Automation

Automation systems from LANG Technik are characterized by:

VERSATILITY **USER-FRIENDLINESS** **LOW SPACE REQUIREMENTS**

VISE HANDLING SYSTEMS WITH INDUSTRIAL ROBOT

RoboTrex Compact

NEW

RoboTrex 96

RoboTrex 52

AUTOMATIC CLEANING OF CNC MACHINE INTERIOR

Clean·Tec
chip fan

Haubex

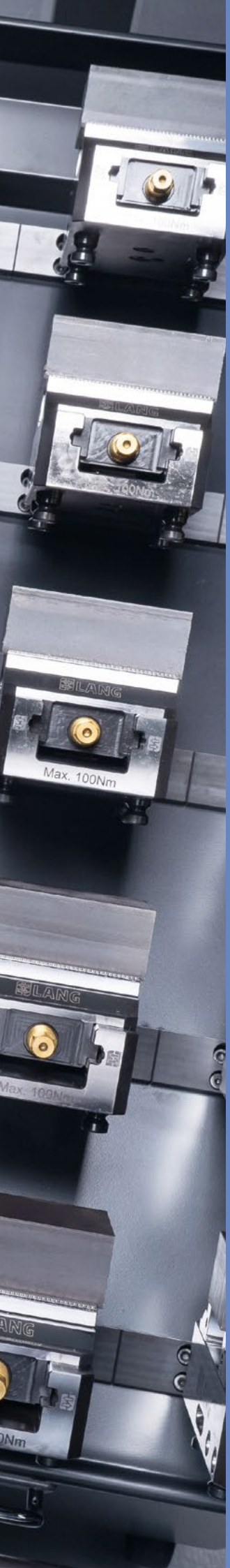
VISE CARRIER SYSTEM WITH WORKHOLDING HOOD

PART HANDLING SYSTEM WITH AUTOMATIC PRE-STAMPING AND PNEUMATIC VISES

Makro·Grip® Aero
Information available on
lang-technik.de and in a separate
brochure after product launch

COMING 2025


LANG
Max. 100Nm



PATENTED

RoboTrex

automation system

RoboTrex is an automation system that can be connected and retrofitted to almost any machine tool. Utilizing automation trolleys as a storage medium for vises, as opposed to pallets, the vises are removed directly by a Fanuc robot and fed to the machine tool. RoboTrex covers all requirements, from single part production to large series. It is flexible, easy to operate and offers an excellent cost-benefit ratio. In addition to a high storage capacity on a small footprint, RoboTrex is particularly impressive due to its set-up time savings when loading and unloading the automation system.

Primary area of application:

- **Automated, unmanned production in milling machining**
- **Single parts to larger series**
- **Vise handling**

Benefits:

- **Can be retrofitted to almost any new or existing machine tool**
- **Extremely simple operation, no robot knowledge required**
- **Minimum time required for setting up and equipping the system**

Simple automation of CNC machines

This gallery shows a fraction of the RoboTrex installations with various machine manufacturers and brands that have been successfully implemented.

DMG MORI / Englert Gmbh & Co KG

HERMLE / Stebotec CNC-Zerspanungstechnik GmbH

BROTHER / Koatek A/S

HAAS / Hendrik Michel Zerspanungstechnik GmbH

GROB / Lindauer DORNIER GmbH

FANUC / KOEM Tech-One Co. Ltd.

In addition to the machine tools of the world's most commonly represented manufacturers, the list includes about as many other manufacturers. Please feel free to use the QR code to learn more on our website.

DOOSAN / CNC-Solutions Baden GmbH

OKUMA / R&W Maschinenbau GmbH

KERN / Usiplast Composites

GF / thiem Individual Zerspanung

HURCO / Inopart GmbH

MAZAK

RoboTrex

Automation system:

- two different system sizes: RoboTrex 52 and 96
- available as 2-trolley and 4-trolley version
- automation trolley as a vise storage system (four variants)
- pre-programmed Fanuc industrial robot with six axes
- enclosure with Makrolon windows
- 16 different installation variants
- front and side loading of machine tools
- single-part and series production
- communication with the machine tool via M-function
- operation via touch display
- mechanical or pneumatic control of the zero point clamping system
- no media interface required within the machine tool


LANG
RoboTrex Automation

simple. flexible. automation.

RoboTrex is a powerful automation system that can be integrated to almost all machine tools. By retrofitting it uncomplicatedly to existing CNC milling machines or simply equipping it to new machine tools, RoboTrex offers utmost flexibility and efficiency. Since no modification is required from the machine tool manufacturer, this approach logically saves costs and efforts. The quick installation of the automations system results in a short downtime of the machining center, so that your production can be continued smoothly.

Providing all essential automation components from a single source makes you independent from other manufactures and you can fully rely on RoboTrex. This eliminates unpleasant communication difficulties and ensures a trouble-free process of planning your production line. A significant part of this is due to the ideal balance between the three main components: vises, zero point clamping system and automation. With RoboTrex you not only get a state-of-the-art automaton system, but also a reliable future-proof solution for your production.

10 reasons for automating your machine-tool with RoboTrex

1. **Higher production output**
   More output thanks to increased spindle hours and machine utilization
2. **Production independent of personnel**
   Protection against absences due to illness or shortage of skilled workers
3. **Reduction in production costs**
   due to lower hourly machine rates in unmanned production
4. **Increasing the attractiveness of the workplace**
   Facilitation of physical work, expansion of tasks, elimination of shift work
5. **Better responsiveness**
   through flexible organization of production management and adjustment of prioritization
6. **Faster delivery times**
   Shorter lead times thanks to automated, unmanned multi-shift operation
7. **Greater process reliability**
   by minimizing sources of error and using the highest quality technologies
8. **Ideal utilization of the production area**
   Compact design and high storage capacity on a small footprint
9. **Enormous variety of components**
   High coverage of the component spectrum with standardized clamping systems
10. **High cost efficiency**
    Customized, coordinated plug & play complete solution

A closer look: What makes RoboTrex special

COMPLEXITY & OPERATION

We keep it simple!

The simple, intuitive operation of RoboTrex is limited to a few functions that can be learned by anyone in a very short time and for which no specialist personnel are required. Thanks to the already pre-programmed robot, no programming knowledge is required for the operator. Within a few hours, the operator is able to operate the automation system on his own, independently and safely.

STORAGE CAPACITY & SPACE REQUIREMENTS

We make great use of space!

The patented upright storage of the vises on the automation trolleys is decisive for a high storage capacity – with remarkably low space requirements for the entire system. Another plus: The absence of additional pallets ensures low transport weights, does not generate unnecessary costs and guarantees optimum accessibility during milling.

SET-UP & TROLLEY CHANGE

We are fast!

Offline preparation of the automation trolleys and trolley exchange in seconds ensure a continuous workflow without unnecessary machine tool downtimes. The vises can be re-equipped with new blanks without having to remove them from the trolley. This saves time and energy.

VARIETY OF PARTS

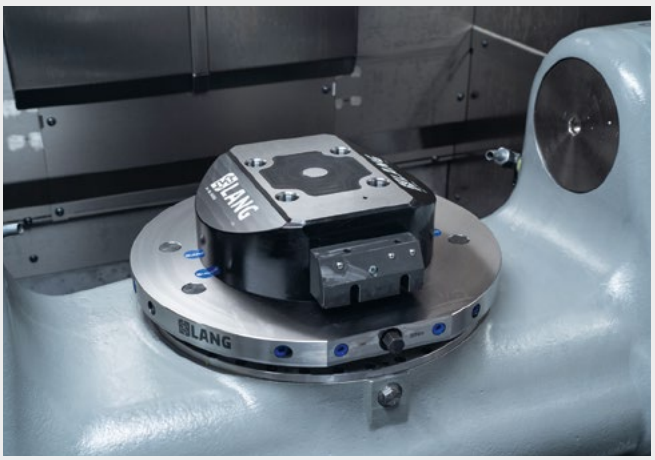
We are flexible!

In addition to batch production with completely identical workpieces on an automation trolley, RoboTrex offers even more options for customizing production management. From deselecting individual clamping device positions or rows to individual part production by assigning an NC program for each clamping device position – there are no limits to a flexible trolley loading.

STORAGE ACCESS

We are in control!

No need to select a specific pallet position or wait until the robot has transported the clamping device to the automation system's loading/unloading station. With RoboTrex, you have instant access to the entire storage. This means that each vise can be removed quickly and easily or the finished workpiece can be checked for a quick quality control.



MEDIA INTERFACE

We are independent!

The RoboTrex zero point clamping system can, but does not necessarily have to, be controlled by the machine. This is made possible by the external interface on the robot gripper, which opens the zero point device pneumatically. RoboTrex 52 also offers the option of purely mechanical actuation. Thanks to the external control, RoboTrex presents itself as a universal system that operates independently of the specific conditions inside the machine.

Variety of parts

RoboTrex was designed as a simple, universal automation system that can also be retrofitted to older machining centers that were not actually designed for automated loading. This is realized, among other things, by a communication interface based on a simple signal exchange of acknowledgeable and potential-free M commands. This allows single-variety components to be processed automatically on all trolleys. RoboTrex also offers more flexible production management. Individual vise positions can be deselected within the system so that oversized and extra-wide workpieces can be automated on a standard trolley. If the machining center has an extended interface, even different components can be machined in a single automation cycle. Either one component type per trolley, or individual and completely different workpieces on one trolley. The latter usually requires a bus interface on the part of the machine.

Identical parts

One part type per trolley

Single part production (left trolley)

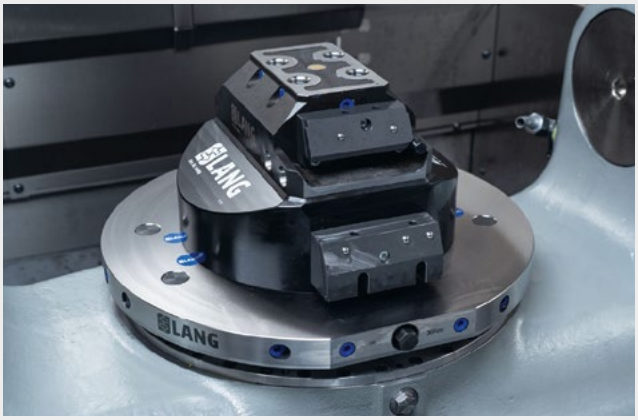
Media feed-through

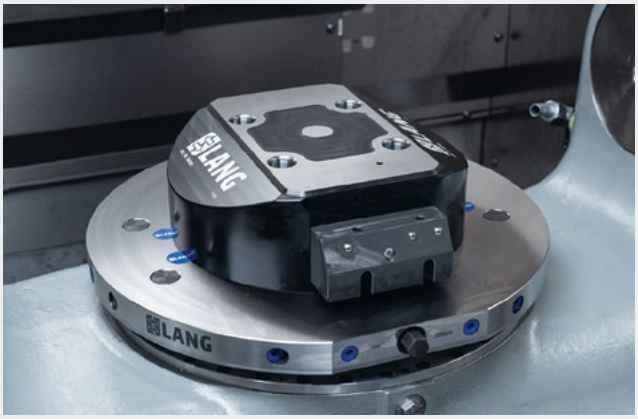
In order to be able to automatically feed pallets or vises to a machine tool, a clamping system on the machine side is required, which is also opened and closed automatically. Older machines often lack an appropriate media feed-through to actuate zero point clamping systems pneumatically or hydraulically.

Retrofitting is associated with very high costs, if possible at all. An external supply is technically out of the question, especially for 5-axis machines. RoboTrex offers an efficient, albeit simple method of automating machines without media feed-through.

A module integrated in the gripper opens and closes the Quick·Point® zero point clamping system pneumatically or mechanically. A constant supply of compressed air during processing is not necessary.

However, if the machine has a rotary feed-through, the zero point system can be modified so that it is controlled via the machine.





Loading through the machine door

Loading through a side window

Set-up variants

Depending on the design (accessibility to the machine table, arrangement of the tool changer), machining centers are loaded through a side window or through the machine door. Loading from the side should always be preferred, as access to the machine door and therefore further manual operation of the machine is maintained.

However, even if the machine has to be loaded from the front with RoboTrex, this does not rule out conventional operation. An access door is installed through which machine operators can continue to carry out manual tasks on and in the machine tool. It goes without saying that the access door is equipped with appropriate safety mechanisms to ensure safety-compliant automatic operation.

It is not only the machine concept that determines the choice of loading direction; local conditions and space constraints also determine the position of the automation system. Here, up to 16 variable installation options of the RoboTrex system help to find the most suitable variant.

Automation of the machine door / side window

Depending on the loading side, the machine door (front loading) or a side window (side loading) must be opened and closed automatically. This function can normally be purchased as an option on newer machines. These automated doors or windows are controlled via the machine control system. Subsequent retrofitting by the machine manufacturer can either be very cost-intensive or may even be rejected.

LANG offers the retrofitting of a side window or the automation of the machine door using pneumatic cylinders. In both cases, it is controlled by the robot.

Hin Feinmechanik GmbH

Bärtschi Mechanik GmbH

RoboTrex 52
automation system

Available as a 2- or 4-trolley version

ROBOTREX 52 AUTOMATION SYSTEM

ITEM NO.	BASIC EQUIPMENT
66000	Complete robotic automation system incl. enclosure and trolley entry system

The suitable grippers and automation zero point systems are available separately on pages 230 / 231.

STORAGE CAPACITY OF TROLLEY	30 / 42 vises
QTY OF TROLLEYS	max. 4 pcs.
TOTAL STORAGE CAPACITY	120 / 168 vises
WORKPIECE DIMENSIONS WITH FULLY EQUIPPED TROLLEY	max. 120 × 120 × 100 mm / max. 120 × 100 × 70 mm
WORKPIECE WEIGHT	max. 15 kg
GRIPPER EXCHANGE INTERFACE	no
ACTUATION OF ZERO POINT SYSTEM	mechanical or pneumatic
FOOTPRINT	from 1.70 × 2.20 m
LOADING	through machine door or side window

RoboTrex 52
automation trolley

ROBOTREX 52, AUTOMATION TROLLEY

ITEM NO.	STORAGE CAPACITY	MAX. PART SIZE (WHEN FULLY LOADED)	WEIGHT
66030	30 vises	120 × 120 × 100 mm	190 kg
66042	42 vises	120 × 100 × 70 mm	195 kg

Maximum load capacity of trolley: 500 kg.

Trolley loading with different part sizes

On the RoboTrex automation trolley, it is possible to store vises in which larger or taller workpieces are clamped. Two options are available for this. Firstly, you can leave vise positions empty on an automation trolley with a standard configuration. Secondly, it is possible to customize the storage rows, which is determined during the planning phase.

Automation trolley with standard alignment. Here: 14 parts, each measuring 300 × 120 × 70 mm.

Automation trolley with customized alignment. Here: 7 rows of 5 positions for a total of 35 vises with a maximum part size of 70 × 100 × 120 mm.

RoboTrex 52 **grippers and zero point clamping systems**

Suitable 5-axis vises:

48120-46

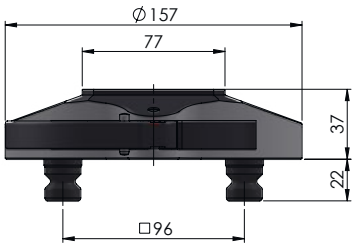
48120-77

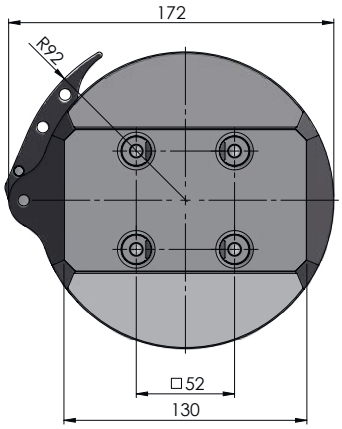
68120-77

Other clamping jaw variants are also possible.
Please do not hesitate to ask!

GRIPPER 77, MECHANICAL

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
66930	15 kg	66500	2.3 kg





ZERO POINT CLAMPING SYSTEM 52, MECHANICAL

ITEM NO.	AUTOMATION SYSTEM	SUITABLE GRIPPER	WEIGHT
66500	RoboTrex 52	66930	5.2 kg

Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex.

NEW VERSION

Suitable 5-axis vises:

48120-46

48120-77

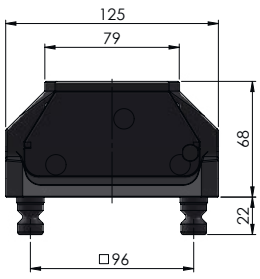
68120-77

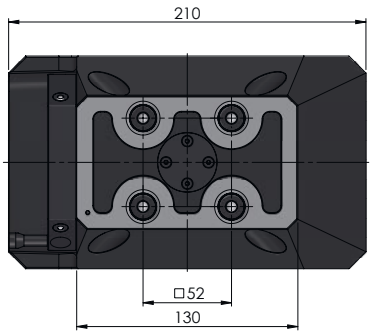
Other clamping jaw variants are also possible.
Please do not hesitate to ask!

GRIPPER 77, PNEUMATIC

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
66925	15 kg	66650	2.2 kg

NEW VERSION





ZERO POINT CLAMPING SYSTEM 52, PNEUMATIC

ITEM NO.	AUTOMATION SYSTEM	SUITABLE GRIPPERS	WEIGHT
66650	RoboTrex Compact, RoboTrex 52 and RoboTrex 96	66925 / 66955 / 62955	7.7 kg

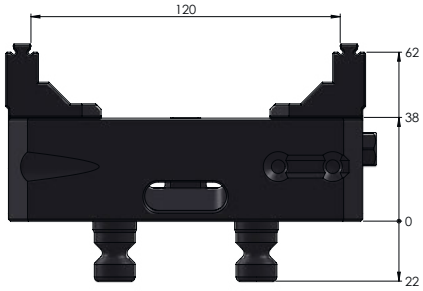
Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex.
This product is also shown on pages 236 and 249.

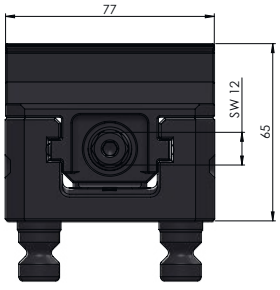
Makro·Grip® **77, Night King**

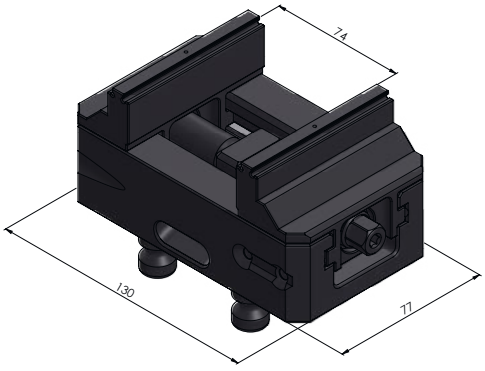
MAKRO·GRIP® 77, NIGHT KING
JAW WIDTH 77 MM

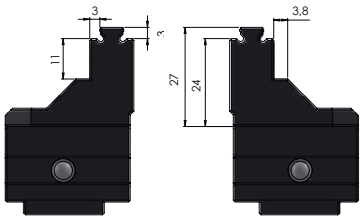
ITEM NO.	BASE LENGTH	CLAMPING RANGE	WEIGHT	QTY
68120-77	130 mm	0 – 120 mm	2.9 kg	10 – 30
68120-77	130 mm	0 – 120 mm	2.9 kg	40 – 60
68120-77	130 mm	0 – 120 mm	2.9 kg	70 – 90
68120-77	130 mm	0 – 120 mm	2.9 kg	from 100

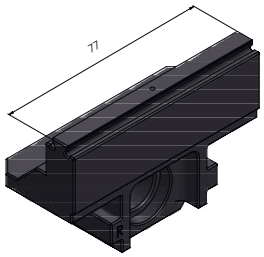
Sold as a set of 10.





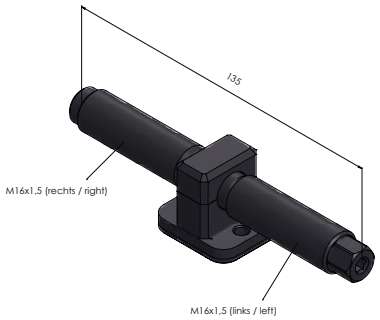






SPARE JAWS FOR MAKRO·GRIP® 77, NIGHT KING

ITEM NO.	FOR	WEIGHT	QTY
68077-7720	regular serration Makro·Grip®	0.8 kg	1 pair
68077-7720 FS	Full serration Makro·Grip® FS	0.8 kg	1 pair



SPINDLE + CENTER PIECE FOR MAKRO·GRIP® NIGHT KING

ITEM NO.	FOR	SPINDLE LENGTH	WEIGHT
6877135	68120-77	135 mm / Ø 16 mm	0.3 kg

Applications

EL-Bauteile Handelsgesellschaft mbH

Hahn Mechanik

RoboTrex 96
automation system

Available as a 2- or 4-trolley version

ROBOTREX 96 AUTOMATION SYSTEM

ITEM NO.	BASIC EQUIPMENT
64000	Complete robotic automation system incl. enclosure and trolley entry system

The suitable grippers and automation zero point systems are available separately on pages 236 / 237.

STORAGE CAPACITY OF TROLLEY	15 / 16 vises
QTY OF TROLLEYS	max. 4 pcs.
TOTAL STORAGE CAPACITY	60 / 64 vises
WORKPIECE DIMENSIONS WITH FULLY EQUIPPED TROLLEY	max. 205 × 205 × 90 mm / max. 205 × 150 × 150 mm
WORKPIECE WEIGHT	max. 25 kg, optionally: max. 45 kg
GRIPPER EXCHANGE INTERFACE	yes
ACTUATION OF ZERO POINT SYSTEM	pneumatic
FOOTPRINT	from 2.00 × 2.70 m
LOADING	through machine door or side window

RoboTrex 96
automation trolley

DUE TO GRIPPER EXCHANGE ALSO APPLICABLE

RoboTex 52 automation trolley 66030

RoboTex 52 automation trolley 66042

ROBOTREX 96, AUTOMATION TROLLEY

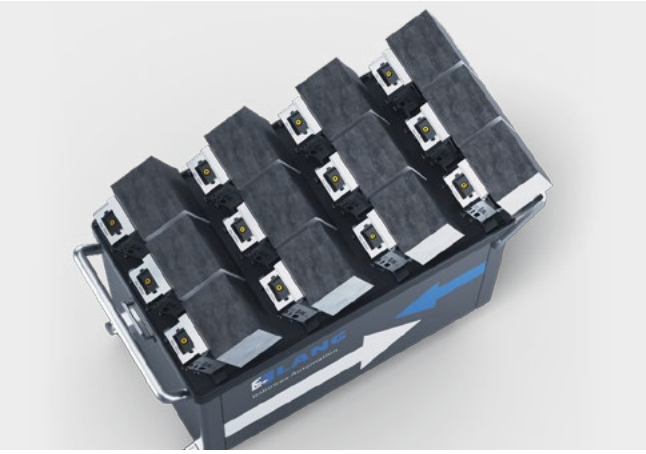
ITEM NO.	STORAGE CAPACITY	MAX. PART SIZE (WHEN FULLY LOADED)	WEIGHT
64015	15 vises	205 × 205 × 90 mm	185 kg
64016	16 vises	205 × 150 × 150 mm	180 kg

Maximum load capacity of trolley: 500 kg.

Trolley loading with different part sizes

On the RoboTrex automation trolley, it is possible to store vises in which larger or taller workpieces are clamped. Two options are available for this. Firstly, you can leave vise positions empty on an automation trolley with a standard configuration. Secondly, it is possible to customize the storage rows, which is determined during the planning phase.

Automation trolley with standard alignment. Here 5 parts, each measuring 410 × 205 × 90 mm.



Automation trolley with customized alignment. Here: 4 rows of 3 positions for a total of 12 vises with a maximum part size of 205 × 203 × 150 mm.

RoboTrex 96 **grippers and zero point clamping systems**

NEW VERSION

Suitable 5-axis vises:


48120-46


48120-77

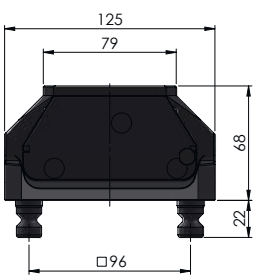

68120-77

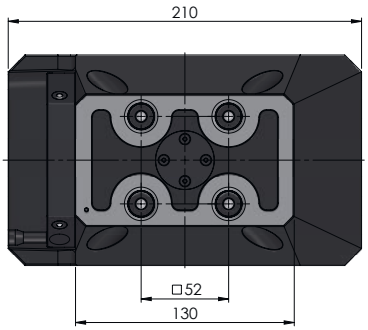
Other clamping jaw variants are also possible.
Please do not hesitate to ask!

GRIPPER 77, PNEUMATIC

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
66955	15 kg	66650	3.7 kg

NEW VERSION





ZERO POINT CLAMPING SYSTEM 77, PNEUMATIC

ITEM NO.	AUTOMATION SYSTEM	SUITABLE GRIPPER	WEIGHT
66650	RoboTrex Compact, RoboTrex 52 and RoboTrex 96	66925 / 66955 / 62955	7.7 kg

Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex.
This product is also shown on pages 231 and 249.

NEW VERSION

Suitable clamping devices:

48205-77

48205-125

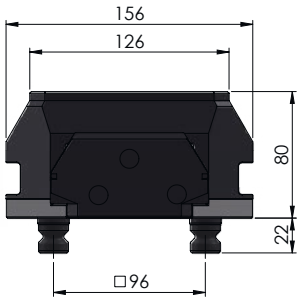
59616

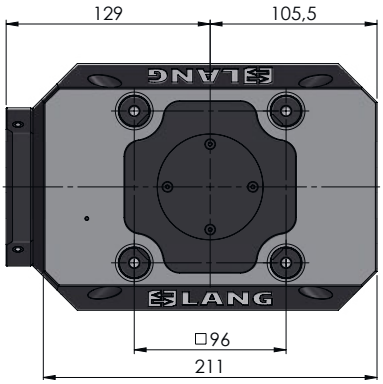
Other clamping jaw variants are also possible.
Please do not hesitate to ask!

GRIPPER 125, PNEUMATIC

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
64855	25 kg	64855	13.9 kg

NEW VERSION





ZERO POINT CLAMPING SYSTEM 125, PNEUMATIC

ITEM NO.	AUTOMATION SYSTEM	SUITABLE GRIPPER	WEIGHT
64550	RoboTrex 96	64855	16.2 kg

Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex.

Other components for **individual automation solutions**

All essential RoboTrex components are also available as individual components in order to be used with conventional automation systems. Whether it's a connection to an existing robotic system, an integration in robot cells or shelf systems or a flexible in-house solution, LANG clamping systems make every automated manufacturing process more efficient.

From the various vise versions and automation trolleys to the automation window, all of these components are listed in the table below. Grippers and zero point devices can be found on the previous pages and are not listed hereafter.

CLAMPING DEVICES:	ITEM NO.
Makro·Grip® 77, 5-axis vise, jaw width 46 mm	48120-46
Makro·Grip® 77, 5-axis vise, jaw width 77 mm	48120-77
Makro·Grip® 77, Night King, jaw width 77 mm	68120-77
Makro·Grip® 125, 5-axis vise, jaw width 77 mm	48205-77
Makro·Grip® 125, 5-axis vise, jaw width 125 mm	48205-125
Vasto·Clamp 6-jaw chuck	59616

In addition, the 40120-46 / 40120-77 and 40205-77 / 40205-125 centering vise bases can be used for automation in combination with the Makro·Grip® FS, Makro·4Grip, Avanti, Profilo and Vario·Tec clamping jaw types.

AUTOMATION TROLLEYS AND POSITIONING BOLTS:	ITEM NO.
RoboTrex 52 automation trolley, 30 vises	66030
RoboTrex 52 automation trolley, 42 vises	66042
Positioning bolt for RoboTrex 52 automation trolley	66087
RoboTrex 96 automation trolley, 15 vises	64015
RoboTrex 96 automation trolley, 16 vises	64016
Positioning bolt for RoboTrex 96 automation trolley	64086
Automation trolley with special alignment	99996

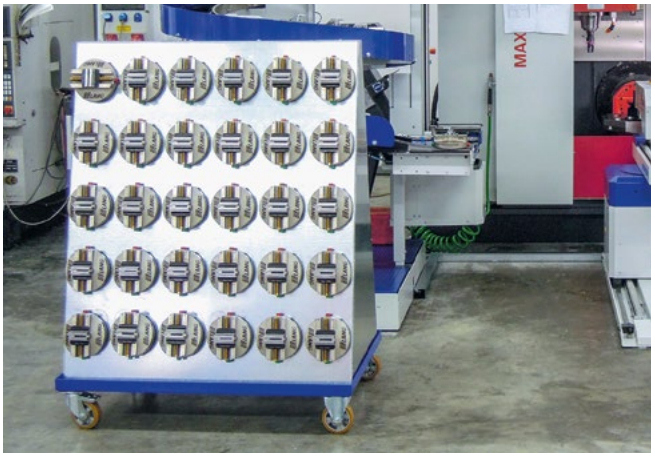
MISCELLANEOUS:	ITEM NO.
Trolley entry system for RoboTrex 52 and 96	66120
Automation window for RoboTrex 52 and 96	66750
Gripper exchange internface	64266

Makro·Grip® **mobile storage unit**

The mobile storage unit offers a space-saving and flexible option to store up to 60 clamping devices. Clamping devices that are equipped with integrated Quick·Point® clamping studs of system sizes 52 and 96 are placed in the holes on the side surfaces of the mobile storage unit.

MAKRO·GRIP® MOBILE STORAGE UNIT

ITEM NO.	STORAGE CAPACITY	DIMENSIONS	WEIGHT
61060	max. 60 clamping devices	1,400 × 800 × 1,500 mm	154 kg




LANG
Art. Nr.
48040-46FS
Max. 30Nm

RoboTrex Compact

automation system

RoboTrex Compact is an automation system that has been specially developed for the unmanned production of small workpieces weighing up to 7 kg. The latest automation solution from LANG Technik is even more compact than the well-known RoboTrex automation system and offers space for up to 100 vises in its storage rack on a footprint of only two square meters. RoboTrex Compact can be retrofitted to almost any machine tool and covers small and medium batch sizes. Thanks to its simple operation, the plug-and-play system requires no specialist personnel.

Primary area of application:

- **Automated, unmanned production**
- **Individual parts up to medium series sizes**
- **Parts up to 7 kg**

Benefits:

- **High storage capacity on a small footprint**
- **Extremely simple operation, no robot knowledge required**
- **More output thanks to increased spindle hours and machine utilization**

RoboTrex Compact

Automation system:

- compact footprint of only two square meters
- 2-sided vise storage rack for up to 100 vises
- pre-programmed Fanuc industrial robot with six axes
- front and side loading of machine tools
- optional swivel unit for front loading
- single-part and series production
- communication with the machine tool via M-function
- operation via touch display
- pneumatic control of the zero point clamping system
- no media interface required within the machine tool


RoboTrex Compact
LANG

RoboTrex Compact
automation system

ROBOTREX COMPACT AUTOMATION SYSTEM

ITEM NO.	DIMENSIONS	MAX. STORAGE CAPACITY
62000	2,000 × 1,050 × 2,000 mm	100 × Makro·Grip® 46 Micro / 50 × Makro·Grip® 77

The matching grippers and automation zero point clamping systems are shown on pages 248 / 249.

Customized color design

Customize the color design of your RoboTrex Compact to match your machine tool!
The corner elements of your RoboTrex Compact can be customized on request at no extra costs.

Manual gripper exchange for different vise sizes

The two different vise sizes, Makro·Grip® 46 Micro and Makro·Grip® 77, can be used by changing the robot gripper. After selecting the size via the operating menu, the robot moves to its change position, which is located directly next to the system's control panel and is easily accessible for the operator. The robot gripper can be changed in just a few seconds. Thanks to the proven Quick·Point® clamping system with clamping studs on the back of the gripper, it can be easily loosened and fixed using a hexagon socket screw.

The two gripper versions and the matching zero point clamping system are shown on pages 248 / 249.

Swivel unit when loading through the machine door

When automating a CNC machine, accessibility plays an important role, especially if loading is done through the machine door. To manually produce parts in between without the automation system, the space directly in front of the CNC machine must remain accessible to the operator.

With a special swivel unit, which has already proven itself in earlier automation solutions from LANG Technik, RoboTrex Compact solves this requirement simply and effectively.

The automation system, which is firmly fixed by a foot and locked in its end position during machining, can be easily swiveled away after the end of machining and release of the lock. This way, the space directly in front of the machine door is completely cleared and made accessible.

Equipping options

Utilizing Makro·Grip® 46 Micro, 5-axis vises

Like RoboTrex, RoboTrex Compact also allows the use of different vise and jaw versions. When using Makro·Grip® 46 Micro, up to 50 vises can be accommodated on each side of the storage rack, for a total of 100 vises for both sides. Instead of raw part clamping, pre-machined parts can also be clamped using the so-called "monobloc" contour jaws (Item No. 47469) on the Makro·Grip® 46 Micro 5-axis vise.

Storage capacity when fully equipped:
100 × Makro·Grip® 46 Micro vises
at a maximum workpiece size of
65 × 50 × 95 mm

Utilizing Makro·Grip® 77, 5-axis vises

The arrangement of the storage rows also allows the use of Makro·Grip® 77 vises. 25 vises can be stored in the storage rack on each side, resulting in a total capacity of 50. This type of vise in particular opens up a wide range of options for operators to use different clamping jaws. Among others, Makro·4Grip clamping jaws can be used to clamp cylindrical blanks, or Avanti for clamping profiled and pre-machined parts. Vario·Tec, with its flexible support and end stop system, is also a possible choice.

Storage capacity when fully equipped:
50 × Makro·Grip® 77 vises
at a maximum workpiece size of
120 × 100 × 80 mm

Flexible assembly with different part sizes

The clamping of wider or higher components is parts by leaving neighboring positions empty or by simply removing a row of racks. This allows operators to tailor their production management to their specific needs. From skipping individual vise positions or rows to single-part production by assigning an NC program for each vise position, RoboTrex Compact can do much more than just pure batch production.

RoboTrex Compact **grippers and zero point clamping systems**

NEW

Suitable 5-axis vise:

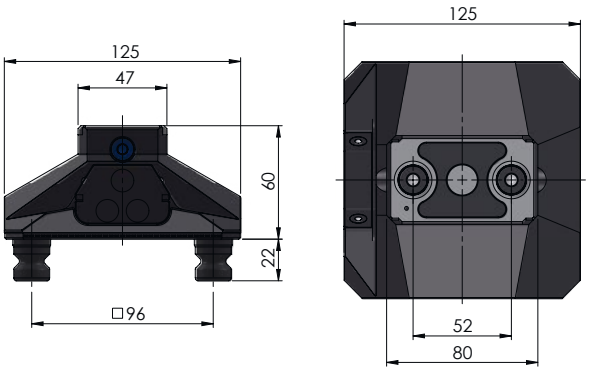
48040-46

Hint: Mounting contour jaws Item No. 47469 to the Makro·Grip® 46 Micro vise allows for clamping pre-machined parts with RoboTrex Compact.

GRIPPER 46 MICRO, PNEUMATIC

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
62900	7 kg	62500	2.6 kg

NEW



ZERO POINT CLAMPING SYSTEM 52 DUO, PNEUMATIC

ITEM NO.	OPERATION	SUITABLE GRIPPER	WEIGHT
62500	pneumatic	62900	3.5 kg

Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex Compact.

NEW

Suitable 5-axis vises:

48120-46

48120-77

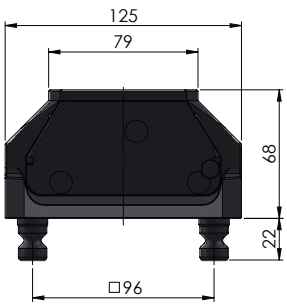
68120-77

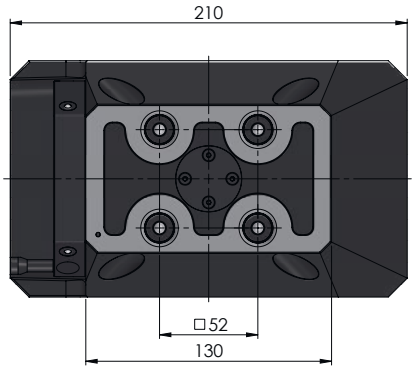
Other clamping jaw variants are also possible.
Please do not hesitate to ask!

GRIPPER 77, PNEUMATIC

ITEM NO.	MAX. WORKPIECE WEIGHT	SUITABLE ZERO POINT SYSTEM	WEIGHT
62955	7 kg	66650	2.5 kg

NEW VERSION





ZERO POINT CLAMPING SYSTEM 52, PNEUMATIC

ITEM NO.	OPERATION	SUITABLE GRIPPERS	WEIGHT
66650	pneumatic	66925 / 66955 / 62955	7.7 kg

Includes: Adapter for manual operation + bracket, aluminium handle.
Please note: The zero point clamping system is not included in the scope of delivery of RoboTrex Compact.
This product is also shown on pages 231 and 236.


HAUBEX
LANG
Art.-Nr. 61125
LANG
Quick-Point

Haubex

automation system

Haubex is a flexible and cost-effective automation solution for small batches starting from 2 pieces on up, transforming the tool magazine into a storage system which does not require an additional racking system or robot. The heart of Haubex is a workholding hood that serves as a carrier system for clamping devices and workpiece blanks. It is called up via an NC program and inserted from the tool magazine. Haubex makes it easy to increase production efficiency, even on older machines. Breaks can now be filled productively, additional working time windows are created for alternative activities by the machine operator and the core working time can be extended by allowing the machine tool to continue unmanned production after the end of work.

Primary area of application:

- **Automated production**
- **Small series**
- **Small parts**

Benefits:

- **No additional space required next to the machine tool**
- **Generate additional machine hours with little effort and low investment costs**
- **Flexible application options, as not tied to a specific machine tool**

Haubex

Tool holder:

- Tool holders specially adapted to Haubex of the type: HSK-A63, SK-40, BT-40, CAT-40

Workholding hood:

- made of high-strength aluminium
- collision buffer between tool holder and workholding hood
- integrated vise fastening and guidance

Vise:

- Haubex-specific 5-axis vise with Makro·Grip® technology
- jaw width 46 mm, clamping range up to 65 mm
- slim, compact design
- maximum workpiece size 80 × 75 × 70 mm
- zero point interface

Zero point clamping system:

- patented clamping mechanism
- open/close by rotating workholding hood on the clamping device by 90°
- alternatively, using a clamping lever in manual operation
- equipped with Quick·Point® 96 clamping studs


HAUBEX
LANG
Art. Nr. 61125
LANG
Makro • Grip
Max. 70Nm

Workpiece clamping

Workpiece blanks with dimensions of approx. 80 × 75 × 70 mm can be clamped in the Makro·Grip® Haubex 5-axis vise by form-fit. With a maximum tightening torque of 60 Nm, the 5-axis vise achieves holding forces of up to 14,000 N. Thanks to the defined form-fit between the pre-stamped workpiece and the jaw serration, the Makro·Grip® technology guarantees absolute process reliability and repeatability.

Equipping the workholding hood

The Haubex set-up station offers an uncomplicated and quick way to prepare the workholding hood for automated use. Alternatively, the workholding hood can also be equipped with the 5-axis vise without a set-up station, e.g. by positioning the workholding hood in a tool setting device.

Measuring and program sequence

Measuring the z-height on the tool setting device and entering it in the program. Sample specifications for NC programs for setting up the automatic vise change can be downloaded from our website.

Vise storage

The workholding hood equipped with the clamping device and workpiece blank is placed in the tool magazine like a common tool by the operator. Alternatively, the vise and workpiece blank can be placed into the zero point clamping system and picked up by the workholding hood already inserted in the tool magazine.

Clamping mechanism

The workholding hood places the 5-axis vise into the zero point clamping system and locks it by a 90° closing movement. Alternatively, the zero point device can be actuated via a clamping lever during manual operation without the Haubex system.

Cleaning

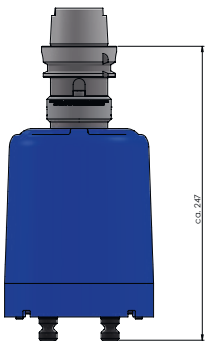
After the machining process and prior to the automatic removal through the workholding hood, we recommend cleaning the machine interior and all important interfaces with the Clean·Tec chip fan.

HAUBEX **workholding hood**

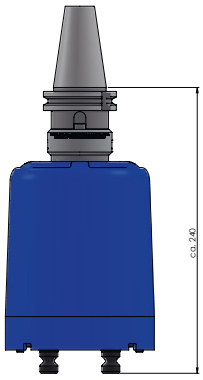
HAUBEX WORKHOLDING HOOD

ITEM NO.	LOWER DIAMETER	MAX. WORKPIECE SIZE	WEIGHT	TOTAL HEIGHT *
61125	Ø 125 mm	approx. 80 × 75 × 70 mm	1.0 kg	185 mm

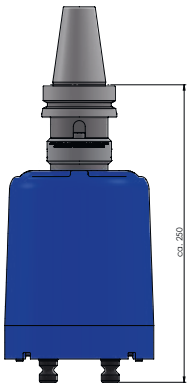
* Including safety element.



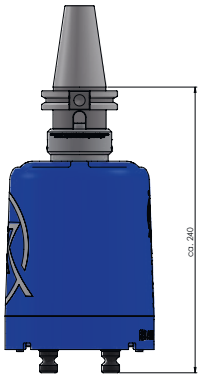
Workholding hood with HSK-A63



Workholding hood with SK 40



Workholding hood with BT 40



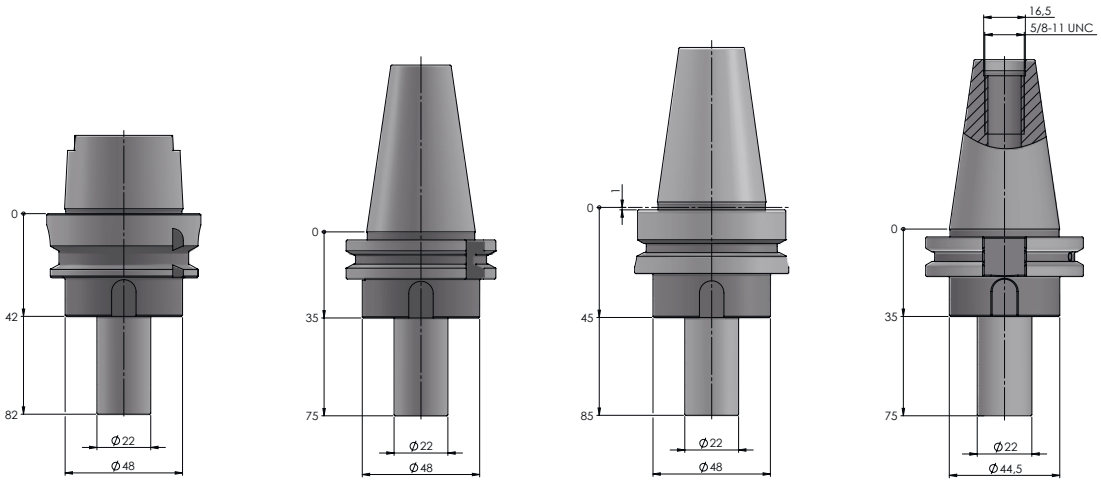
Workholding hood with CAT-40

HAUBEX **tool holders**

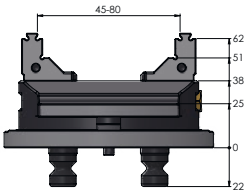
HAUBEX TOOL HOLDER

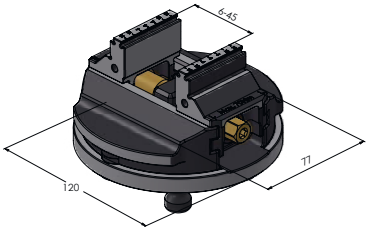
ITEM NO.	TYPE	STANDARD	WEIGHT	TOOL LENGTH *
61500-HSK63	HSK-A63 (Hollow taper shank)	DIN 69893-1	0,9 kg	approx. 247 mm
61500-SK40	SK-40 (Steep taper)	DIN ISO 7388-1	1,1 kg	approx. 240 mm
61500-BT40	BT-40 (Steep taper)	JIS B6339	1,3 kg	approx. 250 mm
61500-CAT40	CAT-40 (Steep taper)	ANSI / ASME B5.50 AD/B	1,1 kg	approx. 240 mm

* Including workholding hood and Makro·Grip®. Measured to the lower edge of the clamping studs of the 5-axis vise.



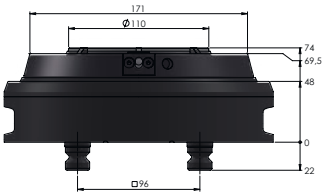
HAUBEX **components**

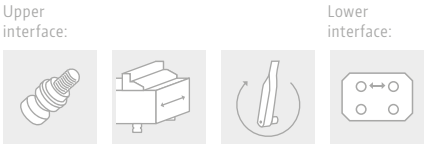




MAKRO·GRIP® HAUBEX 5-AXIS VISE

ITEM NO.	DIMENSIONS	CLAMPING RANGE	WEIGHT
61085-46	Ø 120 × 65 mm	0 – 80 mm	2.6 kg

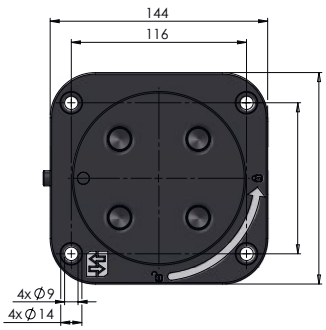


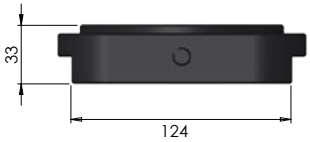


QUICK·POINT® HAUBEX ZERO POINT CLAMPING SYSTEM

ITEM NO.	DIMENSIONS	GRID SIZE	WEIGHT
61110	Ø 211 × 74 mm	52	8.9 kg

Includes: Clamping lever and cover plug remover

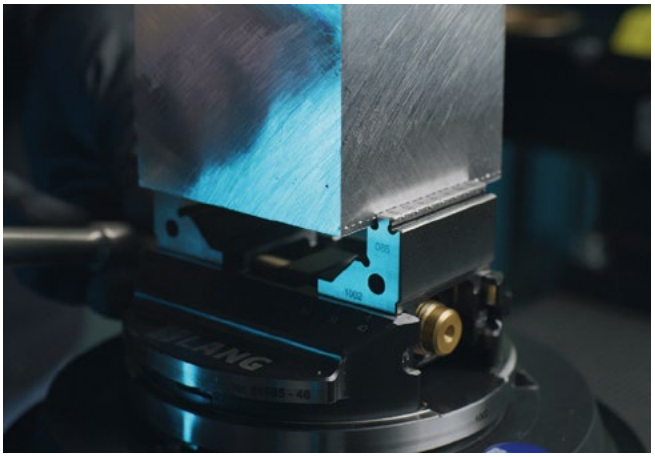


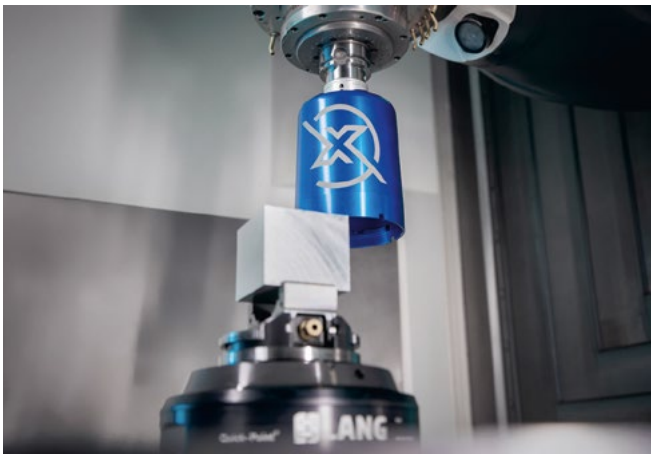


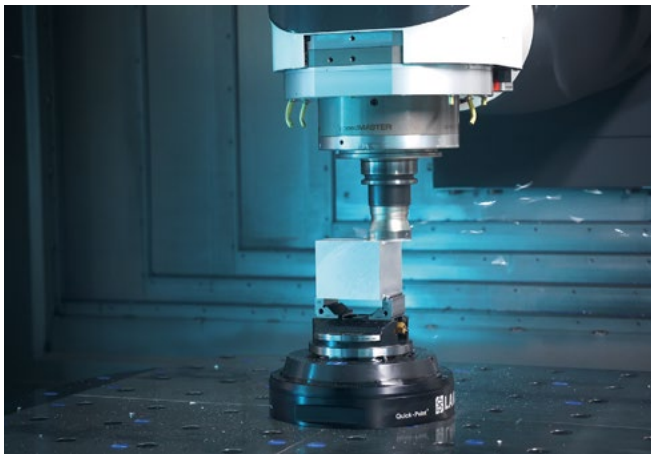
HAUBEX SET-UP STATION

ITEM NO.	DIMENSIONS	GRID SIZE	WEIGHT
61115	144 × 144 × 33 mm	52	1.5 kg

Applications








Innovative Workholding
& Automation from one source
Item No.:
30260 (shank: Ø 20 mm)
34260 (shank: Ø 3/4")
RPM:
5.000 – 8.000
LANG
ORIGINAL
CLEAN-TEC
www.lang-technik.de
www.lang-technovation.com
Support: +49 7023 9585-0 (world-wide) / +1 262 446 9850 (USA only!)
Warning: Only to be used in enclosed machines!
LANG

Clean·Tec

chip fan

The Clean·Tec chip fan cleans the inside of the machine and removes chips and coolant without the operator needing to open the machine door. It thus enables automatic in-process cleaning of workpieces and fixtures after the machining process. It is called up via the machine program and exchanged from the tool magazine just like a regular tool. The Clean·Tec opens and closes its blades by controlling the speed of the machine spindle. It is an indispensable tool, particularly in automated production. Before the automatic removal, it cleans all critical interfaces between the clamping devices, thus ensuring a clean and flawless process.

Primary area of application:

- **Automated cleaning in closed machines**
- **Can be used after the end of each machining cycle**
- **Suitable for all clamping situations and components**

Benefits:

- **Increased operator safety and no carry-over of chips to the outside**
- **Energy savings and no need for expensive compressed air**
- **Consistent cleaning quality and ideal for unmanned, automated production**

Clean·Tec

Chip fan:

- three different sizes (Ø 160 mm, Ø 260 mm, Ø 330 mm)
- four carbon fibre blades per chip fan
- retaining springs for controlled opening / closing of the blades
- glass fiber body with steel core
- integrated bore for internal coolant supply
- slim design for space-saving storage in the tool magazine

Matching tool holder:

- for every standard tool holder Ø 20 mm (except shrink fit chucks)
- also available for 3/4" tool holders


LANG
ORIGINAL
CLEAN-TEC
www.lang-technik.de
www.lang-technovation.com
Support: +49 7029 9585-0 (world-wide) / +1 262 446 9850 (USA only!)
Warning: Only to be used in enclosed machines!

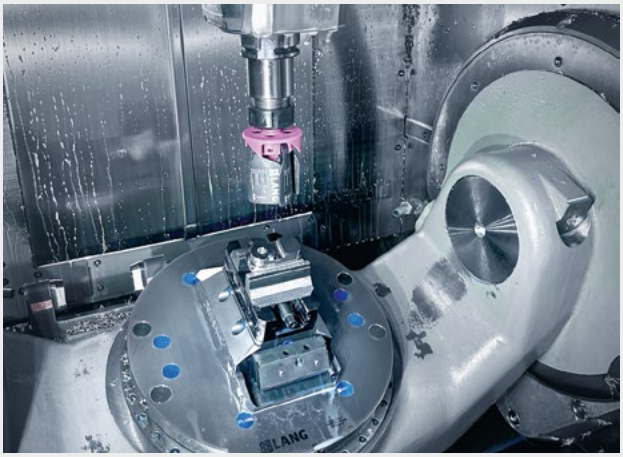
Automated in-process cleaning after CNC machining

Clean, safe, economical

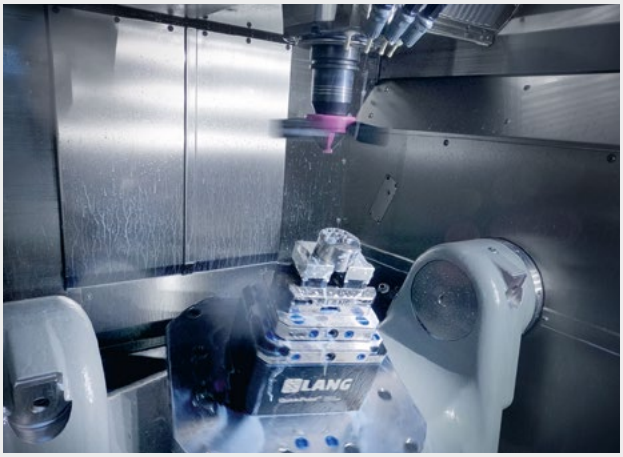
The use of the chip fan enables companies to reduce the amount of costly compressed air that is usually used when cleaning machines manually with a compressed air gun. Especially in times of increasing energy costs, this opens up considerable savings potential for companies. At the same time, automatic in-process cleaning with the machine door closed increases work safety, as the operator does not get involved in the cleaning process and is protected from chips flying around. The Clean·Tec keeps the workplace clean – after all, chips should end up on the chip conveyor, not in front of the machine.

A must-have in automation

The rapid developments in automation technology are also significantly increasing the relevance of automated cleaning within machine tools. Before the handling system or robot performs the automatic removal of the clamping device or pallet, the Clean·Tec cleans the clamping device, workpiece and machine table as the final step in the machining process. Due to its decisive contribution to trouble-free machining and changeover cycles, the Clean·Tec chip fan is an indispensable tool in automation.



Zerspanungstechnik Pareth GbR

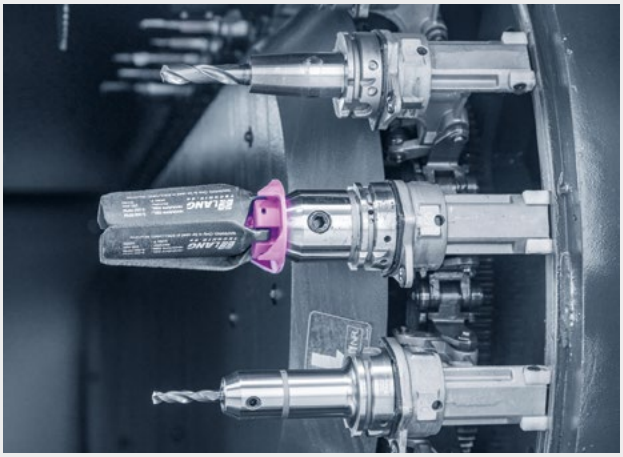


Time for a change!

With its characteristic "whirring" sound, the Clean·Tec signals that the machining of a workpiece is nearly complete. Especially for machine tools that are not automated and where the parts are changed manually, the acoustic signal supports the machine operator, who may not be in the immediate vicinity of the CNC machine. This allows them to reach their machine in good time and avoid losing valuable time. The volume depends on the spindle speed and the size of the machine's workspace (the smaller the space, the quieter the sound), but always remains pleasant to the ear.

From the tool magazine to the CNC machine

The chip fan is stored in the tool magazine like a normal tool and is called up via the NC program as the final work step in the machining cycle. The Clean·Tec fits into any commercially available tool holder with Ø 20 mm (except shrink-fit holders). Thanks to its slim design and space-saving construction of only Ø 68 mm (when folded), the magazine pockets directly next to the Clean·Tec can also be occupied with tools. Stable retaining springs ensure that the blades of the chip fan fold in completely.



Pre-cleaning by rinsing

An integrated channel through the steel core of the glass fiber body makes it possible to thoroughly rinse workpieces and devices before the actual cleaning process. This pre-cleaning technology is not only intelligent, but also extremely effective, as it significantly increases the cleaning effect. This method is particularly useful for pocket bores, where chips are often stuck and difficult to remove.

Functionality and application

Functionality
Opening and closing the blades by controlling the machine spindle speed

Acceleration
Recommendation: in two steps. First to 2,000 rpm, then to the desired top speed

Distance to the workpiece
approx. 100 – 150 mm

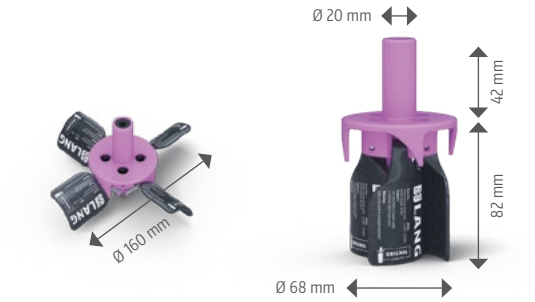
Feed rate
3 – 10 m/min

ORIGINAL
CLEAN·TEC

DID YOU KNOW THAT...?

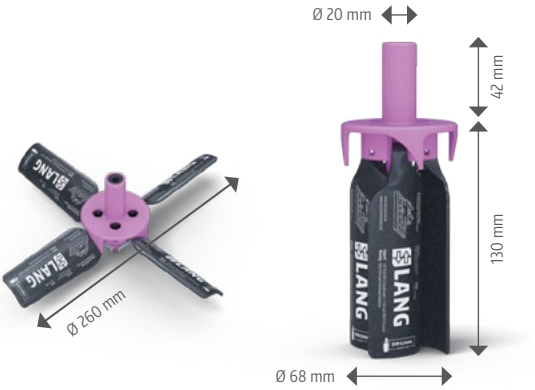
Together with the Vario·Tec pin jaw technology, the chip fan is one of our first and oldest products and has now been on the market for over 25 years. This revolutionary approach at the time and a certain "out-of-the-box" way of thinking contributed to the Clean·Tec becoming a lasting success and enjoying great popularity worldwide today. The Clean·Tec also stands for the innovative strength of our company, which has been followed by numerous other market-defining technologies.

Clean·Tec **Chip Fan**



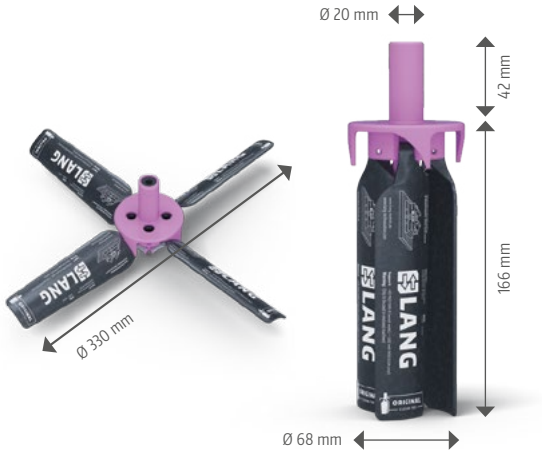
CLEAN·TEC 160

ITEM NO.	Ø WITH OPEN BLADES	RPM RANGE
30160	160 mm	6,000 – 12,000 RPM



CLEAN·TEC 260

ITEM NO.	Ø WITH OPEN BLADES	RPM RANGE
30260	260 mm	5,000 – 8,000 RPM



CLEAN·TEC 330

ITEM NO.	Ø WITH OPEN BLADES	RPM RANGE
30330	330 mm	3,000 – 8,000 RPM

CLEAN·TEC SPARE PART KIT

ITEM NO.	FOR
30164	30160
30264	30260
30334	30330

Included in delivery: 4 blades, 4 springs, 4 pins.