

Technical Information Submersible mixers / Recirculation pumps

Relating fixation sets part 1

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WILO SE

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Type	Qty.	Reinforced or unreinforced normal weight concrete EN206-1:2000: C20/25 - C50/C60	Remarks
AVU 50 / 60	1	Fixation set 2 6011006	for (upper) guide bracket
			for bottom bearing plate
AVU 80 to 140	1	Fixation set 7 6010954	for (upper) guide bracket
	1	Fixation set 3 6011005	for bottom bearing plate
AVMS	3	Fixation set 7 6010954	for ground fixation
AVUS / AVUS1	1	Fixation set 1 6011007	for ground fixation
AVUSHH / AVUSHH1	1	Fixation set 7 6010954	for one wall support each
	1	Fixation set 1 6011007	for ground fixation
AVMSH	1	Fixation set 3 6011005	for (upper) guide bracket
	3	Fixation set 7 6010954	for ground fixation
AVMH / AVUSH / AVUSH1	1	Fixation set 3 6011005	for (upper) guide bracket
	1	Fixation set 1 6011007	for ground fixation
AVR	1	Fixation set 2 6011006	for guide pipe
AVRD	1	Fixation set 2 6011006	for guide pipe
	1	Fixation set 15 6010965	for distance piece

Technical Information Submersible mixers / Recirculation pumps

Relating fixation sets part 2

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Type	Qty.	Reinforced or unreinforced normal weight concrete EN206-1:2000: C20/25 - C50/C60	Remarks
		Fixation set / SAP #	
AVRZ	1	3 / 6011005	for guide pipe
AVRZD	1	3 / 6011005	for guide pipe
	1	16 / 6010964	for distance piece
Receiving box for auxiliary lifting device	1	1 / 6011007	for ground or wall fixation concrete
		6 / 6011009	for ground or wall fixation steel plate
Receiving box for Z, ZT1, ZT2	1	18 / 6011108	for ground or wall fixation concrete
		30 / 6087056	for ground or wall fixation steel plate
Cable guiding rope / wall	1	19 / 6011093	Option to fixation set 4 (included)
Holding angle for wall installation	1	3 / 6011005	for TR 14 / 16 / 21 / 28 TR 20-1 / 28-1 / TRE 20
Holding angle for bottom fixation	1	3 / 6011005	for TR 14 / 16 / 21 / 28 / 36 / 40 TR 20-1 / 28-1 / TRE 20
Holding angle for bottom fixation	1	2 / 6011005 7 / 6010954 10 / 6010974 20 / 6011065	for TR 22 / 36 / 40 TR 30-1 / 40-1 / 50-2 / 50-3 TRE 30 / 40 / 50-2 / 50-3
Holding angle for pipe Installation 1 1/4"	3	4 / 6011010	for TR 14 / 16 / 21 / 28 TR 20-1 / TRE 20
Holding angle for pipe Installation 2" / 50x50	1	3 / 6011005	for TR 14 / 16 / 21 / 28 TR 20-1 / 28-1 / TRE 20
Ground installation	1	7 / 6010954	for TR 22 / 25 / 36
Wall installation	1	2 / 6011006	for TR 22 / 25 / 36 / 40 TR 30-1 / 40-1 / TRE 30 / 40
Tripod unit for bottom fixation Uniprop 2	1	1 / 6011007	for TR 50-2 / 60-2 / 75-2 / 90-2 TR 50-3 / 60-3

Technical Information
Suspension devices /
Coupling Foot
Relating fixation sets part 3

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Type	Qty.	Fixation set	SAP
G 2 / 1 R	1	9	6010975
DN 36 / 1 R	1	9	6010975
DN 50 / 1 R	1	9	6010975
DN 50 / 2 RK	1	11	6010973
DN 65 / 2 RK	1	11	6010973
DN 80 N / 1 TK	1	11	6010973
DN 80 / 1 R	1	9	6010975
DN 80 / 2 RK	1	9	6010975
DN 100 / 1 TK	1	11	6010973
DN 100 / 1 R	1	9	6010975
DN 100 / 2 RK	1	9	6010975
DN 100S / 2 RK	1	11	6010973
DN 150 / 1 R	1	10	6010974
DN 150 L / 2 RK	1	10	6010974
DN 150 S / 2 RK	1	21	6011050
DN 200 / 2 R	1	12	6010972
DN 250 / 2 R	1	12	6010972
DN 250 S / 2 RK	1	28	6071290
DN 300 N / 2 RK	1	23	6038025
DN 350 / 2 RK	1	23	6038025
DN 400S / 2 RK	1	24	6063016
DN 400 / 2 RK	1	23	6038025
DN 500 N / 2 RK	1	23	6038025
DN 500 / 2 RK	1	24	6063016
DN 600 N / 2 RK	1	23	6038025
DN 600 / 2 RK	1	24	6063016

Technical Information
 Suspension devices /
 Wall fixation
 Relating fixation sets part 4

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Type	Qty.		
G 2 / 1 R	2	6002027 1 x Dowel D 12 PA GD 12*	
DN 36 / 1 R			
DN 50 / 1 R			
DN 80 N / 1 TK			
DN 80 / 1 R			
DN 80 / 2 RK			
DN 100 / 1 TK			
DN 100 / 1 R			
DN 100 / 2 RK			
DN 100S / 2 RK			6002349 1 x Screw M10 x 70 DIN 571
DN 150 / 1 R			6002140 1 x Disc 10,5 DIN 7349
DN 150 L / 2 RK			
DN 150 S / 2 RK			
DN 200 / 2 R			
DN 250 / 2 R			
DN 250 S / 2 RK			
DN 350 / 2 RK			
DN 400 / 2 RK			
DN 300 N / 2 RK DN 400 S / 2RK	3	6002026 1 x Dowel D 14 PA A 100*	
DN 500 N / 2 RK DN 500 / 2 RK	4	6002348 1 x Screw M12 x 70 DIN 571	
DN 600 N / 2 RK DN 600 /2RK		6002523 1 x Disc 13 DIN 7349	

Technical Information

Table of fixation sets part 1 P.1



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AISI 316			
Fixation set 1 - 4xM16 concrete SAP-Nr.6011007 Material: AISI 316	4x Mortar cartrid. HVU2 M16x125 4x Anchor bar HAS-U A4 M16x190	Fixation set 2 - 4xM12 concrete SAP-Nr.6011006 Material: AISI 316	4x Mortar cartrid. HVU2 M12x110 4x Anchor bar HAS-U A4 M12x160
Fixation set 3 - 2xM12 concrete SAP-Nr.6011005 Material: AISI 316	2x Mortar cartrid. HVU2 M12x110 2x Anchor bar HAS-U A4 M12x160	Fixation set 4 - 1xD.10 concrete SAP-Nr.6011010 Material: AISI 316	1x Universal dowel HUD 14* 1x Hexagon screw 10x70 1x Washer 10,5 DIN 7349
Fixation set 5 - 2xDSM12 concrete SAP-Nr.6011004 Material: AISI 316	2x Anchor HST-R M12-20* 2x Lock washer 12 DIN7980	Fixation set 6 - 4xM16x70 steel SAP-Nr.6011009 Material: AISI316	4x Hexagon bolt M16x70 DIN 933 4x Self-lock hexagon nut M16 4x Washer A17 DIN125
Fixation set 7 - 2xM16 concrete SAP-Nr.6010954 Material: AISI 316	2x Mortar cartrid. HVU2 M16x125 2x Anchor bar HAS-U A4 M16x190	Fixation set 8 - 2xM12x70 steel SAP-Nr.6010959 Material: AISI 316	2x Bolt M12x70 DIN 933 2x Washer 13 DIN 7349 2x Self-lock hexagon nut M12
Fixation set 9 - 3xM12S concrete SAP-Nr.6010975 Material: AISI 316	3x Mortar cartrid. HVU2 M12x110 3x Anchor bar HAS-U A4 M12x160 3x Washer 13 DIN 7349	Fixation set 10 - 3xM16S concrete SAP-Nr.6010974 Material: AISI 316	3x Mortar cartrid. HVU2 M16x125 3x Anchor bar HAS-U A4 M16x190 3x Washer 17 DIN 7349
Fixation set 11 - 4xM12S concrete SAP-Nr.6010973 Material: AISI 316	4x Mortar cartrid. HVU2 M12x110 4x Anchor bar HAS-U A4 M12x160 4x Washer 13 DIN 7349	Fixation set 12 - 4xM16S concrete SAP-Nr.6010972 Material: AISI 316	4x Mortar cartrid. HVU2 M16x125 4x Anchor bar HAS-U A4 M16x190 4x Washer 17 DIN 7349
Fixation set 13 - 3xM12 concrete SAP-Nr.6010981 Material: AISI 316	3x Mortar cartridge HVU2 M12x110 3x Anchor bar HAS-U A4 M12x160	Fixation set 14 - 3xM16 concrete SAP-Nr.6010980 Material: AISI 316	3x Mortar cartrid. HVU2 M16x125 3x Anchor bar HAS-U A4 M16x190
Fixation set 15 - 4xM12x120 steel SAP-Nr.6010965 Material: AISI 316	4x Hexagon bolt M12x120 DIN933 8x Washer B13 DIN125 4x Hexagon nut M12	Fixation set 16 - 2xM12x120 steel SAP-Nr.6010964 Material: AISI 316	2x Hexagon bolt M12x120 DIN933 4x Washer B13 DIN125 2x Hexagon nut M12
Fixation set 17 - 2xM20S concrete SAP-Nr.6010962 Material: AISI 316	2x Mortar cartrid. HVU2 M20x170 2x Anchor bar HAS-ER M20x170-48 2x Washer 21 DIN 7349	Fixation set 18 - 4xM20S concrete SAP-Nr.6011108 Material: AISI 316	4x Mortar cartrid. HVU2 M20x170 4x Anchor bar HAS-U A4 M20x240 4x Washer 21 DIN 7349
Fixation set 19 - 1xM8S concrete SAP-Nr.6011093 Material: AISI 316	1x Mortar cartrid. HVU2 M8x80 1x Anchor bar HSR M8x80/14 1x Washer 8,4 DIN 7349	Fixation set 20 - 1xM16-I concrete SAP-Nr.6011065 Material: AISI 316	1x Mortar cartrid. HVU2 M20x170 1x Anchor bar HIS-RN M16x170 1x Hexagon bolt M16x45 1x Washer 17 DIN 7349
Fixation set 21 - 4xM16L concrete SAP-Nr.6011050 Material: AISI 316	4x Mortar cartrid. HVU2 M16x125 4x Anchor bar HAS-U A4 M16x260	Fixation set 22 - 2xM16x70 steel SAP-Nr.6000710 Material: AISI 316	2x Bolt M16x70 DIN 933 4x Washer B17 DIN 125 2x Hexagon nut M16
Fixation set 23 - 4xM24 concrete SAP-Nr.6038025 Material: AISI 316	4x Mortar cartrid. HVU2 M24x210 4x Anchor bar HAS -U A4 M24x 300	Fixation set 24 - 6xM24 concrete SAP-Nr. 6063016 Material: AISI 316	6x Mortar cartrid. HVU2 M24x210 6x Anchor bar HAS -U A4 M24x 300

Technical Information

Table of fixation sets part 1 P.2



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Fixation set 28 - 4xM20 concrete SAP-Nr. 6071290 Material: AISI 316	4x Mortar cartrid. HVU2 M20x170 4x Anchor bar HAS-E-R M20x170-68 (A4)	Fixation set 30 - 4xM20x100 steel SAP-Nr.6087056 Material: AISI 316	4x Hexagon bolt M20x100 DIN 933 8x Washer A21 DIN 7349 4x Hexagon nut M20 DIN 985
Fixation set 31 - 4xM16 concrete SAP-Nr. xy Material: AISI 316 ??	4x Mortar cartrid. HIT-HY 200-A M16x175 4x Anchor bar HIT-Z-R M16x175 (A4)		
Steel, galvanized			
Fixation set 25- 4xM20 concrete Stvz SAP-Nr. 6065945 Material: steel galv.	4x Mortar cartrid. HVU2 M20x170 4x Anchor bar HAS-E M20x170-68 (galv.) 4x Disc 21 DIN7349 (galv.)	Fixation set 26- 4xM24 concrete Stvz SAP-Nr. 6065943 Material: steel galv.	4x Mortar cartrid. HVU2 M24x210 4x Anchor bar HAS-U 5.8 M24x450 (galv.) 4x Disc 25 DIN7349 (galv.)
Fixation set 27- 4xM16 concrete Stvz SAP-Nr. 6065944 Material: steel galv.	4x Mortar cartrid. HVU2 M16x125 4x Anchor bar HAS-E M16x125-108 (galv.) 4x Disc 17 DIN7349 (galv.)		
High corrosion resistance			
Fixation set 29 - 3xM12 concrete A5 SAP-Nr.6074948	3x Mortar cartrid. HVU2 M12x110 3x Anchor bar HAS-E-HCR M12x110- 28 3x Washer 13 DIN7349 A5		
High corrosion resistance	+ alloweds for fissured concrete		
Fixation set 3- 2xM12 concrete A5 SAP-Nr. 6071206	2x Mortar cartrid. HVU2-TZ M12 2x Anchor bar AS-HCR-TZ M12x95/25 A5	Fixation set 3- 2xM12 concrete A5 SAP-Nr. 6071205	2x Mortar cartrid. HVU2-TZ M16 2x Anchor bar HAS-HCR-TZ M16x105/30 A5

* According GWT directive in Austria there are only allowed adhesive anchors for fixation in tanks!
Use alternative fixation sets.

Technical Information Submersible mixers/Recirculation pumps

Table of cable guidings

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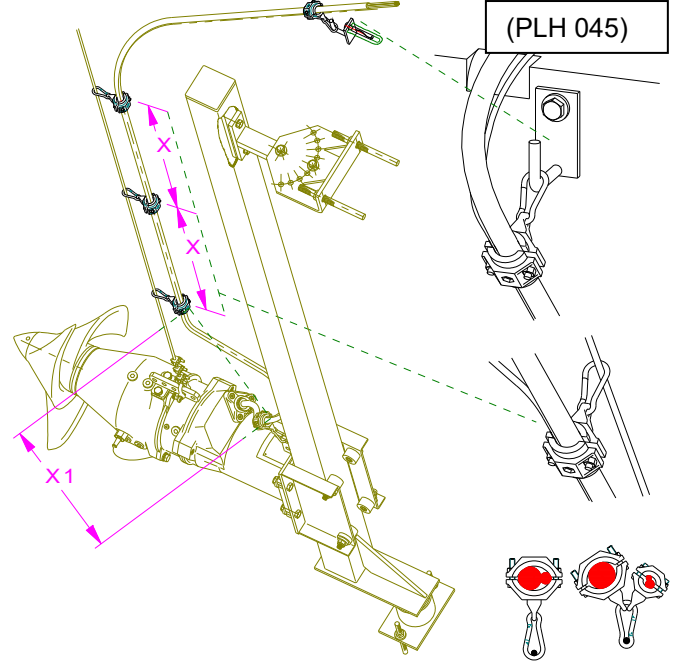
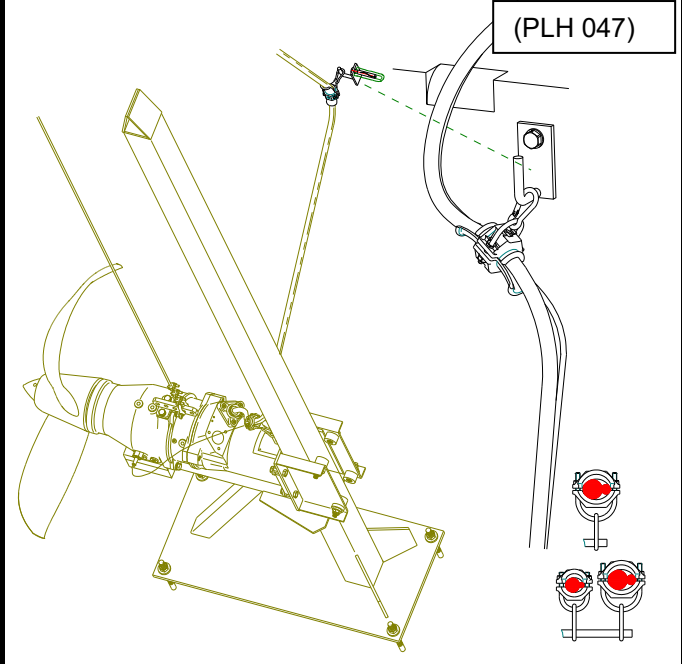
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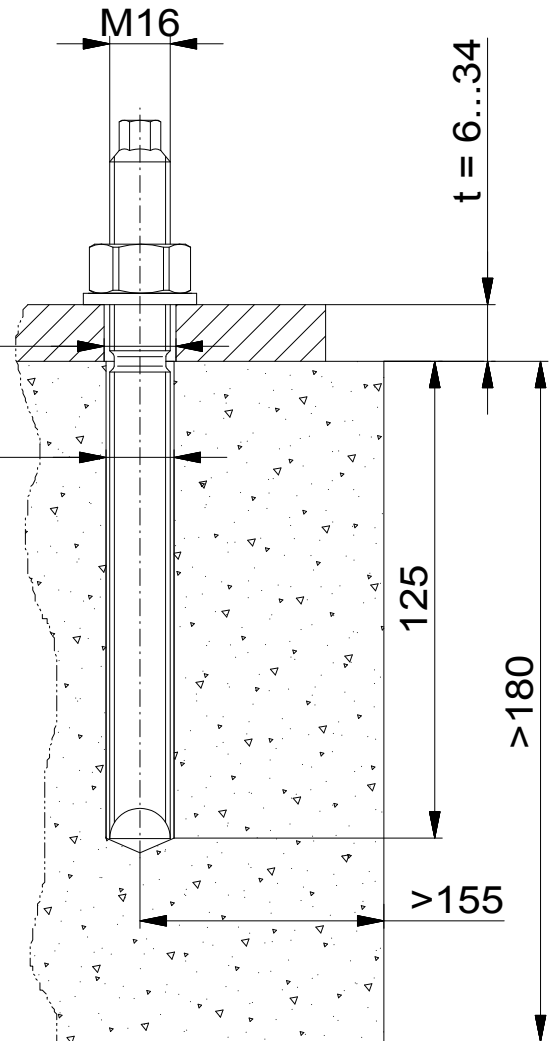
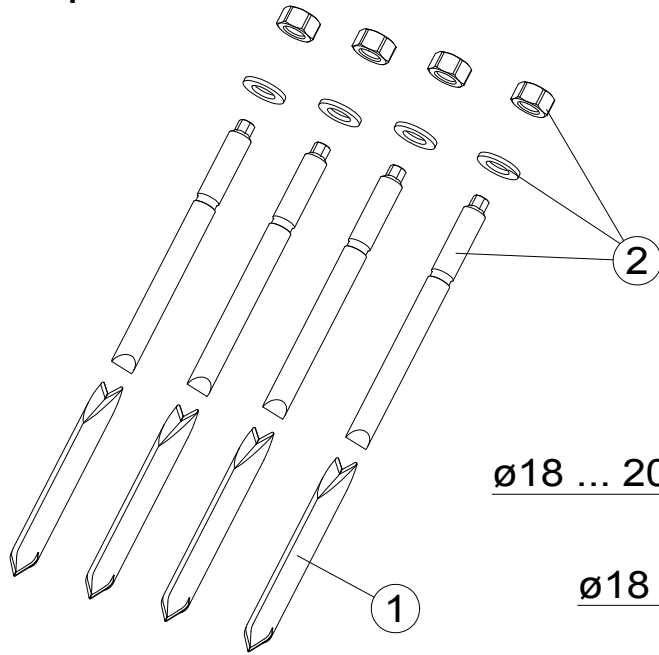
Email: info@wilo.com

<p>Rope-1 Article-No. 6010940</p> <p>1x Cable fixation A4 1x Fixation set 4 6x Cable clamp TR size1 (Ø10-17mm)</p>	<p>Wall-1 Article-No. 6010947</p> <p>1x Cable fixation A4 1x Fixation set 4 1x Long cable clamp Ø10-17mm 1x Snap hook 50x5 V4A 10x zip tie 337x8</p>
<p>Rope-2 Article-No. 6010939</p> <p>1x Cable fixation A4 1x Fixation set 4 6x Cable clamp TR size2 (Ø17-26mm)</p>	<p>Wall-2 Article-No. 6010946</p> <p>1x Cable fixation A4 1x Fixation set 4 1x Long cable clamp Ø17-26mm 1x Snap hook 50x5 V4A 10x zip tie 337x8</p>
<p>Rope-3 Article-No. 6010948</p> <p>1x Cable fixation A4 1x Fixation set 4 6x Cable clamp TR size3 (Ø26-36mm)</p>	<p>Wall-3 Article-No. 6011029</p> <p>1x Cable fixation A4 1x Fixation set 4 1x Long cable clamp Ø26-36mm 1x Snap hook 50x5 V4A 10x zip tie 337x8</p>
<p>Rope-1+3 Article-No. 6061713</p> <p>1x Cable fixation A4 1x Fixation set 4 6x Cable clamp TR size3 (Ø26-36mm) 6x Cable clamp size1 (Ø10-17)</p>	<p>Wall-1+3 Article-No. 6061714</p> <p>1x Cable fixation A4 1x Fixation set 4 1x Long cable clamp Ø26-36mm 1x Long cable clamp Ø10-17mm 1x Snap hook 50x5 V4A 10x zip tie 337x8</p>
<p>Rope-2+3 Article-No. 6061712</p> <p>1x Cable fixation A4 1x Fixation set 4 6x Cable clamp TR size3 (Ø26-36mm) 6x Cable clamp size2 (Ø17-26)</p>	<p>Wall-1+3 Article-No. 6061715</p> <p>1x Cable fixation A4 1x Fixation set 4 1x Long cable clamp Ø26-36mm 1x Long cable clamp Ø17-26mm 1x Snap hook 50x5 V4A 10x zip tie 337x8</p>
 <p>(PLH 045)</p>	 <p>(PLH 047)</p>

1
2
3
4

**Europäische Technische Bewertung
European Technical Assessment**

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete

EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

**Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!**

2	4	Ankerstange / anchor bar HAS-R 6K	M16x125/38 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011007	TYPE: 4xM16 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167		
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WEIGHT: 1,31 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: A4-70/AISI316			SCALE: 1:2	
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DESIGNATION: fixation set 1 A4 Befestigungssatz 1 A4				
--	--	--	--	--

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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REPLACEMENT FOR: 03A.05.001.02
NUMBER.INDEX: PAGE: 1/1

03A.05.001.03

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1

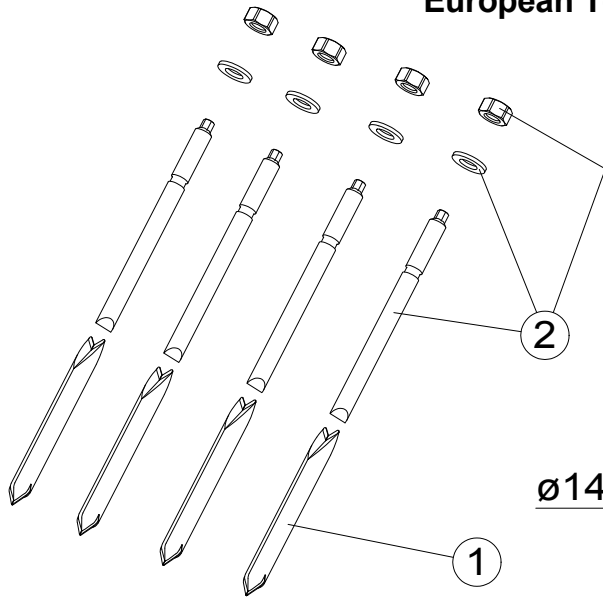
2

3

4

Europäische Technische Bewertung
European Technical Assessment

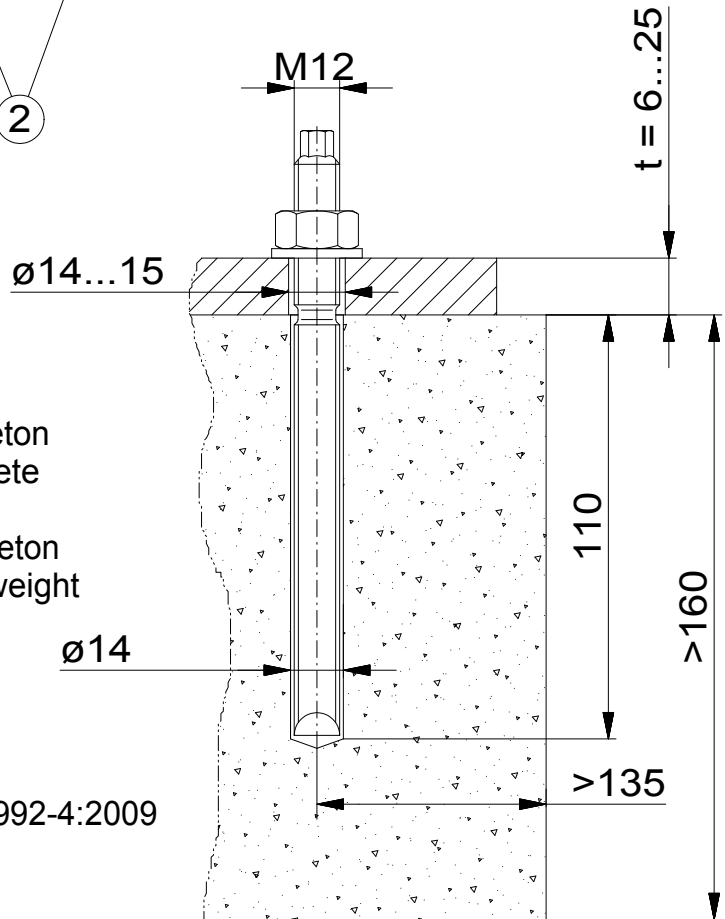
ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009



Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

Pos.	Anz.-pc.	Bezeichnung - Designation:	
2	4	Ankerstange / anchor bar HAS-R 6K	M12x110/28 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M12x110

MODEL NUMBER: -	MATERIAL NUMBER: 6011006	TYPE: 4xM12 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167
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WEIGHT: 0,72 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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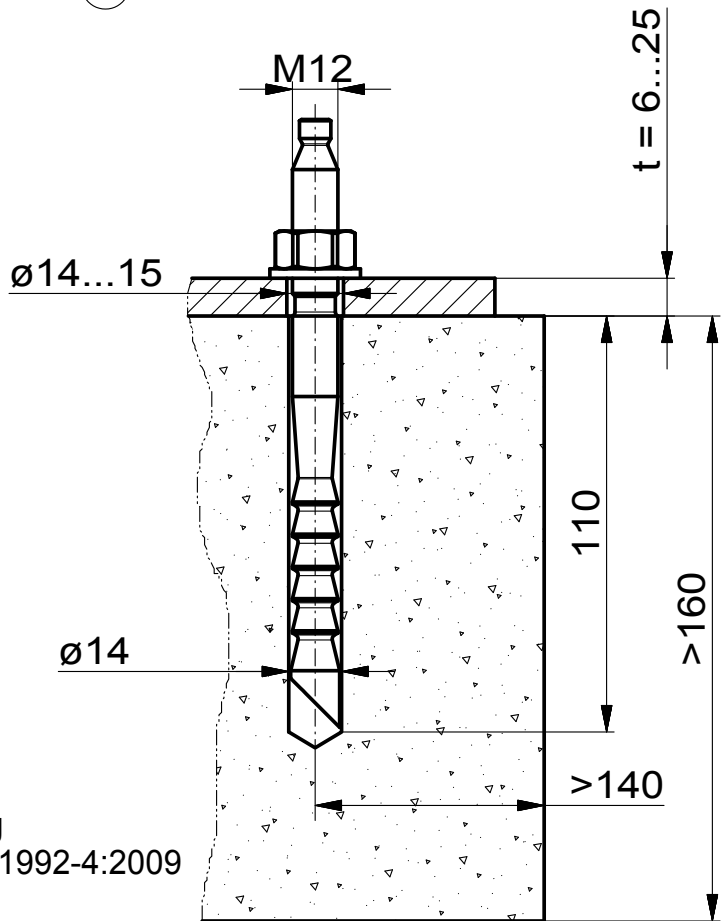
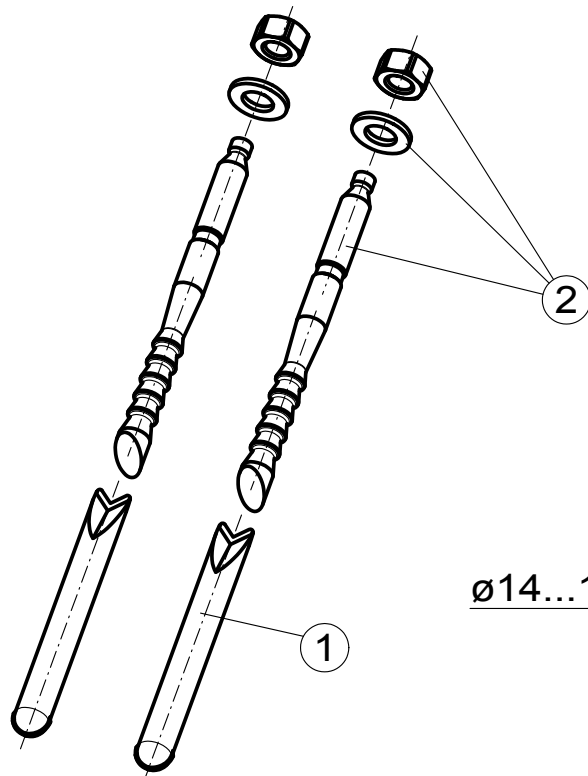
MATERIAL: A4-70/AISI316	SCALE: 1:2	
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DESIGNATION: fixation set 2 A4 Befestigungssatz 2 A4
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01 1240123 2012-03-28 C. Worst		REPLACEMENT FOR: 03A.05.002.02
02 1340203 2013-04-12 T. Rietsch		NUMBER.INDEX: PAGE: 1/1
03 1740297 2017-08-30 E. Haselmann		03A.05.002.03
IND. TN NO. DATE NAME SIGN.		
RELEASE: 2017-08-30 P. Rietsch		

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Für gerissenen und ungerissenen Beton
 For fissured and fissure free concrete
 EN206: 2000-12 >C20/25 <C50/60

Lastberechnungen nach
 load capacity calculation according
 technical report TR 029 + CEN/TS 1992-4:2009

Montageblatt für Verbundanker beachten!
Regard installation instruction for adhesive anchors!

2	2	Ankerstange / anchor bar HAS-HCR-TZ	M12x95/25 A5
1	2	Mörtelpatrone / mortar cartridge	HVU-TZ M12
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6071206	TYPE: 2xM12 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

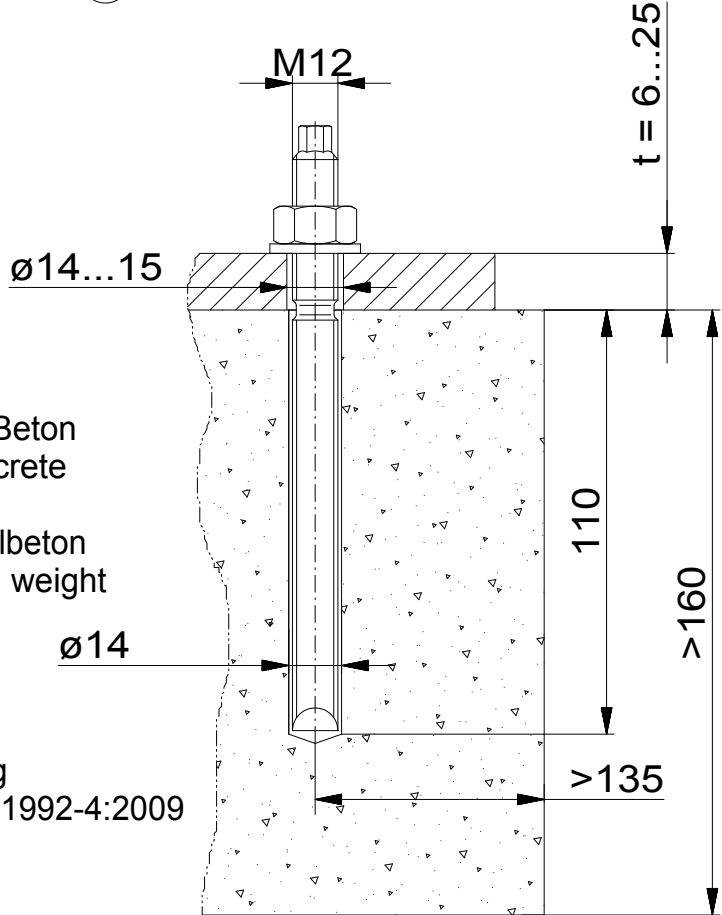
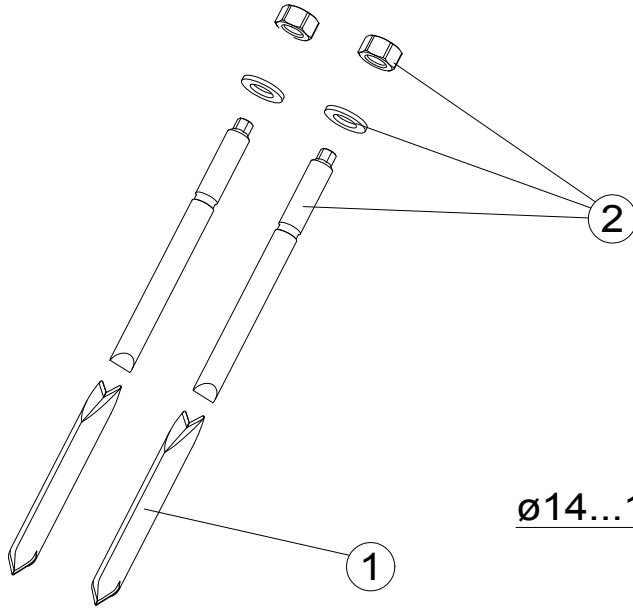
WEIGHT: 0,32 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: 1.4462/DUPLEX			SCALE: 1:2	

DESIGNATION:
 fixation set 3 A5
 Befestigungssatz 3 A5

REPLACEMENT FOR: -	
NUMBER.INDEX: 03A.05.003-1.01	PAGE: 1/1

01	1440019	2014-01-21	P. Rietsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2014-01-21	H. Spörl		

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Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete

EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

2	2	Ankerstange / anchor bar HAS-R 6K	M12x110/28 A4
1	2	Mörtelpatrone / mortar cartridge	HVU2 M12x110
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011005	TYPE: 2xM12 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,34 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION:
fixation set 3 A4
Befestigungssatz 3 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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REPLACEMENT FOR: 03A.05.003.02
NUMBER.INDEX: PAGE: 1/1

03A.05.003.03

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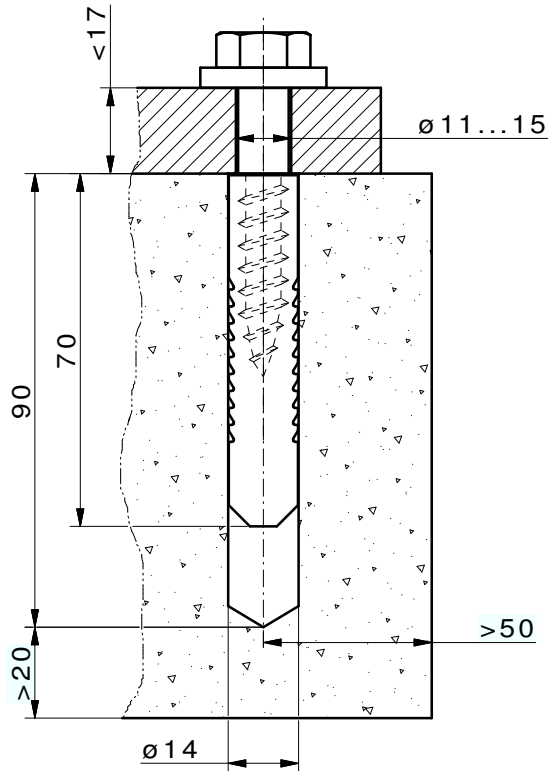
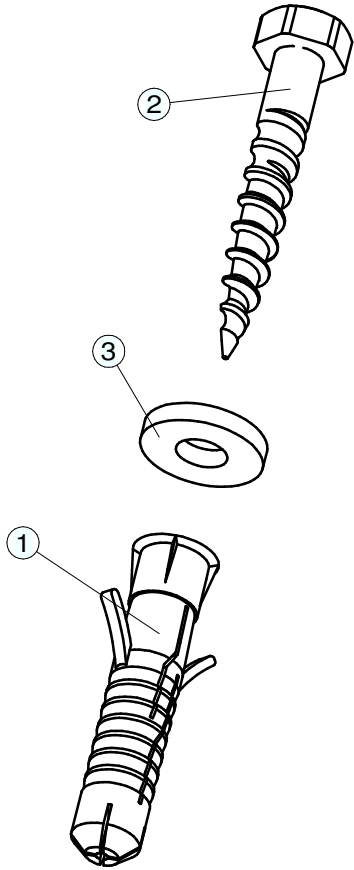
2

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Nach GWT-Richtlinien in Österreich nicht zugelassen
Ersatz: BS19

According to GWT directives not approved for Austria
Replacement: Fixation set 19



EN206: 2000-12 >C15

3	1	Scheibe DIN7349	10,5
2	1	Sechskant-Holzschraube	10x70
1	1	Universaldübel	HUD 14
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011010	TYPE: 10x70 Beton/concrete
--------------------	-----------------------------	-------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,06 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70 / AISI316 - PA	SCALE: 1:1,5

DESIGNATION:
fixation set 4
Befestigungssatz 4

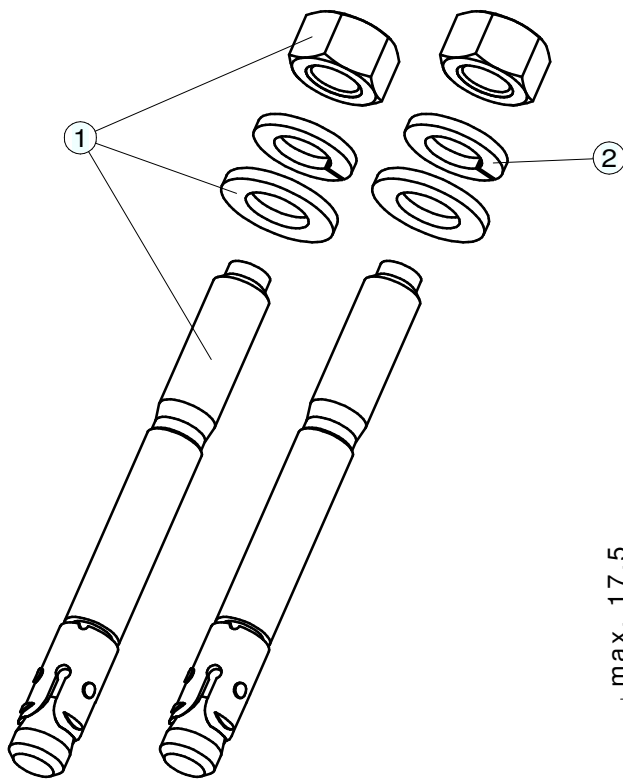
01	1240123	2012-03-30	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2013-04-19	P. Rietsch		



REPLACEMENT FOR: 03A.05.004.01
NUMBER.INDEX: PAGE: 1/1

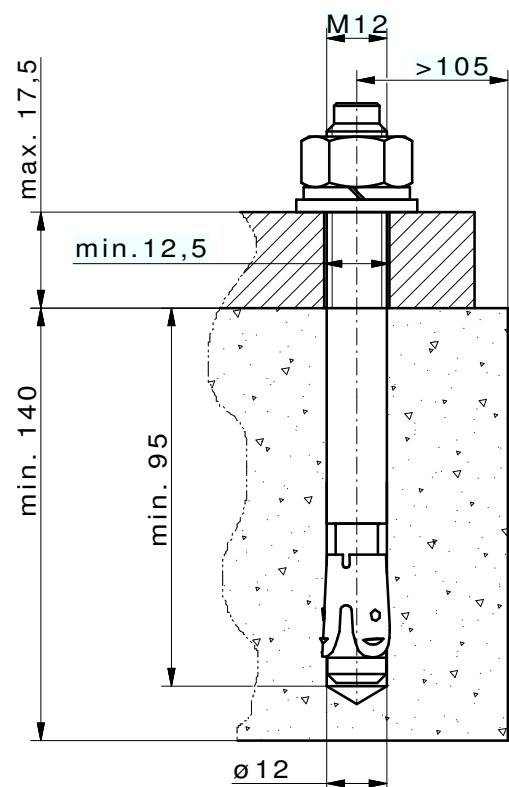
03A.05.004.02

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Für ungerissenen Beton
 For fissure free concrete
 EN206: 2000-12 >C20/25 <C50/60

Herstellervorgaben beachten
 regard manufacturer informations



2	2	Federring 12	DIN7980 A4
1	2	Durchsteckanker HST-R	M12/20 A4
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011004	TYPE: 2xDSM12 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

WEIGHT: 0,22 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: A4-70/AISI316			SCALE: 1:1,5	
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DESIGNATION:
fixation set 5 A4
Befestigungssatz 5 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2013-04-19	P. Rietsch		



REPLACEMENT FOR: 03A.05.005.01
 NUMBER.INDEX: PAGE: 1/1
03A.05.005.02

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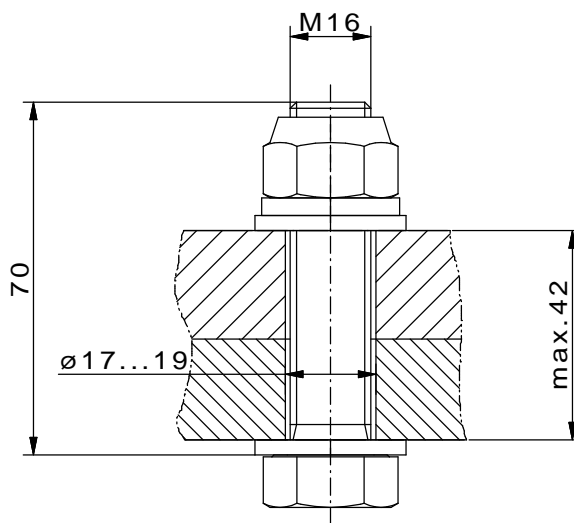
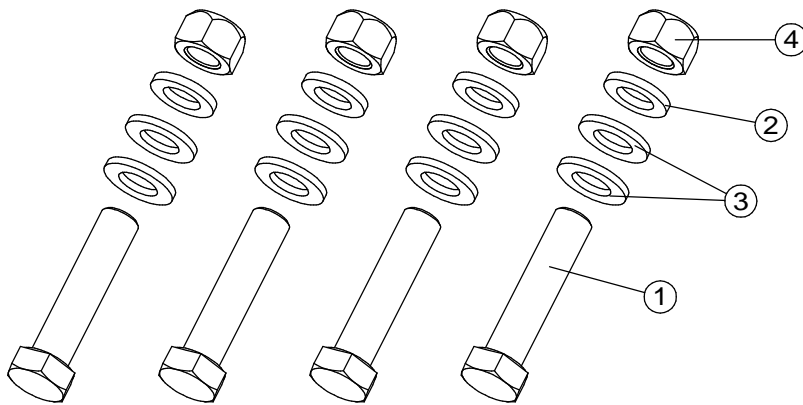
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Material: A4 / Zugfestigkeit: 70
material: AISI 316 / tensile strength: 70

Pos.	Anz.-pc.	Bezeichnung - Designation:	
4	4	Mutter/nut DIN985 A4	M16
3	8	Scheibe/washer DIN7349 A4	17
2	4	Scheibe/washer DIN125 A4	A17
1	4	Schraube/screw DIN933 A4-70	M16x70

MODEL NUMBER: -	MATERIAL NUMBER: 6011009	TYPE: 4xM16x70 Stahl/steel
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,74 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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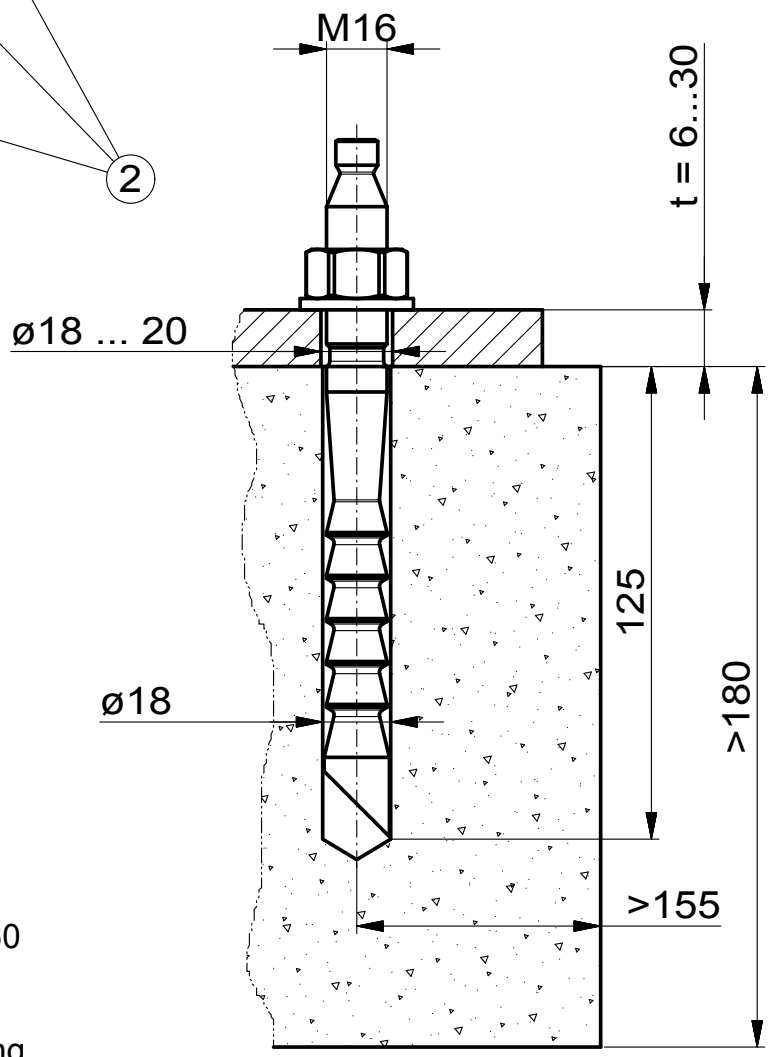
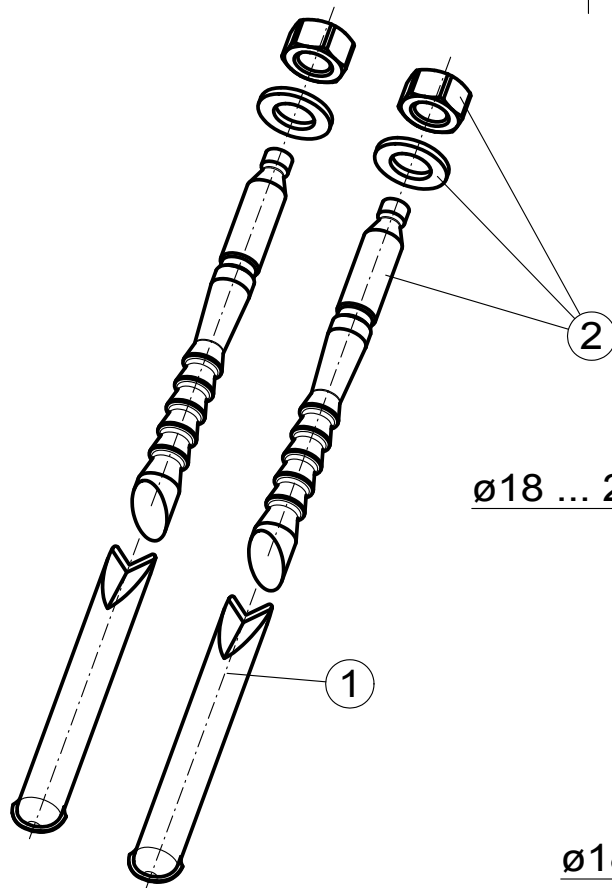
MATERIAL: A4-70/AISI316			SCALE: 1:1,5	
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DESIGNATION:
fixation set 6 A4
Befestigungssatz 6 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1840400	2018-10-26	N. Porsch	
04	1940034	2019-02-12	N. Porsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2019-02-12	P. Rietsch	



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NUMBER.INDEX:	
03A.05.006.04	



Für gerissenen und ungerissenen Beton
 For fissured and fissure free concrete
 EN206: 2000-12 >C20/25 <C50/60

Lastberechnungen nach
 load capacity calculation according
 technical report TR 029 + CEN/TS 1992-4:2009

Montageblatt für Verbundanker beachten!
Regard installation instruction for adhesive anchors!

2	2	Ankerstange / anchor bar HAS-HCR-TZ	M16x105/30 A5
1	2	Mörtelpatrone / mortar cartridge	HVU-TZ M16
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6071205	TYPE: 2xM16 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

WEIGHT: 0,65 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: 1.4462 / DUPLEX	SCALE: 1:2

fixation set 7 A5
 Befestigungssatz 7 A5



REPLACEMENT FOR: -
 NUMBER.INDEX: | PAGE: 1/1

03A.05.007-1.01

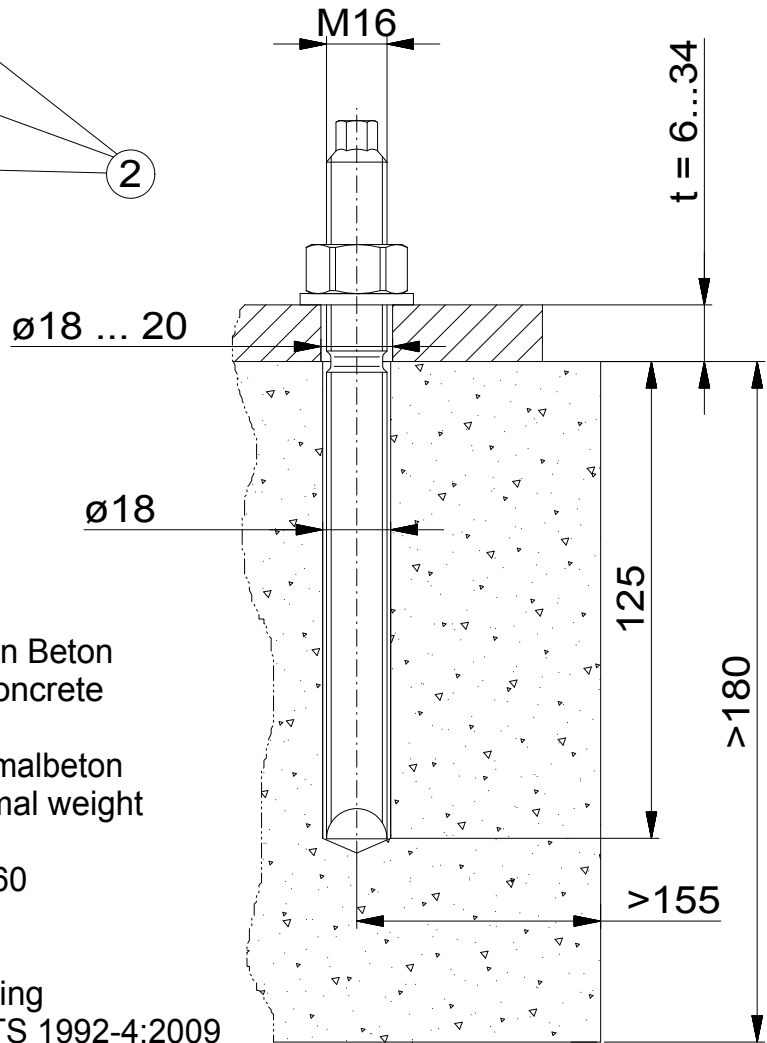
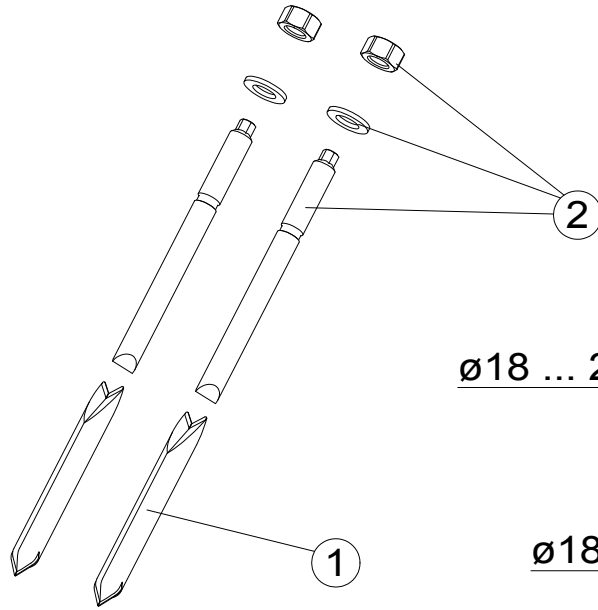
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IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2014-01-21	H. Spörl		

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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

2	2	Ankerstange / anchor bar HAS-R 6K	M16x125/38 A4
1	2	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010954	TYPE: 2xM16 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,68 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION:
fixation set 7 A4
Befestigungssatz 7 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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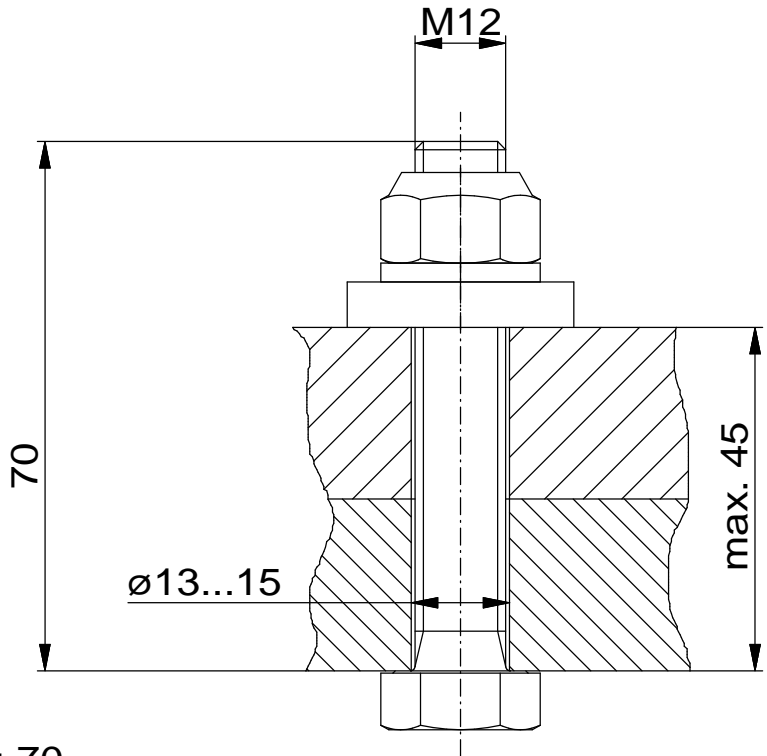
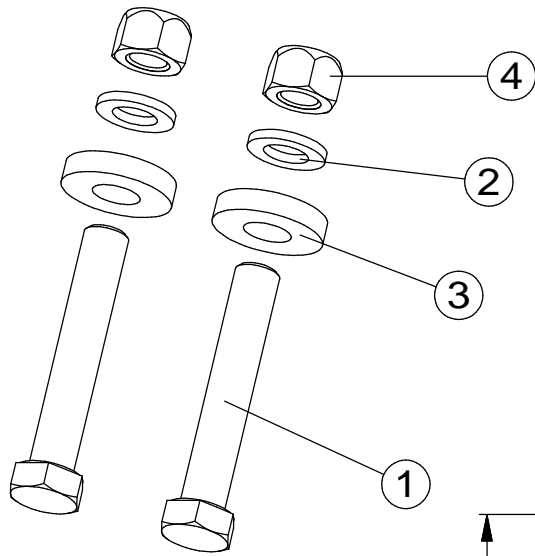
REPLACEMENT FOR: 03A.05.007.02
NUMBER.INDEX: PAGE: 1/1

03A.05.007.03

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Material: A4 / Zugfestigkeit: 70
 material: AISI 316 / tensile strength: 70

Pos.	Anz.-pc.	Bezeichnung - Designation:	
4	2	Mutter/nut DIN985 A4	M12
3	2	Scheibe/washer DIN7349 A4	13
2	2	Scheibe/washer DIN125 A4	A13
1	2	Schraube/screw DIN933 A4-70	M12x70

MODEL NUMBER: -	MATERIAL NUMBER: 6010959	TYPE: 2xM12S Stahl/steel
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

WEIGHT: 0,22 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70/AISI316	SCALE: 1:1

DESIGNATION:
fixation set 8 A4
Befestigungssatz 8 A4

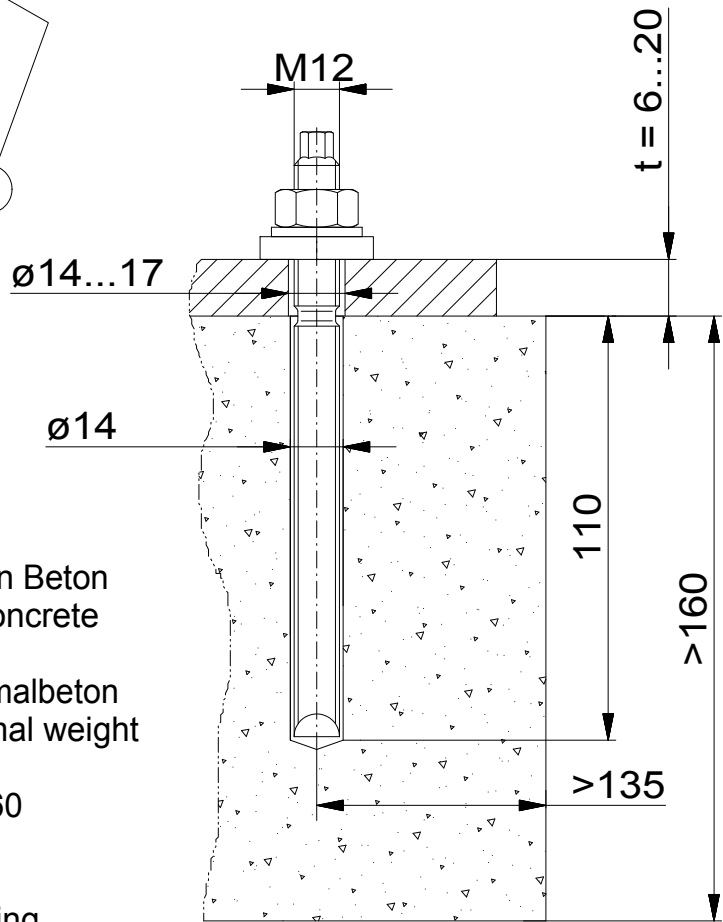
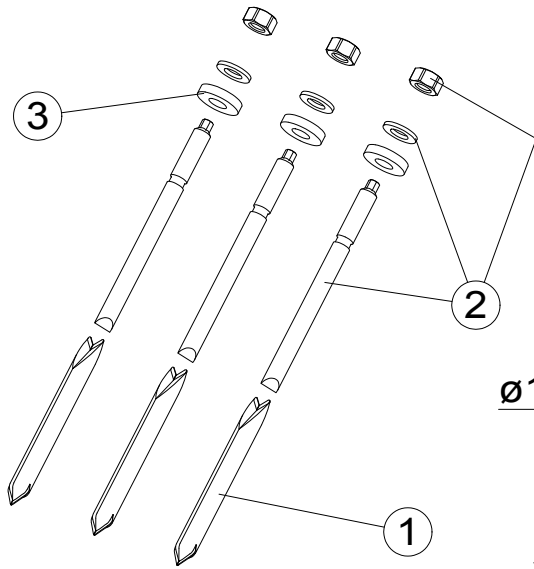
01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1840400	2018-10-25	N. Porsch	
04	1940034	2019-02-12	N. Porsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2019-02-12	P. Rietsch	



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NUMBER.INDEX:	PAGE: 1/1
03A.05.008.04	

1 Europäische Technische Bewertung
European Technical Assessment

3 ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	3	Scheibe / washer	13 DIN7349 A4
2	3	Ankerstange / anchor bar HAS-R 6K	M12x110/28 A4
1	3	Mörtelpatrone / mortar cartridge	HVU2 M12x110
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010975	TYPE: 3xM12S Beton/concrete
--------------------	-----------------------------	--------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167		
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WEIGHT: 0,6 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION: fixation set 9 A4 Befestigungssatz 9 A4				
--	--	--	--	--

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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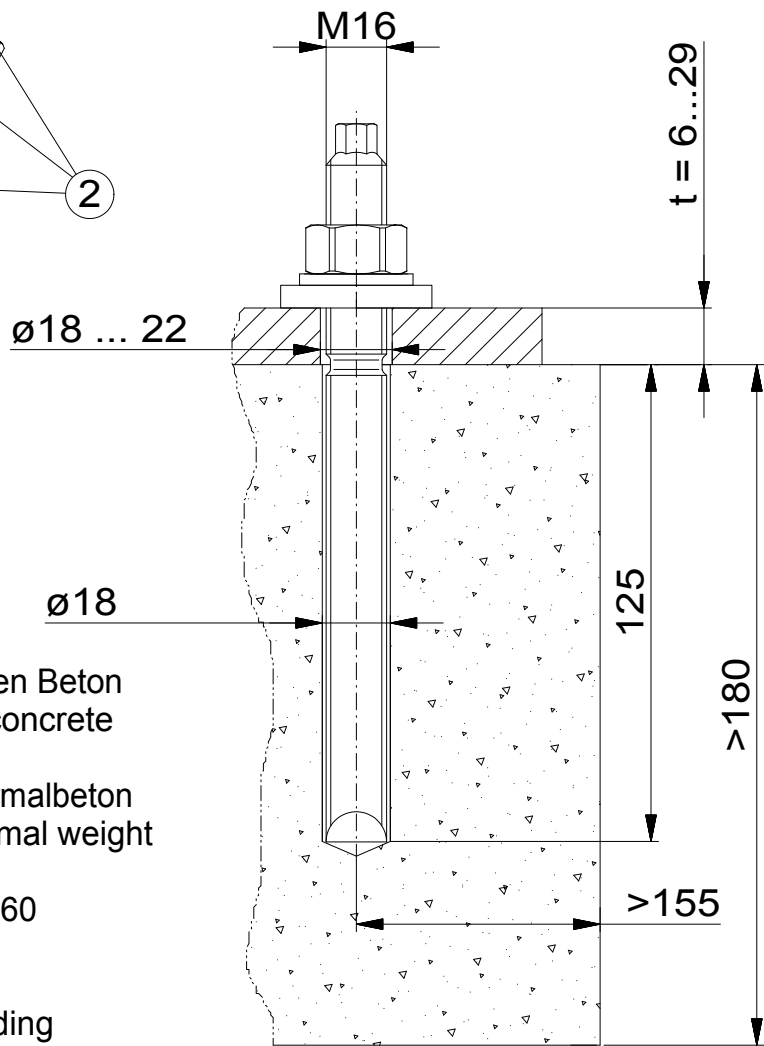
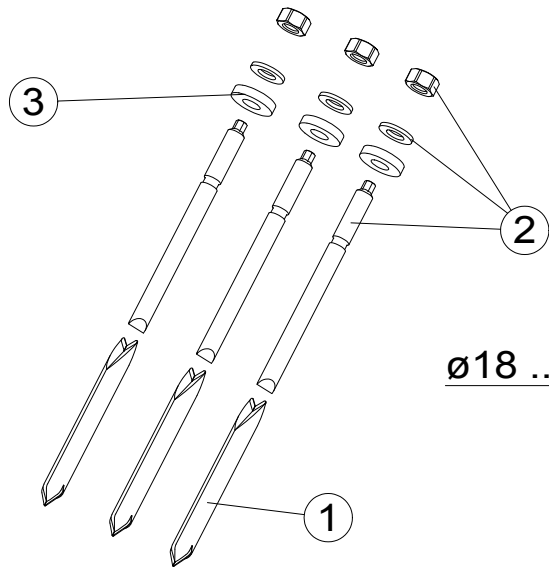
REPLACEMENT FOR: 03A.05.009.02
NUMBER.INDEX: PAGE: 1/1

03A.05.009.03

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1 Europäische Technische Bewertung
European Technical Assessment

3 ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	3	Scheibe/washer	17 DIN7349 A4
2	3	Ankerstange / anchor bar HAS-R 6K	M16x125/38 A4
1	3	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010974	TYPE: 3xM16S Beton/concrete
--------------------	-----------------------------	--------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 1,14 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION:
fixation set 10 A4
Befestigungssatz 10 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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NUMBER.INDEX: PAGE: 1/1

03A.05.010.03

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1

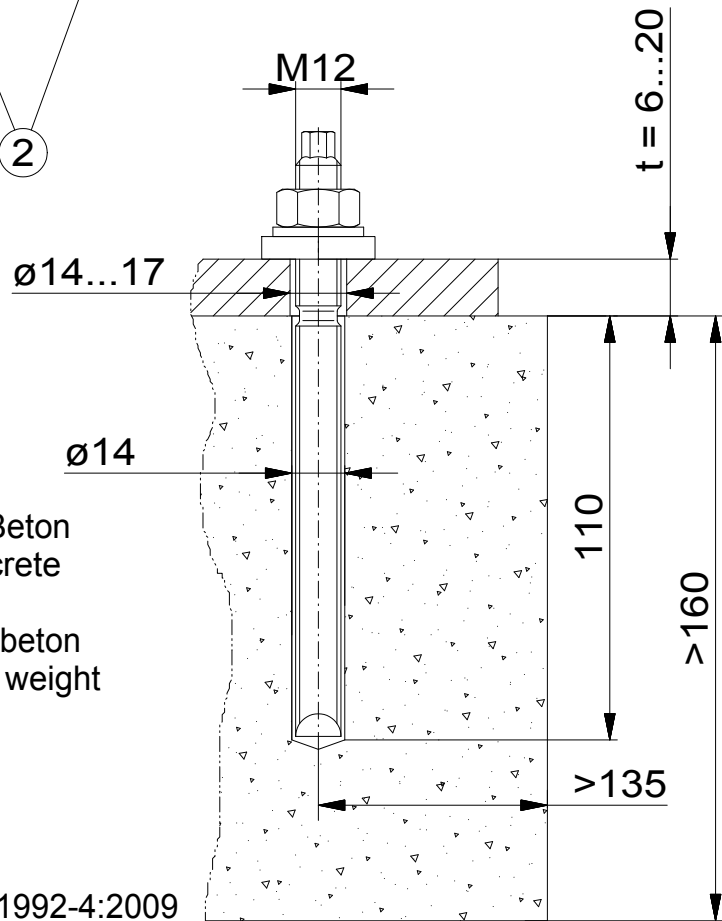
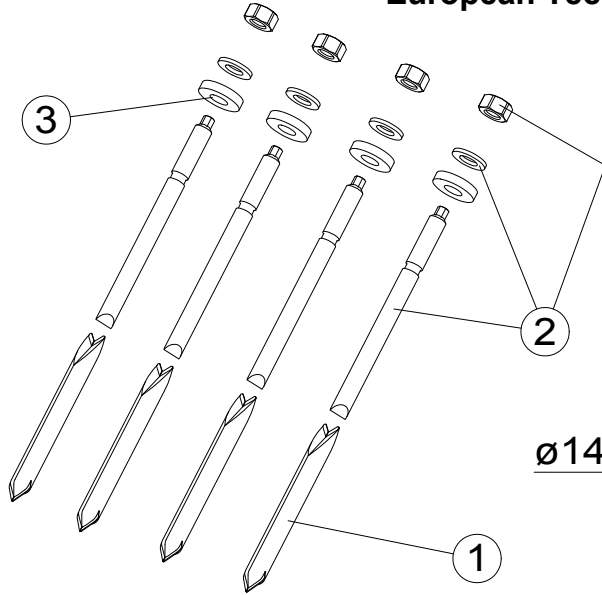
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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete

EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	4	Scheibe/washer 13	DIN7349 A4
2	4	Ankerstange / anchor bar HAS-R 6K	M12x110/28 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M12x110
Pos.	Anz.-pc.	Bezeichnung - Designation:	.

MODEL NUMBER: -		MATERIAL NUMBER: 6010973		TYPE: 4xM12S Beton/concrete	
STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167					
WEIGHT: 0,74 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -	
			MATERIAL: A4-70/AISI316	SCALE: 1:2	
			DESIGNATION: fixation set 11 A4 Befestigungssatz 11 A4		
01	1240123	2012-03-28	C. Worst	REPLACEMENT FOR: 03A.05.011.02	
02	1340203	2013-04-12	T. Rietsch	NUMBER.INDEX:	PAGE: 1/1
03	1740297	2017-08-30	E. Haselmann	03A.05.011.03	
IND.	TN NO.	DATE	NAME	SIGN.	
RELEASE:	2017-08-30	P. Rietsch			

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1

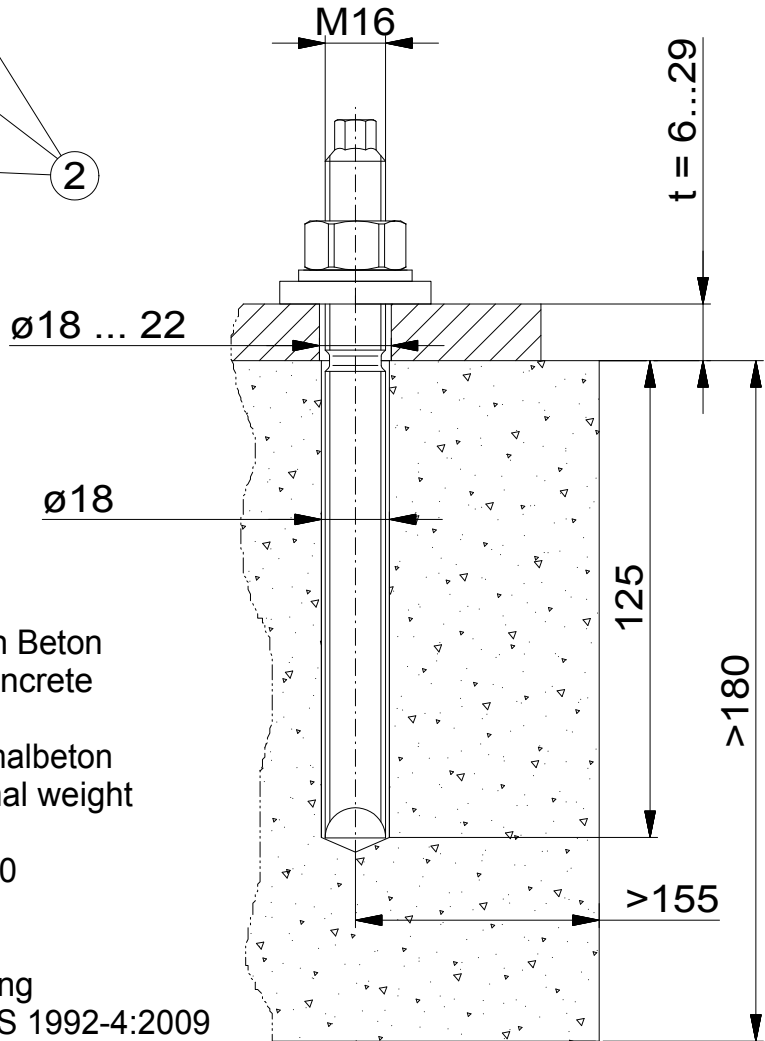
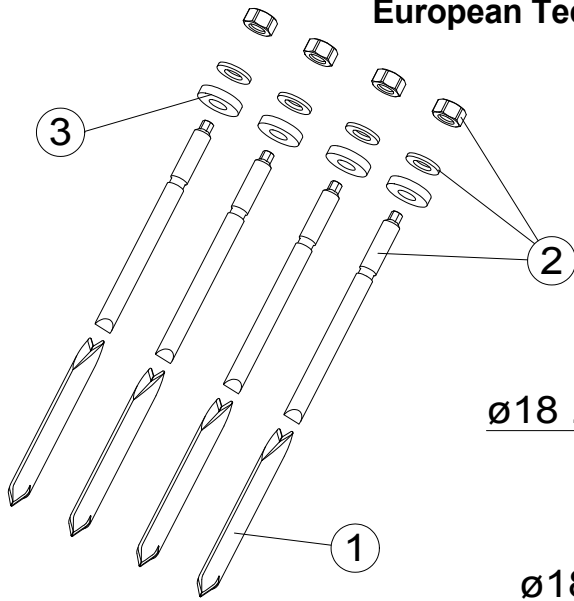
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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

Pos.	Anz.-pc.	Bezeichnung - Designation:	
3	4	Scheibe / washer	17 DIN7349 A4
2	4	Ankerstange / anchor bar HAS-R 6K	M16x125/38 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M16x125

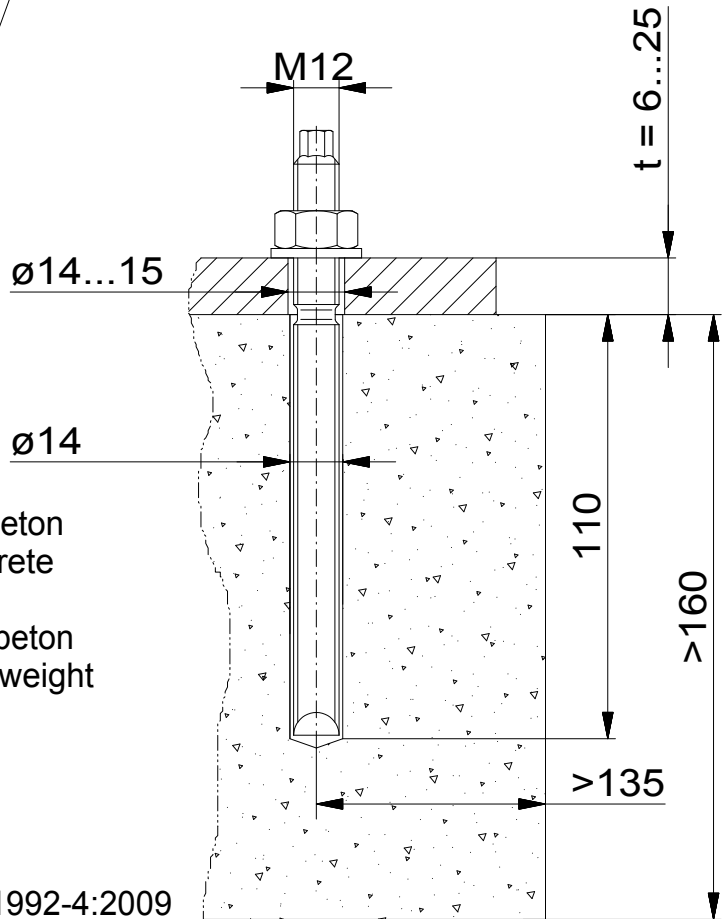
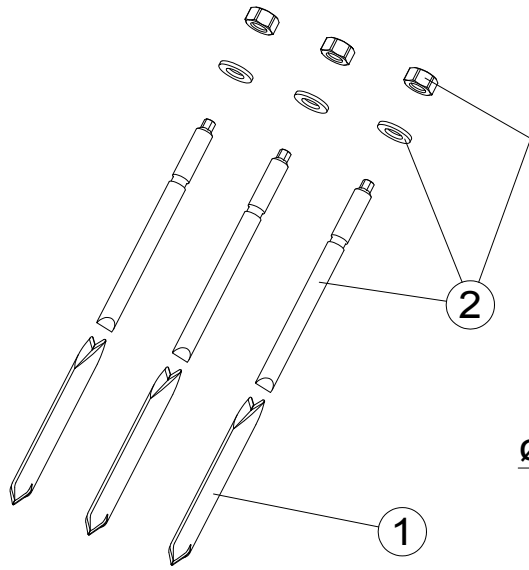
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167					
WEIGHT: 1,52 kg		UNIT: mm	DRAWING SIZE: ISO A4		DIMENSIONS WITHOUT TOLERANCE INDICATION: -
			MATERIAL: A4-70/AISI316		SPECIFICATIONS FOR SURFACES: -
			DESIGNATION: fixation set 12 A4 Befestigungssatz 12 A4		SCALE: 1:2
01 1240123 2012-03-28 C. Worst				REPLACEMENT FOR: 03A.05.012.02	
02 1340203 2013-04-12 T. Rietsch				NUMBER.INDEX: PAGE: 1/1	
03 1740297 2017-08-30 E. Haselmann				03A.05.012.03	
IND. TN NO. DATE NAME SIGN.					
RELEASE: 2017-08-30 P. Rietsch					

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**Europäische Technische Bewertung
European Technical Assessment**

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

**Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!**

2	3	Ankerstange / anchor bar HAS-R 6K	M12x110/28 A4
1	3	Mörtelpatrone / mortar cartridge	HVU2 M12x110
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010981	TYPE: 3xM12 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167
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WEIGHT: 0,48 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: A4-70/AISI316	SCALE: 1:2	
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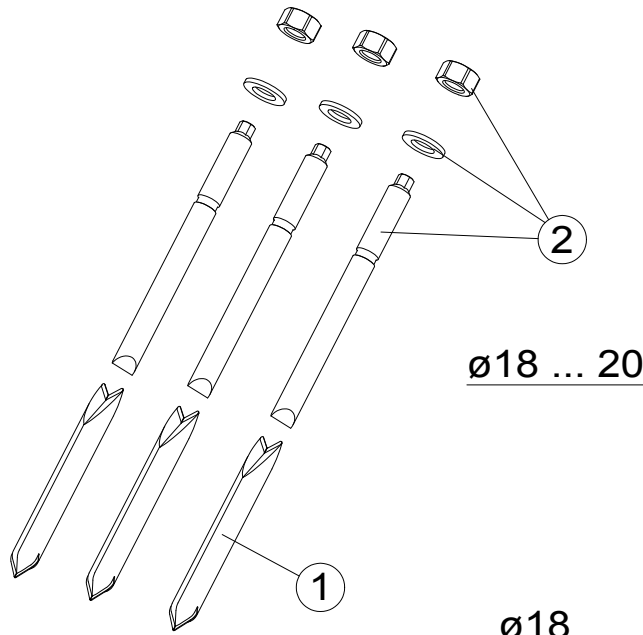
DESIGNATION: fixation set 13 A4 Befestigungssatz 13 A4
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01 1240123 2012-03-28 C. Worst		REPLACEMENT FOR: 03A.05.013.02
02 1340203 2013-04-12 T. Rietsch		NUMBER.INDEX: PAGE: 1/1
03 1740297 2017-08-30 E. Haselmann		03A.05.013.03
IND. TN NO. DATE NAME SIGN.		
RELEASE: 2017-08-30 P. Rietsch		

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**Europäische Technische Bewertung
European Technical Assessment**

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

**Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!**

2	3	Ankerstange / anchor bar HAS-R 6K	M16x125/38 A4
1	3	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010980	TYPE: 3xM16 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 1,0 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION:
**fixation set 14 A4
Befestigungssatz 14 A4**

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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REPLACEMENT FOR: 03A.05.014.02
NUMBER.INDEX: PAGE: 1/1

03A.05.014.03

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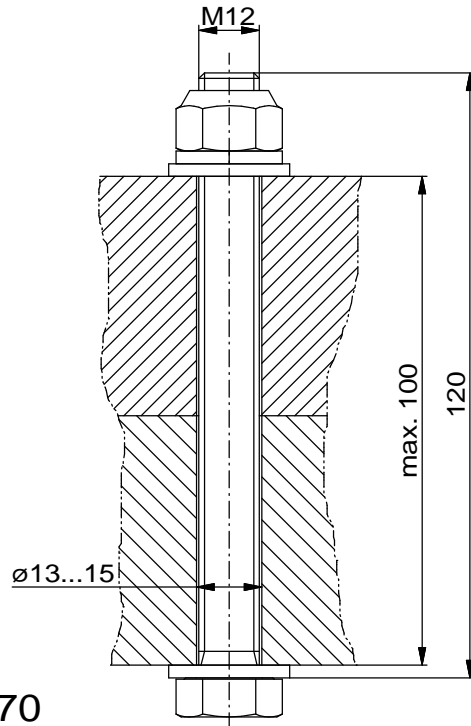
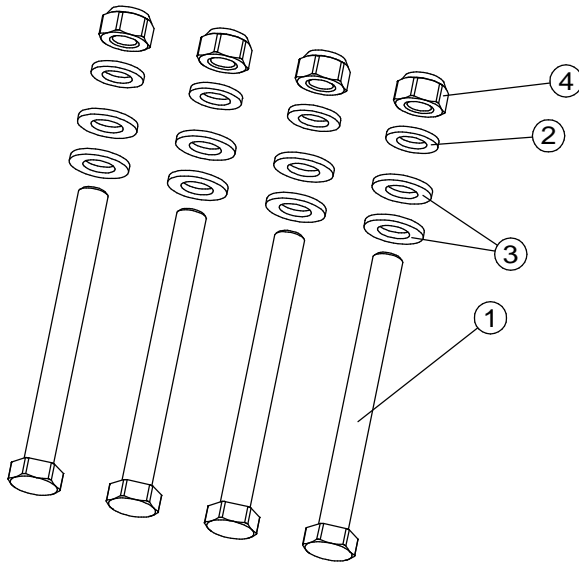
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Material: A4 / Zugfestigkeit: 70
 material: AISI 316 / tensile strength: 70

4	4	Mutter/nut DIN985 A4	M12
3	8	Scheibe/washer DIN7349 A4	13
2	4	Scheibe/washer DIN125 A4	A13
1	4	Schraube/screw DIN933 A4-70	M12x120
Pos.	Anz.-pc.	Bezeichnung - Designation:	.

MODEL NUMBER: -	MATERIAL NUMBER: 6010965	TYPE: 4xM12x120 Stahl/steel
--------------------	-----------------------------	--------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

WEIGHT: 0,52 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:1,5	

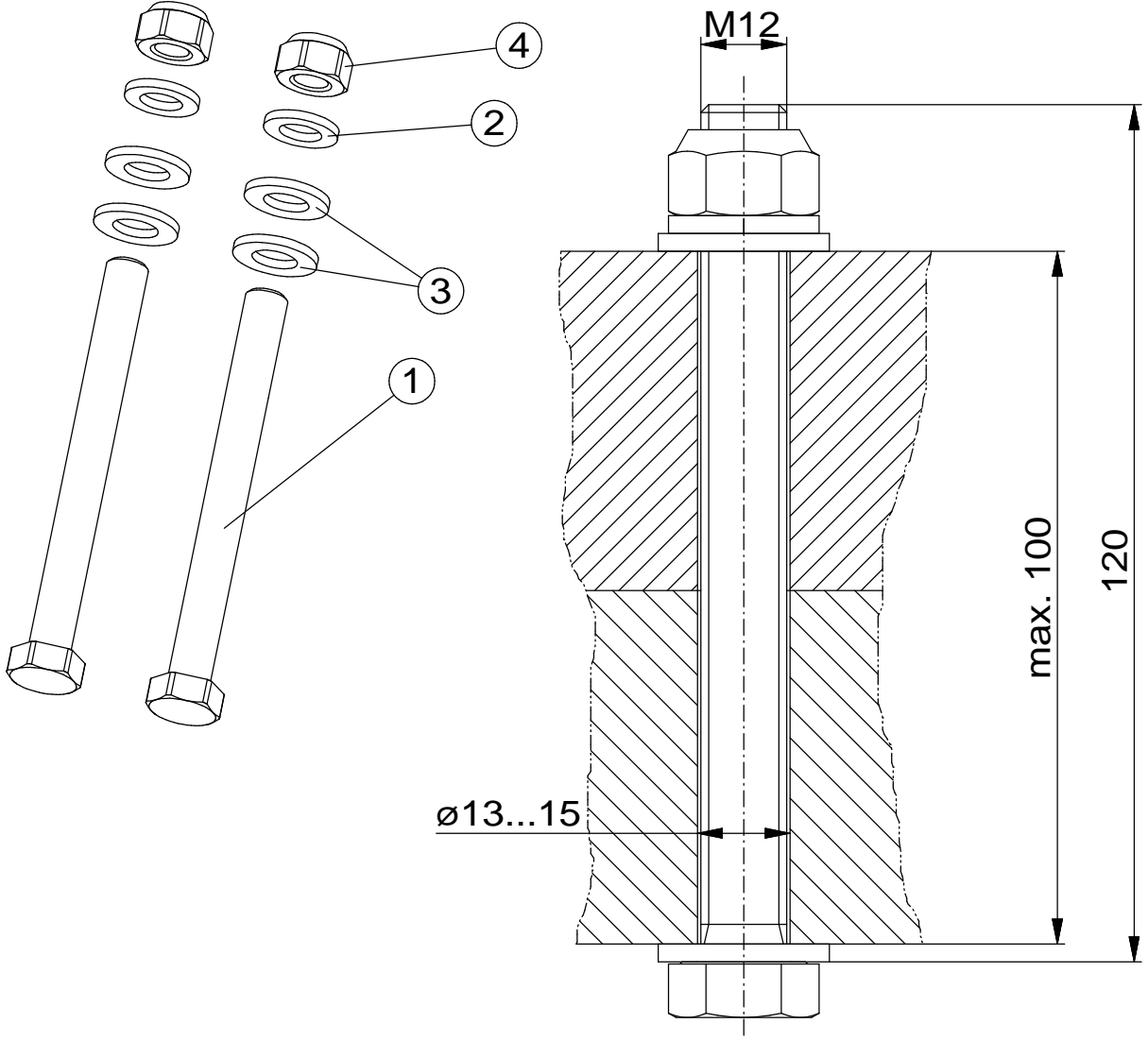
DESIGNATION:
 fixation set 15 A4
 Befestigungssatz 15 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1840400	2018-10-25	N. Porsch	
04	1940034	2019-02-12	N. Porsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2019-02-12	P. Rietsch	



REPLACEMENT FOR: .	
NUMBER.INDEX:	PAGE: 1/1
03A.05.015.04	

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Material: A4 / Zugfestigkeit: 70
 material: AISI 316 / tensile strength: 70

Pos.	Anz.-pc.	Bezeichnung - Designation:	
4	2	Mutter/nut DIN985 A4	M12
3	4	Scheibe/washer DIN7349 A4	13
2	2	Scheibe/washer DIN125 A4	A13
1	2	Schraube/screw DIN933 A4-70	M12x120

MODEL NUMBER: -	MATERIAL NUMBER: 6010964	TYPE: 2M12x120 Stahl/steel
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,26 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70/AISI316	SCALE: 1:1

DESIGNATION:
fixation set 16 A4
Befestigungssatz 16 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1840400	2018-10-25	N. Porsch	
04	1940034	2019-02-12	N. Porsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2019-02-12	P. Rietsch	

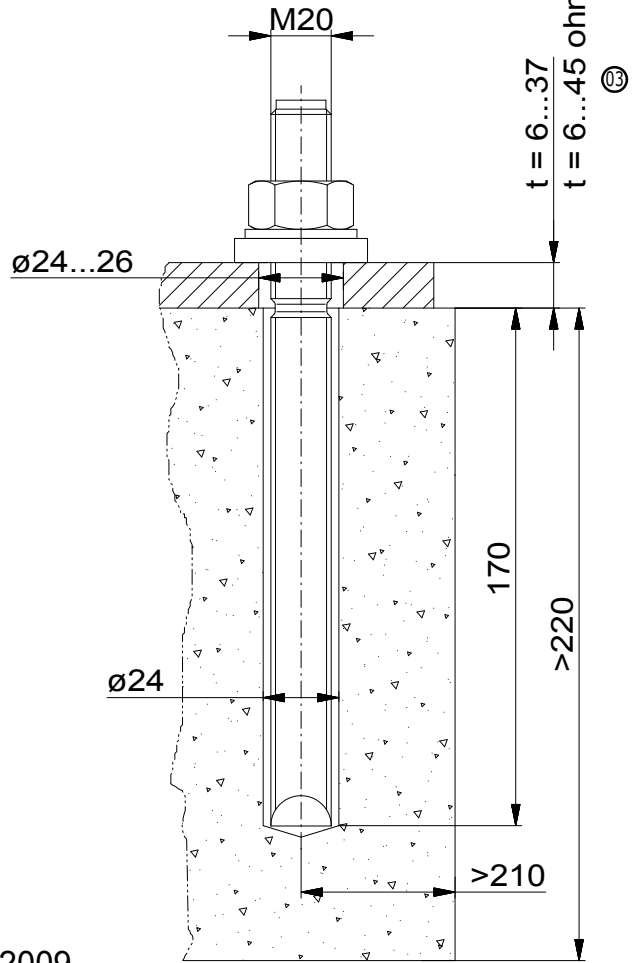
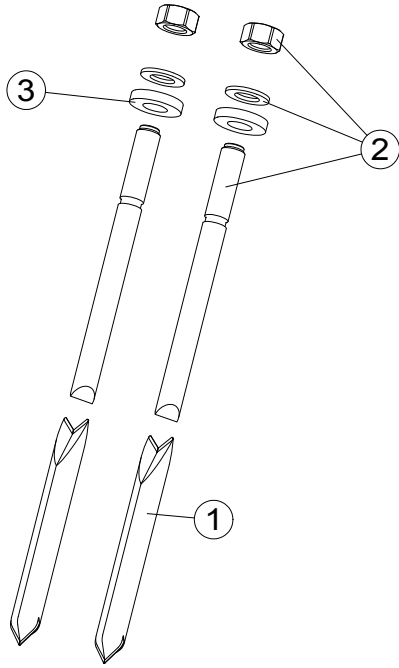


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NUMBER.INDEX:	
03A.05.016.04	

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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	2	Scheibe/washer	21 DIN 7349 A4
2	2	Ankerstange / anchor bar HAS-E-R	M20x170/48 A4
1	2	Mörtelpatrone / mortar cartridge	HVU2 M20x170
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6010962	TYPE: 2xM20S Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 1,45 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2,5	

DESIGNATION:
fixation set 17 A4
Befestigungssatz 17 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1640209	2016-06-20	B. Ott	
04	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2017-08-30	P. Rietsch	



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03A.05.017.04

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1

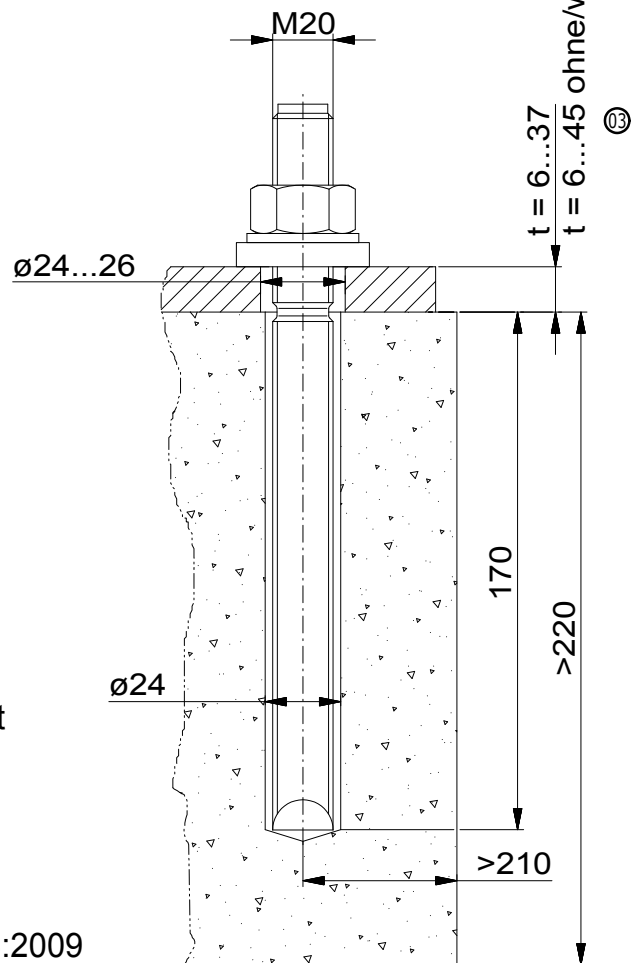
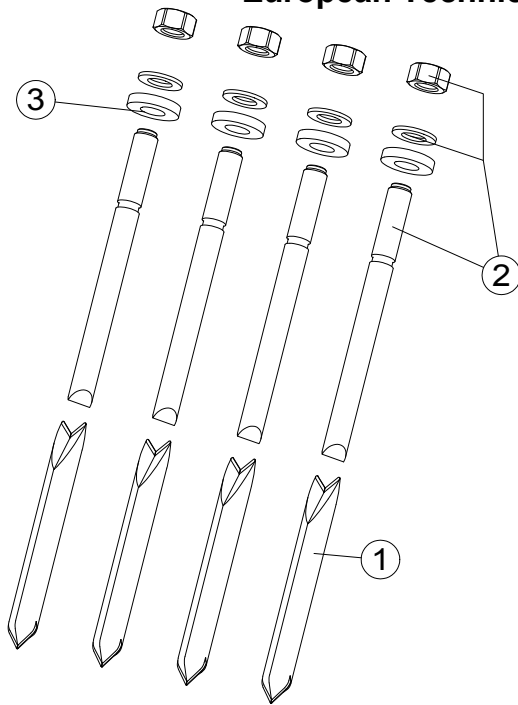
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Europäische Technische Bewertung European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

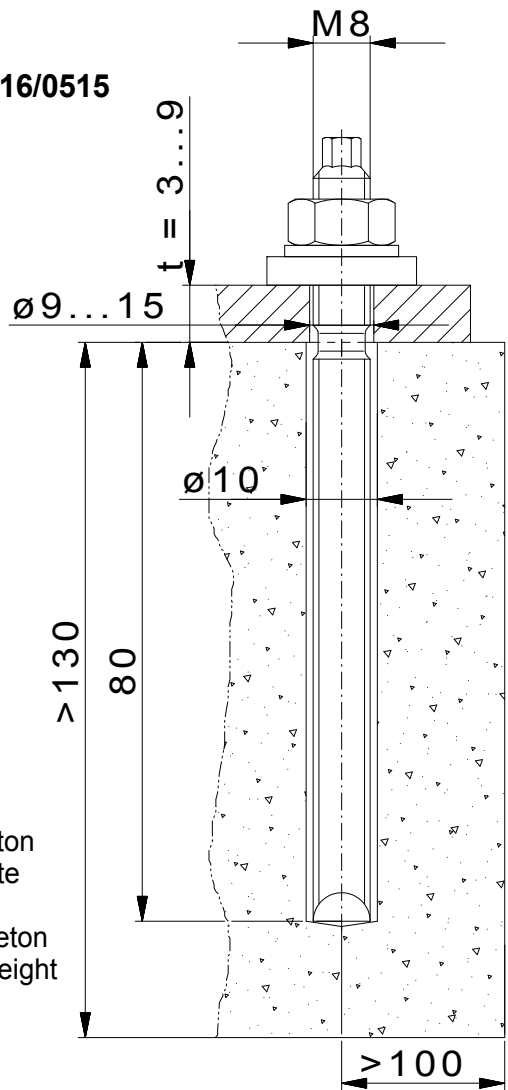
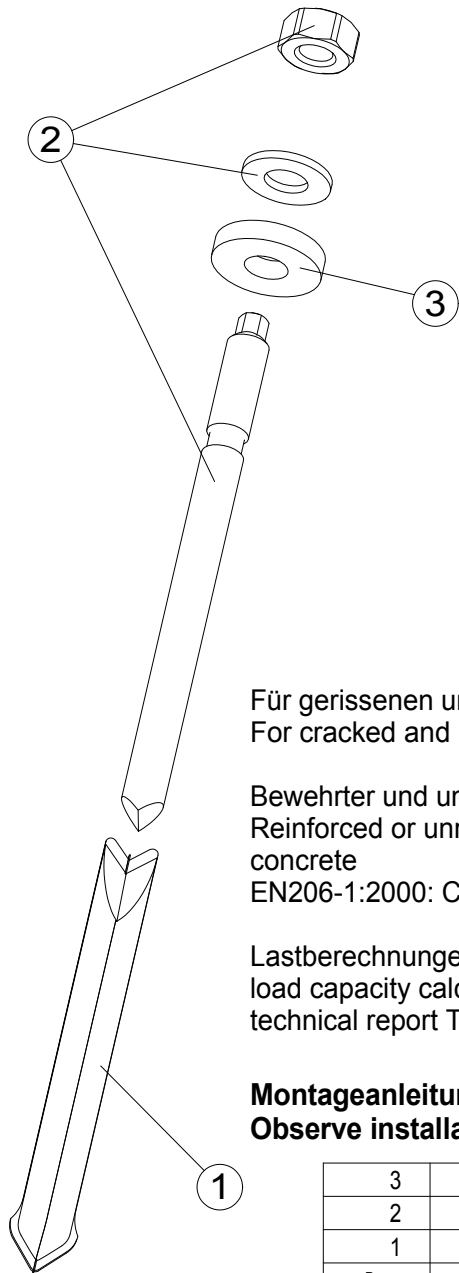
Pos.	Anz.-pc.	Bezeichnung - Designation:	
3	4	Scheibe/washer	21 DIN7349 A4
2	4	Ankerstange / anchor bar HAS-E-R	M20x170/48 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M20x170

MODEL NUMBER: -		MATERIAL NUMBER: 6011108		TYPE: 4xM20S Beton/concrete	
STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167					
WEIGHT: 2,87 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -		SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70/AISI316		SCALE: 1:2,5
			DESIGNATION: fixation set 18 A4 Befestigungssatz 18 A4		
01	1240123	2012-03-28	C. Worst	REPLACEMENT FOR: 03A.05.018.03	
02	1340203	2013-04-12	T. Rietsch	NUMBER.INDEX:	PAGE: 1/1
03	1640209	2016-06-20	B. Ott	03A.05.018.04	
04	1740297	2017-08-30	E. Haselmann		
IND.	TN NO.	DATE	NAME	SIGN.	
RELEASE:	2017-08-30	P. Rietsch			

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Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	1	Scheibe/washer DIN7349	8,4 A4
2	1	Ankerstange/anchor bolt HAS-R 6k	M8x80/14
1	1	Mörtelpatrone/mortar cartridge	HVU2 M8x80
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011093	TYPE: 1xM8S Beton/concrete
--------------------	-----------------------------	-------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,05 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70/AISI316	SCALE: 1:1

DESIGNATION:
fixation set 19 A4
Befestigungssatz 19 A4

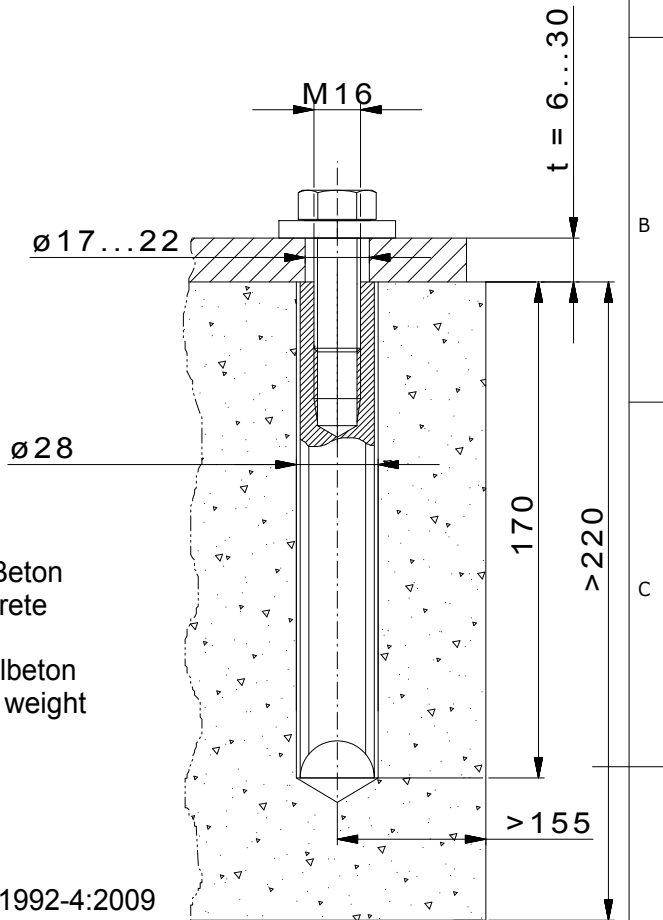
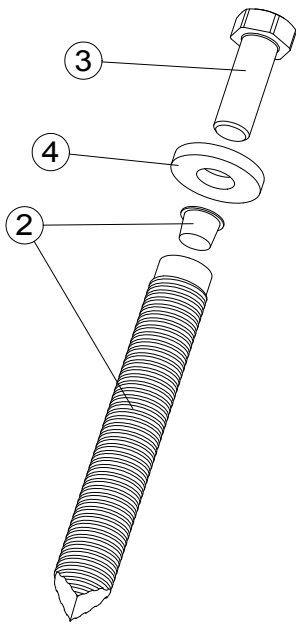
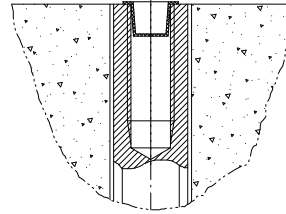
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02	1340203	2013-04-12	T. Rietsch		
03	1740297	2017-08-30	E. Haselmann		NUMBER.INDEX: PAGE: 1/1
IND. TN NO.	DATE	NAME	SIGN.		03A.05.019.03
RELEASE:	2017-08-30	P. Rietsch			

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European Technical Assessment

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Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

4	1	Scheibe/washer DIN7349	17 A4
3	1	Schraube/screw DIN933	M16x45 A4-70
2	1	Ankerstange/anchor bar HIS-RN	M16x170 A4
1	1	Mörtelpatrone/mortar cartridge	HVU2 M20x170
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011065	TYPE: 1xM16-I Beton/concrete
--------------------	-----------------------------	---------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,75 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2,5	

DESIGNATION:
fixation set 20 A4
Befestigungssatz 20 A4

01	1240123	2012-03-30	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30		P. Rietsch	

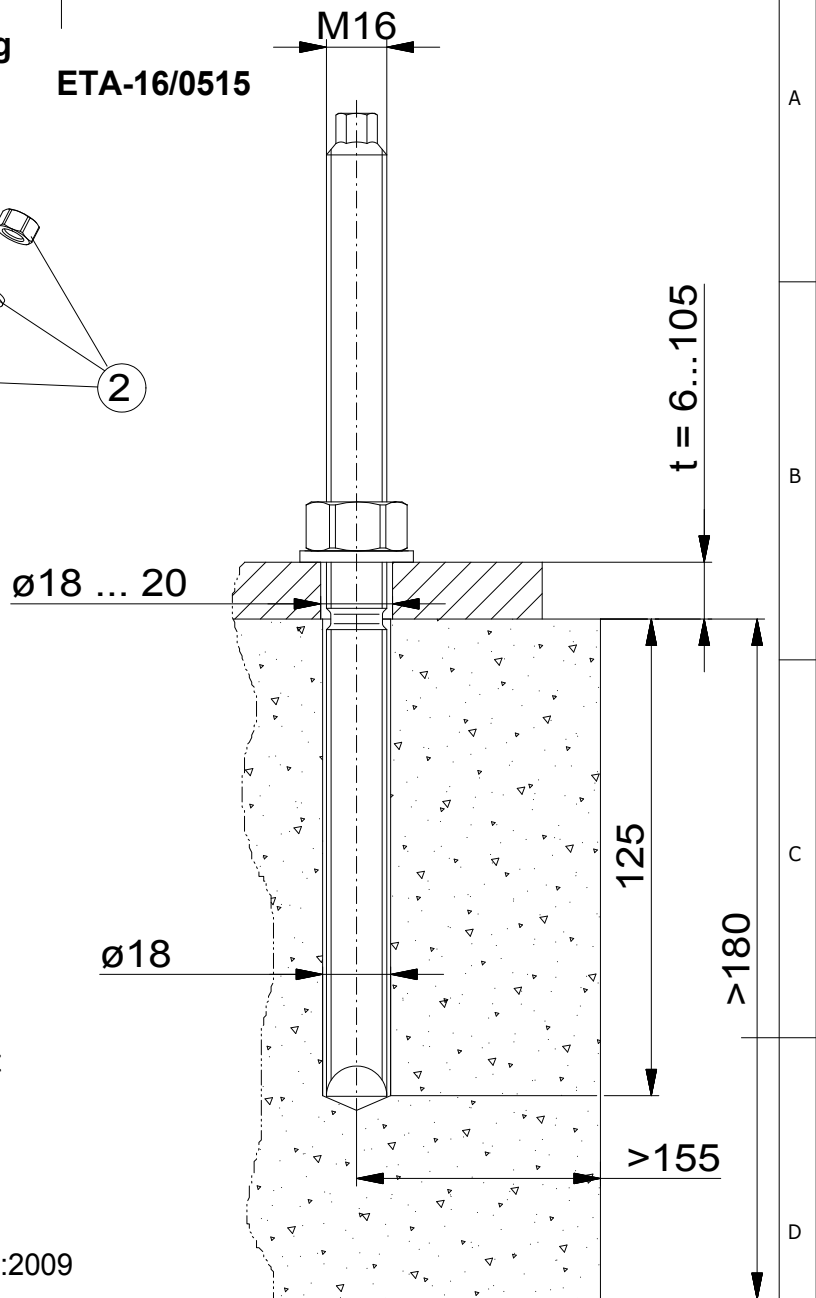
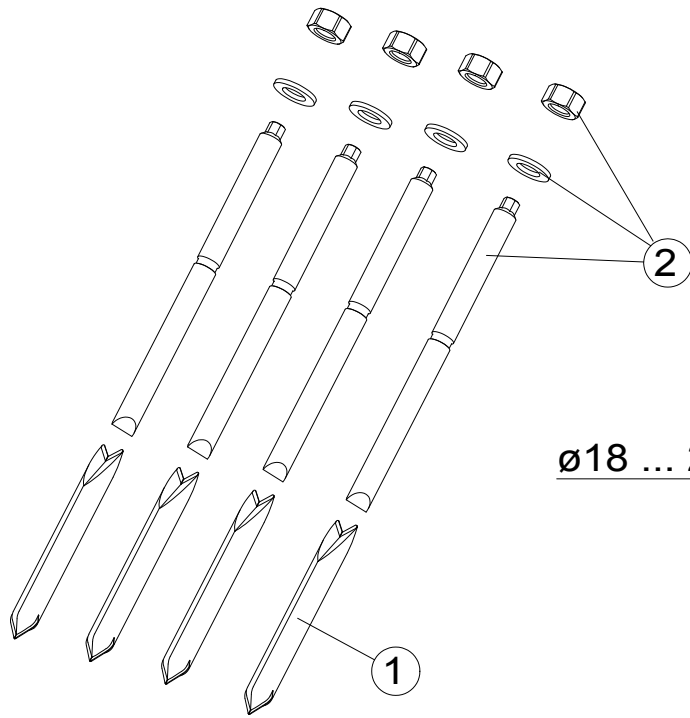
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European Technical Assessment

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Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

2	4	Ankerstange / anchor bar HAS-R 6K	M16x260/108 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6011050	TYPE: 4xM16L Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 1,95 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: A4-70/AISI316	SCALE: 1:2

DESIGNATION:
fixation set 21 A4
Befestigungssatz 21 A4

01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2017-08-30	P. Rietsch	

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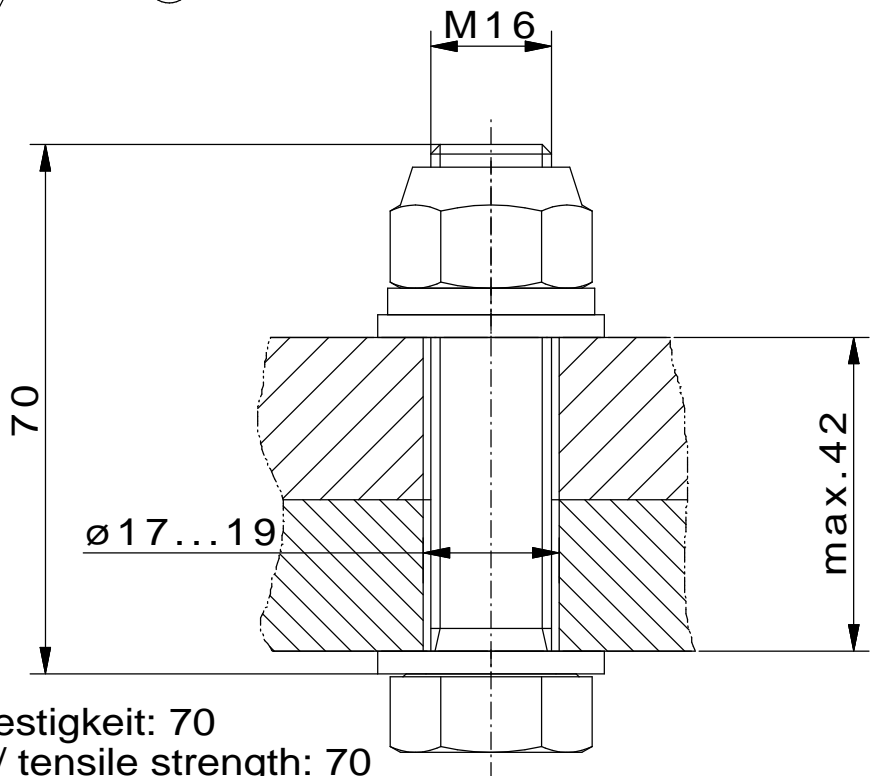
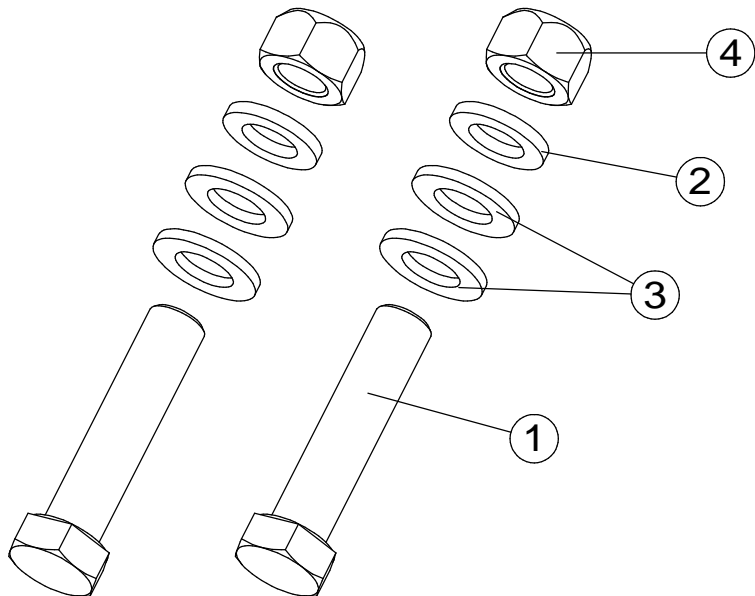
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Material: A4 / Zugfestigkeit: 70
 material: AISI 316 / tensile strength: 70

Pos.	Anz.-pc.	Bezeichnung - Designation:	
4	2	Mutter/nut DIN985 A4	M16
3	4	Scheibe/washer DIN7349 A4	17
2	2	Scheibe/washer DIN125 A4	A17
1	2	Schraube/screw DIN933 A4-70	M16x70

MODEL NUMBER: -	MATERIAL NUMBER: 6000710	TYPE: 2xM16x70 Stahl/steel
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
 DIN 7167

WEIGHT: 0,038 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:1	

DESIGNATION:
fixation set 22
Befestigungssatz 22

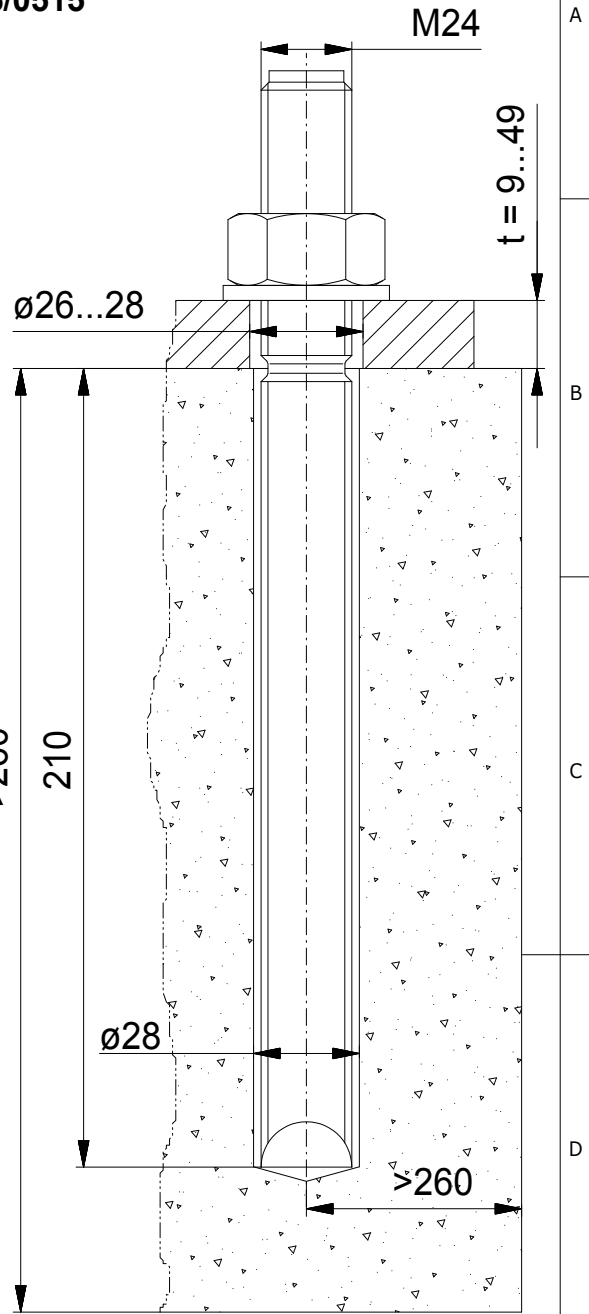
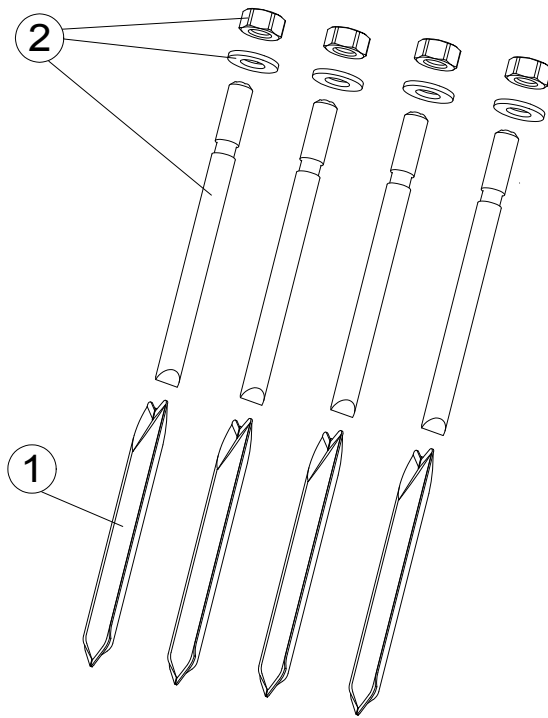
01	1240123	2012-03-28	C. Worst	
02	1340203	2013-04-12	T. Rietsch	
03	1840440	2018-11-08	N. Porsch	
04	1940034	2019-02-12	N. Porsch	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:		2019-02-12	P. Rietsch	



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**Europäische Technische Bewertung
European Technical Assessment**

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

2	4	Ankerstange / anchor bar HAS-E-R	M24x210/54 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M24x210
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6038025	TYPE: 4xM24 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 4,44 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

fixation set 23 A4
Befestigungssatz 23 A4

01	1040529	2010-12-08	VM	
02	1240123	2012-03-28	C. Worst	
03	1340203	2013-04-12	T. Rietsch	
04	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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03A.05.023.04

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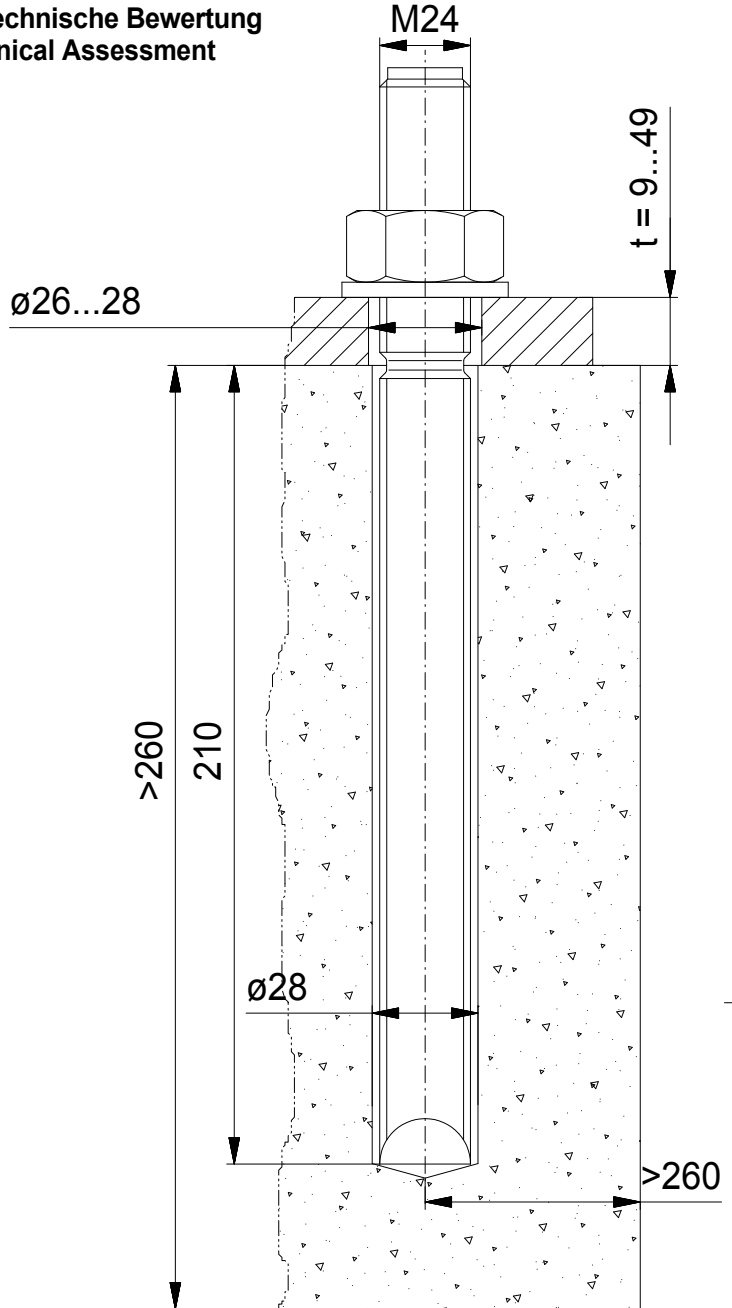
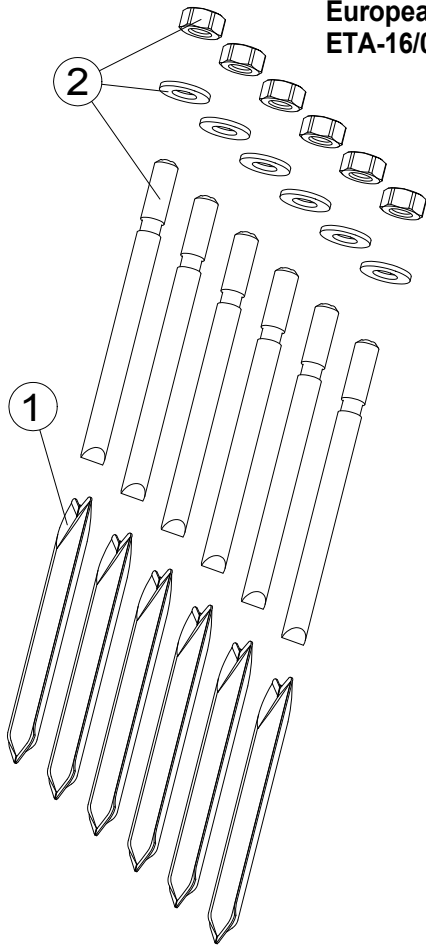
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**Europäische Technische Bewertung
European Technical Assessment
ETA-16/0515**



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete
Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60
Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

**Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!**

2	6	Ankerstange / anchor bar HAS-E-R	M24x210/54 A4
1	6	Mörtelpatrone / mortar cartridge	HVU2 M24x210
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6063016	TYPE: 6xM24 Beton/concrete
--------------------	-----------------------------	-------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 6,98 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A4-70/AISI316			SCALE: 1:2	

DESIGNATION:
**fixation set 24 A4
Befestigungssatz 24 A4**

01	1040528	2010-12-07	Rie	
02	1340203	2013-04-12	T. Rietsch	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

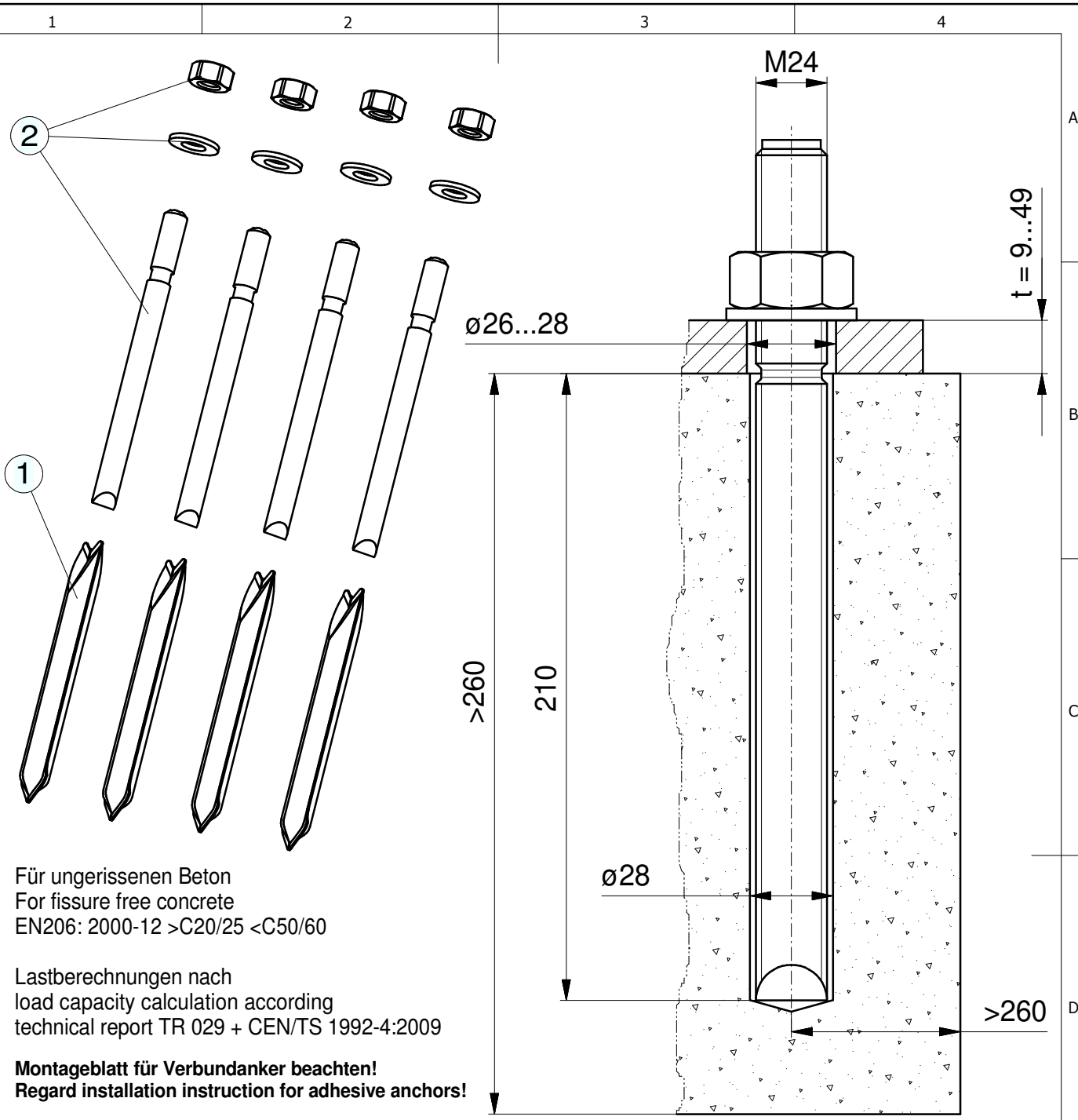


REPLACEMENT FOR: 03A.05.024.02
NUMBER.INDEX: PAGE: 1/1

03A.05.024.03

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Für ungerissenen Beton
 For fissure free concrete
 EN206: 2000-12 >C20/25 <C50/60

Lastberechnungen nach
 load capacity calculation according
 technical report TR 029 + CEN/TS 1992-4:2009

Montageblatt für Verbundanker beachten!
Regard installation instruction for adhesive anchors!

2	4	Scheibe/washer	25 DIN7349 Stvz
2	4	Ankerstange / anchor bar HAS-E	M24x210/114 Stvz
1	4	Mörtelpatrone / mortar cartridge	HVU M24x210
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6065943	TYPE: 4xM24 Beton/concrete
--------------------	-----------------------------	-------------------------------

STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 5,4 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: St 5.8 / steel, galvanized	SCALE: 1:2	
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DESIGNATION:
fixation set 26 St vz
Befestigungssatz 26 St vz

REPLACEMENT FOR: -	
NUMBER.INDEX:	PAGE: 1/1
wilo	
6050698.01	
01 1340203 2013-04-12 T. Rietsch	
IND. TN NO. DATE NAME SIGN.	
RELEASE: 2013-04-19 P. Rietsch	

1

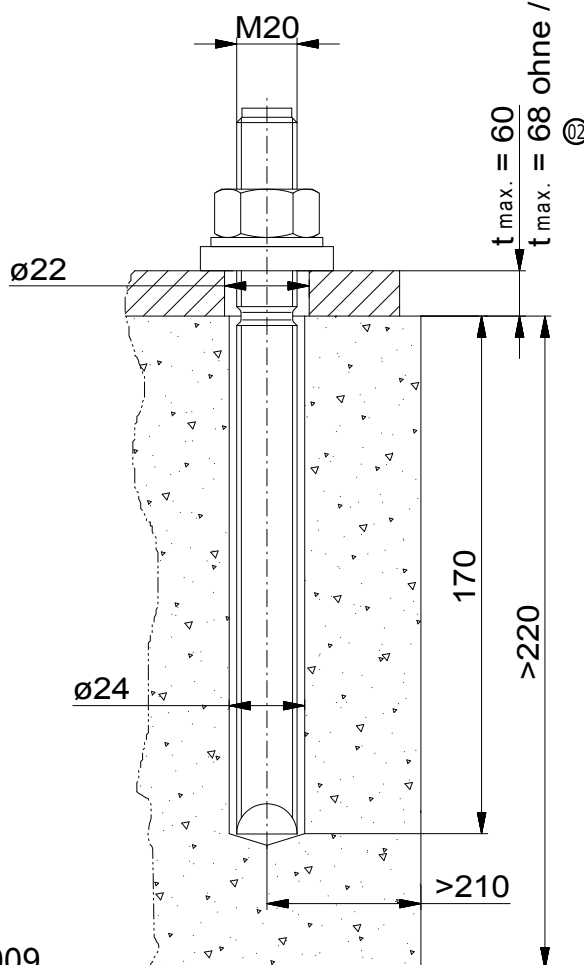
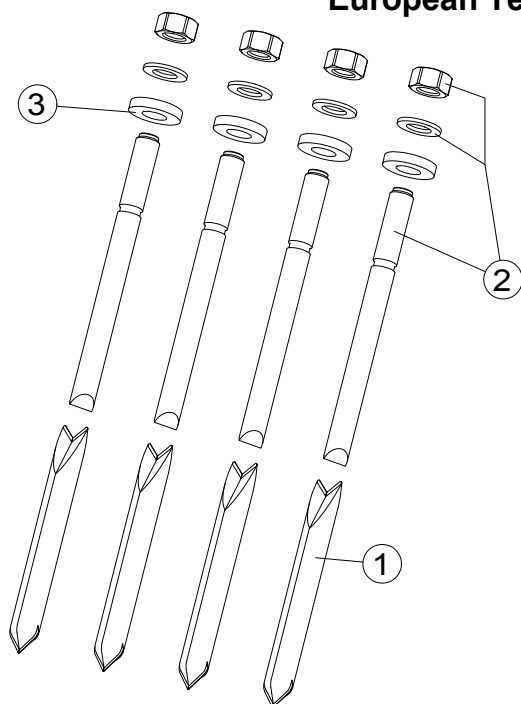
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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete

EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	4	Scheibe/washer	21 DIN7349 Stvz
2	4	Ankerstange / anchor bar HAS-E	M20x170/68 Stvz
1	4	Mörtelpatrone / mortar cartridge	HVU2 M20x170
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6065945	TYPE: 4xM20 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 3,02 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: St 5.8 / steel, galvanized	SCALE: 1:2,5	
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DESIGNATION:
fixation set 25 St vz
Befestigungssatz 25 St vz

01	1340203	2013-04-12	T. Rietsch	
02	1640209	2016-06-20	B. Ott	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

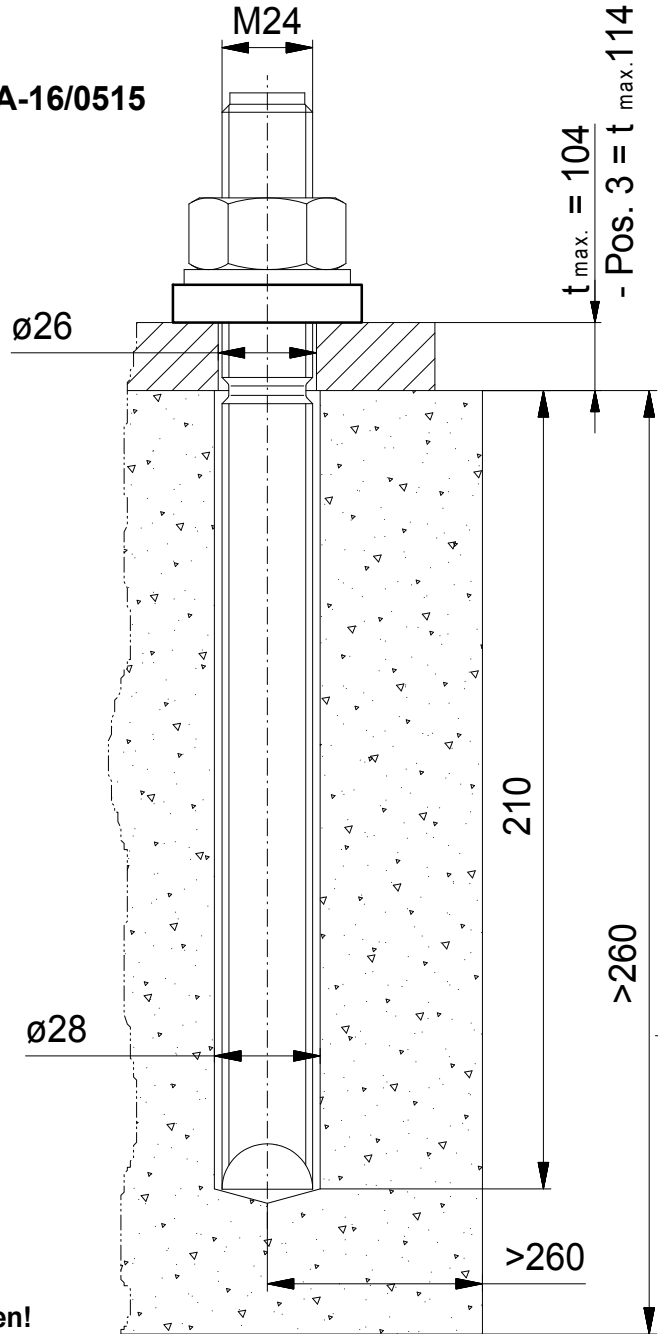
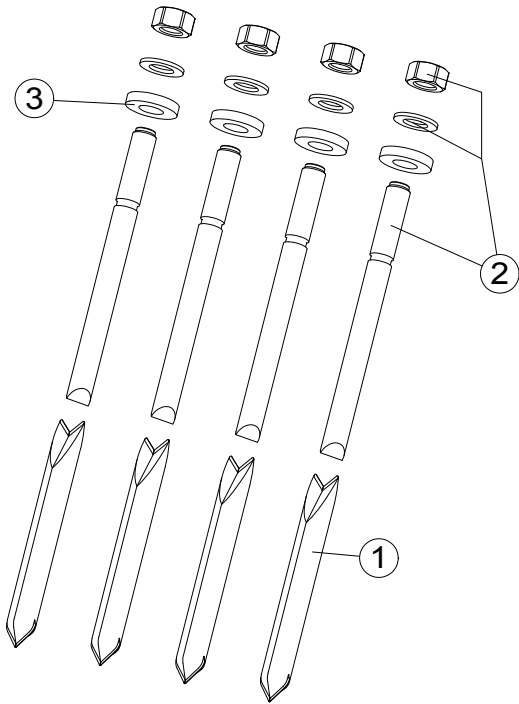
wilo

REPLACEMENT FOR: 6050697.02
NUMBER.INDEX: PAGE: 1/1

6050697.03

**Europäische Technische Bewertung
European Technical Assessment**

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	4	Scheibe/washer	25 DIN7349 Stvz
2	4	Ankerstange / anchor bar HAS-E	M24x210/114 Stvz
1	4	Mörtelpatrone / mortar cartridge	HVU2 M24x210
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6065943	TYPE: 4xM24 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167
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WEIGHT: 5,4 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: St 5.8 / steel, galvanized	SCALE: 1:2	
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DESIGNATION: fixation set 26 St vz Befestigungssatz 26 St vz
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01 1340203 2013-04-12 T. Rietsch	REPLACEMENT FOR: 6050698.02
02 1640209 2016-06-20 B. Ott	NUMBER.INDEX: PAGE: 1/1
03 1740297 2017-08-30 E. Haselmann	6050698.03
IND. TN NO. DATE NAME SIGN.	
RELEASE: 2017-08-30 P. Rietsch	

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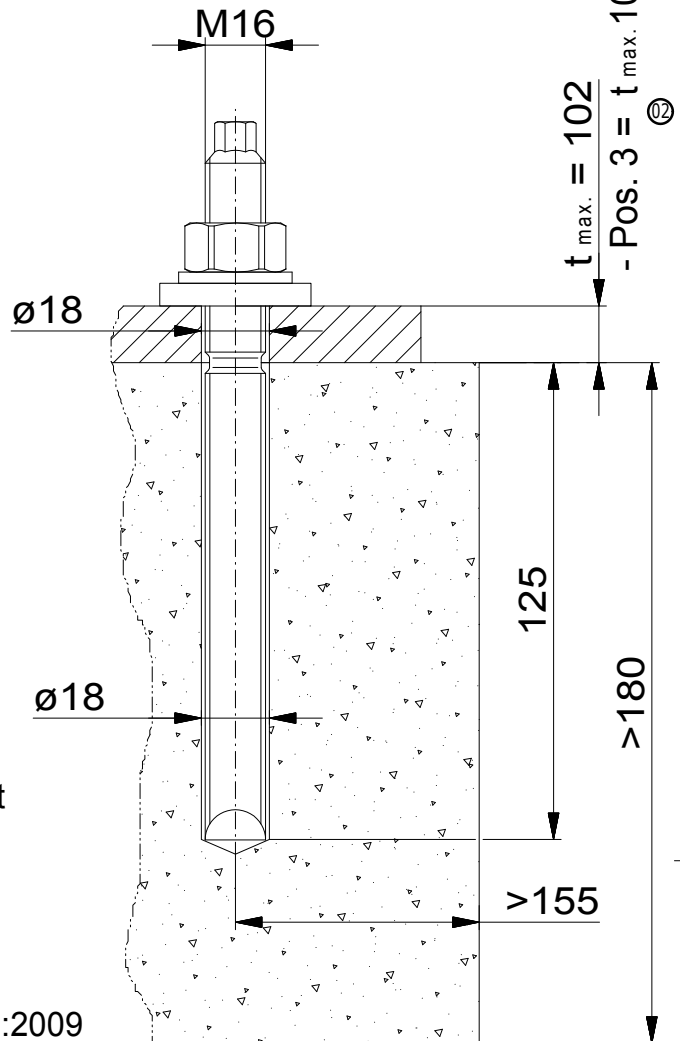
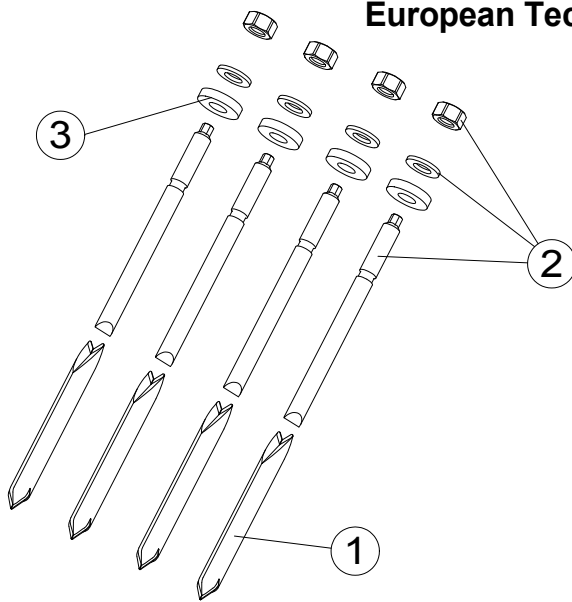
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Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete

EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	4	Scheibe / washer	17 DIN7349 Stvz
2	4	Ankerstange / anchor bar HAS	M16x125/108 Stvz
1	4	Mörtelpatrone / mortar cartridge	HVU2 M16x125
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6065944	TYPE: 4xM16 Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
			MATERIAL: St 5.8 / steel galvanized	SCALE: 1:2

fixation set 27 St vz
Befestigungssatz 27 St vz

01	1340203	2013-04-12	T. Rietsch	
02	1640209	2016-06-20	B. Ott	
03	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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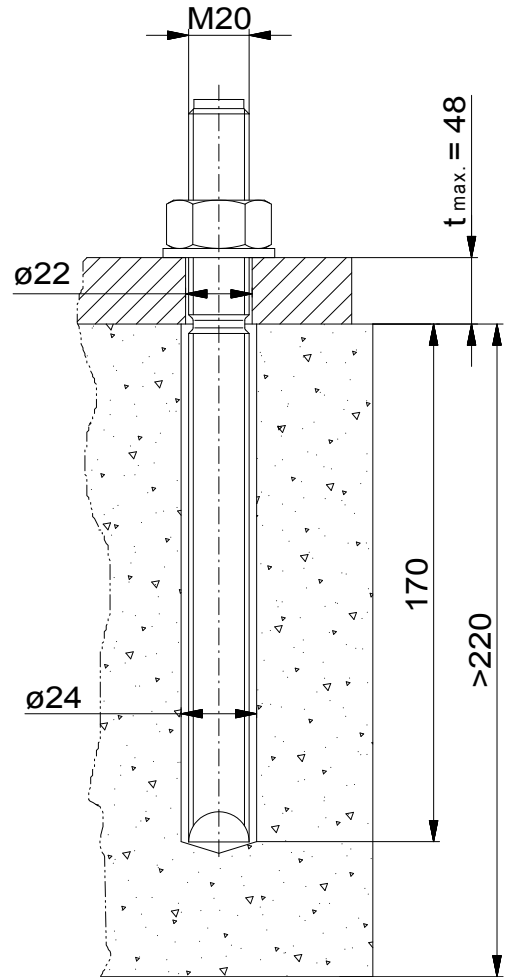
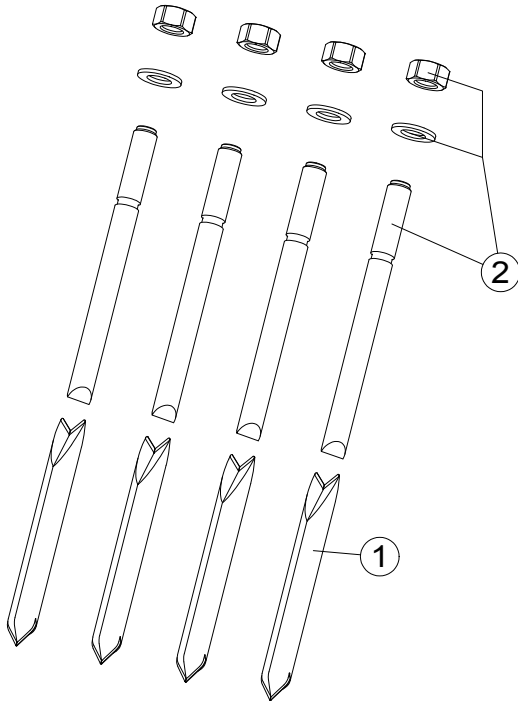
REPLACEMENT FOR: 6050699.02
NUMBER.INDEX: PAGE: 1/1

6050699.03

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**Europäische Technische Bewertung
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ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

**Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!**

2	4	Ankerstange / anchor bar HAS-E-R	M20x170/48 A4
1	4	Mörtelpatrone / mortar cartridge	HVU2 M20x170
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6071290	TYPE: 4 x M20 Beton/concrete A4
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STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167
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WEIGHT: 2,75 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
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MATERIAL: A4-70/AISI316	SCALE: 1:2,5	
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DESIGNATION: fixation set 28 A4 Befestigungssatz 28 A4
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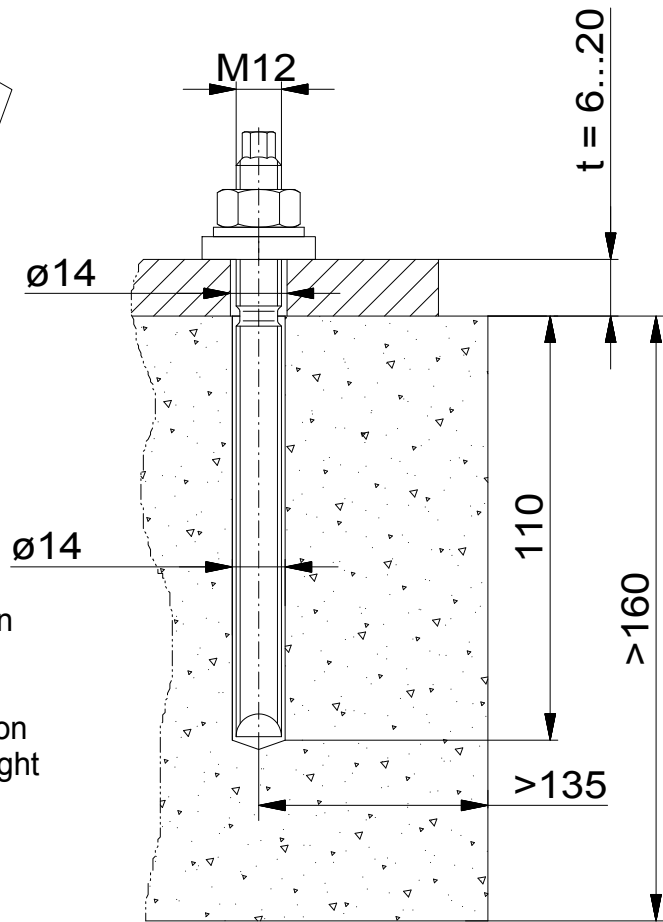
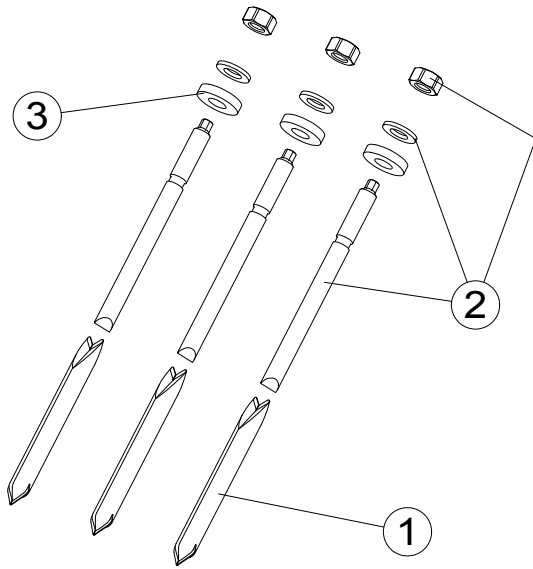
01 1440078 2014-02-11 B. Ott	wilo	REPLACEMENT FOR: 6051669.01
02 1740297 2017-08-30 E. Haselmann		NUMBER.INDEX: PAGE: 1/1
IND. TN NO. DATE NAME SIGN.		6051669.02
RELEASE: 2017-08-30 P. Rietsch		

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1 2 3 4

Europäische Technische Bewertung
European Technical Assessment

ETA-16/0515



Für gerissenen und ungerissenen Beton
For cracked and non-cracked concrete

Bewehrter und unbewehrter Normalbeton
Reinforced or unreinforced normal weight
concrete
EN206-1:2000: C20/25 - C50/C60

Lastberechnungen nach
load capacity calculation according
technical report TR 029 + CEN/TS 1992-4:2009

Montageanleitung für Verbundanker HVU2 beachten!
Observe installation instruction for adhesive anchors HVU2!

3	3	Scheibe / washer	13 DIN7349 A5
2	3	Ankerstange / anchor bar HAS-E-HCR	M12x110/28 A5
1	3	Mörtelpatrone / mortar cartridge	HVU2 M12x110
Pos.	Anz.-pc.	Bezeichnung - Designation:	

MODEL NUMBER: -	MATERIAL NUMBER: 6074948	TYPE: 3xM12S Beton/concrete
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STANDARDS VALID FOR / REFERENCED ON DRAWING:
DIN 7167

WEIGHT: 0,6 kg	UNIT: mm	DRAWING SIZE: ISO A4	DIMENSIONS WITHOUT TOLERANCE INDICATION: -	SPECIFICATIONS FOR SURFACES: -
MATERIAL: A5			SCALE: 1:2	

DESIGNATION:
fixation set 29 A5
Befestigungssatz 29 A5

01	1440694	2014-12-10	B. Ott	
02	1740297	2017-08-30	E. Haselmann	
IND.	TN NO.	DATE	NAME	SIGN.
RELEASE:	2017-08-30	P. Rietsch		

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REPLACEMENT FOR: 6052155.01
NUMBER.INDEX: PAGE: 1/1

6052155.02

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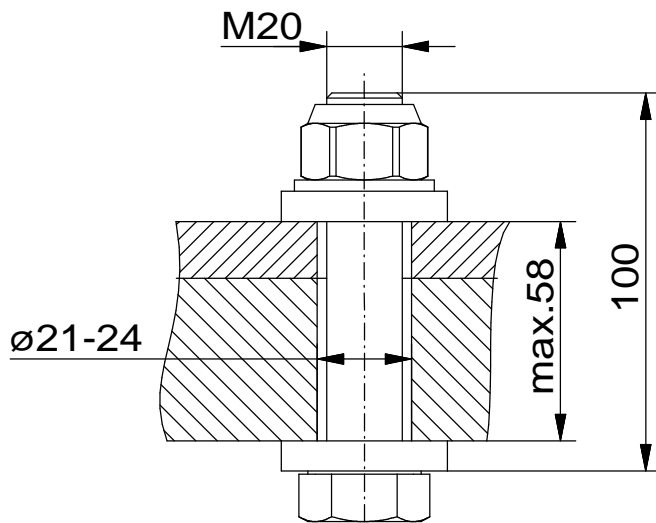
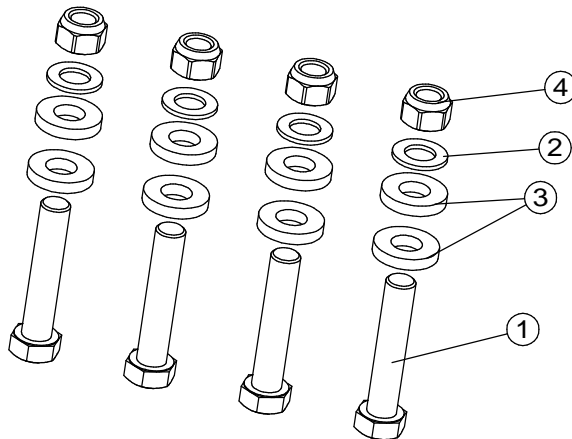
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Material: A4 / Zugfestigkeit: 70
 material: AISI 316 / tensile strength: 70

Pos.	Anz.-pc.	Bezeichnung - Designation:	
4	4	Mutter/nut DIN985 A4	M20
3	8	Scheibe/washer DIN7349 A4	21
2	4	Scheibe/washer DIN125 A4	A21
1	4	Schraube/screw DIN933 A4	M20x100

MODEL NUMBER: -		MATERIAL NUMBER: 6087056		TYPE: 4xM20x100 Stahl/steel	
STANDARDS VALID FOR / REFERENCED ON DRAWING: DIN 7167					
WEIGHT: 1,91 kg		UNIT: mm	DRAWING SIZE: ISO A4		DIMENSIONS WITHOUT TOLERANCE INDICATION: -
				MATERIAL: A4-70/AISI316	SPECIFICATIONS FOR SURFACES: -
				DESIGNATION: fixation set 30 A4 Befestigungssatz 30 A4	SCALE: 1:2
01 1840400 2018-10-25 N. Porsch					
02 1940034 2019-02-21 N. Porsch					
IND. TN NO. DATE NAME SIGN.					
RELEASE: 2019-02-21 P. Rietsch				REPLACEMENT FOR: . NUMBER.INDEX: PAGE: 1/1 6053665.02	

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