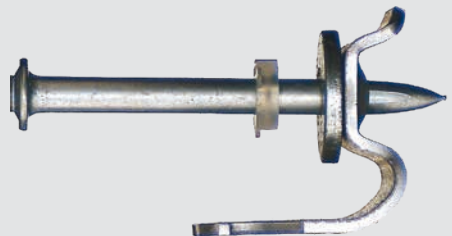




# X-CC DKH DATA SHEET

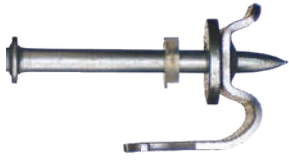
Suspended ceiling fastener



# X-CC DKH Hybrid ceiling clip

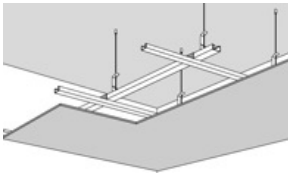
## Product info

### Product description

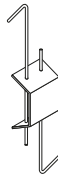
Designation	Features
<p>X-CC DKH</p> 	<ul style="list-style-type: none"> <li>• Enhanced load capacity due to deep embedment.</li> <li>• Suitable for use on hard or tough concrete, e.g. renovation jobs on older concrete.</li> <li>• With the DX Hybrid technique – fastenings are driven into a small pre-drilled hole, increasing the stick rate to almost 100% while protecting the base material from spalling.</li> <li>• Peace of mind – European Technical Assessment (ETA) approved system for suspended ceilings.</li> <li>• Suitable for hook ceiling hangers.</li> </ul>

## Application conditions

### Applications

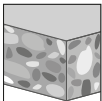


Suspended ceiling



Suspended ceiling  
Hanger type: Hook

### Base materials



Concrete

### Load conditions



Static/  
quasi static

### Environmental conditions



Dry indoor

## Approvals

### Approvals and certificates

Authority	Approval/certificate	Date of issue
DIBt	ETA-22/0587	07/2023



- Not all information presented in this product data sheet might be subject to approval/certificate content. Please refer to approval/certificate for further information.

## Product info

### Dimensions

	X-CC DKH 48 P8S15
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### Material specification and material properties

Designation	Element	Material	Standard
X-CC	Ceiling clip	HC300LA+ZE75/ 75	EN 10268

Designation	Element	Material	Coating	Minimum coating thickness $t_c$ [ $\mu\text{m}$ ]	Hardness [HRC]
X-DKH 48 P8S15	Nail	Carbon steel	Zinc	5	58

Element	Material	Standard	Coating	Minimum coating thickness $t_c$ [ $\mu\text{m}$ ]	Diameter [mm]
Steel washer	DC 01 C390	EN 10139	Zinc	10	15
Plastic washer	Propylene	-	-	-	8

## Application requirements

### Base material properties and fastener positioning in base material

	Base material	Concrete
	Concrete class	C20/25 – C50/60
	Base material thickness $h_{\min}$ [mm]	100
	Edge distance $c_{1,\min}, c_{2,\min}$ [mm]	150
	Spacing $s_{1,\min}, s_{2,\min}$ [mm]	100

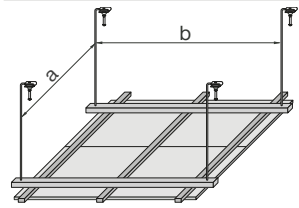
**Performance data**

Single point loads

Designation	Hanger type	Characteristic resistance under tension load $N_{Rk}$ [kN]	Recommended tension load $N_{rec}$ [kN]
X-CC DKH 48 P8S15	Hook	1.80	0.86

System loads

Maximum allowable ceiling weight [kN/m<sup>2</sup>]



**Hanger spacing  
b [mm]**

Carrying channel/ spacing a [mm]	Hanger spacing b [mm]									
	500	600	700	800	900	1000	1100	1200		
500	1.60	1.33	1.14	1.00	0.88	0.80	0.72	0.66		
600	1.33	1.11	0.95	0.83	0.74	0.66	0.60	0.55		
700	1.14	0.95	0.81	0.71	0.63	0.57	0.51	0.47		
800	1.00	0.83	0.71	0.62	0.55	0.50	0.45	0.41		
900	0.88	0.74	0.63	0.55	0.49	0.44	0.40	0.37		
1000	0.80	0.66	0.57	0.50	0.44	0.40	0.36	0.33		
1100	0.72	0.60	0.51	0.45	0.40	0.36	0.33	0.30		
1200	0.66	0.55	0.47	0.41	0.37	0.33	0.30	0.27		

- Allowable ceiling weights are calculated based on a maximum recommended hanger load of 0.4 kN.
- The eccentric load introduction into the fastener is already considered in these load values.
- Fastening of redundant non-structural components (details see ETA-22/0587).

**Stick rate estimation**

	Designation	Soft/standard concrete	Tough concrete
	X-CC DKH 48 P8S15	100 %	100 %

- The stick rate indicates the percentage of nails that were driven correctly to carry a load.
- Stick rate can vary from the above values depending on job site conditions.

### System recommendation

System recommendation for fastening collated nails with powder-actuated tools

Designation	Powder-actuated tool		
	DX 6 F8	DX 5 F8	DX 460 F8
X-CC DKH 48 P8S15	■	■	■

■ = recommended □ = feasible

### Cartridge recommendation

Base material	Cartridge color (tool power level)	
	Tool type: DX 6 F8	Tool type: DX 5 F8, DX 460 F8
	Cartridge type: 6.8/11 M10 for DX 6	Cartridge type: 6.8/11 M10
Soft/standard concrete	titanium ■ (4-7)	yellow ■, red ■
Tough concrete	titanium ■ (6-8), black ■ (7-8)	red ■, black ■

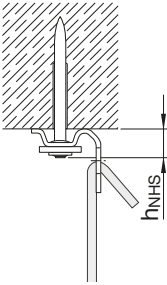
- Tool power level adjustment by setting tests on site (see chapter quality assurance).
- For more details, please refer to the chapter Accessories and consumables compatibility in the Direct Fastening Technology Manual (DFTM).

### Installation recommendation

#### Pre-drilling

	Base material	Concrete
	Concrete class	C20/25 – C50/60
	Nominal diameter of drill bit [mm]	5
	Cutting diameter of drill bit $d_{cut}$ [mm]	5.4
	Depth of pre-drilling [mm]	23
	Drill bit	TX-C 5/23, TX-C 5/23B

**Quality assurance**
**Fastening inspection**

Hanger type	Designation	Fastener stand-off $h_{NHS}$ [mm]
 <p>Hook</p>	X-CC DKH 48 P8S15	6-10



- Visible setting failures must be replaced with a new fastener, not in the same hole.
- These are abbreviated instructions which may vary by application. Always review/follow the instructions accompanying the product.

**Fastener program**
**Item no. and description**

Designation	Item no	Description
X-CC DKH 48 P8S15	299937	Hybrid ceiling clip