

OPTILASH

Lashing ring

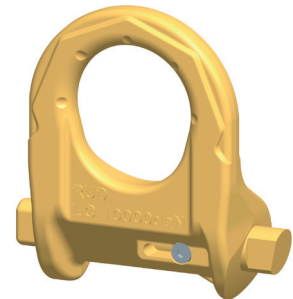


User Manual

This User Manual has to be kept on file for the whole lifetime of the product and forwarded with the product.
TRANSLATION OF THE ORIGINAL USER MANUAL



OPTILASH-FIX



OPTILASH-CLICK



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RUD-Art.-Nr.: 7910397-EN - V04 / 12.025

OPTILASH

Lashing ring

Herstellereklärung

Hiermit erklären wir (unterstützt durch die Zertifizierung nach ISO 9001), dass die nachfolgend bezeichnete Ausrüstung aufgrund ihrer Konzipierung und Bauart, sowie der von uns in Verkehr gebrachten Ausführung, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der Europäischen Union entspricht. Bei einer nicht mit uns abgestimmten Änderung der Ausrüstung verliert diese Erklärung ihre Gültigkeit. Weiterhin verliert diese Erklärung ihre Gültigkeit, wenn die Ausrüstung nicht entsprechend den in der Betriebsanleitung aufgezeigten bestimmungsmäßigen Fällen eingesetzt wird.

Hinweis: Beim Zurrpunkt angewendete harmonisierte Normen DIN EN ISO 12100 T1 und T2 sowie in Anlehnung an EN 1677.

Bezeichnung der Ausrüstung:
OPTILASH
Zurrlasche

Herstellerzeichen:

Declaration of the manufacturer

We hereby declare (supported by certification as per ISO 9001) that the equipment, as mentioned below, corresponds to the appropriate, basic requirements of safety and health of the corresponding European Union in the design as it is sold by us because of its design and construction. In case of any modification of the equipment, not being agreed upon with us, this declaration becomes invalid. Furthermore, this declaration will become invalid if the equipment is not used according to the prescriptions mentioned in the manual.

Hint: Applied standards: DIN EN ISO 12100 T1 and T2 in particular EN 1677.

Designation of the equipment:
OPTILASH
Lashing Ring

Manufacturer's sign:

Декларация изготовителя

Настоящим подтверждаем (на основе сертификации по ISO 9001), что указанное ниже изделие по своей концепции и конструкции, а также в том исполнении, в котором оно выпускается нами в обращение, соответствует надлежащим основополагающим требованиям Европейского Союза по обеспечению безопасности и охраны здоровья. В случае несогласованного с нами изменения изделия настоящая Декларация утрачивает силу. Настоящая Декларация утрачивает также силу, если изделие используется не в соответствии с перечисленными в Руководстве по эксплуатации случаями применения по назначению.

Указание: для крепежной точки были применены гармонизированные стандарты DIN EN ISO 12100 T1 и T2, на основе EN 1677.

Наименование изделия:
крепежная петля
OPTILASH

Товарный знак изготовителя:



Read the User Manual carefully before using the RUD OPTILASH lashing ring. Ensure that you have understood all the contents. Non-observation of the instructions can lead to injuries or damage and will invalidate the guarantee.

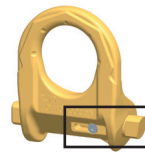
These instructions apply to the following variants of the OPTILASH lashing ring:

- **OPTILASH-FIX:**
in one piece

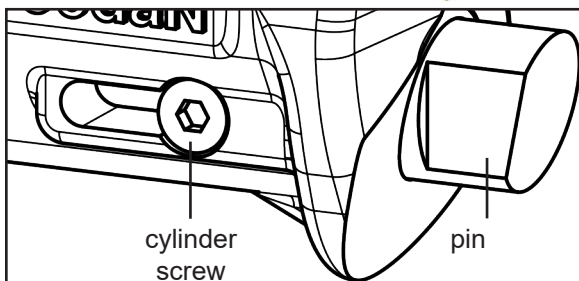


Pic. 1:

- **OPTILASH-CLICK:**
click-in version
(with spring-loaded pin)



Pic. 2:



NOTE

The User Manual for the OPTILASH-FIX and OPTILASH-CLICK lashing rings only contains information about the lashing rings themselves.

Any installation link necessary is not included in the scope of delivery / delivery range and has to be provided by the operator in accordance with the requirements!

1 Safety information



CAUTION

Incorrectly mounted or damaged lashing equipment and improper use can lead to injuries and damage to objects after a fall. Check all lashing equipment carefully every time before use.

- The RUD OPTILASH may only be used for the attachment of lashing equipment.
- Lashing points must never be used for lifting loads.
- The RUD OPTILASH may only be used by authorised and instructed persons in compliance with DGUV Regulations 109-017 and in compliance with any valid national regulations if used outside Germany.
- The LC (= Lashing Capacity) specified on the OPTILASH must not be exceeded.
- No technical modifications must be made to the RUD OPTILASH.

- Damaged or worn RUD OPTILASH units must not be used.

2 Intended use

The RUD OPTILASH may only be used for the attachment of lashing equipment.

Lashing points must never be used for lifting loads.

In addition, the RUD OPTILASH may only be subjected to a load up to the maximum stipulated LC = Lashing Capacity.

All-round load is permitted.

The RUD OPTILASH may only be used for the purposes described here.

3 Instructions for assembly and use

3.1 General information

- Suitability for use at specific temperatures:
 - **OPTILASH-FIX:**
When used at higher temperatures, the WLL must be reduced by the following factors:
 - -40°C to 200°C: no reduction
 - 200°C to 300°C: minus 10 %
 - 300°C to 400°C: minus 25 %
 - Temperatures over 400°C are not permissible!
 - **OPTILASH-CLICK:**
 - -40°C to 80°C: no reduction
 - Temperatures over 80°C are not permissible (failure of the springs)!
- RUD OPTILASH must not be allowed to come into contact with aggressive chemicals, acids and their vapours.
- Clearly identify the attachment place for the lashing points by means of contrasting colour markings.
- RUD OPTILASH are marked on the attachment ring with the permissible lashing capacity "LC" in daN.
- Determine the necessary permissible lashing capacity of the individual lashing point in accordance with EN 12195-1 "Load restraining on road vehicles - Calculation of securing forces" and VDI 2700 "Load restraining on road vehicles".



NOTE

RUD OPTILASH is marked on the hooking ring with the permissible lashing capacity "LC" in daN.

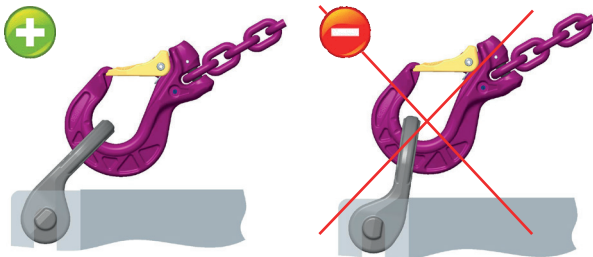
3.2 Information about assembly

- Design the attachment point of the installation link so that the exerted forces can be absorbed by the base material without deformation. If necessary, reinforce the installation link with support ribs or a closed frame construction.

- Assembly alignment:
The RUD OPTILASH must be mounted properly (Pic. 3).



Pic. 3: Permitted assembly alignment (RUD and LC lettering face away from the load)



Pic. 4: Alignment of the lashing ring **CORRECT!**

Pic. 5: Alignment of the lashing ring **WRONG!**
Lashing ring mounted laterally inverted!

- Determine the number and layout of the lashing points on the vehicles in accordance with EN 12640 or EN 75410 (for RoRo traffic in accordance with EN 29367), in as far as the design and equipment of the vehicles are not designed for transporting special goods with special requirements on load restraint.



NOTE

The lashing points should be located as far towards the outside as possible to make maximum use of the width of the cargo area and they must not project over the cargo area level when at rest.

- Select the position of the lashing points on the goods to be restrained (load) in such a way that impermissible loads, such as twisting or turning of the load, can be avoided.
- Subsequently check the proper mounting (see section 4 Inspection / repair / disposal).



CAUTION

Lashing points must never be used for lifting loads!

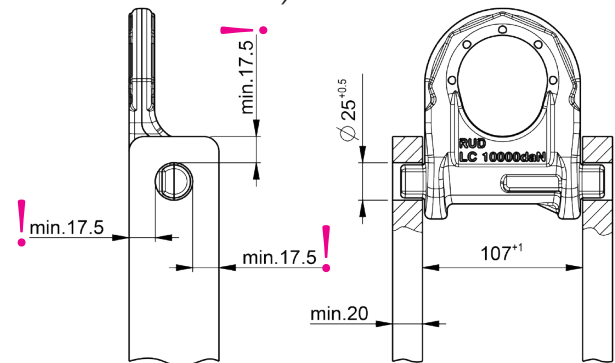
3.2.1 Mounting the lashing ring OPTILASH-FIX and OPTILASH-CLICK in bore holes

- Note the minimum cross-sections of the connection plates (cf. Pic. 6).



NOTE

If the lashing ring OPTILASH-CLICK is to be used as a spare part, the dimension 17.5 mm (!) must always be kept on one plane. Otherwise the OPTILASH-CLICK cannot be retrofitted to the construction (cf. section 3.2.3).



Pic. 6: Minimum cross-sections for installation (bore hole)

- The connection plate must have a minimum quality of S355JR [1.0045].
- Check the swivelling ability after welding the lashing ring in place.
- The axial clearance should not exceed 4.5 mm.
- Do not carry out welding work on the tempered lashing ring.
- The OPTILASH-FIX lashing ring must not be hot galvanised or zinc plated after being welded in place (risk of hydrogen embrittlement).



NOTE

If the vehicle frame is to be hot galvanised or zinc plated, use the OPTILASH-CLICK lashing ring.

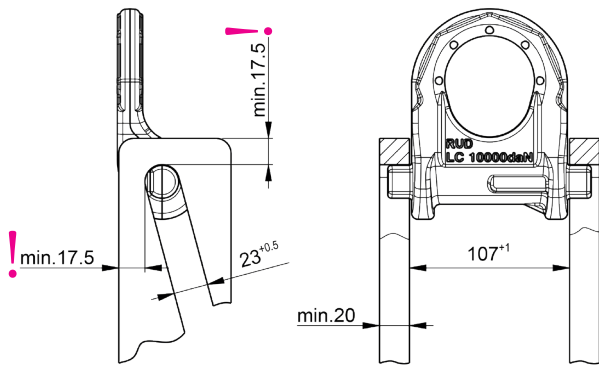
3.2.2 Mounting the lashing ring OPTILASH-FIX and OPTILASH-CLICK into a link structure

- Note the minimum cross-sections of the connection plates (cf. Pic. 7).



NOTE

If the lashing ring OPTILASH-CLICK is to be used as a spare part, the dimension 17.5 mm (!) must always be kept on one plane. Otherwise the OPTILASH-CLICK cannot be retrofitted to the construction (cf. section 3.2.3).



Pic. 7: Minimum cross-sections for installation (link)

- The connection plate must have a minimum quality of S355JR [1.0045].
- Check the swivelling ability after welding the lashing ring in place.
- Do not carry out welding work on the tempered lashing ring.
- The OPTILASH-FIX lashing ring must not be hot galvanised / zinc plated after being welded in place (risk of hydrogen embrittlement).



NOTE

If the vehicle frame is to be hot galvanised / zinc plated, use the OPTILASH-CLICK lashing ring.

3.2.3 Mounting the lashing ring OPTILASH-CLICK as a spare part (conditions)

If the OPTILASH-CLICK is to be installed and removed as a spare part, the dimension 17.5 mm must be kept on one plane. The OPTILASH-CLICK lashing ring can be mounted and removed on this plane.



NOTE

The dimension 17.5 mm (!) must always be kept on one plane. Otherwise the OPTILASH-CLICK cannot be retrofitted to the construction.

During mounting proceed as follows:

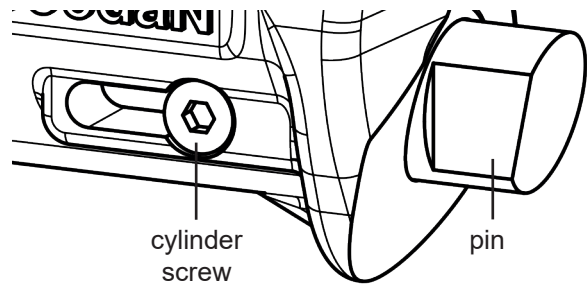
Preparing the OPTILASH-CLICK for clicking into the installation link

- 1 Release the pin lock by turning the cylinder screw (hexagon socket wrench size O = 4 mm (see Pic. 22)) just far enough to allow the pin to be adjusted against the spring force (see Pic. 9).

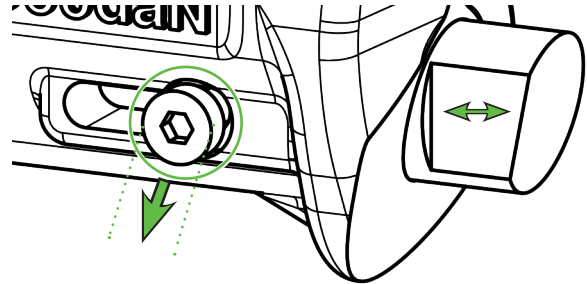


IMPORTANT

Do not unscrew the cylinder screw completely!



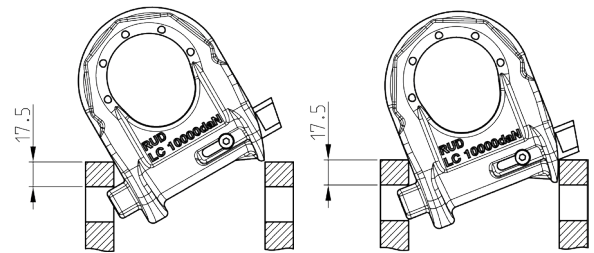
Pic. 8: Initial situation: Cylinder screw countersunk = Pin cannot be adjusted = Pin locked



Pic. 9: Unscrew the cylinder screw until the Pin can be adjusted.

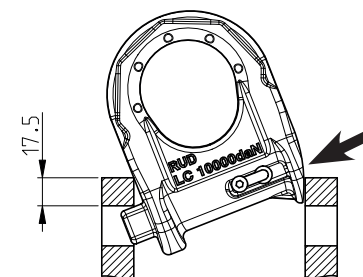
Click into the installation link (prerequisite: pin not locked)

- 2 Insert the OPTILASH-CLICK with a rigid pin.



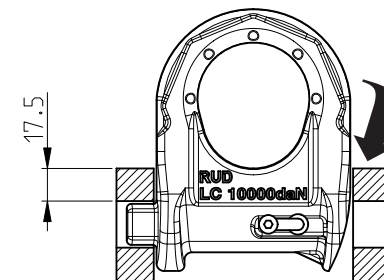
Pic. 10: Insert OPTILASH-CLICK with rigid pin

- 3 Adjust the pin completely in the direction of the arrow (using the pin or cylinder screw (see Pic. 9)).



Pic. 11: Adjust the pin completely in the direction of the arrow (using the pin or cylinder screw).

- 4 Swivel the OPTILASH-CLICK into place.

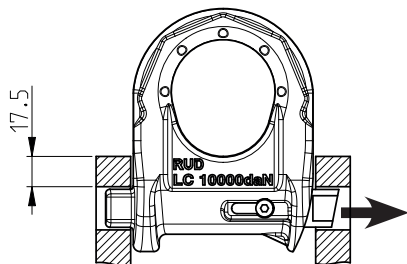


Pic. 12: Swivel OPTILASH-CLICK into place



IMPORTANT

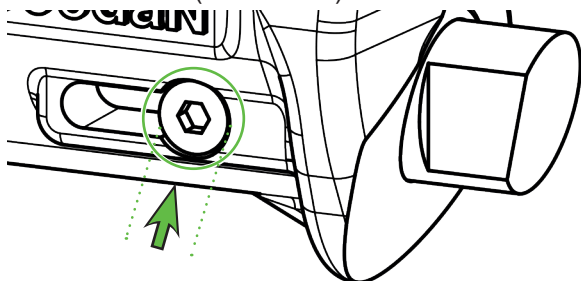
The pin must automatically return to its end position!



Pic. 13: The pin must automatically return to its end position!

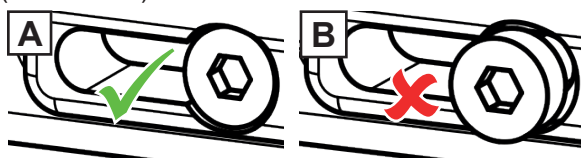
Locking the pin for safe use

- Screw in the cylinder screw up to the recessed screw-on surface with the specified tightening torque = 10Nm. The cylinder screw must be completely countersunk in the hole (see Pic. 14).



Pic. 14: Screw in the cylinder screw until it reaches the recessed screw-on surface = pin cannot be adjusted = pin is locked

- Finally, check that the pin is securely fastened (see Pic. 15).



Pic. 15:

A: Use permitted

(Cylinder screw countersunk = pin cannot be adjusted = pin locked)

B: Use prohibited

(Cylinder screw unscrewed = pin can be adjusted = pin NOT locked)

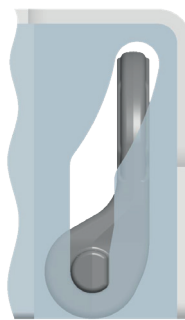
3.2.4 Example for the link design



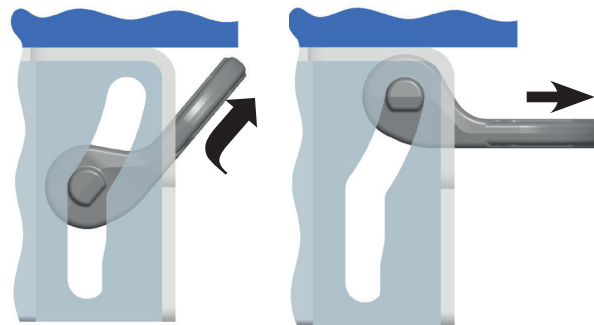
NOTE

The design of the link can vary depending on the manufacturer/construction.

The movement is the same both with the OPTILASH-FIX and with the OPTILASH-CLICK lashing ring:



Pic. 16: Position bottom / transport position (storage position)

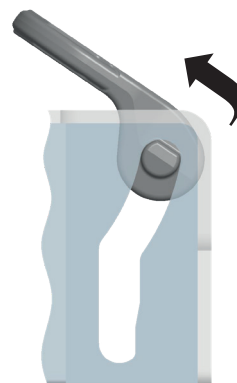


Pic. 17: Pull the OPTILASH lashing ring out of the link



NOTE

The OPTILASH lashing ring can even be extended with a protruding load (if the link construction permits). Cf. Pic. 17.



Pic. 18: Pivot the OPTILASH lashing ring into its usage position

3.3 Information about use

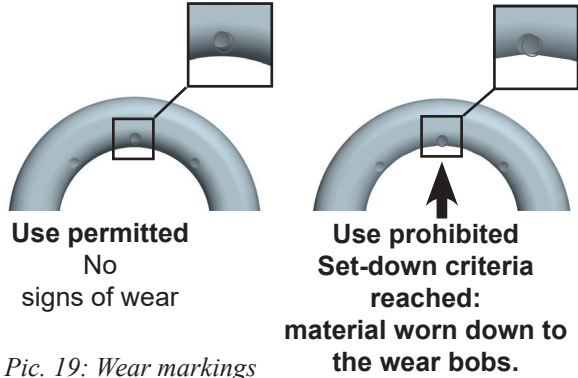
- Inspect the entire lashing ring/lashing point (for signs of heavy corrosion, wear, deformation) regularly before use (e.g. by the person attaching the load). See section 4 Inspection / repair / disposal.



CAUTION

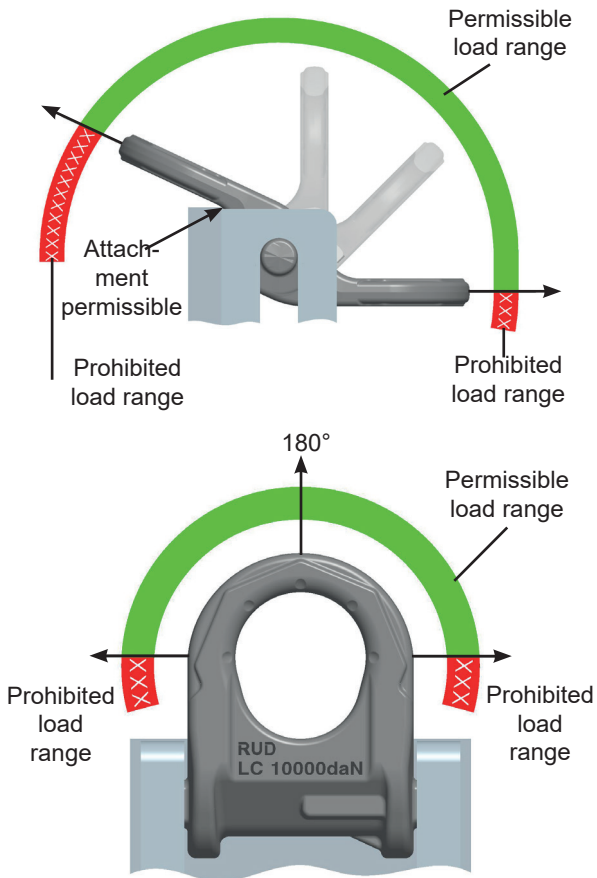
Incorrectly mounted or damaged lashing equipment and improper use can lead to injuries and damage to objects after a fall. Check all lashing equipment carefully every time before use.

- The lashing equipment must be freely movable in the RUD OPTILASH. When attaching and removing the lashing equipment (lashing chain) no crushing, shearing, catching or impact points may be created. Prevent any damage to the lashing equipment caused by sharp edges.
- Carefully check the wear markings of the lashing point (see *Pic. 19*):



Pic. 19: Wear markings

Load range:



Pic. 20: Load range

- After use, move the lashing ring into its storage position (cf. *Pic. 16*)!

4 Inspection / repair / disposal

4.1 Notes on regular inspection

The operator must determine and specify the nature and scope of the required inspections as well as the terms of periodic inspections by means of a risk assessment (see sections 4.2 and 4.3).

The continuous suitability of the lifting equipment must be checked at least 1x year by an expert.

Depending on the application conditions, e.g. when used frequently or if there is a higher level of wear or corrosion, it may be necessary to carry out inspections at intervals of less than a year. This inspection is also absolutely necessary after damage and special incidents.

4.2 Test criteria for the regular visual inspection by the user

- Lashing point is complete
- Complete, legible lashing capacity information and manufacturer symbol
- Deformation on supporting parts such as basic housing and lashing ring
- Mechanical damage such as large notches, in particular in areas subject to tensile loads.

4.3 Additional test criteria for the expert / repairer

- Cross-section changes due to wear > 10 % (see wear markings)
- Heavy corrosion (pitting corrosion)
- Mobility of the pin on the OPTILASH-CLICK. Release the pin lock, remove the OPTILASH-CLICK from its seat and check the mobility of the pin (press the pin in completely and then let it go. The pin must return to its final position automatically). If necessary, oil the pin with penetration oil.
- Additional inspections may be necessary, depending on the result of the risk assessment (e.g. check for cracks in load-bearing parts).

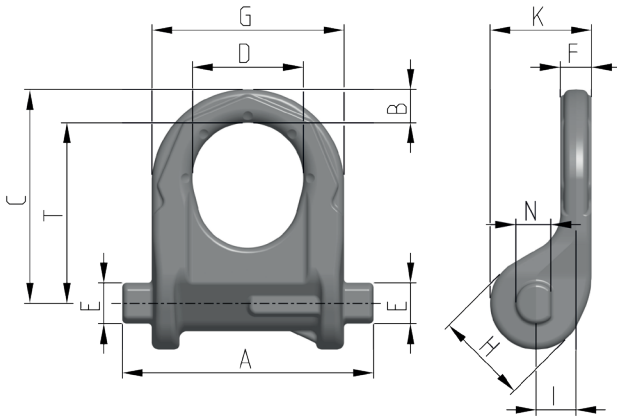
4.4 Disposal

Dispose worn out components / attachments or packaging according to the local waste removal requirements.

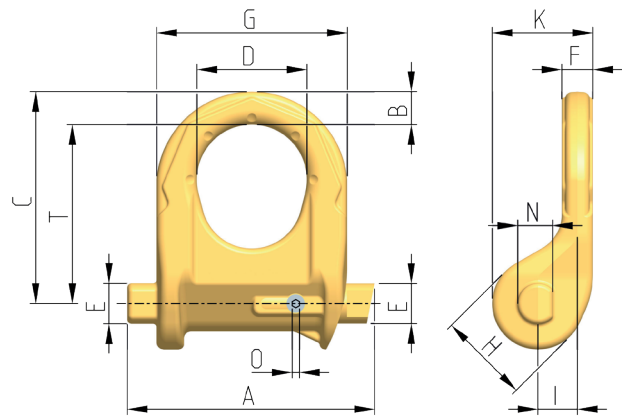
Type	LC [daN]	T [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	K [mm]	N [mm]	O [mm]	Weight [kg/pcs.]	Surface	PU [pcs.]	Art. no.
OPTI-LASH-FIX	10,000	98	136	18	116	60	22	17	104	50	21.5	55	19	--	1.9	phosphated	250	7910127
																	4	7910463
																zinc-plated	250	7910955
																	4	7910956
OPTI-LASH-CLICK	10,000	98	135	18	116	60	22	17	104	50	21.5	55	19	4	1.8	zinc-plated	250	7909602
																	4	7910464

Table 1: Dimensions

Subject to technical modifications



Pic. 21: Dimensions OPTILASH-FIX



Pic. 22: Dimensions OPTILASH-CLICK