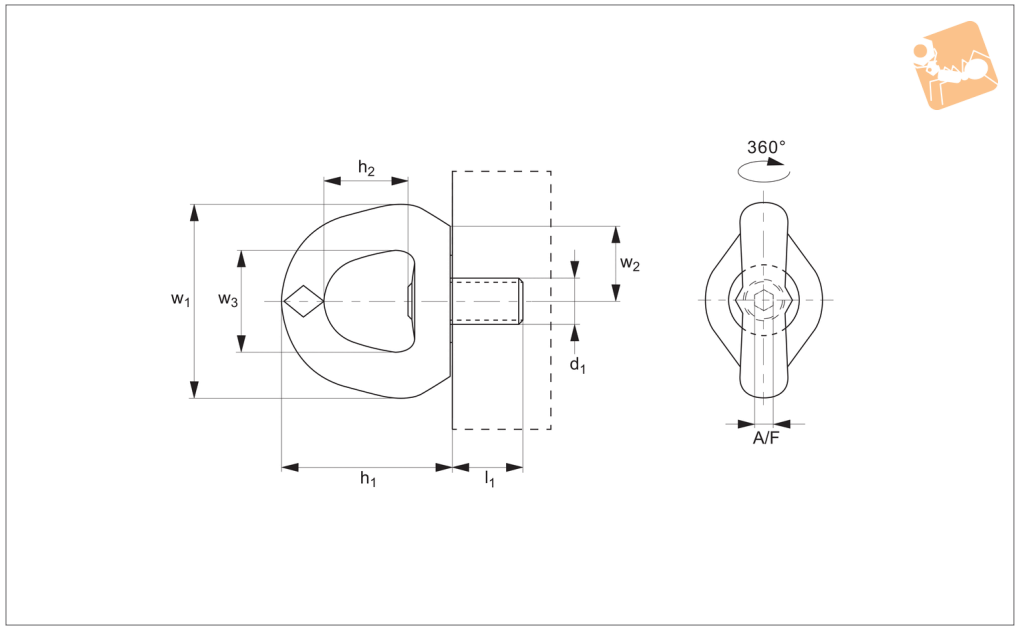


P4003

Material
Stainless steel 316L.
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 into which 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).
Please refer to the safety documentation before using this part.
Supplied with certificate and operating instructions.

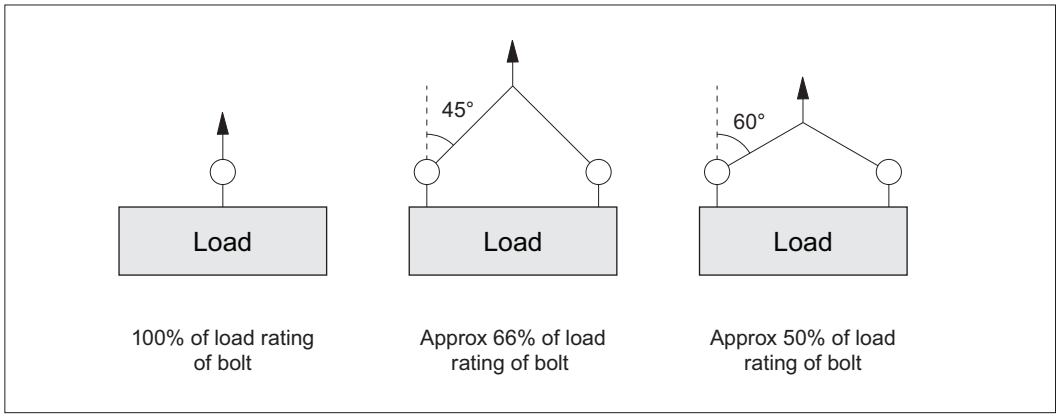
Order No.	Load tonnes (t) max.	d_1 tol. 6G	l_1	h_1	h_2	w_1	w_2	w_3	A/F	Safety factor	Torque to Nm	Weight kg
P4003.M012	0.55	M12x1,75	21	80	38	90	20	45	8	4	15	0.80
P4003.M016	1.20	M16x2,00	27	80	38	90	35	45	8	4	50	0.82
P4003.M020	1.50	M20x2,50	30	80	38	90	35	45	8	4	100	0.84
P4003.M024	2.50	M24x3,00	36	80	38	90	50	45	8	4	100	0.90

Swivel Eye Bolts Male

male: stainless steel 316L

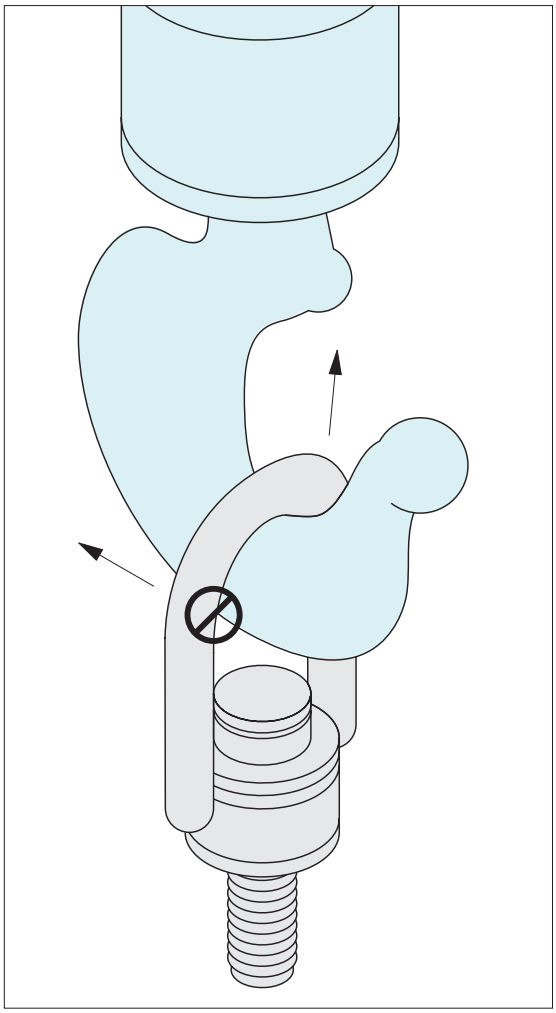
General product information

Lifting angles

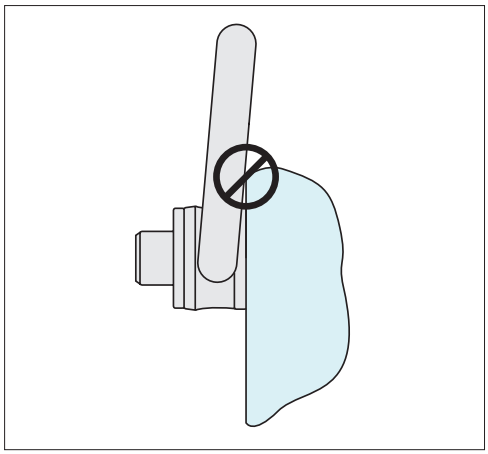


For full information on lifting arrangements see technical pages

Installation information

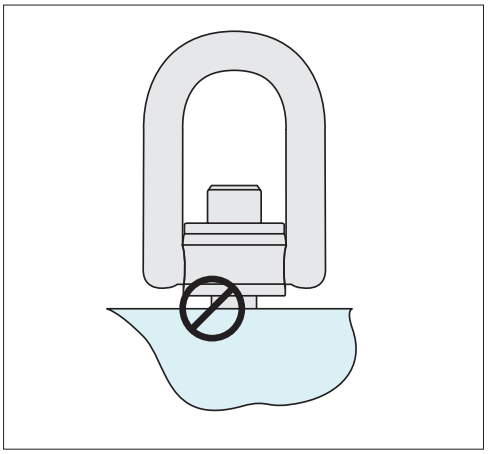


Never use an oversized hook or other lifting device which will pry or tend to open the "U" shaped bar on centre pull hoist rings.



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.

Wixroyd Swivel Lifting Rings

product overview

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.

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 environments


Wixroyd

CE CERTIFICATE CERTIFICATE OF CONFORMITY

Name and address of manufacturer or their representative	Wixroyd International Ltd Alexia House, Little Mead Industrial Estate Cranleigh, Surrey GU6 8NE (UK)
Description of the part	Lifting equipment
The part is in compliance with the European directive	2006/42/CE
European standards used	EN ISO 12100-1 & -2, EN ISO 13852, EN 1677-1
Certicate of conformity no.	[illegible]
Ringtype and dimension	P4020 - [illegible]
Standard ring?	Yes
Quantity	[illegible]
Colour	Red
Material	Treated forged steel alloy, hardened, tempered, fatigue resistance
Manufactured in	Shackle: AR. Bolt: RI 05
WLL - Working Load Limit (max load - refer to tables)	2,5 tons
Magnetic testing	Yes – 100%
Testing to breaking load by sampling from production batch	WLL x 5
Customer	John Doe Ltd
Order	SOR0099999

The swivel rings must be used in accordance with our recommendations explained in the technical literature. As all tests have procured satisfactory results, we have considered these parts to be "good for utilisation".

Signature: Date:

SPECIMEN

Certificate of Conformity

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

63200 - Threads M8 – M30 Loads 0,3 tons – 3 tons.

63210 - Threads M30 – M45Loads 3,5 tons – 6 tons.

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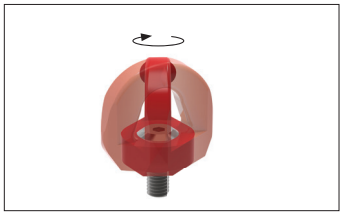
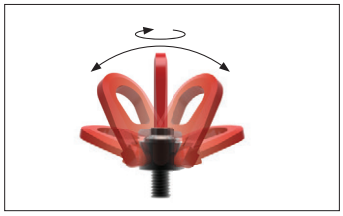
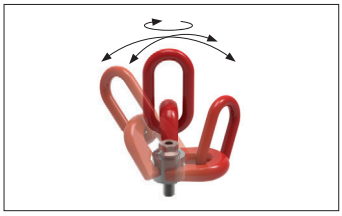


Single swivel - threads M8 – M48 loads 0,3 tons – 15 tons



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



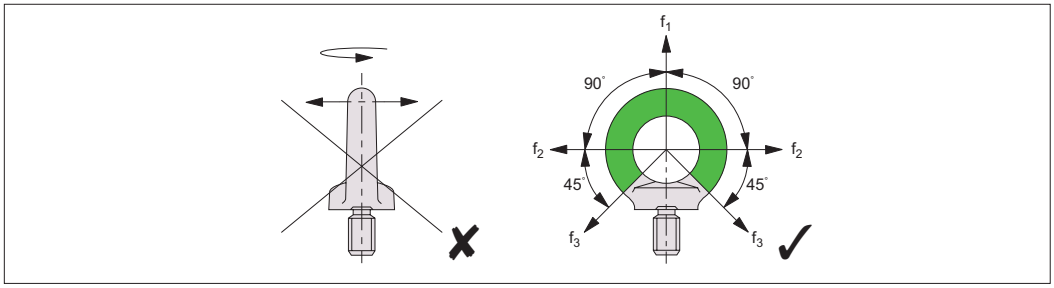
Triple swivel - threads M8 – M56 loads 0,3 tons – 22 tons

	Pros	Cons
✓	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	
✓	Forces across lifting ring plane (double and triple swivel type)	

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.

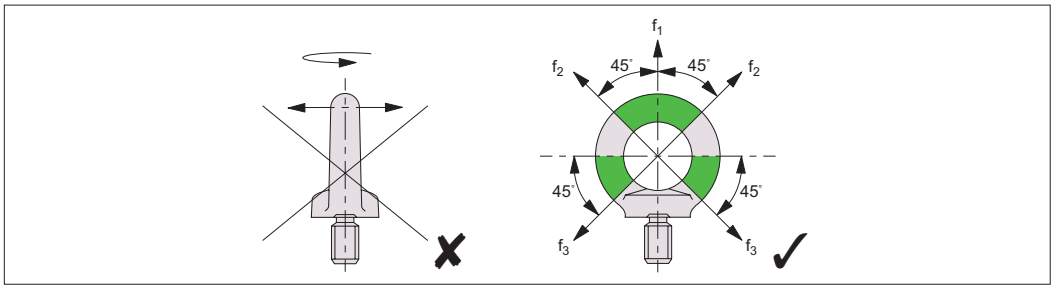


	Pros		Cons
✓	CE marked	✘	Individual CE certification
✓	Axial load	✘	Shear tension
✓	Max. load bearing 90°	✘	Swivel loads
✓	Max. laterial load 90°	✘	Forces across lifting ring plane

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.

Important Note: Forces must act in the direction of the lifting ring plane.



	Pros		Cons
✓	CE marked	✘	Individual CE certification
✓	Axial load	✘	Shear tension
✓	Max. load bearing 45°	✘	Swivel loads
✓	Max. laterial load 45°	✘	Forces across lifting ring plane

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 fo the eye bolt plane, do not apply forces across the eye bolt plane.

Important Note: Forces must act in the direction of the lifting ring plane.

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Single Swivel Lifting Rings

max. load rating - per lifting configuration

63020 Male

Lifting configuration						 α max. = 60°		 α max. = 60°	
No. of rings		1	2	1	2	2	2	4	4
Lifting angle		0°	0°	90°	90°	45°	60°	45°	60°
Thread		**Maximum load rating for given lifting configuration**							
M8	tons	0,30	0,60	0,30	0,60	0,40	0,30	0,60	0,30
M10	tons	0,60	1,20	0,60	1,20	0,80	0,60	1,30	0,60
M12	tons	1,00	2,00	1,00	2,00	1,40	1,00	2,10	1,00
M16	tons	1,60	3,20	1,60	3,20	2,20	1,60	3,40	1,60
M20	tons	2,50	5,00	2,50	5,00	3,50	2,50	5,30	2,50
M24	tons	4,00	8,00	4,00	8,00	5,60	4,00	8,40	4,00
M30	tons	6,30	12,60	6,30	12,60	8,80	6,30	13,20	6,30
M36	tons	10,00	20,00	10,00	20,00	14,00	10,00	21,00	10,00
M42	tons	12,50	25,00	12,50	25,00	17,50	12,50	26,30	12,50
M48	tons	15,00	30,00	15,00	30,00	21,00	15,00	31,50	15,00

Important Note: Table shows the maximum load rating for a given lifting configuration (NOT maximum load rating per individual lifting ring).

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