



## 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 fastening



Fire 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)
<b>Anchor size</b>		
Tensile $N_{rec}$ [kN]	0,8	0,8

### Materials

#### Material quality

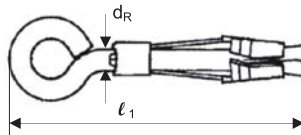
Part	Material
Expansion sleeve	Carbon steel, galvanised to min. 5 µm
Bolt	Carbon steel, galvanised to min. 5 µm

#### Mechanical properties of HA 8

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

### Anchor dimensions

Anchor size			
Bolt diameter	$d_R$	[mm]	5
Length of the anchor	$\ell_1$	[mm]	66

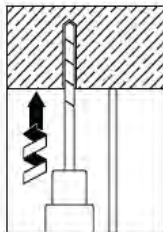


### Setting

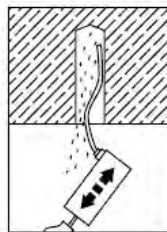
#### Installation equipment

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

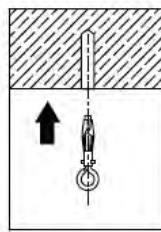
#### Setting instruction



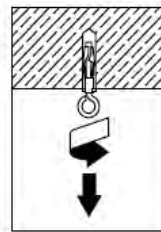
Drill hole with drill bit.



Blow out dust and fragments.

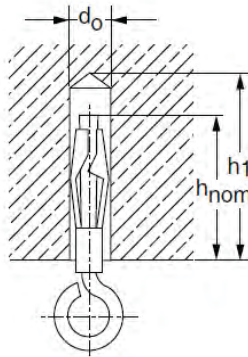


Install anchor.



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

