

Operating Manual

Original Operating Manual

Clean•Tec Chip Fan 160 / 260 / 330

Item No. 30160 / 34160 / 30260 / 34260 / 30330 / 34330



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 GENERAL

The Clean•Tec chip fan or cleaning propeller is a tool for automated cleaning within CNC machining centers. When the machine spindle rotates, the blades open and remove chips as well as residues of coolant lubricant from workpieces, fixtures, and machine tables.

It is stored in the tool magazine like a standard tool and is automatically loaded via the CNC program.

1.2 ASSEMBLY

- Base body with tool holder
- Spring-loaded blades
- Return springs
- Pins and screws for fixing

1.3 SCOPE OF DELIVERY

- Clean•Tec chip fan in the selected size
- Return springs and pins installed
- Operating instructions
- Optional: spare part kit (blades, springs, pins)

1.4 ACCESSORIES

- Spare part kit Clean•Tec 160 → Item No. 30164
- Spare part kit Clean•Tec 260 → Item No. 30264
- Spare part kit Clean•Tec 330 → Item No. 30334

! REPAIR NOTE

Wear parts such as blades or springs can be replaced by the user independently using the spare parts kits. Repairs to the basic body or unauthorized modifications are not permitted and will void the warranty.



2.1 VERSIONS

Description	Size	Revolutions per minute
Clean•Tec 160	opened Ø 160 mm*	6.000 - 12.000 RPM
Clean•Tec 260	opened Ø 260 mm*	5.000 - 8.000 RPM
Clean•Tec 330	opened Ø 330 mm*	3.000 - 8.000 RPM

*Each available with a shaft-Ø 20 mm or Ø ¾ inch.

Description	Article number (Shaft-Ø 20 mm)	Article number (Shaft-Ø ¾)
Clean•Tec 160	30160	34160
Clean•Tec 260	30260	34260
Clean•Tec 330	30330	34330

2.2 TECHNICAL INFORMATION

- Effective cleaning from approximately 4.000 rpm
- Operates at a distance of 100–150 mm from the workpiece
- Feed rate: 3–10 m/min
- Weight: approx. 0.18–0.21 kg (depending on model)
- Material: High-strength plastic

2.3 INSTALLATION (ASSEMBLY)

1. Switch off the machine and secure it.
2. Select the appropriate Clean•Tec and insert it into the tool holder.
3. Ensure that the shank is clamped correctly.
4. Perform a function test without a workpiece: briefly start the spindle and check that the blades open and close freely.

2.4 OPERATION

1. Using the CNC program to install the Clean•Tec.
2. Accelerate the spindle in two stages:
 - to approx. 2.000 rpm.
 - then to the operating speed (depending on the model).
3. Guide the tool over the workpiece/fixture at a distance of 100–150 mm.
4. Perform the cleaning operation at a feed rate of 3–10 m/min.
5. Stop the spindle; the blades close automatically.
6. Return the tool to the magazine.

3.1 TEST WORK

- Visual inspection of the blades for wear or cracks.
- Check the springs for tension.
- Check the pins and screws.

3.2 CAUSES OF MALFUNCTION

- Blocked or contaminated blades.
- Fatigued or broken springs.
- Excessive spindle speed or incorrect distance to the workpiece.

3.3 MAINTENANCE PLAN

- Weekly: Visual inspection and cleaning.
- As needed: Replacement of blades and springs using the spare parts kit.
- After any crash or abnormal behavior: Immediate functional test and, if necessary, replacement.

3.4 BLADE REPLACEMENT

The blades of the Clean•Tec chip fan are subject to normal wear and can be replaced if necessary using the Clean•Tec spare parts kit. The spare part kit contains:

- 4 blades
- 4 springs
- 4 pins

4 PROCEDURE

4.1 REMOVAL OF THE OLD BLADES

- Use a 5 mm Allen key to remove the four M10 screws.
- Drive out the pins using a punch (Ø 3 mm).
- Remove the old blades together with the springs.

4.2 INSTALLATION OF THE NEW BLADES

- First hook the tension springs onto the base holder pin.
- Insert the new blades into the groove of the base body.
- Align the holes of the blades and the base body.
- Carefully drive in the Ø 3 mm dowel pins using a punch.
- Reinsert the M10 screws and tighten them hand-tight.



4.3 FUNCTIONAL TEST

- Manually unfold the blades and release them.
- The blades must return smoothly and independently to their resting position.
- If there is stiffness or uneven movement: check the seating of the springs and pins.

5.1 DOCUMENTATION

The operating instructions are an integral part of the product and must be accessible at all times.

5.2 MODIFICATIONS TO THE PRODUCT

Any modifications or repairs to the base body are not permitted.

5.3 MODIFICATIONS BY THE MANUFACTURER

LANG Technik reserves the right to make technical modifications in the course of product improvements.

5.4 GENERAL TERMS AND CONDITIONS OF SALE AND DELIVERY

General Terms and Conditions of Sale and Delivery:

The general terms and conditions of LANG Technik GmbH apply.

6 SAFETY INSTRUCTIONS

6.1 PLEASE NOTE IN ADVANCE

- Clean•Tec may only be used in machines with an enclosed cabin.
- Operation is permitted only by trained personnel.

6.2 INTENDED USE

- Cleaning of workpieces, fixtures, and machine tables in CNC machining centers.
- Use exclusively at the specified spindle speeds and distances.

6.3 ACCIDENT PREVENTION REGULATIONS

- Never reach into an open machine.
- Wear personal protective equipment.
- Avoid collision with the workpiece (maintain sufficient clearance!).

7.1 INTENDED USE

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

7.2 REQUIREMENTS FOR OPERATING PERSONNEL

The operator is in particular responsible for:

- Allowing only adult, trained specialist personnel (metalworking field), e.g. CNC milling operators, to work with the product.
- Clearly defining the responsibilities of personnel for installation, commissioning, operation, maintenance, and repair.
- Allowing trainees to work with the product only under the supervision of an experienced specialist (metalworking field) or a CNC milling operator.

Otherwise, no liability or reimbursement is accepted for improper use.

7.3 PERSONAL PROTECTIVE EQUIPMENT AND PERSONAL SAFETY

- Warning: Improper repair work can result in personal injury or machine damage.
- Repair and replacement work on the product may only be carried out by trained and instructed personnel.
- Maintenance and servicing work on the product must be performed 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.). Please consult the safety officer of your employer for further information.



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

Observe the country-specific disposal regulations when disposing of the product.
Comply with local regulations regarding recycling and disposal.



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
Housing, screws, nuts, etc.	Metal	Separate the materials Feeding for recycling through remelting
Blades	Plastic	Feeding for recycling
Packaging material	Cardboard	Feeding for recycling

Storage

- Store in a dry, clean environment and protect against mechanical damage.
- If not used for an extended period, store in the tool magazine or separately in the original packaging.

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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