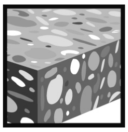
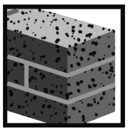
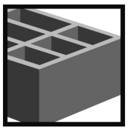
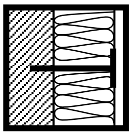
IDMS / IDMR Insulation fastener

Anchor version	Benefits
 IDMS Carbon steel IDMR Stainless steel	- for insulating material up to 15 cm thick - a non-flammable metal fastener - IDMS-T / IDMR-T insulation plate for non self-supporting insulation material


Concrete


Solid brick


Hollow brick


Insulation


Fire resistance

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
Fire test report	IBMB, Braunschweig	PB 3136/2315 / 2005-12-02

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
- Base material as specified in the table
- Minimum base material thickness
- Loads shall be reduced and number of fasteners shall be increased if the temperature sustains above 40°C

Recommended loads

		IDMS / IDMR
Concrete ≥ C16/20	N_{rec} [kN]	0,1
Solid clay brick Mz 20 – 1,8 – NF	N_{rec} [kN]	0,1
Solid sand-lime brick KS 12 – 1,6 – 2DF	N_{rec} [kN]	0,1
Hollow clay brick Hlz 12 – 0,8 – 6DF	N_{rec} [kN]	0,04[a)]
Hollow sand-lime brick KSL 12 – 1,4 – 3DF	N_{rec} [kN]	0,04

a) Drilling without hammering

Recommended number of IDMS / IDMR not regarding wind suction

			Number of fasteners per m^2
Expanded polystyrene (EPS) Polyurethane (PU)	density ≤ 40 kg/m^3	thickness ≤ 150 mm	4
Mineral wool	density ≤ 150 kg/m^3	thickness ≤ 100 mm	6
		thickness ≤ 150 mm	8

The data is only valid if no further material is applied on the insulation, e.g. plaster. Otherwise number of fasteners has to be increased.

Materials

Material quality

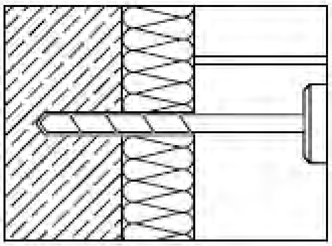
Part	Material
IDMS	Carbon steel, galvanised to 16 µm
IDMR	Stainless steel, grade 1.4301

Setting

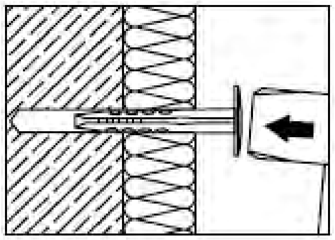
installation equipment

	IDMS / IDMR
Rotary hammer	TE2 – TE16
Other tools	Hammer

Setting instruction

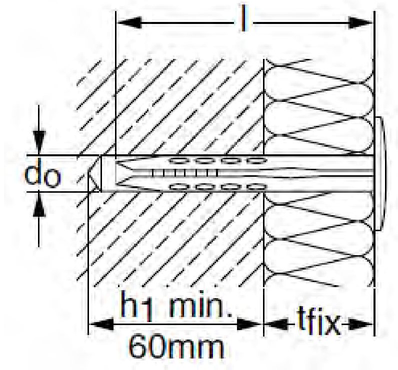


Drill hole with drill bit.



Install the fastener.

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



Setting details IDMS / IDMR

Anchor version **IDMS / IDMR**			**0/3**	**3/6**	**6/9**	**9/12**	**12/15**
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]	$l - t_{fix}$ + 10 mm ≥ 60mm				
Effective anchorage depth	h_{nom}	[mm]	$l - t_{fix}$ ≥ 50 full load capacity 30 – 50 load reduction with factor 0,5				
Anchor length	l	[mm]	80	110	140	170	200
Max fixture thickness	t_{fix}	[mm]	30	60	90	120	150

Setting parameters

Anchor size			
Minimum base material thickness	h_{min}	[mm]	100
Spacing	s_{min}	[mm]	100
Edge distance	c_{min}	[mm]	100