Swivel Lifting Rings - Eye Bolt - Swivel - Male
metric - coarse

Material
High tensile steel, strength class >8.
Supplied with CE certificate.

Technical Notes
Single articulation, 360°.
Very low overhang for improved safety.
Large support surface.
Longer or shorter thread lengths can be supplied but please consult our technical department for this information if required.
For use in temperatures from -20°C to +200°C. Can be used in lower or higher temperatures but this affects the load rating - please ask for more information.
Please refer to our technical information pages when specifying and/or using.

Tips
Allows swivelling under load.
Swivel eye bolt with *automatic* position recovery system for best orientation to sling direction.

Important Notes
The thread diameter and depth must be appropriate to the material it will be installed:
Steel (min. ST37) - 1 x thread dia.
Cast iron - 1.25 x thread dia.
Aluminium - 2 x thread dia.
Other light metals - 2.5 x thread dia.
Tolerance of female thread to be 6H (metric).

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Max. load tons</th>
<th>d (tol. 6H)</th>
<th>l</th>
<th>w₁</th>
<th>h₁</th>
<th>h₂</th>
<th>w₂</th>
<th>w₃</th>
<th>a/f</th>
<th>Safety factor</th>
<th>Torque to Nm</th>
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### Single Swivel Lifting Rings

**max. load rating - per lifting configuration**

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<th>Lifting configuration</th>
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<th>63024 Female</th>
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<td><img src="image2.png" alt="Image" /></td>
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#### Lifting configuration

- **No. of rings**: 1, 2, 1, 2, 2, 2, 4, 4
- **Lifting angle**: 0°, 0°, 90°, 90°, 45°, 60°, 45°, 60°

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<thead>
<tr>
<th>Thread sizes</th>
<th>M8 tons</th>
<th>M10 tons</th>
<th>M12 tons</th>
<th>M16 tons</th>
<th>M20 tons</th>
<th>M24 tons</th>
<th>M30 tons</th>
<th>M36 tons</th>
<th>M42 tons</th>
<th>M48 tons</th>
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<td>0.30</td>
<td>0.60</td>
<td>0.30</td>
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<tr>
<td>M36 tons</td>
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<td>17.50</td>
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<td>12.50</td>
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<td>30.00</td>
<td>15.00</td>
<td>30.00</td>
<td>21.00</td>
<td>15.00</td>
<td>31.50</td>
<td>15.00</td>
<td>31.50</td>
<td>15.00</td>
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</tbody>
</table>

**Important Note:**
- Thread sizes M42 and M48 are only available for 63020.
- Table shows the maximum load rating for a given lifting configuration (NOT maximum load rating per individual lifting ring).
Our swivel lifting rings fully comply with the EC directive 2006/42/EC. They are CE marked and are supplied with a Certificate of Conformity. There is a 100% check on anti-cracking, a proof load test of 2.5 x load limit and a safety factor of 5 on most parts. Each ring is individually marked to ensure full product traceability. The Swivel Lifting Rings come in three main forms – depending on the number of axis required to swivel. The most popular type is the double swivel rings.

Steel and stainless steel (316) versions

<table>
<thead>
<tr>
<th>Single swivel</th>
<th>Double swivel</th>
<th>Triple swivel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single swivel - threads M8 – M48</td>
<td>Double swivel - threads M4 – M100</td>
<td>Triple swivel - threads M8 – M56</td>
</tr>
<tr>
<td>loads 0,3 tons – 15 tons</td>
<td>loads 0,05 tons – 50 tons</td>
<td>loads 0,3 tons – 22 tons</td>
</tr>
</tbody>
</table>

Product marking

Compliant with 2006/42/EC, and with individual date of manufacture and batch number.
General product information

Lifting angles

<table>
<thead>
<tr>
<th>Lifting Angle</th>
<th>Load Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>60°</td>
<td>100% of load rating of bolt</td>
</tr>
<tr>
<td>45°</td>
<td>Approx 66% of load rating of bolt</td>
</tr>
<tr>
<td>30°</td>
<td>Approx 50% of load rating of bolt</td>
</tr>
</tbody>
</table>

For full information on lifting arrangements see technical pages

Installation information

Never use an oversized hook or other lifting device which will pry or tend to open the “U” shaped bar on centre pull hoist rings.

Always ensure full thread engagement when installing hoist rings.

After installation, check the hoist ring to be sure it swivels and pivots freely in all directions. The side of the ring must not contact anything.
**Instructional Overview**

**Operating instructions**

Note: The full thread must be engaged. Longer thread lengths can be supplied on request or a bolt and washer/nut combination can be used.

- Ensure all lifting bolts are CE marked.
- Ensure they are handled by qualified personnel.
- Refer to the operating instructions particularly with regards to product selection, any possibility of the load swivelling, the effect of lifting angles on the load capacity (see relevant tables), etc.
- Never allow any personnel underneath a suspended load.
- Always heed the load rating of the lifting bolt.
- Always perform a visual inspection of the lifting rings prior to use. Checking for any damage to thread and/or swivelling system. Check for wear or corrosion, signs of stress or bending.
- Ensure a yearly full service inspection is performed.
- Always ensure the full bottom face of the lifting bolts is in contact with a smooth, square surface.
- Ensure bolt is tightened to the correct torque.
- Ensure full and unrestricted movement of the lifting ring in all directions.
- Before each lift ensure the correct orientation of the shackle in the lift direction.
- Avoid using our standard steel lifting rings in corrosive environments eg. sandy, chemical, acid, moisture etc. In this case consider using our stainless steel lifting rings.
- Note the thread length requirements:
  - 1 x thread diameter for steel (ST37 min.).
  - 1.25 x thread diameter for cast iron.
  - 2 x thread diameter for aluminium.
  - 2.5 x thread diameter for other light metals.
- If fixing into low resistance material it is better to allow for a bigger diameter thread to compensate for the lower material resistance.

<table>
<thead>
<tr>
<th>Temperature extremes</th>
<th>Load rating reduces by 20%</th>
<th>Load rating reduces by 10%</th>
<th>Load rating reduces by 25%</th>
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</thead>
<tbody>
<tr>
<td>-40°C to -20°C</td>
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<td></td>
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<tr>
<td>+200°C to +300°C</td>
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<tr>
<td>+300°C to +400°C</td>
<td></td>
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</table>

**Rugged environments**

For harsh environments we recommend the use of our stainless steel lifting rings.

**Certificate of Conformity**

**Wixroyd Swivel Lifting Rings**

**63200 - Threads M8 – M30**

Loads 0.3 tons – 3 tons.

**63210 - Threads M30 – M45**

Loads 3.5 tons – 6 tons.
**Benefits of Swivel Lifting Rings Over Lifting Rings**

**Swivel lifting rings**

Our swivel lifting rings fully comply with the EC directive 2006/42/EC. They are CE marked and are supplied with a Certificate of Conformity. There is a 100% check on anti-cracking, a proof load test of 2.5 x load limit and a safety factor of 5 on most parts. Each ring is individually marked to ensure full product traceability.

The Swivel Lifting Rings come in three main forms – depending on the number of axis required to swivel. The most popular type is the double swivel rings.

**High tensile lifting rings**

The High-tensile lifting bolts are similar to the standard lifting bolts but are rated at higher loads and can lift loads at up to 90° from the thread. They are not meant for loads that might swivel.

**Standard lifting rings DIN580 and DIN582**

These are CE marked and are available with male or female threads in either steel or stainless steel (A4 AISI 316). They are meant only for axial loads, or load bearing or lateral loads at a maximum of 45° from the thread. They are not for use under shear tension or loads (across the thread), nor for loads likely to swivel.

Applied forces must act in the direction of the lifting ring plane, do not apply forces across the eye bolt plane.

---

**Single swivel** - threads M8 – M48
loads 0,3 tons – 15 tons

**Double swivel** - threads M4 – M100
loads 0,05 tons – 50 tons

**Triple swivel** - threads M8 – M56
loads 0,3 tons – 22 tons

---

### Pros
- Individual CE certification
- CE marked
- 100% physical check
- Proof load test of 2.5 x load limit
- Safety factor 5x stated load
- 100% traceability with individual marking
- Complies with 2006/42/CE
- Axial load
- Max. load bearing 90°
- Max. lateral load 90°
- Swivel loads

### Cons
- Forces across lifting ring plane (double and triple swivel type)

---

### Pros
- CE marked
- Axial load
- Max. load bearing 90°
- Max. lateral load 90°

### Cons
- Individual CE certification
- Shear tension
- Swivel loads
- Forces across lifting ring plane

---

### Pros
- CE marked
- Axial load
- Max. load bearing 45°
- Max. lateral load 45°

### Cons
- Individual CE certification
- Shear tension
- Swivel loads
- Forces across lifting ring plane

---

**Important Note:** Forces must act in the direction of the lifting ring plane.
LIFTING BOLTS SAFETY GUIDE
**Introduction to swivel lifting rings and Lifting Bolts**

Our swivel lifting rings fully comply with the EC directive 2006/42/EC. They are CE marked and are supplied with a Certificate of Conformity. There is a 100% check on anti-cracking, a proof load test of 2.5 x load limit and a safety factor of 5 on most parts. Each ring is individually marked to ensure full product traceability.

The Swivel Lifting Rings come in three main forms – depending on the number of axis required to swivel. The most popular type is the double swivel rings.

### Other Standard Lifting Bolts

**Standard lifting bolts (to DIN 580 and DIN 582)**

These are CE marked and are available with male or female threads in either steel or stainless steel (A4 AISI 316). They are meant only for linear loading of the bolts at a maximum angle of 45° from the thread. They are not meant for loads that might swivel.

These are supplied with a generic CE Certificate of Conformity stating that the parts have been manufactured to the relevant DIN standard and therefore suitable for lifting.

**High-tensile lifting bolts**

The High-tensile lifting bolts are similar to the standard lifting bolts but are rated at higher loads and can lift loads at up to 90° from the thread. They are not meant for loads that might swivel.

### Swivel lifting rings operating instructions.

**Please follow these instructions carefully.**

- Ensure all lifting bolts are CE marked.
- Ensure they are handled by qualified personnel.
- Refer to the operating instructions particularly with regards to product selection, any possibility of the load swiveling, the effect of lifting angles on the load capacity (see relevant tables), etc.
- Never allow any personnel underneath a suspended load.
- Always heed the load rating of the lifting bolt.
- Always perform a visual inspection of the lifting rings prior to use. Checking for any damage to thread and/or swivelling system. Check for wear or corrosion, signs of stress or bending. Check CE mark and load rating.
- Ensure a yearly full service inspection is performed.
- Always ensure the full bottom face of the lifting bolts is in contact with a smooth, square surface.
- Ensure bolt is tightened to the correct torque.
- Ensure full and unrestricted movement of the lifting ring in all directions.
- Before each lift ensure the correct orientation of the shackle in the lift direction.
- Avoid using our standard steel lifting rings in corrosive environments eg sandy, chemical, acid, moisture etc. In this case consider using our stainless steel lifting rings.
- Note the thread length requirements:
  - 1 x thread diameter for steel (ST37 min.).
  - 1.25 x thread diameter for cast iron.
  - 2 x thread diameter for aluminium.
  - 2.5 x thread diameter for other light metals.
  - If fixing into low resistance material it is better to allow for a bigger diameter thread to compensate for the lower material resistance.

Note: The full thread must be engaged. Longer thread lengths can be supplied on request or a bolt and washer/nut combination can be used.

**SPECIMEN**

**CERTIFICATE**

**CERTIFICATE OF COMPLIANCE**

**0845 26 66 577**

**info@wixroyd.com**
**Temperature extremes**

-40°C to -20°C Load rating reduces by 20%.
+200°C to +300°C Load rating reduces by 10%.
+300°C to +400°C Load rating reduces by 25%.

**Rugged**

For harsh environments we recommend the use of our stainless steel lifting rings.

**Product marking**

Compliant with 2006/42/EC, and with individual date of manufacture and batch number.

**Installation Information**

Never use an oversized hook or other lifting device which will pry or tend to open the “U” shaped bar on center pull hoist rings.

After installation, check the hoist ring to be sure it swivels and pivots freely in all directions. The side of the ring must not contact anything.

Always ensure full thread engagement when installing hoist rings. Also ensure face is flush.

**Lifting angles**

100% of load rating of bolt
Approx 66% of load rating of bolt
Approx 50% of load rating of bolt

For full information on lifting arrangements see technical pages.

**Steel and Stainless steel (316) versions**

Steel
Stainless (316L)
### Lifting Type

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<th>No. of rings</th>
<th>Lifting type</th>
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<th>M10</th>
<th>M12</th>
<th>M16</th>
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<th>M36</th>
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**Units - Tons**

**0845 26 66 577**

**info@wixroyd.com**
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Units - Tons

0845 26 66 577  info@wixroyd.com
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wixroyd.com
PRODUCT DESCRIPTION
The following instructions apply to all swivel listing rings manufactured or supplied by Wixroyd. These rings are listed and described in our technical catalogue. Only the official Wixroyd catalogue can be used as a benchmark.

CERTIFICATION - QUALITY
All swivel lifting rings are manufactured in accordance with European standard EN 1677-1 and machinery directive 2006/42/CE. All products are supplied with a certificate of conformance, checked for anti-cracking and proof of load load test (WLL x 2.5) according to current European standards. A safety factor of 5 is applicable to most products (see Wixroyd catalogue). Optional certification by an external certification company is available.

MAXIMUM TRACEABILITY GUARANTEED
Individual tracking code on each ring. Manufacturing marking on each ring.

USE TERMS
These products should only be used by competent personnel who are familiar with their use, who have been trained in accordance with current European standards. Personnel should not operate under suspended loads and should avoid actions which give rise to shocks, tugs or vibrations. The engraved WLL on these products must be adhered to at all times. The thread (diameter/length) must be applicable to the material in which it will be fitted. The following values should be adhered to:

- 1 x for steel (ST37 minimum)
- 1.25 x for cast-iron
- 2 x for aluminium
- 2.5 x for light metals

When fastening in low resistance material allow a bigger thread diameter to compensate for lower resistance. The tap used must be to current European standards and long enough to accommodate the full length of the bolt. Material developed for temperature between -20°C and +200°C:

- From -40°C to -20°C loss of 20% of WLL
- From +200°C to +300°C loss of 10% of WLL
- From +300°C to +400°C loss of 25% of WLL

Avoid using in corrosive areas or ones that contain; sand, chemical, acid, moisture... (Contact the manufacturer for stainless steel rings solution). Using swivel lifting rings with an angle generates WLL reduced coefficients. Please use the lifting angles table in the technical catalogue to calculate the coefficients. For any size not shown in the lifting angles table, please contact the technical team at Wixroyd.

RING FASTENING
Bolts must be tightened to the correct torque as recommended in the Wixroyd catalogue. Ensure that the whole ring flange is in contact with the piece to be lifted. For single use without turning movements/rotation, hand tighten with wrench/allen key, until complete contact between ring base and lifted item is sufficient. Check the tightness before each use. Ensure maximum torque as recommended in the Wixroyd catalogue is not exceeded.

All swivelling parts must be able to move in all directions without obstruction. If using centring type rings ensure an extra hole is drilled in order to maximise bolt strength. Take the centre of gravity into account. Before lifting, ensure the shackle is correctly orientated in the direction of lifting.

CONTROL AND REPAIR
Inspection must be carried out by authorised persons who have been trained to current European standards. A visual inspection before each use is necessary. The following points must be checked:

- Thread condition
- Swivelling system
- Unusual wear and/or corrosion
- Bending
- Presence of CE markings, traceability code and WLL markings

If any of these conditions are not met, further inspection is necessary. A full inspection must be performed annually. In some cases, frequent detailed investigations are required. Wixroyd can provide control sheets on request. All swivel lifting rings manufactured by Wixroyd can be returned once a year for a free analysis.