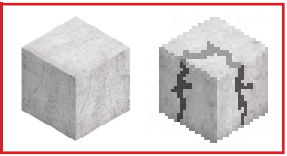
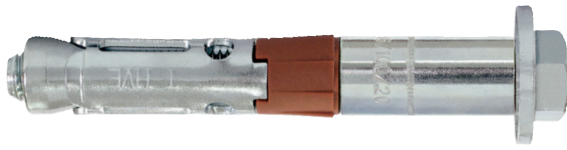


HIGH LOAD SAFETY BOLT HEXAGONAL HEAD VERSION

HVE



FEATURES

Material :
Steel

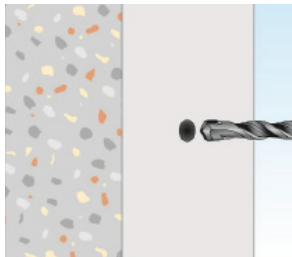
Advantages :

- Easy and fast installation through the fixture

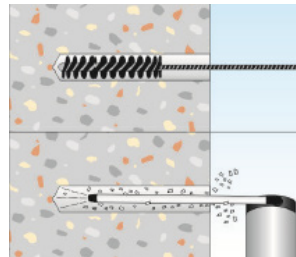
APPLICATION EXAMPLES

- For fixing metal profiles, railings, beams steel cladding brackets, industrial racking, consoles, cable trays....
- Industrial doors and gates

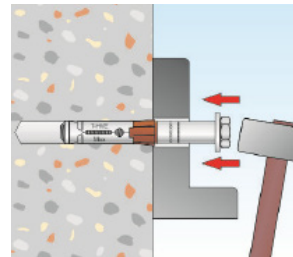
INSTALLATION



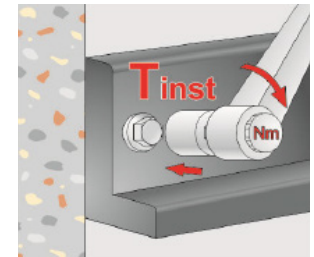
Drill the hole



Remove the dust from the hole with an air pump



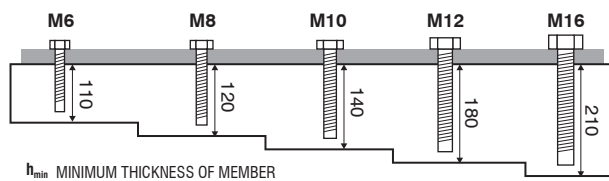
Put the Anchor into the hole through the fixture



Apply required torque

INSTALLATION DATAS

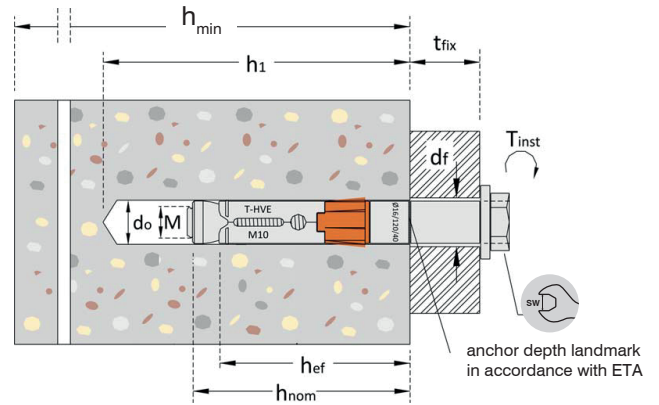
	M6	M8	M10	M12	M16	
S_{min}	55	110	80	135	130	MINIMUM SPACING
C_{min}	70	100	90	175	180	MINIMUM EDGE DISTANCE



DIMENSIONS & APPLICATION DATAS

Type	M	L	t _{fix}	Reference	M6	M8	M10	M12	M16
					mm	mm	mm	mm	mm
HVE M6	M6	70	5	HVE10/5					
		80	15	HVE10/15					
		100	35	HVE10/35					
HVE M8	M8	80	10	HVE12/10					
		100	30	HVE12/30					
		120	50	HVE12/50					
HVE M10	M10	100	20	HVE16/20					
		120	40	HVE16/40					
		140	60	HVE16/60					
HVE M12	M12	120	20	HVE18/20					
		150	50	HVE18/50					
HVE M16	M16	140	20	HVE24/20					
		170	50	HVE24/50					

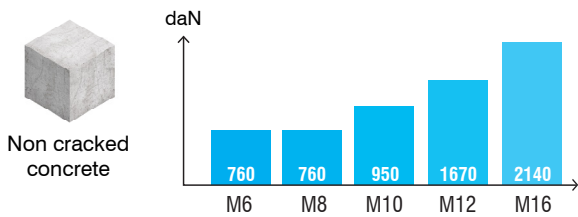
Anchor length	h_{ef}	55	60	70	90	105
Ø drill hole	d_o	10	12	16	18	24
Min. drilling depth	h_1	80	90	100	120	140
Overall anchor embedment depth	h_{nom}	65	70	80	100	120
Ø clearance hole in the fixture	d_f	12	14	18	20	26
Wrench size/socket size	Sw	10	13	17	19	24
Required torque moment (N.m.)	T_{inst}	15	30	50	100	160



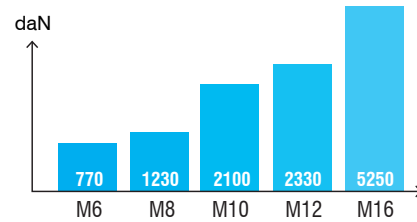
RECOMMENDED LOADS

Loads are calculated from published characteristic values in the ETA on which partial safety factors from the ETAG001 and a partial coefficient action $\gamma_f = 1.4$ are applied. Values are given for standard embedment depth for non-cracked concrete C20 / 25.

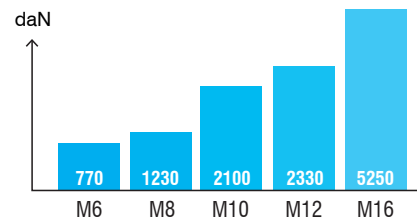
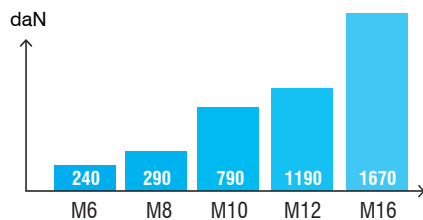
TENSILE



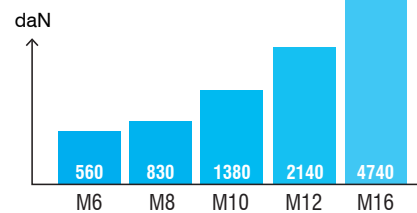
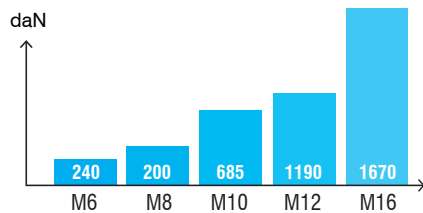
SHEAR



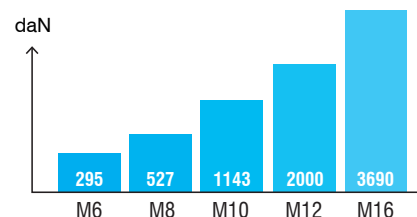
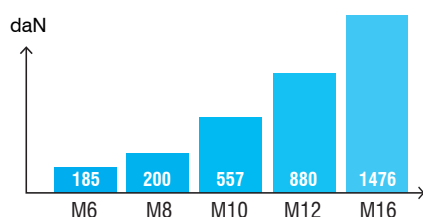
Cracked concrete



under seismic constraint C1



under seismic constraint C2



For accurate loads and implementation data, requirements specified in the ETA 10/0060 must be respected as well as the installation guide.