


 1. Identification of the product: **Joist Hanger "WB"**

2. Identification code (art. 11.4), for the batch or serial number see packaging:

| Cod. | A ¹⁾ [mm] | B ²⁾ [mm] | Ø ³⁾ [mm] | | t ⁴⁾ [mm] |
|-------------|-------------------------|-------------------------|----------------------|------|-------------------------|
| | | | Bolt-Screw | Nail | |
| 80105b10045 | 45 | 108 | 11 | 5 | 2 |
| 80105b13045 | 45 | 138 | 11 | 5 | 2 |
| 80105b10060 | 60 | 100 | 11 | 5 | 2 |
| 80105b13060 | 60 | 130 | 11 | 5 | 2 |
| 80105b16060 | 60 | 160 | 11 | 5 | 2 |
| 80105b12070 | 70 | 125 | 11 | 5 | 2 |
| 80105b12080 | 80 | 120 | 11 | 5 | 2 |
| 80105b15080 | 80 | 150 | 11 | 5 | 2 |
| 80105b14100 | 100 | 140 | 11 | 5 | 2 |
| 80105b16120 | 120 | 160 | 11 | 5 | 2 |
| 80105b18140 | 140 | 180 | 11 | 5 | 2 |

¹⁾ Base; ²⁾ Height; ³⁾ Holes; ⁴⁾ Thickness of metal sheet.

3. Intended use:

| | |
|-------------------------------------|--|
| Generic type | Three-dimensional nailing plate - joist hanger for timber-to-timber and timber-to- concrete or steel connections |
| Base Material | Timber structures |
| Material Plate | Pre-galvanised Steel DX51D + Z275 acc.to EN10327:2004 |
| Loading | Load bearing fixing for structural timber applications |
| Fire Reaction | A1 acc. to EN13501-1 |
| Fire Resistance | NPD |
| Hygiene, Health and the Environment | No dangerous material |
| Safety in use | NPD |
| Protection against noise | NPD |
| Energy Economy and heat retention | NPD |
| Durability and Serviceability | Service class 1 and 2 acc. to Eurocode 5 |

 4. Manufacturer (art. 11.5): **Friulsideer SpA via trieste,1 - 33048 San Giovanni al Natisone (Udine) - Italy**

 5. Authorised Representative (art. 12.2): **Not Relevant**

 6. System of Assessment AVCP (annex V): **System 2+**

7/8. Harmonised Specification & Notified Body:

| | Notified Body | System of Assessment | Reference | EN Norm or EAD Document |
|-------------------------|---------------|----------------------|--------------------|-------------------------|
| Technical Specification | ITB nr.1488 | 2+ | ETA-07/0277 | ETAG015 |
| Factory Product Control | ITB nr.1488 | 2+ | 1488-CPD-0122 | |

 9. Declared Performance: **See Attached - [Design method Eurocode 5 EN1995-1-1]**
Reach Directive EC 1907/2006 declaration:

We inform you that Friulsideer is classified in the EC 1907/2006 Reach Directive as a Downstream-user of substances.

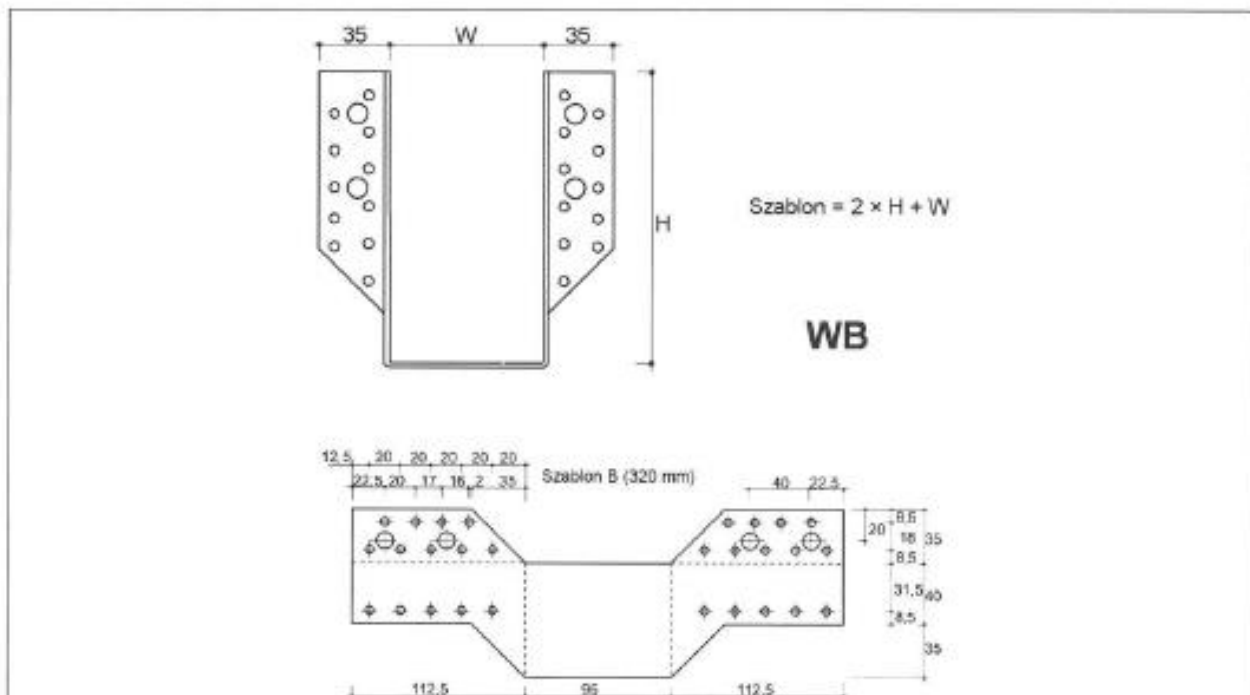
The product supplied does not contain substances classified as SVHC according to the Candidate List in a concentration equal or greater than 0.1% (weight / weight). Article 31 is not applicable to the present product.

10. The performance of the product identified in points 1 and 2 is in conformity with declared performance in point 9. This declaration of performance is issued under the sole responsibility of Friulsideer SpA.

Signed for and behalf of the manufacturer by:

| Name and functions | Place and date of issue | Signature |
|---------------------------------|--------------------------------------|-----------|
| Sales Manager Fabrizio Fasan | San Giovanni al Natisone, 30-04-2015 | |

Strona 11 Europejskiej Aprobaty Technicznej ETA-07/0277, wydanej 14.11.2012 r.



Tablica 3. Symbole i wymiary łączników DMX® typu WB

| Symbol łącznika DMX® | Wymiary, mm | | Szablon | Liczba otworów | | Symbol łącznika DMX® | Wymiary, mm | | Szablon | Liczba otworów | |
|----------------------|-------------|-----|---------|----------------|------|----------------------|-------------|-----|---------|----------------|------|
| | W | H | | ∅ 5 | ∅ 11 | | W | H | | ∅ 5 | ∅ 11 |
| WB 1 | 25 | 118 | A | 22 | 2 | WB 20 | 64 | 128 | B | 28 | 4 |
| WB 2 | 38 | 111 | A | 22 | 2 | WB 21 | 70 | 125 | B | 28 | 4 |
| WB 3 | 38 | 141 | B | 28 | 4 | WB 22 | 70 | 155 | C | 34 | 4 |
| WB 4 | 38 | 171 | C | 34 | 4 | WB 23 | 76 | 122 | B | 28 | 4 |
| WB 5 | 41 | 110 | A | 22 | 2 | WB 24 | 76 | 152 | C | 34 | 4 |
| WB 6 | 41 | 140 | B | 28 | 4 | WB 25 | 76 | 182 | D | 40 | 6 |
| WB 7 | 41 | 170 | C | 34 | 4 | WB 26 | 80 | 120 | B | 28 | 4 |
| WB 8 | 45 | 108 | A | 22 | 2 | WB 27 | 80 | 150 | C | 34 | 4 |
| WB 9 | 45 | 138 | B | 28 | 4 | WB 28 | 80 | 180 | D | 40 | 6 |
| WB 10 | 51 | 105 | A | 22 | 2 | WB 29 | 80 | 210 | E | 46 | 6 |
| WB 11 | 51 | 135 | B | 28 | 4 | WB 30 | 100 | 140 | C | 34 | 4 |
| WB 12 | 51 | 165 | C | 34 | 4 | WB 31 | 100 | 170 | D | 40 | 6 |
| WB 13 | 51 | 195 | D | 40 | 6 | WB 32 | 100 | 200 | E | 46 | 6 |
| WB 14 | 60 | 100 | A | 22 | 2 | WB 33 | 115 | 163 | D | 40 | 6 |
| WB 15 | 60 | 130 | B | 28 | 4 | WB 34 | 115 | 193 | E | 46 | 6 |
| WB 16 | 60 | 160 | C | 34 | 4 | WB 35 | 120 | 160 | D | 40 | 6 |
| WB 17 | 60 | 190 | D | 40 | 6 | WB 36 | 120 | 190 | E | 46 | 6 |
| WB 18 | 60 | 220 | E | 46 | 6 | WB 37 | 140 | 180 | E | 46 | 6 |
| WB 19 | 64 | 98 | A | 22 | 2 | WB 38 | 160 | 170 | E | 46 | 6 |

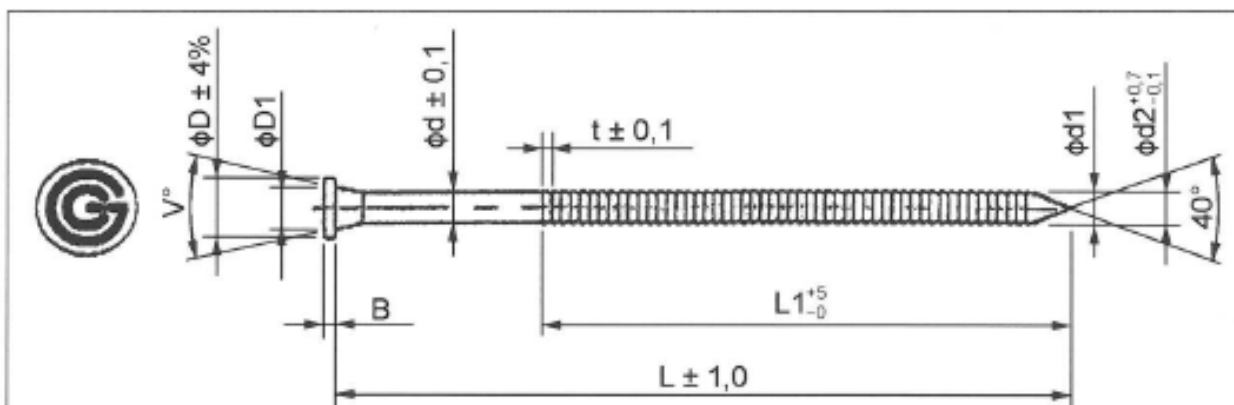
DMX® typów WB, WBZ, KPL, KP i KL

Asortyment i wymiary łączników DMX® typu WB

Załącznik 2

do Europejskiej
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Tablica 9. Symbole i wymiary gwoździ ANCHOR (GUNNEBO ANKARSPIK)

| Symbol, L-d | Wymiary, mm | | | | | | | | | | |
|----------------|-------------|----|-----|-----|-----|------|-----|-----|-----|---------|-----------|
| | L | L1 | d | d1 | d2 | t | D | D1 | B | d2-d1* | v° |
| 125-4,0 | 123,5 | 70 | 4,0 | 3,6 | 4,4 | 1,25 | 8,0 | 5,6 | 1,5 | 0,6-1,0 | 25° |
| 100-4,0 | 98,5 | 70 | 4,0 | 3,6 | 4,4 | 1,25 | 8,0 | 5,6 | 1,5 | 0,6-1,0 | 25° |
| 75-4,0 | 73,5 | 65 | 4,0 | 3,6 | 4,4 | 1,25 | 8,0 | 5,6 | 1,5 | 0,6-1,0 | 25° |
| 60-4,0 | 58,5 | 50 | 4,0 | 3,6 | 4,4 | 1,25 | 8,0 | 5,6 | 1,5 | 0,6-1,0 | 25° |
| 50-4,0 | 48,5 | 40 | 4,0 | 3,6 | 4,4 | 1,25 | 8,0 | 5,6 | 1,5 | 0,6-1,0 | 25° |

* Dopuszczalne odchyłki różnicy wymiarów d2-d1 wynoszą -15% / +25%

Gwoździe wykonywane są z drutów ciągniętych z walcówki ze stali niestopowej wg EN 10016, część 1 + 4; $R_{m,min} = 600 \text{ N/mm}^2$.

Tablica 10. Nośność charakterystyczna na wyciąganie gwoździ ACHOR (GUNNEBO ANKARSPIK) o długości całkowitej równej 50 mm

| Grubość blachy łącznika DMX [®] , mm | Gwóźdź o średnicy d, mm | Długość zakotwienia, t_{pen} | Nośność charakterystyczna na wyciąganie*, $F_{ax, Rk}$, kN |
|---|-------------------------|--------------------------------|---|
| 2,00 | 4,00 | 8d | 1,55 |
| 2,50 | 4,00 | | |

* Gęstość charakterystyczna drewna $\rho_k \geq 350 \text{ kg/m}^3$

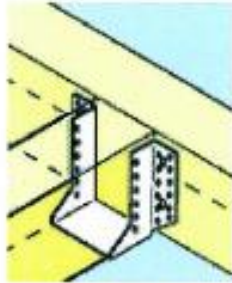
DMX[®] typów WB, WBZ, KPL, KP i KL

Gwoździe pierścieniowe ANCHOR (GUNNEBO ANKARSPIK)

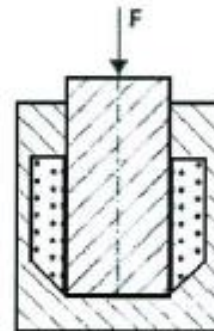
Załącznik 8

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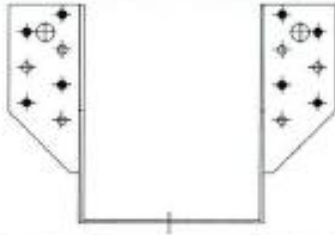
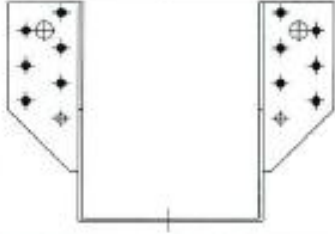


Schemat poglądowy zamocowania



Schemat statyczny obciążenia

Tablica 11. Nośności charakterystyczne połączeń wykonanych z zastosowaniem łączników DMX[®] typu WB

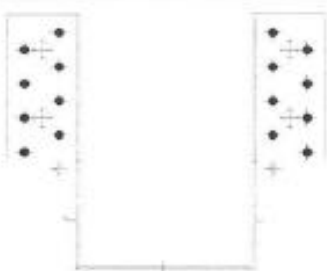
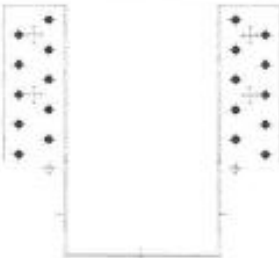
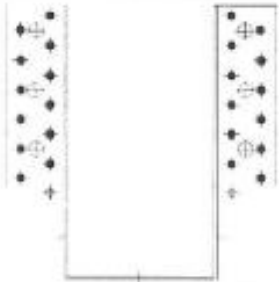
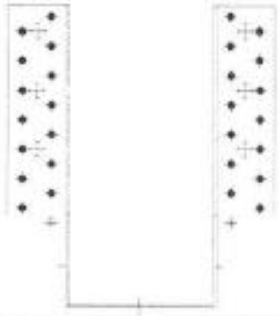
| Szablon | Symbol łącznika DMX [®] | Rysunek poglądowy gwoździowania* | Nośność charakterystyczna, R _k , kN |
|---------|--|---|--|
| A | WB1 WB2 WB5 WB8 WB10 WB14 WB19 |  | 17,05 |
| A | WB1 WB2 WB5 WB8 WB10 WB14 WB19 |  | 19,00 |

* Gwoździe pierścieniowe ANCHOR (GUNNEBO ANKARSPIK) o średnicy $d \geq 4$ mm i długości ≥ 50 mm. Drewno klasy co najmniej C24 wg EN 338

DMX[®] typów WB, WBZ, KPL, KP i KLNośności charakterystyczne połączeń wykonanych z zastosowaniem łączników DMX[®] typu WB**Załącznik 9**do Europejskiej
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c.d. Tablicy 11

| Szablon | Symbol łącznika DMX [®] | Rysunek poglądowy gwoździowania* | Nośność charakterystyczna, R _k , kN |
|---------|---|---|--|
| B | WB3 WB6 WB9 WB11 WB15 WB20 WB21 WB23 WB26 |  | 20,30 |
| C | WB4 WB7 WB12 WB16 WB22 WB24 WB27 WB30 |  | 25,45 |
| D | WB13 WB17 WB25 WB28 WB31 WB33 WB35 |  | 27,75 |
| E | WB18 WB29 WB32 WB34 WB36 WB37 WB38 |  | 32,30 |

* Gwoździe pierścieniowe ANCHOR (GUNNEBO ANKARSPIK) o średnicy d ≥ 4 mm i długości ≥ 50 mm. Drewno klasy co najmniej C24 wg EN 338

DMX[®] typów WB, WBZ, KPL, KP i KLNośności charakterystyczne połączeń wykonanych z zastosowaniem łączników DMX[®] typu WBc.d. Załącznika 9
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