# Hollo-Bolt™ Hexagonal Head Safe Working Loads

UK CA CE ICC ES TÜVNORD Dynamic Load Approved Fire Rated to ISO 834

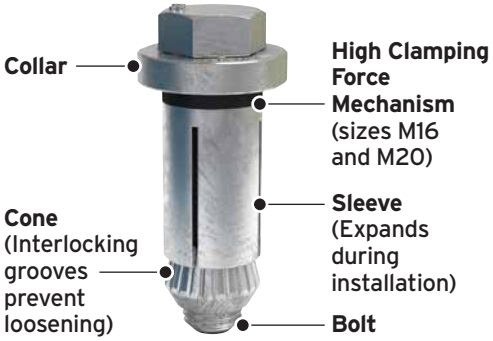


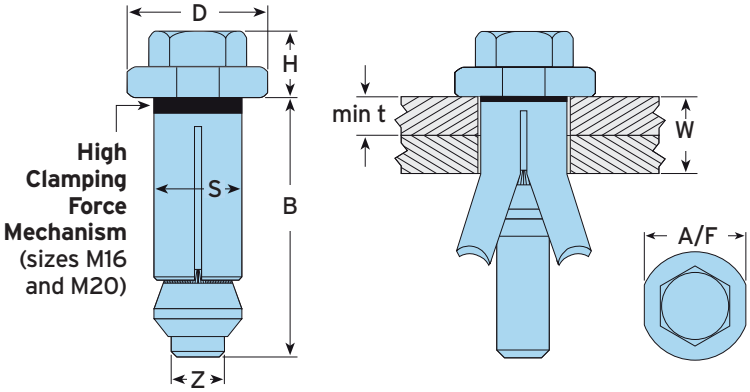



## Hexagonal Head Data

(Available in sizes M8, M10, M12, M16 & M20)

Hollo-Bolt™




Material: Carbon steel or stainless steel (see page 43 for corrosion protection options).

**HEXAGONAL HEAD DATA**

| | Product Code | Bolt Ø Z | Height H mm | Length B (max) mm | Clamping Thickness W mm | Outer Ply min t mm | Collar Sleeve Outer Ø S mm | Collar Ø D mm | Collar A/F mm | Tightening Torque Nm | Safe Working Loads (Factor of Safety 5:1) Tensile kN | Safe Working Loads (Factor of Safety 5:1) Single Shear kN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HB08-1 | M8 | 10.5 | 45 | 3 - 22 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HB08-2 | M8 | 10.5 | 65 | 22 - 41 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HB08-3 | M8 | 10.5 | 85 | 41 - 60 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HB10-1 | M10 | 12.5 | 49 | 3 - 22 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HB10-2 | M10 | 12.5 | 64 | 22 - 41 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HB10-3 | M10 | 12.5 | 84 | 41 - 60 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HB12-1 | M12 | 14.5 | 53 | 3 - 25 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| | HB12-2 | M12 | 14.5 | 73 | 25 - 47 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| | HB12-3 | M12 | 14.5 | 93 | 47 - 69 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| Hollo-Bolt HCF | HB16-1 | M16 | 18 | 67 | 12 - 29 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |
| Hollo-Bolt HCF | HB16-2 | M16 | 18 | 92 | 29 - 50 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |
| Hollo-Bolt HCF | HB16-3 | M16 | 18 | 112 | 50 - 71 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |
| Hollo-Bolt HCF | HB20-1 | M20 | 22.5 | 80 | 12 - 34 | 8 | 32.75 | 51 | 46 | 300 | 35.0 | 40.0 |
| Hollo-Bolt HCF | HB20-2 | M20 | 22.5 | 110 | 34 - 60 | 8 | 32.75 | 51 | 46 | 300 | 35.0 | 40.0 |
| Hollo-Bolt HCF | HB20-3 | M20 | 22.5 | 140 | 60 - 86 | 8 | 32.75 | 51 | 46 | 300 | 35.0 | 40.0 |

- **Hollo-Bolts can be used on a wide variety of steel hollow shape sections. Safe working loads shown are applicable to the Hollo-Bolt only in both tension and shear. Failure of the section could occur at a lower figure and its strength should be checked by a qualified Structural Engineer.**
- **Dynamic load testing has been performed for Hollo-Bolt Hexagonal in accordance with EN 1993-1-9. Please contact our Technical Support team for more information and design data.**



Published by the SCI/BCSA Connections Group, 'Joints in Steel Construction - Simple Connections' provides design guidance for using Hollo-Bolt and structural steelwork connections in buildings designed using the 'Simple Method' i.e. braced frames where connections carry mainly shear and axial loads only. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**


© Lindapter International 2025

# Hollo-Bolt™ Hexagonal Head Characteristic Resistances

## Characteristic Resistances

**The values listed in the tables below are to be used when designing bolted connection to Eurocode 3 only, they are not standard safe working loads.**

Please refer to CE Declaration of Performance No.001 or UKCA Declaration of Conformity No.101 on Lindapter's website. Alternatively, request a DoP or DoC brochure.



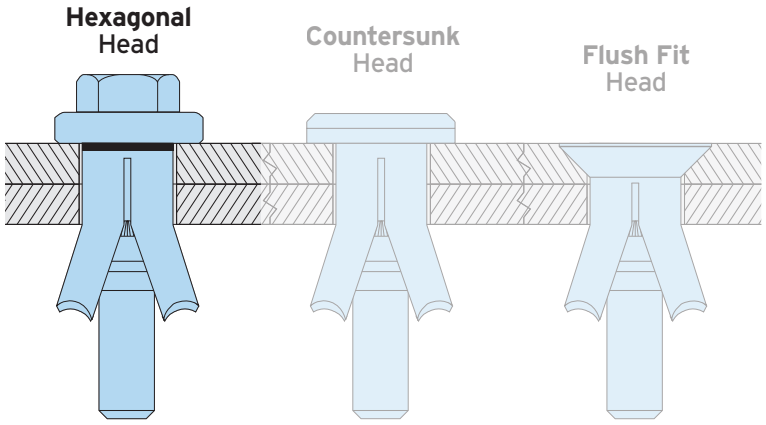

| | HEXAGONAL HEAD Data for Zinc + JS500, HDG and Sheraplex | | | | |
|---|---|---|---|---|---|
| | Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
| | HB08 | M8 | 23.1 | 32.9 | 430 |
| | HB10 | M10 | 39.6 | 54.2 | 430 |
| | HB12 | M12 | 45.8 | 71.0 | 430 |
| HCF | HB16 | M16 | 84.3 | 139.0 | 430 |
| | HB20 | M20 | 124.0 | 211.0 | 390 |

| | HEXAGONAL HEAD Data for Stainless Steel | | | | |
|---|---|---|---|---|---|
| | Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
| | HBST08 | M8 | 26.8 | 30.7 | 500 |
| | HBST10 | M10 | 46.0 | 51.0 | 500 |
| | HBST12 | M12 | 53.3 | 65.0 | 500 |
| HCF | HBST16 | M16 | 98.0 | 128.0 | 500 |
| | HBST20 | M20 | 154.0 | 205.0 | 500 |

- **Hollo-Bolt lengths 1, 2 and 3 are covered by ETA 10/0416. The characteristic values are used to determine the design resistance of the Hollo-Bolt. The design resistance is calculated by dividing the characteristic value by a partial factor γM2. The partial factor is a nationally determined parameter (eg: γM2 = 1.25 in UK).**
- **For Hollo-Bolt Hexagonal Head safe working loads with a Factor of Safety of 5:1 please refer to the table on page 46 of this catalogue. The characteristic values are valid for the assembly itself, in any connection detail the design resistance of the connection may be limited to a lesser value. For example, when the thickness of the connected component is small, pull out failure may occur before failure of the Hollo-Bolt. Design checks should be carried out to determine the static design resistance.**




The SCI Greenbook publication 'Joints in Steel Construction: Simple Joints to Eurocode 3' contains a number of checks on the section. The characteristic values are only valid when the Hollo-Bolts are installed as per Lindapter's installation instructions. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**



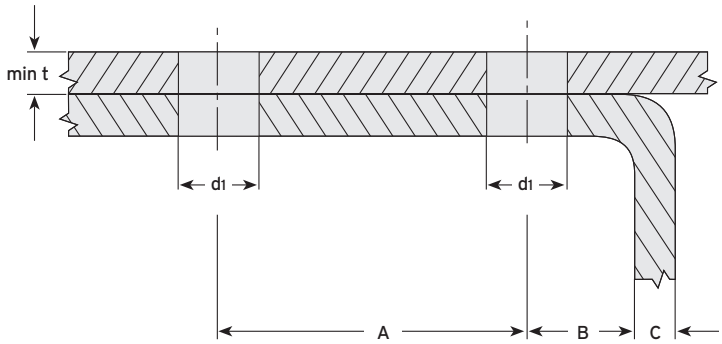



# Hollo-Bolt Hexagonal and Countersunk - Drilling and Installation

Please ensure that the holes are drilled into both the fixture and the section according to the drilling guidance below. Please note that the holes are slightly larger than standard bolt clearance holes to accommodate the sleeve and cone.



## Preparation for installing Hollo-Bolt Hexagonal and Countersunk




| Type | | Outer Ply | Clearance Hole Ø* | Hole Distances** | | Edge Distances** |
|---|---|---|---|---|---|---|
| Hexagonal | Countersunk | min t mm | d1 mm | min A mm | min B mm | B + C mm |
| HB08 | HBCSK08 | - | 14 (+1.0/-0.2) | 35 | 13 | ≥ 17.5 |
| HB10 | HBCSK10 | - | 18 (+1.0/-0.2) | 40 | 15 | ≥ 22.5 |
| HB12 | HBCSK12 | - | 20 (+1.0/-0.2) | 50 | 18 | ≥ 25.0 |
| HB16 | HBCSK16 | 8 | 26 (+2.0/-0.2) | 55 | 20 | ≥ 32.5 |
| HB20 | - | 8 | 33 (+2.0/-0.2) | 70 | 25 | ≥ 33.0 |

** For Hollo-Bolts with Hot Dip Galvanised Finish, drilling the clearance hole to the top tolerance is recommended.*
*** Ensure holes do not cut through the outer radius.*

**Sizes M16 and M20 require outer ply thickness (min t) to be at least 8mm.**

## Tool sizes for installing Hollo-Bolt Hexagonal

| Hollo-Bolt Hexagonal | | | |
|---|---|---|---|
| Product Code | Spanner mm | Socket mm | Tightening Torque Nm |
| HB08 | 19 | 13 | 23 |
| HB10 | 24 | 17 | 45 |
| HB12 | 30 | 19 | 80 |
| HB16 | 36 | 24 | 190 |
| HB20 | 46 | 30 | 300 |

## Tool sizes for installing Hollo-Bolt Countersunk

| Hollo-Bolt Countersunk | | | |
|---|---|---|---|
| Product Code | Spanner mm | Hexagon Key mm | Tightening Torque Nm |
| HBCSK08 | 19 | 5 | 23 |
| HBCSK10 | 24 | 6 | 45 |
| HBCSK12 | 30 | 8 | 80 |
| HBCSK16 | 36 | 10 | 190 |

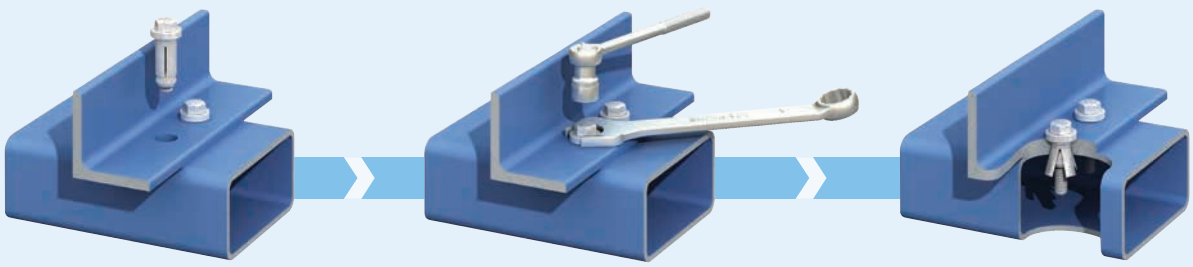
## How to install...

**Watch the Hollo-Bolt installation video at www.Lindapter.com**

**1)** Align pre-drilled fixture and section then insert the Hollo-Bolt [a].

**2)** Grip Hollo-Bolt collar with an open ended spanner.

**3)** Using a calibrated torque wrench, tighten the central bolt to the recommended torque [b].



**Notes:**
a) Before tightening, ensure that the materials that are to be connected together are touching.
b) Rotate the torque wrench only. See table above for tightening torque.
c) Power tools, such as an impact wrench, may be used to speed up the tightening of the Hollo-Bolt. However, when using power tools, always complete the tightening process with a calibrated torque wrench to ensure the correct torque is applied to the Hollo-Bolt.


© Lindapter International 2025

Ref: LindUKJul25

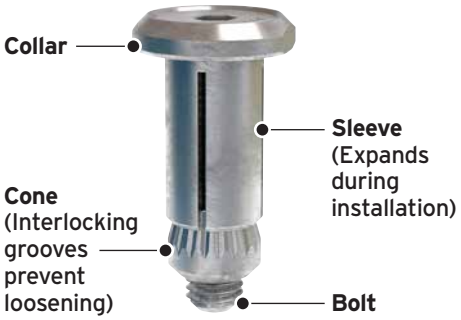
# Hollo-Bolt™ Countersunk Head Safe Working Loads

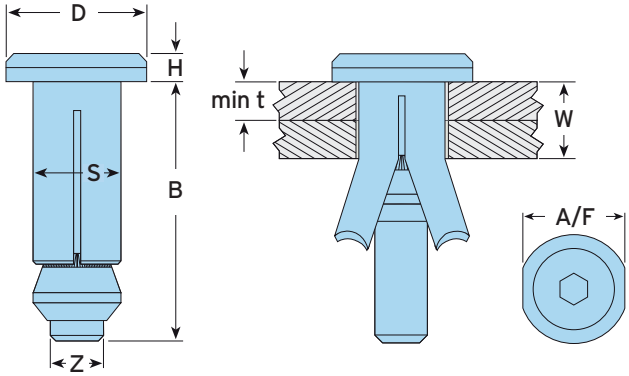





## Countersunk Head Data

(Available in sizes M8, M10, M12 & M16)




Material: Carbon steel or stainless steel (see page 43 for corrosion protection options).

**COUNTERSUNK HEAD DATA**

| | Product Code | Bolt Ø Z | Height H mm | Length B (max) mm | Clamping Thickness W mm | Outer Ply min t mm | Collar Sleeve Outer Ø S mm | Collar Ø D mm | Collar A/F mm | Tightening Torque Nm | Safe Working Loads (Factor of Safety 5:1) Tensile kN | Safe Working Loads (Factor of Safety 5:1) Single Shear kN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HBCSK08-1 | M8 | 5 | 45 | 3 - 22 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HBCSK08-2 | M8 | 5 | 65 | 22 - 41 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HBCSK08-3 | M8 | 5 | 85 | 41 - 60 | - | 13.75 | 22 | 19 | 23 | 4.0 | 5.0 |
| | HBCSK10-1 | M10 | 6 | 44 | 3 - 22 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HBCSK10-2 | M10 | 6 | 64 | 22 - 41 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HBCSK10-3 | M10 | 6 | 84 | 41 - 60 | - | 17.75 | 29 | 24 | 45 | 8.5 | 10.0 |
| | HBCSK12-1 | M12 | 7 | 48 | 3 - 25 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| | HBCSK12-2 | M12 | 7 | 73 | 25 - 47 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| | HBCSK12-3 | M12 | 7 | 93 | 47 - 69 | - | 19.75 | 32 | 30 | 80 | 10.5 | 15.0 |
| HCF | HBCSK16-1 | M16 | 8 | 62 | 12 - 29 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |
| HCF | HBCSK16-2 | M16 | 8 | 92 | 29 - 50 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |
| HCF | HBCSK16-3 | M16 | 8 | 112 | 50 - 71 | 8 | 25.75 | 38 | 36 | 190 | 21.0 | 30.0 |

**Hollo-Bolts can be used on a wide variety of steel hollow shape sections. Safe working loads shown are applicable to the Hollo-Bolt only in both tension and shear. Failure of the section could occur at a lower figure and its strength should be checked by a qualified Structural Engineer.**

Published by the SCI/BCSA Connections Group, 'Joints in Steel Construction - Simple Connections' provides design guidance for using Hollo-Bolt and structural steelwork connections in buildings designed using the 'Simple Method' i.e. braced frames where connections carry mainly shear and axial loads only. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**



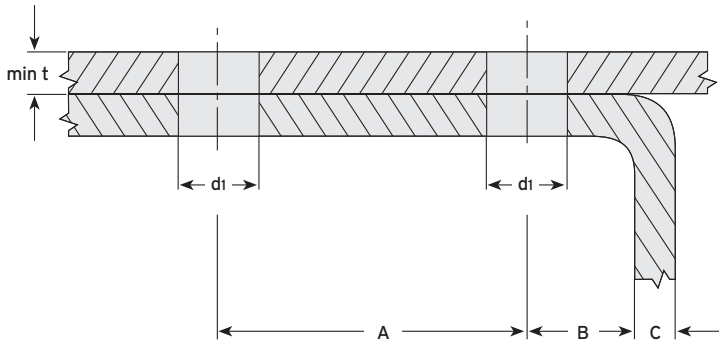

© Lindapter International 2025

# Hollo-Bolt Hexagonal and Countersunk - Drilling and Installation

Please ensure that the holes are drilled into both the fixture and the section according to the drilling guidance below. Please note that the holes are slightly larger than standard bolt clearance holes to accommodate the sleeve and cone.



## Preparation for installing Hollo-Bolt Hexagonal and Countersunk




| Type | | Outer Ply | Clearance Hole Ø* | Hole Distances** | | Edge Distances** |
|---|---|---|---|---|---|---|
| Hexagonal | Countersunk | min t mm | d1 mm | min A mm | min B mm | B + C mm |
| HB08 | HBCSK08 | - | 14 (+1.0/-0.2) | 35 | 13 | ≥ 17.5 |
| HB10 | HBCSK10 | - | 18 (+1.0/-0.2) | 40 | 15 | ≥ 22.5 |
| HB12 | HBCSK12 | - | 20 (+1.0/-0.2) | 50 | 18 | ≥ 25.0 |
| HB16 | HBCSK16 | 8 | 26 (+2.0/-0.2) | 55 | 20 | ≥ 32.5 |
| HB20 | - | 8 | 33 (+2.0/-0.2) | 70 | 25 | ≥ 33.0 |

** For Hollo-Bolts with Hot Dip Galvanised Finish, drilling the clearance hole to the top tolerance is recommended.*
*** Ensure holes do not cut through the outer radius.*

**Sizes M16 and M20 require outer ply thickness (min t) to be at least 8mm.**

## Tool sizes for installing Hollo-Bolt Hexagonal

| Hollo-Bolt Hexagonal | | | |
|---|---|---|---|
| Product Code | Spanner mm | Socket mm | Tightening Torque Nm |
| HB08 | 19 | 13 | 23 |
| HB10 | 24 | 17 | 45 |
| HB12 | 30 | 19 | 80 |
| HB16 | 36 | 24 | 190 |
| HB20 | 46 | 30 | 300 |

## Tool sizes for installing Hollo-Bolt Countersunk

| Hollo-Bolt Countersunk | | | |
|---|---|---|---|
| Product Code | Spanner mm | Hexagon Key mm | Tightening Torque Nm |
| HBCSK08 | 19 | 5 | 23 |
| HBCSK10 | 24 | 6 | 45 |
| HBCSK12 | 30 | 8 | 80 |
| HBCSK16 | 36 | 10 | 190 |

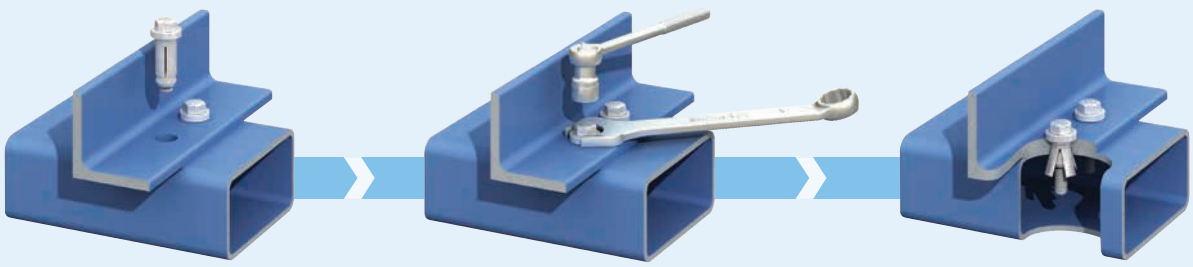
## How to install...

**Watch the Hollo-Bolt installation video at www.Lindapter.com**

**1)** Align pre-drilled fixture and section then insert the Hollo-Bolt [a].

**2)** Grip Hollo-Bolt collar with an open ended spanner.

**3)** Using a calibrated torque wrench, tighten the central bolt to the recommended torque [b].



**Notes:**
a) Before tightening, ensure that the materials that are to be connected together are touching.
b) Rotate the torque wrench only. See table above for tightening torque.
c) Power tools, such as an impact wrench, may be used to speed up the tightening of the Hollo-Bolt. However, when using power tools, always complete the tightening process with a calibrated torque wrench to ensure the correct torque is applied to the Hollo-Bolt.


© Lindapter International 2025

Ref: LindUKJul25

# Hollo-Bolt™ Countersunk Head Characteristic Resistances

## Characteristic Resistances

**The values listed in the tables below are to be used when designing bolted connection to Eurocode 3 only, they are not standard safe working loads.**

Please refer to CE Declaration of Performance No.001 or UKCA Declaration of Conformity No.101 on Lindapter's website. Alternatively, request a DoP or DoC brochure.



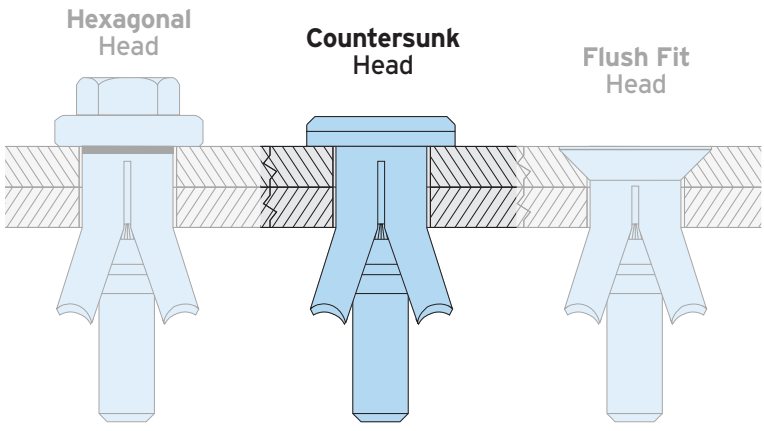

| | COUNTERSUNK HEAD Data for Zinc + JS500 and Sheraplex | | | | |
|---|---|---|---|---|---|
| | Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
| | HBCSK08 | M8 | 23.1 | 32.9 | 430 |
| | HBCSK10 | M10 | 39.6 | 54.2 | 430 |
| | HBCSK12 | M12 | 45.8 | 71.0 | 430 |
| HCF | HBCSK16 | M16 | 84.3 | 139.0 | 430 |

| | COUNTERSUNK HEAD Data for Stainless Steel | | | | |
|---|---|---|---|---|---|
| | Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
| | HBSTCSK08 | M8 | 26.8 | 30.7 | 500 |
| | HBSTCSK10 | M10 | 46.0 | 51.0 | 500 |
| | HBSTCSK12 | M12 | 53.3 | 65.0 | 500 |
| HCF | HBSTCSK16 | M16 | 98.0 | 128.0 | 500 |

- **Hollo-Bolt lengths 1, 2 and 3 are covered by ETA 10/0416. The characteristic values are used to determine the design resistance of the Hollo-Bolt. The design resistance is calculated by dividing the characteristic value by a partial factor γM2. The partial factor is a nationally determined parameter (eg: γM2 = 1.25 in UK).**
- **For Hollo-Bolt Countersunk Head safe working loads with a Factor of Safety of 5:1 please refer to the table on page 48 of this catalogue. The characteristic values are valid for the assembly itself, in any connection detail the design resistance of the connection may be limited to a lesser value. For example, when the thickness of the connected component is small, pull out failure may occur before failure of the Hollo-Bolt. Design checks should be carried out to determine the static design resistance.**




The SCI Greenbook publication 'Joints in Steel Construction: Simple Joints to Eurocode 3' contains a number of checks on the section. The characteristic values are only valid when the Hollo-Bolts are installed as per Lindapter's installation instructions. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**





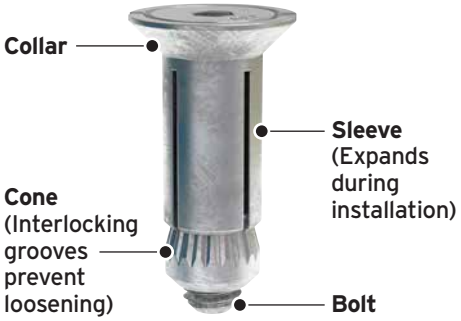

# Hollo-Bolt™ Flush Fit Head Safe Working Loads

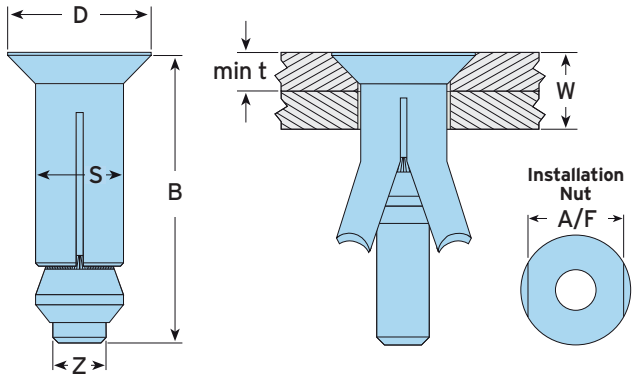





## Flush Fit Head Data

(Available in sizes M8, M10 & M12)




Material: Carbon steel or stainless steel (see page 43 for corrosion protection options).

**FLUSH FIT HEAD DATA**

| Product Code | Countersunk Bolt Ø Z | Length B mm | Clamping Thickness W mm | Outer Ply min t mm | Sleeve Outer Ø S mm | Collar Ø D mm | Collar Installation Nut A/F mm | Tightening Torque Nm | Safe Working Loads (Factor of Safety 5:1) Tensile kN | Safe Working Loads (Factor of Safety 5:1) Single Shear kN |
|---|---|---|---|---|---|---|---|---|---|---|
| HBFF08-1 | M8 | 50 | 10 - 27 | 8 | 13.75 | 24 | 19 | 23 | 4.0 | 5.0 |
| HBFF08-2 | M8 | 70 | 27 - 45 | 8 | 13.75 | 24 | 19 | 23 | 4.0 | 5.0 |
| HBFF08-3 | M8 | 90 | 45 - 64 | 8 | 13.75 | 24 | 19 | 23 | 4.0 | 5.0 |
| HBFF10-1 | M10 | 50 | 12 - 27 | 10 | 17.75 | 30 | 24 | 45 | 8.5 | 10.0 |
| HBFF10-2 | M10 | 70 | 27 - 45 | 10 | 17.75 | 30 | 24 | 45 | 8.5 | 10.0 |
| HBFF10-3 | M10 | 90 | 45 - 64 | 10 | 17.75 | 30 | 24 | 45 | 8.5 | 10.0 |
| HBFF12-1 | M12 | 55 | 12 - 30 | 10 | 19.75 | 33 | 30 | 80 | 10.5 | 15.0 |
| HBFF12-2 | M12 | 80 | 30 - 52 | 10 | 19.75 | 33 | 30 | 80 | 10.5 | 15.0 |
| HBFF12-3 | M12 | 100 | 52 - 74 | 10 | 19.75 | 33 | 30 | 80 | 10.5 | 15.0 |

**Hollo-Bolts can be used on a wide variety of steel hollow shape sections. Safe working loads shown are applicable to the Hollo-Bolt only in both tension and shear. Failure of the section could occur at a lower figure and its strength should be checked by a qualified Structural Engineer.**

Published by the SCI/BCSA Connections Group, 'Joints in Steel Construction - Simple Connections' provides design guidance for using Hollo-Bolt and structural steelwork connections in buildings designed using the 'Simple Method' i.e. braced frames where connections carry mainly shear and axial loads only. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**



 © Lindapter International 2025

# Hollo-Bolt™ Flush Fit Head Characteristic Resistances

## Characteristic Resistances

**The values listed in the tables below are to be used when designing bolted connection to Eurocode 3 only, they are not standard safe working loads.**

Please refer to CE Declaration of Performance No.001 or UKCA Declaration of Conformity No.101 on Lindapter's website. Alternatively, request a DoP or DoC brochure.




**FLUSH FIT HEAD**
Data for Zinc + JS500 and Sheraplex

| Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
|---|---|---|---|---|
| HBFF08 | M8 | 23.1 | 32.9 | 430 |
| HBFF10 | M10 | 39.6 | 54.2 | 430 |
| HBFF12 | M12 | 45.8 | 71.0 | 430 |

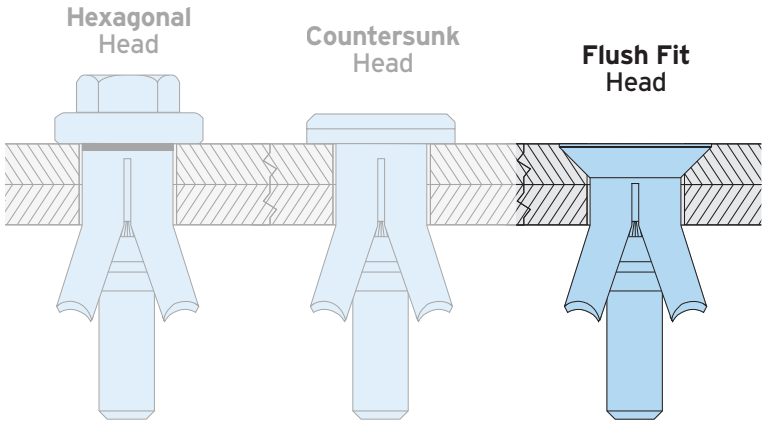
**FLUSH FIT HEAD**
Data for Stainless Steel

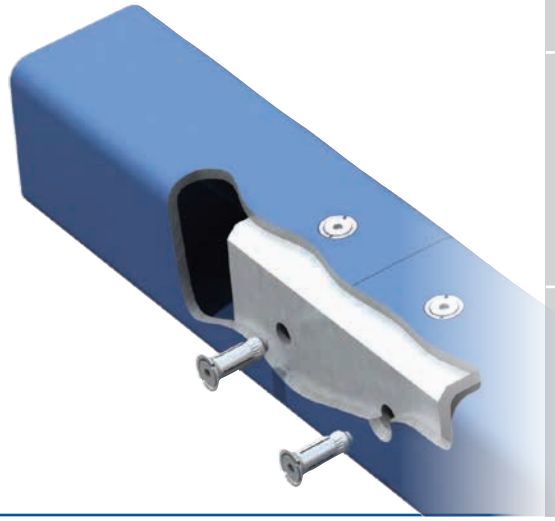
| Product Code | Nominal Size | Tensile $F_{t,Rk}$ kN | Shear $F_{v,Rk}$ kN | Sleeve Material Strength N/mm² |
|---|---|---|---|---|
| HBSTFF08 | M8 | 26.8 | 30.7 | 500 |
| HBSTFF10 | M10 | 46.0 | 51.0 | 500 |
| HBSTFF12 | M12 | 53.3 | 65.0 | 500 |

- **Hollo-Bolt lengths 1, 2 and 3 are covered by ETA 10/0416. The characteristic values are used to determine the design resistance of the Hollo-Bolt. The design resistance is calculated by dividing the characteristic value by a partial factor γM2. The partial factor is a nationally determined parameter (eg: γM2 = 1.25 in UK).**
- **For Hollo-Bolt Flush Fit Head safe working loads with a Factor of Safety of 5:1 please refer to the table on page 50 of this catalogue. The characteristic values are valid for the assembly itself, in any connection detail the design resistance of the connection may be limited to a lesser value. For example, when the thickness of the connected component is small, pull out failure may occur before failure of the Hollo-Bolt. Design checks should be carried out to determine the static design resistance.**



The SCI Greenbook publication 'Joints in Steel Construction: Simple Joints to Eurocode 3' contains a number of checks on the section. The characteristic values are only valid when the Hollo-Bolts are installed as per Lindapter's installation instructions. For more information please contact The Steel Construction Institute on **+44 (0) 1344 636525** or visit **www.steel-sci.com**

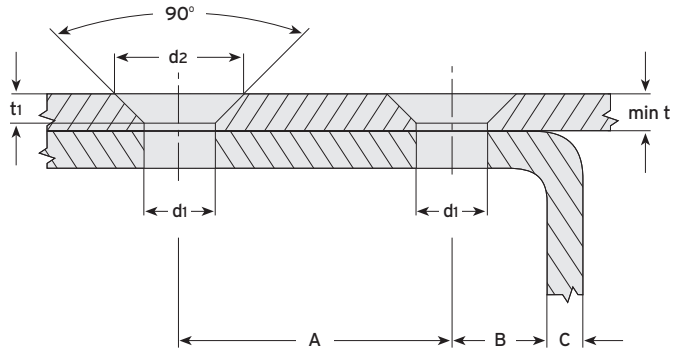


# Hollo-Bolt Flush Fit Head - Drilling and Installation

Please ensure that the holes are drilled into both the fixture and the section according to the drilling guidance below. Please note that the holes are slightly larger than standard bolt clearance holes to accommodate the sleeve and cone.

## Preparation for installing Hollo-Bolt Flush Fit Head

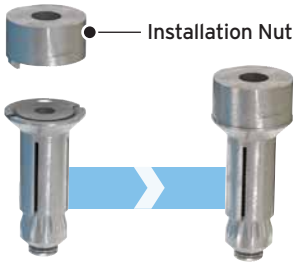



| Type | Outer Ply | Clearance Hole Ø | Countersunk | | Hole Distances* | | Edge Distances* |
|---|---|---|---|---|---|---|---|
| | min t mm | d1 mm | d2 mm | t1 mm | min A mm | min B mm | B + C mm |
| HBFF08 | 8 | 14 (+1.0/-0.2) | 27 | 6.5 | 35 | 13 | ≥ 17.5 |
| HBFF10 | 10 | 18 (+1.0/-0.2) | 31 | 6.5 | 40 | 15 | ≥ 22.5 |
| HBFF12 | 10 | 20 (+1.0/-0.2) | 35 | 7.5 | 50 | 18 | ≥ 25.0 |

** Ensure holes do not cut through the outer radius.*

## Tool sizes for installing Hollo-Bolt Flush Fit Head

| Hollo-Bolt Flush Fit Head | | | |
|---|---|---|---|
| Product Code | Spanner mm | Hexagon Key mm | Tightening Torque Nm |
| HBFF08 | 19 | 5 | 23 |
| HBFF10 | 24 | 6 | 45 |
| HBFF12 | 30 | 8 | 80 |



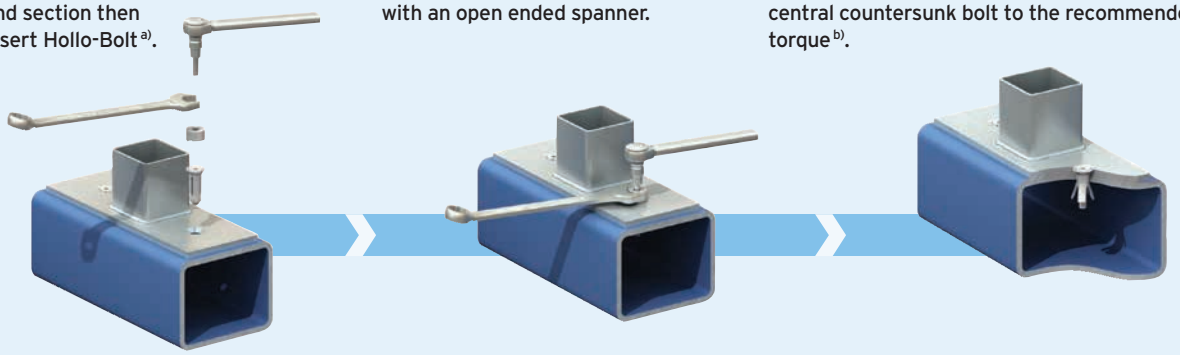

## How to install...

Watch the Hollo-Bolt installation video at www.Lindapter.com

**1)** Align pre-drilled fixture and section then insert Hollo-Bolt [a].

**2)** Apply the installation nut and grip with an open ended spanner.

**3)** Using a calibrated torque wrench, tighten the central countersunk bolt to the recommended torque [b].



**Notes:**

a) Before tightening, ensure that the materials that are to be connected together are touching.

b) Rotate the torque wrench only (the installation nut is for restraining only). See table above for tightening torque.

c) Power tools, such as an impact wrench, may be used to speed up the tightening of the Hollo-Bolt. However, when using power tools, always complete the tightening process with a calibrated torque wrench to ensure the correct torque is applied to the Hollo-Bolt.