HCA

METAL LIGHT DUTY

Technical Datasheet

Update: Jan-23

HCA Light duty metal anchors

Economical coil anchor

Anchor version	Benefits

HCA 5/8”

- Re-usable up to 140 times
- High load capacity
- Big washer ∅ 34 mm
- For temporary external applications

Base material	Other information

Concrete (non-cracked)

Concrete (cracked)

DIBt Approval Reusability

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
DIBt approval (reusability)	DIBt, Berlin	Z-21.8-2027 / 2019-05-15

Basic loading data

For temporary application:

All data in this section applies to:
- Correct setting (See setting instruction)
- No edge distance and spacing influence
- Base material as specified in the table

For temporary application in standard and fresh concrete < 28 days old:

All data in this section applies to:
- Strength class, $f_{ck,cube} \geq 10$ N/mm²
- Only temporary use
- Screw is reusable, before each usage it must be checked according Hilti instruction for use with the suited tube Hilti HRG
- Design resistance are valid for single anchor only
- Design resistance are valid for all load direction and valid for both cracked and non-cracked concrete
- Minimum base material thickness
- No edge distance and spacing influence

Design resistance for all directions in cracked and non-cracked concrete

Anchor			HCA 5/8” x 90	HCA 5/8” x 130
Length in concrete	**$h_{nom} \geq$**	**[mm]**	**80**	**115**
For concrete strength ≥ 10 N/mm²	F_{Rd}[1)]	[kN]	4	12
For concrete strength ≥ 15 N/mm²	F_{Rd}[1)]	[kN]	5	15
For concrete strength ≥ 20 N/mm²	F_{Rd}[1)]	[kN]	6	18

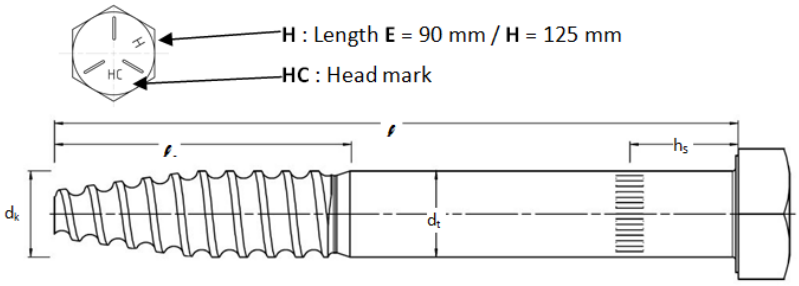
Materials

Material quality

Part	Material
Anchor HCA 5/8”	Steel galvanized; $f_{uk} \geq 850$ N/mm²
Coil HCT	Steel galvanized; 350 N/mm² ≤ f_{uk} ≤ 800 N/mm²

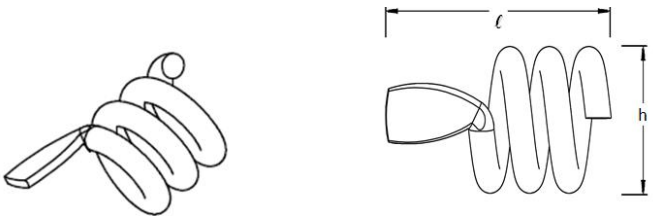
Anchor dimensions

Anchor			HCA 5/8” x 90	HCA 5/8” x 130
Length in concrete	**$h_{nom} \geq$**	**[mm]**	**80**	**115**
Anchor length	l	[mm]	90	125
Length of thread	l_s	[mm]	51	
Outer diameter	d_t	[mm]	15,8	
Core diameter	d_k	[mm]	13,1	
Marking for correct installation	h_s	[mm]	20	
Cross section	A_s	[mm²]	196,1	



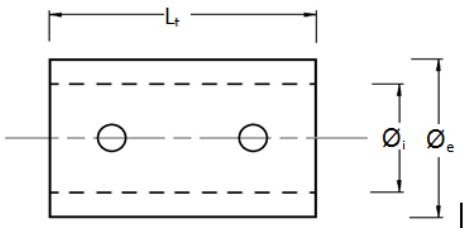
Coil dimensions

Anchor			HCT
Anchor length	l	[mm]	29,3
Length of thread	h	[mm]	15,6



Tube specification

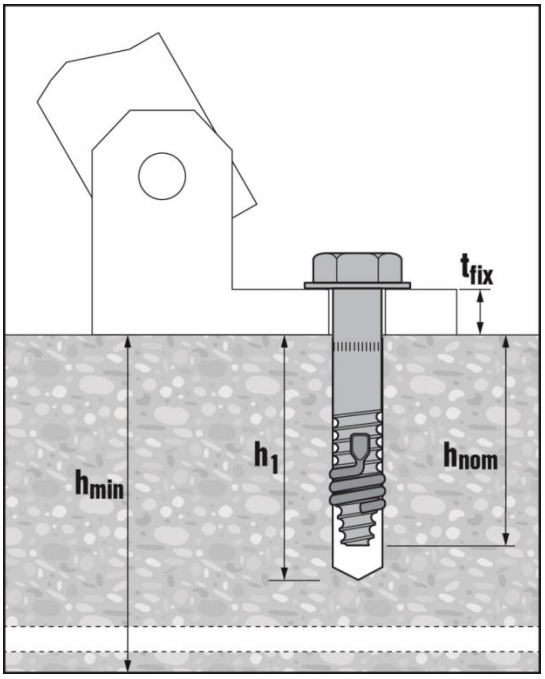
Tube			HRG 16
Inner tube diameter	$Ø_i$	[mm]	15,1
Outer tube diameter	$Ø_e$	[mm]	20,0
Tube length	L_t	[mm]	30,0



Setting information

Setting details HCA

Anchor			HCA 5/8” x 90	HCA 5/8” x 130
Length in concrete	**$h_{nom} \geq$**	**[mm]**	**80**	**115**
Nominal diameter of drill bit	d_0	[mm]	16	
Cutting diameter of drill bit	$d_{cut} \leq$	[mm]	16,5	
Diameter of clearance hole in the fixture	d_f	[mm]	18	
Wrench size (H-type)	SW	[mm]	24	
Thickness of fixture	t_{fix}	[mm]	0 ... 10	
Depth of drill hole	$h_1 \geq$	[mm]	95 - t_{fix}	95 - t_{fix}
Torque moment	T_{min}	[Nm]	180	

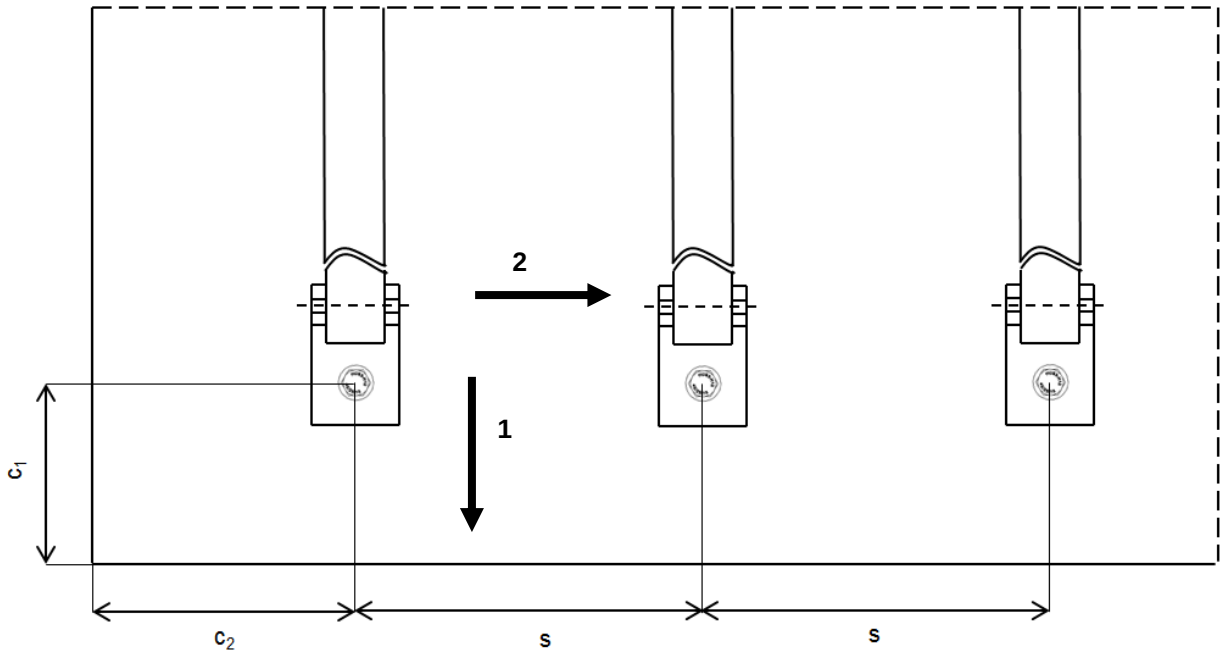


Installation equipment

Anchor	HCA
Rotary hammer	TE 2 – TE 80
Other tools	Hammer, torque wrench, blow out pump

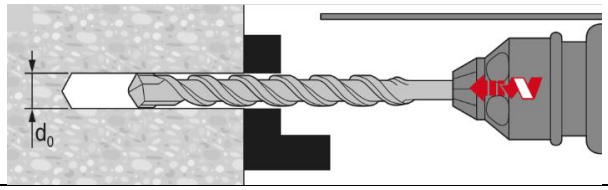
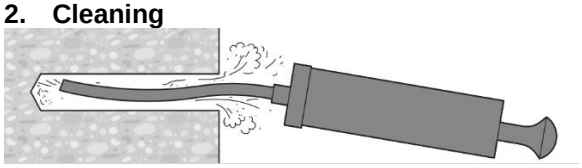
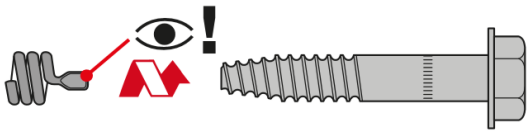
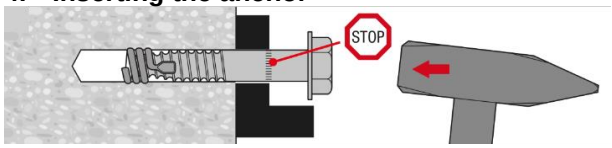
Setting parameters HCA

Anchor			HCA 5/8” x 90	HCA 5/8” x 130
Length in concrete	**$h_{nom} \geq$**	**[mm]**	**80**	**115**
Minimum thickness of concrete member	h_{min}	[mm]	200	200
Minimum spacing	s_{min}	[mm]	125	550
Minimum edge distance (load direction 1)	$c_{1,min}$	[mm]	150	350
Minimum edge distance (load direction 2)	$c_{2,min}$	[mm]	200	500



Setting instruction

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

Setting instructions	
1. Drill the hole 	**2. Cleaning** 
3. Position coil 	**4. Inserting the anchor** 
5. Attaching the belonging washer