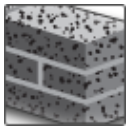
HAM Light duty metal anchors

Economical sleeve anchor

Anchor version		Benefits
	HAM 8.8 screw (M6-M12)	- Secure fastenings in various base materials - Cone attached to sleeve to ensure pre-setting - Wings to prevent spinning in the borehole - Plastic cap in cone to prevent dust entrance - Blue-chromate zinc coating - 8.8 steel strength of screw
	HAM (M6-M12)	

Base material

Concrete
(non-cracked)



Solid brick

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
- Concrete as specified in the table
- Steel failure
- Minimum base material thickness
- Concrete C 20/25, $f_{ck,cube}$ = 25 N/mm²

Anchorage depth

Thread diameter			M6x50	M8x60	M10x80	M12x90
Effective anchorage depth	h_{ef}	[mm]	30	35	43	55

Recommended loads in non-cracked concrete C20/25

Thread diameter			M6x50	M8x60	M10x80	M12x90
Tension	N_{Rec}	[kN]	4,0	4,8	5,8	8,7
Shear	V_{Rec}	[kN]	4,6	8,4	13,3	19,3

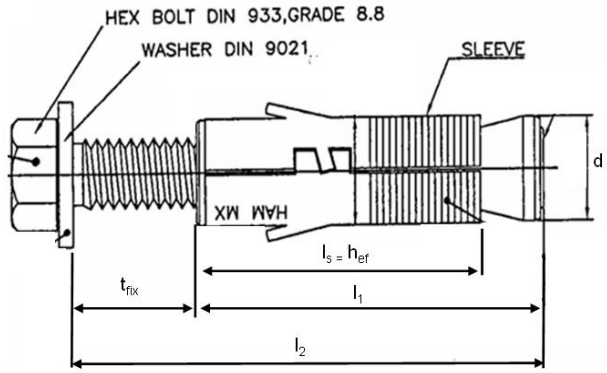
Recommended loads in solid brick

Thread diameter			M6x50	M8x60	M10x80	M12x90
Tension	N_{Rec}	[kN]	For solid brick, load values need to be determined on the building site			
Shear	V_{Rec}	[kN]				

Materials

Material quality

Part		Material
HAM Anchor	Sleeve	Carbon steel
	Hex head bolt	Carbon steel DIN 933, Strength 8.8
	Washer	Carbon steel, DIN 9021



Anchor dimension of HAM

Anchor size			M6x50	M8x60	M10x80	M12x90
Effective anchorage depth	h_{ef}	[mm]	30	35	43	55
Anchor diameter	d	[mm]	12	14	16	19
Sleeve length	$l_s = h_{ef}$	[mm]	30	35	43	55
Length of expansion sleeve	l_1	[mm]	40	50	60	70
Length of anchor	l_2	[mm]	50	60	80	90
Thickness of the fixture	t_{fix}	[mm]	10	10	20	20

Setting

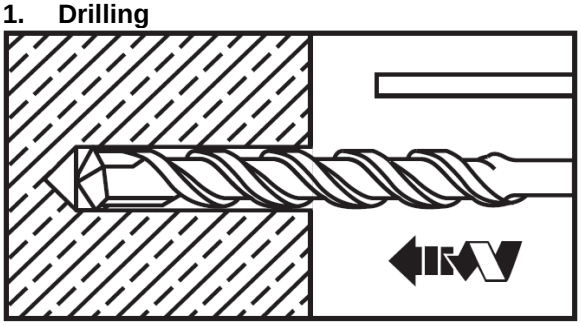
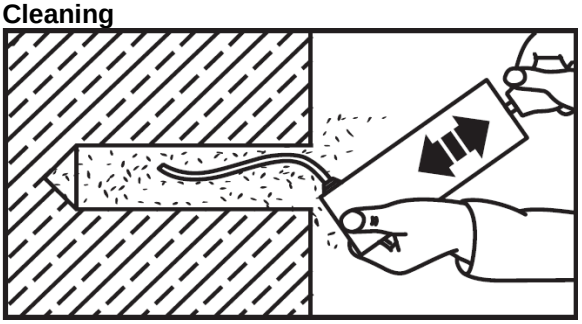
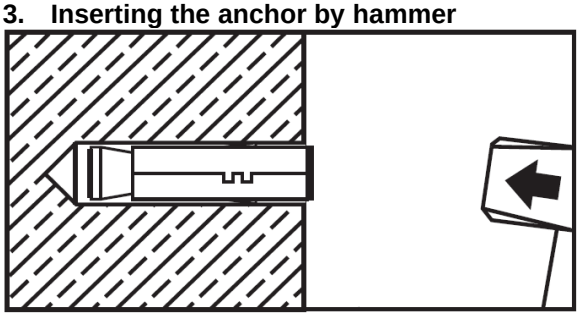
Setting details of HAM

Anchor size			M6x50	M8x60	M10x80	M12x90
Nominal diameter of drill bit	d_0	[mm]	12	14	16	20
Cutting diameter of drill bit	$d_{cut} \leq$	[mm]	12,5	14,5	16,5	20,55
Depth of drill hole	$h_1 \geq$	[mm]	65	80	90	110
Width across nut flats	SW	[mm]	10	13	17	19
Diameter of clearance hole in the fixture	$d_f \leq$	[mm]	7	9	12	14
Max. torque moment concrete	T_{inst}	[Nm]	10	25	45	75
Max. torque moment masonry	T_{inst}	[Nm]	5	10	20	30

Installation equipment

Anchor size		M6x50	M8x60	M10x80	M12x90
Rotary hammer for setting		TE 2 – TE 16			
Drill bit	TE-C3X	12	14	16	20
Other tools		hammer, torque wrench, blow out pump			

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

Setting instruction	
Pre-setting	
1. Drilling 	**2. Cleaning** 
3. Inserting the anchor by hammer 	**4. Torquing the anchor**