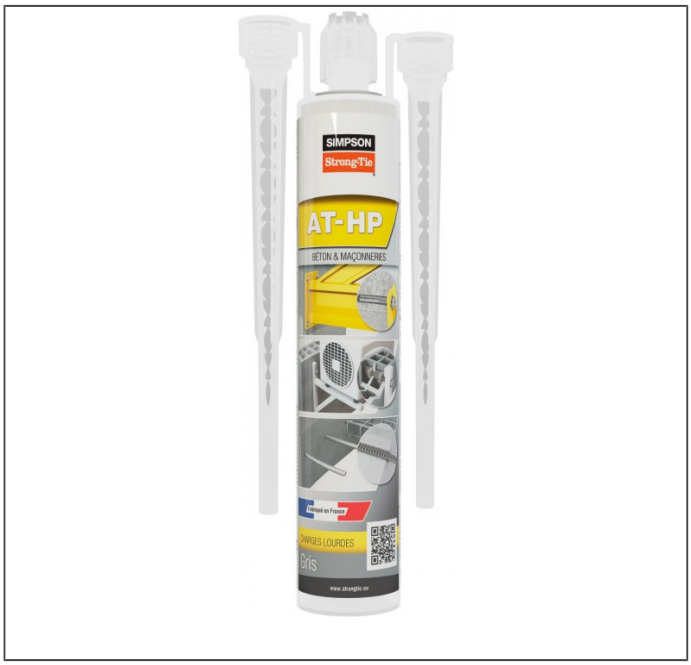
Technical data sheet

AT-HP SST - Раствор химической анкеровки



Раствор химической анкеровки AT-HP - химический анкер на основе метакрилатной смолы без стирола. Идиально подходит для фиксации резьбовых шпилек, втулок с внутренней резьбой, арматурных стержней и т.д.

ETA-14/0383, ETA-13/0416, FDS-ATHP-A+B(1.5)UK

Характеристики

Материал

- Метакрилатная смола без стирола.

Преимущества

- Быстрое затвердевание.
- Не воспламеняется.
- Не содержит стирола, слабый запах.
- Может использоваться во влажных условиях.
- Анкерное крепление от средней до высокой нагрузок.

Применение

Header member

- Бетон.
- Полнотелый кирпич.
- Пустотелый кирпич.
- Газобетон.

For use with

- Фиксация опор балок к основаниям из бетона.
- Фиксация опор колонн.
- Фиксация уголков к основаниям из бетона.

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TECHNICAL DATA

Reference

Артикул	Item Code	DB nr.	NOBB nr.	Content [ml]	Weight [kg]	Packaging qty [pcs]
AT-HP + LMAS M8*	-	-	-	-	-	-
AT-HP + LMAS M10*	-	-	-	-	-	-
AT-HP + LMAS M12*	-	-	-	-	-	-
AT-HP + LMAS M16*	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-

Recomended loads

Артикул	Tension - N_{rec} [kN]							
	Concrete C20/25** [hef=h0=8d]	Concrete C20/25** [hef=h0=12d]	Masonry brick - RT 307 *	Hollow Brick - RT 301 *	Hollow Brick - POROTON *	Hollow Brick - LS BGV THERMO *	Hollow clay brick - HOLLOW BLOCKS *	Автоклавные газобетонные блоки
AT-HP + LMAS M8*	6.1	8.7	0.43	0.43	0.26	0.43	0.34	0.26
AT-HP + LMAS M10*	9	13.5	0.43	0.43	0.34	0.57	0.57	0.34
AT-HP + LMAS M12*	12.9	19.4	0.43	0.57	0.34	0.86	0.57	0.34
AT-HP + LMAS M16*	20.4	30.6	-	-	-	-	-	-
AT-HP + LMAS M20*	29.9	44.9	-	-	-	-	-	-
AT-HP + LMAS M24*	40.2	60.3	-	-	-	-	-	-
AT-HP + LMAS M27*	47.3	70.9	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	53.9	80.8	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-

Recomended loads

Артикул	Shear - V_{rec} [kN]							Bending moment M_{rds} [Nm]
	Concrete C20/25**	Masonry brick - RT 307 *	Hollow Brick - RT 301 *	Hollow Brick - POROTON *	Hollow Brick - LS BGV THERMO *	Hollow clay brick - HOLLOW BLOCKS *	Автоклавные газобетонные блоки	
AT-HP + LMAS M8*	5.3	0.57	0.43	0.43	0.43	0.34	0.26	10.7
AT-HP + LMAS M10*	8.3	0.57	0.43	0.43	0.57	0.57	0.34	21.4
AT-HP + LMAS M12*	12.1	0.57	0.43	0.57	0.86	0.57	0.34	37.4
AT-HP + LMAS M16*	22.5	-	-	-	-	-	-	95.1
AT-HP + LMAS M20*	35	-	-	-	-	-	-	185.4

Артикул	Shear - V_{rec} [kN]							Bending moment M_{rds} [Nm]
	Concrete C20/25**	Masonry brick - RT 307 *	Hollow Brick - RT 301 *	Hollow Brick - POROTON *	Hollow Brick - LS BGV THERMO *	Hollow clay brick - HOLLOW BLOCKS *	Автоклавные газобетонные блоки	
AT-HP + LMAS M24*	50.5	-	-	-	-	-	-	320.7
AT-HP + LMAS M27*	65.6	-	-	-	-	-	-	475.5
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	80.2	-	-	-	-	-	-	642.9
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-

M16, M20, M24, M27 and M30 not covered by masonry ETA.
Load specifications for single anchor without influence of spacing and edge distances in the temperature range I in the use of threaded rods of quality 5.8.
* Masonry:

	Dimensions L x W x H [mm]	Compressive strength fb [N/mm²]	Bulk density p [kg/m³]
Solid clay brick RT 307 -Type 1 according to EN 771-1 – HD	≥228x108x54	≥22	≥1830
Hollow clay brick RT 301– Type 2 according to EN 771-1 – LD	≥228x108x54	≥22	≥1305
Hollow clay brick POROTON– Type 3 according to EN 771-1 – LD	≥248x365x249	≥8	≥650
Horizontal coring brick LS BGV THERMO– Type 4 according to EN 771-1 – LD	≥500x200x314	≥6	≥570

Hollow clay brick BLOCS CREUX – Type 5 according to EN 771-1 – LD	≥500x200x200	≥4	≥900
Autoclaved aerated concrete blocks - Type 6 according to EN 771 – 4	≥635x250x300	≥3	≥350

1) For combined tension and shear loads or anchor groups and/or in the case of edge influence, a calculation per ETAG 029, Annex C, design method A shall be performed. For details see the ETA- approval(s).
2) The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of $_{\gamma}$f=1.4.
3) Temperatur range I: -40°C to +80°C (max. long-term temperatur: +50°C; max. short-term temperatur: +80°C).
4) lunit: max. dimensions of the bricks
5) Non-bearing layers (eg. as plaster) have to be bridged.
6) The installation can be carried out in dry and wet base material.
7) The installation must be carried out in dry base material.

** Concrete:
The design resistances have been calculated using the partial safety factors for resistances stated in ETA- approvals(s).
The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of $_{\gamma}$f=1.4.
The load figures are valid for reinforced concrete with a rebar spacing ≥ 15cm (any diameter) or with a rebar spacing ≥ 15cm if the rebar diameter is 10mm or smaller.
The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to the edges (c ≤ hef 60d) the concrete edge failure shall be calculated per EOTA Technical Report - TR 029 or acc. to CEN/TS 1992-4.
Concrete is considered non-cracked when the tensile stress within the concrete is σL +σR ≤ 0. In the absence of detailed verification σR = 3 N/mm2 can be assumed (σL equals the tensile stress within the concrete induced by external loads, anchors loads included).
For combined tension and shear loads or anchor groups and/or in the case of edge influence, a calculation per EOTA Technical Report - TR 029 or acc. to CEN/TS 1992-4 shall be performed. For details see the ETA- approval(s).

Technical data for rebar

Артикул	Ø Арматуры [mm]	Ø Сверление [mm]	Embedment depth [ldb] [mm]	Tension - Concrete C20/25 [Rds,N] [kN]	Resin volum [ml]
AT-HP + LMAS M8*	-	-	-	-	-
AT-HP + LMAS M10*	-	-	-	-	-
AT-HP + LMAS M12*	-	-	-	-	-
AT-HP + LMAS M16*	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	8	12	115	9.5	9
AT-HP + fer Ø10 x lbdmax	10	14	300	31	27
AT-HP + fer Ø14 x lbdmin	14	18	200	28.9	24
AT-HP + LMAS M30*	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	8	12	280	16.5	15
AT-HP + fer Ø12 x lbdmin	12	16	170	21.1	18
AT-HP + fer Ø14 x lbdmax	14	18	420	60.7	51
AT-HP + fer Ø10 x lbdmin	10	14	145	15	13
AT-HP + fer Ø12 x lbdmax	12	16	130	44.6	38
AT-HP + fer Ø16 x lbdmin	16	20	230	38	31
AT-HP + fer Ø16 x lbdmax	16	20	480	79.3	65
AT-HP + fer Ø20 x lbdmin	20	25	285	58.8	60
AT-HP + fer Ø20 x lbdmax	20	25	600	123.9	127
AT-HP + fer Ø25 x lbdmin	25	30	355	91.6	92
AT-HP + fer Ø25 x lbdmax	25	30	750	193.5	194
AT-HP + fer Ø28 x lbdmin	28	35	840	173.4	249
AT-HP + fer Ø28 x lbdmax	28	35	1000	267.7	387
AT-HP + fer Ø32 x lbdmin	32	40	685	226.3	372
AT-HP + fer Ø32 x lbdmax	32	40	1000	330.3	543

Rebar resistance (Ha B500B) Ø8 to Ø32 mm. Embedment depth under static loads (Eurocode 2) according to ETA-11/0139. Minimum spacing =7x diameter and no influence of the edges.

Установка

Curing Schedule

Рабочая температура (C°)	-5°C	0°C	5°C	10°C	20°C	30°C
Рабочее время	45 минут	15 минут	12 минут	9 минут	4 минуты	1минута
Время затвердевания	9 часов	4 часа	1.5 часа	60 минут	30 минут	20минут

Drilling methods

Solid brick/concrete	Percussion/hammer drilling
Hollow/perforated brick	Rotation drilling
Aerated concrete	Percussion/hammer drilling

Drill

Brush.

Insert a sieve.

Feed the hole from the end to the external surface by going back from 1 mixer graduation between each pump.

Insert the treaded rod turning it slowly.

Fix when the curing time is reached.

Drill.

Clean the hole brushing and blowing as indicated on the cartridge.

Feed the hole from the end to the external surface by going back from 1 mixer graduation between each pump.

Insert LMAS threaded rod turning it slowly from left to right.

Fix when curing time is reached.

Installation parameters - Concrete

Артикул	Ø Сверление [d0] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h0=hef=8d] [mm]	Drilling depth [h0=hef=12d] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Characteristic spacing(4) - $S_{cr,N}$ [scr,N] [mm]	Min. spacing [smin]	Нормативное расстояние до кромки(4) [ccr,N] [mm]	Min. edge distance [cmin] [mm]	Min. member thickness - hef=8d [hmin] [mm]
AT-HP + LMAS M8*	10	9	64	96	13	10	175	40	88	40	100
AT-HP + LMAS M10*	12	12	80	120	17	20	213	50	106	50	110
AT-HP + LMAS M12*	14	14	96	144	19	40	255	60	128	60	126
AT-HP + LMAS M16*	18	18	128	192	24	80	330	80	165	80	164
AT-HP + LMAS M20*	22	22	160	240	30	150	400	100	200	100	204
AT-HP + LMAS M24*	28	26	192	288	36	200	447	120	223	120	248
AT-HP + LMAS M27*	30	30	216	324	41	270	503	135	251	135	276
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	35	33	240	360	46	300	537	150	268	150	310
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-	-	-	-

Артикул	Ø Сверление [d0] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h0=hef=8d] [mm]	Drilling depth [h0=hef=12d] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Characteristic spacing(4) - $S_{cr,N}$ [scr,N] [mm]	Min. spacing [smin]	Нормативное расстояние до кромки(4) [ccr,N] [mm]	Min. edge distance [cmin] [mm]	Min. member thickness - hef=8d [hmin] [mm]
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-	-	-	-

Installation parameters - Autoclaved araeted concrete blocks

Артикул	Ø Сверление [d0] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristic spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативное расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + LMAS M8*	10	9	85	13	4	80	160	50	80	50

Артикул	Ø Сверление [d0] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristic spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативное расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + LMAS M10*	12	12	85	15	6	80	200	50	100	50
AT-HP + LMAS M12*	14	14	85	18	8	80	240	50	120	50
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-	-	-

Installation parameters - Solid brick

Артикул	Ø Сверление [d0] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristic spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативное расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + LMAS M8*	10	9	85	13	4	80	160	50	80	50
AT-HP + LMAS M10*	12	12	85	15	6	80	200	50	100	50
AT-HP + LMAS M12*	14	14	85	18	8	80	240	50	120	50
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-	-	-

Installation parameters - Hollow brick

Артикул	Ø Сверление [d0] [mm]	Size of the sieve [ds x ls] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristic spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативное расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + LMAS M8*	16	16 x 85 & 16 x 130	9	135	13	4	130	500	100	250	100
AT-HP + LMAS M10*	16	16 x 85 & 16 x 130	12	135	15	6	130	500	100	250	100
AT-HP + LMAS M12*	16	16 x 85 & 16 x 130	14	135	18	8	130	500	100	250	100
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-	-	-	-

Артикул	Ø Сверление [d0] [mm]	Size of the sieve [ds x ls] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [SW]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristi spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативно расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-	-	-	-

Installation parameters - Hollow blocks

Артикул	Ø Сверление [d0] [mm]	Size of the sieve [ds x ls] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [Sw]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristi spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативно расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + LMAS M8*	16	16 x 130	9	135	13	4	130	500	100	250	100
AT-HP + LMAS M10*	16	16 x 130	12	135	15	6	130	500	100	250	100
AT-HP + LMAS M12*	16	16 x 130	14	135	18	8	130	500	100	250	100
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-	-	-	-

Артикул	Ø Сверление [d0] [mm]	Size of the sieve [ds x ls] [mm]	Max. fixture hole Ø [df] [mm]	Drilling depth [h1] [mm]	Wrench size [Sw]	Installation Torque [Tinst] [Nm]	Drilling depth [hef] [mm]	Characteristi spacing(4) - $S_{cr,N}$ [mm]	Min. spacing - S_{min} [mm]	Нормативно расстояние до кромки(4) - $C_{cr,N}$ [mm]	Min. edge distance - C_{min} [mm]
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-	-	-	-

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Installation parameters - Massive mursten fb>22 MPa 1)

Артикул	Min. member thickness [hmin] [mm]	Effective embedment depth [hef] [mm]	Ø Сверление [d0] [mm]	Drilling depth [h1] [mm]	Installation torque [Tinst] [Nm]	Max. fixture hole Ø [df] [mm]	Нормативное расстояние до кромки [C1 & C2] [mm]	Characteristic spacing(2) - $S_{cr,N}$ [S1 & S2] [mm]
AT-HP + LMAS M8*	108	80	10	85	4	9	250	250
AT-HP + LMAS M10*	108	80	12	85	6	12	250	250
AT-HP + LMAS M12*	108	80	14	85	8	14	250	250
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-

Артикул	Min. member thickness [hmin] [mm]	Effective embedment depth [hef] [mm]	Ø Сверление [d0] [mm]	Drilling depth [h1] [mm]	Installation torque [Tinst] [Nm]	Max. fixture hole Ø [df] [mm]	Нормативное расстояние до кромки [C1 & C2] [mm]	Characteristic spacing(2) - $S_{cr,N}$ [S1 & S2] [mm]
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-

Installation parameters - Hulsten fb>22 MPa 1)

Артикул	Min. member thickness [hmin] [mm]	Effective embedment depth [hef] [mm]	Ø Сверление [d0] [mm]	Drilling depth [h1] [mm]	Installation torque [Tinst] [Nm]	Max. fixture hole Ø [df] [mm]	Нормативное расстояние до кромки [C1 & C2] [mm]	Characteristic spacing(2) - $S_{cr,N}$ [S1 & S2] [mm]
AT-HP + LMAS M8*	108	85	16	90	4	9	250	250
AT-HP + LMAS M10*	108	85	16	90	6	12	250	250
AT-HP + LMAS M12*	108	85	16	90	6	14	250	250
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-

Артикул	Min. member thickness [hmin] [mm]	Effective embedment depth [hef] [mm]	Ø Сверление [d0] [mm]	Drilling depth [h1] [mm]	Installation torque [Tinst] [Nm]	Max. fixture hole Ø [df] [mm]	Нормативное расстояние до кромки [C1 & C2] [mm]	Characteristic spacing(2) - $S_{cr,N}$ [S1 & S2] [mm]
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-

Installation parameters - Gasbeton fb>3,0 MPa 3)

Артикул	Min. member thickness [hmin] [mm]	Effective embedment depth [hef] [mm]	Ø Сверление [d0] [mm]	Drilling depth [h1] [mm]	Installation torque [Tinst] [Nm]	Max. fixture hole Ø [df] [mm]	Нормативное расстояние до кромки [C1 & C2] [mm]	Characteristic spacing - $S_{cr,N}$ [S1 & S2] [mm]
AT-HP + LMAS M8*	100	80	10	85	2	9	250	250
AT-HP + LMAS M10*	100	80	12	85	3	12	250	250
AT-HP + LMAS M12*	100	80	14	85	4	14	250	250
AT-HP + LMAS M16*	-	-	-	-	-	-	-	-
AT-HP + LMAS M20*	-	-	-	-	-	-	-	-
AT-HP + LMAS M24*	-	-	-	-	-	-	-	-
AT-HP + LMAS M27*	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + LMAS M30*	-	-	-	-	-	-	-	-
AT-HP + fer Ø8 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø14 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø10 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø12 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø16 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø20 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø25 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø28 x lbdmax	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmin	-	-	-	-	-	-	-	-
AT-HP + fer Ø32 x lbdmax	-	-	-	-	-	-	-	-

1) Mursten iht. EN 771-1, fuger som eller bedre end KC 50/50/700, ingen ankre i fugerne.
2) Mindre end 250 mm hvis kun 1 anker i hver mursten.
3) Gasbeton iht. EN771-4.
Forudsætninger:
Gevindstænger er LMAS i el-galvaniseret og rustfri A4. Stålkvalitet er min. 5,8 samt A4-70. Alle angivne installationsdetaljer skal være opfyldt.
Lastbæreevnen er angivet i kN (1 kN = 100 kg) og gælder for hvert anker. Alle værdier er regningsmæssige værdier og testet iht. relevante standarder.

Indbyrdes ankerafstande (S) og kantafstande (C) i ovenstående tabel er minimumsafstande, uden reduktion i ankerbæreevnen pga. indbyrdes ankerafstande og kantafstande.
Hvis der er fuger tættere på ankeret end angivne kantafstand, skal det sikres at disse vil være i stand til at overføre lasterne. Ved brug af ovenstående lastbæreevner, skal lasten regnes ned til hvert enkelt anker i hvert enkelt lasttilfælde. Betonen forudsættes armeret. Ved tværlast må max. to ankre optage lasten.
De angivne forudsætninger kan ikke afviges, ved tvivl kontakt Simpson Strong-Tie® A/S på tlf:
+45 8781 7400, eller anvend Teknisk Håndbog fra www.strongtie.dk
Kontrol:
1. NRd ≥ NSd og VRd ≥ VSd og for kombinerede
2. (NSd/NRd) + (VSd/VRd) ≤ 1,2
Både 1 og 2 skal være opfyldt.
NRd (ankerets tilladelige træklastbæreevne) skal være større end eller lig med NSd (ankerets aktuelle trækbelastning) eller VRd (ankerets tilladelige tværlastbæreevne) skal være større end eller lig med VSd (ankerets aktuelle tværbelastning).