

PHILIPPGROUP

PHILIPP Lifting loop with threaded end



VB3-T-014-en - 02/16

Application Instruction

PHILIPP Lifting loop with threaded end

The Lifting loop with threaded end is part of the PHILIPP transport anchor system and complies with the VDI/BV-BS Guideline "Lifting inserts and lifting insert systems for precast concrete elements" (VDI/BV-BS 6205).

The use of Lifting loops with threaded end requires the compliance with this Application Instruction, the installation instructions for threaded anchor systems as well as the General Installation Instruction.

The Lifting loop with threaded end can only be used for axial and diagonal tension up to 45°.

Table 1: Permissible load bearing capacities and dimensions

| Ref.-No. RD thread ① | Type | perm. F 0°- 45° [kN] | h [mm] | e [mm] | Weight [kg/pc.] |
|----------------------------|-------|----------------------------|-----------|-----------|--------------------|
| 69RD12 | RD 12 | 5.0 | 155 | 22 | 0.06 |
| 69RD14 | RD 14 | 8.0 | 155 | 25 | 0.10 |
| 69RD16 | RD 16 | 12.0 | 165 | 27 | 0.13 |
| 69RD18 | RD 18 | 16.0 | 190 | 34 | 0.19 |
| 69RD20 | RD 20 | 20.0 | 215 | 35 | 0.26 |
| 69RD24 | RD 24 | 25.0 | 255 | 44 | 0.46 |
| 69RD30 | RD 30 | 40.0 | 300 | 55 | 0.88 |
| 69RD36 | RD 36 | 63.0 | 360 | 66 | 1.45 |
| 69RD42 | RD 42 | 80.0 | 425 | 75 | 2.16 |
| 69RD52 | RD 52 | 125.0 | 530 | 95 | 4.50 |

① Also available with M thread (Ref.-No. 69M___)

- The weight of 1.0 t corresponds to 10.0 kN.

Material

The Lifting loop is made of a galvanised wire rope. The threaded part is made of a bright precision steel.

Marking

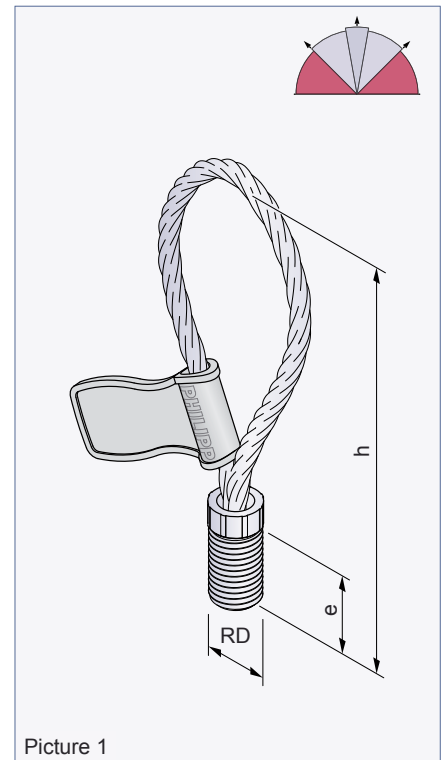
The Lifting loops with threaded end are labelled with a colour-coded tag.

The label includes the following information (Picture 2):

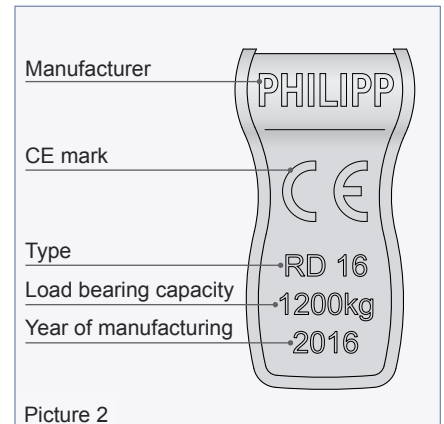
- Manufacturer
- CE mark ②
- Type (system / load class)
- Load bearing capacity
- Year of manufacturing



② The EC Declaration of Conformity (DoC) of the Lifting loop with threaded end is available on request or can be downloaded from our website www.philipp-group.de.



Picture 1



Picture 2

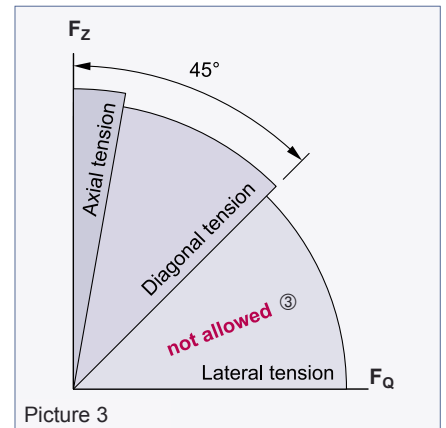
Application

Application

The Lifting loop with threaded end is used as a lifting device within the threaded anchor system and can be screwed in or out of the threaded anchor like a standard screw. The Lifting loop with threaded end must be screwed in completely.

During use the following must be considered:

- Lateral tension to the Lifting loop with threaded end is not permitted
- Thread must be screwed in completely!
- Dirty anchor threads as well as Lifting loops with threaded end are to be kept cleaned!
- Please notice the replacement state!
- Contact of the Lifting loop with threaded end to acids, alkalis and other aggressive media is not allowed!



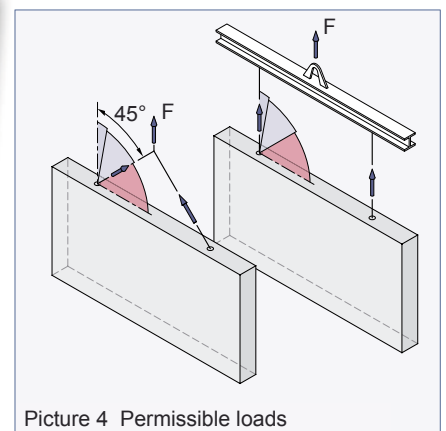
Picture 3



③ Using the PHILIPP Adapter for lateral tension the Lifting loop with threaded end can also be used for lifting angles higher than 45°. For this, please refer to the separate Application Instruction of the Adapter for lateral tension.



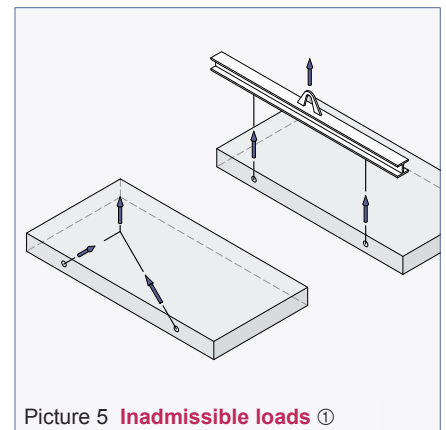
The Lifting loop with threaded end is only permitted for axial tension and diagonal tension up to 45°. Incorrect load directions during application lead to damages to the rope and the wire rope clamp. In case of a lateral tension within the transport and lifting procedure of the concrete element we recommend to take the special Adapter for lateral tension, Wirbelstar or Lifty as a correct lifting device.



Picture 4 Permissible loads



Using only one Lifting loop with threaded end in order to lift concrete elements attention must be paid that the lifting device is protected against unscrewing.



Picture 5 Inadmissible loads ①

Safety and inspection

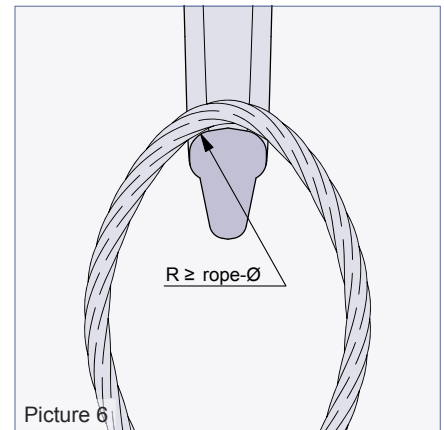
Safety advice

As each other lifting equipment and lifting device the Lifting loop with threaded end is subject to an annual inspection according to DGUV 100-500 chapter 2.8. par. 3.15.4. This inspection has to be done by an expert and lies within the responsibility of the owner. Depending on the working conditions the inspections might be necessary in a shorter interval instead of only once a year. This might be caused by frequent use, increased wear, corrosion or heat treatment. In general, attention must be paid to the current accident prevention regulations.

The correct hook size and form should be considered in order to extend the durability.



The rounding radius of the load hooks must be at least the rope diameter of the Lifting loop with threaded end (Picture 6). The use of too small, too large or sharp-edged hooks leads to a reduced lifetime of the lifting device (replacement criteria).



Welding or other strong heat influences on the Lifting loop with threaded end are not allowed.



The continued use of damaged lifting devices or equipment already met the discard criteria is not permitted!

If the Lifting loop with threaded end is loaded with extreme forces (e.g. by an event causing damage) it must be examined extraordinarily by an expert. The criteria are given in section "Replacement state and inspection".

Replacement state and inspection

The replacement criteria of the Lifting loop with threaded end are based on the German regulation DGUV 100-500 chapter 2.8 par. 3.15.4.

Prior inspection of a Lifting loop with threaded end it must be cleaned. Within an inspection the following points have to be considered: If one of the following points is fulfilled the Lifting loop with threaded end has reached its replacement state and must not be used anymore.

- Broken strand
- Kinks and bends
- Loosening of external layer
- Contusion in free lengths
- Contusion in the support area of the eye with more than 4 broken wire
- 4 broken wire on a length of the threefold of the wire rope diameter
- 6 broken wire on a length he sixfold of the wire rope diameter
- 16 broken wire on a length of the thirtyfold of the wire rope diameter
- Corrosion pits
- Damages, deformation or strong wear and tear of the wire connection (threaded component)
- Breakage of the wire connection end (threaded part)
- Deformed thread
- Welding or other strong heat influences
- Pull-out of the wire rope from threaded end
- Unreadable or missing tag