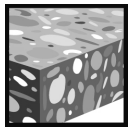
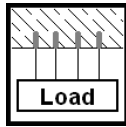


HA 8 Ring / hook anchor

	Anchor version	Benefits
	HA 8 R1	- 8mm anchor for concrete ceilings - hand-setting - follow-up expansion
	HA 8 H1	



Concrete

Tensile
zone a)Redundant
fasteningFire
resistance

a) Redundant fastening only

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
Fire test report	IBMB, Braunschweig	UB 3245/1817-5 / 1997-12-12
Assessment report (fire)	warringtonfire	WF 166402 / 2007-10-26

Basic loading data (for a single anchor)

All data in this section applies to

- Correct setting (See setting instruction)
 - No edge distance and spacing influence
 - Only for redundant fastening
- Values are only valid for tensile loading
- Concrete $\geq$ C 20/25 ($f_{ck,cube} = 25 \text{ N/mm}^2$), $\leq$ C50/60 ($f_{ck,cube} = 60 \text{ N/mm}^2$)

Recommended loads

	Non-cracked concrete	Cracked concrete (redundant fastening)
Anchor size		
Tensile N_{rec} [kN]	0,8	0,8

Materials

Material quality

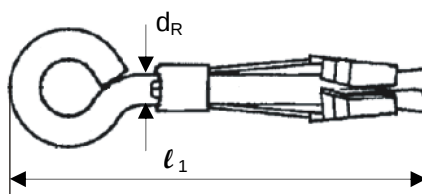
Part	Material
Expansion sleeve	Carbon steel, galvanised to min. 5 µm
Bolt	Carbon steel, galvanised to min. 5 µm

Mechanical properties of HA 8

Anchor size	HA 8 expansion sleeve	HA 8 bolt
Nominal tensile strength f_{uk} [N/mm ²]	370	460
Yield strength f_{yk} [N/mm ²]	270	220

Anchor dimensions

Anchor size		
Bolt diameter	d_R [mm]	5
Length of the anchor	ℓ_1 [mm]	66

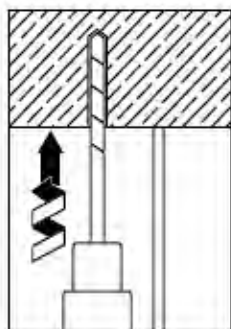


Setting

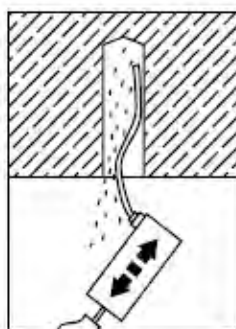
Installation equipment

Anchor size	
Rotary hammer	TE2 ... TE16
Other tools	hammer, blow out pump

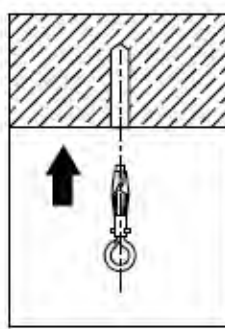
Setting instruction



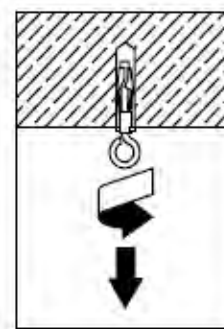
Drill hole with drill bit.



Blow out dust and fragments.

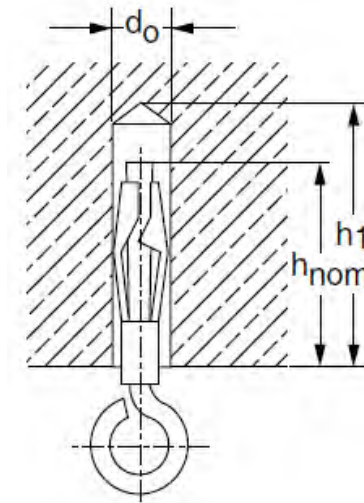


Install anchor.



Pull to expand the anchor.

Setting details: depth of drill hole h_1 and effective anchorage depth h_{ef}



Setting details HA 8

Nominal diameter of drill bit	d_o	[mm]	8
Cutting diameter of drill bit	$d_{cut} \leq$	[mm]	8,45
Depth of drill hole	$h_1 \geq$	[mm]	50
Effective anchorage depth	h_{ef}	[mm]	40

Base material thickness, anchor spacing and edge distance

Anchor size			
Minimum base material thickness	h_{min}	[mm]	100
Minimum spacing	s	[mm]	200
Minimum edge distance	c	[mm]	100
Minimum edge distance at the corner	c_e	[mm]	150

