitting area	$A_{sp,req}$	[mm²]	32228					

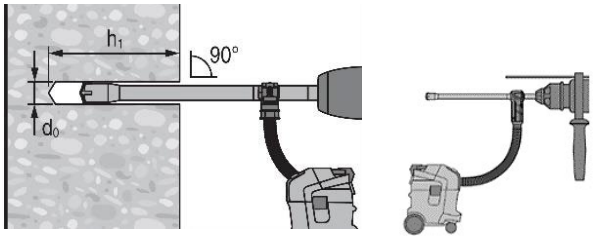
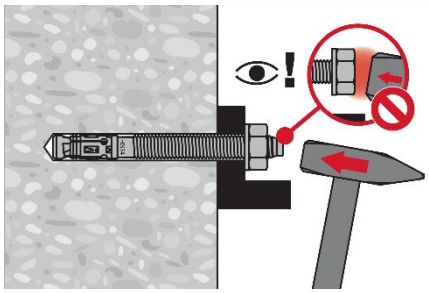
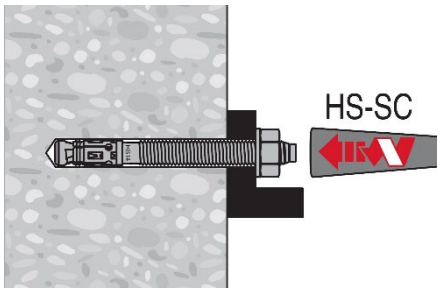
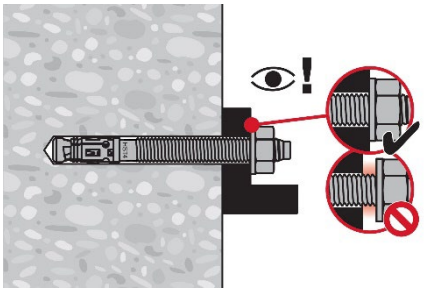
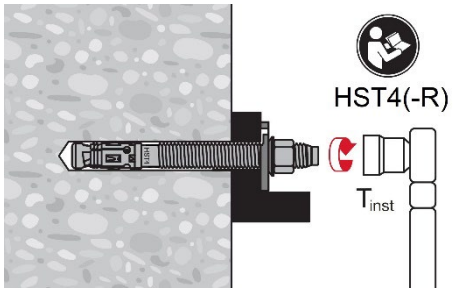
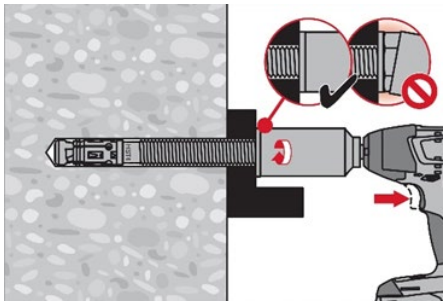
Anchor size			**M16**					
Effective anchorage depth	h_{ef}	[mm]	65		80		160	
Drill hole conditions			cleaned	non cleaned	cleaned	non cleaned	cleaned	non cleaned
Min. base material thickness	h_{min}	[mm]	120	135	140	155	240	240
Uncracked concrete								
Minimum spacing	s_{min}	[mm]	65	65	65	65	65	65
	for c ≥	[mm]	115	100	95	85	70	70
Minimum edge distance	c_{min}	[mm]	65	65	65	65	65	65
	for s ≥	[mm]	210	165	150	120	80	80
Required splitting area	$A_{sp,req}$	[mm²]	48281					
Cracked concrete								
Minimum spacing	s_{min}	[mm]	65	65	65	65	65	65
	for c ≥	[mm]	100	85	80	70	65	65
Minimum edge distance	c_{min}	[mm]	65	65	65	65	65	65
	for s ≥	[mm]	160	120	110	80	65	65
Required splitting area	$A_{sp,req}$	[mm²]	42474					

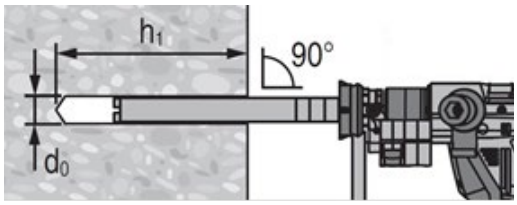
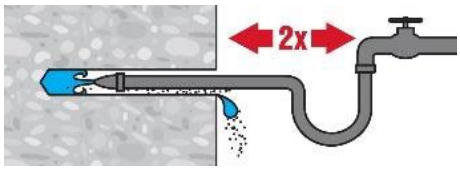
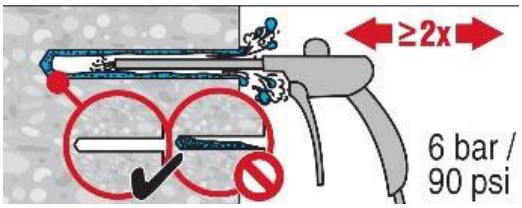
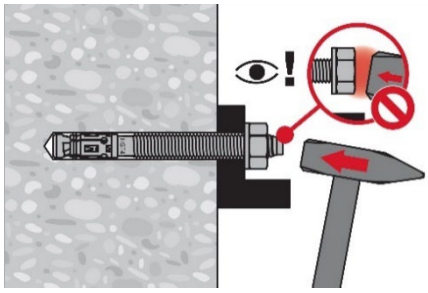
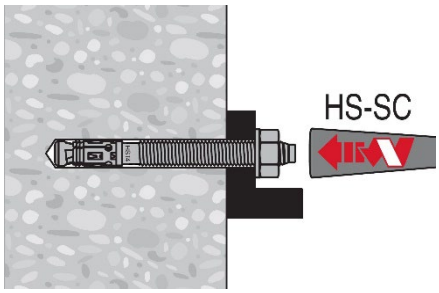
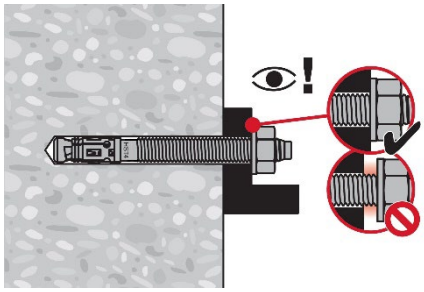
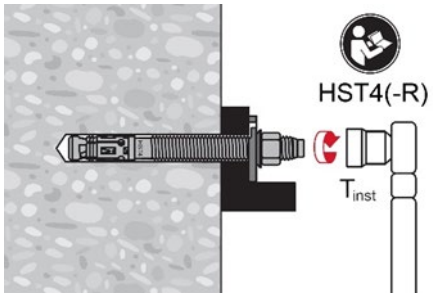
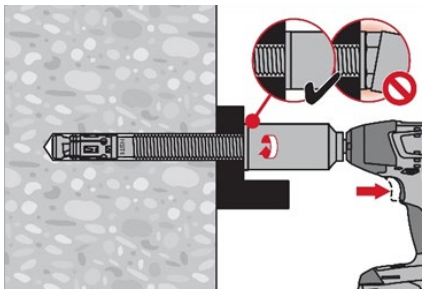
Anchor size			**M20**			
Effective anchorage depth	h_{ef}	[mm]	101		180	
Drill hole conditions			cleaned	non cleaned	cleaned	non cleaned
Min. base material thickness	h_{min}	[mm]	160	175	270	270
Uncracked concrete						
Minimum spacing	s_{min}	[mm]	90	90	90	90
	for c ≥	[mm]	140	125	90	90
Minimum edge distance	c_{min}	[mm]	80	80	80	80
	for s ≥	[mm]	260	220	140	140
Required splitting area	$A_{sp,req}$	[mm²]	79800			
Cracked concrete						
Minimum spacing	s_{min}	[mm]	90	90	90	90
	for c ≥	[mm]	100	90	80	80
Minimum edge distance	c_{min}	[mm]	80	80	80	80
	for s ≥	[mm]	145	110	90	90
Required splitting area	$A_{sp,req}$	[mm²]	61000			

Setting instructions

***For detailed information on installation see instruction for use given with the package of the product**

Setting instruction for HST4(-R)	
Hammer drilling (M8, M10, M12, M16, M20)	
1. Drill the hole 	
2a. Clean the hole 	**2b. Move the drill bit in & out (non-cleaned hole)** 
3a. Insert the anchor with hammer 	**3b. Insert the anchor with setting tool HS-SC** 
4. Check 	
5a. Torque with calibrated torque wrench 	**5b. Torque with impact wrench with Adaptive Torque module SI-AT-22** 

Hollow Drill Bit (M12, M16, M20), no cleaning required	
1. Drill the hole with Hollow Drill bit 	
2a. Insert the anchor with hammer 	**2b. Insert the anchor with setting tool HS-SC** 
3. Check 	
5a. Torque with calibrated torque wrench 	**5b. Torque with impact wrench with Adaptive Torque module SI-AT-22** 

Diamond coring (M8, M10, M12, M20)	
1. Core the hole 	**2. Flushing** 
3. Clean the hole 	
4a. Insert the anchor with hammer 	**4b. Insert the anchor with setting tool HS-SC** 
5. Check 	
6a. Torque with calibrated torque wrench 	**6b. Torque with impact wrench with Adaptive Torque module SI-AT-22** 

Attn. : To whom it may concern

Date : 1 April 2025
Ref. : 074/FP/SC/25

Subject : Country of Origin – Hilti HST4 Wedge Anchor

Dear Sir / Madam,

Enclosed please find the information of Hilti HST4 Wedge Anchor.

Brand Name : Hilti

Model Name : Hilti HST4 Wedge Anchor

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Spencer Cheung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Spencer Cheung (+852 9732 1231)

Country of Origin : Liechtenstein

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,

Spencer C.

HILTI (HONG KONG) LTD. MKT

Spencer Cheung
Head of Product Leadership Strategy

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I **F** +852-2954 1751
www.hilti.com.hk

Attn. : To whom it may concern

Date : 7 August 2025
Ref. : 169/FP/SC/25

Subject : Country of Origin – Hilti HST4-R Wedge Anchor

Dear Sir / Madam,

Enclosed please find the information of Hilti HST4-R Wedge Anchor.

Brand Name : Hilti

Model Name : Hilti HST4-R Wedge Anchor

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Spencer Cheung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Spencer Cheung (+852 9732 1231)

Country of Origin : Liechtenstein

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,

Spencer C.

HILTI (HONG KONG) LTD. MKT

Spencer Cheung
Head of Product Leadership Strategy

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I **F** +852-2954 1751
www.hilti.com.hk

20 May 2025
Ref: 115/AM/DL/25

To whom it may concern,

Announcement of Next Generation Stud Anchor – HILTI HST4(-R) Expansion Anchor

For years, Hilti has been providing the HST3(-R) expansion anchor for demanding applications in both uncracked and cracked concrete. While HST3(-R) remains an outstanding expansion anchor solution solution, Hilti is advancing anchor technology with the launch of the next generation: **HST4(-R).**

Following extensive research and development, the HST4(-R) offers enhanced performance while maintaining the proven torque-controlled, mechanical expansion design of its predecessor. It is approved for use in uncracked and cracked concrete under static and seismic loads.

The HST4(-R) now supports a broader range of embedment depths and delivers improved performance, especially where tensile failure modes are critical. HST4(-R) is available in metric sizes **M8, M10, M12, M16, and M20**, it sets a new benchmark in fastening solutions.

Hilti has thoroughly tested HST4(-R) in accordance with the following European Assessment Document (EAD):

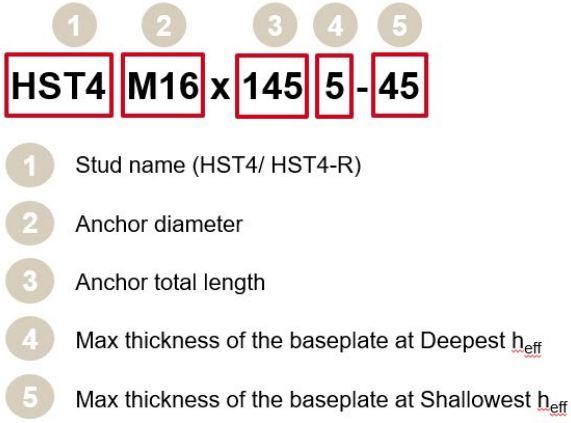
- EAD 330232-01-0601, Mechanical fasteners for use in concrete.
- EAD 330232-01-0601-v02, Variant: Improved resistance to concrete cone failure for mechanical fasteners for use in concrete.
- EAD 330232-01-0601-v03, Mechanical fasteners with variable embedment depth for use in concrete.
- EAD 330232-01-0601-v05, Mechanical fasteners for use in concrete C12/15 to C90/105 and in steel fibre reinforced concrete.

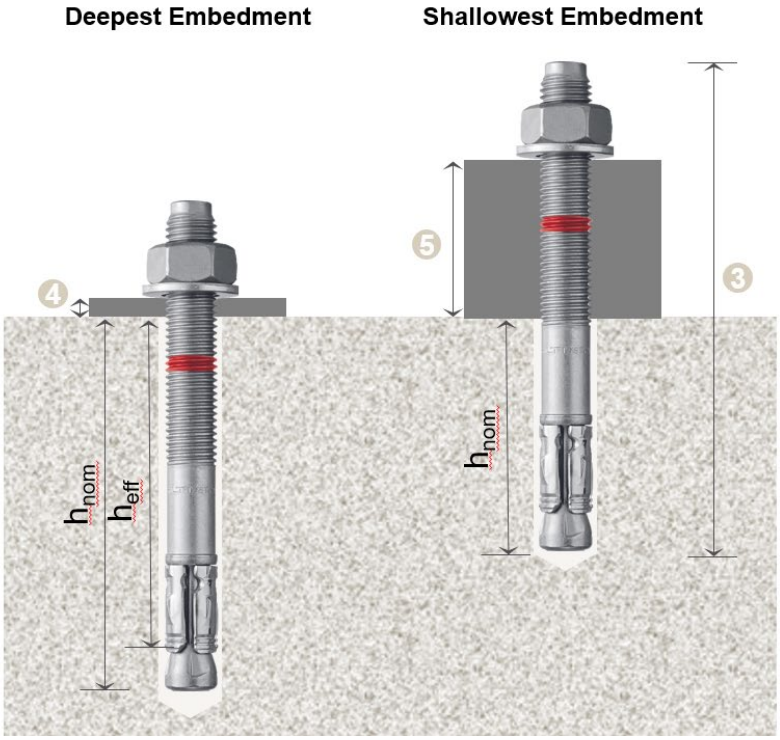
Key Highlights:

- HST4(-R) exhibits **higher or equivalent characteristic tensile performance compared to one size larger HST3(-R)** in some sizes
- Wider variable embedment range compared to HST3(-R) for design flexibility
- Shorter anchor model available for Value Engineering
- Adaptive Torque (AT) System as the ETA approved installation method

Based on the ETA 21/0878, for equal size and embedment depths, HST4(-R) is equal to or better than HST3 with limited exceptions. Given the evolving landscape of anchor qualification and design, we suggest using **PROFIS Engineering** when replacing existing products. PROFIS Engineering has been updated to include **Hilti HST4(-R)**, enabling accurate calculations and helping you explore its full range of applications.

Nomenclature





Please note that M10 – M20 HST4-R are currently with project approved by Building Department.

Attached please find the list of HST4(-R) anchor model available as the successor of HST3(-R) portfolio.

Should you have any further questions, please do not hesitate to contact our Account Managers or Customer Service Hotline at 8228 8118.

Yours sincerely,

Derek Lam
Senior Engineering Trade Manager
Hilti (Hong Kong) Ltd.

HST3				HST4			
							
Item No.	**Description**	**Head Mark**	**Anchor Length**	**Item No.**	**Description**	**Head Mark**	**Anchor Length**
				2328937	Stud anchor HST4 M8x50 5	A	50
				2328938	Stud anchor HST4 M8x65 5-20	C	65
2105888	Stud anchor HST3 M8x75 -/10	C	75	2328939	Stud anchor HST4 M8x75 5-30	C	75
2105889	Stud anchor HST3 M8x95 -/30	E	95	2329050	Stud anchor HST4 M8x95 5-50	E	95
2105890	Stud anchor HST3 M8x115 -/50	G	115	2329051	Stud anchor HST4 M8x115 5-70	G	115
				2329052	Stud anchor HST4 M10x60 5-10	B	60
2113974	Stud anchor HST3 M10x70 10/-	C	70	2329053	Stud anchor HST4 M10x70 5-20	C	70
2113975	Stud anchor HST3 M10x80 20/-	D	80	2329054	Stud anchor HST4 M10x80 5-30	D	80
2105712	Stud anchor HST3 M10x90 30/10	E	90	2329055	Stud anchor HST4 M10x90 5-40	E	90
2105713	Stud anchor HST3 M10x100 40/20	E	100	2329056	Stud anchor HST4 M10x100 5-50	E	100
2105714	Stud anchor HST3 M10x110 50/30	F	110	2329057	Stud anchor HST4 M10x110 5-60	F	110
2105715	Stud anchor HST3 M10x130 70/50	H	130	2329058	Stud anchor HST4 M10x130 5-80	H	130
2105716	Stud anchor HST3 M10x160 100/80	J	160	2329059	Stud anchor HST4 M10x160 5-110	J	160
				2329060	Stud anchor HST4 M10x180 5-130	L	180
2105717	Stud anchor HST3 M10x200 140/120	M	200		***-Discontinued-***		
				2329061	Stud anchor HST4 M12x75 5-10	C	75
2113978	Stud anchor HST3 M12x85 10/-	D	85	2329062	Stud anchor HST4 M12x85 5-20	D	85
2113979	Stud anchor HST3 M12x95 20/-	E	95	2408287	Stud anchor HST4 M12x95 5-30	E	95
2105718	Stud anchor HST3 M12x105 30/10	F	105	2329063	Stud anchor HST4 M12x105 5-40	F	105
2105719	Stud anchor HST3 M12x115 40/20	G	115	2329064	Stud anchor HST4 M12x115 5-50	G	115
2105850	Stud anchor HST3 M12x125 50/30	G	125	2329065	Stud anchor HST4 M12x125 5-60	G	125
				2329066	Stud anchor HST4 M12x135 5-70	H	135
2105851	Stud anchor HST3 M12x145 70/50	I	145	2329067	Stud anchor HST4 M12x145 5-80	I	145
2105852	Stud anchor HST3 M12x165 90/70	J	165	2329068	Stud anchor HST4 M12x165 5-100	J	165
2105853	Stud anchor HST3 M12x185 110/90	L	185	2329069	Stud anchor HST4 M12x180 5-115	L	180
				2329070	Stud anchor HST4 M12x200 5-135	M	200
2105854	Stud anchor HST3 M12x215 140/120	N	215		***-Discontinued-***		
2105855	Stud anchor HST3 M12x235 160/140	P	235		***-Discontinued-***		
2105856	Stud anchor HST3 M12x255 180/160	R	255	2329071	Stud anchor HST4 M12x260 35-195	R	260
2105857	Stud anchor HST3 M12x295 220/200	S	295		*-Discontinued-*		
2114053	Stud anchor HST3 M16x115 15/-	G	115	2329072	Stud anchor HST4 M16x115 5-15	G	115
				2329073	Stud anchor HST4 M16x125 5-25	G	125
2105858	Stud anchor HST3 M16x135 35/15	H	135	2329074	Stud anchor HST4 M16x135 5-35	H	135
2105859	Stud anchor HST3 M16x145 45/25	I	145	2329075	Stud anchor HST4 M16x145 5-45	I	145
2105860	Stud anchor HST3 M16x170 70/50	K	170	2329076	Stud anchor HST4 M16x170 5-70	K	170
				2329077	Stud anchor HST4 M16x190 5-90	L	190
2105861	Stud anchor HST3 M16x220 120/100	O	220	2329078	Stud anchor HST4 M16x220 5-120	O	220
2105862	Stud anchor HST3 M16x260 160/140	R	260	2329079	Stud anchor HST4 M16x260 5-160	R	260
2105863	Stud anchor HST3 M16x300 200/180	S	300		***-Discontinued-***		
2105891	Stud anchor HST3 M20x170 -/30	K	170	2329080	Stud anchor HST4 M20x170 5-30	K	170
2105892	Stud anchor HST3 M20x200 -/60	M	200	2329081	Stud anchor HST4 M20x200 5-60	M	200
2105893	Stud anchor HST3 M20x260 -/120	R	260	2329082	Stud anchor HST4 M20x260 60-120	R	260
2105894	Stud anchor HST3 M24x200 -/30	M	200		***-Discontinued-***		
2105895	Stud anchor HST3 M24x230 -/60	P	230		***-Discontinued-***		

HST3-R				HST4-R			
							
Item No.	**Description**	**Head Mark**	**Anchor Length**	**Item No.**	**Description**	**Head Mark**	**Anchor Length**
				2329093	Stud anchor HST4-R M8x50 5	A	50
				2329094	Stud anchor HST4-R M8x65 5-25	C	65
2105896	Stud anchor HST3-R M8x75 -/10	C	75	2329095	Stud anchor HST4-R M8x75 5-35	C	75
2105897	Stud anchor HST3-R M8x95 -/30	E	95	2329096	Stud anchor HST4-R M8x95 5-50	E	95
2105898	Stud anchor HST3-R M8x115 -/50	G	115	2329097	Stud anchor HST4-R M8x115 5-70	G	115
				2329098	Stud anchor HST4-R M10x60 5-10	B	60
2113976	Stud anchor HST3-R M10x70 10/-	C	70	2329099	Stud anchor HST4-R M10x70 5-20	C	70
2113977	Stud anchor HST3-R M10x80 20/-	D	80	2329100	Stud anchor HST4-R M10x80 5-30	D	80
2105864	Stud anchor HST3-R M10x90 30/10	E	90	2329101	Stud anchor HST4-R M10x90 5-40	E	90
2105865	Stud anchor HST3-R M10x100 40/20	E	100	2329102	Stud anchor HST4-R M10x100 5-50	E	100
2105866	Stud anchor HST3-R M10x110 50/30	F	110	2329103	Stud anchor HST4-R M10x110 5-60	F	110
2105867	Stud anchor HST3-R M10x130 70/50	H	130	2329104	Stud anchor HST4-R M10x130 5-80	H	130
2105868	Stud anchor HST3-R M10x160 100/80	J	160	2329105	Stud anchor HST4-R M10x160 5-110	J	160
				2329106	Stud anchor HST4-R M10x180 5-130	L	180
				2329107	Stud anchor HST4-R M12x75 5-10	C	75
2114051	Stud anchor HST3-R M12x85 10/-	D	85	2329108	Stud anchor HST4-R M12x85 5-20	D	85
2114052	Stud anchor HST3-R M12x95 20/-	E	95	2408286	Stud anchor HST4-R M12x95 5-20	E	95
2105869	Stud anchor HST3-R M12x105 30/10	F	105	2329109	Stud anchor HST4-R M12x105 5-40	F	105
2105870	Stud anchor HST3-R M12x115 40/20	G	115	2329110	Stud anchor HST4-R M12x115 5-50	G	115
2105871	Stud anchor HST3-R M12x125 50/30	G	125	2329111	Stud anchor HST4-R M12x125 5-60	G	125
				2329112	Stud anchor HST4-R M12x135 5-70	H	135
2105872	Stud anchor HST3-R M12x145 70/50	I	145	2329113	Stud anchor HST4-R M12x145 5-80	I	145
2105873	Stud anchor HST3-R M12x165 90/70	J	165	2329114	Stud anchor HST4-R M12x165 5-100	J	165
2105874	Stud anchor HST3-R M12x185 110/90	L	185	2329115	Stud anchor HST4-R M12x180 5-115	L	180
				2329116	Stud anchor HST4-R M12x200 5-135	M	200
2105875	Stud anchor HST3-R M12x215 140/120	N	215		***-Discontinued-***		
2114057	Stud anchor HST3-R M16x115 15/-	G	115	2329117	Stud anchor HST4-R M16x115 5-15	G	115
				2329118	Stud anchor HST4-R M16x125 5-25	G	125
2105876	Stud anchor HST3-R M16x135 35/15	H	135	2329119	Stud anchor HST4-R M16x135 5-35	H	135
2105877	Stud anchor HST3-R M16x145 45/25	I	145	2329120	Stud anchor HST4-R M16x145 5-45	I	145
2105878	Stud anchor HST3-R M16x170 70/50	K	170	2329121	Stud anchor HST4-R M16x170 5-70	K	170
				2329122	Stud anchor HST4-R M16x190 5-90	L	190
2105879	Stud anchor HST3-R M16x220 120/100	O	220	2329123	Stud anchor HST4-R M16x220 5-120	O	220
2105880	Stud anchor HST3-R M16x260 160/140	R	260	2329124	Stud anchor HST4-R M16x260 5-160	R	260
2105881	Stud anchor HST3-R M16x300 200/180	S	300		***-Discontinued-***		
2105899	Stud anchor HST3-R M20x170 -/30	K	170	2329125	Stud anchor HST4-R M20x170 5-30	K	170
2105900	Stud anchor HST3-R M20x200 -/60	M	200	2329126	Stud anchor HST4-R M20x200 5-60	M	200
2105901	Stud anchor HST3-R M24x200 -/30	M	200		***-Discontinued-***		
2105902	Stud anchor HST3-R M24x230 -/60	P	230		***-Discontinued-***		

HST3(-R) to HST4(-R) Conversion Table at Standard Embedment

HST3 Model (M8)					HST4 Model (M8)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	**Item No.**	**Description**	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
					2328937	Stud anchor HST4 M8x50 5	30	36	5
2105896	**Stud anchor HST3 M8x75 -/10**	**47**	**54**	**10**	**2329094**	**Stud anchor HST4 M8x65 5-25**	**40**	**46**	**10**
					2329095	Stud anchor HST4 M8x75 5-35	40	46	20
2105897	Stud anchor HST3 M8x95 -/30	47	54	30	2329096	Stud anchor HST4 M8x95 5-45	40	46	40
2105898	Stud anchor HST3 M8x115 -/50	47	54	50	2329097	Stud anchor HST4 M8x115 5-65	40	46	60

HST3 Model (M10)					HST4 Model (M10)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2113976	Stud anchor HST3 M10x70 10/-	No Mark		10	2329098	Stud anchor HST4 M10x60 5-10	30	38	10
2113977	Stud anchor HST3 M10x80 20/-	No Mark		20	2329099	Stud anchor HST4 M10x70 5-20	30	38	20
					2329100	Stud anchor HST4 M10x80 5-30	55	63	5
2105864	**Stud anchor HST3 M10x90 30/10**	**60**	**68**	**10**	**2329101**	**Stud anchor HST4 M10x90 5-40**	**55**	**63**	**15**
2105865	Stud anchor HST3 M10x100 40/20	60	68	20	2329102	Stud anchor HST4 M10x100 5-50	55	63	25
2105866	Stud anchor HST3 M10x110 50/30	60	68	30	2329103	Stud anchor HST4 M10x110 5-60	55	63	35
2105867	Stud anchor HST3 M10x130 70/50	60	68	50	2329104	Stud anchor HST4 M10x130 5-80	55	63	55
2105868	Stud anchor HST3 M10x160 100/80	60	68	80	2329105	Stud anchor HST4 M10x160 5-110	55	63	85
					2329106	Stud anchor HST4 M10x180 5-130	55	63	105

HST3 Model (M12)					HST4 Model (M12)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2114051	Stud anchor HST3 M12x85 10/-	No Mark		10	2329107	Stud anchor HST4 M12x75 5-10	40	49	5
2114052	Stud anchor HST3 M12x95 20/-	No Mark		20	2329108	Stud anchor HST4 M12x85 5-20	40	49	10
					2408286	Stud anchor HST4 M12x95 5-30	65	74	20
2105869	Stud anchor HST3 M12x105 30/10	70	80	10	2329109	Stud anchor HST4 M12x105 5-40	65	74	15
2105870	**Stud anchor HST3 M12x115 40/20**	**70**	**80**	**20**	**2329110**	**Stud anchor HST4 M12x115 5-50**	**65**	**74**	**25**
2105871	Stud anchor HST3 M12x125 50/30	70	80	30	2329111	Stud anchor HST4 M12x125 5-60	65	74	35
					2329112	Stud anchor HST4 M12x135 5-70	65	74	45
2105872	Stud anchor HST3 M12x145 70/50	70	80	50	2329113	Stud anchor HST4 M12x145 5-80	65	74	55
2105873	Stud anchor HST3 M12x165 90/70	70	80	70	2329114	Stud anchor HST4 M12x165 5-100	65	74	75
2105874	Stud anchor HST3 M12x185 110/90	70	80	90	2329115	Stud anchor HST4 M12x180 5-115	65	74	90
					2329116	Stud anchor HST4 M12x200 5-135	65	74	110
2105875	Stud anchor HST3 M12x215 140/120	70	80	120	2329071	Stud anchor HST4 M12x260 35-195	65	74	135

HST3 Model (M16)					HST4 Model (M16)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2114057	Stud anchor HST3 M16x115 15/-	No Mark		15	2329117	Stud anchor HST4 M16x115 5-15	65	77	10
					2329118	Stud anchor HST4 M16x125 5-25	80	92	20
2105876	Stud anchor HST3 M16x135 35/15	85	98	15	2329119	Stud anchor HST4 M16x135 5-35	80	92	30
2105877	**Stud anchor HST3 M16x145 45/25**	**85**	**98**	**25**	**2329120**	**Stud anchor HST4 M16x145 5-45**	**80**	**92**	**55**
2105878	Stud anchor HST3 M16x170 70/50	85	98	50	2329121	Stud anchor HST4 M16x170 5-70	80	92	75
					2329122	Stud anchor HST4 M16x190 5-90	80	92	105
2105879	Stud anchor HST3 M16x220 120/100	85	98	100	2329123	Stud anchor HST4 M16x220 5-120	80	92	145
2105880	Stud anchor HST3 M16x260 160/140	85	98	140	2329124	Stud anchor HST4 M16x260 5-160	80	92	195
2105881	Stud anchor HST3 M16x300 200/180	85	98	180					

HST3 Model (M20)					HST4 Model (M20)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	**Item No.**	**Description**	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2105899	Stud anchor HST3 M20x170 -/30	101	116	**30**	2329125	Stud anchor HST4 M20x170 5-30	101	116	30
2105900	Stud anchor HST3 M20x200 -/60	101	116	60	2329126	Stud anchor HST4 M20x200 5-60	101	116	60
					2329082	Stud anchor HST4 M20x260 60-120	101	116	90

HST3-R Model (M8)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2105896	**Stud anchor HST3-R M8x75 -/10**	**47**	**54**	**10**
2105897	Stud anchor HST3-R M8x95 -/30	47	54	30
2105898	Stud anchor HST3-R M8x115 -/50	47	54	50

HST4-R Model (M8)				
Item No.	**Description**	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2329093	Stud anchor HST4-R M8x50 5	30	36	5
2329094	**Stud anchor HST4-R M8x65 5-25**	**40**	**46**	**10**
2329095	Stud anchor HST4-R M8x75 5-35	40	46	20
2329096	Stud anchor HST4-R M8x95 5-50	40	46	40
2329097	Stud anchor HST4-R M8x115 5-70	40	46	60

HST3-R Model (M10)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2113976	Stud anchor HST3-R M10x70 10/-	No Mark		10
2113977	Stud anchor HST3-R M10x80 20/-	No Mark		20
2105864	**Stud anchor HST3-R M10x90 30/10**	**60**	**68**	**10**
2105865	Stud anchor HST3-R M10x100 40/20	60	68	20
2105866	Stud anchor HST3-R M10x110 50/30	60	68	30
2105867	Stud anchor HST3-R M10x130 70/50	60	68	50
2105868	Stud anchor HST3-R M10x160 100/80	60	68	80

HST4-R Model (M10)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2329098	Stud anchor HST4-R M10x60 5-10	30	38	10
2329099	Stud anchor HST4-R M10x70 5-20	30	38	20
2329100	Stud anchor HST4-R M10x80 5-30	55	63	5
2329101	**Stud anchor HST4-R M10x90 5-40**	**55**	**63**	**15**
2329102	Stud anchor HST4-R M10x100 5-50	55	63	25
2329103	Stud anchor HST4-R M10x110 5-60	55	63	35
2329104	Stud anchor HST4-R M10x130 5-80	55	63	55
2329105	Stud anchor HST4-R M10x160 5-110	55	63	85
2329106	Stud anchor HST4-R M10x180 5-130	55	63	105

HST3-R Model (M12)					HST4-R Model (M12)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2114051	Stud anchor HST3-R M12x85 10/-	No Mark		10	2329107	Stud anchor HST4-R M12x75 5-10	40	49	10
2114052	Stud anchor HST3-R M12x95 20/-	No Mark		20	2329108	Stud anchor HST4-R M12x85 5-20	40	49	20
					2408286	Stud anchor HST4-R M12x95 5-30	65	74	5
2105869	Stud anchor HST3-R M12x105 30/10	70	80	10	2329109	Stud anchor HST4-R M12x105 5-40	65	74	15
2105870	**Stud anchor HST3-R M12x115 40/20**	**70**	**80**	**20**	**2329110**	**Stud anchor HST4-R M12x115 5-50**	**65**	**74**	**25**
2105871	Stud anchor HST3-R M12x125 50/30	70	80	30	2329111	Stud anchor HST4-R M12x125 5-60	65	74	35
					2329112	Stud anchor HST4-R M12x135 5-70	65	74	45
2105872	Stud anchor HST3-R M12x145 70/50	70	80	50	2329113	Stud anchor HST4-R M12x145 5-80	65	74	55
2105873	Stud anchor HST3-R M12x165 90/70	70	80	70	2329114	Stud anchor HST4-R M12x165 5-100	65	74	75
2105874	Stud anchor HST3-R M12x185 110/90	70	80	90	2329115	Stud anchor HST4-R M12x180 5-115	65	74	90
					2329116	Stud anchor HST4-R M12x200 5-135	65	74	110
2105875	Stud anchor HST3-R M12x215 140/120	70	80	120					

HST3-R Model (M16)					HST4-R Model (M16)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2114057	Stud anchor HST3-R M16x115 15/-	No Mark		15	2329117	Stud anchor HST4-R M16x115 5-15	65	77	15
					2329118	Stud anchor HST4-R M16x125 5-25	80	92	10
2105876	Stud anchor HST3-R M16x135 35/15	85	98	15	2329119	Stud anchor HST4-R M16x135 5-35	80	92	20
2105877	**Stud anchor HST3-R M16x145 45/25**	**85**	**98**	**25**	**2329120**	**Stud anchor HST4-R M16x145 5-45**	**80**	**92**	**30**
2105878	Stud anchor HST3-R M16x170 70/50	85	98	50	2329121	Stud anchor HST4-R M16x170 5-70	80	92	55
					2329122	Stud anchor HST4-R M16x190 5-90	80	92	75
2105879	Stud anchor HST3-R M16x220 120/100	85	98	100	2329123	Stud anchor HST4-R M16x220 5-120	80	92	105
2105880	Stud anchor HST3-R M16x260 160/140	85	98	140	2329124	Stud anchor HST4-R M16x260 5-160	80	92	145
2105881	Stud anchor HST3-R M16x300 200/180	85	98	180					

HST3-R Model (M20)					HST4-R Model (M20)				
Item No.	Description	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**	**Item No.**	**Description**	Effective Embedment h_{ef}	h_{nom} at Red Ring	**Max Fixture Thickness**
2105899	Stud anchor HST3-R M20x170 -/30	101	116	**30**	2329125	Stud anchor HST4-R M20x170 5-30	101	116	30
2105900	Stud anchor HST3-R M20x200 -/60	101	116	60	2329126	Stud anchor HST4-R M20x200 5-60	101	116	60

HST4 M8

L					h_{nom}
50	65	75	95	115	
$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	
5	20	30	50	70	36
$t_{fix,min}$	15	25	45	65	41
	10	20	40	60	46
	5	15	35	55	51
	$t_{fix,min}$	10	30	50	56
		5	25	45	61
		$t_{fix,min}$	20	40	66
			15	35	71
			10	30	76
			5	25	81
			$t_{fix,min}$	20	86
				15	91
				10	96
				$t_{fix,min}$	

HST4 M10

L									h_{nom}
60	70	80	90	100	110	130	160	180	
$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	
10	20	30	40	50	60	80	110	130	38
5	15	25	35	45	55	75	105	125	43
$t_{fix,min}$	10	20	30	40	50	70	100	120	48
	5	15	25	35	45	65	95	115	53
	$t_{fix,min}$	10	20	30	40	60	90	110	58
		5	15	25	35	55	85	105	63
		$t_{fix,min}$	10	20	30	50	80	100	68
			5	15	25	45	75	95	73
			$t_{fix,min}$	10	20	40	70	90	78
				5	15	35	65	85	83
				$t_{fix,min}$	10	30	60	80	88
					5	25	55	75	93
					$t_{fix,min}$	20	50	70	98
						15	45	65	103
						10	40	60	108
						$t_{fix,min}$	$t_{fix,min}$	$t_{fix,min}$	

HST4 M12

L												h_{nom}
75	85	95	105	115	125	135	145	165	180	200	260	
$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	
10	20	30	40	50	60	70	80	100	115	135	195	49
5	15	25	35	45	55	65	75	95	110	130	190	54
$t_{fix,min}$	10	20	30	40	50	60	70	90	105	125	185	59
	5	15	25	35	45	55	65	85	100	120	180	64
	$t_{fix,min}$	10	20	30	40	50	60	80	95	115	175	69
		5	15	25	35	45	55	75	90	110	170	74
		$t_{fix,min}$	10	20	30	40	50	70	85	105	165	79
			5	15	25	35	45	65	80	100	160	84
			$t_{fix,min}$	10	20	30	40	60	75	95	155	89
				5	15	25	35	55	70	90	150	94
				$t_{fix,min}$	10	20	30	50	65	85	145	99
					5	15	25	45	60	80	140	104
					$t_{fix,min}$	10	20	40	55	75	135	109
						5	15	35	50	70	130	114
						$t_{fix,min}$	10	30	45	65	125	119
							5	25	40	60	120	124
							$t_{fix,min}$	20	35	55	115	129
								15	30	50	110	134
								$t_{fix,min}$	$t_{fix,min}$	$t_{fix,min}$	$t_{fix,min}$	

HST4 M16

L								h_{nom}
115	125	135	145	170	190	220	260	
$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	
15	25	35	45	70	90	120	160	77
10	20	30	40	65	85	115	155	82
5	15	25	35	60	80	110	150	87
$t_{fix,min}$	10	20	30	55	75	105	145	92
	5	15	25	50	70	100	140	97
	$t_{fix,min}$	10	20	45	65	95	135	102
		5	15	40	60	90	130	107
		$t_{fix,min}$	10	35	55	85	125	112
			5	30	50	80	120	117
			$t_{fix,min}$	25	45	75	115	122
				20	40	70	110	127
				15	35	65	105	132
				10	30	60	100	137
				5	25	55	95	142
				$t_{fix,min}$	20	50	90	147
					15	45	85	152
					10	40	80	157
					5	35	75	162
					$t_{fix,min}$	30	70	167
						25	65	172
						$t_{fix,min}$	$t_{fix,min}$	

HST4 M20

L			h_{nom}
170	200	260	
$t_{fix,max}$	$t_{fix,max}$	$t_{fix,max}$	
30	60	120	116
25	55	115	120
20	50	110	125
15	45	105	130
10	40	100	135
5	35	95	140
$t_{fix,min}$	30	90	145
	25	85	150
	20	80	155
	15	75	160
	15	70	165
	5	65	170
	$t_{fix,min}$	60	175
		55	180
		50	185
		45	190
		40	195
		$t_{fix,min}$	

Hilti HST4 wedge anchor Job Reference

Year	Project Name	Customer Name	Project type
2025	CLP BLACK POINT POWER STATION - D2 PROJECT	AH NGAU ENGINEERING LIMITED	Power T&D Substation (GIS)
2025	SHATIN WATER TREATMENT - ADMINISTRATION BUILDING (6/	ATAL-CW-MH JV	Water treatment
2025	R6 TRUNK ROAD T2 ED/2018/04	BOUYGUES TRAVAUX PUBLICS	Tunneling
2025	TUEN MUN HOSPITAL EXT	CHEVALIER (CONSTRUCTION) CO LTD	Hospital
2025	GALAXY 4	CHINA CONSTRUCTION ENGINEERING	Hotel
2025	新城A區A12地段公共房屋設計連建造工程	CHINA CONSTRUCTION ENGINEERING	Resident.est. Multi + Single
2025	新城A區A4地段公共房屋設計連建造工程	CHINA CONSTRUCTION ENGINEERING	Resident.est. Multi + Single
2025	BAILEY ST / WING KWONG ST DEVELOPMENT PROJECT (KC-0	CHINA OVERSEAS BUILDING	Resident.est. Multi + Single
2025	MAN YIU ST, INLAND LOT 9088, SITE 3, CENTRAL NEW WATER	CHINA OVERSEAS BUILDING	Non-residential/Office
2025	WSD & CSD HEADQUARTERS	CHINA STATE CONSTRUCTION	Non-residential/Office
2025	澳門威尼斯人	CIRCLE ENGINEERING COMPANY LTD	Hotel
2025	MTR NEW EXT. (REF. 1601)-KWU TUNG STATION ON EAST RA	DRAGAGES HONG KONG LIMITED	Railway/subway
2025	MACAU STUDIO CITY 2	EHY CONSTRUCTION AND ENGINEERING	Hotel
2025	CHINESE MEDICINE HOSPITAL TKO	ELEGANT ENGINEERING CO.	Hospital
2025	MAN YIU ST, INLAND LOT 9088, SITE 3, CENTRAL NEW WATER	ELEGANT ENGINEERING CO.	Non-residential/Office
2025	487 KWUN TONG RD - CIVIL SERVICE COLLEGE & COMMUNIT	FULL KEY ENGINEERING CO LTD	Non-residential/Office
2025	487 KWUN TONG RD - CIVIL SERVICE COLLEGE & COMMUNIT	GAMMON CONSTRUCTION LIMITED	Non-residential/Office
2025	2-8 MANSFIELD RD, RURAL BUILDING LOT 1211	GAMMON ENGINEERING & CONSTRUCTION	Resident.est. Multi + Single
2025	PRINCE OF WALES HOSPITAL PH2 STAGE 1 - (IPS)	GOLDENWALL ENGINEERING LIMITED	Hospital
2025	2 TAK SHING ST	HANG SING IRON ENGINEERING CO LTD	Resident.est. Multi + Single
2025	MAN YIU ST, INLAND LOT 9088, SITE 3, CENTRAL NEW WATER	HONG KONG YAM YUEN (JUNTAI)	Non-residential/Office
2025	2 MURRAY RD	HOP FAT STRUCTURAL STEEL	Non-residential/Office
2025	CAROLINE HILL RD, INLAND LOT 8945	HOP FAT STRUCTURAL STEEL	Non-residential/Office
2025	Wong Chuk Hang Phase 6 (Site F)	HOP FAT STRUCTURAL STEEL	Resident.est. Multi + Single
2025	外港新填海區25地段公共辦公大樓建造工程 - 上蓋工程	JANGHO CURTAIN WALL MACAO CO.,LTD	Non-residential/Office
2025	R6 TKO-LAM TIN TUNNEL NE/2015/01	JOINTEX ENGINEERING LIMITED	Tunneling
2025	TUNG CHUNG WEST STATION & TUNNELS (CONTRACT NO. 12	KEE SEE ENGINEERING CO LTD	Metro
2025	35 CLEAR WATER BAY RD	KOWLOON DEVELOPMENT ENGINEERING	Resident.est. Multi + Single
2025	SCL 1164B BS FOR HK SECTION	LAP KEI LEADER ENGINEERING CO LTD	Railway/subway
2025	SAN WAI SEWAGE TREATMENT DC/2013/10	ORIENTAL FOUNDATION DEVELOPMENT LT	Water treatment
2025	New - Office - 71 How Ming Street, Kwun Tong	PMB-CYBERWALL LIMITED	Non-residential/Office
2025	CHINESE MEDICINE HOSPITAL TKO	SAN PO METAL ENGINEERING LIMITED	Hospital
2025	KAI TAK AREA 2B, SITE 1 - HOUSING & SHOPPING CENTRE	SAN PO METAL ENGINEERING LIMITED	Resident.est. Multi + Single
2025	新城A區A3地段公共房屋設計連建造工程	SHING LUNG CONSTRUCTION &	Resident.est. Multi + Single

Hilti HST4 wedge anchor Job Reference

Year	Project Name	Customer Name	Project type
2025	KAI TAK AREA 4E, SITE 2, NKIL 6604	SUPERB INTERIOR CONTRACTING	Resident.est. Multi + Single
2025	TKO DESALINATION PLANT PH1 13/WSD/17	WEALTH TALENT CORPORATION LIMITED	Water treatment
2025	CAROLINE HILL RD, INLAND LOT 8945	WING KEI STRUCTURAL METALWORKS	Non-residential/Office
2025	SAI SHA SHK SHAP SZE HEUNG, TPTL 157 DD165, 207, 218	WUI FAI ENGINEERING CO LTD	Resident.est. Multi + Single
2025	YING TUNG RD, TUNG CHUNG AREA 99 - PUBLIC TRANSPORT	YAU LEE CONSTRUCTION CO LTD	Water treatment
2025	HKIA 3508 TERMINAL 2	YUEN FUNG CONSTRUCTION COMPANY	Airport

Hilti HST4-R Wedge Anchor Job Reference

Year	Project Name	Customer Name	Project type
2025	新城A區A12地段公共房屋設計連建造工程	CHINA CONSTRUCTION ENGINEERING	Resident.est. Multi + Single
2025	新城A區A4地段公共房屋設計連建造工程	CHINA CONSTRUCTION ENGINEERING	Resident.est. Multi + Single
2025	CHINESE MEDICINE HOSPITAL TKO	ELEGANT ENGINEERING CO.	Hospital
2025	MAN YIU ST, INLAND LOT 9088, SITE 3, CENTRAL NEW WATERF	ELEGANT ENGINEERING CO.	Non-residential/Office
2025	487 KWUN TONG RD - CIVIL SERVICE COLLEGE & COMMUNITY	FULL KEY ENGINEERING CO LTD	Non-residential/Office
2025	487 KWUN TONG RD - CIVIL SERVICE COLLEGE & COMMUNITY	GAMMON CONSTRUCTION LIMITED	Non-residential/Office
2025	2-8 MANSFIELD RD, RURAL BUILDING LOT 1211	GAMMON ENGINEERING & CONSTRUCTION	Resident.est. Multi + Single
2025	外港新填海區25地段公共辦公大樓建造工程 - 上蓋工程	JANGHO CURTAIN WALL MACAO CO.,LTD	Non-residential/Office
2025	R6 TKO-LAM TIN TUNNEL NE/2015/01	JOINTEX ENGINEERING LIMITED	Tunneling
2025	TUNG CHUNG WEST STATION & TUNNELS (CONTRACT NO. 120	KEE SEE ENGINEERING CO LTD	Metro
2025	SCL 1164B BS FOR HK SECTION	LAP KEI LEADER ENGINEERING CO LTD	Railway/subway
2025	New - Office - 71 How Ming Street, Kwun Tong	PMB-CYBERWALL LIMITED	Non-residential/Office
2025	CHINESE MEDICINE HOSPITAL TKO	SAN PO METAL ENGINEERING LIMITED	Hospital