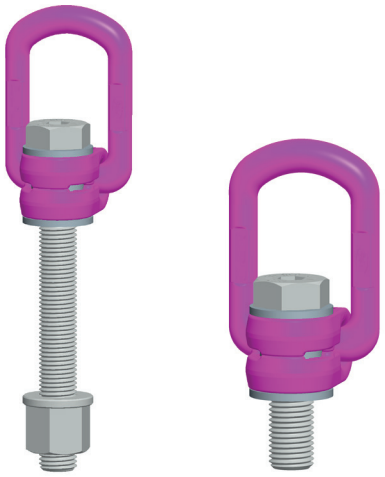
Lashing Point
Load Ring for bolting
>L-VLBG<

EN

Safety instructions

This safety instruction/declaration of the manufacturer
has to be kept on file for the whole lifetime of the product.
Translation of the original instructions



Lashing point in pink - boltable
L-VLBG

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Herstellererklärung

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: Zurrpunkt

Type: Zurrpunkt Lastbock-Gewinde L-VLBG

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: Utilized harmonized standards for this Lashing Point DIN EN 12 100 T1 and T2 as well as EN 1677.

Designation of the equipment: Lashing point

Type: Lashing Point for bolting L-VLBG

Manufacturer‘s sign:

Please read user instruction before initial operation of the bolt-on lashing load ring (subsequently named L-VLBG). Make sure that you have comprehend all subjected matters.
Non observance can lead to serious personal injuries and material damage and eliminates warranty.

1 Safety instructions

ATTENTION
Wrong assembled or damaged L-VLBG as well as improper use can lead to injuries of persons and damage of objects.
Please inspect all lashing points before each use.

- Remove all body parts (fingers, hands, arms, etc.) out of the hazard area (danger of crushing or squeezing) during the lashing process.
- RUD-lashing points L-VLBG must only be used by instructed and competent persons and outside Germany noticing the country specific statutory regulations.
- Do not exceed the LC (= Lashing Capacity) indicated on the lashing point.
- The lashing points must not protrude in rest position over the loading platform level.
- L-VLBG must be rotatable 360° when installed.
- No technical alterations must be implemented on the L-VLBG.
- No people may stay in the danger zone.
- Damaged or worn L-VLBG must never be utilised.

2 Intended use

RUD-L-VLBG must only be used for the assembly of the load or at load accepting means

RUD-L-VLBG must only be used for lashing of loads and must not be used for lifting of loads.

RUD-L-VLBG must only be used up to the max. prescribed LC (=Lashing capacity).

RUD-L-VLBG must only be used in the here described usage purpose.

3 Assembly- and instruction manual

3.1 General information

- Effects of temperature:
  Due to the DIN/EN bolts that are used in the L-VLBG, the working load limit must be reduced accordingly:
  -40°C to 100°C → no reduction
  100°C to 200°C minus 15 % (212 to 392°F)
  200°C to 250°C minus 20 % (392 to 482°F)
  250°C to 350°C minus 25 % (482 to 662°F)
  Temperatures above 350°C (662°F) are not permitted.
  Please observe the maximum usage temperature of the supplied nuts (optionally):
  - Clamping nuts according to DIN EN ISO 7042 (DIN 980) must only be used up to +150°C at the max (302°F).
  - Collar nuts according to DIN 6331 can be used up to +300°C. Please note also the reduction factors (572°F).
- RUD-Lashing points must not be used under chemical influences such as acids, alkaline solutions and vapours e.g. in pickling baths or hot dip galvanising plants. If this cannot avoided, please contact the manufacturer indicating the concentration, period of penetration and temperature of use.
- The places where the lashing points are fixed should be marked with colour
- RUD L-VLBG lashing points are delivered with a 100 % crack tested bolt (length up to Lmax please see table 1). **M36: 10.9**
- Original bolts (10.9 bolts) are available as a spare part from RUD.
- When using 10.9 bolts of the size M36 from other suppliers, make sure that they have been 100 % inspected in regards of cracks. A written confirmation of the absence of cracks must be added to the documentation.

  The min. quality of the hexagon bolt has to be 10.9 accord. EN 24014 (DIN 931) with the nominal diameter.

HINT
The dismantling / assembling for the exchange or inspecting of the bolt may only be executed by a competent person (compare with Section 3.4 Dismantling / Assembling the RUD bolt).

Versions

- RUD supplies the Vario length complete with a washer and crack-detected nut corresponding to DIN EN ISO 7042 (DIN 980) or will be supplied with a crack inspected collar nut acc. to DIN 6331.

3.2 Hints for the assembly

Basically essential:

- The material construction to which the lashing point will be attached should be of adequate strength to withstand forces during lashing without deformation.The German testing authority BG/DGUV, recommends the following minimum for bolt lengths:
  1x M in steel (minimum quality S235JR [1.0037])
  1,25x M in cast iron (f.e. GG 25)
  2 x M in aluminium alloys
  2,5 x M in aluminium-magnesium alloys
  (M = diameter of RUD lashing point, f.e. M 36)

- Determine number and position of the lashing points at vehicles according to EN 12640 resp. DIN 75410 (for RoRo-transportation acc. to EN 29367), unless the vehicles are not determined due to their design and construction for transporting specific goods with special requirements in regard of load securing.
- The lashing points must not protrude in rest position over the loading platform level.
- The position of the lashing points must be carried out in regard to the lashing means in such a way that unintended movement like turning or flipping of the load will be avoided.

ATTENTION
In general, lashing points must not be used for lifting loads.

- Determine the necessary lashing capacity of each lashing point acc. to EN 12195-1 ”Load securing devices on road vehicles” - “Calculation of lashing forces” and VDI 2700 ”Load securing of road vehicles.”.
- RUD-lashing points L-VLBG are clearly marked at the ring with the permissible Lashing capacity „LC“ in daN.
- A plane bolt-on surface (ØD, table 1) with a perpendicular thread hole must be guaranteed.
  The thread must be carried out acc. to DIN 76 (countersink max. 1.05xd).
  Tapped holes must be machined deep enough so that the bearing surface of the lashing point will be supported. Machine through holes up to DIN EN 20273-middle.
- For a singular transporting action at a short transporting route hand tightening with a flat wrench is sufficient (bottom flange of the L-VLBG must sit properly at bearing surface). At other installations the L-VLBG must be tightened with the appropriate torque values acc. to table 1.
- L-VLBG must be rotatable 360° when installed.
- With shock loading or vibrations, especially at through hole fixtures with a nut at the end of the bolt, accidential release can occure.
  Securing possibilities: Observe torque moment, use liquid securing glue f.e. Loctite (can be adapted to the usage, observe manufacturer hints) or assemble a form closure bolt locking device f.e. a castle nut with cotter pin, locknut etc.
- Finally check the proper assembly (see chapter 4 Inspection / repair).

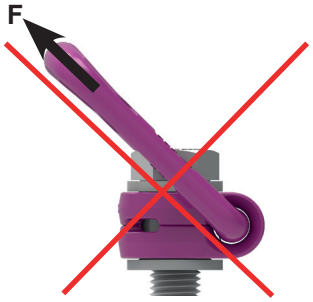
3.3 User instructions

3.3.1 General information for the usage

- Always regularly observe the appearance of the whole lashing point (e.g. fixed lashing point/slings) before using it (secured bolt seat, strong corrosion, cracks on load-bearing parts, deformations). Refer to chapter 4 Inspection / repair.

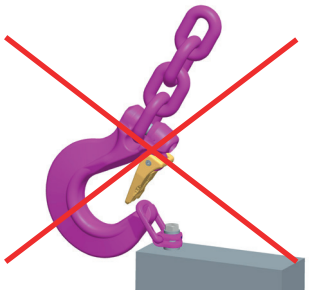
ATTENTION
Wrong assembled or damaged L-VLBG as well as improper use can lead to injuries of persons and damage of objects.
Please inspect all lashing points before each use.

- When connecting and disconnecting the lashing means (lashing chain) pinches and impacts should be avoided.
- Set the suspension ring of the L-VLBG in the direction of force before attaching the lashing means.



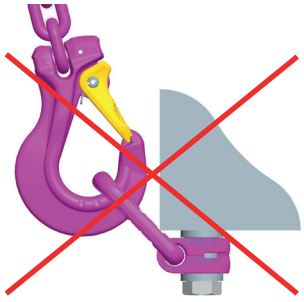
Pic. 1: Forbidden loading direction

- Keep in mind that the lashing means in the L-VLBG must be freely movable.



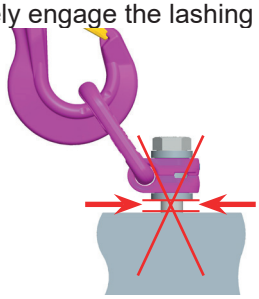
Pic. 2: Use only suitable lashing means for hanging or hooking into the L-VLBG

- A bending load of the suspension ring is not permitted!



Pic. 3: The load must move freely and must not be loaded at edges

• Always completely engage the lashing point.



Pic. 4: The lashing point must be completely screwed in.

- Only one lashing mean must be attached to the suspension ring of the L-VLBG.
- Damage of the lashing means caused by sharp edges should be avoided as well.

3.4 Dismantling / Assembling the RUD bolt

HINT
The dismantling / assembling and/or the exchange of the RUD bolt must only be executed by a competent person!

3.4.1 Dismantling the bolt of the L-VLBG M36

1. Position L-VLBG with the thread end upwards at the bushing on the top of the bench vice without clamping the hexagon head of the bolt.

   Attention: Do not clamp head of bolt!

2. Slightly hit the bolt from the top to drive it out from the bushing (Pic. 5).

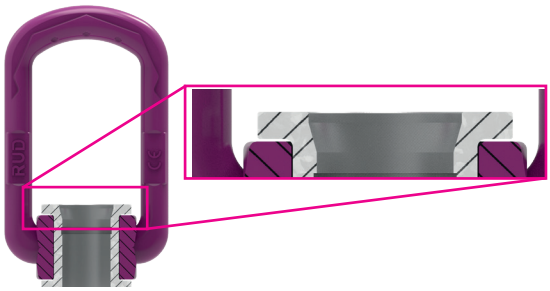
   Attention: In doing so, the thread must not be damaged!

Pic. 5: Dismantling position of the L-VLBG

3.4.2 Assembling the bolt for L-VLBG M36

HINT
Only the stated strength of class for the respective size of the bolts must be used!
M36: 10.9

1. Insert the bolt into the bushing at the tapered end, where the chamfer is (refer to Pic. 6).



Pic. 6: L-VLBG in sectional view.
The insertion chamfer is visible on top of the bushing

2. Insert the bolt into the socket in such a way that the retaining ring is circumferential deepened in the socket and seated (refer to Pic. 7).

TIP
Turn the bolt a few times under slight pressure so that it is centered in the retaining ring!

Pic. 7: Retaining ring positioned as circumferential in the recess

3. Use a light tap on the head of the bolt so that the bolt can be assembled up to the end stop of the bolt head on the socket.
4. Finally, control the tightness and seating of the bolt. The bolt must be easily rotatable by 360°.

4 Inspection / repair

4.1 Hints for periodical inspections

The operator must determine and specify the nature and scope of the required tests as well as the periods of repeating tests by means of a risk assessment (see sections 4.2 and 4.3).
The continuing suitability of the lashing point must be checked at least 1x year by an expert.
Depending on the usage conditions, f.e. frequent usage, increased wear or corrosion, it might be necessary to check in shorter periods than one year. The inspection has also to be carried out after accidents and special incidents.

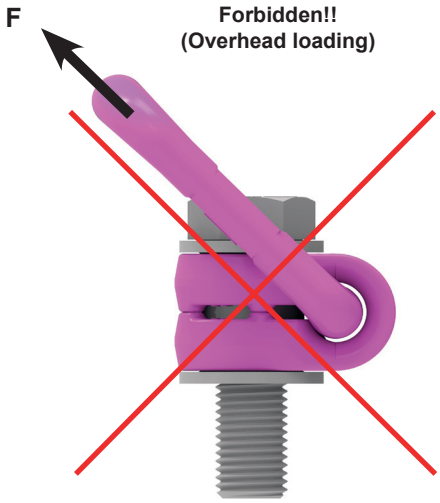
4.2 Test criteria for the regular visual inspection by the user

- Ensure correct bolt- and nut size, bolt quality grade and engagement length
- Always observe tightness of the bolts

  —> inspect the torque
- Completeness of the lashing point.
- Complete and readable marking of Lashing Capacity as well as manufacturer sign
- Deformation at load bearing components like base body, load ring and bolt.
- Mechanical damage, like strong notches, especially in areas where tensile stress occurs
- Easy rotation of the L-VLBG must be ensured

4.3 Additional test criteria for the competent person / repair worker

- Cross-section alterations caused by wear > 10 %.
- Strong corrosion
- function of and damage to the bolts, nut as well a the screw thread (disassembly / assembly of the bolt see section 3.4).
- further checks may be required, depending on the result of the risk assessment (e.g. testing for cracks in load-bearing parts).

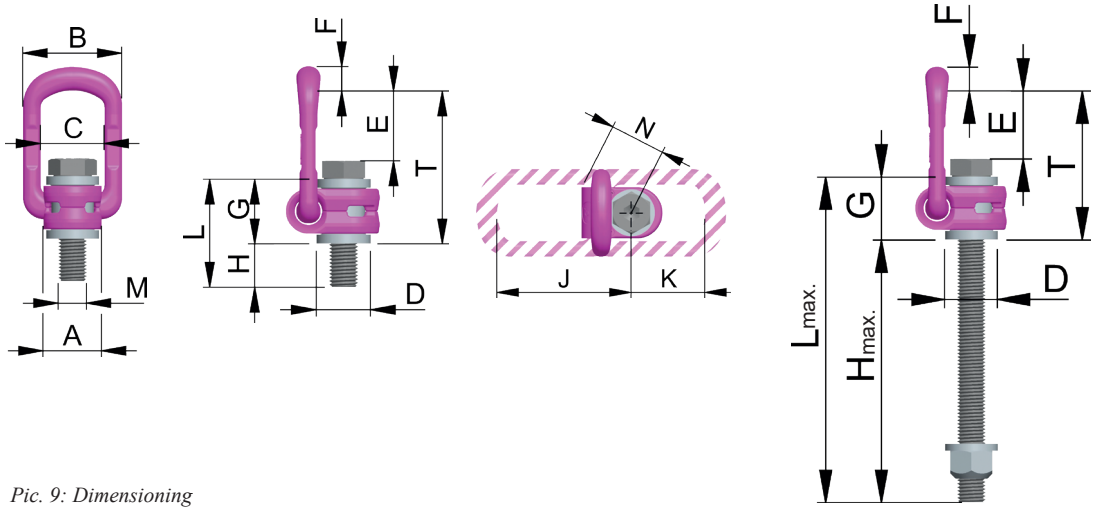


Pic. 8: Overhead loading

Type	Lashing LC [daN]	weight [kg]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H stand [mm]	H max [mm]	J [mm]	K [mm]	L Stand [mm]	L max [mm]	M	N [mm]	SW	ISK	T [mm]	torque	Ref.-No.	
																						Standard	Vario
L-VLBG M36	16.000	6.2	77	122	82	70	97	26.5	77	63	223	205	110	140	300	36	87	55	22	197	800 Nm	7904778	8600778

Table 1: Dimensioning [mm] *Subject to technical alterations*

SW = wrench size
ISK = internal hexagon



Pic. 9: Dimensioning