

## INJECTION SYSTEM WIT-PM 200



300 ml

330 ml

420 ml



Cartridge sizes		Art. no.	Dispensing guns
300 ml	foil-in-tube	<b>5918 242 300</b>	p. 48
330 ml	coaxial	<b>5918 240 330</b>	
420 ml	coaxial	<b>5918 240 420</b>	

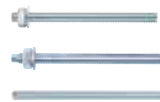
### Application references



### Approvals and certificates



### Threaded rod



✓

p. 34-36

### Special insert



✓

p. 44

Temperature of base material	Gelling – working time	Min. curing time – dry conditions <sup>1)</sup>
-5°C to -1°C	90 min	6 h
0°C to 4°C	45 min	3 h
5°C to 9°C	25 min	2 h
10°C to 14°C	20 min	100 min
15°C to 19°C	15 min	80 min
20°C to 29°C	6 min	45 min
30°C to 34°C	4 min	25 min
35°C to 39°C	2 min	20 min

<sup>1)</sup> for wet base material the curing time must be doubled

### Type of installation

Pre-positioned	In-place	Stand-off
✓	-	✓

### Installation condition

Dry concrete	Wet concrete	Flooded drill hole
✓	✓	✓

### Drilling method

Hammer drill	Diamond drill	Hollow drill
✓	-	-

Rotary drilling in masonry required for some types of bricks and blocks

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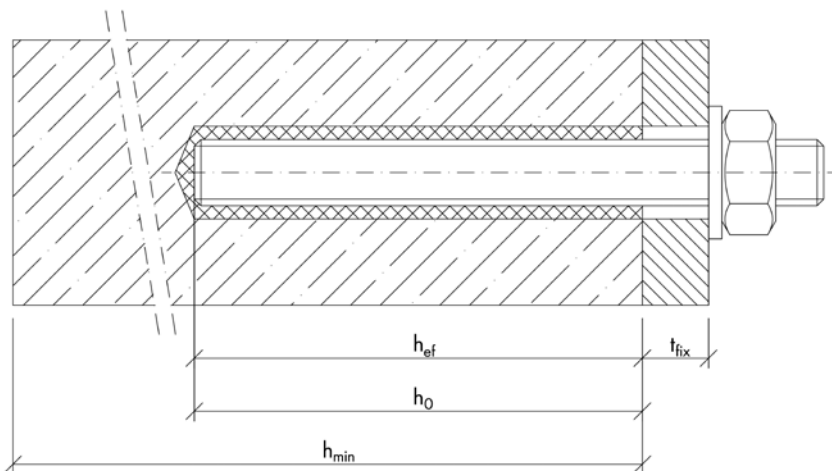
### Loads – concrete

Thread size			M8	M10	M12	M16	M20	M24	
Effective anchorage depth	$h_{ef}$	[mm]	80	90	110	125	170	210	
<b>Non-cracked Concrete</b>									
Tension	5.8/8.8/A4-70	$N_{rec}$	[kN]	6.8	9.0	13.2	19.9	33.9	50.3
Shear	5.8	$V_{rec}$	[kN]	6.3	9.9	14.5	26.9	42.0	60.5
	8.8			8.6	13.1	19.4	36.0	56.0	80.6
	A4-70			6.0	9.2	13.7	25.2	39.4	56.8

<sup>1)</sup> Loads are valid for single anchors. Normal spaced reinforcement in  $\geq C20/25$ . Material safety factor  $\gamma_{m}$  and safety factor for action  $\gamma_f = 1.4$  are included. The material safety factor depends on the failure mode.

<sup>2)</sup> Loads for anchorages close to edge and/or with small spacing have to be reduced and should be calculated based on performance data given in the ETA.

Clearance-hole in fixture	$d_f$	[mm]	9	12	14	18	22	26
Drill depth	$h_0 = h_{ef}$	[mm]	80	90	110	125	170	210
Minimum thickness of concrete member	$h_{min}$	[mm]	110	120	140	161	218	266
Minimum edge distance	$c_{min}$	[mm]	40	50	60	80	100	120



### Installation Concrete



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## Loads – masonry

Brick and Block	Type	Size	Compressive strength	Density	Drilling method	Sleeve	Metric thread size	Embedment depth	Edge distance	Tensile <sup>1),2)</sup>	Shear <sup>1),2)</sup>
		l x b x h [mm]	f <sub>b</sub> [N/mm <sup>2</sup> ]	ρ [kg/dm <sup>3</sup> ]				h <sub>ef</sub> [mm]	c [mm]	N <sub>rec</sub> [kN]	V <sub>rec</sub> [kN]
Fired clay brick Mz	solid	240 x 115 x 55	20	1.6	Hammer	-	M8	80	120	0.71	1.29
						-	M10	90	135	0.71	1.57
						-	M12	100	150	0.57	2.14
						-	M16	100	150	1.00	2.14
Fired clay brick Hlz	perforated	497 x 240 x 238	12	0.8	Rotary	SH12x80	M8	80	100	0.43	0.71
						SH16x85	M8 / M10	85	100	0.71	0.71
						SH16x130	M8 / M10	130	100	1.00	0.71
						SH20x85	M12 / M16	85	120	1.00	0.71
						SH20x130	M12 / M16	130	120	1.00	0.71
Light aggregate block Vbl	solid	300 x 123 x 248	2	0.6	Rotary	-	M8	80	120	0.57	0.86
						-	M8/M10	90	135	0.57	1.00
						-	M12	100	150	0.57	1.14
						-	M16	100	150	0.57	1.14
Light aggregate block B40	hollow	495 x 200 x 190	4	0.8	Rotary	SH12x80	M8	80	100	0.11	0.71
						SH16x85	M8 / M10	85	100	0.17	0.71
						SH16x130	M8 / M10	130	100	0.57	0.71
						SH20x85	M12 / M16	85	120	0.26	0.71
						SH20x130	M12 / M16	130	120	0.57	0.71
Calcium silicate brick KS	solid	240 x 115 x 71	20	2.0	Hammer	-	M8	80	120	1.29	1.29
						-	M10	90	135	1.29	1.29
						-	M12	100	150	1.57	1.43
						-	M16	100	150	1.29	1.43
Calcium silicate block KSL	hollow	498 x 175 x 238	12	1.4	Rotary	SH12x80	M8	80	100	0.11	0.71
						SH16x85	M8 / M10	85	100	0.43	0.71
						SH16x130	M8 / M10	130	100	1.29	0.71
						SH20x85	M12 / M16	85	120	0.43	0.71
						SH20x130	M12 / M16	130	120	1.29	0.71
Aerated concrete block AAC	solid	499 x 240 x 249	6	0.6	Rotary	-	M8	80	120	0.71	1.96
						-	M10	90	135	1.07	3.21
						-	M12	100	150	1.61	3.21
						-	M16	100	150	1.96	3.93

<sup>1)</sup> Loads are valid for single anchors and the given edge distance. Shear loads are acting parallel to the edge. Material safety factor  $\gamma_{M}$  and safety factor for action  $\gamma_{t} = 1.4$  are included. The material safety factor depends on failure mode and type of brick.

<sup>2)</sup> Loads for anchorages close to edge and/or with small spacing have to be reduced and should be calculated based on performance data given in the ETA.

<sup>3)</sup> The loads given are valid for the bricks and blocks which have been given. The loads can be taken for bricks and blocks of larger sizes, larger compressive strength of the masonry unit and same configuration of the cavities. The loads of the injection anchor may be determined by the so-called "job site tests" according to ETAG029 and TR053.

### Installation Masonry perforated



### Installation Masonry solid

