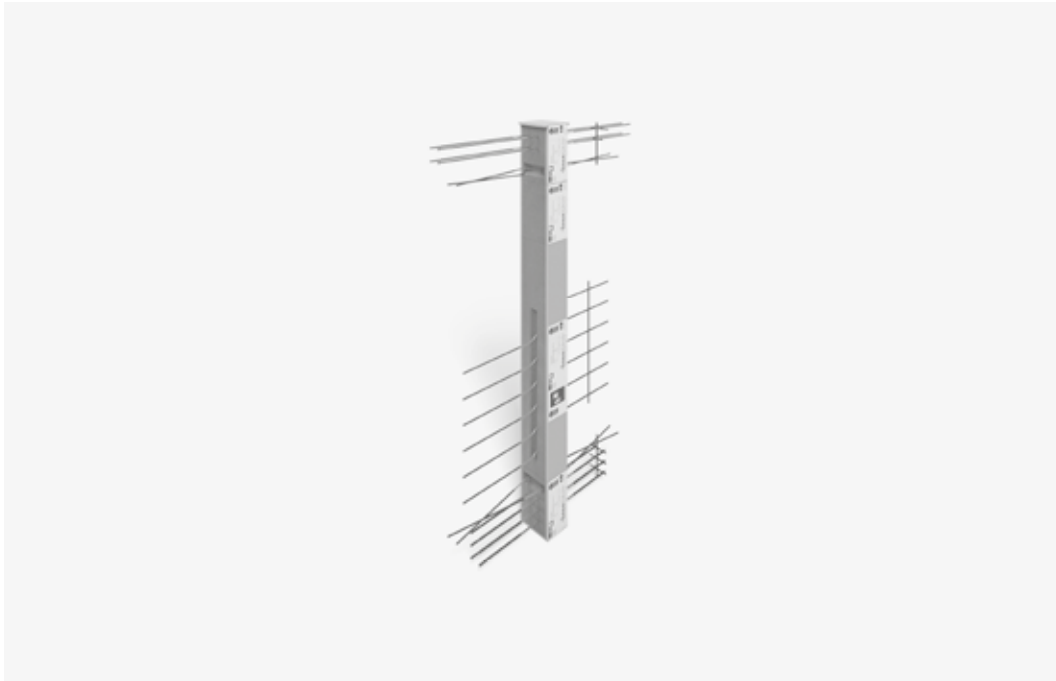


Schöck Isokorb® XT type W



Schöck Isokorb® XT type W

Suitable for cantilevered sheared walls. It transmits negative moments and positive shear forces. In addition horizontal shear forces are transmitted.

XT
type W

Reinforced concrete – reinforced concrete

Element arrangement | Installation cross section

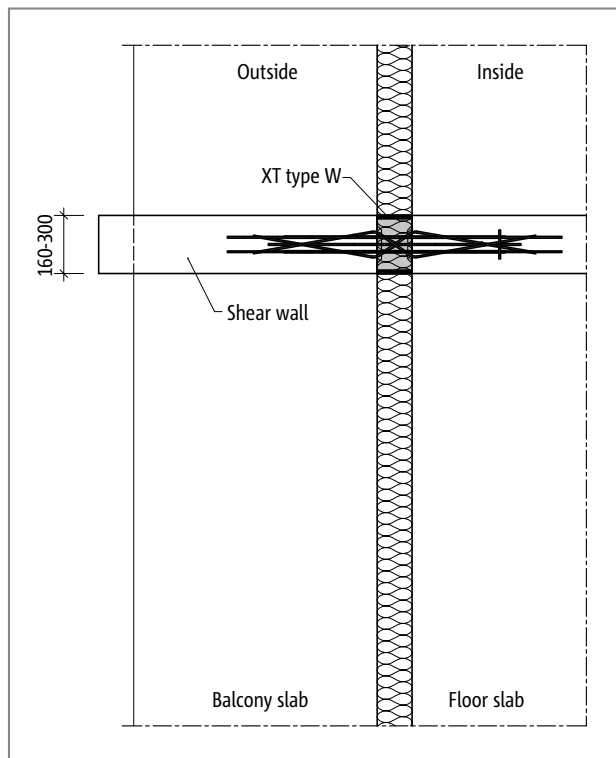


Fig. 266: Schöck Isokorb® XT type W: Plan view; balcony construction with thermally insulated load-bearing shear walls

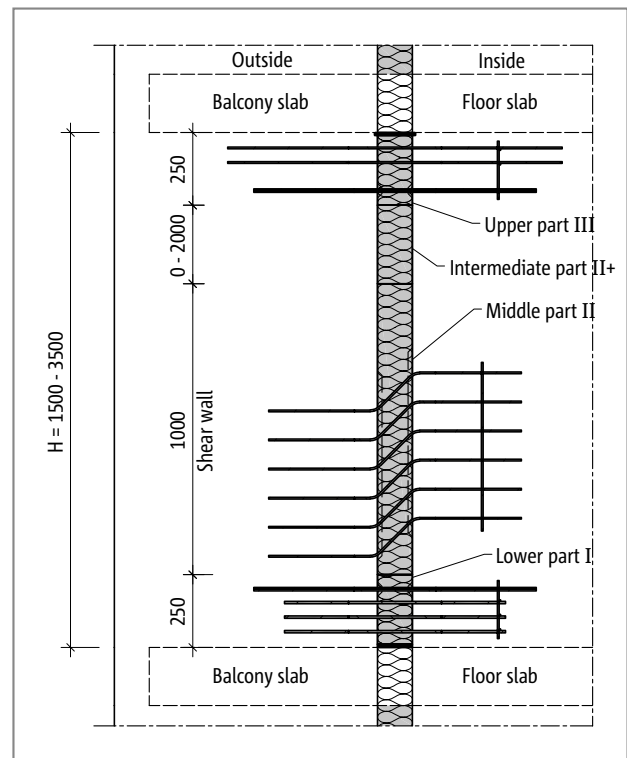


Fig. 267: Schöck Isokorb® XT type W: Balcony construction with thermally insulated load-bearing shear walls

i Element arrangement

- ▶ The Schöck Isokorb® XT type W consists of at least 3 parts: Lower part I, Middle part II, Upper part III. Depending on the height an insulating Intermediate part II+ is required.

Product selection | Type designations | Special designs

Schöck Isokorb® XT type W variants

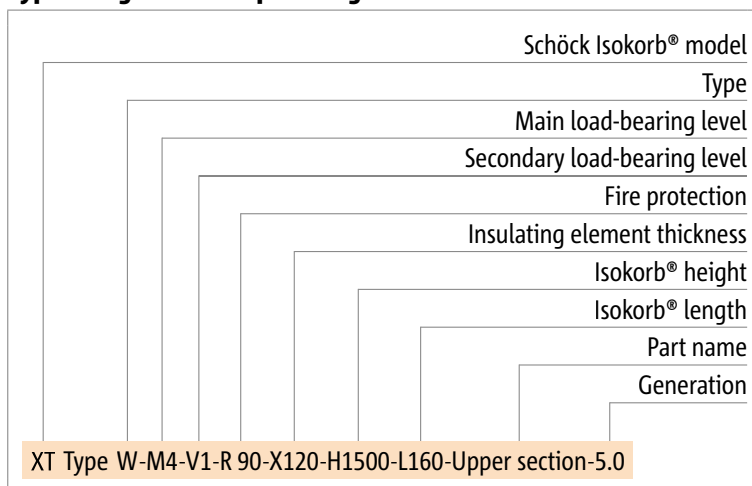
The configuration of the Schöck Isokorb® XT type W can be varied as follows:

- ▶ Main load-bearing level: M1 to M4
- ▶ Secondary load-bearing level: V1
- ▶ Fire resistance class:
R90 (standard): Top fire protection board, projecting on both sides by both 10 mm
- ▶ Insulation element thickness:
X120 = 120 mm
- ▶ Isokorb® height:
H = 1500 - 3500 mm
- ▶ Isokorb® length:
L = 150 - 300 mm with R0
L = 160 - 300 mm with R90
- ▶ Part designation: Upper part
- ▶ Generation:
5.0

i Variants

- ▶ Please specify the required dimensions when ordering.

Type designations in planning documents



i Special designs

Please contact the design support department if you have connections that are not possible with the standard product variants shown in this information (contact details on page 3).

C25/30 design

Schöck Isokorb® XT type W		M1	M2	M3	M4
Design values with		Concrete strength class \geq C25/30			
		$M_{Rd,y}$ [kNm/element]			
H [mm]	1500 - 2490	-58.6	-101.4	-154.9	-113.6
	2000 - 2490	-80.8	-140.0	-213.9	-156.9
	2500 - 3500	-103.0	-178.5	-272.8	-200.2
		$V_{Rd,z}$ [kN/element]			
H [mm]	1500 - 3500	52.2	92.7	144.9	208.6
			$V_{Rd,y}$ [kN/element]		
	1500 - 3500	± 13.4	± 13.4	± 13.4	± 13.4

Schöck Isokorb® XT type W	M1	M2	M3	M4
Tension bars	4 \varnothing 6	4 \varnothing 8	4 \varnothing 10	4 \varnothing 12
Compression bars	6 \varnothing 8	6 \varnothing 10	6 \varnothing 12	6 \varnothing 14
Shear force bars vertical	6 \varnothing 6	6 \varnothing 8	6 \varnothing 10	6 \varnothing 12
Shear force bars horizontal	2 \times 2 \varnothing 6	2 \times 2 \varnothing 6	2 \times 2 \varnothing 6	2 \times 2 \varnothing 6
B_{min} with R0 [mm]	150	150	150	150
B_{min} with R90 [mm]	160	160	160	160

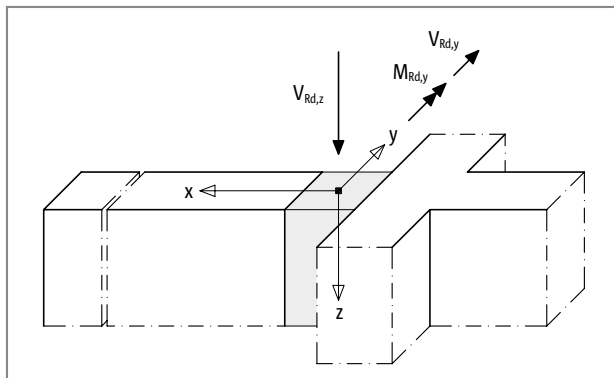


Fig. 268: Schöck Isokorb® XT type W: Sign rule for the design

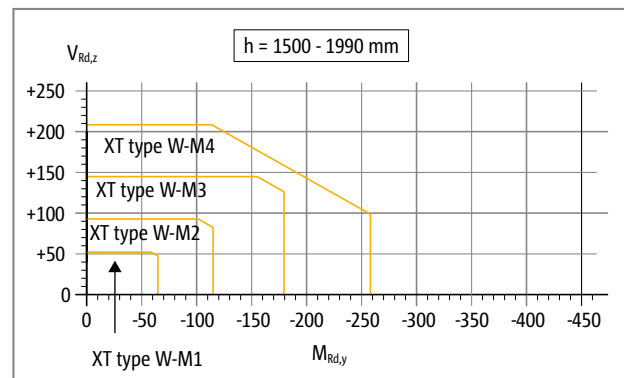


Fig. 269: Schöck Isokorb® XT type W: Interaction diagram

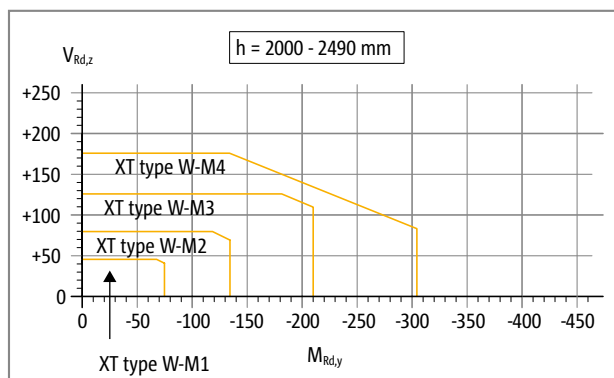


Fig. 270: Schöck Isokorb® XT type W: Interaction diagram

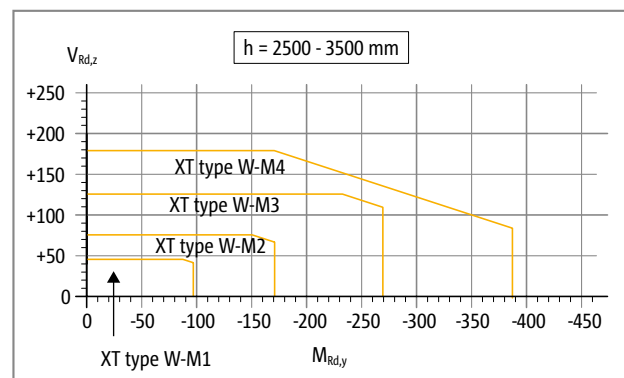


Fig. 271: Schöck Isokorb® XT type W: Interaction diagram

i Notes on design

- ▶ Moments from wind loading are to be accepted by the stiffening effect of the balcony slab. If this is not possible then M_{Edz} can be transmitted by the additional arrangement of a Schöck Isokorb® XT type D. The XT type D in this case is installed in a vertical position in place of the insulating intermediate part.
- ▶ Poor bonding conditions (bonding range II) are the basis for the determination of the tension bar anchoring lengths.
- ▶ The indicative minimum concrete strength class of the external structural component is C32/40.

Expansion joint spacing

Maximum expansion joint spacing

If the structural component length exceeds the maximum expansion joint spacing e , expansion joints must be installed in the exterior concrete structural components at right angles to the insulation plane, in order to limit the effect as a result of temperature changes.

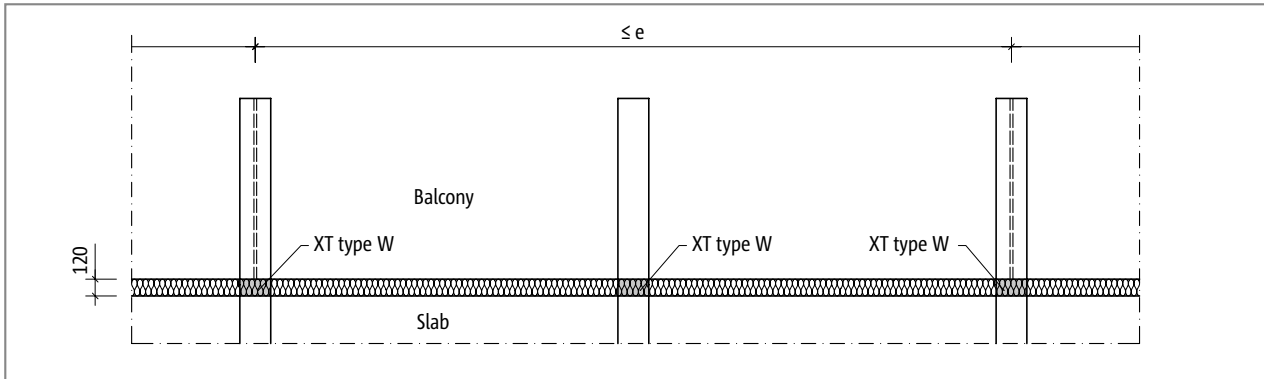


Fig. 272: Schöck Isokorb® XT type W: Expansion joint arrangement

Schöck Isokorb® XT type W		M1	M2	M3	M4
Maximum expansion joint spacing e		e [m]			
Insulating element thickness [mm]	120	23.0	21.7	19.8	17.0

i Expansion joints

- ▶ The expansion joint spacings can be enlarged, if there is no fixed connection between balcony slabs and shear walls, e. g. through laying of a sliding foil.

Product description

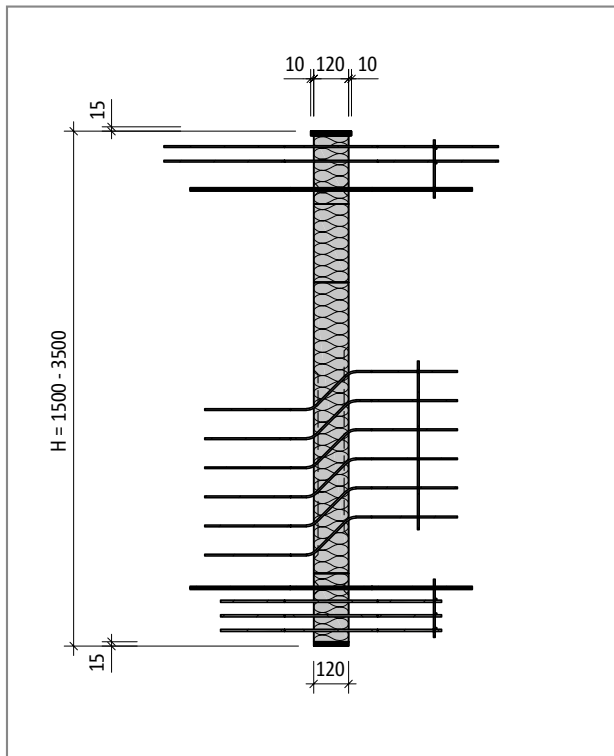


Fig. 273: Schöck Isokorb® XT type W-M1: Product section

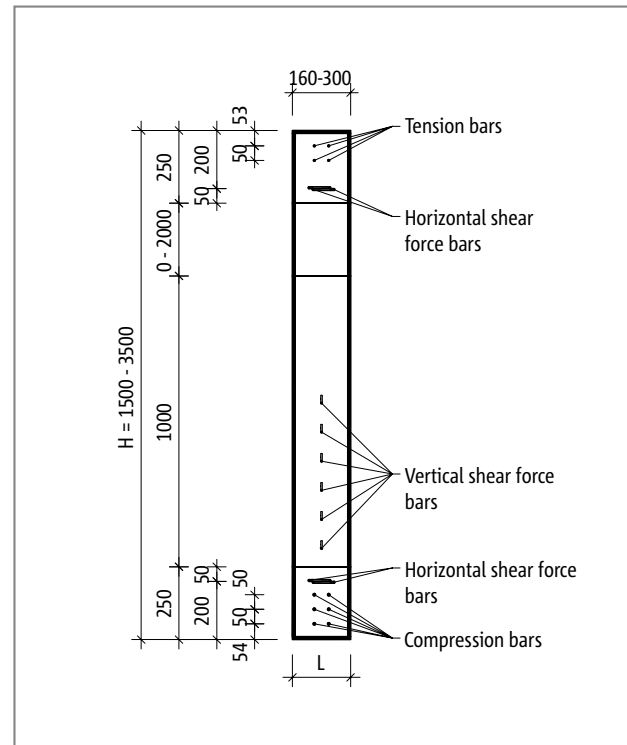


Fig. 274: Schöck Isokorb® XT type W-M1: Product view

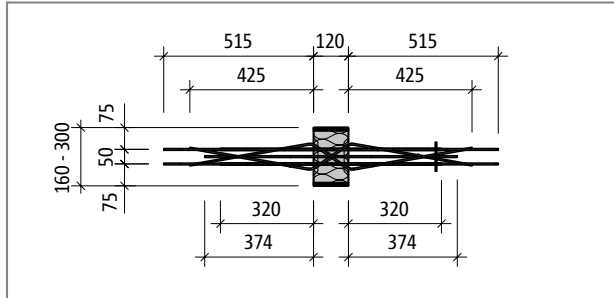


Fig. 275: Schöck Isokorb® XT type W-M1: Product plan view

i Product information

- Download further product plan views and cross-sections at www.schoeck.co.uk/download

On-site reinforcement

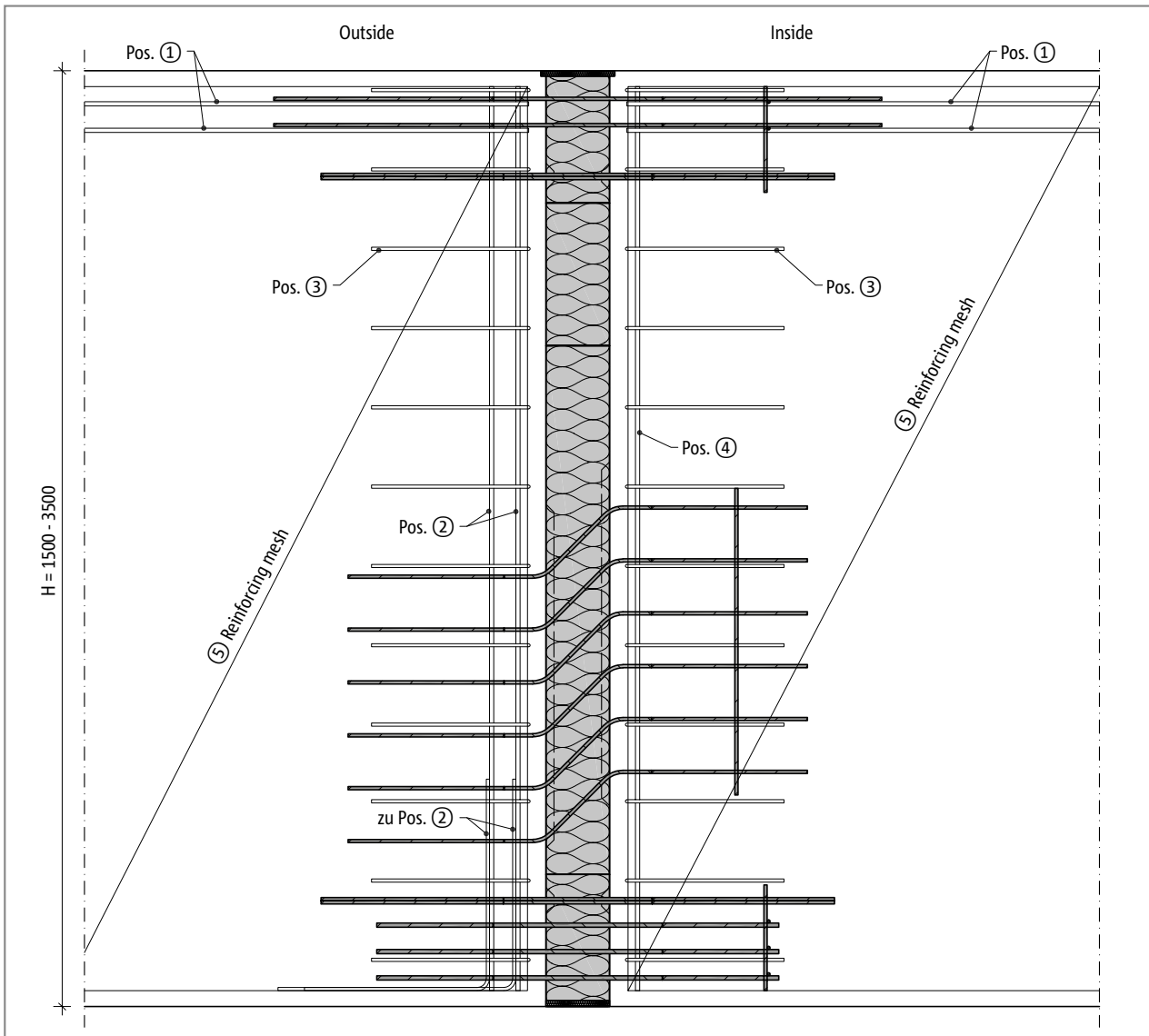


Fig. 276: Schöck Isokorb® XT type W: On-site reinforcement; section

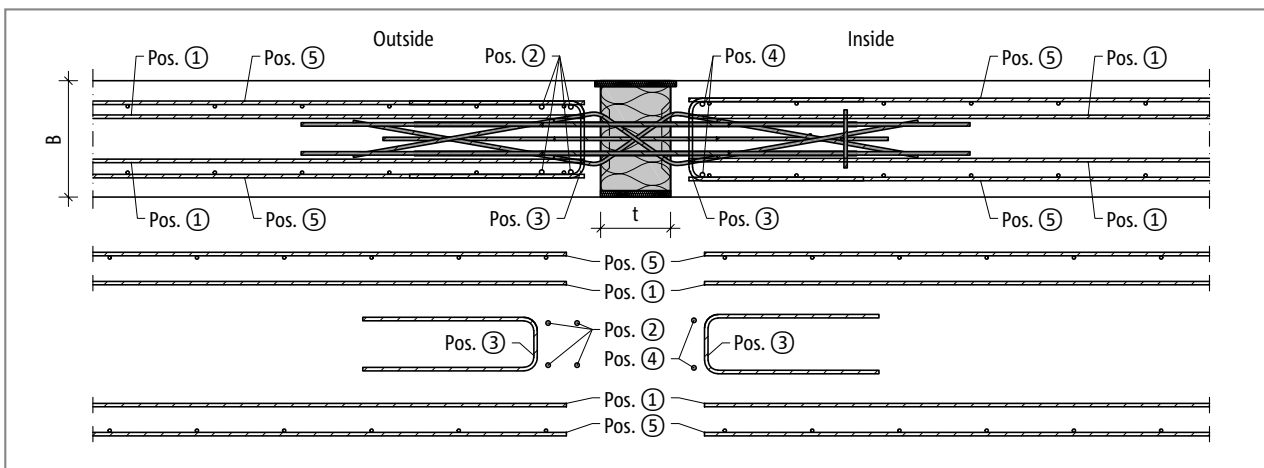


Fig. 277: Schöck Isokorb® XT type W: On-site reinforcement; plan views

XT
type W

Reinforced concrete – reinforced concrete

On-site reinforcement

Recommendation for the on-site connection reinforcement

Details of the lapping reinforcement for Schöck Isokorb® with a loading of 100 % of the maximum design moment with C25/30; positively selected: a_s lapping reinforcement ≥ a_s Isokorb® tension bars/compression members.

Schöck Isokorb® XT type W	M1	M2	M3	M4
On-site reinforcement	Concrete strength class ≥ C25/30			
Pos. 1 Lapping reinforcement				
Pos. 1	4 · H8	4 · H8	4 · H10	4 · H12
Lap length l ₀ [mm]	483	644	805	966
Pos. 2 Suspension reinforcement (anchoring with stirrup or L)				
Pos. 2	4 · H8	4 · H10	4 · H12	4 · H16
Pos. 3 and Pos. 4 Side reinforcement				
Pos. 3 and 4	acc. to the specifications of the structural engineer			
Pos. 5 Wall reinforcement and lapping reinforcement shear force bar				
Pos. 5	acc. to the specifications of the structural engineer			

i Information about on-site reinforcement

- ▶ Alternative connection reinforcement is possible. For the determination of the lap length, the rules according to BS EN 1992-1-1 (EC2) and BS EN 1992-1-1/NA apply. A reduction of the required lap length with m_{Ed}/m_{Rd} is permitted.
- ▶ The indicative minimum concrete strength class of the external structural component is C32/40.

Installation

i Installation

The Schöck Isokorb® XT type W is supplied in various components (lower part, middle part, intermediate part, top part).

- ▶ Depending on the quantity ordered, same components on one pallet, with a view to transport safety.

✓ Check list

- Have the loads on the Schöck Isokorb® connection been specified at design level?
- Has the cantilevered system length or the system support width been taken as a basis?
- With the selection of the design table is the relevant concrete strength class taken into account?
- Are the maximum allowable expansion joint spacings taken into account?
- Are the requirements with regard to fire protection explained and is the appropriate addendum entered in the Isokorb® type description in the implementation plans?
- Have the requirements for on-site reinforcement of connections been defined in each case?

Imprint

Published by: Schöck Ltd
Staniford House
4 Wedgwood Road
Bicester
Oxfordshire
OX26 4UL
Telephone: 01865 290 890

Copyright: © 2019, Schöck Ltd
The contents of this publication must not be passed on to third parties, neither in full nor in part, without the written authorisation of Schöck Ltd. All technical details, drawings etc. are protected by copyright laws.

Subject to technical changes
Date of publication: November 2020

Schöck Ltd
Staniford House
4 Wedgwood Road
Bicester
Oxfordshire
OX26 4UL
Telephone: 01865 290 890
design@schoeck.co.uk
www.schoeck.co.uk

