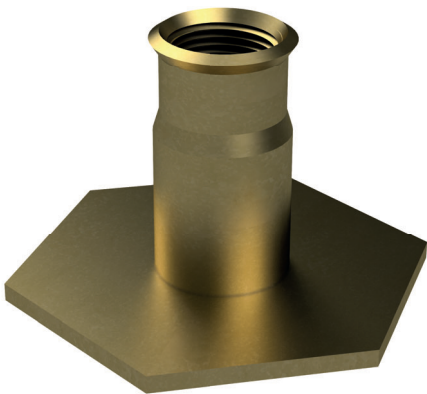


# HALFEN TWS HEXAGON PLATE ANCHOR

## Product Information



The HALFEN TWS Hexagon plate anchors are used as auxiliary aids when erecting precast elements. For example, temporary anchor points for push-pull props for fixing twin-walls to in-situ concrete floor slabs and foundation slabs. The hexagon plate anchor is suitable for wind loads and other temporary loads.

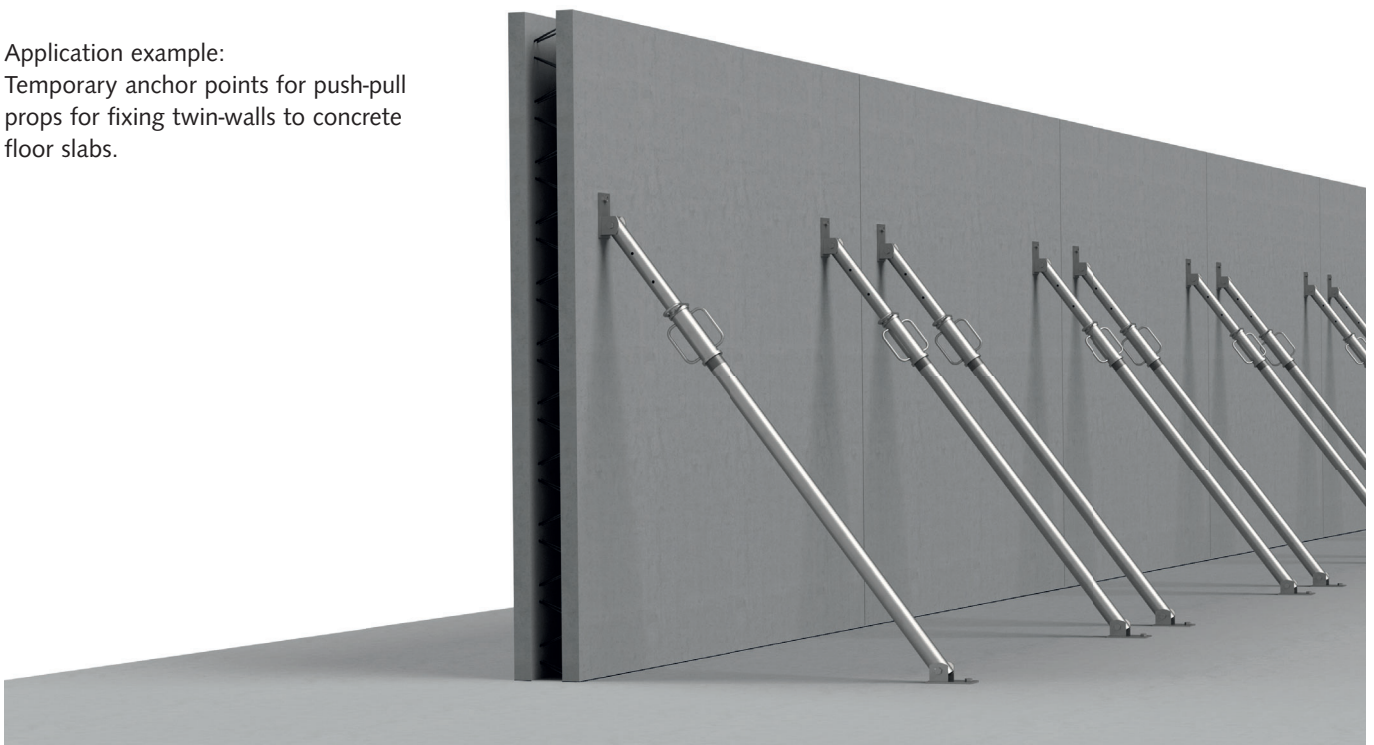
### Benefits

- The concrete capacity at design level ( $F_{Rd,h}$ ) was verified and certified by the French CERIB\* testing authority
- The capacities were determined in tests using concrete with a strength class of C20/25 and C30/37
- Applicable for thin shell elements with a minimum thickness from 50 mm to 55 mm
- Wide tube openings with metric thread allow easy installation
- Friction welded steel components ensure durability
- New! Magnetic plate available without thread for robot-automated installation
- Three options for combining different magnet plates with the same socket type

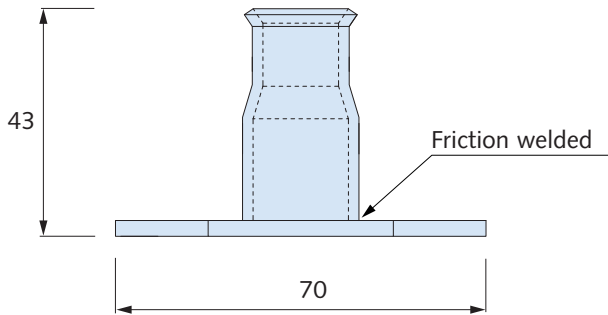
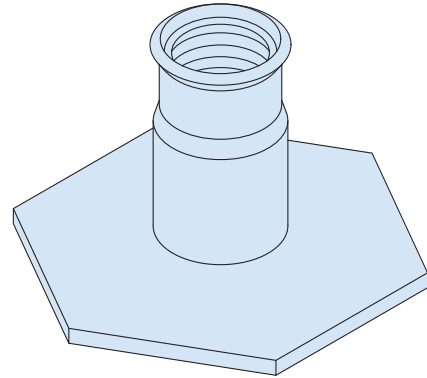
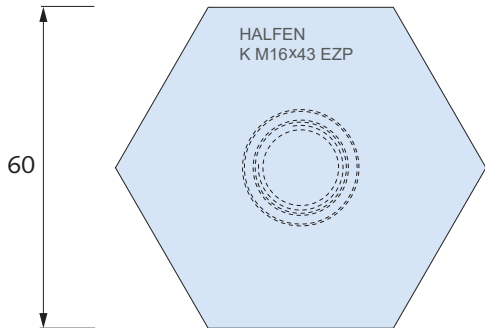
\*Centre d'Études et de Recherches de l'Industrie du Béton (Concrete Industry Study and Research Centre)

### Application

Application example:  
Temporary anchor points for push-pull props for fixing twin-walls to concrete floor slabs.



# HALFEN TWS HEXAGON PLATE ANCHOR ACCESSORIES

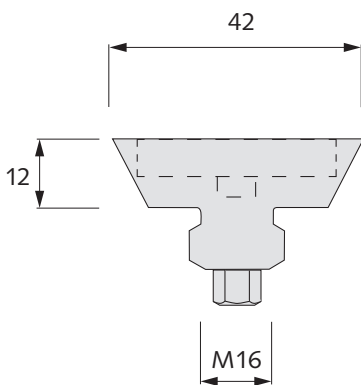


Hexagon plate anchor	
Article no.	Article name
0020.230-00001	TWS M16x43 GV

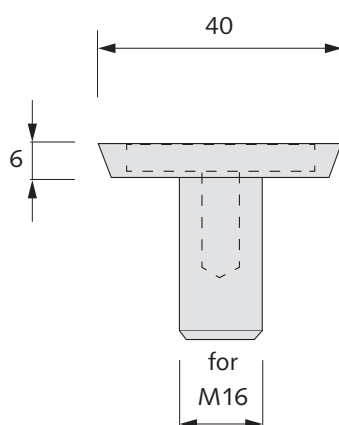
Dimensions [mm]

## Accessories

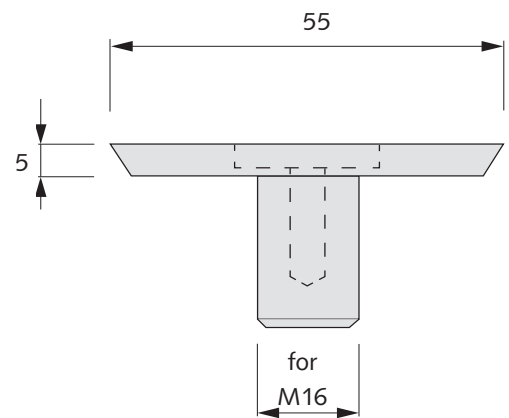
Type: M16/42/12



Type: M16/40/6



Type: M16/55/5

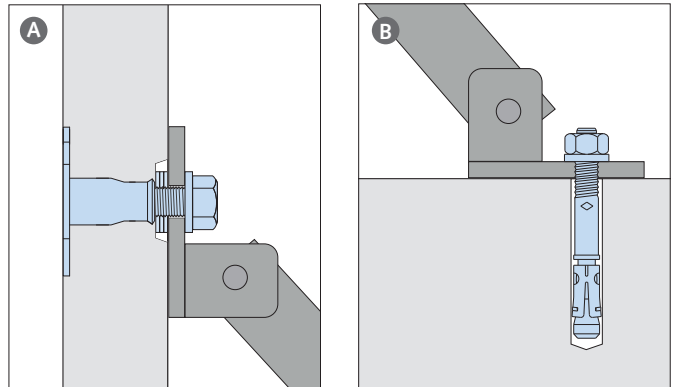
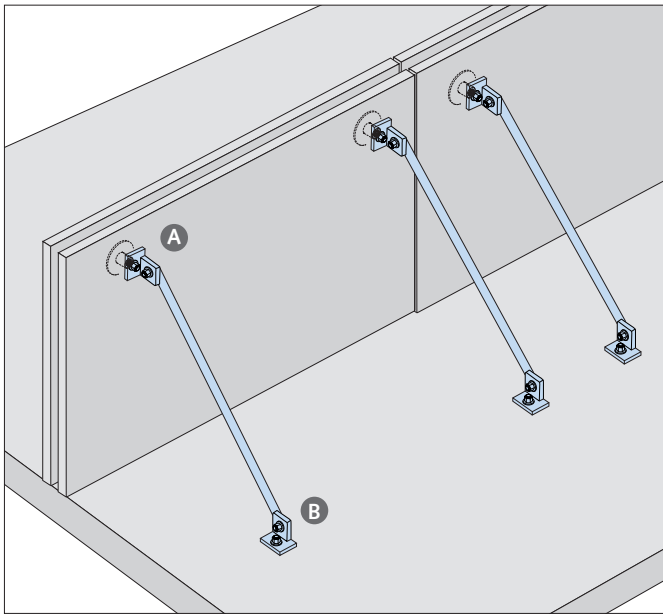


Dimensions [mm]

Magnetic plate			
Type	M16/42/12	M16/40/6	M16/55/5
Article name	Magnetic plate for socket M16 - 42 - 12	Magnetic plate for socket M16 - 40 - 6 without thread	Magnetic plate for socket M16 - 55 - 5 without thread
Article no.	0741.180-00002	0021.130-00001	0021.130-00002

Additional nailing plates on request.

# HALFEN TWS HEXAGON PLATE ANCHOR INSTALLATION



### Note

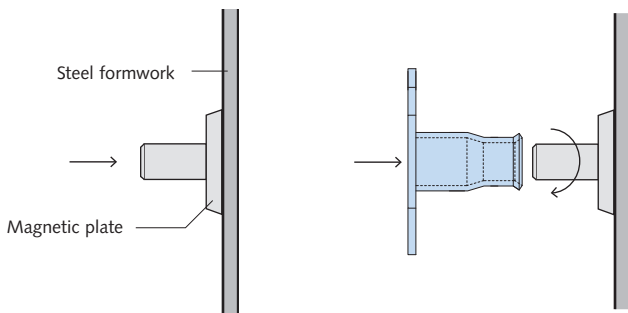
The correct selection of bolts, washers and props suitable for tension and compression loads is important to ensure safety.

When selecting the positions and number of anchors ensure suitable surfaces are available to support the loads. At least two-push-pull props and two anchors are required for each wall element as temporary supports to account for horizontal loads (for example from wind loads).



### Important

The magnetic plates are an integral part of the system and must therefore always be used. Using other fasteners or omitting them can lead to a reduction of load-bearing capacity.



**1** Attach the magnetic plates to steel formwork

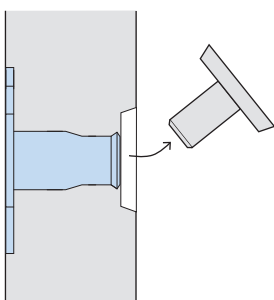
**2** Assemble the HALFEN TWS Hexagon plate anchors onto the magnetic plates

**3** Install all other required reinforcement

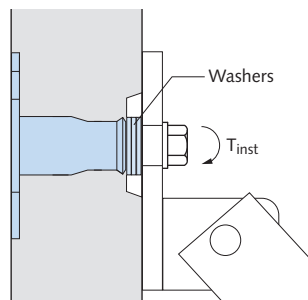
**4** Pour and compact the concrete

When pouring and compacting the concrete ensure installed anchors are not moved. To avoid air pockets or bubbles forming do not use anchors that have any defects.

Avoid contact between the HALFEN TWS Hexagon plate anchor and the surrounding reinforcement. Ensure there is sufficient distance between the anchor plate and other reinforcement. Any contact between the TWS Hexagon plate anchor and the reinforcement could potentially dislodge the TWS Hexagon plate anchor and the magnetic plate from the formwork, allowing concrete to flow under the magnetic plate.

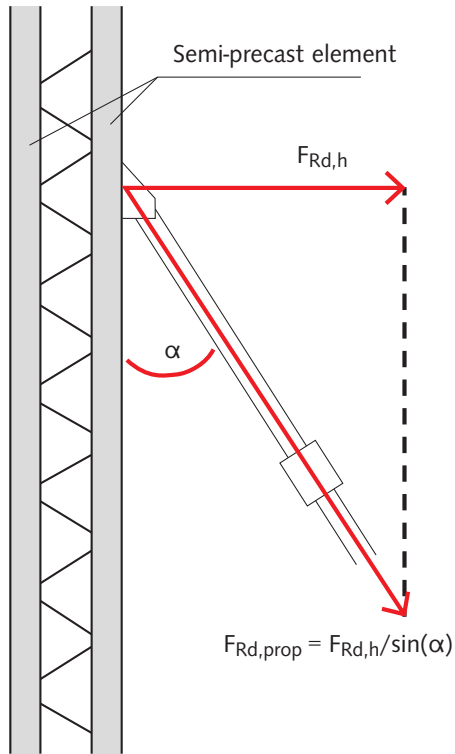


**5** After the concrete has cured, remove the formwork and the magnetic plates



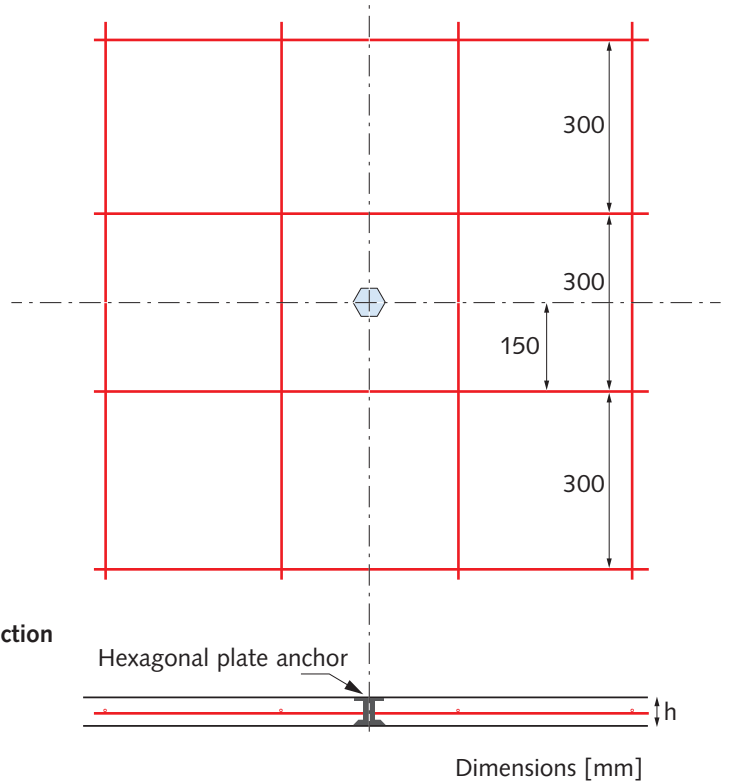
**6** Install the bracket for the prop. Screw in and tighten the bolt,  $T_{inst}$  → see table on page 4

Section



Plan

Tested reinforcement layout (HA6):



Dimensions [mm]



Type M16/42/12: CERIB Test report no. 022274  
 Type M16/40/6: CERIB Test report no. 024926  
 Type M16/55/5: CERIB Test report no. 024927

Excerpt from CERIB Certificates			
Type	M16/42/12	M16/40/6	M16/55/5
$F_{Rd,h}$ ①	9.2 kN ③	9.4 kN ④	7.4 kN ③
Minimum inclination of angle $\alpha$	30°		
Maximum force $F_{Rd,prop}$ ②	18.4 kN ③	18.8 kN ④	14.8 kN ③
Minimum nominal wall thickness $h$	55 mm	50 mm	50 mm
Minimum edge distance $c_{min}$	100 mm		
Minimum spacing $s_{min}$	200 mm		
Concrete compressive strength class	C20/25	C30/37	C20/25
Minimum wall reinforcement	HA6 spaced 30 cm in both directions		
Tightening torque $T_{inst}$	30 Nm		

① The concrete capacity at design level  $F_{Rd,h}$ , perpendicular to the surface of the wall was calculated with  $\gamma = 1.5$  ( $F_{Rd,h} = F_{Rk,h}/1.5$ ) according EN1992-4 assuming concrete cone failure.  
 ② The force in the central axis of the prop,  $F_{Rd,prop}$ , must not exceed the value =  $F_{Rd,h}/\sin(30^\circ)$ .  
 ③ For other concrete compressive strength classes, multiply by the factors 1.10 (C25/30) and 1.22 (C30/37).  
 ④ For other concrete compressive strength classes, multiply by the factors 0.82 (C20/25) and 0.90 (C30/37).

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