



Linde Material Handling

Linde

Linde warning projector

Original instructions

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Introduction

Linde warning projector

Description of use

The Linde warning projector is a compact high-power LED spotlight for projecting warning pictograms.

The projection of warning pictograms ensures clear and permanent visibility and thus aids the perception of dangers. The warnings are permanently visible, regardless of wear and dirt. Maintenance costs are reduced. Safety is increased.

Warning pictograms are also clearly visible in working environments with low light levels.

A selection of "gobos" (graphical optical blackouts) can be used with the projector, allowing individual adaptation to the ambient conditions and the particular application.

To further increase occupational health and safety, the Linde warning projector can be combined with the Linde Safety Guard static warning unit. The warning projector can

thereby be switched on when an industrial truck approaches.

Intended use

The Linde warning projector is used solely to project warning pictograms.

The warning projector is suitable for indoor use in industrial environments. It can be mounted on the ceiling, on walls or on struts.

The projections do not exempt the drivers of industrial trucks and pedestrians from their legal duty of care to avoid any potentially dangerous situations.



WARNING

Damage to eyes!

Do not look directly into the Linde warning projector.

The Linde warning projector is assigned to risk group 2 in accordance with DIN EN 62471.

Symbols used

DANGER

Failure to comply can result in fatal injuries and/or major damage to equipment.

WARNING

Failure to comply can result in serious injuries and/or major damage to equipment.

CAUTION

Failure to comply can result in damage to or destruction of the material.

NOTE

Explanation of technical context that may not be evident even to a specialist.

Contact details

Manufacturer

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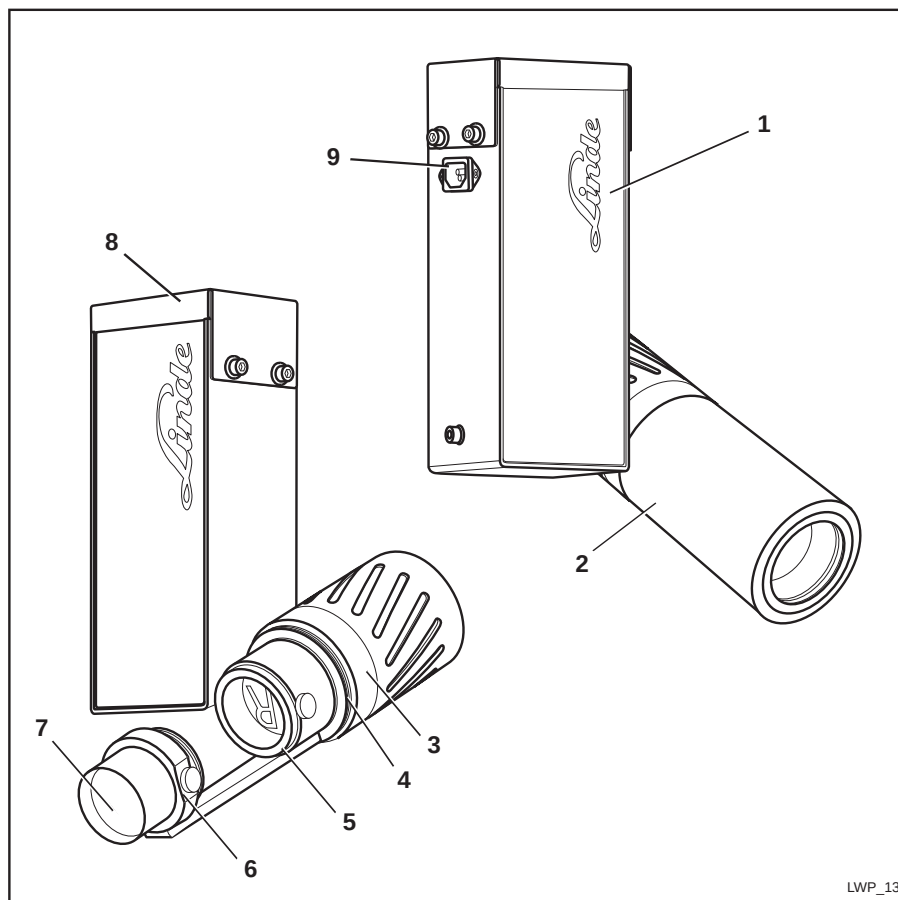
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Overview

Component overview



LWP_13

- | | | | |
|---|----------------|---|-----------------------|
| 1 | Housing | 6 | Lens holder |
| 2 | Sleeve | 7 | Lens |
| 3 | Projector head | 8 | Mounting plate |
| 4 | Sealing ring | 9 | Bush for power supply |
| 5 | Gobo holder | | |

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Assembly

Assembling the Linde warning projector

Assembling the Linde warning projector ▷

⚠ WARNING

Risk of injury due to insecure mounting.

- Mount the warning projector on constructions that can bear four times the weight of the device.
- Use suitable mounting material.

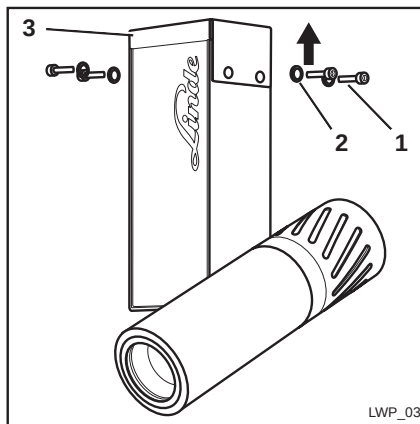
- Unscrew four screws (1) along with spring washers (2) and release the mounting plate (3).

- Remove the mounting plate.

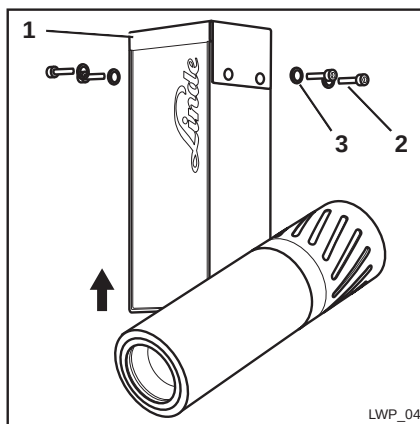
- Attach the mounting plate in the required location. Use appropriate mounting material to do so.

- Insert the warning projector into the mounting plate (1) and secure using four screws (2) and spring washers (3).

Tightening torque: 3.0...4.5 Nm



- 1 Socket head screw M6x20 mm
- 2 Spring washer M6
- 3 Mounting plate



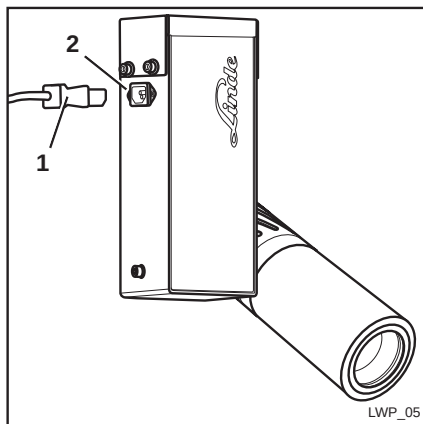
- Establish an electrical connection between the projector and the bush (2) using the supplied cable (1).

The device is ready for use.



NOTE

By default, the Linde warning projector operates continuously. It can only be switched on and off by connecting/disconnecting the power supply.



Projection size

The projection size of the warning pictogram depends on the distance between the warning projector and the projection surface. The output power of the LED and the ambient lighting increases or decreases the range at which the image is still clearly visible.

The following projection sizes apply to a projection distance of 10 m for both output powers:

Distance	Projection size
1 m	0.3 m
2 m	0.6 m
3 m	0.9 m
4 m	1.2 m
5 m	1.4 m
6 m	1.7 m
7 m	2.0 m
8 m	2.3 m
9 m	2.6 m
10 m	2.9 m

Projection size

The projection size refers to a circular image.
Other shapes are adjusted to fit within this circle.

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Operation

Inserting or replacing the gobo

Inserting or replacing the gobo ▷

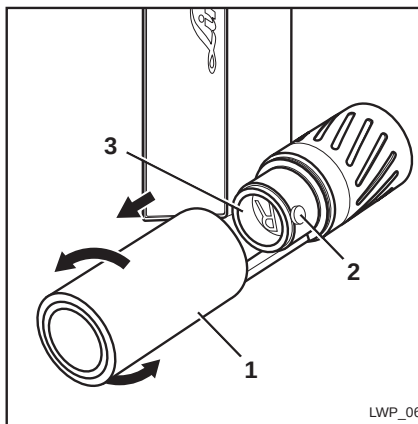
⚠ WARNING

Risk of burns due to hot sleeve.

Before working on the warning projector, disconnect the power supply.

Allow the warning projector to cool down.

- Loosen the sleeve (1) by turning it in an anticlockwise direction and remove it carefully.
- Loosen the knurled-head screw M4 (2).
- Remove the gobo holder (3).

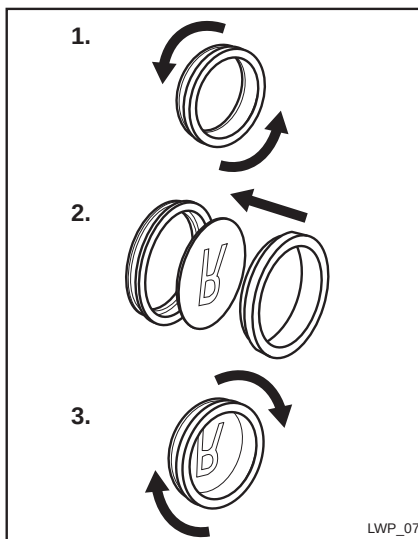


- 1. Separate the two parts of the gobo holder by unscrewing them in an anti-clockwise direction.
- 2. Insert or replace the gobo so that the image is back-to-front.
- 3. Screw together the two parts of the gobo holder in a clockwise direction.

⚠ CAUTION

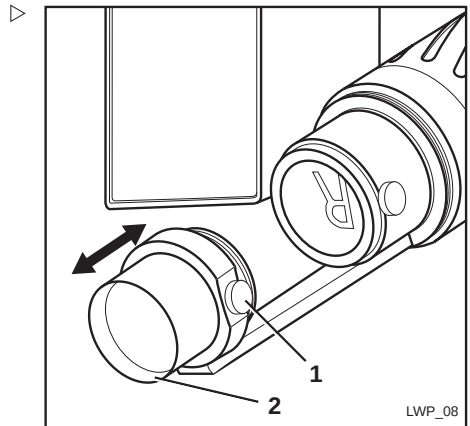
Damage to the gobo after inserting the gobo holder. Do not tighten the knurled-head screw too securely.

- Re-insert the gobo holder and carefully tighten the knurled-head screw until the gobo holder is secured in place.



Focusing the warning pictogram

- Loosen the sleeve in an anticlockwise direction and remove it carefully.
- Switch on the device.
- Loosen the knurled-head screw M4 (1).
- Move the lens (2) until the warning pictogram is in focus.
- Tighten the knurled-head screw.



Aligning the warning pictogram

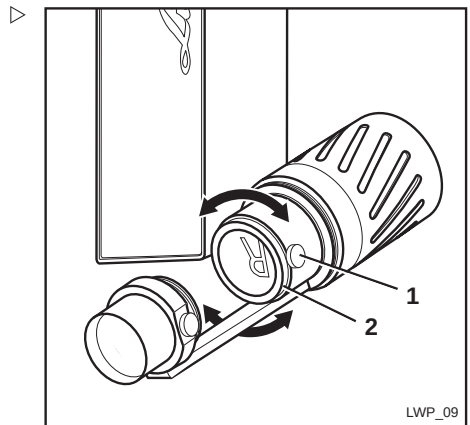
- Loosen the sleeve in an anticlockwise direction and remove it carefully.
- Switch on the device.
- Loosen the knurled-head screw M4 (1).
- Move the warning pictogram into the required position by turning the gobo holder (2).

⚠ CAUTION

Damage to the gobo.

Do not tighten the knurled-head screw too securely.

- Carefully tighten the knurled-head screw until the gobo holder is secured in place.



Aligning the warning pictogram

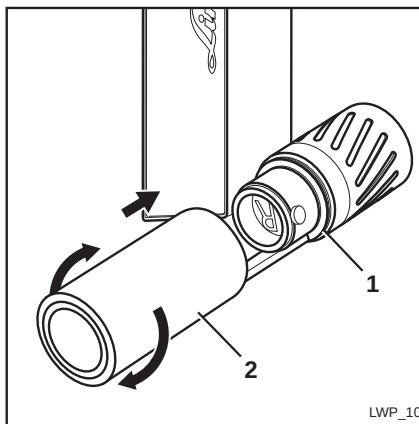
- Check that the sealing ring (1) is correctly positioned. Replace if necessary. ▷



NOTE

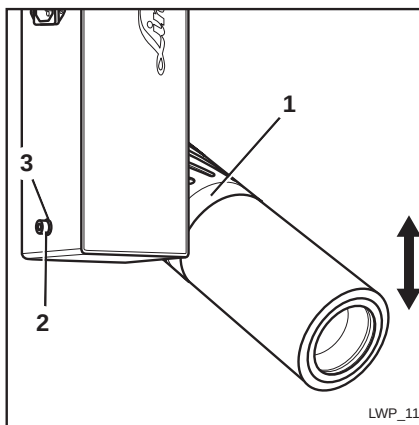
The sealing faces and the sealing ring must not be greased. Missing or defective sealing rings must be replaced.

- Carefully slide up the sleeve (2) and tighten to 6.0...8.0 Nm to ensure leak tightness.



- Perform the following steps to vertically align the projector head (1): ▷

- Loosen the screw (2).
- Align the projector head in the required direction.
- Tighten the screw to 3.0-4.0 Nm.

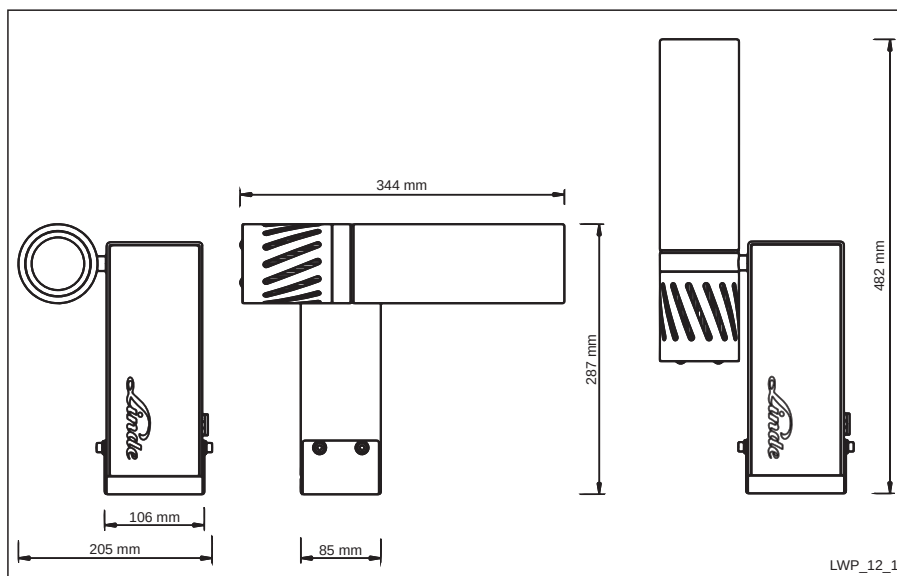


- 1 Projector head
- 2 Socket head screw M6x16 mm
- 3 Spring lock washer M6 and washer M6

Technical data

Dimensions

Dimensions



Technical data

	Linde Warmprojektor 45	Linde Warmprojektor 85
Illuminant	High-power LED	High-power LED
Output power	40 W	80 W
Luminous flux	2700 lm	5750 lm
Colour temperature	6300...6700 K	
Average LED service life (L70) ¹	35,000 hours	
Projection distance in normal ambient lighting	4 m	8 m
Projection distance in darkness	10 m	20 m
Image size	Ø 50.0 mm/Ø 40.0 mm	
Photobiological safety classification	DIN EN 62471 RG 2	
Protection class	I	
Fan protection type	IP 54	

¹ After the specified service life, the LED still achieves 70% of the output luminous flux.

	Linde Warnprojektor 45	Linde Warnprojektor 85
Housing protection type	IP 5x	
Input voltage	110...240 V AC, 50/60 Hz	
Power consumption	43 W	85 W
Efficiency	0.93 cos. ϕ	
Ambient temperature	-30 C...+35°C	
Noise level	25 dBA	
Dimensions (W x H x D)	344 x 287 x 205 mm	
Weight	3.8 kg	4.0 kg
Material	Aluminium, steel	

