

HAUBEX

The automatic vice change
from the tool magazine



**LANG
TECHNIK**

simple. gripping. future.

A close-up photograph of an industrial machine, likely a lathe or mill. A prominent blue cylindrical component is visible, featuring a large, stylized white 'X' logo. Above this component is a silver-colored metal flange with a warning label in German and English. Below the blue component is a white, rectangular, block-like structure. The background is a plain, light-colored wall. The text 'simple. automatic. change.' is overlaid on the left side of the image in a bold, blue, sans-serif font.

**simple.
automatic.
change.**

The world's most simple automation solution

HAUBEX transforms the tool magazine of your machine tool into an automation system.

It can be used in almost any machine tool and flexibly throughout the entire production area. HAUBEX allows you to automate with ease, while increasing the efficiency of your company.

The automatic vice change by Erst Maschinenbau and LANG Technik:

In joint cooperation, Erst Maschinenbau and LANG Technik present a patented system with which every machine tool can manufacture automatically without an additional feeding unit or robot – innovative. patented. unique.



The automation solution for everyone

With HAUBEX, automated manufacturing is possible without a pallet changer, feeding system or robot on the machine tool. It is also not tied to a specific machine, which guarantees maximum flexibility in production planning. By this, the added value of any machine tool can be increased. Since no additional communication or installation activities are required on the machine side, commissioning is completely unproblematic. HAUBEX provides all machining companies with a simple, flexible and inexpensive entry into the world of automation.

What is HAUBEX?

HAUBEX is a flexible and cost-effective automation solution for small batches from batch size 2 that transforms the tool magazine into an automation system. The heart of HAUBEX is a workholding hood, which serves as a carrier and loading system for the clamping device and the workpiece blank and is stored the tool magazine.

What is HAUBEX used for?

HAUBEX makes it easy to increase efficiency in your manufacturing by productively filling breaks, creating additional time windows for alternative, value-adding activities or extending working hours by allowing the machine tool to continue unmanned production after the end of work.

Benefits of the HAUBEX Automation System:



Can be used in almost any machine tool



Flexible use throughout the entire production



Cost-efficient automation solution for beginners



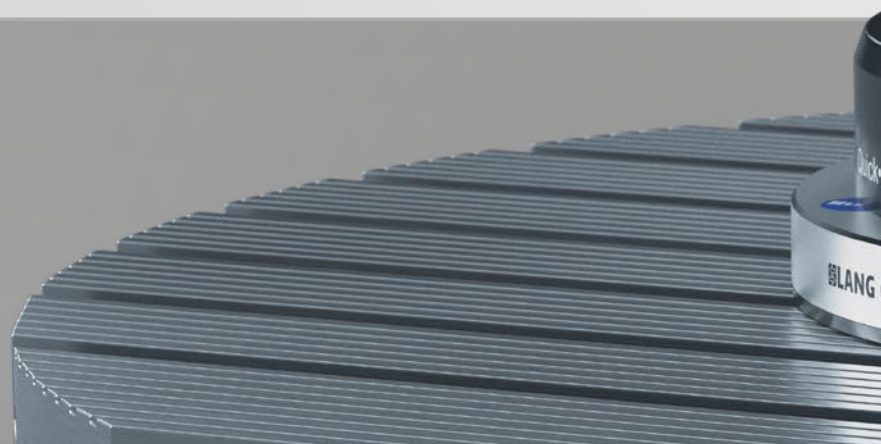
No knowledge about automation and robotic systems required



Can be ideally integrated into existing production environment



No time-consuming installation or machine downtimes





1 HAUBEX tool holders

Tool holders of type HSK-A63, SK-40 and BT-40 specially adapted to HAUBEX guarantee an exactly defined positioning of the workholding hood in the machine spindle.

2 HAUBEX workholding hood

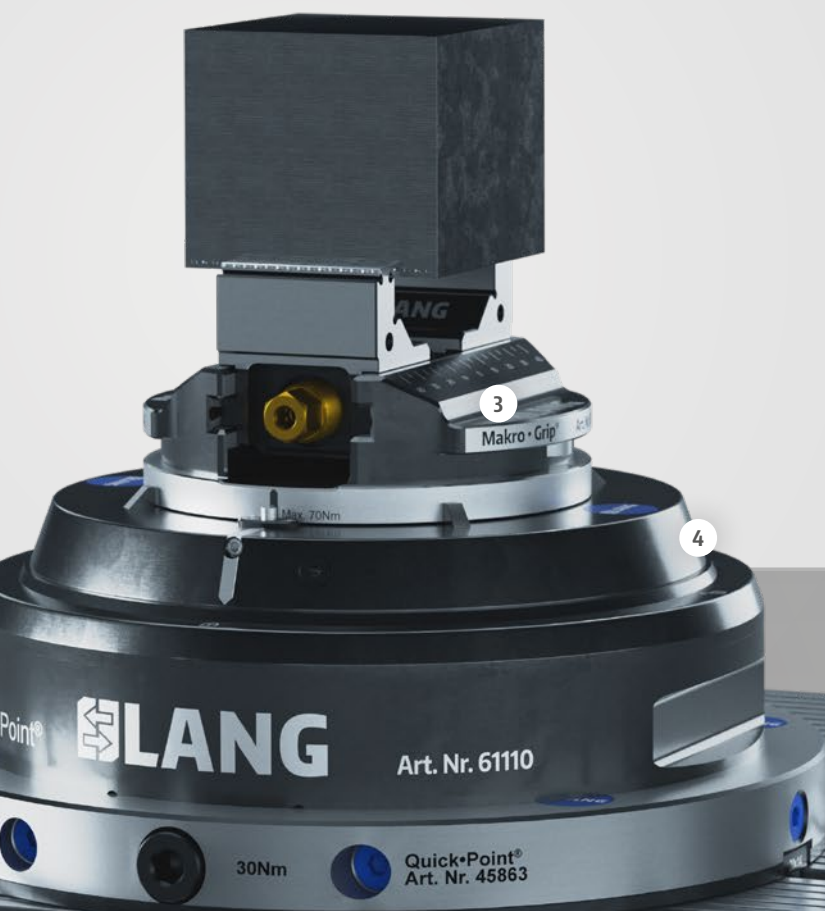
The aluminium workholding hood is the carrier system which transfers vice and workpiece blank from the tool magazine into the zero-point clamping system on the machine table. By means of a 90° closing movement, it opens and locks the zero-point system mechanically, which means that the system does not require any additional utilities on the machine side. A safety element between the workholding hood and the tool holder acts as a buffer and protects the machine spindle in the event of unexpected collisions. An integrated guide and fixation secures the vice against unintentional release from the workholding hood and ensures a secure fit.

3 Makro-Grip® HAUBEX 5-Axis Vice

HAUBEX uses a modified version of the Makro-Grip® as the workholding device. The slim design of the 5-Axis Vice and the narrow jaw width of 46 mm ensure ideal accessibility in 5-sided machining of blanks. The maximum workpiece size of approx. 80 × 75 × 70 mm is given by the height and diameter of the workholding hood. Examples of maximum possible workpiece dimensions and a formula for their calculation are available on the website.

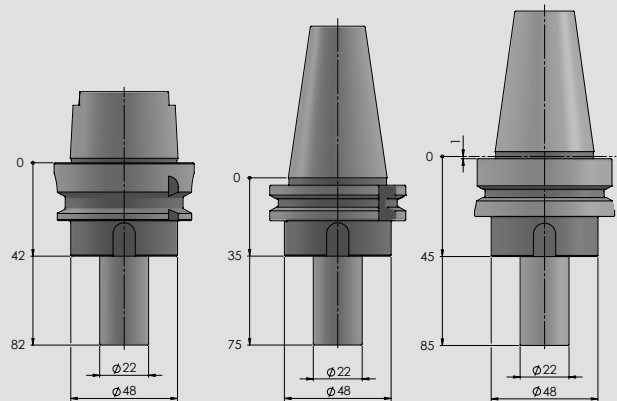
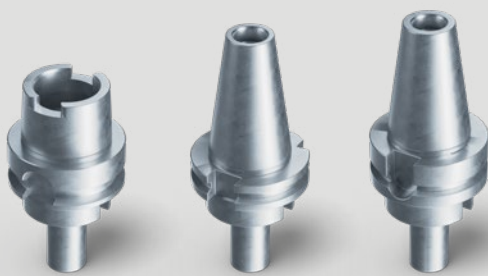
4 Quick-Point® HAUBEX zero-point clamping system

The patented clamping mechanism of the zero-point device is actuated by the HAUBEX workholding hood in automated production or manually via a clamping lever, in each case by a 90° closing movement. The zero-point device is equipped with clamping studs which guarantees a fast set-up process in the Quick-Point® 96 system.





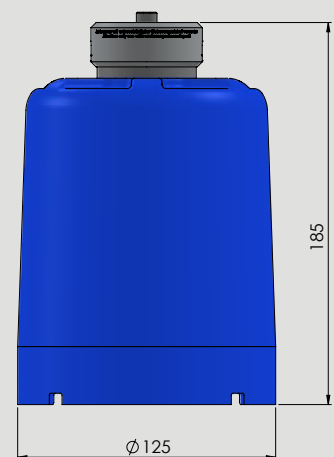
HAUBEX tool holders & workholding hood



HAUBEX TOOL HOLDERS

ITEM NO.	TYPE	STANDARD	WEIGHT	TOOL LENGTH*
61500-HSK63	HSK-A63 (Hollow taper shank)	DIN 69893-1	1,0 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

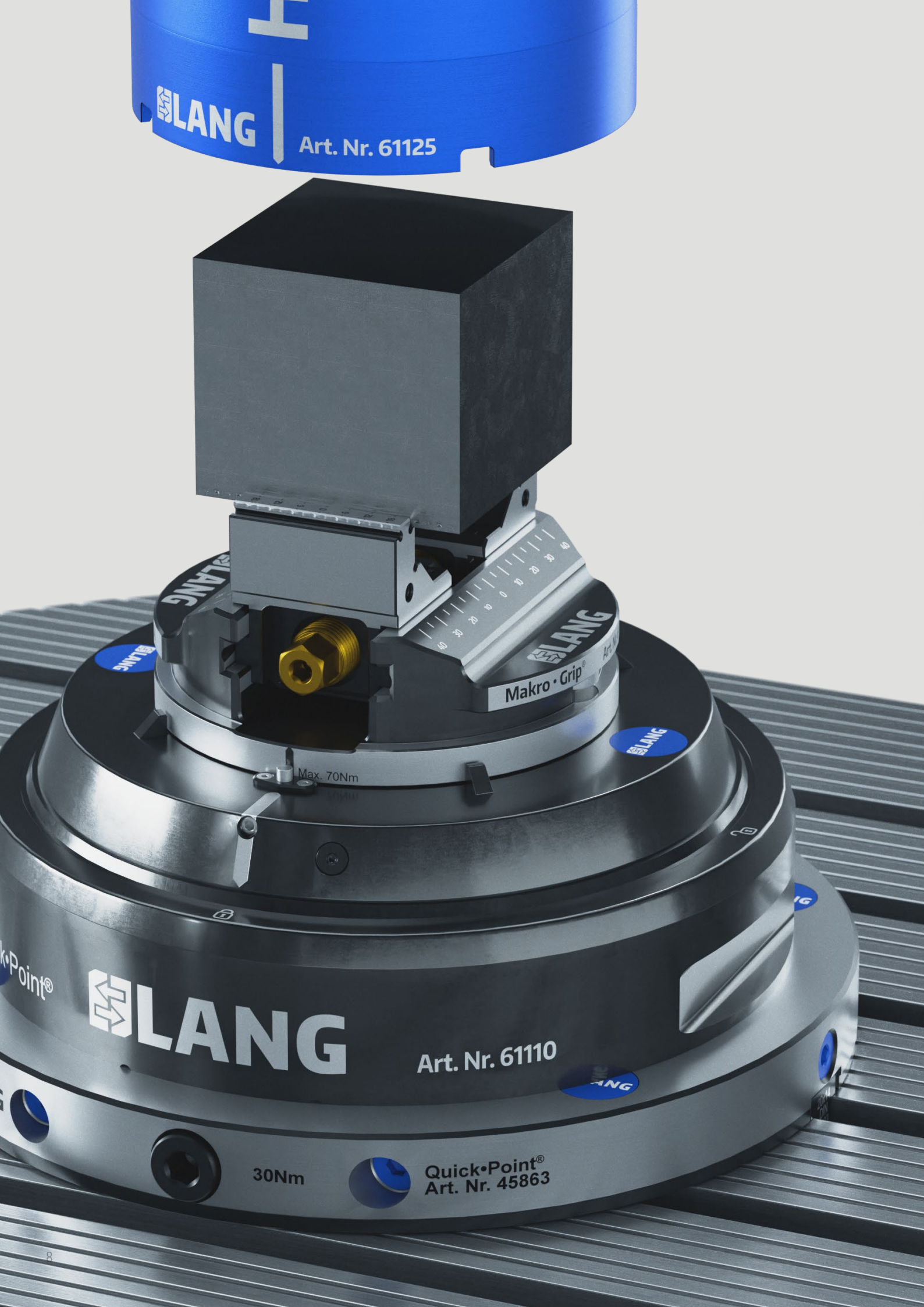
* including workholding hood and Makro-Grip®. Measured to the lower edge of the clamping studs of the 5-Axis Vice.



HAUBEX WORKHOLDING HOOD

ITEM NO.	LOWER DIAMETER	MAX. WORKPIECE SIZE	WEIGHT	TOTAL HEIGHT*
61125	Ø 125 mm	approx. 80 × 75 × 70 mm	0,9 kg	185 mm

* including safety element



LANG

Art. Nr. 61125

LANG

Makro-Grip

Max. 70Nm

LANG

Quick-Point®

LANG

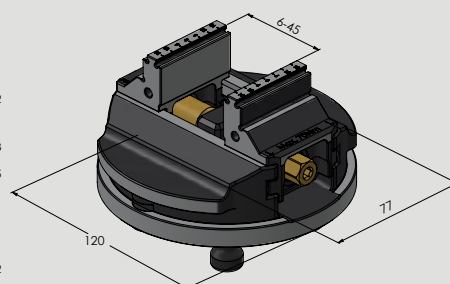
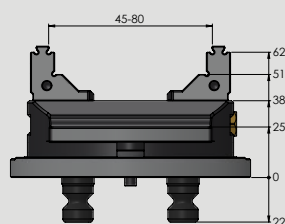
Art. Nr. 61110

LANG

30Nm

Quick-Point®
Art. Nr. 45863

HAUBEX workholding



52



Ø 16 mm



max. 14.000 N



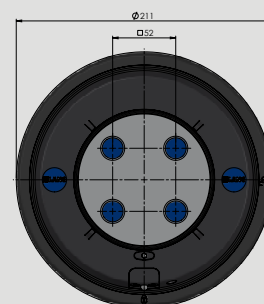
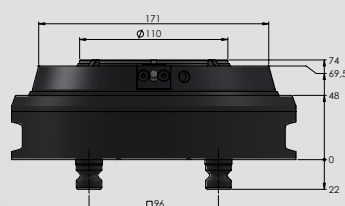
max. 70 Nm



± 0,02 mm

MAKRO-GRIP® 5-AXIS VICE

ITEM NO.	DIMENSIONS	CLAMPING RANGE	WEIGHT
61085-46	Ø 120 × 65 mm	0 – 80 mm	2,6 kg



52



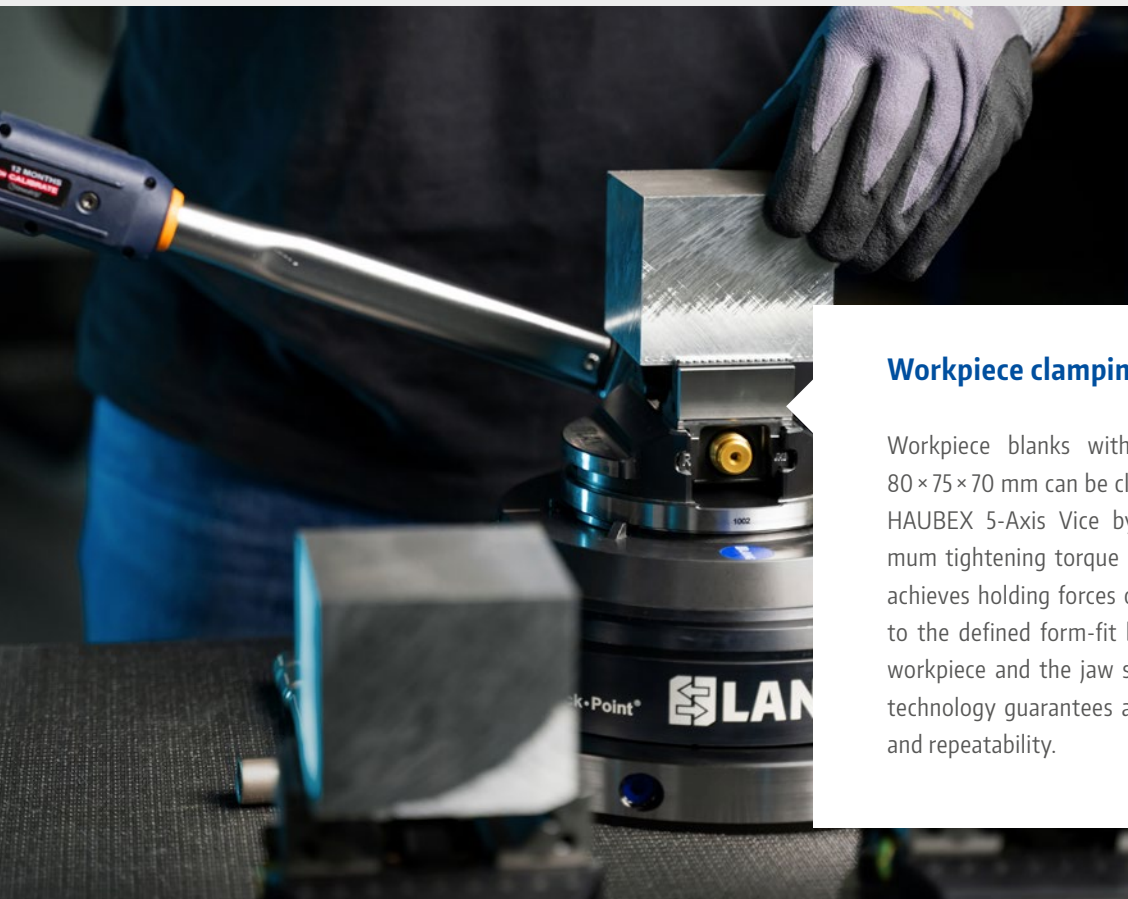
Ø 16 mm



30 Nm

QUICK-POINT® HAUBEX ZERO-POINT CLAMPING SYSTEM

ITEM NO.	DIMENSIONS	GRID SIZE	WEIGHT
61110	Ø 211 × 74 mm	52	8,6 kg

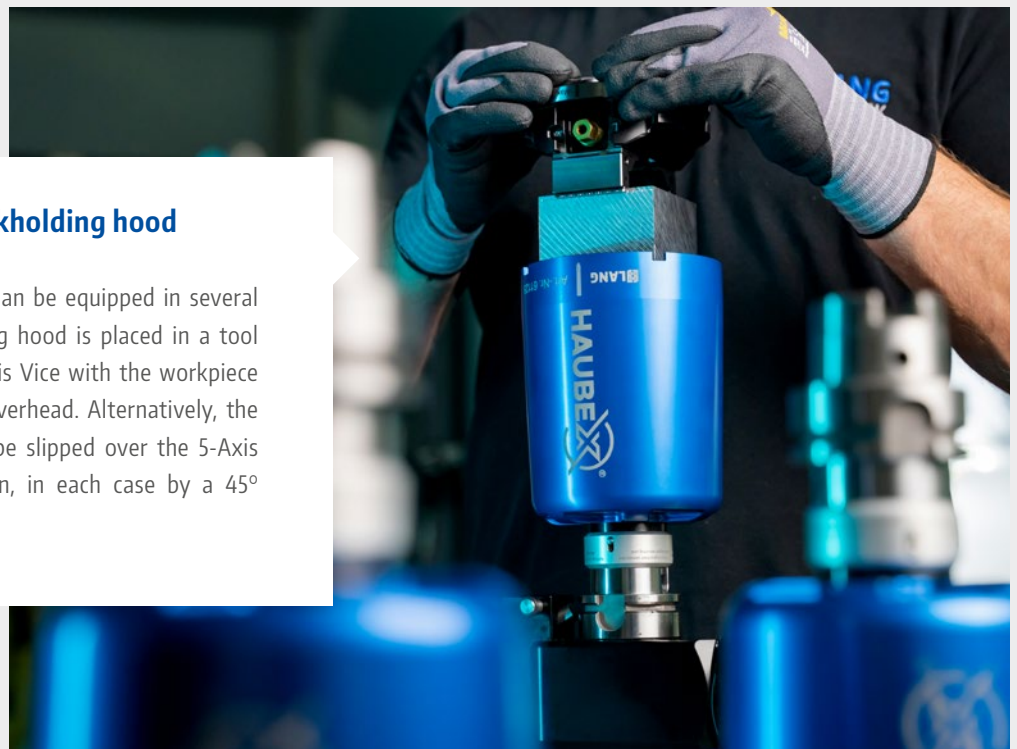


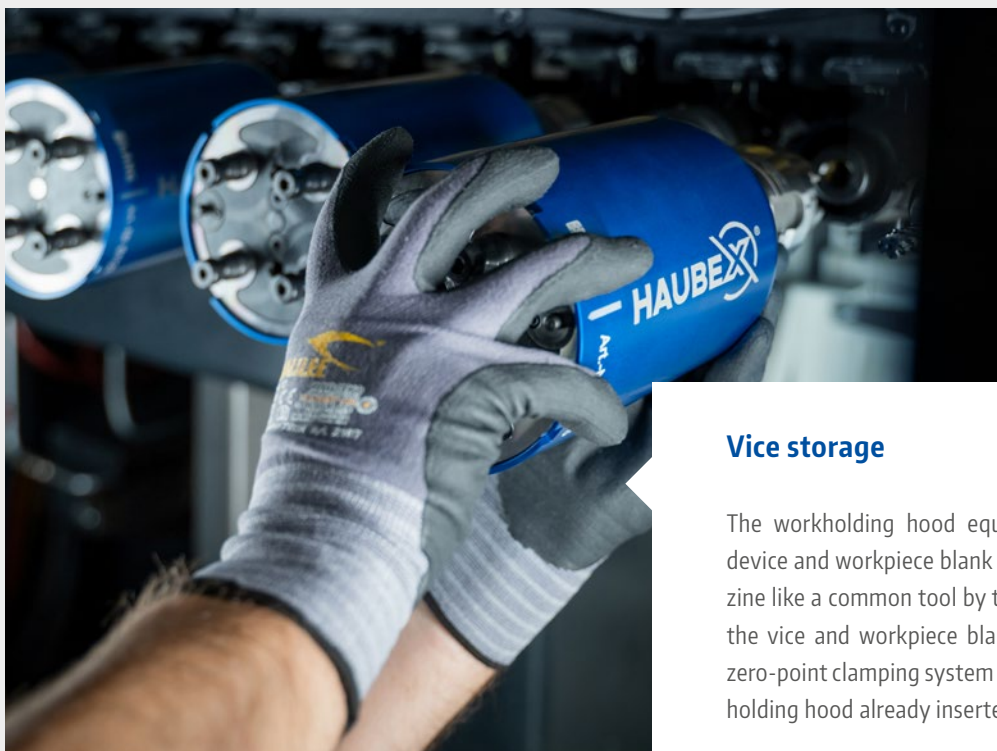
Workpiece clamping

Workpiece blanks with approx. dimensions of $80 \times 75 \times 70$ mm can be clamped in the Makro-Grip® HAUBEX 5-Axis Vice by form-fit. With a maximum tightening torque of 70 Nm, the 5-Axis Vice 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 workholding hood can be equipped in several ways. If the workholding hood is placed in a tool setting device, the 5-Axis Vice with the workpiece blank can be inserted overhead. Alternatively, the workholding hood can be slipped over the 5-Axis Vice at a set-up station, in each case by a 45° snap-in function.





Vice 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 vice 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 Vice 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 HAUBEX.



Imprint

Title:

HAUBEX - The automatic vice change from the tool magazine
Date of Printing 9/2021

Editor:

LANG Technik GmbH
Albstraße 1-6 | D-73271 Holzmaden
Phone: +49 7023 9585-0 | Fax: +49 7023 9585-100
www.lang-technik.de | info@lang-technik.de

Legal provisions:

Copyright © 2021
LANG Technik GmbH
All rights reserved. Reprint, recording in online-services, internet
and duplication on data carrier as CD ROM, DVD, etc. or in extracts
are prohibited. Misprints, errors and changes are subject to
modifications. All indications of weight are approximate values.
Illustrations can vary from articles.



→ facebook.com/langtechnik
→ instagram.com/langtechnik

→ twitter.com/langtechnik
→ youtube.com/langtechnik

→ linkedin.com/company/lang-technik