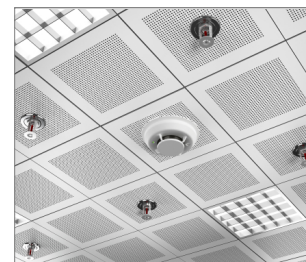


R-RBL-H Rawlbolt® - Hook Bolt

World's most popular all-purpose expanding shield anchor - hook bolt version



Product information

Features and benefits

- Hook designed & manufactured for maximum performance
- Three-pieces expanding sleeve of maximum expansion provides optimal load and safety of use in any substrate
- Hook Rawlbolts are not suitable for all arrest systems nor shock loading

Applications

- Supporting guy ropes, stays and cables
- Supporting ladder restraints

Base materials

Approved for use in:

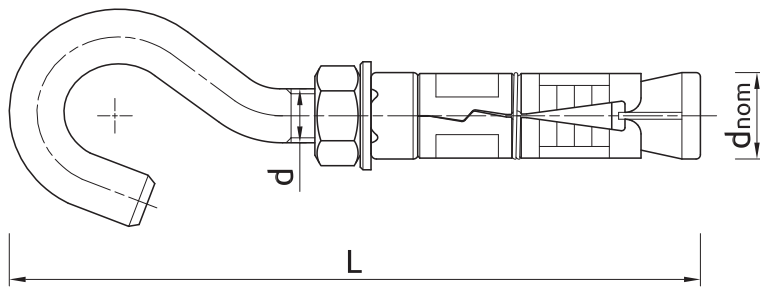
- Cracked concrete C20/25-C50/60
- Non-cracked concrete C20/25-C50/60
- Unreinforced concrete
- Reinforced concrete
- Solid clay brick $\geq 20\text{MPa}$
- Hollow Lightweight Concrete Block LAC 5 $\geq 5\text{MPa}$
- Hollow Sand-lime Brick $\geq 15\text{MPa}$
- Concrete hollow floor block (eg. Teriva)
- Hollow-core Slab C20/25
- Hollow-core Slab C30/37-C50/60

Installation guide



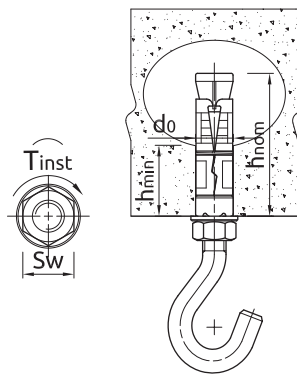
1. Drill a hole of required diameter and depth. Note: When fixing into brickwork, mortar joints should be avoided
2. Clear the hole of drilling dust and debris (using blowpump or equivalent method)
3. Insert the anchor (tap home until flush with surface) and position hook accordingly
4. Tighten to recommended torque, using the hex nut (not the hook)

Product information



| Size | Product Code | Anchor | | |
|------|--------------|----------|-------------------|--------|
| | | Diameter | External diameter | Length |
| | | d | d _{nom} | L |
| | | [mm] | [mm] | [mm] |
| M6 | R-RBL-06HW | 6 | 12 | 83 |
| M8 | R-RBL-08HW | 8 | 14 | 98 |
| M10 | R-RBL-10HW | 10 | 16 | 120 |
| M12 | R-RBL-12HW | 12 | 20 | 145 |

Installation data



| Size | M6 | M8 | M10 | M12 | | |
|--------------------------------------|-------------------|------|-----|-----|-----|-----|
| Thread diameter | d | [mm] | 6 | 8 | 10 | 12 |
| Hole diameter in substrate | d ₀ | [mm] | 12 | 14 | 16 | 20 |
| Min. installation depth | h _{nom} | [mm] | 45 | 50 | 60 | 80 |
| Min. hole depth in substrate | h ₀ | [mm] | 50 | 55 | 65 | 85 |
| Wrench size | Sw | [mm] | 10 | 13 | 17 | 19 |
| SOLID SUBSTRATES | | | | | | |
| Installation torque | T _{inst} | [Nm] | 6.5 | 15 | 27 | 50 |
| Min. substrate thickness | h _{min} | [mm] | 100 | 100 | 100 | 100 |
| Min. spacing | s _{min} | [mm] | 35 | 40 | 50 | 60 |
| Min. edge distance | c _{min} | [mm] | 53 | 60 | 75 | 90 |
| CERAMIC AND HOLLOW SUBSTRATES | | | | | | |
| Installation torque | T _{inst} | [Nm] | 3 | 5 | 8 | 10 |
| Min. spacing | s _{min} | [mm] | 100 | 100 | 100 | 100 |
| Min. edge distance | c _{min} | [mm] | 100 | 100 | 100 | 100 |

Mechanical properties

| Size | | | M6 | M8 | M10 | M12 |
|---|--------------|----------------------|-------|-------|-------|--------|
| Nominal ultimate tensile strength - tension | f_{uk} | [N/mm ²] | 300 | 300 | 300 | 300 |
| Nominal yield strength - tension | f_{yk} | [N/mm ²] | 180 | 180 | 180 | 180 |
| Cross sectional area - tension | A_s | [mm ²] | 20.1 | 36.6 | 58 | 84.3 |
| Elastic section modulus | W_{el} | [mm ³] | 21.21 | 50.27 | 98.17 | 169.65 |
| Characteristic bending resistance | $M^0_{Rk,s}$ | [Nm] | 12.72 | 30.16 | 58.9 | 101.79 |
| Design bending resistance | M | [Nm] | 10.18 | 24.13 | 47.12 | 81.43 |

Basic performance data

Performance data for single anchor without influence of edge distance and spacing

| Size | | | M6 | M8 | M10 | M12 |
|---|------|--|-------|-------|-------|-------|
| NON-CRACKED CONCRETE | | | | | | |
| Effective embedment depth h_{ef} | [mm] | | 35.00 | 40.00 | 50.00 | 60.00 |
| CRACKED CONCRETE | | | | | | |
| Effective embedment depth h_{ef} | [mm] | | 35.00 | 40.00 | 50.00 | 60.00 |
| CHARACTERISTIC LOAD | | | | | | |
| TENSION LOAD N_{Rk} | | | | | | |
| NON-CRACKED CONCRETE | [kN] | | 2.00 | 4.50 | 7.50 | 10.00 |
| CRACKED CONCRETE | [kN] | | 2.00 | 4.50 | 6.00 | 10.00 |
| SHEAR LOAD V_{Rk} | | | | | | |
| NON-CRACKED CONCRETE | [kN] | | 5.00 | 9.00 | 14.00 | 20.00 |
| CRACKED CONCRETE | [kN] | | 5.00 | 8.71 | 12.17 | 20.00 |
| DESIGN LOAD | | | | | | |
| TENSION LOAD N_{Rd} | | | | | | |
| NON-CRACKED CONCRETE | [kN] | | 1.11 | 2.50 | 5.35 | 5.55 |
| CRACKED CONCRETE | [kN] | | 1.11 | 2.50 | 3.33 | 5.55 |
| SHEAR LOAD V_{Rd} | | | | | | |
| NON-CRACKED CONCRETE | [kN] | | 4.00 | 7.20 | 11.20 | 16.00 |
| CRACKED CONCRETE | [kN] | | 4.00 | 5.81 | 8.12 | 16.00 |

Basic performance data

Performance data for single anchor without influence of edge distance and spacing

| Size | | | M6 | M8 | M10 | M12 |
|--|----------------|------|------|------|------|-------|
| CHARACTERISTIC LOAD | | | | | | |
| TENSION LOAD N_{rk} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 2.00 | 4.50 | - | - |
| | C35/45 | [kN] | 2.00 | 4.50 | - | - |
| | C45/55 | [kN] | 2.00 | 4.50 | - | - |
| | C50/60 | [kN] | 2.00 | 4.50 | - | - |
| 35 | C30/37 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C35/45 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C45/55 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C50/60 | [kN] | 2.00 | 4.50 | 7.50 | - |
| 40 | C30/37 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C35/45 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C45/55 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C50/60 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| 50 | C20/25 | [kN] | 2.00 | 4.50 | 7.50 | 8.50 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 1.20 | 2.00 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 2.00 | 4.50 | 5.50 | 5.50 |
| Solid clay brick class 20 | | [kN] | 2.00 | 4.50 | 6.00 | 6.00 |
| Silicate hollow block class 15 | | [kN] | 1.50 | - | - | - |
| SHEAR LOAD V_{rk} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 2.00 | 4.50 | - | - |
| | C35/45 | [kN] | 2.00 | 4.50 | - | - |
| | C45/55 | [kN] | 2.00 | 4.50 | - | - |
| | C50/60 | [kN] | 2.00 | 4.50 | - | - |
| 35 | C30/37 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C35/45 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C45/55 | [kN] | 2.00 | 4.50 | 7.50 | - |
| | C50/60 | [kN] | 2.00 | 4.50 | 7.50 | - |
| 40 | C30/37 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C35/45 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C45/55 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| | C50/60 | [kN] | 2.00 | 4.50 | 7.50 | 10.00 |
| 50 | C20/25 | [kN] | 2.00 | 4.50 | 7.50 | 8.50 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 1.20 | 2.00 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 2.00 | 4.50 | 5.50 | 5.50 |
| Solid clay brick class 20 | | [kN] | 2.00 | 4.50 | 6.00 | 6.00 |
| Silicate hollow block class 15 | | [kN] | 1.50 | - | - | - |

Basic performance data

| Size | | | M6 | M8 | M10 | M12 |
|--|----------------|------|------|------|------|------|
| DESIGN LOAD | | | | | | |
| TENSION LOAD N_{Rd} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 1.10 | 2.50 | - | - |
| | C35/45 | [kN] | 1.10 | 2.50 | - | - |
| | C45/55 | [kN] | 1.10 | 2.50 | - | - |
| | C50/60 | [kN] | 1.10 | 2.50 | - | - |
| 35 | C30/37 | [kN] | 1.10 | 2.50 | 4.20 | - |
| | C35/45 | [kN] | 1.10 | 2.50 | 4.20 | - |
| | C45/55 | [kN] | 1.10 | 2.50 | 4.20 | - |
| | C50/60 | [kN] | 1.10 | 2.50 | 4.20 | - |
| 40 | C30/37 | [kN] | 1.10 | 2.50 | 4.20 | 5.60 |
| | C35/45 | [kN] | 1.10 | 2.50 | 4.20 | 5.60 |
| | C45/55 | [kN] | 1.10 | 2.50 | 4.20 | 5.60 |
| | C50/60 | [kN] | 1.10 | 2.50 | 4.20 | 5.60 |
| 50 | C20/25 | [kN] | 1.10 | 2.50 | 4.20 | 4.70 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 0.70 | 1.10 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 0.80 | 1.80 | 2.20 | 2.20 |
| Solid clay brick class 20 | | [kN] | 0.80 | 1.80 | 2.40 | 2.40 |
| Silicate hollow block class 15 | | [kN] | 0.60 | - | - | - |
| SHEAR LOAD V_{Rd} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 1.60 | 3.60 | - | - |
| | C35/45 | [kN] | 1.60 | 3.60 | - | - |
| | C45/55 | [kN] | 1.60 | 3.60 | - | - |
| | C50/60 | [kN] | 1.60 | 3.60 | - | - |
| 35 | C30/37 | [kN] | 1.60 | 3.60 | 6.00 | - |
| | C35/45 | [kN] | 1.60 | 3.60 | 6.00 | - |
| | C45/55 | [kN] | 1.60 | 3.60 | 6.00 | - |
| | C50/60 | [kN] | 1.60 | 3.60 | 6.00 | - |
| 40 | C30/37 | [kN] | 1.60 | 3.60 | 6.00 | 8.00 |
| | C35/45 | [kN] | 1.60 | 3.60 | 6.00 | 8.00 |
| | C45/55 | [kN] | 1.60 | 3.60 | 6.00 | 8.00 |
| | C50/60 | [kN] | 1.60 | 3.60 | 6.00 | 8.00 |
| 50 | C20/25 | [kN] | 1.60 | 3.60 | 6.00 | 6.80 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 1.00 | 1.60 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 1.60 | 3.60 | 4.40 | 4.40 |
| Solid clay brick class 20 | | [kN] | 1.60 | 3.60 | 4.80 | 4.80 |
| Silicate hollow block class 15 | | [kN] | 1.20 | - | - | - |

Basic performance data

| Size | | | M6 | M8 | M10 | M12 |
|--|----------------|------|------|------|------|------|
| RECOMMENDED LOAD | | | | | | |
| TENSION LOAD N_{rec} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 0.80 | 1.80 | - | - |
| | C35/45 | [kN] | 0.80 | 1.80 | - | - |
| | C45/55 | [kN] | 0.80 | 1.80 | - | - |
| | C50/60 | [kN] | 0.80 | 1.80 | - | - |
| 35 | C30/37 | [kN] | 0.80 | 1.80 | 3.00 | - |
| | C35/45 | [kN] | 0.80 | 1.80 | 3.00 | - |
| | C45/55 | [kN] | 0.80 | 1.80 | 3.00 | - |
| | C50/60 | [kN] | 0.80 | 1.80 | 3.00 | - |
| 40 | C30/37 | [kN] | 0.80 | 1.80 | 3.00 | 4.00 |
| | C35/45 | [kN] | 0.80 | 1.80 | 3.00 | 4.00 |
| | C45/55 | [kN] | 0.80 | 1.80 | 3.00 | 4.00 |
| | C50/60 | [kN] | 0.80 | 1.80 | 3.00 | 4.00 |
| 50 | C20/25 | [kN] | 0.80 | 1.80 | 3.00 | 3.40 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 0.50 | 0.80 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 0.60 | 1.30 | 1.60 | 1.60 |
| Solid clay brick class 20 | | [kN] | 0.60 | 1.30 | 1.70 | 1.70 |
| Silicate hollow block class 15 | | [kN] | 0.40 | - | - | - |
| SHEAR LOAD V_{rec} | | | | | | |
| Hollow core slab min. C20/25 | | | | | | |
| Wall thickness | Material class | | | | | |
| 23 | C30/37 | [kN] | 1.10 | 2.60 | - | - |
| | C35/45 | [kN] | 1.10 | 2.60 | - | - |
| | C45/55 | [kN] | 1.10 | 2.60 | - | - |
| | C50/60 | [kN] | 1.10 | 2.60 | - | - |
| 35 | C30/37 | [kN] | 1.10 | 2.60 | 4.30 | - |
| | C35/45 | [kN] | 1.10 | 2.60 | 4.30 | - |
| | C45/55 | [kN] | 1.10 | 2.60 | 4.30 | - |
| | C50/60 | [kN] | 1.10 | 2.60 | 4.30 | - |
| 40 | C30/37 | [kN] | 1.10 | 2.60 | 4.30 | 5.70 |
| | C35/45 | [kN] | 1.10 | 2.60 | 4.30 | 5.70 |
| | C45/55 | [kN] | 1.10 | 2.60 | 4.30 | 5.70 |
| | C50/60 | [kN] | 1.10 | 2.60 | 4.30 | 5.70 |
| 50 | C20/25 | [kN] | 1.10 | 2.60 | 4.30 | 4.90 |
| Beam-and-block floor (eg.Terriva 4.0/2), min. 25mm wall thickness | | [kN] | 0.70 | 1.10 | - | - |
| Lightweight concrete LAC class 5 | | [kN] | 1.10 | 2.60 | 3.10 | 3.10 |
| Solid clay brick class 20 | | [kN] | 1.10 | 2.60 | 3.40 | 3.40 |
| Silicate hollow block class 15 | | [kN] | 0.90 | - | - | - |

Product commercial data

| Product Code | Anchor | | Quantity [pcs] | | | Weight [kg] | | | Bar Codes |
|--------------|---------------|-------------|----------------|-------|--------|-------------|-------|--------|---------------|
| | Diameter [mm] | Length [mm] | Box | Outer | Pallet | Box | Outer | Pallet | |
| R-RBL-06HW | 6 | 83 | 25 | 400 | 16000 | 0.93 | 14.9 | 625.2 | 5906675283135 |
| R-RBL-08HW | 8 | 98 | 25 | 25 | 4000 | 1.79 | 1.79 | 316.8 | 5906675283159 |
| R-RBL-10HW | 10 | 120 | 25 | 25 | 4000 | 3.1 | 3.1 | 530.8 | 5906675283173 |
| R-RBL-12HW | 12 | 145 | 25 | 25 | 4000 | 5.8 | 5.8 | 962.8 | 5906675283197 |