Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

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European Technical Assessment ETA-21/0804 of 30 June 2025

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	Peikko Modix Rebar Couplers
Product family to which the construction product belongs	Couplers for mechanical splices of reinforcing steel bars
Manufacturer	PEIKKO GROUP CORPORATION Voimakatu 3 15101 Lahti FINNLAND
Manufacturing plant	Peikko Herstellwerke Peikko Manufacturing Plants
This European Technical Assessment contains	26 pages including 3 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 160129-00-0301
This version replaces	ETA-21/0804 issued on 11 April 2022

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Specific Part

1 Technical description of the product

The Peikko Modix Rebar Couplers are used as a mechanical, screwed system for connecting reinforcing bars in reinforced concrete components and for connecting to steel components under static or quasi-static, fatigue and low cycle loading.

The product description is given in Annex A.

The characteristic material values, dimensions and tolerances of Peikko Modix Rebar Couplers not indicated in Annexes A1 to A7 shall correspond to the respective values laid down in the technical documentation[1] of this European technical assessment.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the Peikko Modix Rebar Couplers are used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the Peikko Modix Rebar Couplers of at least 100 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Resistance to static or quasi-static loading	See Annex C1 – C11
Slip under static or quasi-static load	See Annex C1 – C11
Slip after static or quasi-static load	See Annex C1 – C6
Fatigue strength for $N = 2 \cdot 10^6$ load cycles	See Annex C2, C4, C6, C9
Fatigue strength for S-N curve with k_1 and k_2 according to EN 1992-1-1	No performance assessed
Fatigue strength for S-N curve with specific k_1 and k_2	See Annex C1, C3, C5, C8
Resistance to low cycle loading (seismic actions)	See Annex C1 – C6

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1

[1] The technical documentation of this European technical assessment is deposited at the Deutsches Institut für Bautechnik and, as far as relevant for the tasks of the approved bodies involved in the attestation of conformity procedure, is handed over to the approved bodies.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD 160129-00-0301 the applicable European legal act is: 2000/606/EC.
The system to be applied is: 1+

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

The following standards are referred to in this European Technical Assessment:

EN 1090-1:2009 + A1:2011	Execution of steel structures and aluminium structures – Part 1: Requirements for conformity assessment of structural components
EN 1992-1-1:2004 + AC:2010 + A1:2014	Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings
EN 1998-1:2004 + AC:2009 + A1:2013	Eurocode 8: Design of structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings
EN 10025-1:2004	Hot rolled products for structural steels – Part 1: General technical delivery conditions
EN 10305-1:2016	Steel tubes for precision applications – Technical delivery conditions – Part 1: Seamless cold drawn tubes
EN ISO 9606-1:2017	Qualification testing of welders – Fusion welding – Part 1: Steels (ISO 9606-1:2012, including Cor 1:2012 and Cor 2:2013)
EN ISO 12944-5:2019	Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 5: Protective paint systems (ISO 12944-5:2019)
EN ISO 15609-1:2019	Specification and qualification of welding procedures for metallic materials – Welding procedure specification– Part 1: Arc welding (ISO 15609-1:2019)

Issued in Berlin on 30 June 2025 by Deutsches Institut für Bautechnik

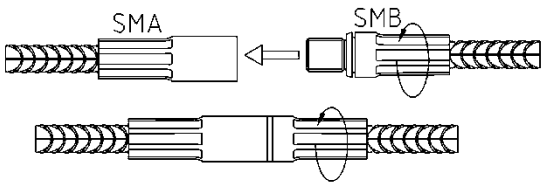
Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Kisan

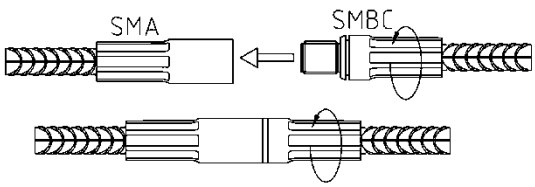
Connections

Standard connections

SMA+SMB

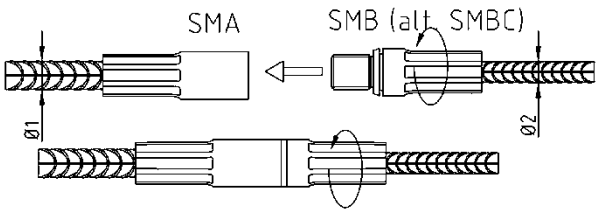


SMA+SMBC

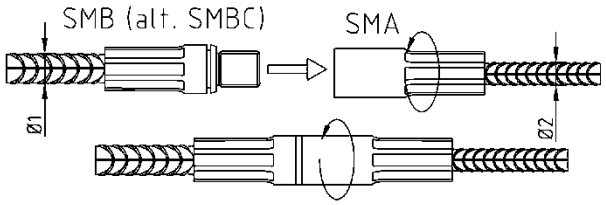


Reduction connections

Reduction SMA+SMB (alt. SMBC)

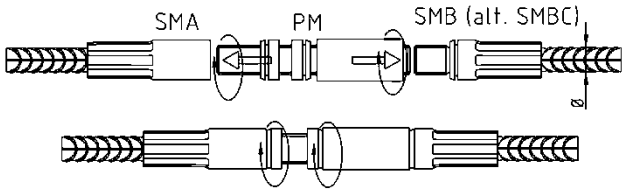


Reduktion SMB (alt. SMBC)+SMA



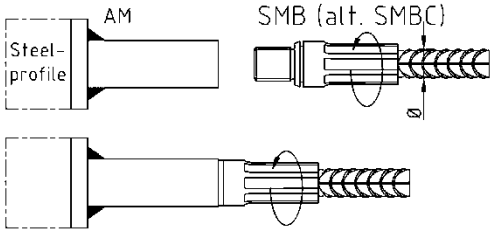
Position connections

Position SMA+PM+SMB (alt. SMBC)



Welding connections

AM+SMB (alt. SMBC)



Peikko Modix rebar cooupler	**Annex A1**
Product description of connections	

Table A1: Standard connection similar diameters – connections coupler SMA – coupler SMB

Combinations of couplers	Ø [mm]
SMA10 + SMB10	10
SMA12 + SMA12	12
SMA14 + SMB14	14
SMA16 + SMB16	16
SMA18 + SMB18	18
SMA20 + SMB20*	20
SMA22 + SMB22*	22
SMA25 + SMB25*	24+25
SMA26 + SMB26*	26
SMA28 + SMB28*	28
SMA30 + SMB30	30
SMA32 + SMB32	32
SMA34 + SMB34	34
SMA40 + SMB40	40

*Alternative SMBC coupler instead of SMB

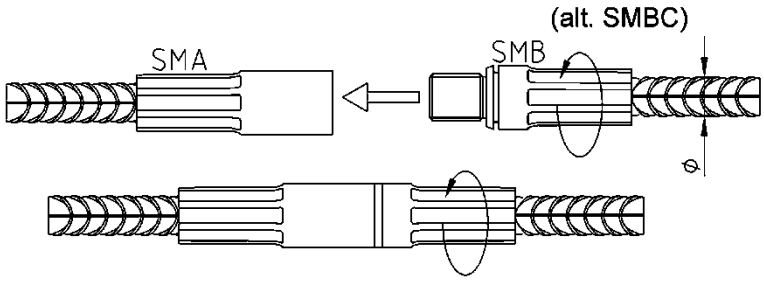


Figure A1: SMA + SMB (alt. SMBC)

Table A2: Reduction connection different diameters – connections coupler SMA – coupler SMB*

Combinations of couplers	rebar	
	$Ø_1$ [mm]	$Ø_2$ [mm]
SMA12 + SMB12	12	10
SMA14 + SMB14	14	12
SMA16 + SMB16	16	14
SMA20 + SMB20*	20	16
SMA25 + SMB25*	25	20
SMA25 + SMB25*	24	20
SMA28 + SMB28*	28	24
SMA28 + SMB28*	28	25
SMA32 + SMB32	32	28
SMA40 + SMB40	40	32
SMA18 + SMB18	18	16
SMA22 + SMB22*	22	18
SMA26 + SMB26*	26	22
SMA26 + SMB26*	26	24
SMA30 + SMB30	30	26
SMA34 + SMB34	34	30
SMA40 + SMB40	40	34

*Alternative SMBC coupler instead of SMB

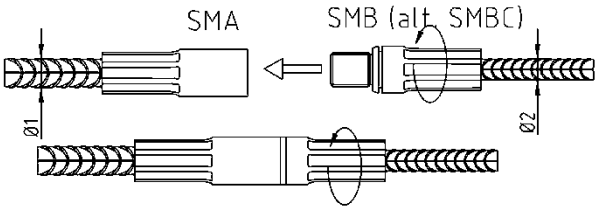


Figure A2: SMA + SMB (alt. SMBC)

Peikko Modix rebar coupler	**Annex A2**
Product description standard connections + reduction connections	

Table A3: Reduction connection of different diameters – connection coupler bar SMB* – coupler bar SMA

Combinations of couplers	rebar	
	$Ø_1$ [mm]	$Ø_2$ [mm]
SMB12 + SMA12	12	10
SMB14 + SMA14	14	12
SMB16 + SMA16	16	14
SMB20* + SMA20	20	16
SMB25* + SMA25	24	20
SMB25* + SMA25	25	20
SMB28* + SMA28	28	24
SMB28* + SMA28	28	25
SMB32 + SMA32	32	28
SMB40 + SMA40	40	32
SMB18 + SMA18	18	16
SMB22* + SMA22	22	18
SMB26* + SMA26	26	24
SMB26* + SMA26	26	22
SMB30 + SMA26	30	26
SMB34 + SMA30	34	30
SMB40 + SMA40	40	34

*Alternative SMBC coupler instead of SMB

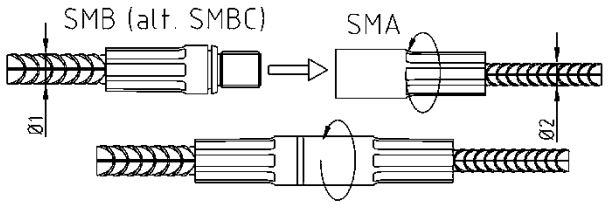


Figure A3: SMB (alt. SMBC) + SMA

Table A4: Standard connection of similar diameters with position connection – connection coupler bar SMA– position coupler PM – coupler bar SMB*

Combinations of couplers	rebar Ø [mm]
SMA10 + PM10 + SMB10	10
SMA12 + PM12 + SMB12	12
SMA14 + PM14 + SMB14	14
SMA16 + PM16 + SMB16	16
SMA18 + PM18 + SMB18	18
SMA20 + PM20 + SMB20*	20
SMA22 + PM22 + SMB22*	22
SMA25 + PM25 + SMB25*	24+25
SMA26 + PM26 + SMB26*	26
SMA28 + PM28 + SMB28*	28
SMA30 + PM30 + SMB30	30
SMA32 + PM32 + SMB32	32
SMA34 + PM34 + SMB34	34
SMA40 + PM40 + SMB40	40

*Alternative SMBC coupler instead of SMB

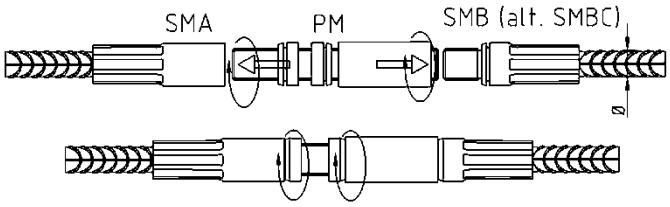


Figure A4: SMA + PM + SMB (alt. SMBC)

Peikko Modix rebar coupler	**Annex A3**
Product description reduction connections + position connections	

Table A5: Welding coupler on steel structure – connection welding coupler AM – SMB coupler bar

Combinations of couplers	Ø [mm]
AM10 + SMB10	10
AM12 + SMB12	12
AM14 + SMB14	14
AM16 + SMB16	16
AM18 + SMB18	18
AM20 + SMB20*	20
AM22 + SMB22*	22
AM25 + SMB25*	24+25
AM26 + SMB26*	26
AM28 + SMB28*	28
AM30 + SMB30	30
AM32 + SMB32	32
AM34 + SMB34	34
AM40 + SMB40	40

*Alternative SMBC coupler instead of SMB

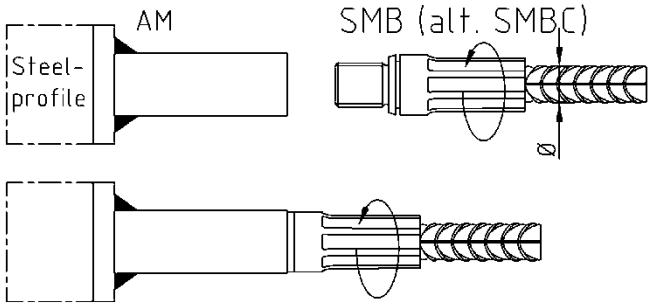


Figure A5: AM + SMB (alt. SMBC)

Table A6: dimensions of Peikko Modix SMA coupler bar

couplers	Ø [mm]	Thread [mm]	ØD2 [mm]	l2 [mm]
SMA10	10	M12x1,75	18,0	21,0
SMA12	12	M16x2,00	21,0	26,0
SMA14	14	M18x2,50	24,0	30,0
SMA16	16	M20x2,50	27,0	33,0
SMA18	18	M22x2,50	29,0	34,0
SMA20	20	M24x3,00	33,0	37,0
SMA22	22	M27x3,00	36,0	43,0
SMA25	24+25	M30x3,50	41,0	44,0
SMA26	26	M33x3,50	44,0	51,0
SMA28	28	M36x4,00	47,0	51,0
SMA30	30	M39x4,00	50,0	59,0
SMA32	32	M42x4,50	53,0	59,0
SMA34	34	M45x4,50	57,0	62,0
SMA40	40	M48x5,00	63,5	65,0

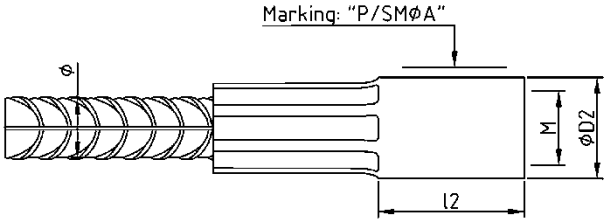


Figure A6: coupler SMA

Table A7: Material Peikko Modix couplers SMA

coupler	Precision steel tube according to EN 10305-1 Material: according deposited data
	Round material according to EN 10025-1 Material: according deposited data
Rebar	B450C, B500B, B500C, B550B

Peikko Modix rebar coupler	**Annex A4**
Product description welding couplers + couplers SMA	

Table A8: dimensions Peikko Modix coupler bar SMB/SMBC

couplers	Ø [mm]	Thread [mm]	ØD2 [mm]	l4 [mm]	y [mm]	max. 1,5*p [mm]
SMB10	10	M12x1,75	18,0	13,0	1,5	-
SMB12	12	M16x2,00	21,0	18,0	2,0	-
SMB14	14	M18x2,50	24,0	20,0	2,0	-
SMB16	16	M20x2,50	27,0	23,0	2,0	-
SMB18	18	M22x2,50	29,0	23,0	2,0	-
SMB20	20	M24x3,00	33,0	26,0	2,0	4,50
SMB22	22	M27x3,00	36,0	28,0	2,0	4,50
SMB25	24+25	M30x3,50	41,0	32,0	2,0	5,25
SMB26	26	M33x3,50	44,0	35,0	2,0	5,25
SMB28	28	M36x4,00	47,0	38,0	2,0	6,00
SMB30	30	M39x4,00	50,0	41,0	2,0	-
SMB32	32	M42x4,50	53,0	44,5	2,0	-
SMB34	34	M45x4,50	57,0	45,0	2,0	-
SMB40	40	M48x5,00	63,5	50,0	2,0	-

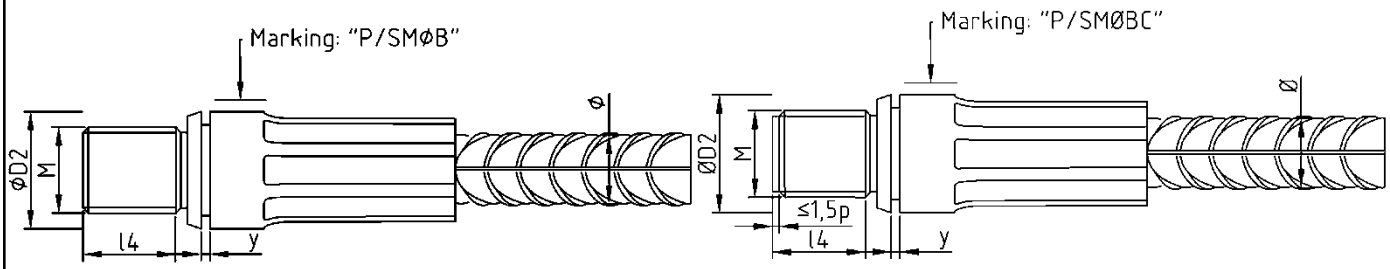


Figure A7: coupler SMB (SMBC alternative version Ø 20 mm to Ø 28 mm with centering device)

Table A9: Material Peikko Modix couplers SMB / SMBC

Coupler	Round material according to EN 10025-1 Material: according deposited data
Rebar steel	B450C, B500B, B500C, B550B

Peikko Modix rebar coupler	**Annex A5**
Product description couplers SMB / SMBC	

Table A10: Dimensions Peikko Modix position bolt PMG

bolts	Ø [mm]	Thread [mm]	Min. l9 [mm]	Min. l10 [mm]
PM10G	10	M12x1,75	79	119
PM12G	12	M16x2,00	98	138
PM14G	14	M18x2,50	111	151
PM16G	16	M20x2,50	121	161
PM18G	18	M22x2,50	129	167
PM20G	20	M24x3,00	136	176
PM22G	22	M27x3,00	151	191
PM25G	24+25	M30x3,50	161	202
PM26G	26	M33x3,50	178	218
PM28G	28	M36x4,00	187	227
PM30G	30	M39x4,00	205	245
PM32G	32	M42x4,50	214	254
PM34G	34	M45x4,50	228	272
PM40G	40	M48x5,00	240	290

l9 minimum length for the application with position socket PMH, depending on application different lengths possible
l10 minimum length for the application with position socket PML, depending on application different lengths possible

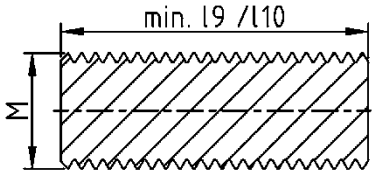


Figure A10: Position bolt PMG

Table A11: Dimensions Peikko Modix Position socket PMH

sockets	Ø [mm]	Thread [mm]	ØD2 [mm]	l5 [mm]	l6 [mm]
PM10H/L	10	M12x1,75	18,0	37,0	77,0
PM12H/L	12	M16x2,00	21,0	48,0	88,0
PM14H/L	14	M18x2,50	24,0	54,5	94,5
PM16H/L	16	M20x2,50	27,0	60,5	100,5
PM18H/L	18	M22x2,50	29,0	66,0	104,0
PM20H/L	20	M24x3,00	33,0	68,5	108,5
PM22H/L	22	M27x3,00	36,0	75,0	115,0
PM25H/L	24+25	M30x3,50	41,0	83,0	123,0
PM26H/L	26	M33x3,50	44,0	90,0	130,0
PM28H/L	28	M36x4,00	47,0	97,0	137,0
PM30H/L	30	M39x4,00	50,0	105,0	145,0
PM32H/L	32	M42x4,50	53,0	112,0	152,0
PM34H/L	34	M45x4,50	57,0	120,0	165,0
PM40H/L	40	M48x5,00	63,5	127,0	178,0

l5 for the short type (PMH)
l6 for the long type (PML)

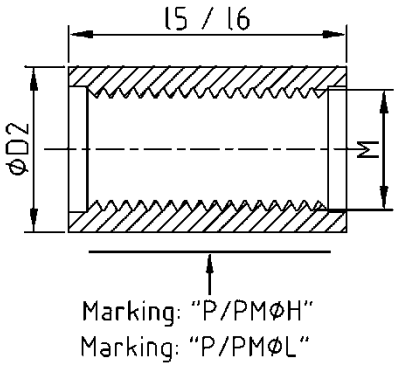


Figure A11: Position socket PMH and PML

Table A12: Material Peikko Modix position bolt PMG and position socket PMH

Position bolt	Alloyed steel, strength class min. 8.8
Position socket	Precision steel tube according to EN 10305-1 Material: according deposited data Round material according to EN 10025-1 Material: according deposited data

Peikko Modix rebar coupler	**Annex A6**
Product description position bolt PMG and position socket PMH	

Table A13: dimensions Peikko Modix counter nut PMF

Counter nut	Ø [mm]	Thread [mm]	l7 [mm]	l8 [mm]	y [mm]
PM10F	10	M12x1,75	7,0	10,2	1,5
PM12F	12	M16x2,00	8,0	11,9	2,0
PM14F	14	M18x2,50	9,0	13,0	2,0
PM16F	16	M20x2,50	9,0	13,5	2,0
PM18F	18	M22x2,50	9,0	13,5	2,0
PM20F	20	M24x3,00	10,0	15,0	2,0
PM22F	22	M27x3,00	11,0	16,0	2,0
PM25F	24+25	M30x3,50	12,0	17,0	2,0
PM26F	26	M33x3,50	13,0	18,0	2,0
PM28F	28	M36x4,00	14,0	19,1	2,0
PM30F	30	M39x4,00	15,0	20,0	2,0
PM32F	32	M42x4,50	16,0	21,2	2,0
PM34F	34	M45x4,50	17,0	22,0	2,0
PM40F	40	M48x5,00	18,0	23,3	2,0

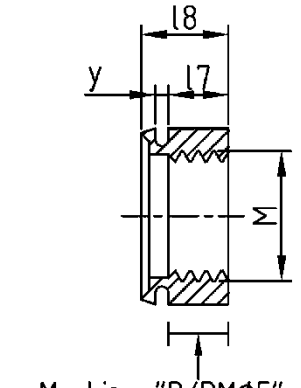


Figure A12: counter nut PMF

Table A14: dimensions Peikko Modix welding coupler AM

coupler	Ø [mm]	Thread [mm]	ØD2 [mm]	l2 [mm]	l11 [mm]
AM10	10	M12x1,75	18,0	21,0	52,0
AM12	12	M16x2,00	21,0	26,0	63,0
AM14	14	M18x2,50	24,0	30,0	72,0
AM16	16	M20x2,50	27,0	33,0	80,0
AM18	18	M22x2,50	29,0	34,0	90,0
AM20	20	M24x3,00	33,0	37,0	98,0
AM22	22	M27x3,00	36,0	43,0	110,0
AM25	24+25	M30x3,50	41,0	44,0	122,0
AM26	26	M33x3,50	44,0	51,0	130,0
AM28	28	M36x4,00	47,0	51,0	141,0
AM30	30	M39x4,00	50,0	59,0	145,0
AM32	32	M42x4,50	53,0	59,0	156,0
AM34	34	M45x4,50	57,0	62,0	160,0
AM40	40	M48x5,00	63,5	65,0	165,0

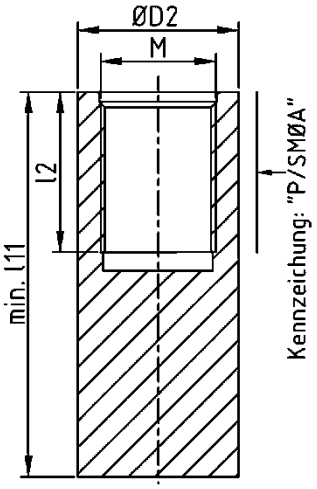


Figure A13: welding coupler AM

Table A15: Material Peikko Modix counter nut PMF and welding coupler AM

Counter nut Welding coupler	Precision steel tube according to EN 10305-1 Material: according deposited data
	Round material according to EN 10025-1 Material: according deposited data

Peikko Modix rebar coupler

Product description counter nut PMF and welding coupler AM

Annex A7

Deutsches Institut für Bautechnik DIBt

Intended use

Application as mechanical coupler according to EN 1992-1-1 and Annex C

- Transfer of static and quasi-static tension and compression loads according to EN 1992-1-1, section 8.7 and 8.8 (4)
- Slip limitation according to EN 1992-1-1, section 7.3
- Transfer of high-cycle fatigue loads with fatigue strength according to EN 1992-1-1, section 6.8.4
- Resistance to low-cycle seismic loading according to EN 1998-1, section 5.6.3 (2)
- Welding couplers AM are used for the connection of reinforcing steel bars with steel structures. The verification of the bar load transfer by the welding seam to the related steel structures, has to be ensured by the responsible engineer.

Installation requirements

- Joints may be subjected at static and quasi static tensile and compression loads with a maximum of 100% of the unspliced bar according to EN 1992-1-1, section 8.7.2 (4).
- For the concrete cover to the coupler surface and the spacing between the outer edges of adjacent couplers similar criteria as for unspliced bars according to ENM1992-1-1 has to be applied. The spacing necessary for installation shall remain unaffected.
- Bended bars (pre-bended) shall have at least the 5-fold nominal rebar diameter spacing to the coupler end before the planned bending starts. Will special equipment be used in the manufacturing plant for bending the couplers, then the spacing might be reduced to the 2-fold of the nominal rebar diameter.
- Installation of the couplers by trained personnel under supervision of the responsible site manager
- Utilization of Peikko Modix coupler as delivered (or from steel partner), no modifications or replacement of individual parts
- Prior to installation the regular condition of the inner and outer thread has to be checked. Pollutions of any kind are to be removed.
- By adequate measures (e.g. plastic cap) it shall be ensured that no concrete deposition or other pollution is contaminating the couplers. Prior to joining the coupler connection all obstructions inside the couplers shall be removed.
- Installation of the couplers according to manufacturer criteria, see installation manual Annex B3 to Annex B4
- Rigid fixation of the Modix couplers on the mold to avoid displacement during installation of reinforcement and placing of concrete
- All threads shall be protected against pollution from concrete, water and lubricants
- For the connection of the welding coupler AM with a steel structure an established WPS-welding instruction according to EN ISO 15609-1 shall be available which must be considered from the welders. The producer of the welding must have a welding certificate according to EN 1090-1, Table B.1.The welders shall have valid test certificates according EN ISO 9606-1. Welding coupler and steel structure shall be protected against corrosion following the individual application requirements, see EN ISO 12944-5.

Peikko Modix rebar coupler	**Annex B1**
Intended use, application conditions and installation requirements	

Deutsches Institut für Bautechnik DIBt

Installation requirements

- All Modix system parts are stored accordingly with protected thread (thread cap and thread plug), the threads are unpolluted, usable, and undamaged (no mechanical damages or corrosion etc.)
- All connecting bars will be screwed together completely until the gap is closed (visual control of the correct assembling)
- Counter nuts and distance sleeves are screwed until the gap is closed (visual control of the correct assembling)

Peikko Modix rebar coupler	**Annex B2**
Intended use and installation requirements	

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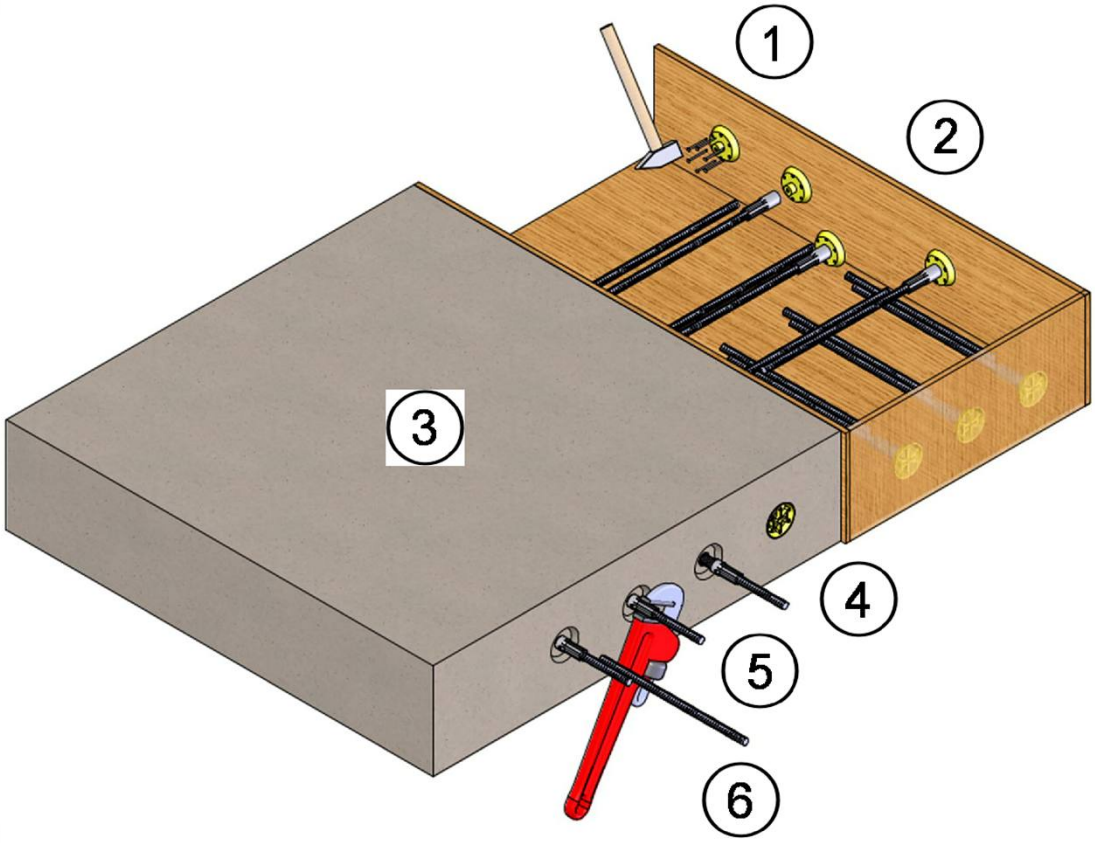
Standard connection SMA+SMB*
Reduction connection SMA+SMB*

1. fix nailing plate and remove the protecting cap from the coupler bar
2. fix the coupler bar tight on the nailing plate (alternative nail combination of nailing plate and coupler bar to the mould)
3. place element reinforcement and installations safely and resistant and concrete the element
4. remove the mold and nailing plate, check the internal thread, remove the protecting cap from the coupler bar and screw the coupler bar in
5. torque coupler bar until the gap is closed
6. continue with the following concrete section

*Alternative SMBC coupler instead of SMB



Peikko Modix rebar coupler

Annex B3

Intended use
Installation instruction of Standard- and Reduction connections

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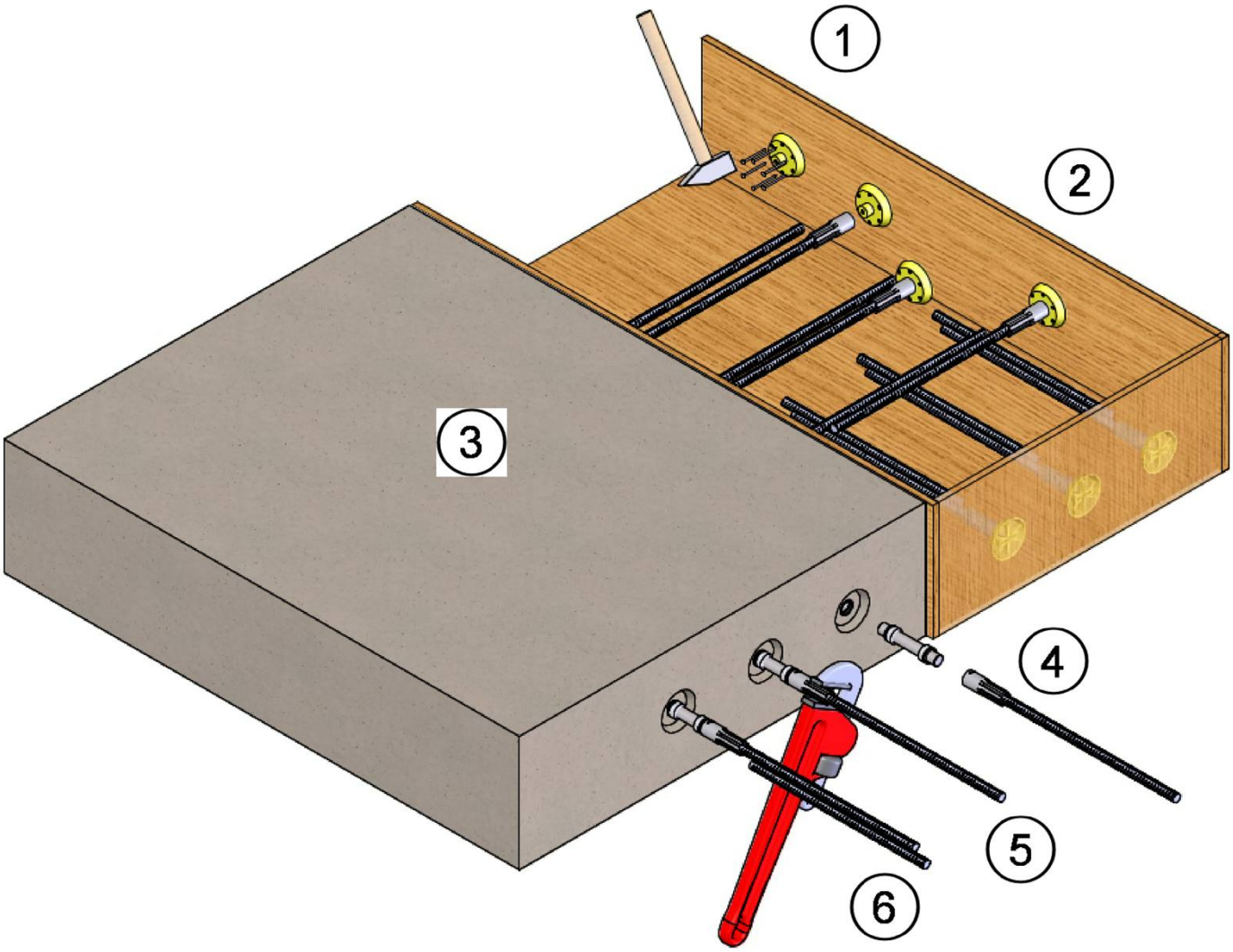
Position connections SMA+SMB*+PM
1. fix nailing plate and remove the protecting cap from the coupler bar 2. fix the coupler bar tight on the nailing plate (alternative nail combination of nailing plate and coupler bar to the mold) 3. place element reinforcement and installations safely and resistant and concrete the element 4. remove the mold and nailing plate, check the internal thread, remove the protecting cap from the position coupler and screw coupler in 5. torque the counter nut until the gap is closed, adjust second counter nut and coupler bar and torque the counter nut until the gap is closed 6. continue with the following concrete section

*Alternative SMBC coupler instead of SMB



Peikko Modix rebar coupler	**Annex B4**
Intended use **Installation instruction of Standard- and Reduction connections**	

Table C1: Connection coupler bar SMA – coupler bar SMB*

Combinations of couplers	Ø [mm]	Connection length A+B [mm]
SMA10 + SMB10	10	97
SMA12 + SMB12	12	114
SMA14 + SMB14	14	128
SMA16 + SMB16	16	142
SMA18 + SMB18	18	159
SMA20 + SMB20*	20	174
SMA22 + SMB22*	22	198
SMA25 + SMB25*	24	219
SMA25 + SMB25*	25	219
SMA26 + SMB26*	26	232
SMA28 + SMB28*	28	252
SMA30 + SMB30	30	261
SMA32 + SMB32	32	278
SMA34 + SMB34	34	291
SMA40 + SMB40	40	297

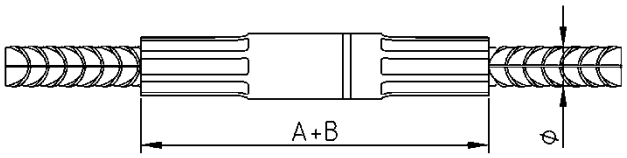


Figure C1: SMA + SMB*

*Alternative SMBC coupler instead of SMB

Table C2: Connection coupler bar SMA – coupler bar SMB* – essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²] B500B[1]	B500C[2]	Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]	Slip after loading s_2[4] [mm]	Fatigue strength[5] (S-N curve with specific defined k_1 and k_2) $\Delta\sigma_{Rsk}$ [N/mm²]	k_1 [-]	k_2 [-]	Resistance to low cycle loading (seismic action) u_{20} [mm]	$F_{u,min}$[6] [kN] B500B/B500C
SMA10+SMB10	540	575	3	0,10	0,10	85 (N=2*10⁶) 57 (N*=2*10⁷)	4	5	0,2	42,4/45,1
SMA12+SMB12	540	575	3	0,11	0,10					61,1/65,1
SMA14+SMB14	540	575	3	0,11	0,10					83,1/88,5
SMA16+SMB16	540	575	3	0,12	0,10					108,6/115,6
SMA18+SMB18	540	575	3	0,13	0,10					137,4/146,3
SMA20+SMB20*	540	575	3	0,14	0,10					169,6/180,6
SMA22+SMB22*	540	575	3	0,15	0,10					205,3/218,6
SMA25+SMB25*	540	575	3	0,16	0,10					265,1/282,3
SMA26+SMB26*	540	575	3	0,17	0,10					286,7/305,3
SMA28+SMB28*	540	575	3	0,18	0,10					332,5/354,1
SMA30+SMB30	540	575	3	0,18	0,10	75 (N=2*10⁶) 50 (N*=2*10⁷)	4	5	0,2	381,7/406,4
SMA32+SMB32	540	575	3	0,19	0,10				-	
SMA34+SMB34	540	575	3	0,19	0,10				-	
SMA40+SMB40	540	575	3	0,20	0,10				-	

Connections according to Table C1

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, with f_{yk} =500 N/mm² at B500B

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, wioth f_{yk} =500 N/mm² at B500C

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5] Fatigue strength $\Delta\sigma_{Rsk}$, S-N-curve with specific k_1, k_2

[6] $F_{u,min}=(\pi*Ø^2/4)* f_{u,min}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Annex C1

Essential characteristics
Standard connections B500B/B500C

Table C3: Connection coupler bar SMA – coupler bar SMB* – essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3)] [mm]	Slip after loading s_2[4)] [mm]	Fatigue strength[5)] (N=2*10⁶) $\Delta\sigma_{Rsk}$ [N/mm²]	Resistance to low cycle loading (seismic action)	
	B450C[1)]	B550B[2)]				B450C/B550B	u_{20} [mm]	$F_{u,min}$[6)] [kN] B450C
SMA10 + SMB10	517,5	594	3	0,10	0,10			40,7
SMA12 + SMB12	517,5	594	3	0,11	0,10			58,6
SMA14 + SMB14	517,5	594	3	0,11	0,10			79,7
SMA16 + SMB16	517,5	594	3	0,12	0,10			104,1
SMA18 + SMB18	517,5	594	3	0,13	0,10			131,7
SMA20 + SMB20*	517,5	594	3	0,14	0,10			162,6
SMA22 + SMB22*	517,5	594	3	0,15	0,10	62,4	0,2	196,7
SMA25 + SMB25*	517,5	594	3	0,16	0,10			234,1[7)]
SMA25 + SMB25*	517,5	594	3	0,16	0,10			254,1
SMA26 + SMB26*	517,5	594	3	0,17	0,10			274,8
SMA28 + SMB28*	517,5	594	3	0,18	0,10			318,7
SMA30 + SMB30	517,5	594	3	0,18	0,10			365,8
SMA32 + SMB32	517,5	594	3	0,19	0,10			416,2

Connections according to Table C1

[1)] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, with f_{yk} =450 N/mm² at B450C

[2)] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, with f_{yk} =550 N/mm² at B550B

[3)] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4)] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5)] Fatigue strength $\Delta\sigma_{Rsk} = 0,78*(2*\sigma_a)$

[6)] $F_{u,min}=(\pi*Ø^2/4)* f_{u,min}$

[7)] Nominal diameter Ø24mm with SMB25 as standard coupler

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Essential characteristics
Standard connections B450C/B550B

Annex C2

Deutsches Institut für Bautechnik DIBt

Table C4: Reduction connection coupler bar SMA-coupler bar SMB*

Combinations of couplers	Ø [mm]	Connection length A+B [mm]
SMA12 + SMB12/10	10	114
SMA14 + SMB14/12	12	128
SMA16 + SMB16/14	14	142
SMA18 + SMB18/16	16	159
SMA20 + SMB20/16*	16	174
SMA22 + SMB22/18*	18	198
SMA25 + SMB25/20*	20	219
SMA26 + SMB26/22*	22	232
SMA26 + SMB26/24*	24	232
SMA28 + SMB28/24*	24	252
SMA28 + SMB28/25*	25	252
SMA30 + SMB30/26	26	261
SMA32 + SMB32/28	28	278
SMA34 + SMB34/30	30	291
SMA40 + SMB40/32	32	297
SMA40 + SMB40/34	34	297

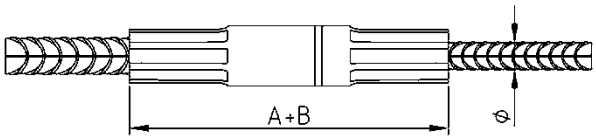


Figure C2: SMA + SMB*

*Alternative SMBC coupler instead of SMB

Table C5: Reduction connections coupler bar SMA – coupler bar SMB* - Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]	Slip after loading s_2[4] [mm]	Fatigue strength [5] (S-N curve with specific defined k_1 and k_2)			Resistance to low cycle loading (seismic action)	
	B500B[1]	B500C[2]				$\Delta\sigma_{Rsk}$ [N/mm²]	k_1 [-]	k_2 [-]	u_{20} [mm]	$F_{u,min}$[6] [kN] B500B/B500C
SMA12+SMB12/10	540	575	3	0,10	0,10	85 (N=2*10⁶) 57 (N*=2*10⁷)	4	5	0,2	42,4/45,1
SMA14+SMB14/12	540	575	3	0,11	0,10					61,1/65,1
SMA16+SMB16/14	540	575	3	0,12	0,10					83,1/88,5
SMA18+SMB18/16	540	575	3	0,12	0,10					108,6/115,6
SMA20+SMB20/16*	540	575	3	0,13	0,10					108,6/115,6
SMA22+SMB22/18*	540	575	3	0,14	0,10					137,4/146,3
SMA25+SMB25/20*	540	575	3	0,15	0,10					169,6/180,6
SMA26+SMB26/22*	540	575	3	0,16	0,10					205,3/218,6
SMA28+SMB28/25*	540	575	3	0,17	0,10					265,1/282,3
SMA30+SMB30/26	540	575	3	0,18	0,10					286,7/305,3
SMA32+SMB32/28	540	575	3	0,18	0,10					-
SMA34+SMB34/30	540	575	3	0,19	0,10	75 (N=2*10⁶) 50 (N*=2*10⁷)	4	5	-	
SMA40+SMB40/32	540	575	3	0,20	0,10				-	
SMA40+SMB40/34	540	575	3	0,20	0,10				-	

Connections according to Table C4

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, with f_{yk} =500 N/mm² at B500B

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, wioth f_{yk} =500 N/mm² at B500C

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5] Fatigue strength $\Delta\sigma_{Rsk}$, S-N-curve with specific k_1, k_2

[6] $F_{u,min}=(\pi*Ø^2/4)* f_{u,min}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Essential characteristics
Reduction connections B500B/B500C

Annex C3

Table C6: Reduction connection coupler bar SMA – coupler bar SMB* – essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1 [3] [mm]	Slip after loading s_2 [4] [mm]	Fatigue strength [5] (N=2*10⁶) $\Delta\sigma_{Rsk}$ [N/mm²]	Resistance to low cycle loading (seismic action)	
	B450C [1]	B550B [2]				B450C/B550B	u_{20} [mm]	$F_{u,min}$ [6] [kN] B450C
SMA12 + SMB12/10	517,5	594	3	0,10	0,10			40,7
SMA14 + SMB14/12	517,5	594	3	0,11	0,10			58,6
SMA16 + SMB16/14	517,5	594	3	0,11	0,10			79,7
SMA18 + SMB18/16	517,5	594	3	0,12	0,10			104,1
SMA20 + SMB20/16*	517,5	594	3	0,13	0,10			104,1
SMA22 + SMB22/18*	517,5	594	3	0,14	0,10			131,7
SMA25 + SMB25/18*	517,5	594	3	0,15	0,10			131,7
SMA25 + SMB25/20*	517,5	594	3	0,15	0,10	62,4	0,2	162,6
SMA26 + SMB26/22*	517,5	594	3	0,16	0,10			196,7
SMA26 + SMB26/24*	517,5	594	3	0,16	0,10			234,1
SMA28 + SMB28/24*	517,5	594	3	0,16	0,10			234,1
SMA28 + SMB28/25*	517,5	594	3	0,16	0,10			254,1
SMA30 + SMB30/26	517,5	594	3	0,17	0,10			274,8
SMA32 + SMB32/28	517,5	594	3	0,18	0,10			318,7
SMA32 + SMB32/30	517,5	594	3	0,18	0,10			365,8

Connections according to Table C4

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, with f_{yk} =450 N/mm² at B450C

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, wioth f_{yk} =550 N/mm² at B550B

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5] Fatigue strength $\Delta\sigma_{Rsk} = 0,78*(2*\sigma_a)$

[6] $F_{u,min}=(\pi*Ø^2/4)*f_{u,min}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Essential characteristics
Reduction connections B450C/B550B

Annex C4

Deutsches Institut für Bautechnik DIBt

Tabelle C7: Reduction connection coupler bar SMB* – coupler bar SMA

Combinations of couplers	Ø [mm]	Connection length A+B [mm]
SMB12 + SMA12/10	10	114
SMB14 + SMA14/12	12	128
SMB16 + SMA16/14	14	142
SMB18 + SMA18/16	16	159
SMB20* + SMA20/16	16	174
SMB22* + SMA22/18	18	198
SMB25* + SMA25/20	20	219
SMB26* + SMA26/22	22	232
SMB26* + SMA26/24	24	232
SMB28* + SMA28/24	24	252
SMB28* + SMA28/25	25	252
SMB30 + SMA30/26	26	261
SMB32 + SMA32/28	28	279
SMB34 + SMA34/30	30	291
SMB40 + SMA40/32	32	296
SMB40 + SMA40/34	34	296

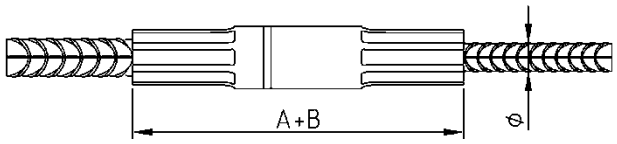


Figure C3: SMB* + SMA

*Alternative SMBC coupler instead of SMB

Table C8: Reduction connection coupler bar SMB* – coupler bar SMA- Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]	Slip after loading s_2[4] [mm]	Fatigue strength [5] (S-N curve with specific defined k_1 and k_2)			Resistance to low cycle loading (seismic action)	
	B500B[1]	B500C[2]				$\Delta\sigma_{Rsk}$ [N/mm²]	k_1 [-]	k_2 [-]	u_{20} [mm]	$F_{u,min}$[6] [kN]
SMB12+SMA12/10	540	575	3	0,10	0,10	85 ($N=2*10^6$) 57 ($N^*=2*10^7$)	4	5	0,3	42,4/45,1
SMB14+SMA14/12	540	575	3	0,11	0,10					61,1/65,1
SMB16+SMA16/14	540	575	3	0,12	0,10					83,1/88,5
SMB18+SMA18/16	540	575	3	0,12	0,10					108,6/115,6
SMB20+SMA20/16*	540	575	3	0,13	0,10					108,6/115,6
SMB22+SMA22/18*	540	575	3	0,14	0,10					137,4/146,3
SMB25+SMA25/20*	540	575	3	0,15	0,10					169,6/180,6
SMB26+SMA26/22*	540	575	3	0,16	0,10					205,3/218,6
SMB28+SMA28/25*	540	575	3	0,17	0,10					265,1/282,3
SMB30+SMA30/26	540	575	3	0,18	0,10					286,7/305,3
SMB32+SMA32/28	540	575	3	0,18	0,10				-	
SMB34+SMA34/30	540	575	3	0,19	0,10	75 ($N=2*10^6$) 50 ($N^*=2*10^7$)	4	5	-	
SMB40+SMA40/32	540	575	3	0,20	0,10				-	
SMB40+SMA40/34	540	575	3	0,20	0,10				-	

Connections according to Table C7

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, with f_{yk} =500 N/mm² at B500B

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, wioth f_{yk} =500 N/mm² at B500C

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5] Fatigue strength $\Delta\sigma_{Rsk}$, S-N-curve with specific k_1, k_2

[6] $F_{u,min}=(\pi*Ø^2/4)*f_{u,min}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Essential characteristics
Reduction connections B500B/B500C

Annex C5

Table C9: Reduction connection coupler bar SMB* – coupler bar SMA – essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]	Slip after loading s_2[4] [mm]	Fatigue strength[5] (N=2*10⁶) $\Delta\sigma_{Rsk}$ [N/mm²] B450C/B550B	Resistance to low cycle loading (seismic action)	
	B450C[1]	B550B[2]					u_{20} [mm]	$F_{u,min}$[6] [kN] B450C
SMB12+SMA12/10	517,5	594	3	0,10	0,10			40,7
SMB14+SMA14/12	517,5	594	3	0,11	0,10			58,6
SMB16+SMA16/14	517,5	594	3	0,11	0,10			79,7
SMB18+SMA18/16	517,5	594	3	0,12	0,10			104,1
SMB20+SMA20/16*	517,5	594	3	0,13	0,10			104,1
SMB22+SMA22/18*	517,5	594	3	0,14	0,10			131,7
SMB25+SMA25/18*	517,5	594	3	0,15	0,10			131,7
SMB25+SMA25/20*	517,5	594	3	0,15	0,10	62,4	0,3	162,6
SMB26+SMA26/22*	517,5	594	3	0,16	0,10			196,7
SMB26+SMA26/24*	517,5	594	3	0,16	0,10			234,1
SMB28+SMA28/24*	517,5	594	3	0,16	0,10			234,1
SMB28+SMA28/25*	517,5	594	3	0,16	0,10			254,1
SMB30+SMA30/26	517,5	594	3	0,17	0,10			274,8
SMB32+SMA32/28	517,5	594	3	0,18	0,10			318,7
SMB32+SMA32/30	517,5	594	3	0,18	0,10			365,8

Connections according to Table C7

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, with f_{yk} =450 N/mm² at B450C

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, wioth f_{yk} =550 N/mm² at B550B

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Slip inside the connection after loading at $0,02*R_{e,nom,bar}$

[5] Fatigue strength $\Delta\sigma_{Rsk} = 0,78*(2*\sigma_a)$

[6] $F_{u,min}=(\pi*Ø^2/4)*f_{u,min}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Anhang C6

Essential characteristics
Reduction connections B450C/B550B

Table C10: Position connection coupler bar SMA – position coupler PM – coupler bar SMB*

Combinations of couplers	Ø [mm]	Connection length PMH Min. A+B+C [mm] [1)]	Connection length PML Min. A+B+C [mm] [1)]
SMA10 + PM10 + SMB10	10	174	214
SMA12 + PM12 + SMB12	12	211	250
SMA14 + PM14 + SMB14	14	237	277
SMA16 + PM16 + SMB16	16	261	301
SMA18 + PM18 + SMB18	18	286	324
SMA20 + PM20 + SMB20*	20	308	348
SMA22 + PM22 + SMB22*	22	344	384
SMA25 + PM25 + SMB25*	24	378	419
SMA25 + PM25 + SMB25*	25	378	419
SMA26 + PM26 + SMB26*	26	404	444
SMA28 + PM28 + SMB28*	28	438	477
SMA30 + PM30 + SMB30	30	458	498
SMA32 + PM32 + SMB32	32	491	531
SMA34 + PM34 + SMB34	34	517	561
SMA40 + PM40 + SMB40	40	536	586

[1)]PMH short type, PML long type

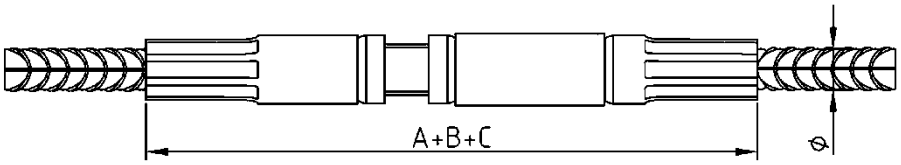


Figure C4: SMA + PM + SMB*
*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler	**Annex C7**
Essential characteristics **Position connections**	

Table C11: Position connection coupler bar SMA – Position coupler PM- coupler bar SMB*- Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1 [3] [mm]	Fatigue strength [4] (S-N curve with specific defined k_1 and k_2)		
	B500B[1]	B500C[2]			$\Delta\sigma_{Rsk}$ [N/mm²]	k_1 [-]	k_2 [-]
SMA10 + PM10 + SMB10	540	575	3	0,14	85 ($N=2*10^6$) 57 ($N^*=2*10^7$)	4	5
SMA12 + PM12 + SMB12	540	575	3	0,16			
SMA14 + PM14 + SMB14	540	575	3	0,17			
SMA16 + PM16 + SMB16	540	575	3	0,18			
SMA18 + PM18 + SMB18	540	575	3	0,19			
SMA20 + PM20 + SMB20*	540	575	3	0,20			
SMA22 + PM22 + SMB22*	540	575	3	0,20			
SMA25 + PM25 + SMB25*	540	575	3	0,20			
SMA26 + PM26 + SMB26*	540	575	3	0,20			
SMA28 + PM28 + SMB28*	540	575	3	0,20			
SMA30 + PM30 + SMB30	540	575	3	0,20	75 ($N=2*10^6$) 50 ($N^*=2*10^7$)	4	5
SMA32 + PM32 + SMB32	540	575	3	0,20			
SMA34 + PM34 + SMB34	540	575	3	0,20			
SMA40 + PM40 + SMB40	540	575	3	0,20			

Connections according to Table C10

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, with f_{yk} =500 N/mm² at B500B

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, with f_{yk} =500 N/mm² at B500C

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Fatigue strength $\Delta\sigma_{Rsk}$, S-N-curve with specific k_1, k_2

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Annex C8

Essential characteristics
Position connections B500B/B500C

Table C12: Position connection coupler bar SMA – Position coupler PM- coupler bar SMB*- Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²]		Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1 [3] [mm]	Fatigue strength [4] (N=2*10⁶) $\Delta\sigma_{Rsk}$ [N/mm²] B450C/B550B
	B450C [1]	B550B [2]			
SMA10 + PM10 + SMB10	517,5	594	3	0,14	62,4
SMA12 + PM12 + SMB12	517,5	594	3	0,16	
SMA14 + PM14 + SMB14	517,5	594	3	0,17	
SMA16 + PM16 + SMB16	517,5	594	3	0,18	
SMA18 + PM18 + SMB18	517,5	594	3	0,19	
SMA20 + PM20 + SMB20*	517,5	594	3	0,20	
SMA22 + PM22 + SMB22*	517,5	594	3	0,20	
SMA25 + PM25 + SMB25*[5]	517,5	594	3	0,20	
SMA25 + PM25 + SMB25*	517,5	594	3	0,20	
SMA26 + PM26 + SMB26*	517,5	594	3	0,20	
SMA28 + PM28 + SMB28*	517,5	594	3	0,20	
SMA30 + PM30 + SMB30	517,5	594	3	0,20	
SMA32 + PM32 + SMB32	517,5	594	3	0,20	
SMA34 + PM34 + SMB34	517,5	594	3	0,20	
SMA40 + PM40 + SMB40	517,5	594	3	0,20	

Connections according to Table C10

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, with f_{yk} =450 N/mm² at B450C

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, wioth f_{yk} =550 N/mm² at B550B

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

[4] Fatigue strength $\Delta\sigma_{Rsk} = 0,78*(2*\sigma_a)$

[5] Nominal diameter Ø24mm with SMB25 as standard coupler

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler

Annex C9

Essential characteristics
Position connections B450C/B550B

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Table C13: Connection welding coupler AM - coupler bar SMB*

Combinations of couplers	Ø [mm]	Connection length A+B [mm]
AM10 + SMB10	10	97
AM12 + SMB12	12	114
AM14 + SMB14	14	128
AM16 + SMB16	16	142
AM18 + SMB18	18	160
AM20 + SMB20*	20	174
AM22 + SMB22*	22	197
AM25 + SMB25*	24	219
AM25 + SMB25*	25	219
AM26 + SMB26*	26	231
AM28 + SMB28*	28	252
AM30 + SMB30	30	260
AM32 + SMB32	32	279
AM34 + SMB34	34	292
AM40 + SMB40	40	299

*Alternative SMBC coupler instead of SMB

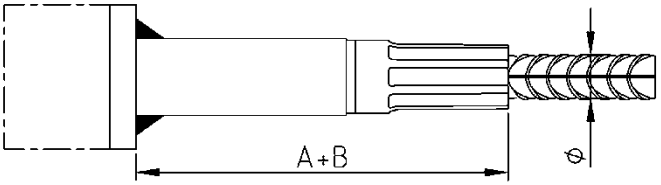

Bild C5: AM + SMB

Table C14: Connection welding coupler AM - coupler bar SMB* - Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²] B500B[1]	B500C[2]	Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]
AM10 + SMB10	540	575	3	0,10
AM12 + SMB12	540	575	3	0,10
AM14 + SMB14	540	575	3	0,10
AM16 + SMB16	540	575	3	0,10
AM18 + SMB18	540	575	3	0,10
AM20 + SMB20*	540	575	3	0,10
AM22 + SMB22*	540	575	3	0,10
AM25 + SMB25*	540	575	3	0,10
AM26 + SMB26*	540	575	3	0,10
AM28 + SMB28*	540	575	3	0,11
AM30 + SMB30	540	575	3	0,11
AM32 + SMB32	540	575	3	0,11
AM34 + SMB34	540	575	3	0,12
AM40 + SMB40	540	575	3	0,12

Connections according to Table C13

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08 * f_{yk}$, with f_{yk} =500 N/mm² at B500B

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15 * f_{yk}$, with f_{yk} =500 N/mm² at B500C

[3] Slip inside the connection under loading with $0,6 * R_{e,nom,bar}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler	**Annex C10**
Essential characteristics **Welding connections B500B/B500C**	

Table C15: Connection welding coupler AM - Coupler SMB* - Essential characteristics

Combinations of couplers	Resistance under static and quasi static loads $f_{u,min,bar,outside}$ $f_{u,min,bar,inside}$ [N/mm²] B450C[1]	B550B[2]	Elongation at connection failure $A_{gt,act}$ [%]	Slip under loading s_1[3] [mm]
AM10 + SMB10	517,5	594	3	0,10
AM12 + SMB12	517,5	594	3	0,10
AM14 + SMB14	517,5	594	3	0,10
AM16 + SMB16	517,5	594	3	0,10
AM18 + SMB18	517,5	594	3	0,10
AM20 + SMB20*	517,5	594	3	0,10
AM22 + SMB22*	517,5	594	3	0,10
AM25 + SMB25/24*	517,5	594	3	0,10
AM25 + SMB25*	517,5	594	3	0,10
AM26 + SMB26*	517,5	594	3	0,10
AM28 + SMB28*	517,5	594	3	0,11
AM30 + SMB30	517,5	594	3	0,11
AM32 + SMB32	517,5	594	3	0,11

Connections according to Table C13

[1] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,15*f_{yk}$, mit f_{yk} =450 N/mm² bei B450C

[2] $f_{u,min,bar,outside} = f_{u,min,bar,inside} = 1,08*f_{yk}$, mit f_{yk} =550 N/mm² bei B550B

[3] Slip inside the connection under loading with $0,6*R_{e,nom,bar}$

*Alternative SMBC coupler instead of SMB

Peikko Modix rebar coupler	**Annex C11**
Essential characteristics **Welding connections B450C/B550B**	