

- GB** Grout-in anchors
- D** Einmörtelanker
- ES** Anclajes de mortero



Assembly Instructions • Montageanleitung • Instrucciones de montaje

Professional planning is required when installing natural stone façade panel elements. Each panel is generally fixed at four points. HALFEN Grout-in Anchors must be fixed sufficiently deep into the load-bearing substrate; masonry or concrete. (see the FS Technical Product Information).

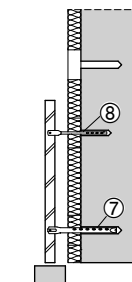
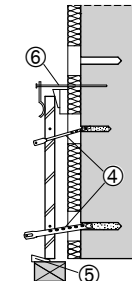
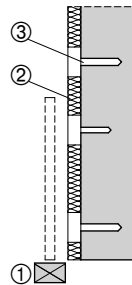
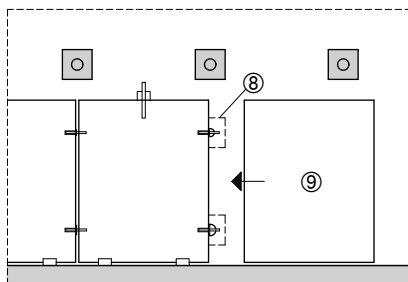
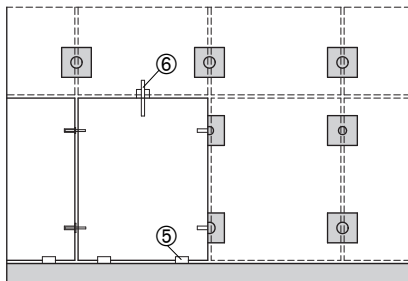
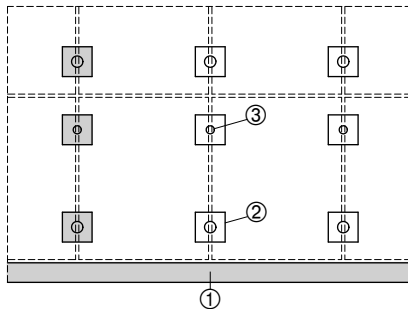
The cross section of load-bearing components must not be weakened to an unpermitted extent when used for fixing anchors. In large cavity spacings the grout-in anchors must be fixed to the load bearing substrate with a slightly exaggerated upwards angle to compensate for anchor deflection.

HALFEN UMA/UHA Grout-in anchor



Installation procedure:

- ① Use an auxiliary construction aligned at the specified height to support the bottom row of panels.
- ② Remove the thermal insulation for the drill hole at the location for the grout-in anchor (keep the insulation for step ⑧).
- ③ Drill the hole. Note: reinforcement bars must not be damaged. Remove all dust out of the drill hole. Wet the drill hole with water.
- ④ Fill the drill holes completely with mortar acc. to DIN 18516-3, 6.3.2. and compact.
- ⑤ Position the stone panel at the specified height.
- ⑥ Correctly align the top edge of the panel, adjust to the required spacings and fix in position using wooden wedges.
- ⑦ Fill the pinholes in the stone panel with cement mortar; press the grout-in anchor into the mortar-filled drill holes in the substrate; insert the anchor pins through the hole in the anchor and check the alignment of the stone panel.
- ⑧ Re-compact the mortar in the drill hole and replace the thermal insulation which was removed in step ②.
- ⑨ Slide the next panel in sideways to continue installation.



Further installation details can be found in DIN 18516, section 3.

Die Ausführungen von Fassadenbekleidungen aus Natursteinplatten setzen eine fachgerechte Planung voraus. Jede Platte wird im Regelfall an vier Punkten befestigt. Die HALFEN Anker müssen im tragfähigen Untergrund (Beton oder Mauerwerk) ausreichend tief (siehe Produktinformation Technik FS) befestigt werden.

Beim Befestigen der HALFEN Einmörtelanker an tragenden Bauteilen dürfen deren Querschnitte nicht unzulässig geschwächt werden. Um großen Durchbiegung entgegenzuwirken sind die Einmörtelanker bei großen Auskragungen mit einer Überhöhung einzubauen.

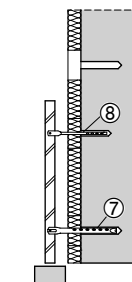
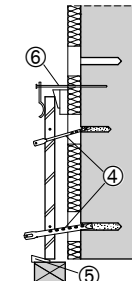
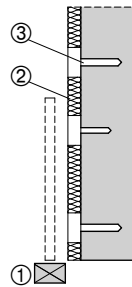
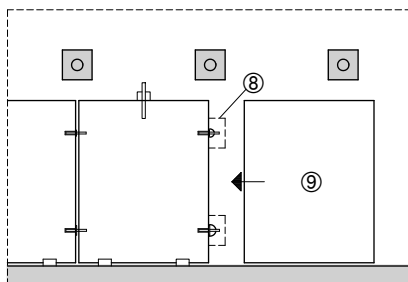
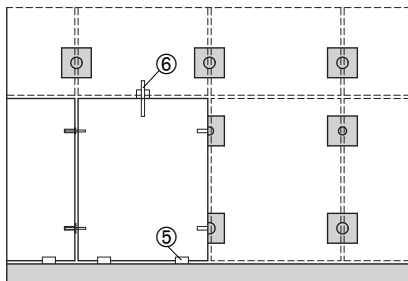
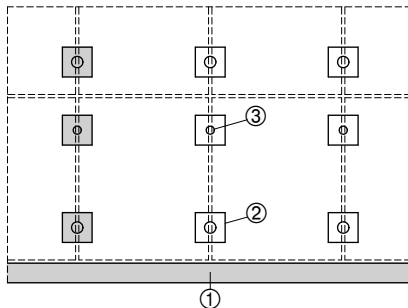
HALFEN UMA/UHA Einmörtelanker



Montageablauf:

- ① Auf geforderter Höhe ein Montagegerüst ausrichten, welches die erste Plattenreihe unterstützt.
- ② Entfernen der Wärmedämmung für das Bohrloch des Einmörtelankers (für Schritt ③ aufbewahren).
- ③ Bohren des Loches. Bewehrungsstäbe dürfen nicht beschädigt werden. Entfernen des Bohrstaubes aus dem Bohrloch. Bohrloch mit Wasser anfeuchten.
- ④ Bohrlöcher mit Verankerungsmörtel gemäß DIN 18516-3, 6.3.2 vollständig ausfüllen und verdichten.
- ⑤ Natursteinplatte höhengerecht aufstellen.
- ⑥ Oberen Plattenrand ausrichten und auf gewünschten Abstand verkeilen.
- ⑦ Einmörtelanker in das Bohrloch einsetzen und ausrichten. Ankerdorn in die mit Zementmörtel gefüllten Dornlöcher im Naturstein einschieben.
- ⑧ Mörtel im Bohrloch nachverdichten und die unter ② entfernte Wärmedämmung wieder einsetzen.
- ⑨ Die nächste Natursteinplatte seitlich einschieben.

Weitere Ausführungsdetails sind in DIN 18516, Teil 3 enthalten.



Se requiere una planificación profesional para instalar los anclajes de piedra natural de fachada. Cada panel generalmente está fijado en cuatro puntos. Los anclajes HALFEN UMA/UHA deben estar fijados en el paramento portante con una profundidad mínima (ver el catálogo técnico de sistemas de fachada de piedra).

El elemento portante no debe debilitarse al realizarse el taladro.

Para dimensiones de cámaras grandes, los anclajes para mortero deben fijarse al elemento portante con una ligera inclinación hacia arriba para compensar la deflexión del anclaje.

HALFEN Anclajes de mortero UMA/UHA



Procedimiento de instalación:

① Use un elemento auxiliar alineado con la altura especificada para apoyar la fila inferior de los paneles de piedra.

② Eliminar el aislamiento térmico para realizar el agujero de perforación en elemento portante y posterior relleno con mortero (mantener el aislamiento para el paso ⑧).

③ Hacer el taladro/agujero.

Nota: las barras de refuerzo del elemento portante no deben ser dañadas.

Eliminar todo el polvo del agujero del taladro. Humedecer con agua el agujero del taladro.

④ Rellene los agujeros de perforación por completo con mortero según DIN 18516-3, 6.3.2.y comprimir.

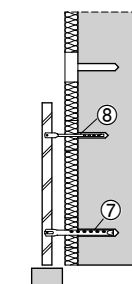
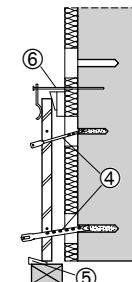
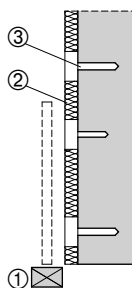
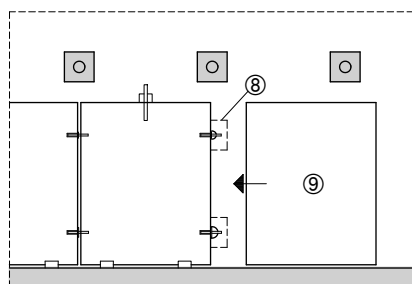
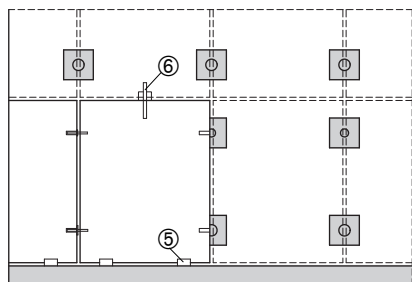
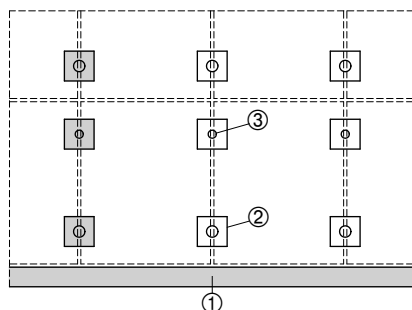
⑤ Coloque el panel de piedra en el altura especificada.

⑥ Alinee correctamente el borde superior de la piedra, ajustar a la altura requerida y fijar en posición usando cuñas de madera.

⑦ Rellene los agujeros (para los pins), en el panel de piedra, con mortero de cemento; presione el mortero dentro de los agujeros de perforación del elemento portante; inserte los pines del anclaje a través del agujero y verifique el alineación del panel de piedra.

⑧ Re-compacta el mortero en el agujero y reemplazar el aislamiento térmico que fue eliminado al paso ②.

⑨ Deslice el siguiente panel de lado para continuar la instalación.



Otros detalles de instalación pueden encontrarse en DIN 18516, sección 3.

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CONTACT HALFEN WORLDWIDE

HALFEN is represented by subsidiaries in the following countries, please contact us

Austria	HALFEN Gesellschaft m.b.H. Leonard-Bernstein-Str. 10 1220 Wien	Phone: +43-1-2596770 E-Mail: office@halfen.at Internet: www.halfen.at	
Belgium / Luxembourg	HALFEN N.V. Borkelstraat 131 2900 Schoten	Phone: +32-3-6580720 E-Mail: info@halfen.be Internet: www.halfen.be	Fax: +32-3-6581533
China	HALFEN Construction Accessories Distribution Co.Ltd. Room 601 Tower D, Vantone Centre No.A6 Chao Yang Men Wai Street Chaoyang District Beijing · P.R. China 100020	Phone: +86-1059073200 E-Mail: info@halfen.cn Internet: www.halfen.cn	Fax: +86-1059073218
Czech Republic	HALFEN s.r.o. Business Center Šafránkova Šafránkova 1238/1 155 00 Praha 5	Phone: +420-311-690060 E-Mail: info@halfen.cz Internet: www.halfen.cz	Fax: +420-235-314308
France	HALFEN S.A.S. 18, rue Goubet 75019 Paris	Phone: +33-1-44523100 E-Mail: halfen@halfen.fr Internet: www.halfen.fr	Fax: +33-1-44523152
Germany	HALFEN Vertriebsgesellschaft mbH Liebigstr. 14 40764 Langenfeld	Phone: +49-2173-9700 E-Mail: info@halfen.de Internet: www.halfen.de	Fax: +49-2173-970225
Italy	HALFEN S.r.l. Soc. Unipersonale Via F.lli Bronzetti N° 28 24124 Bergamo	Phone: +39-035-0760711 E-Mail: tecnico@halfen.it Internet: www.halfen.it	Fax: +39-035-0760799
Netherlands	HALFEN b.v. Oostermaat 3 7623 CS Borne	Phone: +31-74-267 1449 E-Mail: info@halfen.nl Internet: www.halfen.nl	Fax: +31-74-267 2659
Norway	HALFEN AS Postboks 2080 4095 Stavanger	Phone: +47-51823400 E-Mail: post@halfen.no Internet: www.halfen.no	
Poland	HALFEN Sp. z o.o. Ul. Obornicka 287 60-691 Poznan	Phone: +48-61-622 14 14 E-Mail: info@halfen.pl Internet: www.halfen.pl	Fax: +48-61-622 14 15
Spain	HALFEN IBERICA, S.L. Poligono Industrial Santa Ana c/ Ignacio Zuloaga 20 28522 Rivas-Vaciamadrid	Phone: +34-91 632 18 40 E-Mail: info@halfen.es Internet: www.halfen.es	Fax: +34-91 633 42 57
Sweden	Halfen AB Vådursgatan 5 412 50 Göteborg	Phone: +46-31-985800 E-Mail: info@halfen.se Internet: www.halfen.se	Fax: +46-31-985801
Switzerland	HALFEN Swiss AG Hertistrasse 25 8304 Wallisellen	Phone: +41-44-8497878 E-Mail: info@halfen.ch Internet: www.halfen.ch	Fax: +41-44-8497879
United Kingdom / Ireland	HALFEN Ltd. A1/A2 Portland Close Houghton Regis LU5 5AW	Phone: +44-1582-470300 E-Mail: info@halfen.co.uk Internet: www.halfen.co.uk	Fax: +44-1582-470304
United States of America	HALFEN USA Inc. PO Box 18687 San Antonio TX 78218	Phone: +1 800.423.91 40 E-Mail: info@halfenusa.com Internet: www.halfenusa.com	Fax: +1 877.683.4910
For countries not listed	HALFEN International GmbH Liebigstr. 14 40764 Langenfeld / Germany	Phone: +49 -2173 -970-0 E-Mail: info@halfen.com Internet: www.halfen.com	Fax: +49-2173-970-849

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