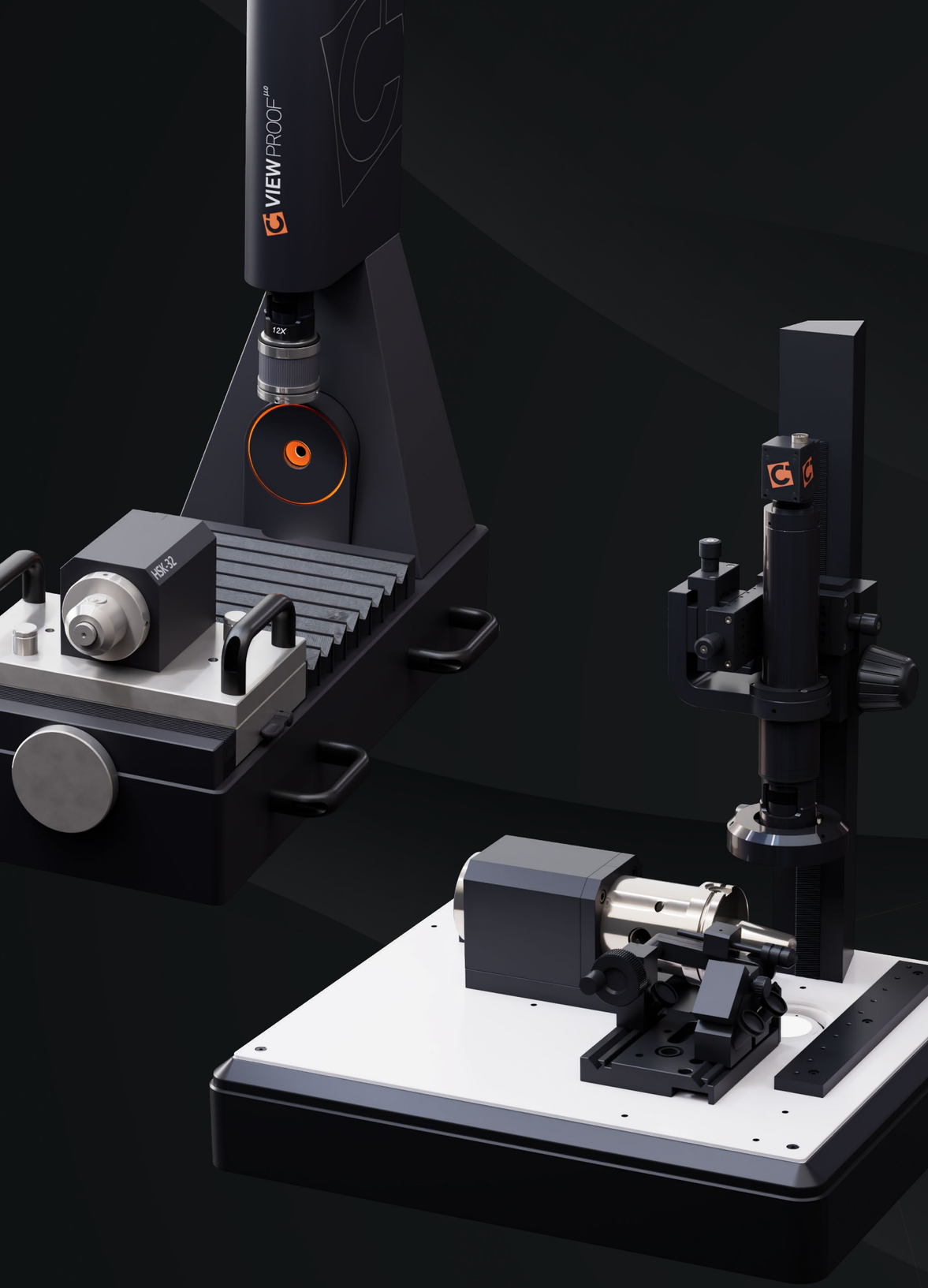
WORK. SMARTER.

VIEW

CIMTRODE®



A NEW FAMILY OF PROOFING MACHINES

The C-VIEW line from Austrian company CIMTRODE, offers state-of-the-art optical inspection equipment specifically designed for milling applications that require micrometer accuracy. Thanks to advanced cameras and software, these devices ensure exceptional accuracy. With a wide range of features from simple visual inspections to fully automated measurements and documented workflows, the C-VIEW line is ideal for a variety of milling applications.

A key advantage of the C-VIEW line is its ability to perform precise measurements and inspections quickly and efficiently, detecting even the slightest deviations in tool length, concentricity and other critical dimensions.

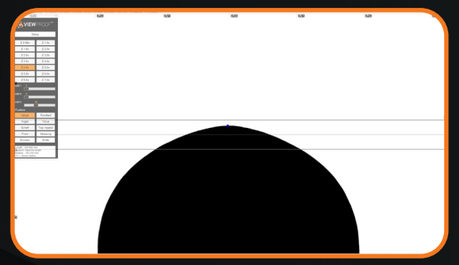
At the same time, the C-VIEW line is designed to be extremely user-friendly and versatile, allowing users to adapt workflows to their specific requirements and modify settings accordingly.

The integrated high-end HSK spindles are another outstanding feature of the C-VIEW line. They allow users to simulate the exact conditions in the machine and ensure that the results are reliable and accurate.

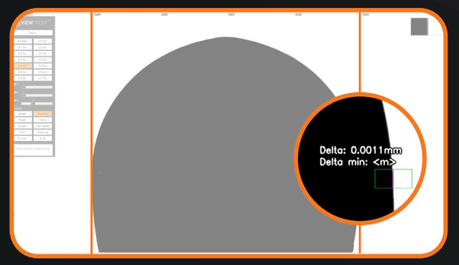
This makes the C-VIEW line an indispensable tool for any milling application that requires the highest precision and reliability.

WITH C-VIEW SOFT

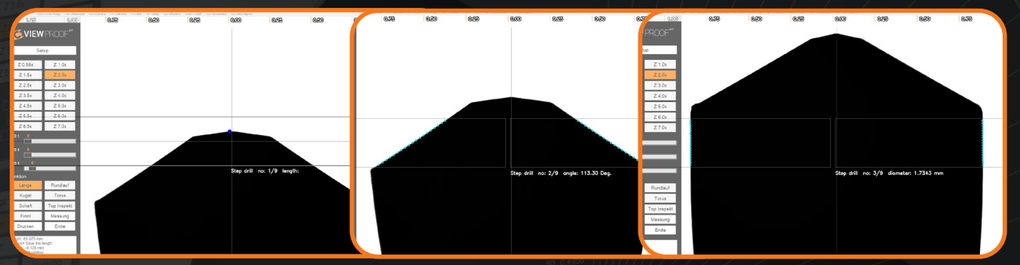
The C-VIEW line of optical inspection equipment now comes with new C-VIEW Soft software designed specifically for high-end manufacturing applications. The latest version of C-VIEW Soft is compatible with C-VIEW PROOF and provides automated measurement functions and basic inspection workflows. With this software, users can perform a variety of inspections and measurements, including concentricity, tool length and other critical dimensions. The automatic measurement features reduce the risk of human error and improve efficiency, while the basic inspection workflows provide users with flexibility to meet unique requirements. Overall, the new C-VIEW Soft software is a powerful tool that maximizes the capabilities of the C-VIEW line of state-of-the-art optical inspection equipment, making it the ideal choice for high-end manufacturing applications.



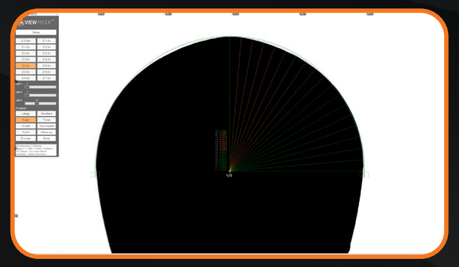
Automatic measurement of the tool length



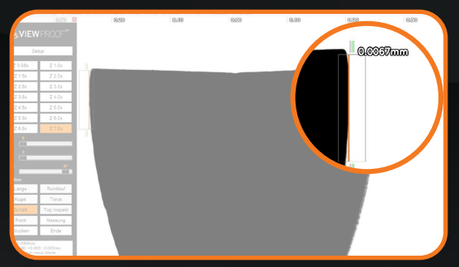
Automatic measurement of the tool runout



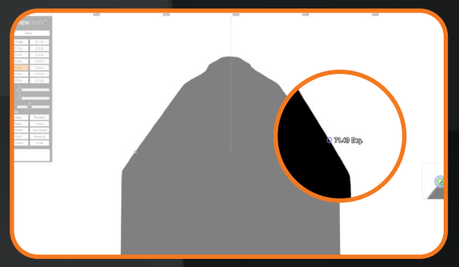
Automatic measurement of a step drill with configurable measurement setup – determination of length, angle, diameter, and step length



Automatic measurement of the tool contour in 5-degree segments

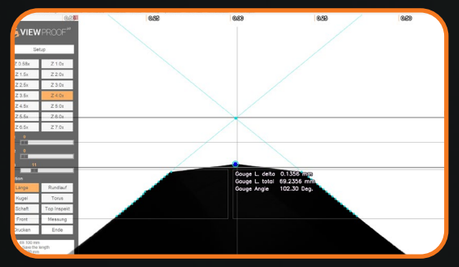


Automatic measurement of a square end mill – detection of wear and corner rounding

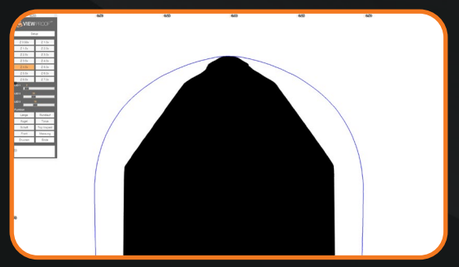


Manual measurement of an angle

Manual measurement of a distance

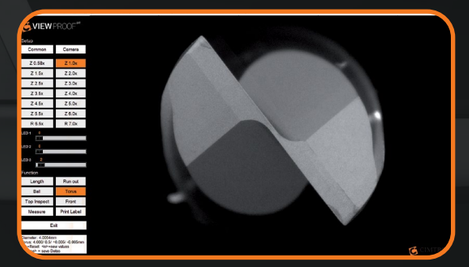


Automatic measurement of a chamfer cutter – determination of angle and theoretical length



Automatic export of the effective contour in DXF format

Visual inspection from the side of the tool

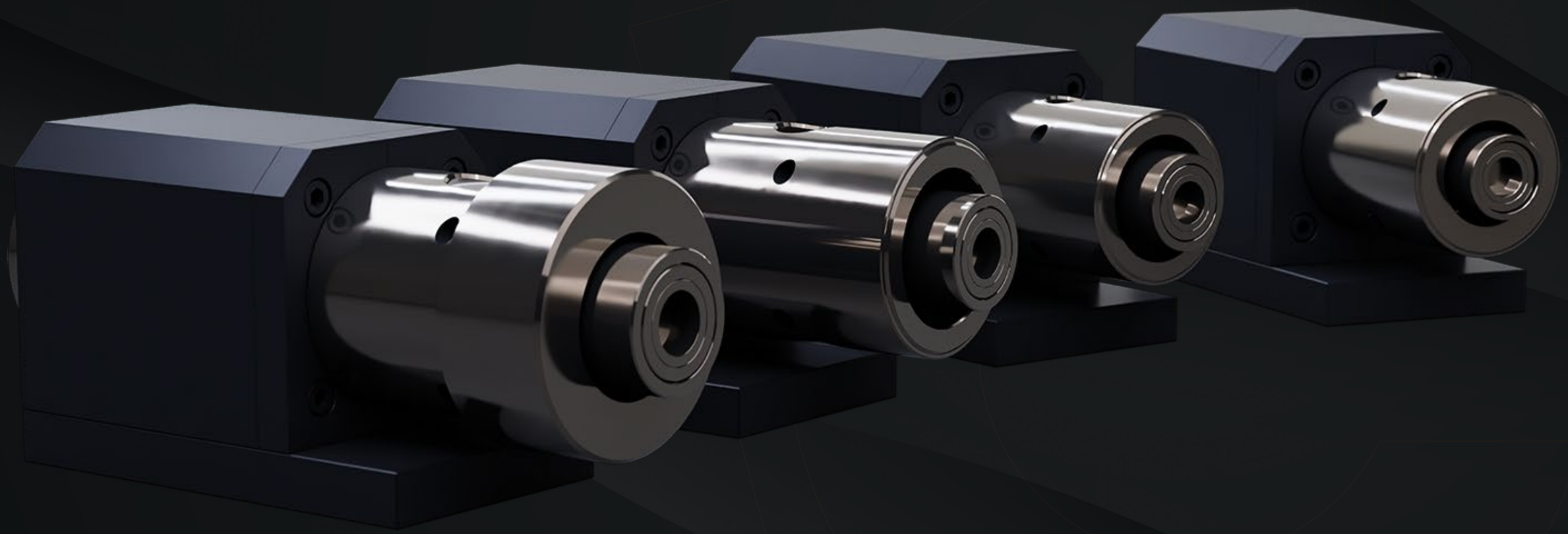


Visual inspection from the top of the tool

HIGH PRECISION HSK SPINDLES

The high-end HSK spindles are a critical component in the C-VIEW series of optical inspection equipment, as they enable functional verification with the highest accuracy. These spindles simulate the exact conditions in the instrument and provide a stable and reliable platform for measurements. Without the HSK spindle, critical dimensions such as tool length and runout cannot be measured accurately because these values can change as soon as the tool is inserted into the tool holder.

CIMTRODE produces the HSK spindles itself to ensure the highest quality and precision. The spindles simulate the conditions in the machine and provide a stable and reliable platform for measurements with the C-VIEW line. They operate with the same pull-in force as the spindle in the machine, allowing measurements that are accurate and representative of the conditions in the actual milling process. In addition, the spindles have perfect concentricity, which enables precise and reliable measurements of critical dimensions.



FULLY DOCUMENTED

CIMTRODE's C-VIEW range of optical inspection equipment is not only extremely versatile, but also very user-friendly. The instruments allow for the creation of various reports and labels to suit the needs of the user. This seamless integration allows users to quickly create comprehensive reports and labels for their equipment to ensure a fully documented workflow.

Users can thus create detailed reports that include all measurements captured by the software. In addition, labels can be applied directly to the measured parts. Such documentation is especially critical in industries such as aerospace and medical, where precision and accuracy are essential. The C-VIEW line ensures that workflows are fully documented and meet the requirements of quality control and regulatory standards.

The C-VIEW line allows users to customize their workflows and reporting capabilities to meet their unique needs. With a simple and intuitive user interface, the system is quick and efficient to use, even if they have little or no experience with the system.

C-VIEW PROOF μ.0

THE NEXT GENERATION

CIMTRODE has recently launched the latest optical proofing machine called C-VIEW PROOF. This state-of-the-art device is designed to perform automatic measurements of tool concentricity, length and round workpieces. Thanks to advanced cameras and software, the C-VIEW PROOF is able to perform extremely precise measurements and inspections. This makes it an indispensable tool for manufacturing processes that require the highest precision and quality.

The C-VIEW PROOF sets new standards in inspection machine technology, offering advanced features and capabilities unmatched by any other device to date. Operation is simple and intuitive thanks to a user-friendly interface that enables fast and efficient handling.

TECHNICAL HIGHLIGHTS

Listed below are the technical highlights of the new crown jewel of the C-VIEW family of optical inspection instruments:

1

High-End Optic

A USB 3.0 camera with 3840 x 2160 resolution and 42-500x magnification enables clear, fast images for automated measurements and inspections.

2

‘Light-Box’

An adjustable “light box” with adjustable LED illumination enables precise measurements with optimal illumination.

3

Telecentric LED underlight

The C-VIEW PROOFis equipped with a telecentric LED illumination on the underside, which provides shadow-free illumination.

4

High precision HSK spindle

The C-VIEW PROOF features a high-end HSK spindle from HSK 25-63, which allows accurate simulation of actual machine conditions.

5

Quick release

To maximize the versatility and ease of use of the C-VIEW PROOF, it is equipped with quick-release clamps that allow for easy and precise spindle changes.

6

Manual spindle rotation

A manual knob for the HSK spindle allows the operator to turn the tool manually. This provides an additional level of flexibility and control.

7

Interchangeable platform

The HSK spindle of the C-VIEW PROOF is mounted on an interchangeable platform for easy spindle replacement.

8

Fine movement Y-axis

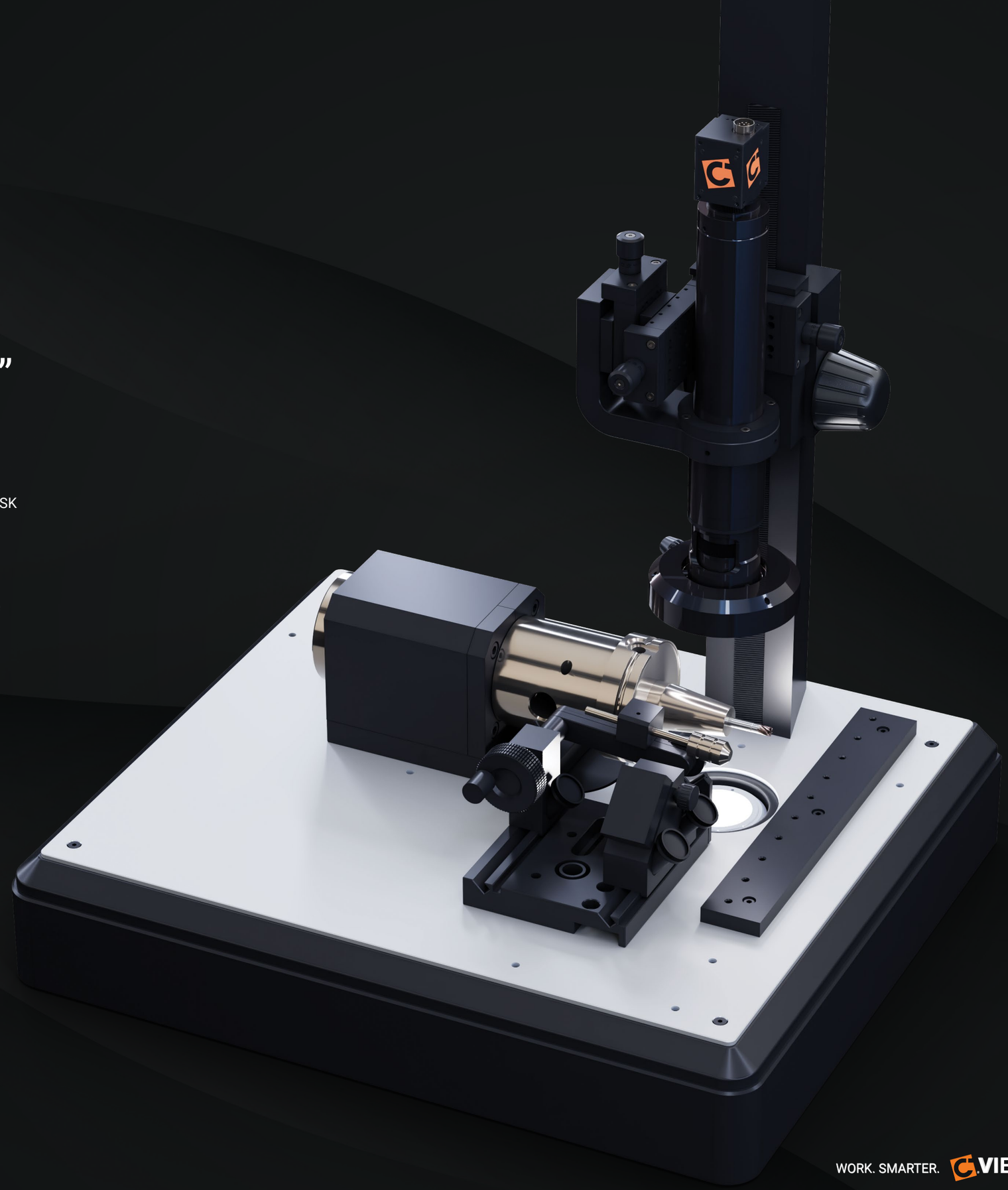
The handwheel enables easy and µ-accurate Y-axis movement with a repeatability of 0.2 µm, increasing instrument accuracy and ease of use.

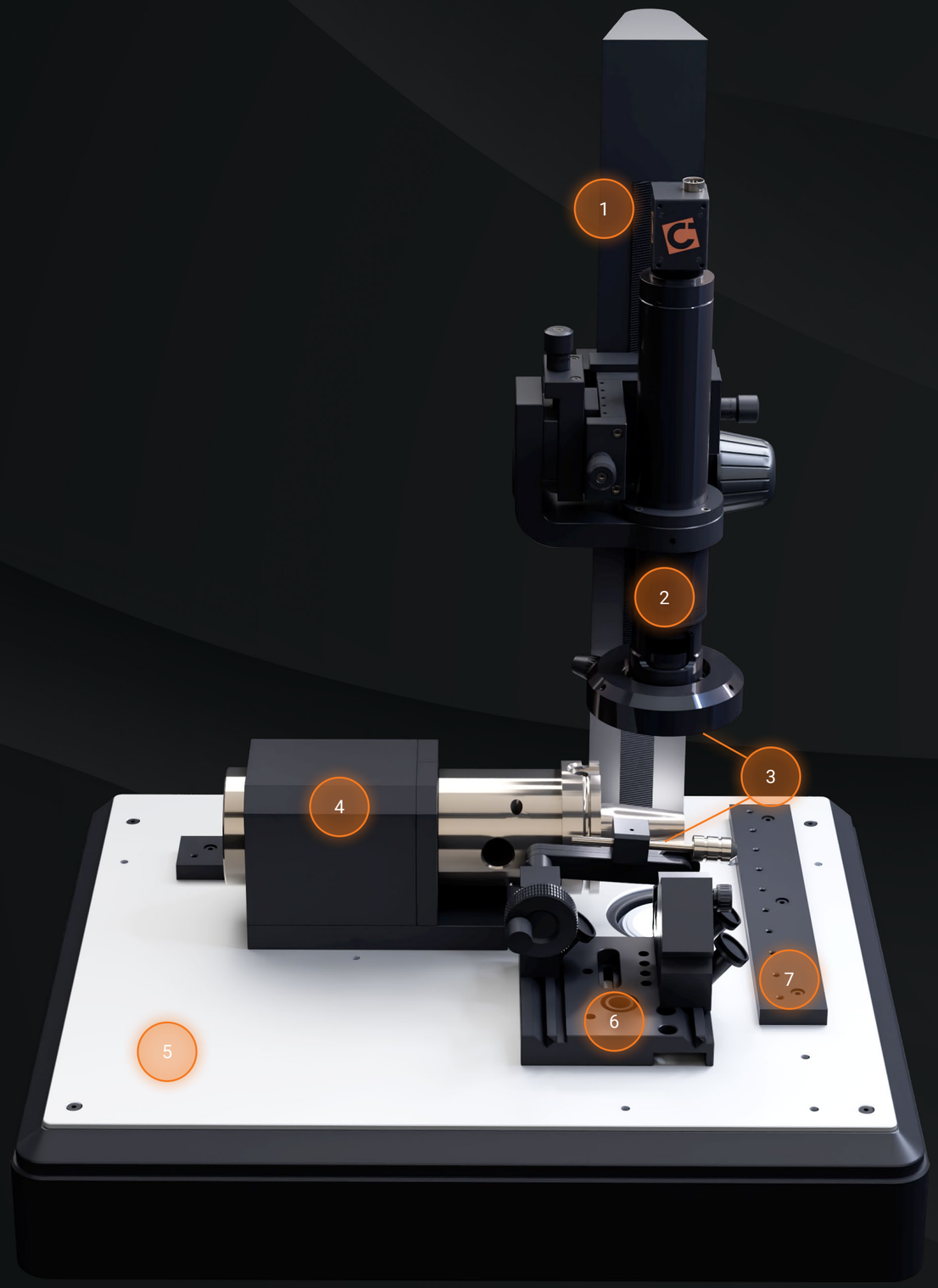
C-VIEW 500

THE “WORK HORSE”

The C-VIEW 500 is a proven and reliable instrument in the C-View family, successfully used by many manufacturers in the field of microprecision.

Like the C-VIEW PROOF, it uses a high-quality camera and HSK technology for precise measurements of tool concentricity and length. Unlike the C-VIEW PROOF, however, the C-VIEW 500 requires manual measurements, making it ideal for manufacturers who need to accurately inspect a variety of parts in addition to tools. With its proven reliability and accuracy, the C-VIEW 500 is a valuable addition to any store specializing in micro-precision manufacturing.





TECHNICAL HIGHLIGHTS

Listed below are the technical highlights of the proven workhorse of the C-VIEW family of optical inspection instruments:

1

500 mm Z-axis coarse drive

In addition to a 500 mm coarse drive, the C-VIEW 500 has additional 25 mm fine drives in the X/Y and Z axes, enabling extremely precise and accurate movements.

2

High-End Optic

The use of a USB 3.0 camera with 1920 x 1080 resolution and 42-500x magnification enables clear images for automated measurements and inspections at up to 90 frames per second.

3

Top and bottom LED illumination

For optimal lighting conditions during inspections, the segmentable LED illumination from above as well as the telecentric LED illumination from below provide flexibility and control.

4

High precision HSK spindle

The C-VIEW 500 features a high-end HSK spindle of HSK 25-63, which enables accurate simulation of actual machine conditions.

5

480 x 400 mm working area

Thanks to its generous working range, the C-VIEW 500 offers high flexibility for a variety of inspection situations and is suitable for inspecting parts of different shapes and sizes.

6

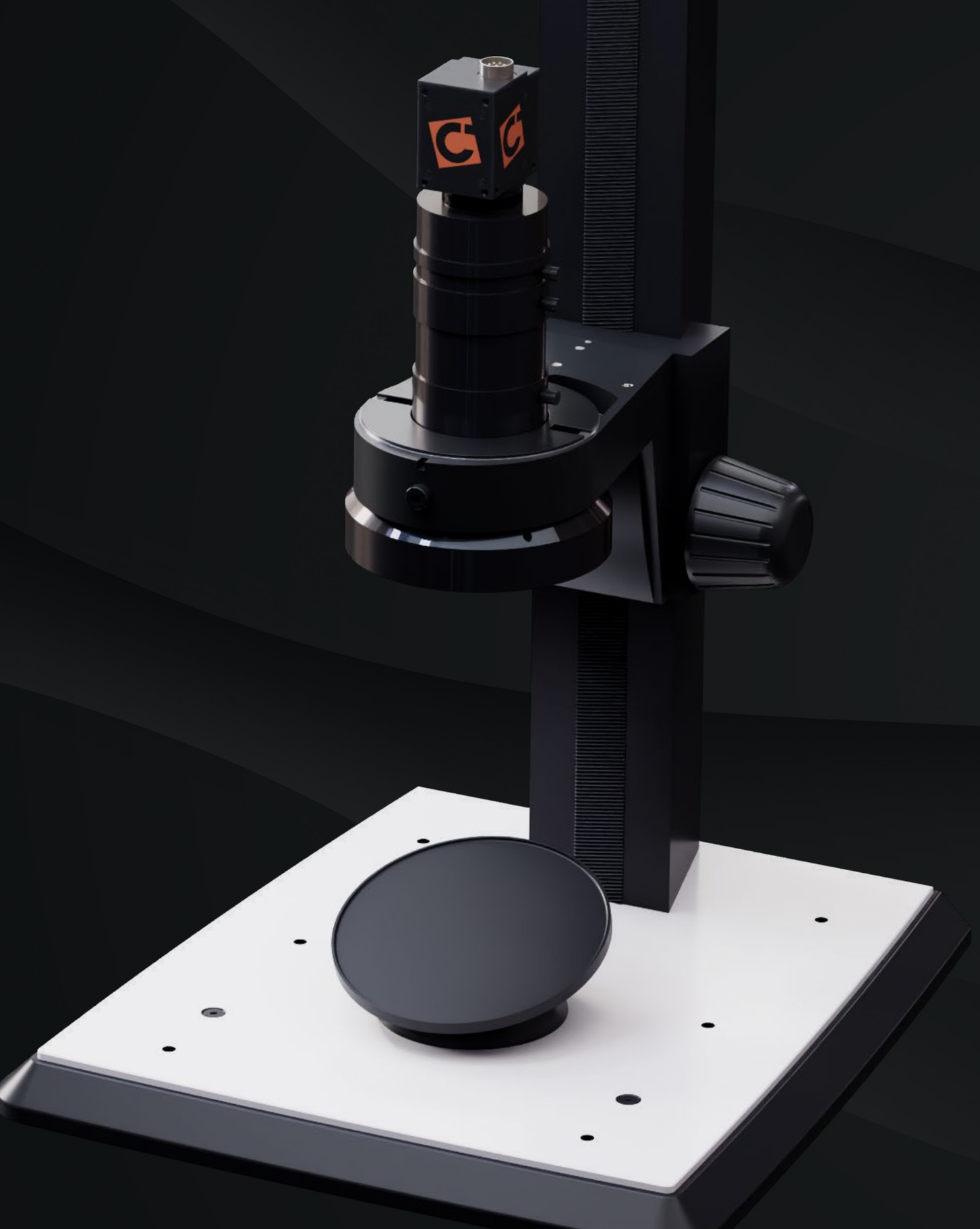
V-Prisma

The C-VIEW 500 package optionally includes the V-Prisma system for backlash-free and accurate mounting of round components for checking concentricity.

7

Adjustable stop bars

The C-VIEW 500 features two adjustable stop bars, allowing for secure and fast reproducibility of measurement and inspection settings.
This enhances efficiency and improves user-friendliness.



C-VIEW 75

THE PERFECT START

The C-VIEW 75 is the affordable and accessible option to integrate optical inspections into workflow. Equipped with a USB 3.0 camera, it is easy to use and an ideal solution for machine builders seeking precise optical testing capabilities. It completes the C-VIEW family and offers an extremely practical option for enhancing quality control and improving efficiency in manufacturing.

TECHNICAL HIGHLIGHTS

Below are the technical highlights of the entry-level device in the C-VIEW family of optical inspection devices:

1

500 mm Z-axis coarse drive

The C-VIEW 75 provides a 500 mm coarse drive in the Z-axis, allowing for maximum space availability to inspect different workpiece sizes.

2

High-End Optics

A USB 3.0 camera with a resolution of 1920 x 1080 and a continuously adjustable zoom, providing up to 90x magnification, allows for optimal work.

3

Transmitted LED illumination

For optimal lighting during inspections, the segmentable LED top lighting provides high flexibility and control over the lighting conditions.

4

Swivel table

The C-VIEW 75 features a swivel table that allows for easy and quick adjustment of the angle during inspections.

5

280 x 300 mm working area

The compact working area allows for versatile inspections with minimal space requirements and flexible usability in almost any production environment.

TECHNICAL COMPARISON

The following table provides an easy-to-read comparison of the technical specifications of the various C-View devices, including the latest C-ViewProof, the versatile C-VIEW 500 and the entry-level C-VIEW 75.

	TECHNICAL DETAILS	C-VIEW PROOF	C-VIEW 500	C-VIEW 75
MACHINE	Enlargement	42 - 500 fold	42 - 500 fold	75 fold
	Zoom	12 x (14 Locking positions)	12 x (14 Locking positions)	Stepless zoom
	Fine focus	Yes	No	No
	Camera	USB 3.0 camera, 3840 x 2160, 4K resolution, 90 FPS.	USB 3.0 camera, 1920 x 1080, 90 FPS.	USB 3.0 camera, 1920 x 1080, 90 FPS.
	Maximum field of view	9,4 x 5,3 mm	9,4 x 5,3 mm	70 x 50 mm
	Telecentric backlight	Yes	Yes	No
	Segmentable LED ring-light	17.000 LUX	17.000 LUX	17.000 LUX
	Stand	Aluminium	Aluminium	Aluminium
	High precision Y-axis	Yes (repeat accuracy 0.2 µm)	No (25 mm fine drive in the XYZ axes)	No
	Z-Column	No	Yes, with 500mm coarse drive	Yes, with 500mm coarse drive
	High precision HSK spindle	Yes, optional	Yes, optional	Not Compatible
	HSK sizes	15, 16, 20, 25, 32, 40, 50, 63	15, 16, 20, 25, 32, 40, 50, 63	x
	Workspace size	Tools up to 170 mm length	480 x 400 mm	280 x 300 mm
	Overall size (L x B x H)	675 x 338 x 655 mm	480 x 400 x 650 mm	280 x 300 x 600 mm
	Weight	70 kg	24 kg	9 kg
	Power	USB 3.0	USB 3.0	USB 3.0
SOFTWARE	Software	C-ViewSoft Expert	C-ViewSoft Basic	C-ViewSoft Basic
	DXF Export	Yes	Yes	No
	PDF Export	Yes	Yes	Yes
	Export for Labels	Yes	No	No
	Tool inspection:			
	Runout measurement	Automatic	Manual	No
	Contour deviation measurement	Automatic	Manual	No
	Overall length measurement	Automatic	No	No
	Min/Max tool cutting diameter	0,01 - 8,00 mm	N/A	N/A
	Min/Max tool overall length	0 - 200 mm	N/A	N/A
	Workpiece inspection			
	Zoplighting	Yes	Yes	Yes
	Underlighting	Yes	Yes	No
	Workpiece types	Round workpieces	All workpieces	All workpieces

VIEW PROOF μ.o

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