

# HC

Denomination: **HC SLAB ANCHOR**

Codes: **HC**

Reference: **FT HC-en**

Date: **09/11/16**

Revision: **2**

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HC



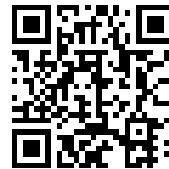
### CHARACTERISTICS

- European approval for interior non-structural applications in hollow slabs.
- CE Certification.
- R60 to R120 Fire Approval.
- The anchor collar stops it from entering the hole, making installation easy.
- Suitable for installations with reduced distances.
- Suitable for the use of bolts or threaded rods with metric threads.

### APPLICATIONS

- Suspended ceiling fixings, sprinkler systems and ventilation systems.
- Pipe work installations
- Cable ducts
- Suspended ceilings

See Web profile:



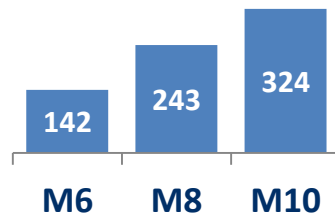
### BASE MATERIAL

### RECOMMENDED LOADS IN HOLLOW SLABS [kg]

### MEASUREMENTS



## HC



### M6 – M10

### DRILLHOLE CONDITION



### APPLICATION EXAMPLES



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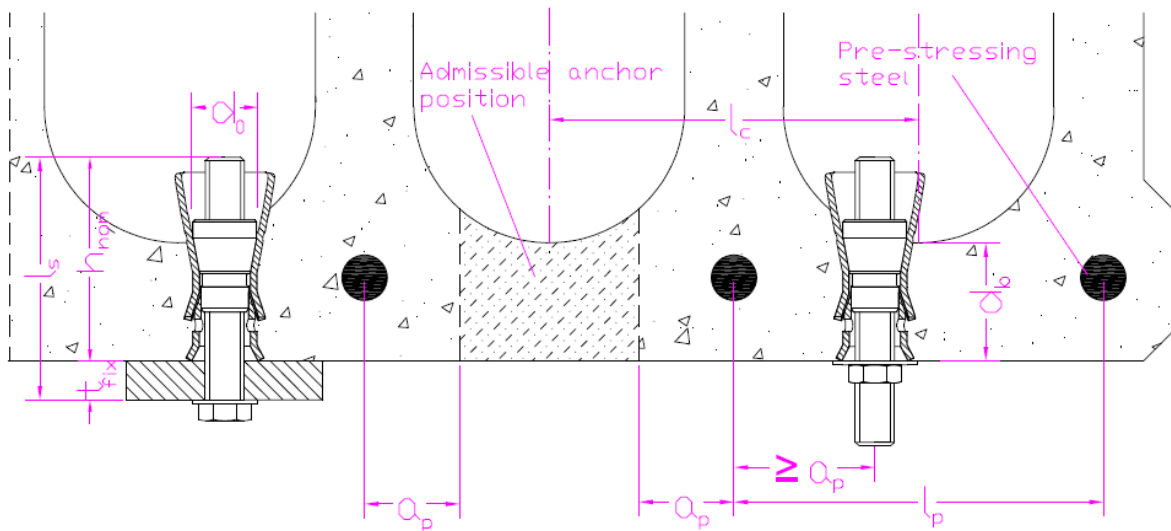
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## 1. RANGE

ITEM	CÓDE	SZIES	PICTURE	COMPONENT	MATERIAL
1	<b>HC</b>	M6 to M10		Sleeve Cone Coating	Carbon steel Carbon steel Zinc-plated $\geq 5 \mu\text{m}$

## 2. INSTALLATION DETAILS



SZIES		M6	M8	M10
$d_0$ : drill diameter	[mm]	10	12	16
$d_f$ : anchor plate diameter $\leq$	[mm]	7	9	12
$T_{ins}$ : installation torque	[Nm]	10	20	30
$h_1$ : drillhole depth	[mm]	45	50	60
$h_{nom}$ : installation depth	[mm]	38	44	53
$e$ : minimum bolt length*	[mm]	$t_{fix} + 40$	$t_{fix} + 46$	$t_{fix} + 55$
$s_{cr,N}$ : critical spacing between anchors	[mm]	200	200	200
$c_{cr,N}$ : critical edge distance	[mm]	100	100	100
$s_{min}$ : min. spacing between anchors	[mm]	100	100	100
$c_{min}$ : min. edge distance	[mm]	60	70	90

(\*)  $t_{fix}$  = thickness of material to be fixed.

Critical distances are those in which the anchors of a group of anchors do not influence each other for purposes of tensile loads. However, an anchor may not be installed at a value lower than the critical distance.

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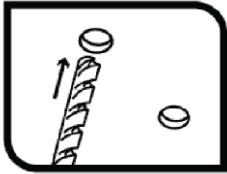
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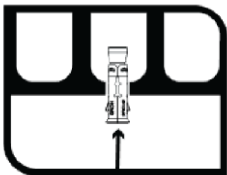
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### 3. PRODUCT INSTALLATION



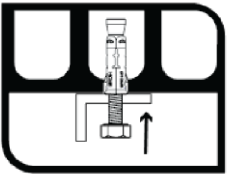
**1. DRILL**

Check concrete is well compacted and without significant pores.  
Suitable for dry, humid or flooded drillholes.  
Drill using percussion or hammer setting.  
Drill to the specified diameter and depth.



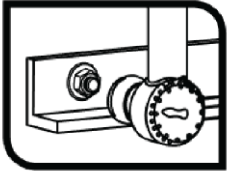
**2. INSTALL**

Insert the anchor to the bottom of the drillhole. Use a hammer if necessary. The anchor must be flat on the surface of the base material.



**3. PLACE MATERIAL TO BE FIXED**

Place the material to be fixed, threading the bolt or stud through the drillhole. Use the required bolt length. The use of wide series washers (DIN 9021) is recommended. Do not apply any type of intermediate layer (sealants, etc.) between the material to be fixed and the washer.



**4. APPLY TORQUE**

Apply nominal torque using a torque wrench.

### 4. RESISTANCES

Characteristic resistances for non-structural applications in hollow concrete slabs type  $d_b \geq 25$ ;  $< 30$  mm with minimum thickness of 30 mm and for an isolated anchor (without consideration of edge distances or distances between anchors), with bolt class 6.8

MEASUREMENTS			M6	M8	M10
Code		[-]	HC06	HC08	HC10
ETE 15/0912 Approval		[-]	✓	✓	✓
Characteristic resistance in hollow concrete slabs $d_b \geq 25$ ; $< 30$ mm	$F_{Rk}$ $d_b \geq 25$ ; $< 30$ mm	[kN]	3.5	5.0	8.0
	$d_b \geq 30$ ; $< 40$ mm	[kN]	7.0	10.0	14.0
	$d_b \geq 40$ mm	[kN]	8.5	11.5	14.0
Partial safety coefficient	$\gamma_M$	[-]	1.8	1.5	1.8

1 kN  $\approx$  100 kg

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The safe load coefficient recommended is  $\gamma_F = 1,4$

Calculation example:

Fixing a 400kg tensile load (= 3,92 kN) on a C40/50 hollow concrete slab with 43mm thickness with an HC10 anchor and bolt class 6.8

Verification to be performed: Load calculation < Resistance of calculation

Load calculation = service load \* safe load coefficient = 3,92 \* 1,4 = 5,49 kN

Resistance of calculation = characteristic resistance / partial safety coefficient = 14,0 / 1,8 = 7,78 kN

Verification: 5.49 kN < 7,78 kN: the fixing is safe.

For more complex calculations, you may use our INDEXcal anchor calculation program.

## 5. OFFICIAL DOCUMENTATION

The following documents may be obtained through our sales department or on our website [www.indexfix.com](http://www.indexfix.com) :

- European Approvals:
  - ETE 15/0912 for the use of hollow slabs for multiple fixings in non-structural applications, from M6 to M10
- Certifications on performance evidence EVCP 1219-CPR-0117
- Performance Declaration DoP HC-es
- INDEXcal anchor calculation program.