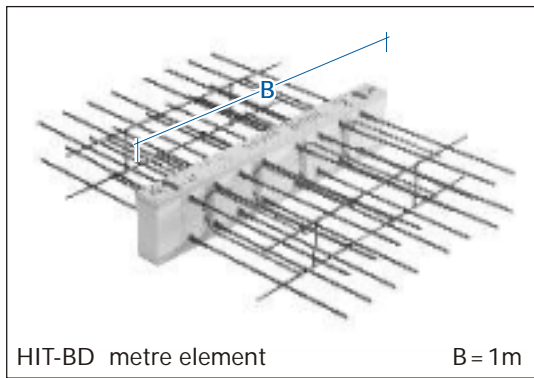
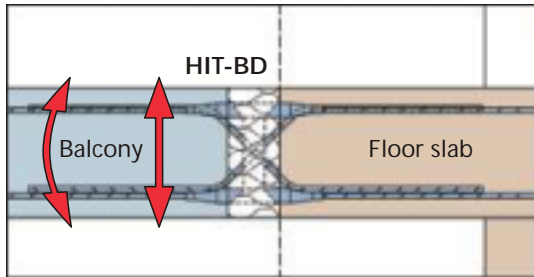


# HALFEN - ISO - ELEMENT TYPE HIT - BD

## Application and Load Capacities

### Application:

Balcony slab connection system taking moment and shear in both positive and negative directions.



### Application examples:

Fig. 1:

Balcony, which is inserted into floor slab, e.g. loggia. Balcony connection taking moment and shear in both positive and negative directions.

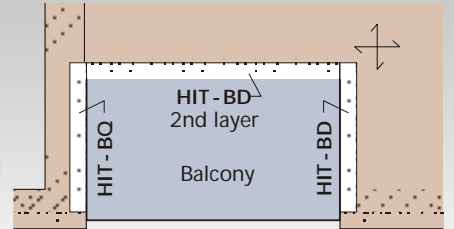
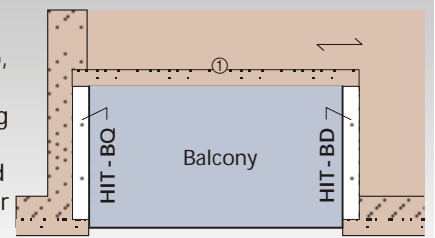


Fig. 2:

Balcony, which is inserted into floor slab, as shown in fig. 1, but only one-way spanning slab.  
 ① Joint to be insulated on site; structural shear connection can be added if necessary.



### Selection chart for concrete $B \geq 25$

Load capacity	Slab thickness [mm]	Type HIT - BD			Type HIT - BD - with extra shear reinforcement		
		12/ 7	12/10	14/10	12/ 7-QE	12/10-QE	14/10-QE
allowable moment all. m [kNm/m]	160	± 14.6	± 22.7	± 30.8			
	170	± 16.3	± 25.2	± 34.2			
	180	± 17.9	± 27.8	± 37.7	± 16.8	± 26.7	± 36.6
	190	± 19.5	± 30.3	± 41.1	± 18.4	± 29.1	± 39.9
	200	± 21.1	± 32.8	± 44.5	± 19.9	± 31.6	± 43.3
	210	± 22.8	± 35.3	± 47.9	± 21.4	± 34.0	± 46.6
	220	± 24.4	± 37.9	± 51.3	± 23.0	± 36.4	± 49.9
	230	± 26.0	± 40.4	± 54.8	± 24.5	± 38.9	± 53.2
all. q [kN/m]	240	± 27.6	± 42.9	± 58.2	± 26.0	± 41.3	± 56.6
	250	± 29.3	± 45.4	± 61.6	± 27.5	± 43.7	± 59.9
	160 - 250	± 34.1	± 34.1	± 34.1	± 53.3	± 53.3	± 53.3

NB: All capacities given as characteristic safe working capacities

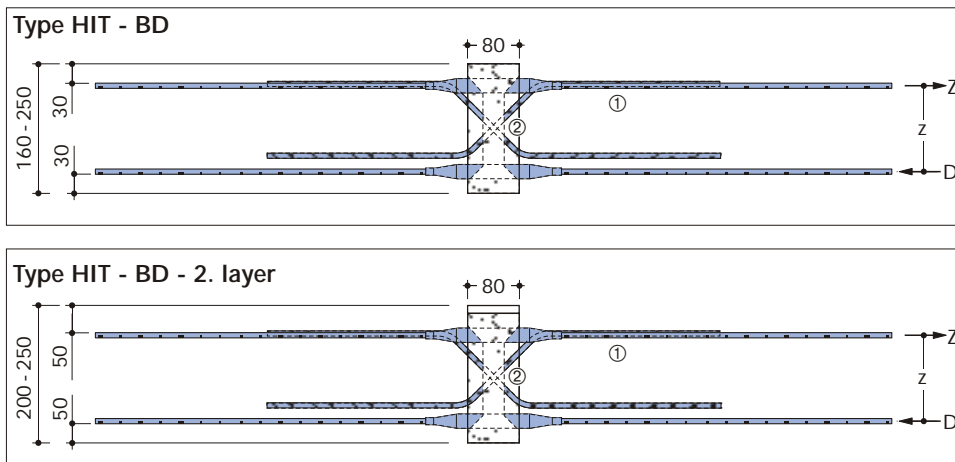
# HALFEN-ISO-ELEMENT TYPE HIT-BD

## Product Details and Dimensions

### Design details

Item:	Load range	Type HIT-BD-		
	Elem. length [m]	12/ 7	12/10	14/10
Tension bars, pressure bars ①	number	2 × 8	2 × 12	2 × 16
	Ø / length [mm]	Ø 10 / 1480	Ø 10 / 1480	Ø 10 / 1480
Shear bars (QE: Ø 10) ②	number	2 × 4	2 × 4	2 × 4
	Ø [mm]	Ø 8	Ø 8	Ø 8

### Dimensions



① Tension bars  
② Shear bars

Dimensions in mm

### Options

• Fire resistant	
normal	
F90 (up to 90 minutes)	<b>F90</b>
• Shear	
normal	
increased (→ chart page 24)	<b>QE</b>
increased, special version*	<b>QEE</b>
• 2L (increased top cover)	
no = normal	
Yes = 2nd layer	<b>2L</b>

Note: When using increased top cover **2L**, find the load capacity shown for the slab thickness which is 40 mm less than the actual thickness (chart page 24).

Example:

Type HIT-BD - 12/10 - **20** - **2L**  
permissible m → see line for slab thickness **16**  
→ permissible m = ± 22.7 kNm/m .

\*Please consult Halfen Ltd

### Order example:

Code: **HIT - BD - 12/10 - 20 - F90 - QE - 2L**

Type \_\_\_\_\_

Load range (see chart above) \_\_\_\_\_

Slab thickness [cm] \_\_\_\_\_

Fire resistant ⑤ \_\_\_\_\_

Extra shear ⑤ \_\_\_\_\_

Increased top cover ⑤ \_\_\_\_\_

⑤ Note:  
If You order the "normal" type this code is not required