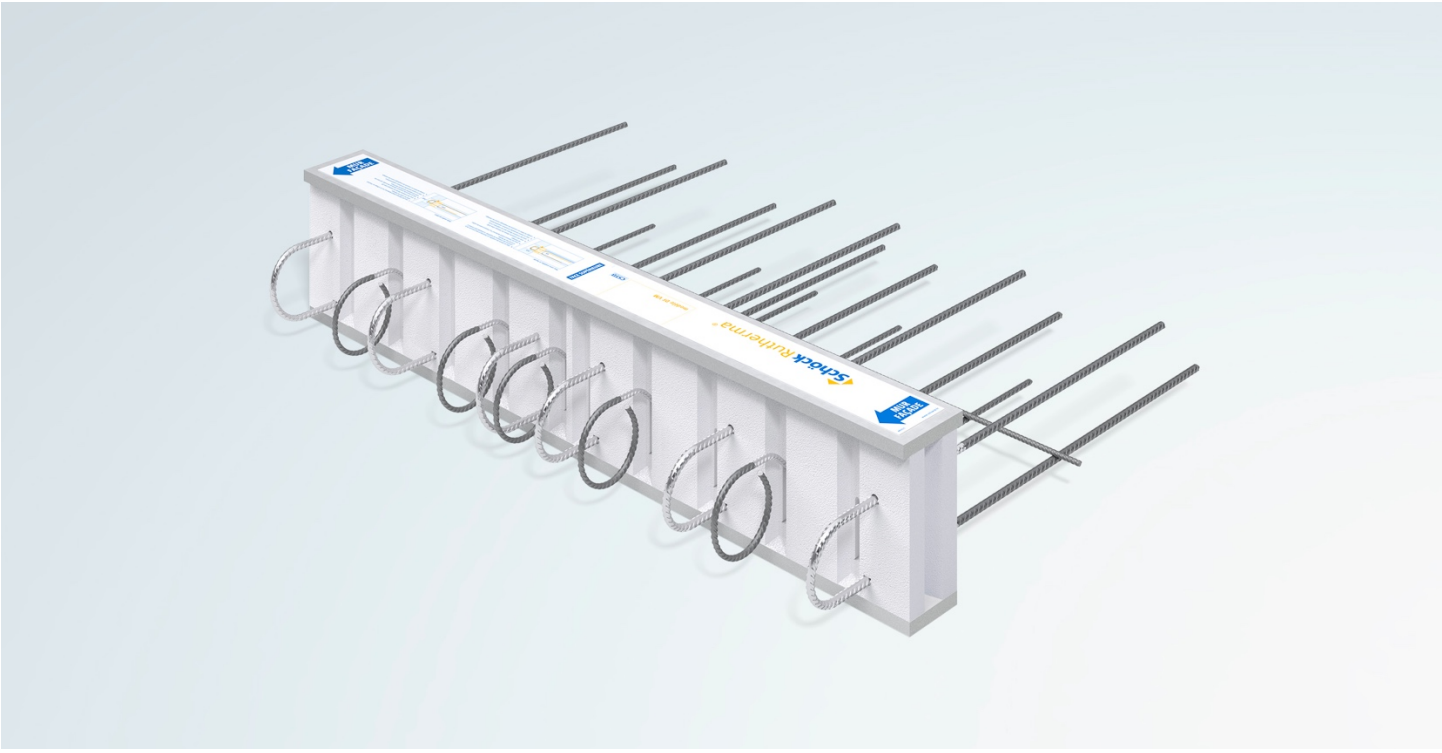


Technical Information

Schöck Isokorb® T Type CO

Schöck North America
www.schock-na.com
+1 855 572 4625

NA / Metric and Imperial | Last updated July 2020

Schöck Isokorb® T Type CO for Concrete Slab Edges

Product description

The Schöck Isokorb® T Type CO structural thermal break is used to transmit vertical shear and moment forces in a concrete slab edge connection. It transmits light loads from the exterior slab edge to the interior structure of the building. Loading examples include minor dead loads from brick veneer and snow loads.

The Isokorb® module uses stainless steel looped bars to resist compression and tension forces and consequential bending moments from the loading. Additional steel bars that are bent at a 45° angle rising through the insulation of the product resist the shear loads imposed on the slab edge. The product comes in various sizes to accommodate different slab heights and edge projection lengths. If the slab edge projection extends beyond 400mm (15 ½") another Isokorb® product suitable for a small balcony would be recommended to accommodate that connection.

The insulation body of this product is expanded polystyrene (Styropor®) with the following characteristics:

- conductivity in SI: 0.035 [W/(m*K)]
- conductivity in IP: 0.243 [BTU*in/ft^2*h*°F]
- RSI: 0.72
- R-value per inch: 4.1

AESTUVER fire protection plates enclose the top and bottom surfaces of the product to provide an assembly fire rating of 2 hours when poured into a concrete slab.

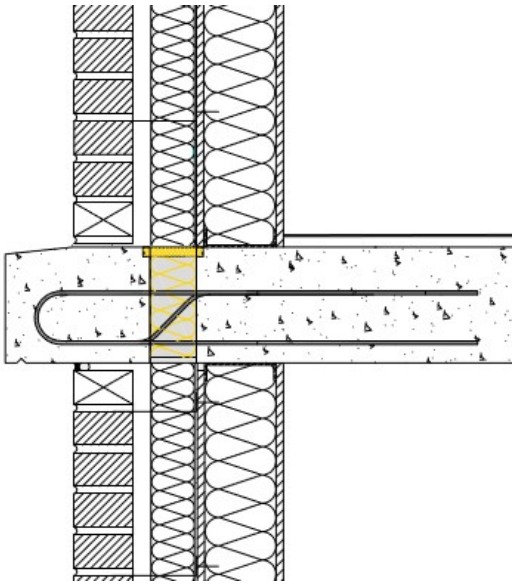


Figure 1. Description of Isokorb® T Type CO assembly

Product Drawings

The images below show a typical layout of the product.

The tension/compression loop may be extended to accommodate longer slab edges. The minimum slab edge is 150mm from the edge of the insulation due to the shear bar loop which shall extend at least 125mm from the edge of the insulation.

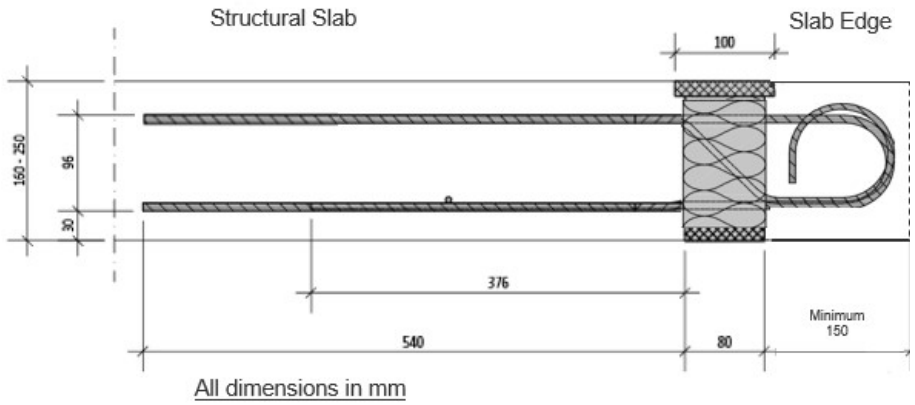


Figure 2. Section View

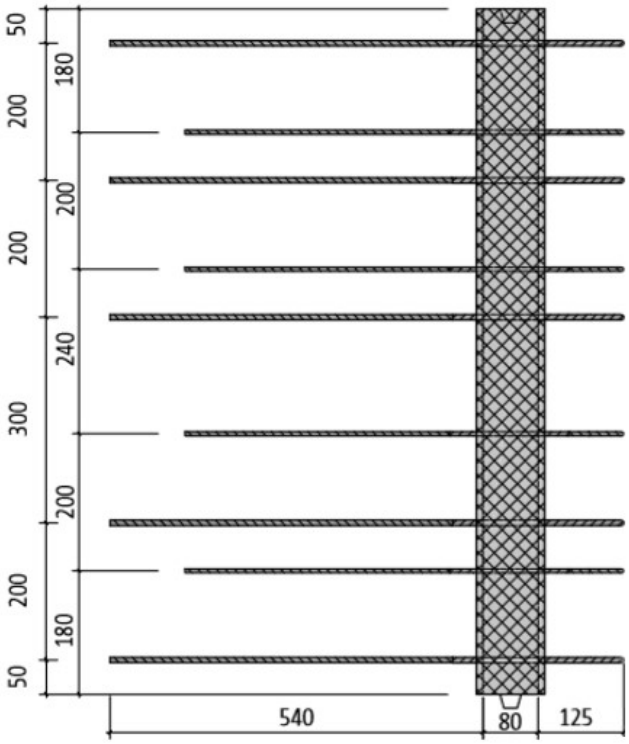
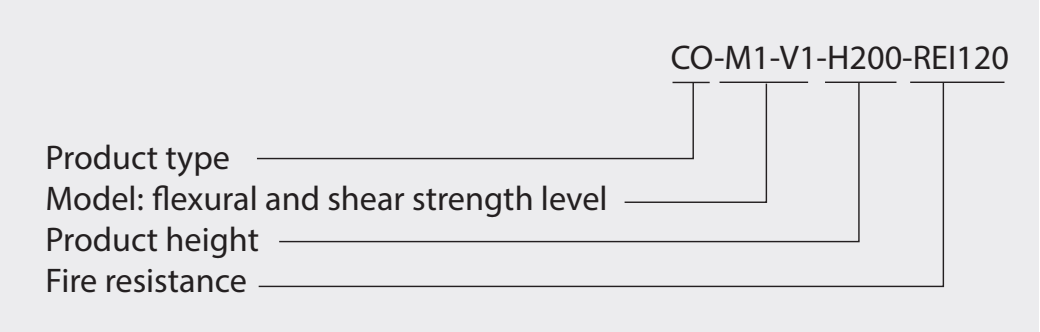


Figure 3. Plan View, T Type CO M3-V1 Example

Type Designation

The following product naming system is used to specify the attributes of the Schöck Isokorb® product as required in the structural design. This naming system ensures that the product is manufactured in accordance with the required specifications.

There is also a short form of each product name to facilitate product identification on site during installation. Every Schöck Isokorb® product comes with both its full production designation and short-form name printed on the label on each unit to ensure the product type is clearly marked. The shop drawings will always show the full product name as well as the short-form installation name for cross referencing. Only the short-form product names are included on the shop drawings.



Product Capacity Table

Isokorb® Type	Reinforcing Steel number x diameter (mm)	Unit Length (m / in)	Flexural strength (kN*m / kip*ft)	Shear strength (kN / kip)
CO M1-V1	Tensile 1 x ø8 Shear 2 x ø6 Compression 1 x ø8	1.00 / 39.4	1.40 / 1.03	17.4 / 3.90
CO M2-V1	Tensile 3 x ø8 [1)] Shear 3 x ø6 [2)] Compression 3 x ø8	1.00 / 39.4	4.20 / 3.10	26.1 / 5.80
CO M3-V1	Tensile 5 x ø8 Shear 4 x ø6 Compression 5 x ø8	1.00 / 39.4	7.00 / 5.16	34.8 / 7.80
CO M4-V1	Tensile 6 x ø8 Shear 5 x ø6 Compression 6 x ø8	1.00 / 39.4	8.40 / 6.20	43.5 / 9.80
CO M5-V1	Tensile 8 x ø8 Shear 7 x ø6 Compression 8 x ø8	1.00 / 39.4	11.2 / 8.26	60.8 / 13.7
CO M6-V1	Tensile 10 x ø8 Shear 10 x ø6 Compression 10 x ø8	1.00 / 39.4	14.0 / 10.3	86.9 / 19.5

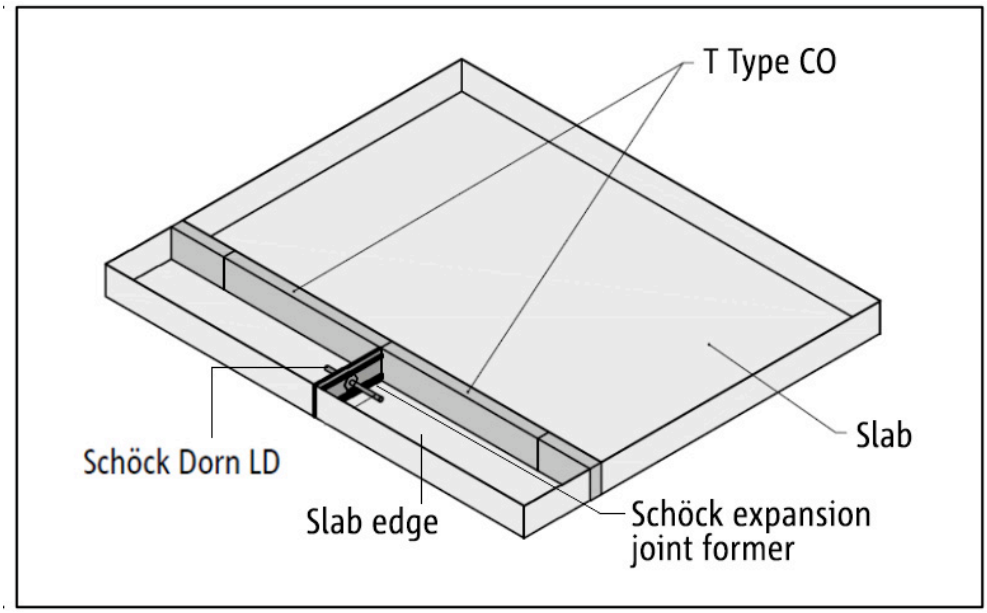
[1)] 8mm = 5/16”
[2)] 6mm = 1/4”

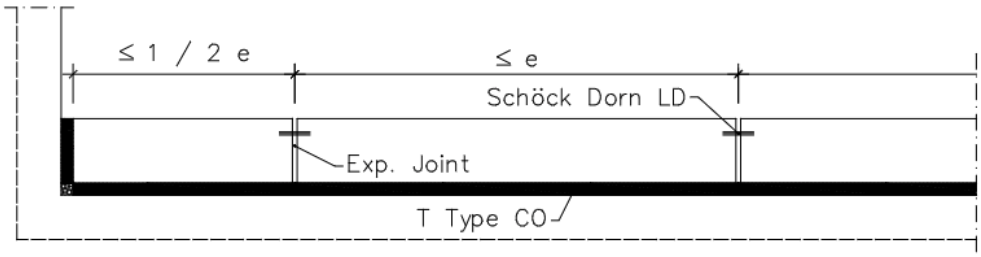
Notes:

- Stainless steel bars with a yield strength of 500 MPa (72.5 ksi) are used in this product
- Minimum concrete cylinder compressive strength of 25 MPa (3,650 psi) is assumed for capacity calculations.

Installation Recommendations:

- Schöck Isokorb® T Type CO provides all the required longitudinal reinforcement in the slab edge projections.
- A minimum of 10M or #3 lateral reinforcement is required through the Isokorb® shear bar loop and spaced out along the slab edge projection as specified by the Engineer of Record.
- Ensure that the concrete is poured evenly on either side of the thermal break and well vibrated.





NOTE: Maximum distance between expansion joints shall be e ≤13 m (42 ft)

Schöck Isokorb® T Type CO for Slab Edge Connections
Installation Checklist

- ❑ Has the application of the Isokorb® connections been reviewed and approved by the Engineer of Record (EOR)?
- ❑ For this application, have the correct lengths of the reinforcing between the axes of the supports and the offset directions been used?
- ❑ Have all the structural bars been defined according to Schöck recommendations on the structural drawings?
- ❑ Are the minimum slab thicknesses respected?

END OF DOCUMENT