

HALFEN BODY-ANCHOR

Product range

HALFEN Body Anchor

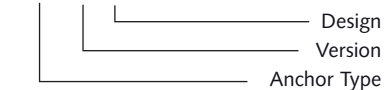
The HALFEN Body Anchor range covers a wide variety of cavity widths and load capacities. They consist of two main components; a 'u' or three times canted shaped body with vertical serrated fixing slot and a threaded spade bolt with dowel pin. The vertical slot allows for up and down adjustment whilst providing a positive fixing through the serrations. Body Anchor type DT uses a wedge plate for this adjustment. The threaded spade bolt allows in and out adjustment to accommodate variations in cavity width. The body is capable of being swivelled up to 15° either side of vertical thus providing horizontal adjustment.

Body anchors can be fixed to HALFEN cast-in channels for maximum flexibility or post fixed using drilled bolts allowing the minimum of pre-planning. Once fixed to the backing structure, Body Anchors are immediately capable of taking load once the fixing is set.

The dowel pins have a knurled zone to prevent the dowel dropping through the hole in the spade bolt. Dowel pins Ø5x70 mm (design 1,3) are supplied loose with one sliding sleeve. The dowels are fixed by tapping them lightly into the spade drill-hole. The half-dowels Ø5x35 mm (design 2, 4) are already fixed in the spade bolt at the factory. Design dimensions can be gathered from the tables. Apart from the standard designs, the anchors are available with special brackets, such as e.g. threaded anchors for closing panels.

Order Example

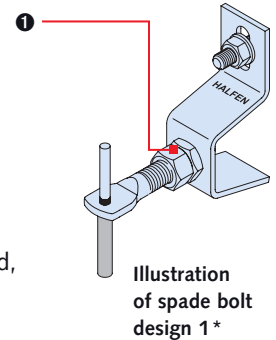
HRM-505-1



* All HALFEN Body Anchors are available with various spade bolt designs for different load bearing situations. Compare with design versions shown on page 9

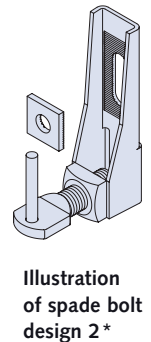
Body Anchor Type HRM/HRC

- projections between **40 and 130 mm**
- permissible load of **up to 0.5 kN**
- ❶ The installed stone panel can be adjusted perpendicular to the structure using the **patented** captive nut
- HRM extension arm already pre-assembled on body and can not become separated
- If required, loose fixings for site assembly can be supplied, please order anchor type HRC
- Material: 1.4571/1.4401 (AISI 316 / A4);
1.4301 (AISI 304 / A2)



Body Anchor Type BA

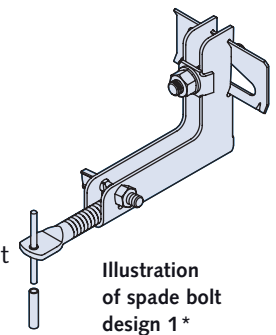
- projection ranges between **60 and 120 mm**
- permissible load of **up to 1.3 kN**
- continuously variable
- lateral anchor adjustment is achieved by swivelling to the left or right up to max. 15°
- adjustment perpendicular to the façade is achieved by winding the spade bolt in and out
- height adjustment of bracket is effected via the toothed washer and serrated slot
- material qualities: 1.4571/1.4401 (AISI 316 / A4)
1.4301 (AISI 304 / A2)



Body Anchor Type DT

- projections between **140 and 240 mm**
- permissible load of **up to 1.3 kN**
- adjustment perpendicular to the façade by **patented** clamping bolt on the already installed natural stone panel (can also be achieved by turning the bracket)
- basic body of the DT body anchor is supplied fully assembled with the guided wedge plate and the clamping bolt
- height of the anchor can be adjusted with the aid of the guided wedge plate
- anchor is adjusted laterally by swivelling.
- clamping bolt is pre-assembled at the factory.

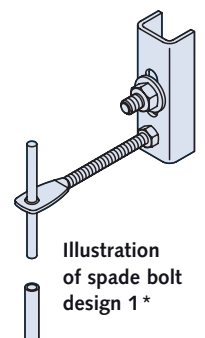
Material: 1.4571/1.4401 AISI 316 (A4).



Body Anchor Type DH

- **Restraint anchors**
- transfers wind loads into the structural frame
- HALFEN BODY ANCHORS DH are used in the vertical or horizontal joint in combination with the body anchor BA or body anchor DT
- also used for the top slab edge in the half-pin design (design 2)

Material: 1.4571 / 1.4401 (AISI 316 / A4);
1.4301 (AISI 304 / A2)



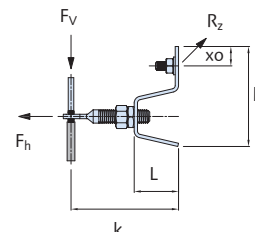
HALFEN BODY-ANCHOR

Product range

| HRM / HRC | | | | | | | | | | | |
|-----------|-------|------------|-------|-------|-------|------|------|------------|-------|------------|-------------|
| Type | load | projection | | | body | | | spade-bolt | | connection | |
| HRM / | F_v | k | min k | max k | x_o | L | h | M(mm) | l(mm) | R_z | \emptyset |
| HRC | (kN) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | | | (kN) | (mm) |
| 500* | 0.5 | 40 | 37 | 49 | 16.5 | 15 | 79 | 10 | 45 | 0.64 | 11x26 |
| 504** | 0.5 | 40 | 31 | 48 | 35 | 4 | 95 | 10 | 55 | 0.64 | 11x26 |
| 505 | 0.5 | 50 | 47 | 59 | 16.5 | 15 | 79 | 10 | 55 | 0.68 | 11x26 |
| 506 | 0.5 | 60 | 52 | 69 | 16.5 | 25 | 84 | 10 | 55 | 0.71 | 11x26 |
| 408 | 0.4 | 80 | 67 | 101 | 16.5 | 40 | 90 | 10 | 72 | 0.68 | 11x26 |
| 410 | 0.4 | 100 | 87 | 121 | 16.5 | 60 | 100 | 10 | 72 | 0.7 | 11x26 |
| 413 | 0.4 | 130 | 117 | 151 | 16.5 | 90 | 113 | 10 | 72 | 0.74 | 11x26 |

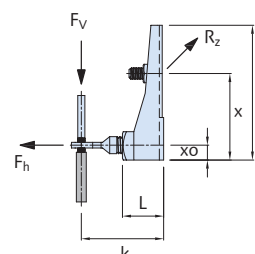
max. $F_h=0.35$ kN

* = min. k achieved by omitting locking nut on un-assembled HRC-bracket only
 ** = flat anchor for use with channel substructure



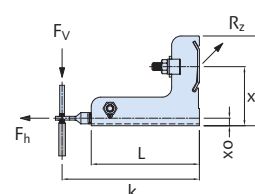
| Body BA | | | | | | | | | | | |
|---------|-------|------------|-------|-------|------|------|------|------------|-------|------------|-------------|
| Type | load | projection | | | body | | | spade-bolt | | connection | |
| BA- | F_v | k | min k | max k | x | L | h | d(mm) | l(mm) | R_z | \emptyset |
| | (kN) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | | | (kN) | (mm) |
| 606 | 0.9 | 60 | 50 | 70 | 50 | 29 | 95 | 12 | 58 | 1.814 | 8.5x28 |
| 608 | 0.6 | 80 | 60 | 100 | 55 | 36 | 95 | 12 | 85 | 1.462 | 8.5x28 |
| 610 | 0.6 | 100 | 80 | 120 | 55 | 56 | 95 | 12 | 85 | 1.709 | 8.5x28 |
| 612 | 0.6 | 120 | 100 | 140 | 55 | 76 | 95 | 12 | 85 | 1.961 | 8.5x28 |
| 1308 | 1.3 | 80 | 70 | 100 | 65 | 47 | 105 | 16 | 74 | 2.698 | 8.5x28 |
| 1310 | 1.3 | 100 | 90 | 120 | 65 | 47 | 105 | 16 | 94 | 3.120 | 8.5x28 |
| 1312 | 1.3 | 120 | 105 | 135 | 65 | 47 | 105 | 16 | 106 | 3.446 | 8.5x28 |

max. $F_h=F_v$



| Body DT | | | | | | | | | | | |
|---------|-------|------------|-------|-------|------|------|------|------------|-------|------------|-------------|
| Type | load | projection | | | body | | | spade-bolt | | connection | |
| DT- | F_v | k | min k | max k | x | L | h | d(mm) | l(mm) | R_z | \emptyset |
| | (kN) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | | | (kN) | (mm) |
| 414 | 0.4 | 140 | 120 | 170 | 50 | 95 | 92 | 12 | 105 | 1.746 | 9 |
| 416 | 0.4 | 160 | 140 | 190 | 55 | 115 | 97 | 12 | 105 | 1.736 | 9 |
| 418 | 0.4 | 180 | 160 | 210 | 60 | 135 | 102 | 12 | 105 | 1.727 | 9 |
| 420 | 0.4 | 200 | 180 | 230 | 65 | 155 | 107 | 12 | 105 | 1.720 | 9 |
| 422 | 0.4 | 220 | 200 | 250 | 70 | 175 | 112 | 12 | 105 | 1.714 | 9 |
| 424 | 0.4 | 240 | 220 | 270 | 75 | 195 | 117 | 12 | 105 | 1.709 | 9 |
| 1314 | 1.3 | 140 | 120 | 170 | 80 | 90 | 130 | 16 | 115 | 3.414 | 11 |
| 1316 | 1.3 | 160 | 140 | 190 | 85 | 110 | 135 | 16 | 115 | 3.541 | 11 |
| 1318 | 1.3 | 180 | 160 | 210 | 95 | 130 | 145 | 16 | 115 | 3.465 | 11 |
| 1320 | 1.3 | 200 | 180 | 230 | 80 | 150 | 130 | 16 | 115 | 4.465 | 13 |
| 1322 | 1.3 | 220 | 200 | 250 | 90 | 170 | 140 | 16 | 115 | 4.265 | 13 |
| 1324 | 1.3 | 240 | 220 | 270 | 95 | 190 | 145 | 16 | 115 | 4.329 | 13 |

max. $F_h=1.3 \times F_v$



| Body DH | | | | | | | | | | | |
|---------|-------|------------|-------|-------|------|------|------|------------|-------|------------|-------------|
| Type | load | projection | | | body | | | spade-bolt | | connection | |
| DH- | F_h | k | min k | max k | x | L | h | d(mm) | l(mm) | R_z | \emptyset |
| | (kN) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | | | (kN) | (mm) |
| 1006 | 0.85 | 60 | 50 | 70 | 26 | 20 | 75 | 6 | 60 | 2.5 | 9 |
| 1008 | 0.85 | 80 | 60 | 90 | 26 | 20 | 75 | 6 | 80 | 2.5 | 9 |
| 1010 | 0.85 | 100 | 70 | 110 | 26 | 20 | 75 | 6 | 100 | 2.5 | 9 |
| 1712 | 1.3 | 120 | 105 | 135 | 30 | 32 | 80 | 8 | 112 | 3.5 | 9 |
| 1714 | 1.3 | 140 | 125 | 155 | 30 | 32 | 80 | 8 | 132 | 3.5 | 9 |
| 1716 | 1.3 | 160 | 145 | 175 | 30 | 32 | 80 | 8 | 152 | 3.5 | 9 |
| 1718 | 1.3 | 180 | 165 | 195 | 30 | 32 | 80 | 8 | 172 | 3.5 | 9 |
| 1720 | 1.3 | 200 | 185 | 215 | 30 | 32 | 80 | 8 | 192 | 3.5 | 9 |
| 1722 | 1.3 | 220 | 205 | 235 | 30 | 32 | 80 | 8 | 212 | 3.5 | 9 |
| 1724 | 1.3 | 240 | 225 | 255 | 30 | 32 | 80 | 8 | 232 | 3.5 | 9 |

