

## Use recommendations

Original version

In accordance with « directive on machinery » 2006/42/CE

### MANUFACTURER PERSONAL INFORMATION:

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### PRODUCT DESCRIPTION

These instructions for use apply to every swivel lifting ring manufactured by CODIPROLUX. All these rings are listed and described in the technical catalogue in force. Only the official technical catalogue CODIPROLUX can be used as a benchmark.

### CERTIFICATION - QUALITY

In accordance with « directive on machinery » 2006/42/CE. In accordance with European standard EN 1677-1. Delivery with certificate of compliance. Control anti-crack on 100% of products. Proof load test (WLL x 2.5) according to current European standards. Safety factor 5 on most products (see technical catalogue in force). Certification in option by an external Certified Control Company.

### MAXIMUM TRACEABILITY GUARANTEED

Individual tracking of each ring thanks to a unit code. Manufacturing marking on each ring component.

### USE TERMS

Only handled by capable people and trained following to current European standards on the place of use. No going under a suspended load and/or no putting in danger operators in the handling area. During handlings, avoid any dangerous operations: shocks, tugs, vibrations,... Scrupulous respect of WLL engraved on the ring. Every lifting equipment in contact with lifting rings must be proportioned in relation to these and in accordance with current European standards. The thread (Diameter and/or length) must be appropriate to the material in which it will be screwed. It is advised to use these followings coefficients:

- 1 x for steel (ST 37 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 a lower resistance. The tap must be in accordance with European standards in force and long enough to fit with the full bolt length. 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 area, sandy, chemical, acid, moisture... (Contact the manufacturer for stainless steel rings solution). Using swivel lifting rings with an angle generates WLL reducing coefficients. Please use the lifting angles table in the technical catalogue to calculate the coefficients. For any lifting not shown in this lifting angles table, please contact the manufacturer. RING FASTENING Bolt must be tightened with the right torque recommended in the technical catalogue. The whole ring flange must be in contact with the piece to lift. For a single use without turning movements / rotation hand tightening until complete contact between the base of the ring and the surface of the charge with a wrench / allen key is sufficient. Tightening should be checked before each use. Pay attention not to exceed the torque stated in our technical brochure. Every swiveling part must stay movable in every direction without meeting any obstacles. Rings with centring (type +C) absolutely must be used after an extra drilled hole is done. Most of the time, using a +C is decided on design step. The purpose is to maximize the bolt strength by 90° lifting. Take the center of gravity into account. Before each lifting, make sure of the right orientation of the shackle in lifting direction.

### CONTROL AND REPAIR

Control absolutely must be done by competent people and trained following to current European standards on the place of use. A visual control before each use is necessary. The following points must be checked:

- Thread condition,
- Swiveling system,
- Unusual wear and/or corrosion,
  - Bending,
- CE marking, traceability code and WLL marking.

If one of these criterions is not respected, a deeper control must be done. A yearly full control is obligatory. In some particular cases, frequent detailed controls are obligatory (refer to legislation in force). To conduct these verifications, CODIPROLUX put at your disposal control sheets upon request. All swivel lifting rings manufactured by CODIPROLUX can be returned once a year to the manufacturer for a free analysis. Ask for our «Procedure of reconditioning of rings CODIPRO ». No dismantle the swivel lifting rings. Product greased for life.