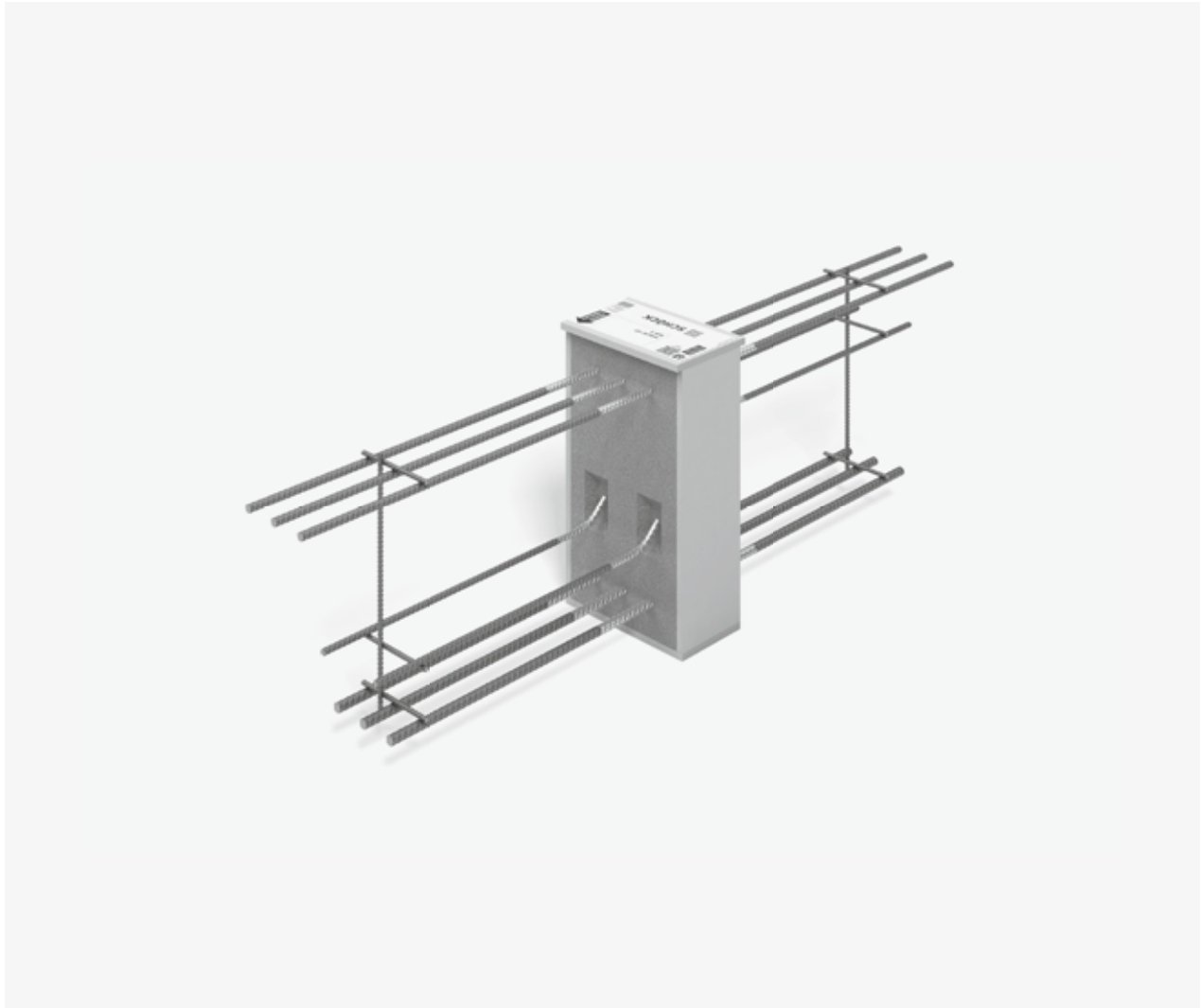


Schöck Isokorb® XT type B



Schöck Isokorb® XT type B

Load-bearing thermal insulation element for cantilever beams and downstand beams. The element transfers negative moments and positive shear forces.

XT
type B

Reinforced concrete – reinforced concrete

Element arrangement | Installation cross sections

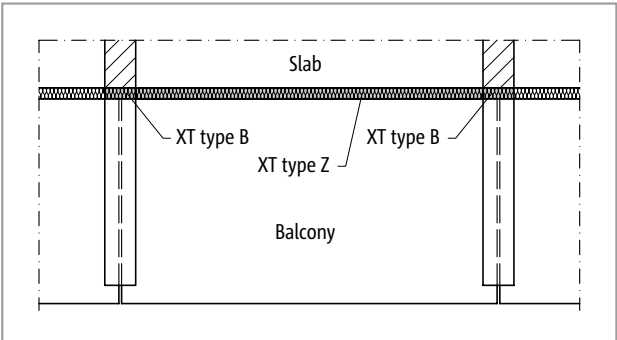


Fig. 298: Schöck Isokorb® XT type B: Balcony construction with freely cantilevered downstand beams (prefabricated balcony)

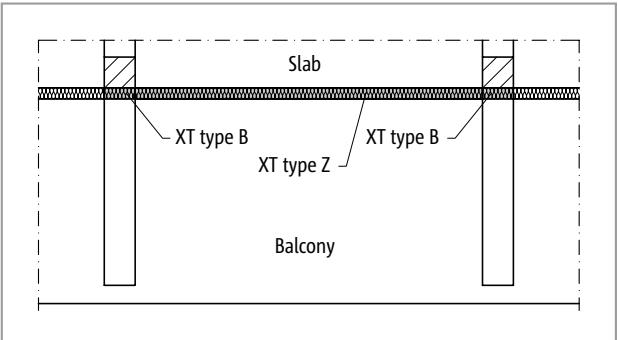


Fig. 299: Schöck Isokorb® XT type B: Balcony construction with freely cantilevered downstand beams

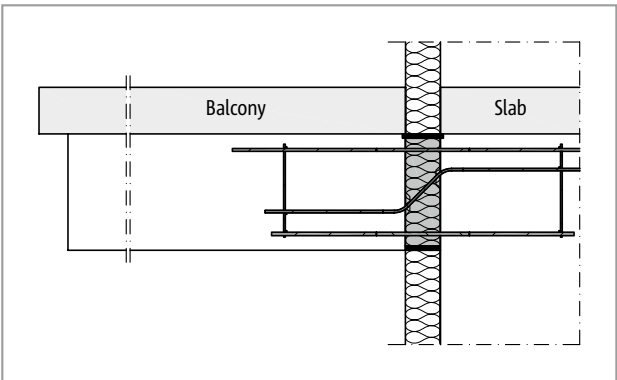


Fig. 300: Schöck Isokorb® XT type B: Balcony construction with freely cantilevered downstand beams (prefabricated balcony)

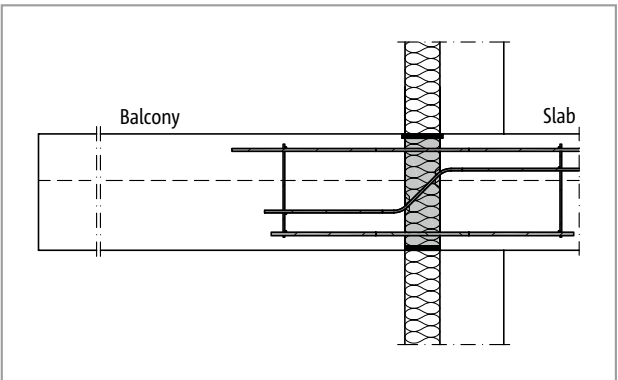


Fig. 301: Schöck Isokorb® XT type B: Balcony construction with freely cantilevered downstand beams

XT
type B

Reinforced concrete – reinforced concrete

Product selection | Type designations | Special designs

Schöck Isokorb® XT type B variants

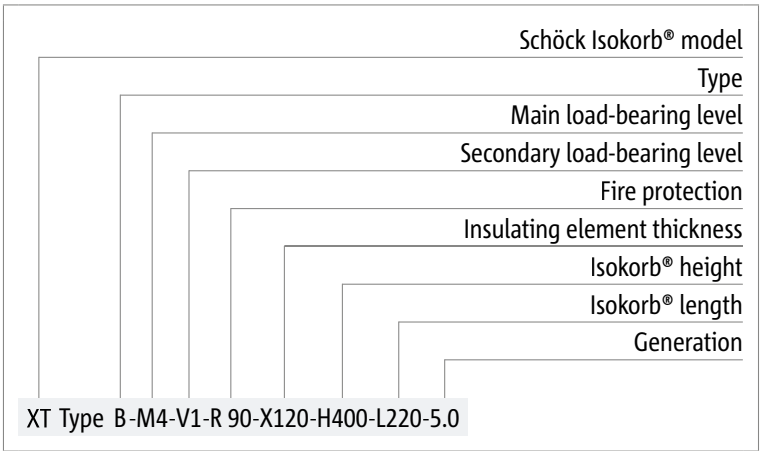
The configuration of the Schöck Isokorb® XT type B can vary as follows:

- 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 = 400 mm
- Isokorb® length:
L = 220 mm
- Generation:
5.0
- Bonding range:
VB2 medium bonding (Bonding range II)

■ Variants

- State desired dimensions on ordering.

Type designations in planning documents



■ 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 B		M1	M2	M3	M4
Design values with		Concrete strength class \geq C25/30			
		$M_{Rd,y}$ [kNm/element]			
Isokorb® height H [mm]	400	-29.6	-35.4	-47.7	-71.1
		$V_{Rd,z}$ [kN/element]			
Isokorb® height H [mm]	400	30.9	48.3	69.5	94.7

Schöck Isokorb® XT type B		M1	M2	M3	M4
Placement with		Isokorb® height H [mm]			
		400	400	400	400
Isokorb® length [mm]		220	220	220	220
Tension bars		3 \varnothing 10	3 \varnothing 12	3 \varnothing 14	3 \varnothing 16
Tension bars VB2 (poor)		835	1000	1160	1870
Shear force bars		2 \varnothing 8	2 \varnothing 10	2 \varnothing 12	2 \varnothing 14
Compression bars		3 \varnothing 12	3 \varnothing 14	3 \varnothing 16	3 \varnothing 20
Compression bar length		460	535	675	820

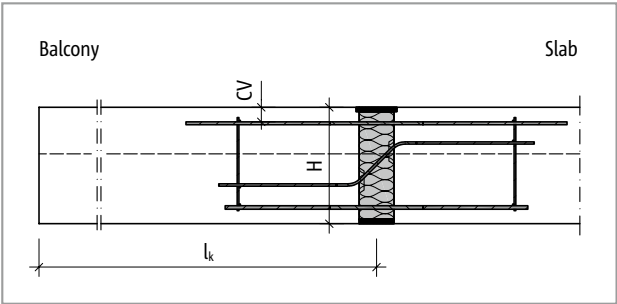


Fig. 302: Schöck Isokorb® XT type B: Static system

Notes on design

- Poor bonding conditions (bonding range II) are the basis for the determination of the compression member 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.

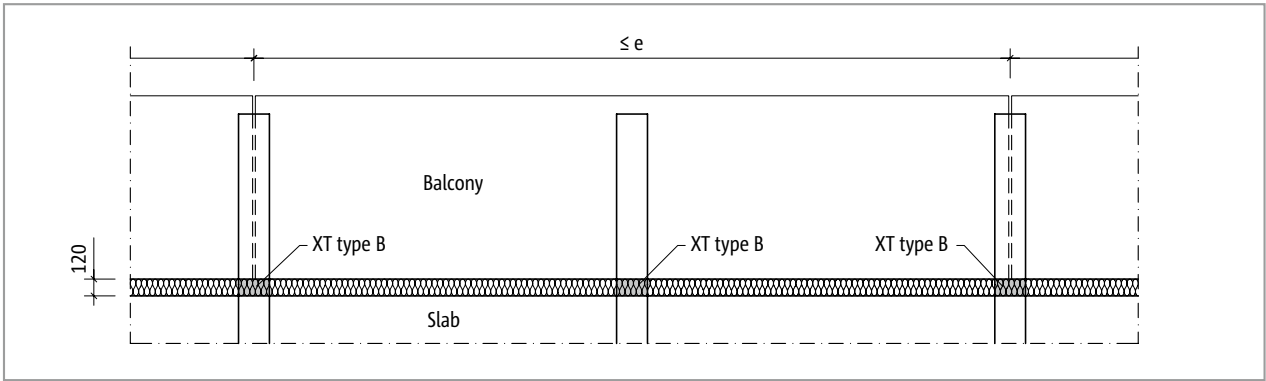


Fig. 303: Schöck Isokorb® XT type B: Expansion joint arrangement

Schöck Isokorb® XT type B		M1	M2	M3	M4
Maximum expansion joint spacing when		e [m]			
Insulating element thickness [mm]	120	19.8	17.0	15.5	13.5

i Expansion joints

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

Product description

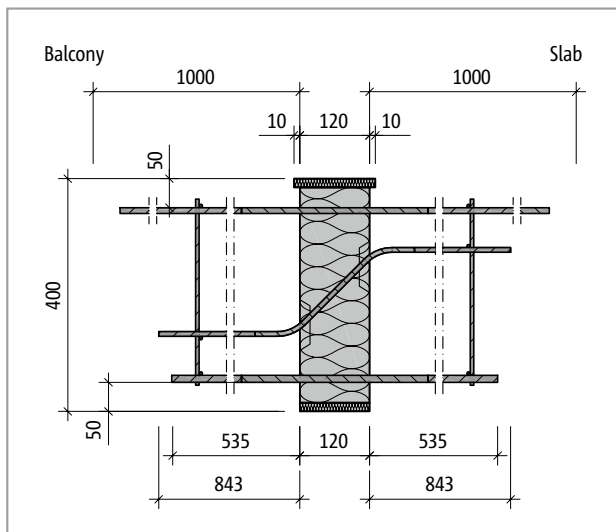


Fig. 304: Schöck Isokorb® XT type B: Product section

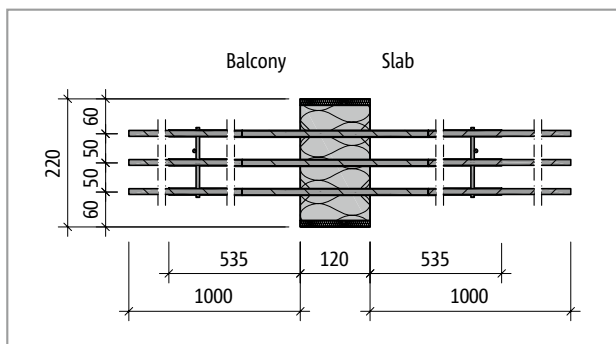


Fig. 305: Schöck Isokorb® XT type B: Product plan view

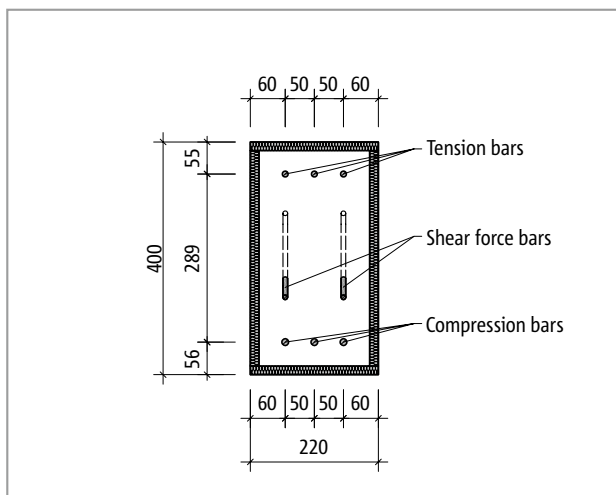


Fig. 306: Schöck Isokorb® XT type B: Product view

Product information

- Download further product plan views and cross-sections at cad.schoeck.co.uk

On-site reinforcement | Installation instructions

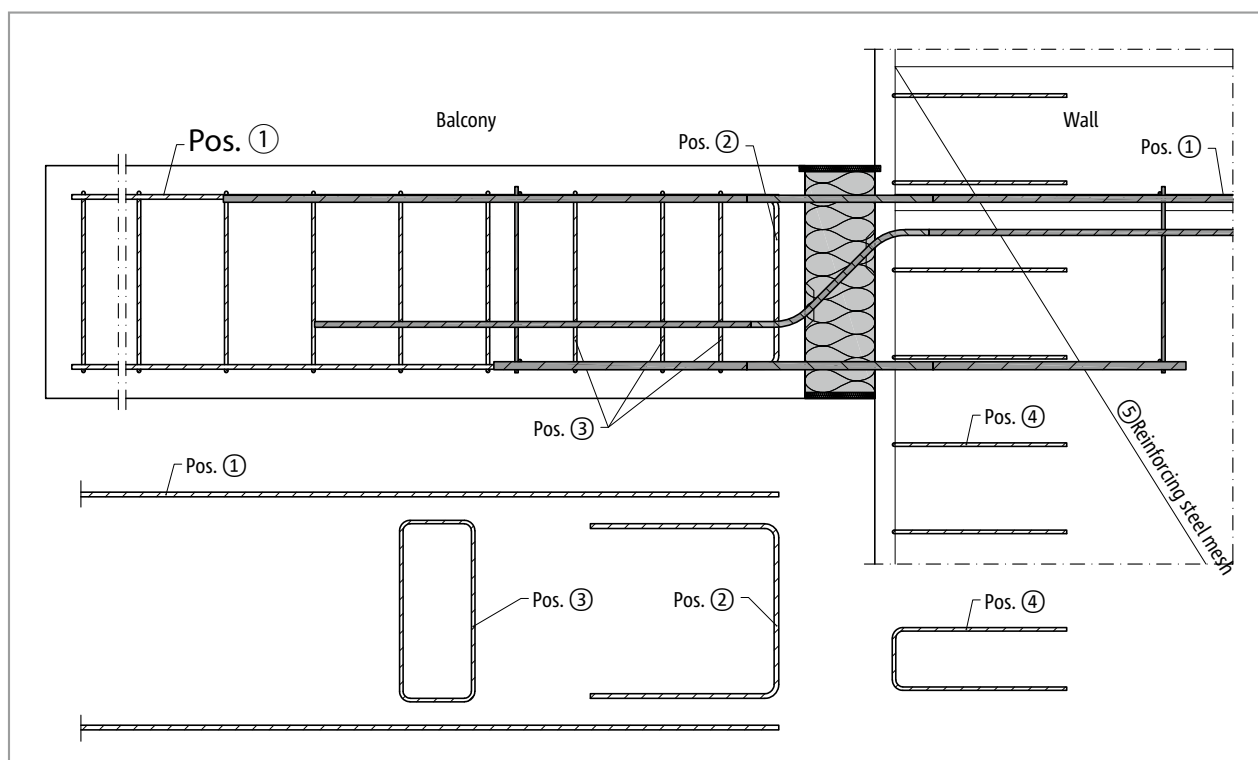


Fig. 307: Schöck Isokorb® XT type B: On-site reinforcement

Recommendation for the on-site connection reinforcement

Details on the lapping reinforcement for Schöck Isokorb® with a loading of 100% of the maximum design moment with C25/30; structurally selected: a_s lapping reinforcement $\geq a_s$ Isokorb® compression/tension bars.

Schöck Isokorb® XT type B	M1	M2	M3	M4
On-site reinforcement	Concrete strength class ≥ C25/30			
Overlapping reinforcement				
Pos. 1	3 • H10	3 • H12	3 • H16	3 • H16
Lap length VB2 (poor)	805	966	1127	1770
Suspension reinforcement				
Pos. 2 [cm²]	0.71	1.11	1.60	2.18
Stirrup				
Pos. 3	acc. to the specifications of the structural engineer			
Side reinforcement at the free edge				
Pos. 4	according to BS EN 1992-1-1 (EC2), 9.3.1.4			
Wall reinforcement and overlap reinforcement shear force bar				
Pos. 5	acc. to the specifications of the structural engineer			

Information about on-site reinforcement

- Alternative connection reinforcements are possible. The rules as per BS EN 1992-1-1 (EC2) and BS EN 1992-1-1/NA apply for the determination of the lap length. 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 instructions

The current installation instruction can be found online under:
www.schoeck.com/view/6430

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 clarified and is the appropriate supplement entered in the Isokorb® type designation and in the implementation plans?
- ☐ Have the requirements for on-site reinforcement of connections been defined in each case?