HIT-RE 500 with HIS-(R)N

Injection Mortar System

Hilti HIT-RE 500
330 ml foil pack
(also available as 500 ml and 1400 ml foil pack)

Static mixer

HIS-(R)N sleeve

Benefits

- suitable for non-cracked concrete C 20/25 to C 50/60
- high loading capacity
- suitable for dry and water saturated concrete
- under water application
- long working time at elevated temperatures
- odourless epoxy
- suitable for diamond core holes


Concrete


Small edge distance & spacing


Fire rated


Fatigue

Corrosion resistance


European Technical Approval


CE conformity

Hilti anchor design software

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
- Steel failure
- Base material thickness, as specified in the table
- One typical embedment depth, as specified in the table
- One anchor material, as specified in the tables
- Non cracked concrete $f_{c,cyl}$ = 32 MPa (dry concrete)
- Temperate range I (min. base material temperature -40°C, max. long term/short term base material temperature: +24°C/40°C)
- Installation temperature range +5°C to +40°C

Embedment depth and base material thickness for the basic loading data

Recommended loads

Anchor size	M8	M10	M12	M16	M20
Embedment depth [mm]	90	110	125	170	205
Base material thickness [mm]	120	150	170	230	270

Recommended loads

Anchor HIS-N with Grade 8.8 bolt

		Data according ETA-04/0027, issue 2009-05-20				
Anchor size		**M8**	**M10**	**M12**	**M16**	**M20**
Tensile N_{rec}	[kN]	12.5	21.9	31.9	57.3	53.0
Shear V_{rec}	[kN]	7.4	13.1	18.6	28.1	26.2

Note: contact your local Hilti engineer for any further details.

Approvals / certificates

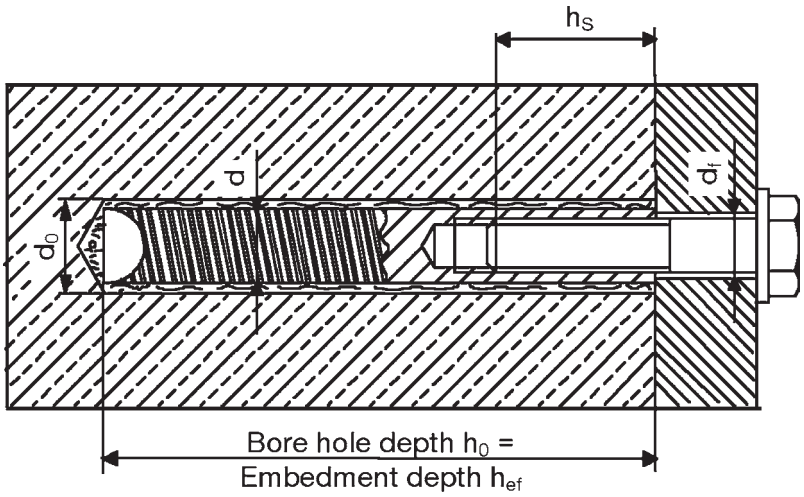
Description	Authority / Laboratory	No. / date of issue
European technical approval [a)]	DIBt, Berlin	ETA-08/0352 / 2010-04-01

a) All data given in this section according ETA-08/0352 issue 2010-04-01.

Curing time for general conditions

Data according ETA-04/0027, issue 2009-05-20		Additional Hilti technical data	
Temperature of the base material	Curing time t_{cure} before anchor can be fully loaded	Temperature of the base material	Working time t_{gel} in which anchor can be inserted and adjusted
40 °C	4 h	40 °C	12 min
30 °C to 39 °C	8 h	30 °C	20 min
20 °C to 29 °C	12 h	20 °C	30 min
15 °C to 19 °C	24 h	15 °C	1 ½ h
10 °C to 14 °C	48 h	10 °C	2 h
5 °C to 9 °C	72 h	5 °C	2 ½ h

Setting details

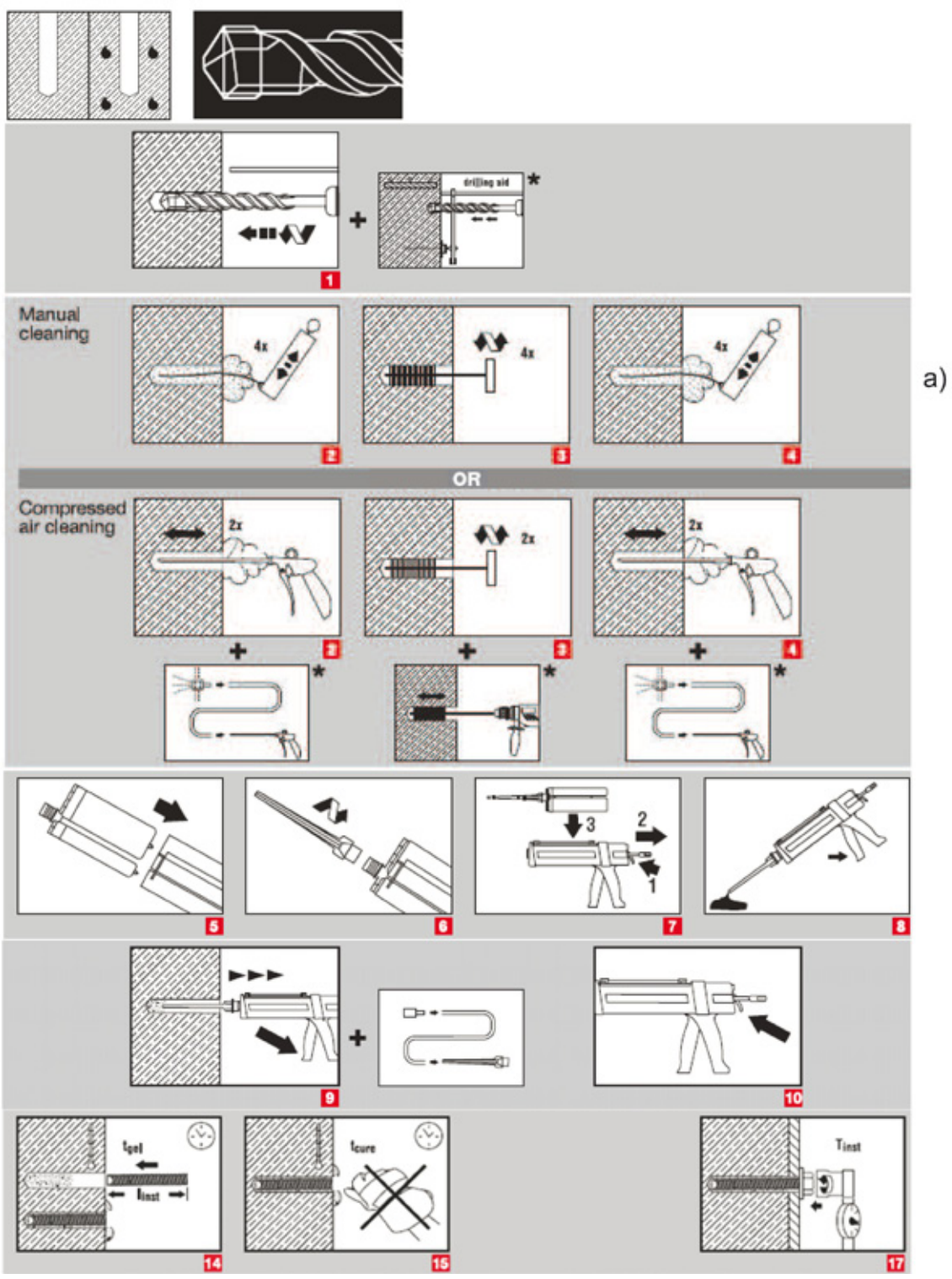


Anchor size			M8x90	M10x110	M12x125	M16x170	M20x205
Nominal diameter of drill bit	d_0	[mm]	14	18	22	28	32
Diameter of element	d	[mm]	12,5	16,5	20,5	25,4	27,6
Effective anchorage and drill hole depth	h_{ef}	[mm]	90	110	125	170	205
Minimum base material thickness	h_{min}	[mm]	120	150	170	230	270
Diameter of clearance hole in the fixture	d_f	[mm]	9	12	14	18	22
Thread engagement length; min - max	h_s	[mm]	8-20	10-25	12-30	16-40	20-50
Torque moment [a)]	T_{max}	[Nm]	10	20	40	80	150
Minimum spacing	s_{min}	[mm]	40	45	55	65	90
Minimum edge distance	c_{min}	[mm]	40	45	55	65	90

a) Maximum recommended torque moment to avoid splitting failure during installation with minimum spacing and/or edge distance. For detailed information on installation see instruction for use given with the package of the product.

Setting instructions

Dry and water-saturated concrete, hammer drilling



a) Note: Manual cleaning for HIS-(R)N M8 and HIS-(R)N M10 only!
b) Note: Extension and piston plug needed for overhead installation!

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