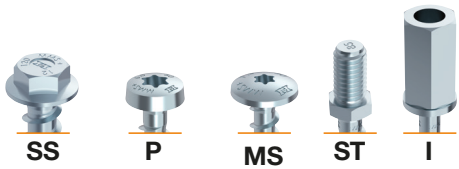


## Montageanleitung – MMS-plus | Mounting instructions – MMS-plus

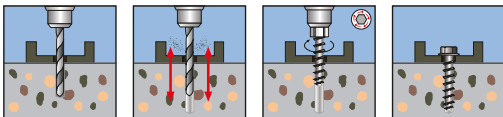
Beton | Concrete

Spannbetonhohlraumdecke | Prestressed hollow core slab

ETA-15/0784 & ETA-15/0785

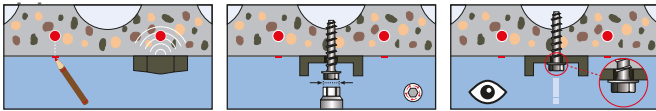


Beton | Concrete

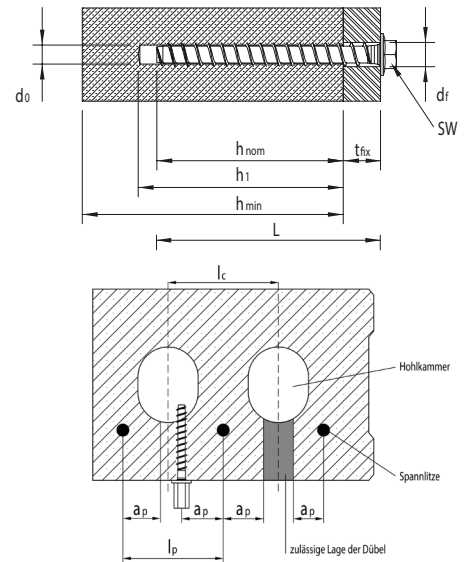


1. Bohren | Drill
2. Bohrmehl entfernen | Remove dust
3. Einschrauben | Insert
4. Fertig | Done

Spannbetonhohlraumdecke | Prestressed hollow core



- Spannlitzen lokalisieren | Locate prestressing strands
- Einschrauben | Insert
- Fertig | Done



### Montagekennwerte | Installation parameters

MULTI-MONTI-plus Ausführung I Type			SS, P, MS, ST, I													
ETA-15/0784 & ETA-15/0785 (Beton   Concrete)																
Größe MMS-plus   Size MMS-plus	[mm]	Ø	6		7,5		10		12		14 <sup>3</sup>		16		20	
Bohrmänn-Ø   Drill-Ø	[mm]	d <sub>o</sub>	5		6		8		10		12		14		18	
Einschraubtiefe im Beton   Embedment depth	[mm]	h <sub>nom</sub>	25 <sup>1</sup>	35	45	25 <sup>1</sup>	35	55	50	65	75	90	95	100	115	140
Bohrlochtiefe   Borehole depth	[mm]	h <sub>1</sub>	30	40	50	30	40	65	60	75	85	100	105	115	130	160
Durchgangsloch Anbauteil   Diameter of clearance hole	[mm]	d <sub>≤</sub>	7		9		12,5		14,5		16		19		23	
Mindestbauteildicke   Min. thickness of member	[mm]	h <sub>min</sub>	100 <sup>2</sup>		100 <sup>2</sup>		100 <sup>2</sup>		115 <sup>2</sup>		150 <sup>2</sup>		150 <sup>2</sup>		180 <sup>2</sup>	
			80 <sup>1</sup>		80 <sup>1</sup>		80 <sup>1</sup>									
Min. Achsabstand   Min. spacing	[mm]	s <sub>min</sub>	30		35		35		40		90		60		80	
Min. Randabstand   Min. edge distance	[mm]	c <sub>min</sub>	30		30		35		40		90		60		80	
<b>Zusätzliche Montagekennwerte Spannbetonhohlraumdecke   Additional installation parameters prestressed hollow core slab</b>																
Spiegeldicke   Tickness of slab web	[mm]	d <sub>b</sub>	30	40	50	30	40	50	40	50						
Min. Achsabstand   Min. spacing	[mm]	s <sub>cr</sub> = s <sub>min</sub>	200													
Min. Randabstand   Min. edge distance	[mm]	c <sub>cr</sub> = c <sub>min</sub>	100		100		120		140							
Achsabstand Hohlraumachse   Axis of cavity	[mm]	l <sub>c</sub>	≥100													
Achsabstand Spannlitzen   Spacing of prestressed strands	[mm]	l <sub>p</sub>	≥100													
Achsabstand zwischen Spannlitzenachse und Bohrlochachse   Spacing between prestressed strands and borehole axis	[mm]	a <sub>p</sub>	≥50													

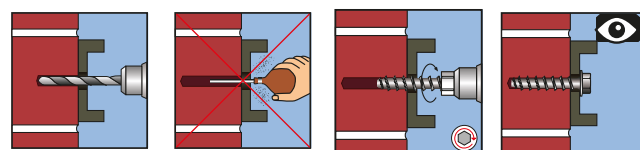
<sup>1</sup> ETA-15/0785    <sup>2</sup> ETA-15/0784    <sup>3</sup> ETA-05/0010

### Mauerwerk | Masonry

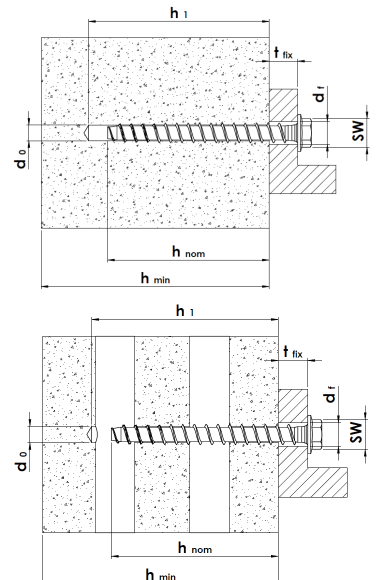
Allgemeine Bauartgenehmigung Z-21.1-2103



Mauerwerk | Masonry



1. Bohren | Drill (Lochstein KS: Nur Drehbohrrend | Solid sand-lime brick: Rotary drill only)
2. Kein Entfernen des Bohrmehls notwendig | No dust removal required
3. Einschrauben (Bohrschrauber) | Insert (Rotary drive)
4. Fertig | Done



## Mauerwerk | Masonry

### Allgemeine Bauartgenehmigung Z-21.1-2103

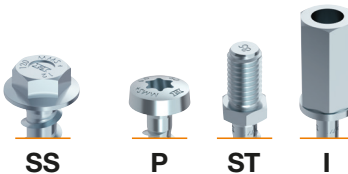
Montagekennwerte   Installation parameters		MULTI-MONTI-plus Ausführung I Type								
Z-21.1-2103		SS, P, MS, ST, I								
Größe MMS-plus   Size MMS-plus	[mm]	Ø	6		7,5		10		12	
Bohrnenn-Ø   Drill-Ø	[mm]	d <sub>0</sub>	5		6		8		10	
Einschraubtiefe   Embedment depth	[mm]	h <sub>nom</sub>	35	45	35	55	50 <sup>1</sup>	65	75	90 <sup>1</sup>
Bohrlochtiefe mit Reinigung   Borehole depth with cleaning	[mm]	h <sub>1</sub> ≥	40	50	40	65	60	75	85	100
Bohrlochtiefe ohne Reinigung   Borehole depth without cleaning	[mm]	h <sub>1</sub> ≥	50	60	55	80	70	90	100	110
Durchgangsloch Anbauteil   Diameter of clearance hole	[mm]	d <sub>1</sub> ≤	7		9		12		14	
Min. Achsabstand   Min. spacing		Min. Randabstand   Min. edge distance			Mindestbauteildicke   Min. thickness of member					
Mauerziegel MZ   Solid building brick (≥NF; ≥240x115x71 mm; ≥ 36 N/mm <sup>2</sup> ; ≥ 1,8 kg/dm <sup>3</sup> )	[mm]	s <sub>min</sub>	80		80		80		80	
		c <sub>min</sub>	80		80		80		80	
		h <sub>min</sub>	≥ 115		≥ 115		≥ 115		≥ 115	
		s <sub>min</sub>	80		80		80		80	
Kalksandvollstein KS   Solid sand-lime brick (≥NF; ≥240x115x71 mm; ≥ 20 N/mm <sup>2</sup> ; ≥ 2,0 kg/dm <sup>3</sup> )	[mm]	c <sub>min</sub>	80		80		80		80	
		h <sub>min</sub>	≥ 115		≥ 115		≥ 115		≥ 115	
		s <sub>min</sub>	80		80		80		80	
		c <sub>min</sub>	58		58		58		58	
Kalksandlochstein KS L   Perforated sand-lime brick (3DF; 240x175x113 mm; ≥ 12 N/mm <sup>2</sup> ; ≥ 1,4 kg/dm <sup>3</sup> )	[mm]	h <sub>min</sub>	≥ 175		≥ 175		≥ 175		≥ 175	
		s <sub>min</sub>	80		80		80		80	
		c <sub>min</sub>	30		40		40		50	
		h <sub>min</sub>	≥ 175		≥ 175		≥ 175		≥ 175	
Kalksandvollstein KS XL   Solid sand-lime brick XL (≥248x175x498 mm; ≥ 20 N/mm <sup>2</sup> ; ≥ 2,0 kg/dm <sup>3</sup> )	[mm]	s <sub>min</sub>	80		80		80		80	
		c <sub>min</sub>	80		80		80		80	
		h <sub>min</sub>	≥ 175		≥ 175		≥ 175		≥ 175	
		s <sub>min</sub>	80		80		80		80	
Vollblock Leichtbeton VBL   Solid lightweight concrete block (≥2DF; ≥240x115x113 mm; ≥ 4 N/mm <sup>2</sup> ; ≥ 0,8 kg/dm <sup>3</sup> )	[mm]	c <sub>min</sub>	80		80		80		80	
		h <sub>min</sub>	≥ 115		≥ 115		≥ 115		≥ 115	
		s <sub>min</sub>	80		80		80		80	
		c <sub>min</sub>	80		80		80		80	

<sup>1</sup> KS-XL

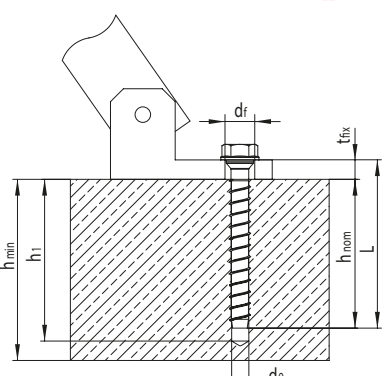
## Mehrfachverwendung | Multiple use

### Allgemeine Bauartgenehmigung Z-21.8-2061

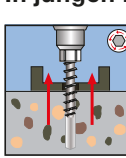
Mit allgemeiner  
BAUARTGE-  
NEHMIGUNG  
Mehrfachver-  
wendung



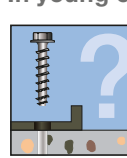
SS      P      ST      I



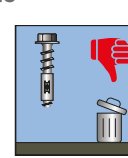
**In jungen Beton | In young concrete**



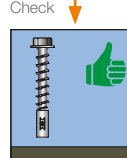
Einschrauben  
Insert



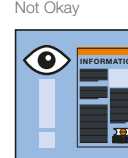
Prüfen  
Check



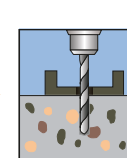
Nicht in Ordnung  
Not Okay



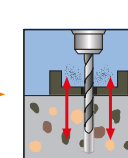
In Ordnung  
Okay



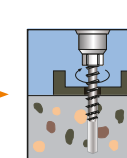
Beachten  
Observe



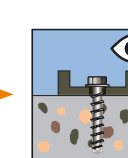
Bohren  
Drill



Bohrmehl entfernen  
Remove dust



Einschrauben  
Insert



Fertig  
Done

Montagekennwerte   Installation parameters		MULTI-MONTI-plus Ausführung I Type							
Z.21.8-2061		SS, P, ST, I							
Größe MMS-plus   Size MMS-plus	[mm]	Ø	10		12		16		20
Bohrschneiden-Ø   Drill-Ø	[mm]	d <sub>0</sub>	8		10		14		18
Einschraubtiefe im Beton   Embedment depth	[mm]	h <sub>nom</sub>	65	75	75	115	115	115	115
Durchgangsloch Anbauteil   Diameter of clearance hole	[mm]	d <sub>1</sub> ≤	12,5		14,5		19 <sup>1</sup>		23
Mindestbauteildicke   Min. thickness	[mm]	h <sub>min</sub>	115	125	150	180	180	180	180
min. Achsabstand   Min. spacing	[mm]	s <sub>min</sub>	265	305	375	585	735	735	735
min. Randabstand   Min. edge distance	[mm]	c <sub>1</sub>	88	105	125	195	245	245	245
min. Randabstand   Min. edge distance	[mm]	c <sub>2</sub>	135	155	188	295	368	368	368
Prüfhülslänge   Gauge length	[mm]	l <sub>c</sub>	24		32		36		58
Prüfhülsendurchmesser   Internal diameter of gauge	[mm]	d <sub>c</sub>	9,5		11,5		15,5		19,5