

# **Material Safety Data Sheet**



# **Section 1 Company and Product Identification**

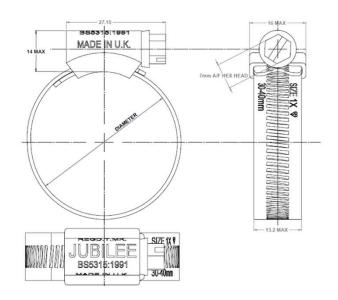
L. Robinson & Company (Gillingham) Limited, Incorporating Jubilee® Clips Limited Owens Way, Gads Hill, Gillingham, Kent, ME7 2RS, UK

Tel: +44 (0)1634 281200 Fax: +44 (0)1634 280101

Email: <a href="mailto:sales@jubileeclips.co.uk">sales@jubileeclips.co.uk</a>
<a href="mailto:http://www.jubileeclips.co.uk">http://www.jubileeclips.co.uk</a>

Jubilee® Original 316 Stainless Steel (W5) Range,

manufactured to BS5315:1991



|           |     |         |             |           |               |      |      | Recommended | Max    | Recommended  |
|-----------|-----|---------|-------------|-----------|---------------|------|------|-------------|--------|--------------|
| Part      | BS  |         | ment (X)    | Width (W) | Thickness (T) | (Z)  | (Y)  | Torque      | Torque | Max Pressure |
| Number    | No  | mm      | Inches      | mm        | mm            | mm   | mm   | Nm          | Nm     | PSI          |
| 000SS316  | 12  | 9.5- 12 | 3/8 - 1/2   | 9.9       | 0.762         | 20.5 | 12.5 | 3.4         | 4.5    | 203          |
| M00SS316  | 16  | 11- 16  | 1/2 - 5/8   | 9.9       | 0.762         | 20.5 | 12.5 | 3.4         | 4.5    | 203          |
| 00SS316   | 20  | 13- 20  | 1/2 -3/4    | 9.9       | 0.762         | 20.5 | 12.5 | 3.4         | 4.5    | 203          |
| 0SS316    | 22  | 16- 22  | 5/8 - 7/8   | 13        | 0.914         | 24.5 | 16   | 4.2         | 5.6    | 203          |
| 0XSS316   | 25  | 18- 25  | 34 - 1      | 13        | 0.914         | 24.5 | 16   | 4.2         | 5.6    | 203          |
| 1ASS316   | 30  | 22- 30  | ⅓ - 1⅓      | 13        | 0.914         | 24.5 | 16   | 5.1         | 6.8    | 203          |
| 1SS316    | 35  | 25- 35  | 1 - 1¾      | 13        | 0.914         | 24.5 | 16   | 5.1         | 6.8    | 102          |
| 1XSS316   | 40  | 30- 40  | 11/8 - 15/8 | 13        | 0.914         | 29   | 16   | 5.1         | 6.8    | 102          |
| 1MSS316   | 45  | 32- 45  | 1¼ - 1¾     | 13        | 0.914         | 29   | 16   | 5.1         | 6.8    | 102          |
| 2ASS316   | 50  | 35- 50  | 1% - 2      | 13        | 0.914         | 29   | 16   | 5.9         | 7.9    | 102          |
| 2SS316    | 55  | 40- 55  | 1% - 2%     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 102          |
| 2XSS316   | 60  | 45- 60  | 1¾ - 2¾     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 102          |
| 3SS316    | 70  | 55- 70  | 21/8 - 23/4 | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 102          |
| 3XSS316   | 80  | 60- 80  | 2% - 3%     | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 44           |
| 4SS316    | 90  | 70- 90  | 2¾ - 3½     | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 44           |
| 4XSS316   | 100 | 85-100  | 3¼ - 4      | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 44           |
| 5SS316    | 120 | 90-120  | 3½ - 4¾     | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 44           |
| 6SS316    | 140 | 110-140 | 4% - 5½     | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 44           |
| 6XSS316   | 150 | 120-150 | 4¾ - 5%     | 13        | 0.914         | 33   | 16   | 6.7         | 9      | 18           |
| 7SS316    | 165 | 135-165 | 5¼ - 6½     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 7.5SS316  | 190 | 158-190 | 6¼ - 7½     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 8.5SS316  | 216 | 184-216 | 7¼ - 8½     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 9.5SS316  | 242 | 210-242 | 8¼ - 9½     | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 10.5SS316 | 267 | 235-267 | 9¼ - 10½    | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 11.5SS316 | 292 | 260-292 | 10¼ - 11½   | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |
| 12.5SS316 | 318 | 286-318 | 11¼ - 12½   | 13        | 0.914         | 33   | 16   | 5.9         | 7.9    | 18           |

#### **Section 2 Composition/Information on Ingredients**

Composition/Information on constituents of iron alloy.

Manganese < 11% Chromium < 30% Nickel < 38% Mo < 8 %

Other elements vary such as Si, Cu, Ti, in each alloy composition and are generally not classified as hazardous, or are below the concentration levels for classification of these alloys as hazardous, and are not subject to recognised exposure limits.

#### **Section 3 First Aid Measures**

Inhalation: There are no specific symptoms associated with steel in the product forms. Skin: There are no specific symptoms associated with steel in the product forms.

Eyes: Not applicable. Ingestion: Not applicable.

## **Section 4 Fire Fighting Measures**

Non flammable

#### **Section 5 Handling and Storage**

Store in a dry area

#### **Section 6 Physical and Chemical Properties**

Colour: Metallic grey/silver

Odour: None Form/state: Solid 1454 °C Melting point: 870°C Max service temp: -196 °C Min service temp: Magnetism:  $1.008 \mu$ Resistance: 72 μΩ Density: 8.03 g/cm<sup>3</sup>

#### **Section 7 Stability and Reactivity**

Stability: Stable in normal condition

Reacts with: Reacts with strong acids, and hydrogen is then one of the substances emitted.

Corrosion Resistance: NSS 2000hours

#### **Section 8 Toxicological Information**

Nickel is classified as a skin sensitizer however numerous patch tests have established that most stainless steels do not cause sensitization, but a few types may result in allergic skin reactions in sensitized individuals after prolonged contact.

No carcinogenic effects resulting from exposure to stainless steels have been reported, either in epidemiological studies or in tests with animals.

#### **Section 9 Ecological Information**

No ecological effects are known for the product as a whole.

#### **Section 10 Disposal Considerations**

Disposal method: Recyclable, Jubilee® clips' Original 316 Stainless Steel Range are made from key raw

material for the production of new stainless steel. Steel is the world's most recycled

construction material and can be recycled with retained material properties.

### **Section 11 Transport Information**

No special requirements are necessary in transporting these products.

#### **Section 12 Regulatory Information**

This product conforms to EU Regulation 1097/2006 (REACH) This product is compliant with EU directive 2011/65/EU (ROHS2)

BS EN ISO 9001:2008 FM00547 BS EN ISO 14001:2004 EMS573195 BS OHSAS 18001:2007 OHS601983 Manufactured to BS5315:1991

Lloyds Register Type Approval Certificate number 96/00006(E2)

#### Quality Assurance:







## **Section 13 Other Information**

The information above is believed to be accurate and represents the best information currently available to L. Robinson & Co Ltd. However, L. Robinson & Co Ltd make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall L. Robinson & Co Ltd be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if L. Robinson & Co Ltd has been advised of the possibility of such damages.

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