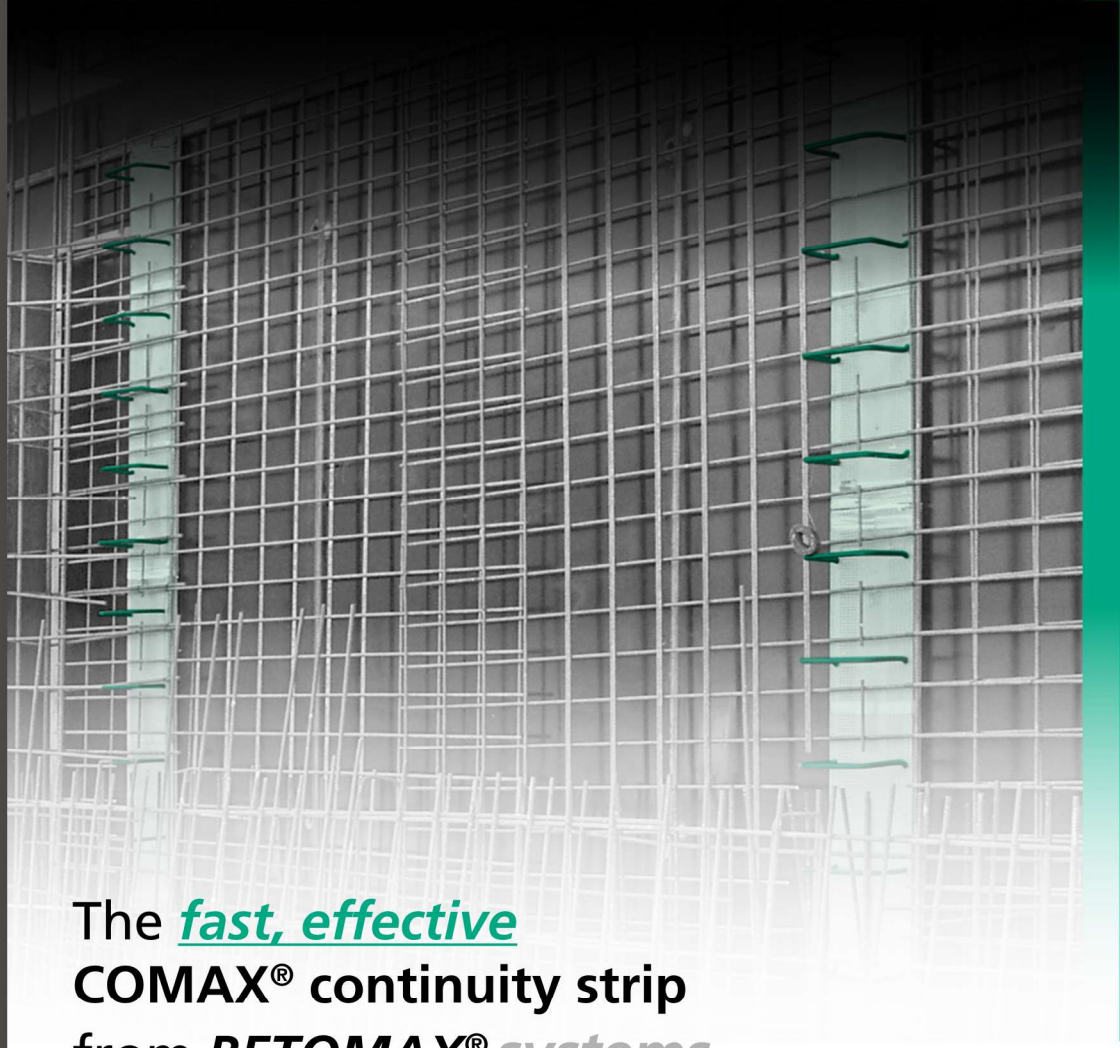
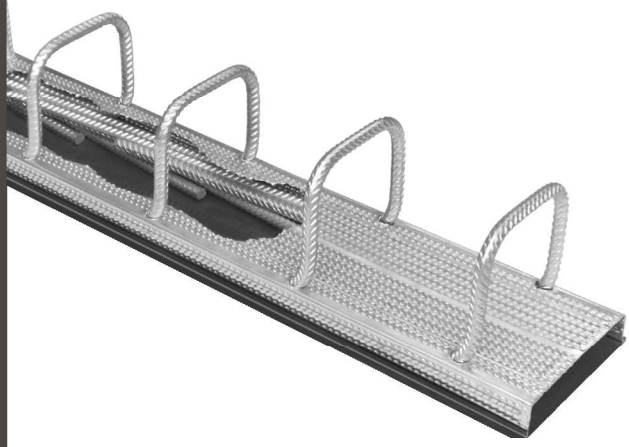
Reinforcement technology

System description
COMAX®
continuity strip P
and special types



The *fast, effective*
COMAX® continuity strip
from ***BETOMAX®*** *systems*
for perfect concrete bonding
with *General Building Approval*
No. Z-21.8-2056.

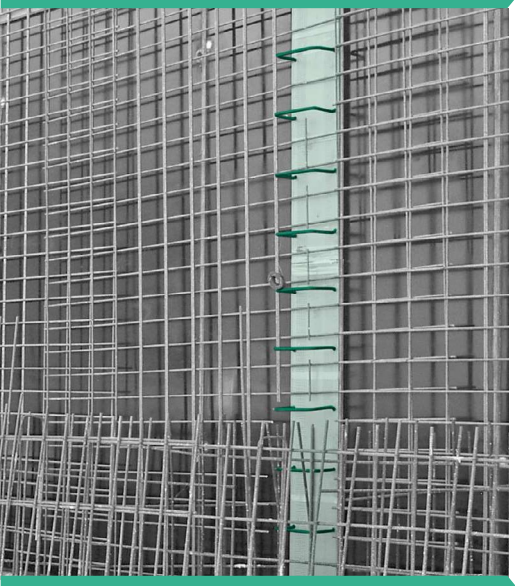


When it matters…

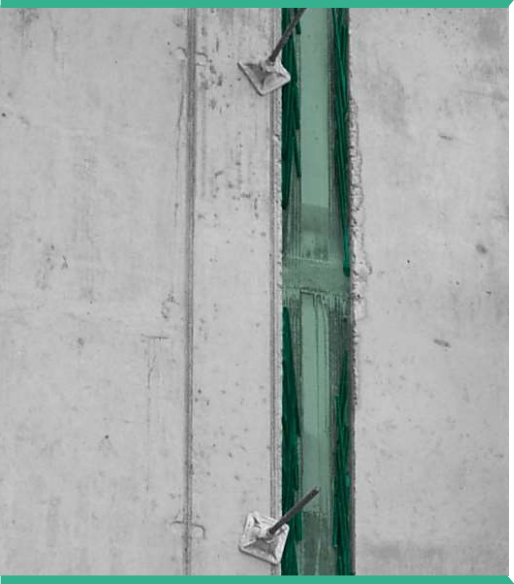
systems
BETOMAX®

COMAX® – the continuity strip from BETOMAX® systems

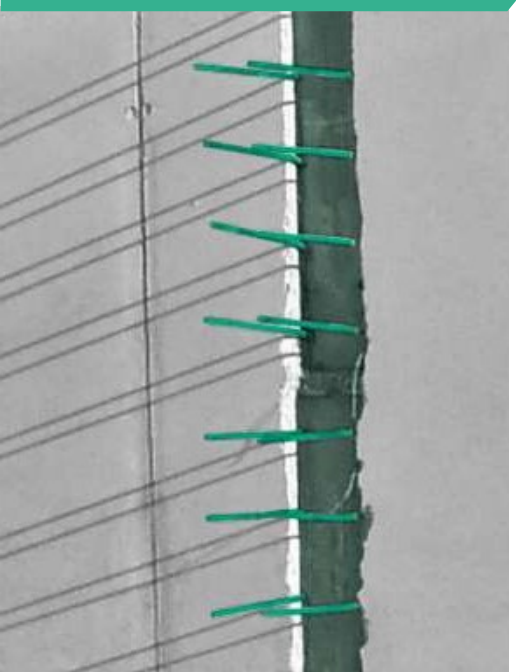
Quick…



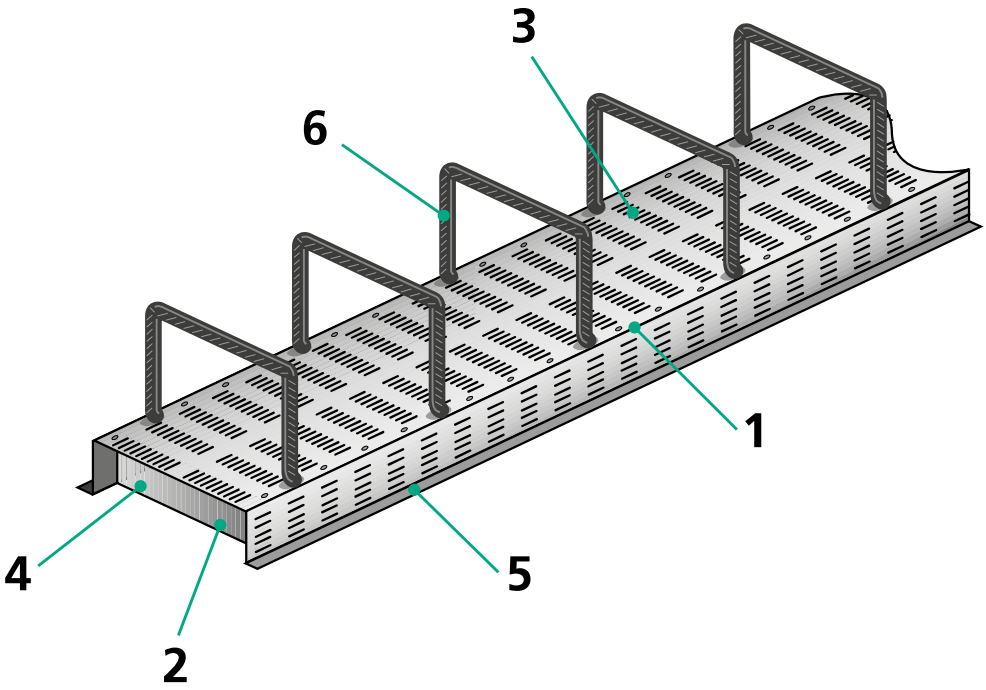
Efficient…



Safe…



COMAX®, the continuity strip made by BETOMAX® systems, offers distinct advantages in the construction of complex concrete structures. During the design phase it is important to have confidence in the choice made between various options. At the same time, the product needs to have been thoroughly tested and be proven to withstand the demands made by every kind of structure.

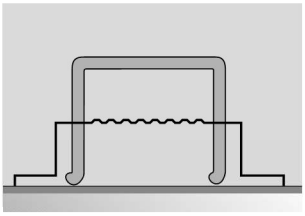


The intrinsic features of COMAX® and the abundance of special versions customized for a variety of applications ensure that the most appropriate solution is always to hand, during both design and construction. On site, COMAX® satisfies the most stringent requirements thanks to its impeccable technical design. Easy to install, COMAX® facilitates the reliable and fast implementation of the formwork erection and removal phases. This improves safety and reliability, and accomplishes higher quality, time savings and cost control.

One system for all situations

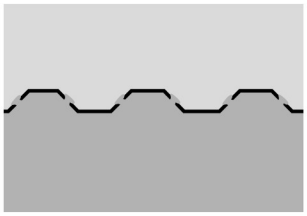
systems BETOMAX®

1

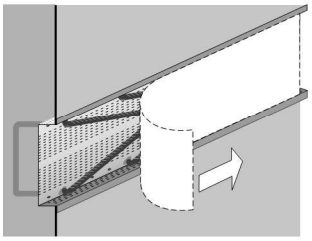


The specially textured, microperforated casing guarantees perfect concrete bonding

- Micro-perforations allow concrete-concrete contact
- Pronounced texture anchors the casing in the concrete
- The rigid, robust casing resists twisting forces



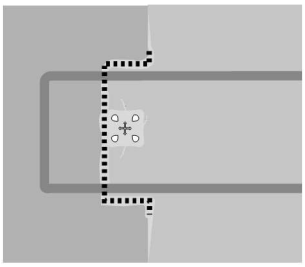
2



The tear-off back cover achieves considerable time savings

- Fast, reliable removal of formwork
- No need for additional tools
- Simple action
- Unplasticized PVC backing

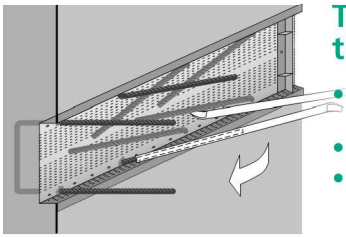
3



Open-geometry casing allows waterproofing by injection after concreting if required

- Micro-perforations allow the dispersal of injected media
- Ideal for all BETOMAX® injection systems: P100, P200, P400, etc.
- Additional sealing of concrete

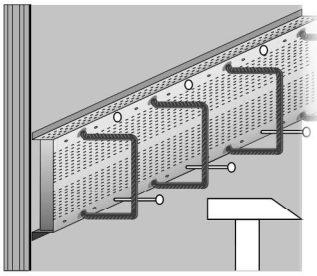
4



The highly effective watertightness of the casing allows very fast formwork removal

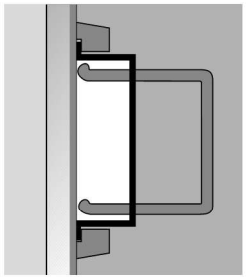
- The seal is maintained by the mechanically fastened PVC backing and watertight plastic caps
- Concrete is thus prevented from penetrating the casing
- Accessories allow waiting times to be utilized and thus prevent delays

5

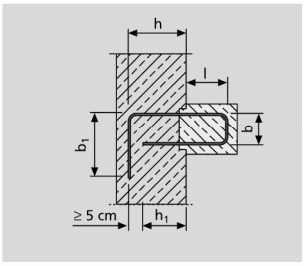


Various fixing options are available for quick and effective installation

- The casing can be nailed to timber or particle board formwork (fig. left)
- NEW: extra-strong magnet for formwork with metallic skin
- Reusable (more than 10 times)
- Marked for easy positioning and recovery



6

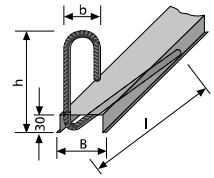


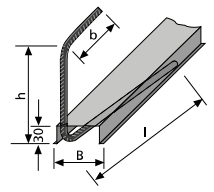
Special designs of all types for all situations

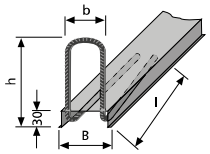
- Various stirrup designs (see diagrams on back)
- Variable spacings between stirrups – standard: 15, 20, 25, 30 mm
- Reinforcing bars with diameters of 6 to 16 mm
- Casing width (B): 60, 80, 110, 140, 160, 190, 220, 240 mm
- Element length up to 2.50 m – standard: 1.25 m
- Height of 5 cm available with 60, 80, 110 and 190 mm casings

COMAX® standard types

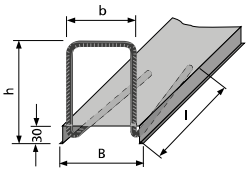
COMAX® P

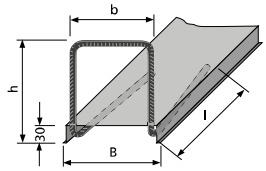


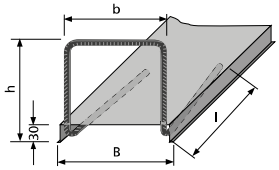


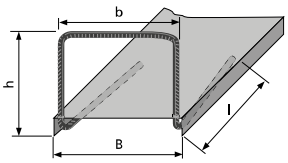


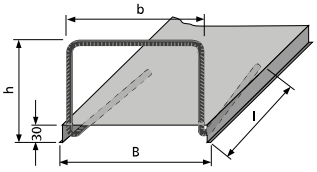
B = Type/strip width/element width
l = Anchoring length
b = Stirrup width
h = Stirrup height
e = Stirrup spacing











Art. No.	Stirrup type	Strip width	Steel Ø	Stirrup spacing	h	b	l	Element length	Weight
		mm	mm	mm	e in cm	cm	cm	cm	kg/m
507233	H	80	12	10	13	6	39	125	6,21
299400	H	80	12	15	12	8	46	125	4,78
550744	H	80	12	20	12	8	46	125	3,81
	H	80	12	30	12	8	46	125	2,88
	S1	110	12	15	12	9	32	125	6,58
	H_2	110	12	15	12	9	44	125	8,80
	S1	110	12	20	12	9	46	125	5,95
	S1	110	12	30	12	9	46	125	4,46
	S1	140	12	15	15	12	46	125	8,45
	S1	140	12	20	15	12	46	125	6,69
	S1	140	12	30	15	12	46	125	4,93
	S1	160	12	15	15	14	46	125	8,74
	S1	160	12	20	15	14	46	125	6,95
	S1	160	12	30	15	14	39	125	4,76
550747	S1	190	12	15	15	17	46	125	9,27
550748	S1	190	12	20	15	17	46	125	7,44
	S1	190	12	30	15	17	46	125	5,61
	S1	240	12	15	15	22	46	125	9,94
	S1	240	12	20	15	22	46	125	8,04
	S1	240	12	30	15	22	46	125	6,13
373296	H	80	10	15	12	6	39	125	3,22
	H	80	10	20	12	6	39	125	2,62
373297	H	80	10	30	12	6	39	125	2,16
	S1	110	10	15	12	9	39	125	5,20
	S1	110	10	20	12	9	39	125	4,19
	S1	110	10	30	12	9	39	125	3,17
	S1	140	10	15	15	12	39	125	5,83
	S1	140	10	20	15	12	39	125	4,72
	S1	140	10	30	15	12	39	125	3,62
	S1	160	10	15	15	14	39	125	6,08
	S1	160	10	20	15	14	39	125	4,96
299410	S1	160	10	30	15	14	39	125	3,83
299411	S1	190	10	15	15	17	39	125	6,56
550740	S1	190	10	20	15	17	39	125	5,41
550741	S1	190	10	30	15	17	39	125	4,25
	S1	240	10	15	15	22	39	125	7,15
	S1	240	10	20	15	22	39	125	5,94
550743	S1	240	10	30	15	22	39	125	4,74
550749	S1	240	12	15	15	28	46	125	9,94
550750	S1	240	12	20	15	22	46	125	8,04
550732	H	80	10	15	12	6	39	240	3,33
550733	H	80	10	20	12	6	39	240	2,71
550734	H	80	10	30	12	6	39	240	2,09
299406	S1	110	10	15	12	9	39	240	5,32
550735	S1	110	10	20	12	9	39	240	4,25
299402	S1	110	10	30	12	9	39	240	3,18
550736	S1	140	10	15	15	12	39	240	6,04
550737	S1	140	10	20	15	12	39	240	4,88
550738	S1	140	10	30	15	12	39	240	3,72
299407	S1	160	10	15	15	14	39	240	6,30
550739	S1	160	10	20	15	14	39	240	5,12
299403	S1	160	10	30	15	14	39	240	3,94
	S1	190	10	15	15	17	39	240	6,74
	S1	190	10	20	15	17	39	240	5,54
	S1	190	10	30	15	17	39	240	4,34

Stock item with art. numbers = Ahlsell delivery terms

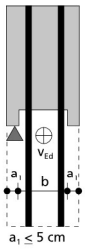
*Special production (Approx 1 week delivery time+ freight)

BETOMAX® does not accept any warranty claims for the listed values shown in the table. The structural engineer in charge has to verify and asses the calculations on plausibility. The calculations underlie product-specific values. An exchange with related products is only allowed in connection with a new static calculation.

Cases as defined by the German „Merkblatt Rückbiegen von Betonstahl [...]"

[1] Shortfall of minimum anchorage length according to „Merkblatt Rückbiegen".
[2] Hook width
[3] Two cases need to be assembled, loads given equal to Comax 160, case a, h=120 mm
[4] Installation according to ‚case f'

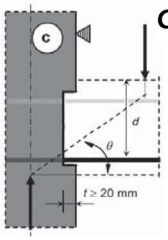
Case a



$\alpha 6 = 1{,}0$

Shear Force Longitudinal to the construction joint

Case c

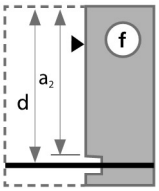


Direct bearing, c_{nom} = flexible
Capacities are reserved to d

$\alpha 6 = 1{,}0$

Shear Force Transverse to the construction joint

Case f



$a_2 \geq 50$ mm and the surface roughness needs to be prepared as indented according to DIN EN 1992-1-1, 6.2.5

The tie force of the construction needs to be on the lower bar.

Art. No.	Stirrup type	Strip width	Steel	Stirrup spacing	h	b	l	Vrd,i [kN/m]			Vrd,c [kN/m]			
								C20/25	C25/30	C30/37	d [mm]	C20/25	C25/30	C30/37
		(mm)	(mm)	e (mm)	(mm)	(mm)	(mm)		d					
299400	H	80	12	150	120[1]	80[2]	460	173[3]	201[3]	228[3]	100	49[4]	53[4]	57[4]
	H	80	12	300	120[1]	80[2]	460	96[3]	113[3]	130[3]	100	44[4]	49[4]	54[4]
	S1	110	12	150	120[1]	90	320	166	192	218	120	56	60	65
	H_2	110	12	150	120[1]	90	440	166	192	218	120	56	60	65
	S1	110	12	200	120[1]	90	460	128	147	167	120	53	59	65
	S1	110	12	300	120[1]	90	460	90	105	120	120	53	59	65
	S1	140	12	150	150	120	460	213	247	280	140	62	69	76
	S1	140	12	200	150	120	460	165	192	219	140	62	69	76
	S1	140	12	300	150	120	460	117	138	158	140	62	69	76
	S1	160	12	150	150	140	460	216	251	285	160	71	79	87
	S1	160	12	200	150	140	460	168	196	224	160	71	79	87
	S1	160	12	300	150	140	460	120	142	163	160	71	79	87
550747	S1	190	12	150	150	170	460	220	257	293	200	89	99	108
550748	S1	190	12	200	150	170	460	172	202	231	200	89	99	108
	S1	190	12	300	150	170	460	124	148	170	200	84	98	108
550749	S1	240	12	150	150	220	460	228	268	305	240	99	111	122
550750	S1	240	12	200	150	220	460	180	213	244	240	99	111	122
	S1	240	12	300	150	220	460	132	158	183	240	84	99	111
373296 550732	H	80	10	150	120[1]	60[2]	390	148[3]	174[3]	198[3]	100	44[4]	49[4]	54[4]
550733	H	80	10	200	120[1]	60[2]	390	117[3]	138[3]	158[3]	100	44[4]	49[4]	54[4]
550734 373297	H	80	10	300	120[1]	60[2]	390	85[3]	102[3]	118[3]	100	44[4]	49[4]	54[4]
299406	S1	110	10	150	120[1]	90	390	141	164	186	120	53	59	65
550735	S1	110	10	200	120[1]	90	390	110	128	146	120	53	59	65
299402	S1	110	10	300	120[1]	90	390	78	92	106	120	53	59	65
550736	S1	140	10	150	150	120	390	182	212	241	140	62	69	76
550737	S1	140	10	200	150	120	390	143	167	191	140	62	69	76
550738	S1	140	10	300	150	120	390	103	123	141	140	62	69	76
299407	S1	160	10	150	150	140	390	185	217	247	160	71	79	87
550739	S1	160	10	200	150	140	390	146	172	197	160	71	79	87
299403 299410	S1	160	10	300	150	140	390	107	127	147	160	70	79	82
299411	S1	190	10	150	150	170	390	191	224	256	200	89	99	108
550740	S1	190	10	200	150	170	390	152	179	206	200	89	99	108
550741	S1	190	10	300	150	170	390	112	134	156	200	70	82	82
	S1	240	10	150	150	220	390	200	236	271	240	102	114	125
	S1	240	10	200	150	220	390	161	191	221	240	102	114	123
550743	S1	240	10	300	150	220	390	121	146	171	240	70	82	82

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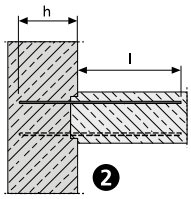
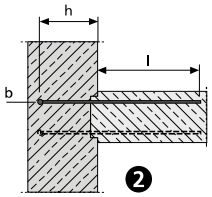
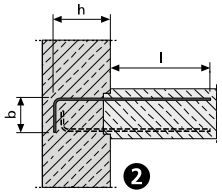
COMAX® special types



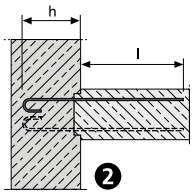
Type W
(Type W double leg)
Simple angle; two-section double angle (hook), also available with various steel diameters



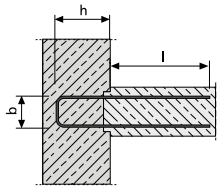
Type WH
(Type WH double leg)
Angle with hook in strip direction; two-section double angle (hook), also available with various steel diameters



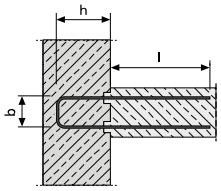
Type WS
(Type WS double leg)
Angle with lateral hook; two-section double angle (hook), also available with various steel diameters



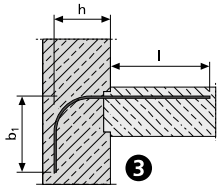
Type H
(Type H double leg) Hook, as standard 60 or 80 sizes



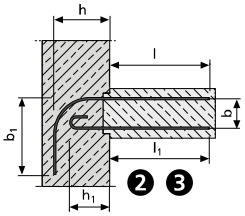
Type S1
Inserted stirrup in one strip



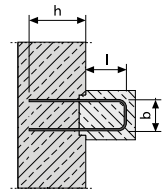
Type B
Wide joint, inserted stirrup in two strips



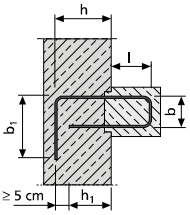
Type BA
Rigid joint, type BA with bending roll 10 ds



Type BA with compr. bar
Rigid joint type BA ❸ with bending roll 10 ds, different top/bottom steel diameters available ❷

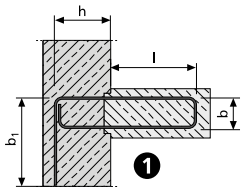


Type KO [1.)]
Console type, open stirrup

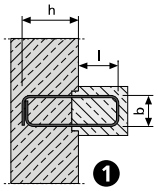


Type KH [1.)]
Console, half-open stirrup
h_1 max = h – 5 cm

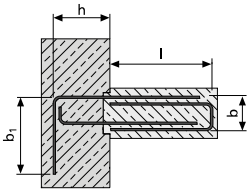
Also with a bending roll of 10 ds available.



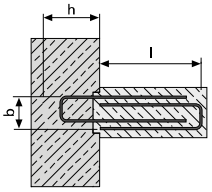
Type BK [1.)]
Console, closed stirrup, only for stirrup widths B = 90, 120, 140, 170 and 220 mm possible



Type K [1.)]
Console, closed stirrup, only for stirrup widths B = 90, 120, 140, 170 and 220 mm possible

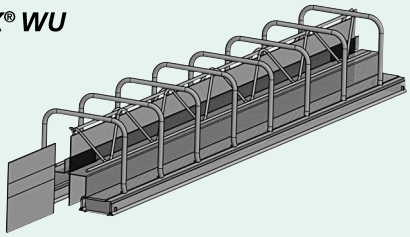


Type KHS
Console type for long cantilevers with separate inserted stirrup. Provided stirrup must be wired after bending-out operation



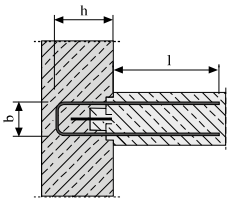
Type KS
Console type for long cantilevers with separate inserted stirrup. Provided stirrup must be wired after bending-out operation

COMAX® WU



COMAX® WU – the water proof continuity strip

- Particular for the use of continuity strips within waterproof building components
- A combination of the *COMAX®* technology and our proven *COMAX® Board* system
- A coated joint strip FB 120 is used as a waterproofing
- Standard length 1.25 m; box height 30 mm
- *COMAX® Type B* with joint strip min. b = 16 cm max. b = 48 cm



Item No.	*Designation*	*Rebar Ø mm*	*Rebar centres e in cm*	*h cm*	*b cm*	*l cm*
41299999	COMAX® WU Type B	Please share measurements when ordering				
30791634	AF 100 FB k=30 Splice plate welded on COMAX®					

COMAX® continuity strips

❶ Only for COMAX® P in stirrup widths: b = 90, 120, 140, 170 and 220 mm possible

❷ Double-shear as double angle (hook) also available in different steel diameters

❸ **Type BA** with bending roll 10 ds

❹ **Element Width B** (nominal value) COMAX® P: **B** = 60, 80, 110, 140, 160, 190, 220, 240 mm COMAX® Q / L: **B** = 110, 140, 160, 190, 240 mm

❺ **Stirrup Distance e** COMAX® P and COMAX® Q / L: Stock items with **e** = 15, 20 and 25 cm
Special types with **e** = variable (COMAX® L only in 5 cm grid)

❻ **Element length L** COMAX® P: Stock item with L = 0.83, 1.25 and 2.50 m Special types, any up to L = 2.50 m
COMAX® Q / L: Stock item with L = 1.25 m Special types, any up to L = 1.25 m

❼ **Stirrup width b** COMAX® P and COMAX® Q / L: **b** = (nominal width - 20 mm) Special holes for all types on request

1.) The stirrups in the sheet are bent conically depending on the stirrup distance and length L