

INFORMATION

The Ankerbolt is a zinc plated self tapping anchor for use in a variety of base materials.

The undercutting action provides a positive anchorage with no expansion forces.

The wide range of types and sizes gives flexibility of choosing the correct anchor according to the fixture thickness.

BASE MATERIAL

- Concrete C20/25 to C50/60
- Non-Cracked Concrete
- Hollow Concrete Planks
- Solid Brickwork
- Concrete Block
- Natural Stone

FEATURES

- Undercutting Action
- Fast And Secure Installation
- Expansion Free
- Through Fixing
- High Performance
- Zinc Plated Minimum 5µm (For Dry, Internal Applications Only)
- Mechanical Galvanised Minimum 40µm

RELATED PRODUCTS



SDS+ Drill Bits

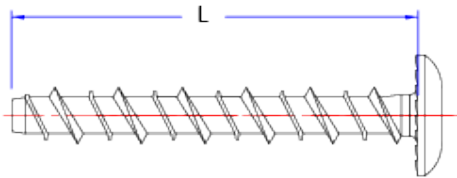
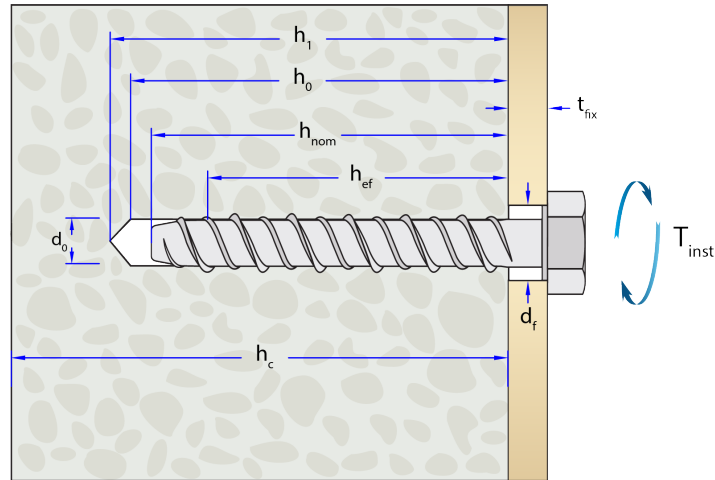


Hole Cleaning Pump

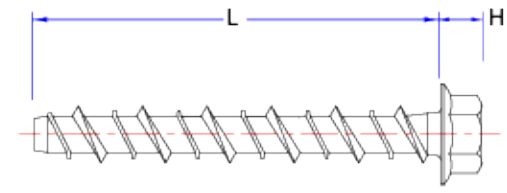
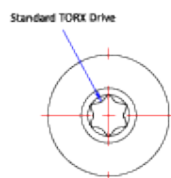


Torx Driver Bits
(For Pan Head and Countersunk)

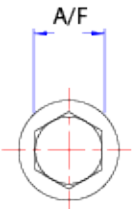
RANGE AND LOAD DATA



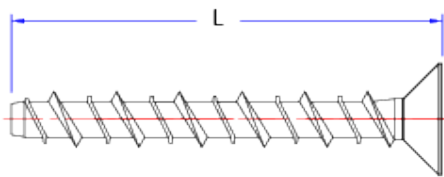
Pan head



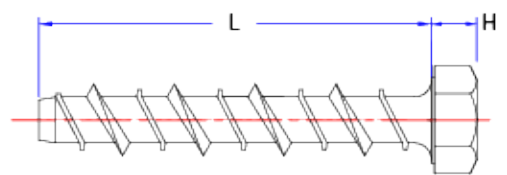
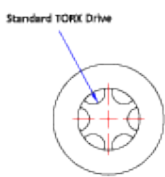
Hexagon flange head



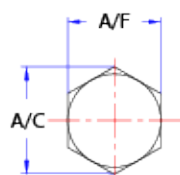
11mm for 05/06
14mm for 06/08



Countersunk



Hexagon head





| RANGE DATA | | | | | | | | | | | | | | |
|---------------------|---------------------------------------|-------------------------------------|-------------------|---------------------------------|--|---|----------------------------------|-------------------------------------|---|----------------------------------|-------------------------------------|---|--------------------------|--|
| Part Number | Drill Hole Diameter (d _p) | Thread Diameter (d _{nom}) | Anchor Length (L) | Thread Length (L _t) | Fixture Clearance Hole (d _f) | Shallow Embedment | | | Deep Embedment | | | Min Structure Thickness (h _c) | Width Across Flats (A/F) | Tightening Torque (T _{inst}) |
| | | | | | | Max Fixture Thickness (t _{fix}) | Min Hole Depth (h ₁) | Embedment Depth (h _{nom}) | Max Fixture Thickness (t _{fix}) | Min Hole Depth (h ₁) | Embedment Depth (h _{nom}) | | | |
| | | | | | | mm | mm | mm | mm | mm | mm | | | |
| HEXAGON FLANGE HEAD | | | | | | | | | | | | | | |
| JAB05/06050 | 5 | 6 | 50 | 50 | 8 | 25 | 35 | 25 | 13 | 50 | 37 | 100 | 8 | 15 |
| JAB05/06075 | | | 75 | 75 | | 50 | | | 38 | | | | | |
| JAB05/06100 | | | 100 | 100 | | 75 | | | 63 | | | | | |
| JAB06/08030 | 6 | 8 | 30 | 30 | 10 | 5 | 40 | 30 | N/A | 55 | 45 | 100 | 10 | 25 |
| JAB06/08050(G)* | | | 50 | 50 | | 20 | | | 5 | | | | | |
| JAB06/08075(G)* | | | 75 | 75 | | 45 | | | 30 | | | | | |
| JAB06/08100(G)* | | | 100 | 100 | | 70 | | | 55 | | | | | |
| JAB06/08130 | | | 130 | 100 | | 100 | | | 85 | | | | | |
| JAB06/08150 | | | 150 | 100 | | 120 | | | 105 | | | | | |
| HEXAGON HEAD | | | | | | | | | | | | | | |
| JAB08/10060(G)* | 8 | 10 | 60 | 60 | 12 | 20 | 55 | 40 | N/A | 75 | 60 | 120 | 15 | 40 |
| JAB08/10075 | | | 75 | 75 | | 35 | | | 15 | | | | | |
| JAB08/10100(G)* | | | 100 | 100 | | 60 | | | 40 | | | | | |
| JAB08/10130 | | | 130 | 100 | | 90 | | | 70 | | | | | |
| JAB08/10150(G)* | | | 150 | 100 | | 110 | | | 90 | | | | | |
| JAB10/12060(G)* | 10 | 12 | 60 | 60 | 14 | 10 | 70 | 50 | N/A | 95 | 75 | 125 | 17 | 60 |
| JAB10/12075 | | | 75 | 75 | | 25 | | | N/A | | | | | |
| JAB10/12100(G)* | | | 100 | 100 | | 50 | | | 25 | | | | | |
| JAB10/12130 | | | 130 | 100 | | 80 | | | 55 | | | | | |
| JAB10/12150(G)* | 150 | 100 | 100 | 75 | | | | | | | | | | |
| JAB12/14075 | 12 | 14 | 75 | 75 | 16 | 15 | 85 | 60 | N/A | 115 | 90 | 140 | 19 | 80 |
| JAB12/14100(G)* | | | 100 | 100 | | 40 | | | 10 | | | | | |
| JAB12/14130 | | | 130 | 110 | | 70 | | | 40 | | | | | |
| JAB12/14150(G)* | | | 150 | 110 | | 90 | | | 60 | | | | | |
| JAB12/14200(G)* | | | 200 | 110 | | 140 | | | 110 | | | | | |
| JAB14/16075 | 14 | 16 | 75 | 75 | 18 | 5 | 100 | 70 | N/A | 125 | 95 | 170 | 24 | 90 |
| JAB14/16100 | | | 100 | 100 | | 30 | | | 5 | | | | | |
| JAB14/16130 | | | 130 | 120 | | 60 | | | 35 | | | | | |
| JAB14/16150 | | | 150 | 120 | | 80 | | | 55 | | | | | |
| JAB14/16200 | | | 200 | 120 | | 130 | | | 105 | | | | | |
| JAB16/18100** | 16 | 18 | 100 | 100 | 20 | 20 | 110 | 80 | N/A | 145 | 115 | 190 | 27 | 100 |
| JAB16/18150** | | | 150 | 125 | | 70 | | | 35 | | | | | |
| JAB16/18200** | | | 200 | 125 | | 120 | | | 85 | | | | | |

* The Mechanical Galvanised (minimum 40µm) version is available.

** Mechanical Galvanised minimum 40µm.





| RANGE DATA | | | | | | | | | | | | | | |
|---------------|---------------------------------------|-------------------------------------|-------------------|---------------------------------|--|---|----------------------------------|-------------------------------------|---|----------------------------------|-------------------------------------|---|-----------------------|--|
| Part Number | Drill Hole Diameter (d ₀) | Thread Diameter (d _{nom}) | Anchor Length (L) | Thread Length (L _t) | Fixture Clearance Hole (d _f) | Shallow Embedment | | | Deep Embedment | | | Min Structure Thickness (h _c) | Driver Size/head size | Tightening Torque (T _{inst}) |
| | | | | | | Max Fixture Thickness (t _{fix}) | Min Hole Depth (h ₁) | Embedment Depth (h _{nom}) | Max Fixture Thickness (t _{fix}) | Min Hole Depth (h ₁) | Embedment Depth (h _{nom}) | | | |
| | | | | | | mm | mm | mm | mm | mm | mm | | | |
| PAN HEAD | | | | | | | | | | | | | | |
| JAB05/06050PH | 5 | 6 | 50 | 50 | 8 | 25 | 35 | 25 | 13 | 50 | 37 | 100 | Torx T25 / 11 | 15 |
| JAB05/06075PH | | | 75 | 75 | | 50 | | | 38 | | | | | |
| JAB05/06100PH | | | 100 | 100 | | 75 | | | 63 | | | | | |
| JAB06/08030PH | 6 | 8 | 30 | 30 | 10 | 5 | 40 | 30 | N/A | 55 | 45 | 100 | Torx T30 / 16 | 25 |
| JAB06/08050PH | | | 50 | 50 | | 20 | | | 40 | | | | | |
| JAB06/08075PH | | | 75 | 75 | | 45 | | | 30 | | | | | |
| JAB06/08100PH | | | 100 | 100 | | 70 | | | 55 | | | | | |
| COUNTERSUNK | | | | | | | | | | | | | | |
| JAB05/06030CS | 5 | 6 | 30 | 25 | 8 | 5 | 35 | 25 | N/A | 50 | 37 | 100 | Torx T25 / 9.5 | 15 |
| JAB05/06050CS | | | 50 | 45 | | 25 | | | 13 | | | | | |
| JAB05/06075CS | | | 75 | 70 | | 50 | | | 38 | | | | | |
| JAB05/06100CS | | | 100 | 95 | | 75 | | | 63 | | | | | |
| JAB06/08030CS | 6 | 8 | 30 | 25 | 10 | 5 | 40 | 30 | N/A | 55 | 45 | 100 | Torx T30 / 12.5 | 25 |
| JAB06/08050CS | | | 50 | 44 | | 20 | | | 5 | | | | | |
| JAB06/08075CS | | | 75 | 69 | | 45 | | | 30 | | | | | |
| JAB06/08100CS | | | 100 | 96 | | 70 | | | 55 | | | | | |
| JAB06/08130CS | | | 130 | 100 | | 100 | | | 85 | | | | | |
| JAB06/08150CS | | | 150 | 100 | | 120 | | | 105 | | | | | |
| JAB08/10060CS | 8 | 10 | 60 | 51 | 12 | 20 | 55 | 40 | N/A | 75 | 60 | 120 | Torx T45 / 17.5 | 40 |
| JAB08/10075CS | | | 75 | 66 | | 35 | | | 15 | | | | | |
| JAB08/10100CS | | | 100 | 91 | | 60 | | | 40 | | | | | |
| JAB10/12060CS | 10 | 12 | 60 | 50 | 14 | 10 | 70 | 50 | N/A | 95 | 75 | 125 | Torx T50 / 21 | 60 |
| JAB10/12075CS | | | 75 | 65 | | 25 | | | N/A | | | | | |
| JAB10/12100CS | | | 100 | 90 | | 50 | | | 25 | | | | | |





NON-CRACKED CONCRETE - SHALLOW EMBEDMENT

Performance Data (C20/25 non-cracked concrete)

| Drill Diam (d _v) | Overall Embedment Depth (h _{nom}) | Minimum Concrete Thickness (h _{min}) | Characteristic Resistance | | Design Resistance | | Approved Resistance | | Design Spacing (s) | | Design Edge Distance (c) | |
|------------------------------|---|--|----------------------------|--------------------------|----------------------------|--------------------------|---------------------------|--------------------------|--------------------|-------|--------------------------|-------|
| | | | Tensile (N _{Rk}) | Shear (V _{Rk}) | Tensile (N _{Rd}) | Shear (V _{Rd}) | Tensile(N _{Ra}) | Shear (V _{Ra}) | Tensile | Shear | Tensile | Shear |
| mm | mm | mm | kN | kN | kN | kN | kN | kN | mm | mm | mm | mm |
| 5 | 25 | 100 | 3.1 | 3.2 | 1.7 | 2.0 | 1.2 | 1.4 | 50 | 50 | 30 | 40 |
| 6 | 30 | 100 | 3.9 | 3.8 | 2.1 | 2.5 | 1.5 | 1.7 | 60 | 60 | 40 | 40 |
| 8 | 40 | 100 | 6.3 | 6.3 | 3.4 | 4.2 | 2.4 | 3.0 | 70 | 80 | 50 | 50 |
| 10 | 50 | 100 | 9.3 | 9.1 | 5.0 | 6.0 | 3.5 | 4.2 | 100 | 100 | 60 | 70 |
| 12 | 60 | 100 | 12.5 | 12.7 | 6.9 | 8.4 | 4.9 | 6.0 | 120 | 120 | 70 | 90 |
| 14 | 70 | 100 | 15.3 | 15.2 | 8.4 | 10.3 | 6.0 | 7.3 | 130 | 140 | 80 | 110 |
| 16 | 80 | 105 | 19.0 | 18.9 | 10.3 | 12.4 | 7.3 | 8.8 | 160 | 160 | 110 | 120 |

NON-CRACKED CONCRETE - DEEP EMBEDMENT

Performance Data (C20/25 non-cracked concrete)

| Drill Diam (d _v) | Overall Embedment Depth (h _{nom}) | Minimum Concrete Thickness (h _{min}) | Characteristic Resistance | | Design Resistance | | Approved Resistance | | Design Spacing (s) | | Design Edge Distance (c) | |
|------------------------------|---|--|----------------------------|--------------------------|----------------------------|--------------------------|---------------------------|--------------------------|--------------------|-------|--------------------------|-------|
| | | | Tensile (N _{Rk}) | Shear (V _{Rk}) | Tensile (N _{Rd}) | Shear (V _{Rd}) | Tensile(N _{Ra}) | Shear (V _{Ra}) | Tensile | Shear | Tensile | Shear |
| mm | mm | mm | kN | kN | kN | kN | kN | kN | mm | mm | mm | mm |
| 5 | 37 | 100 | 5.0 | 6.6 | 2.7 | 4.4 | 1.9 | 3.1 | 40 | 80 | 30 | 60 |
| 6 | 45 | 100 | 7.5 | 8.7 | 4.1 | 5.6 | 2.9 | 4.0 | 70 | 90 | 40 | 70 |
| 8 | 60 | 120 | 10.0 | 13.7 | 5.5 | 9.1 | 3.9 | 6.5 | 70 | 130 | 50 | 90 |
| 10 | 75 | 125 | 15.0 | 20.0 | 8.3 | 13.1 | 5.9 | 9.3 | 90 | 160 | 60 | 120 |
| 12 | 90 | 140 | 19.0 | 40.5 | 10.5 | 32.3 | 7.5 | 23.0 | 90 | 160 | 70 | 300 |
| 14 | 95 | 170 | 22.0 | 54.1 | 12.2 | 35.7 | 8.7 | 25.5 | 130 | 200 | 80 | 300 |
| 16 | 115 | 190 | 34.0 | 74.9 | 18.8 | 49.9 | 13.4 | 35.6 | 200 | 250 | 110 | 390 |

SUPPLEMENTARY DATA

Influence Of Concrete Strength (Non-cracked Concrete)

| Concrete strength | | C20/25 | C30/37 | C40/50 | C50/60 |
|-------------------|-------------------|--------|--------|--------|--------|
| Cylinder | N/mm ² | 20 | 30 | 40 | 50 |
| Cube | N/mm ² | 25 | 37 | 50 | 60 |
| Factor | M8, M10, M12 | 1.0 | 1.17 | 1.32 | 1.42 |
| | M14, M16 | 1.0 | 1.22 | 1.41 | 1.55 |

Important Note:

When using concrete factors ensure that loads do not exceed Steel Design Resistance.

For variations in structure thickness, reduced spacing and edge calculations download the free **Anchor Calculation Program** from www.jcpfixings.co.uk



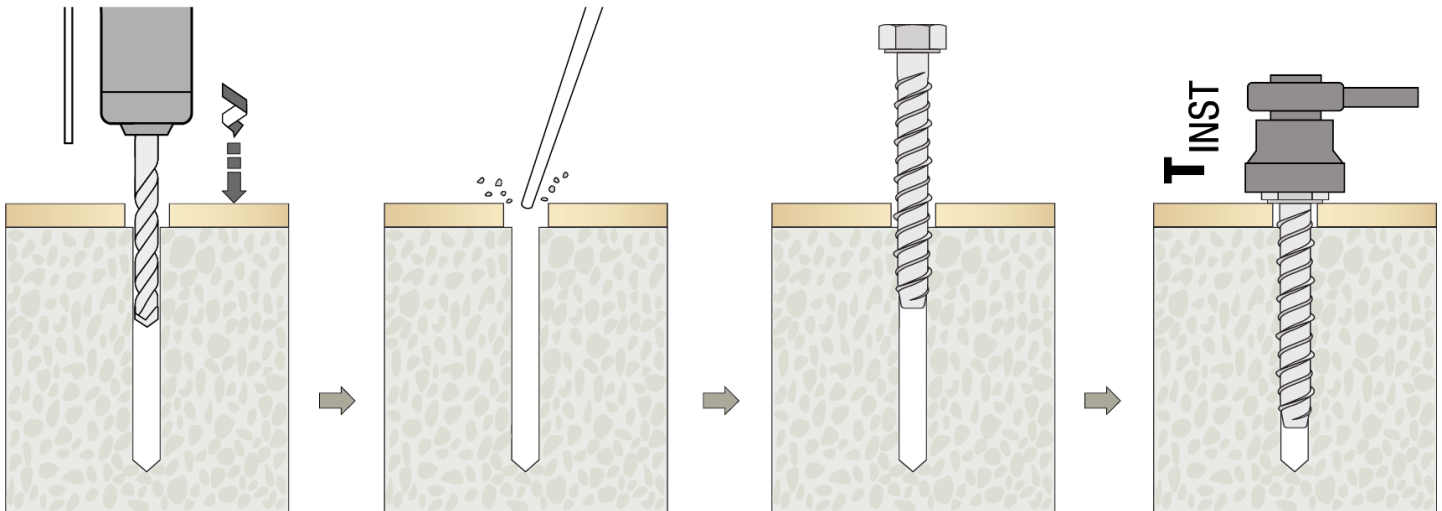


| Steel Failure | | | | | | |
|------------------------------|--|---|--|--|--|--|
| Drill Diam (d _v) | Tensile Resistance | | | Shear Resistance | | |
| | Characteristic Resistance (N _{Rk,s}) | Design Resistance (N _{Rd,s})* | Approved Resistance (N _{Ed,s}) | Characteristic Resistance (V _{Rk,s}) | Design Resistance (V _{Rd,s})** | Approved Resistance (V _{Ed,s}) |
| mm | kN | kN | kN | kN | kN | kN |
| 8 | 44.2 | 31.6 | 22.6 | 28.5 | 19.0 | 13.6 |
| 10 | 70.1 | 50.1 | 35.8 | 46.4 | 30.9 | 22.1 |
| 12 | 101.2 | 72.3 | 51.6 | 57.2 | 38.1 | 27.2 |
| 14 | 140.0 | 100.0 | 71.4 | 80.4 | 53.6 | 38.3 |
| 16 | 183.9 | 131.4 | 93.8 | 84.4 | 56.3 | 40.2 |

* A partial safety factor (γ_{MS}) equal to 1.4 is included.

** A partial safety factor (γ_{MS}) equal to 1.5 is included.

INSTALLATION INSTRUCTIONS



-Position fixture and drill correct diameter hole to corresponding depth by using the rotary hammer drilling mode

-Clean hole by blowing to remove drilling debris and dust

-Insert anchor through fixture into concrete using suitable impact wrench and stop before the anchor touches the fixture

-Finish by tightening with torque wrench to recommended torque

For variations in structure thickness, reduced spacing and edge calculations download the free **Anchor Calculation Program** from www.jcpfixings.co.uk





DATA FOR USE IN MASONRY

Solid Brickwork

Performance Data (Solid Brickwork 20 N/mm²)

| Drill Diam (d ₀) | Overall Embedment Depth (h _{nom}) | Minimum Concrete Thickness (h _{min}) | Characteristic Resistance | | Design Resistance | | Approved Resistance | | Design Spacing (s) | | Design Edge Distance (c) | |
|------------------------------|---|--|----------------------------|--------------------------|----------------------------|--------------------------|---------------------------|--------------------------|-------------------------|-------|--|-------|
| | | | Tensile (N _{Rk}) | Shear (V _{Rk}) | Tensile (N _{Rd}) | Shear (V _{Rd}) | Tensile(N _{Ra}) | Shear (V _{Ra}) | Tensile | Shear | Tensile | Shear |
| mm | mm | mm | kN | kN | kN | kN | kN | kN | mm | mm | mm | mm |
| 5 | 25 | 100 | 0.7 | 1.2 | 0.35 | 0.57 | 0.25 | 0.4 | 75 | 75 | It is recommended to fix at least one brick in from an edge and 3 courses down from the top of a wall. | |
| 6 | 30 | 100 | 0.9 | 1.5 | 0.43 | 0.71 | 0.31 | 0.51 | 90 | 90 | | |
| 8 | 40 | 100 | 1.9 | 1.7 | 0.9 | 0.8 | 0.64 | 0.57 | 120 | 120 | | |
| 10 | 50 | 100 | 2.4 | 2.4 | 1.14 | 1.14 | 0.81 | 0.81 | Only 1 fixing per Brick | | | |
| 12 | 60 | 100 | 3.5 | 3.4 | 1.66 | 1.62 | 1.19 | 1.15 | | | | |

(Tests were carried out in standard 230 x 110 x 60 mm solid bricks)

Dense Concrete Blocks

Performance Data (7N/mm² Dense Concrete Blocks)

| Drill Diam (d ₀) | Overall Embedment Depth (h _{nom}) | Minimum Concrete Thickness (h _{min}) | Characteristic Resistance | | Design Resistance | | Approved Resistance | | Design Spacing (s) | | Design Edge Distance (c) | |
|------------------------------|---|--|----------------------------|--------------------------|----------------------------|--------------------------|---------------------------|--------------------------|--------------------|-------|--|-------|
| | | | Tensile (N _{Rk}) | Shear (V _{Rk}) | Tensile (N _{Rd}) | Shear (V _{Rd}) | Tensile(N _{Ra}) | Shear (V _{Ra}) | Tensile | Shear | Tensile | Shear |
| mm | mm | mm | kN | kN | kN | kN | kN | kN | mm | mm | mm | mm |
| 5 | 25 | 100 | 1.1 | 1.7 | 0.52 | 0.8 | 0.37 | 0.57 | 75 | 75 | It is recommended to fix at least one block in from an edge and 3 courses down from the top of a wall. | |
| 6 | 30 | 100 | 1.3 | 3.4 | 0.62 | 1.61 | 0.44 | 1.15 | 90 | 90 | | |
| 8 | 40 | 100 | 1.7 | 6.7 | 0.8 | 3.19 | 0.57 | 2.27 | 120 | 120 | | |
| 10 | 50 | 100 | 3.1 | 7.3 | 1.47 | 3.47 | 1.05 | 2.47 | 150 | 150 | | |
| 12 | 60 | 100 | 3.8 | 10.1 | 1.8 | 4.8 | 1.28 | 3.42 | 180 | 180 | | |

(Tests were carried out in 700 x 500 x 200 mm solid blocks)

Due to the variable nature of bricks and blocks the above figures are for guidance only. For critical applications a site test is recommended.

