# PRODUCT DATA



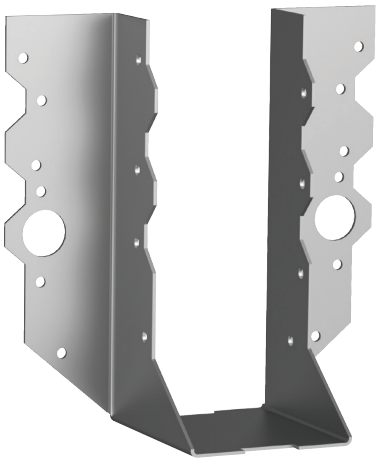
## 316 SS Joist Hangers



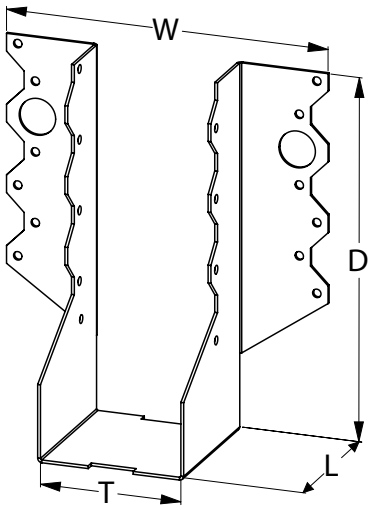
Stainless steel joist hangers have a reliable fixing capacity to AS 1720.1 and a fast fixing method with no pre-drilling required.

| Applications |
|---|
| • Joists to beams<br>• Rafters to fascias<br>• Floor trusses to beams<br>• Beams to masonry |

| | |
|---|---|
| **Material** | A4 316 Stainless |
| **Finish** | 316 316 Stainless |



| Part | QFind | Nail Size | Width | Length | Thickness | Depth |
|---|---|---|---|---|---|---|
| | | **Ød** (mm) | **W** (mm) | **L** (mm) | **T** (mm) | **D** (mm) |
| HHJ16D-035090 | **6D-035090** | 2.8 | 100 | 55 | 35 | 83.5 |
| HHJ16D-035120 | **6D-035120** | 2.8 | 100 | 55 | 35 | 120.0 |
| HHJ16D-035190 | **6D-035190** | 2.8 | 100 | 55 | 35 | 182.0 |
| HHJ16D-045090 | **6D-045090** | 2.8 | 110 | 55 | 45 | 76.0 |
| HHJ16D-045120 | **6D-045120** | 2.8 | 110 | 55 | 45 | 110.0 |
| HHJ16D-045140 | **6D-045140** | 2.8 | 110 | 55 | 45 | 130.0 |
| HHJ16D-045190 | **6D-045190** | 2.8 | 110 | 55 | 45 | 175.0 |
| HHJ16D-050090 | **6D-050090** | 2.8 | 115 | 55 | 50 | 76.0 |
| HHJ16D-050120 | **6D-050120** | 2.8 | 115 | 55 | 50 | 110.0 |
| HHJ16D-050140 | **6D-050140** | 2.8 | 115 | 55 | 50 | 130.0 |
| HHJ16D-050190 | **6D-050190** | 2.8 | 115 | 55 | 50 | 175.0 |




| Fixing Sizes | | |
|---|---|---|
| | (mm) | |
| Small Hole | 3.0 - 3.1 | For 2.8mm Nail |
| Large Hole | 13.0 - 13.2 | For M12 Bolt |

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## 316 SS Joist Hangers



## Installation

### Table 1 – Design Capacity Factor

Design capacities have been derived from AS 1720.1 for Category 1 applications. Adjustment factors should be applied for Category C2 and C3 applications.

| **Design Category** | **C1** (mm) | **C2** (mm) | **C3** (mm) |
|---|---|---|---|
| Adjustment Factor | 1.00 | 0.94 | 0.88 |

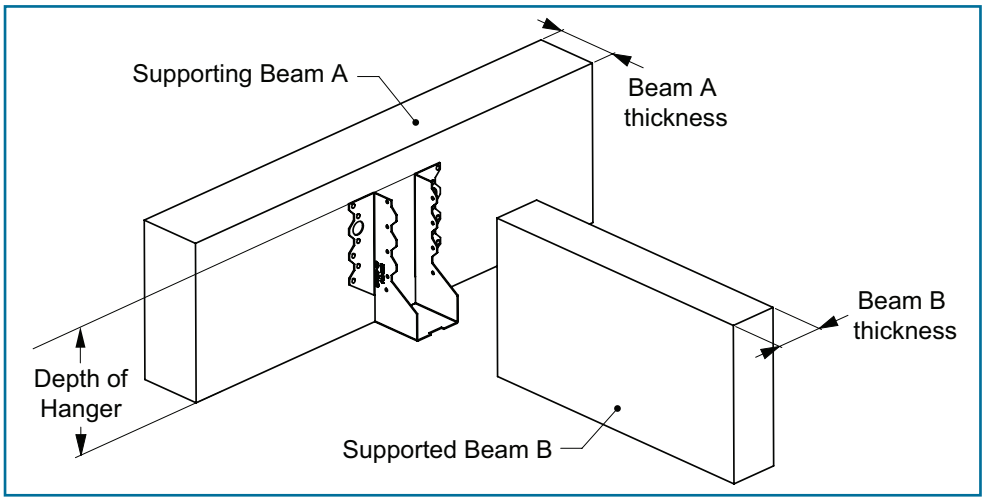
### Table 2 – Nail Requirements

Minimum nail size to achieve stated design capacities:
30 x Ø2.8 mm stainless steel nails.

| **Hanger Size** | **Nails in Beam** | |
|---|---|---|
| (mm) | **A** (mm) | **B** (mm) |
| 90 | 8 | 6 |
| 120 | 12 | 8 |
| 140 | 12 | 8 |
| 190 | 20 | 12 |

### Installation Guide

1. Select the appropriate size joist hanger for the connection.
2. Fix joist hanger to the supporting beam (A) by installing the required number of nails from Table 2 or two M12 Bolts with 50x3 mm square washers.
3. Place the *supported beam (B)* into the joist hanger, ensuring that it is firmly against the *supporting beam (A)*.
4. Drive two M12 Hex Bolts or the required number of nails from Table 2 into the *supported beam (B)*.




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## 316 SS Joist Hangers



### Limit Design Capacities (AS 1720.1)

### Limit State Design – Fixing with Nails

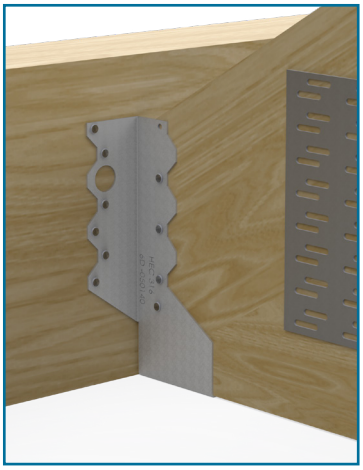


**Table 3: Dead Load**
***Critical Connection – Supporting Beam [A] k1=0.57***

| Hanger Depth | Unseasoned (kN) | | | | | Seasoned (kN) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (mm) | J2 | J3 | J4 | J5 | J6 | JD2 | JD3 | JD4 | JD5 | JD6 |
| 90 | 4.3 | 3.1 | 2.2 | 1.7 | 1.2 | 5.5 | 4.3 | 3.1 | 2.5 | 1.9 |
| 120 | 5.7 | 4.1 | 2.9 | 2.2 | 1.6 | 7.7 | 6.0 | 4.3 | 3.5 | 2.7 |
| 140 | 5.7 | 4.1 | 2.9 | 2.2 | 1.6 | 7.7 | 6.0 | 4.3 | 3.5 | 2.7 |
| 190 | 8.7 | 6.2 | 4.4 | 3.3 | 2.5 | 12.3 | 9.7 | 7.0 | 5.7 | 4.3 |

**Table 4: Dead Load + Floor Live Load**
***Critical Connection – Supporting Beam [A] k1=0.69***

| Hanger Depth | Unseasoned (kN) | | | | | Seasoned (kN) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (mm) | J2 | J3 | J4 | J5 | J6 | JD2 | JD3 | JD4 | JD5 | JD6 |
| 90 | 5.2 | 3.7 | 2.6 | 2.0 | 1.5 | 6.6 | 5.2 | 3.7 | 3.1 | 2.3 |
| 120 | 6.9 | 4.9 | 3.5 | 2.6 | 2.0 | 9.3 | 7.3 | 5.2 | 4.3 | 3.3 |
| 140 | 6.9 | 4.9 | 3.5 | 2.6 | 2.0 | 9.3 | 7.3 | 5.2 | 4.3 | 3.3 |
| 190 | 10.5 | 7.5 | 5.3 | 4.0 | 3.0 | 14.9 | 11.8 | 8.4 | 6.9 | 5.3 |

**Table 5: Dead Load + Roof Live Load**
***Critical Connection – Supporting Beam [A] k1=0.77***

| Hanger Depth | Unseasoned (kN) | | | | | Seasoned (kN) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (mm) | J2 | J3 | J4 | J5 | J6 | JD2 | JD3 | JD4 | JD5 | JD6 |
| 90 | 5.8 | 4.2 | 3.0 | 2.2 | 1.7 | 7.4 | 5.8 | 4.2 | 3.4 | 2.6 |
| 120 | 7.7 | 5.5 | 3.9 | 2.9 | 2.2 | 10.4 | 8.2 | 5.8 | 4.8 | 3.6 |
| 140 | 7.7 | 5.5 | 3.9 | 2.9 | 2.2 | 10.4 | 8.2 | 5.8 | 4.8 | 3.6 |
| 190 | 11.7 | 8.4 | 5.9 | 4.5 | 3.3 | 16.7 | 13.1 | 9.4 | 7.7 | 5.9 |

**Table 6: Dead Load + Wind Uplift**
***Critical Connection – Supported Beam [B] k1=1.14***

| Hanger Depth | Unseasoned (kN) | | | | | Seasoned (kN) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (mm) | J2 | J3 | J4 | J5 | J6 | JD2 | JD3 | JD4 | JD5 | JD6 |
| 90 | 6.5 | 4.6 | 3.3 | 2.5 | 1.8 | 8.2 | 6.5 | 4.6 | 3.8 | 2.9 |
| 120 | 8.7 | 6.2 | 4.4 | 3.3 | 2.5 | 11.0 | 8.7 | 6.2 | 5.1 | 3.9 |
| 140 | 8.7 | 6.2 | 4.4 | 3.3 | 2.5 | 11.0 | 8.7 | 6.2 | 5.1 | 3.9 |
| 190 | 10.4 | 7.4 | 5.2 | 4.0 | 3.0 | 14.8 | 11.7 | 8.4 | 6.8 | 5.2 |

*Refer to Table 2 for Nail Requirements*

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## 316 SS Joist Hangers

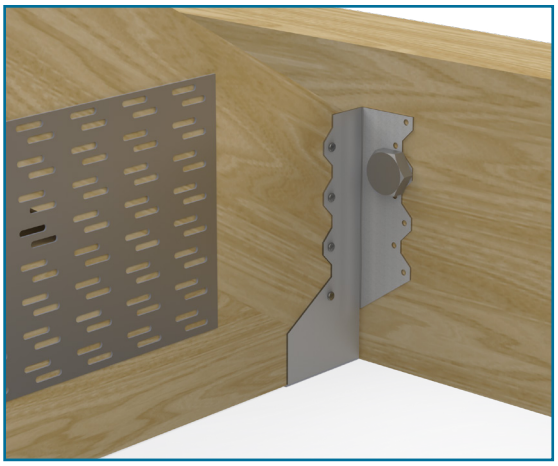


### Limit State Design – Fixing with Bolts

| Table 7: Dead Load + Floor Live Load<br>Critical Connection – Supporting Beam [A] k1=0.69 | | | | | |
|---|---|---|---|---|---|
| **Effective Timber Thickness** | **Unseasoned** (kN) | | | | |
| **$B_{ef}$** | **J2** | **J3** | **J4** | **J5** | **J6** |
| 25 | 7.7 | 6.2 | 4.9 | 3.9 | 3.2 |
| 38 | 11.7 | 9.5 | 7.5 | 5.9 | 4.8 |
| 50 | 13.0 | 12.0 | 9.5 | 7.7 | 6.3 |
| 75 | 13.0 | 12.0 | 9.5 | 8.2 | 7.3 |
| 100 | 13.0 | 12.0 | 9.5 | 8.2 | 7.3 |
| 150 | 13.0 | 12.0 | 9.5 | 8.2 | 7.3 |
| 200 | 13.0 | 12.0 | 9.5 | 8.2 | 7.3 |

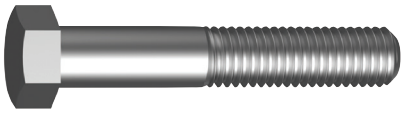
| Table 8: Dead Load + Floor Live Load<br>Critical Connection – Supporting Beam [A] k1=0.69 | | | | | |
|---|---|---|---|---|---|
| **Effective Timber Thickness** | **Seasoned** (kN) | | | | |
| **$B_{ef}$** | **JD2** | **JD3** | **JD4** | **JD5** | **JD6** |
| 25 | 9.7 | 7.7 | 6.2 | 4.9 | 3.9 |
| 35 | 13.7 | 10.8 | 8.8 | 6.9 | 5.4 |
| 40 | 15.6 | 12.4 | 10.0 | 7.9 | 6.2 |
| 45 | 16.4 | 14.0 | 11.3 | 8.9 | 6.9 |
| 70 | 16.4 | 14.9 | 12.0 | 10.4 | 8.9 |
| 90 | 16.4 | 14.9 | 12.0 | 10.4 | 8.9 |
| 105 | 16.4 | 14.9 | 12.0 | 10.4 | 8.9 |
| 120 | 16.4 | 14.9 | 12.0 | 10.4 | 8.9 |

| Related Parts | Description |
|---|---|
| BH16PCM12 | A4-70 HEXBOLT DIN931 |
| NH16PCM12 | A4-50 DIN 934 HEX NUT |
| WS16PM12050030 | 316 SQ WASHER: M12 50X50X3 |

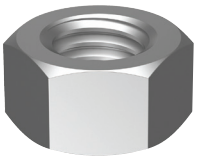


### Installation Detail for Fixing with Bolts

Use one M12 bolt in each wing of the joist hanger. Square washers with a minimum side length of 50 mm and thickness of 3 mm should be used on the nut side.



BH16PCM12



NH16PCM12



WS16PM12050030

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