

# Operating instructions

Original Instructions

## Quick·Point® Rail quick clamping system

73310 · 73315 · 73190 · 73195 · 73340 · 73345 · 73380 · 73385



Copyright:



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Modifications to the product: In the event of modifications to the product by the customer, the warranty is void. No modifications may be made to the product without the manufacturer's approval.

Only use original spare parts. In the case of externally supplied parts, there is no guarantee that they have been designed and manufactured to withstand the stresses applied or to meet safety requirements. The manufacturer provides a full warranty only and exclusively for the spare parts ordered from it.

The manufacturer is committed to improving its products. It reserves the right to make changes. This does not imply any obligation to make retrospective adjustments to the products already delivered.

General Terms and Conditions of Sale and Delivery:

Our General Terms and Conditions of Sale and Delivery shall apply as a matter of principle. These are available to the plant operator at the latest when the contract is concluded.

Warranty and liability claims for personal injury and property damage are excluded if they are caused by one or more of the following:

- Improper use
- Improper installation, commissioning, operation, or maintenance
- Operating the product in a defective state
- Inadequate monitoring of parts subject to wear and tear
- Failure to follow the instructions in the documentation
- Catastrophic events due to foreign bodies or force majeure

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## 1.1 ASSEMBLY GROUP

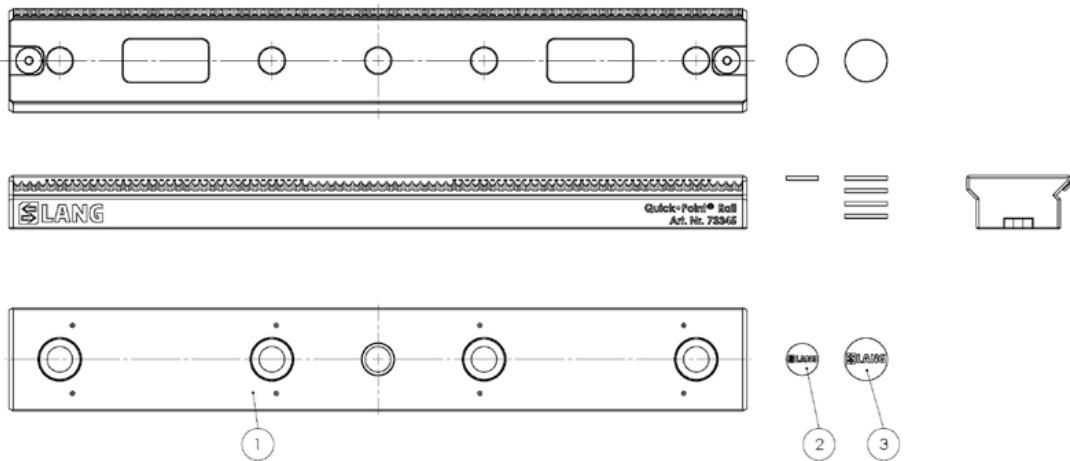
Quick•Point® Rail is a quick clamping system for holding zero point risers and 5-Axis Vises. The clamping bar is inserted directly into the groove of the machine table using a sliding block or attached to an automation pallet. The quick clamping system distinguishes between clamping bars and extension bars. The clamping bar can either be used individually or supplemented with extension bars.

Clamping devices such as the Quick•Point® Rail 52/96 5-axis combi risers or the Makro•Grip® FS Rail 125 5-Axis Vise are pushed sideways over the clamping bar and positioned in the serration of the latter.



**NOTE**

The Quick•Point® Rail extension bar serves as an extension to the clamping bar and cannot be used individually.






- ① Clamping bar or extension bar
- ② Plastic cover Ø 15 mm
- ③ Plastic cover Ø 20 mm

## 1.2 SCOPE OF DELIVERY

- Clamping bar or extension bar
- Plastic covers

## 1.3 ACCESSORIES

We offer plastic covers in two different sizes and a connector for extensions to the quick clamping system. This is required to connect the clamping and extension bars to each other. Additional plastic covers are required in order to close subsequently drilled fixing holes to protect them from the ingress of dirt and swarf.

	Item no.	Description	Quantity
	45008-15	Plastic covers Ø 15 mm	20 pieces
	45008-20	Plastic covers Ø 20 mm	20 pieces
	Item no.	Description	Quantity
	73701	Connector	1 piece
	Item no.	Description	Quantity
	45000-09	Bushing Ø 12 x 12 mm	1 piece

## 1.4 CLAMPING DEVICES

The subsequent clamping devices can be attached flexibly and precisely to the clamping bars of the quick clamping system. Thanks to the dovetail guide in the clamping device and the pull-down principle, the interface between the clamping bar and clamping device is extremely stable and resilient.

Quick-Point® 52/96, 5-Axis Combi Riser				
Item no.	Dimensions	Zero point grid	Weight	
73486	192 x 156 x 60 mm	52 / 96	10,4 kg	
73487	192 x 156 x 100 mm	52 / 96	18,6 kg	

Makro-Grip® FS Rail 125, 5-Axis Vise				
Item no.	Base body length	Clamping range	Weight	
73205-125 FS	210 mm	0 – 205 mm	14,7 kg	

## 1.5 REPAIR INSTRUCTIONS

In the event of product damage or functional errors, please contact LANG Technik GmbH, Albstrasse 1-6, D-73271 Holzmaden, phone: +49 7023 9585-0

## 2.1 VERSIONS AND LENGTHS

Item no.	Type	Dimensions	Mounting holes	extendable
73310	Clamping bar, short	316 x 49 x 25 mm	-	no
73315	Clamping bar, short	316 x 49 x 25 mm	50 / 100 mm distance	no
73340	Clamping bar, long	348 x 49 x 25 mm	-	yes
73345	Clamping bar, long	348 x 49 x 25 mm	100 mm distance	yes
73190	Extension bar, short	192 x 49 x 25 mm	-	yes
73195	Extension bar, short	192 x 49 x 25 mm	100 mm distance	yes
73380	Extension bar, long	384 x 49 x 25 mm	-	yes
73385	Extension bar, long	384 x 49 x 25 mm	100 mm distance	yes

## 2.2 PULL-DOWN FORCE AND REPEAT ACCURACY

The pull-down force is 15 kN, with a tightening torque of 30 Nm.  
The repeat accuracy is  $\pm 0.005$  mm.

# 3 INSTALLATION INSTRUCTIONS

## 3.1 REQUIREMENTS FOR MOUNTING ON MACHINE TABLES OR PALLETS

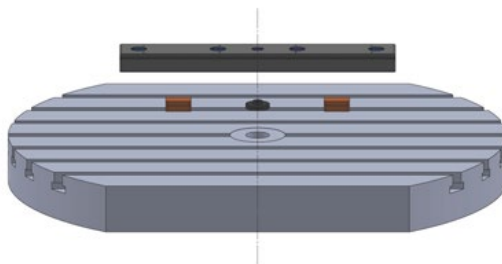
To achieve the best possible results and a long service life, the mounting surfaces must always be free of dirt and damage. To fix the clamping bars to a machine table, you will need suitable screws, sliding blocks and plastic covers depending on the clamping situation. For positioning on automation pallets, we recommend the use of bushings to facilitate assembly.

Connectors are required to extend the clamping bar using extension bars (see 1.3 Accessories).

## 3.2 MOUNTING AND POSITIONING THE CLAMPING BARS

The quick clamping system is positioned in the grooves of a machine table using sliding blocks and mounted with cylinder head screws. A center hole with  $\varnothing 12$  F5 is provided on the back of the clamping bars. This can be used for positioning in the center of the table, for example using a dowel pin.

**!** In order to be able to position clamping devices centrally, the clamping bar must be attached in the middle of the table.



Mounting on automation pallets is done via a direct screw connection in predefined threaded holes. When tightening the screws, please ensure that there is no tension or deformation. We recommend pre-tightening the screws from one end to the other with a torque of around 30 Nm. Then tighten the screws in the same order with the appropriate torque - depending on the screw type.

### 3.3 EXTENDING THE CLAMPING BARS

When installing several clamping and extension bars in series, the individual rails must be connected in advance using connectors. These are inserted and screwed into the underside of the rail strip. Once the bars have been joined together, attach them to the machine table or the automation pallet as described in 3.2.



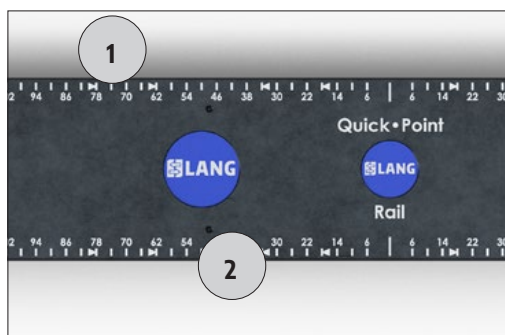
If you have any questions about installation, please contact [support@lang-technik.de](mailto:support@lang-technik.de)

## 4 OPERATION

### 4.1 SET-UP

1. Make sure that the clamping devices used, the clamping bars and all contact surfaces are free of dirt, burrs and chips.
2. Place the clamping device at one end of the clamping bar (either left or right) and slide it over the clamping bar into the desired position. The serration of the clamping bar makes it possible to move clamping devices at 4 mm intervals.

This 4 mm grid is also continuous across all bars. Locking aids on the surface of the clamping bars make it easier to move the clamping devices directly by 96 mm. This corresponds to LANG Technik's standard zero-point grid. In addition, a scale on the top of the clamping bar provides visual support when positioning the clamping devices and facilitates repeatable adjustment.



- ① Scaling on top
- ② Locking function through locking points
- ③ One-sided serration on the clamping bar

## 4.2 CLAMPING AND RELEASING THE VISES

The tightening screw for fastening the clamping device must be tightened to 30 Nm.

When loosening the screw, please note that it cannot be fully unscrewed due to an integrated stop. As soon as the red marking becomes visible when opening, do not unscrew any further.

 For further important information, please refer to the instructions for the clamping device used.

## 5 MAINTENANCE

Please observe the general safety instructions.

### 5.1 TEST WORK

The load-bearing and moving parts must be checked before each use to ensure that they are in perfect condition. Defective parts must be replaced immediately with flawless parts.

### 5.2 LUBRICANTS

The Quick•Point® Rail quick clamping system has no lubrication points.

### 5.3 MAINTENANCE SCHEDULE

Before each use of the product	Visual inspection for condition and function
During operation	Regular visual inspection for contamination
After each operation	Manual or automated cleaning



## 6.1 TO THE DOCUMENTATION

This documentation contains instructions and information that may not be reproduced, distributed or transmitted in whole or in part using data technology methods or used without authorization for competitive purposes. Errors or mistakes in the documentation are reserved. All rights to this documentation remain with LANG Technik GmbH.

## 6.2 CHANGES TO THE PRODUCT

Changes by the customer: The warranty is void if the customer makes changes to the product.



### **CAUTION: CHANGES TO THE PRODUCT**

No modifications may be made to the product without the manufacturer's approval. Only use original spare parts. There is no guarantee that externally sourced parts are designed and manufactured to withstand the stresses and ensure safety.

**NOTE Warranty Service:**



**The manufacturer provides the full warranty only and exclusively for the spare parts ordered from him.**

## 6.3 CHANGES BY THE MANUFACTURER

The manufacturer endeavors to improve its products. He reserves the right to make changes. This does not entail any obligation to subsequently adapt the stamping unit already supplied.

## 6.4 GENERAL TERMS AND CONDITIONS OF SALE AND DELIVERY

In principle, our General Terms and Conditions of Sale and Delivery apply. These are available to the operator at the latest when the contract is concluded. Warranty and liability claims for personal injury and damage to property are excluded if they are attributable to one or more of the following causes:

- Non-intended use
- Improper installation, commissioning, operation and maintenance
- Operating the product unit in a defective condition
- Inadequate monitoring of parts that are subject to wear and tear
- Failure to observe the instructions in the documentation
- Catastrophes caused by foreign bodies and force majeure

## 7.1 PLEASE NOTE IN ADVANCE

Read the operating instructions completely. Observe all safety instructions listed in this chapter.

### NOTE: TRAINING

Training of personnel by the manufacturer can only be regarded as the passing on of individual pieces of information. They do not release the operator from reading the operating instructions.

## 7.2 INTENDED USE

### 7.2.1 INTENDED USE

The operator is obliged to use the product properly, with care and under the appropriate conditions. No liability or reimbursement will be accepted for improper use.

- Only use Quick•Point® Rail if you have fully read and understood the operating instructions beforehand.
- The operating instructions are an integral part of the Quick•Point® Rail quick clamping system and must be kept accessible to personnel at all times.

### 7.2.2 SUITABILITY OF THE STAFF

The operator is obliged to:

- Only allow trained specialist personnel to work with the product.
- Clearly define the responsibilities of personnel for installation, commissioning, operation, maintenance and repair.

**GENERAL DANGER: The operator bears the ultimate responsibility for safety. This responsibility cannot be delegated!**

### 7.2.3 INCORRECT OPERATION AND MISUSE

There is a risk of danger in the event of incorrect operation or misuse:

- for the health of the operator, third parties and animals in the immediate vicinity of the product
- for the product and other material assets of the operator / company
- Caution: The Quick•Point® Rail quick-clamping system is not suitable for mounting on the Quick•Point® zero point clamping system due to the high pull-down forces between the clamping bar and clamping devices.

## 7.3 ACCIDENT PREVENTION RULES

- Caution: Improper repair work can lead to personal injury or damage to the machine.
- Repair and replacement work on the product may only be carried out by trained and instructed personnel.
- Maintenance and care work on the product must be carried out outside the machine tool.
- Personal protective equipment must be worn in accordance with the guidelines and regulations of the employers' liability insurance association and the company (work clothing, non-slip safety shoes, gloves, hairnet, etc.). Ask your employer's safety officer for information.



## 8.1 DISPOSAL IN ACCORDANCE WITH DIRECTIVE (EU) 2018/851

Observe the country-specific disposal regulations when disposing of the product.



LANG Technik products do not belong in household waste. Non-observance is an administrative offense.



Accessories and packaging are recycled in an environmentally friendly way.

Product	Material	Waste disposal
Clamping bar	Steel	Scrap metal
Connector	Steel	Scrap metal
Plastic cover	Plastic	Feeding for recycling
PE films	Plastic	Feeding for recycling
Packaging material	Cardboard, wood	Feeding for recycling

## 9 EXPLANATION OF SYMBOLS

### 9.1 SYMBOLS

Please pay attention to the following warning symbols	
	<i>Read all the operating instructions carefully before commissioning for the first time and keep it in a safe place for future use</i>
	<i>Please read and follow the technical and safety instructions</i>
	<i>The use of protective gloves made of tough, resistant material is recommended</i>
	<i>A helmet and safety goggles are recommended for personal safety</i>
	<i>To reduce the risk of eye injuries, wearing protective goggles as specified in EN 166 is recommended</i>
	<i>Safety footwear are part of the protective equipment</i>
	<i>Materials are recycled in an environmentally friendly manner</i>
	<i>Do not dispose of the material in household waste</i>



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