

# Digital measuring projector Ryf-Chotest Set RVX8200

Visual inspection has never been so easy!



Measurement at the touch of a button  $\pm 0.1 \mu\text{m}$   
 The digital optical coordinate measuring systems / measuring projectors from Ryf-CHOTEST enable high-precision part measurements at the touch of a button. The procedure is very simple and the measurement can therefore also be carried out by untrained personnel.

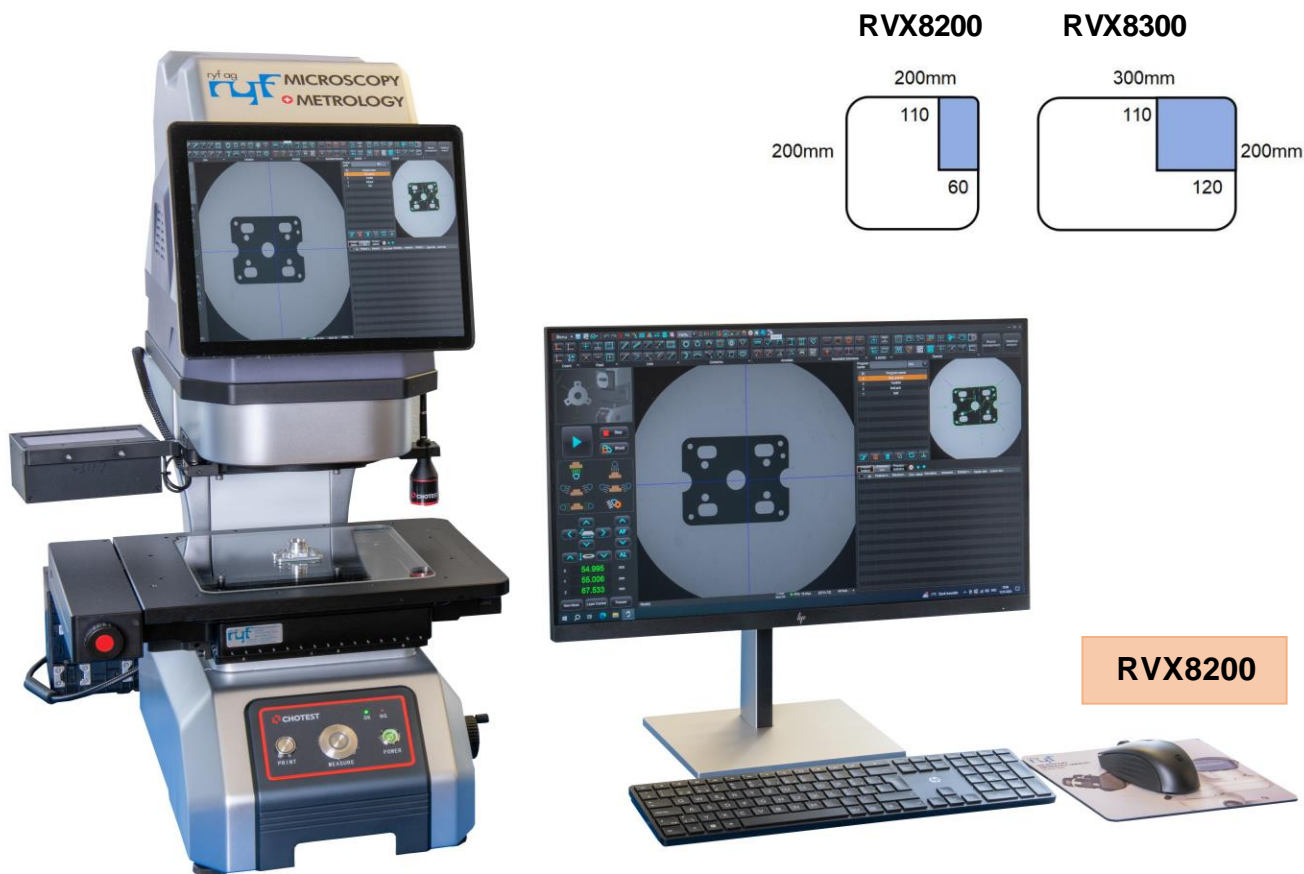


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The measuring machines in the FLASH 'RVX' series are characterised by their high measuring speed. They are able to analyse hundreds of unaligned parts in just a few seconds.

Being able to analyse this incredible user-friendliness with little to no training in just a few seconds. Thanks to an advanced **telecentric lens system**, the FLASH machines offer an extremely large 2D view, sharp images, optimum contrast, without distorting the image and still ensuring a high depth of field. The combination of the two **ultra-high-resolution CMOS sensors** and innovative **deep learning algorithms** enables precise visualisation and analysis of even the smallest errors or deviations. Even the smallest and most difficult to detect deviations or faults can be visualised and analysed.

Both models are equipped with different LED illuminations. The Ring LED (incident light) with motorised position adjustment is equipped with its own Z-axis and can be adjusted to any position. The RVX8200 has an X-Y table travel of 200 x 200mm and the RVX8300 has an X-Y table travel of 300 x 200mm.



### Optical Z-axis sensor option for VX8200 / VX8300

Measuring range with opt. sensor X-Y:	X = 60mm Y = 110mm // X = 120mm Y = 110mm
Z-axis movement max.:	75mm
Max. Depth Ø ratio:	1.5x
Precision of the Z-axis:	oh. Z- Movement = ± 2 µm / mit Z- Movement = ± (6+L/100) µm
Resolution:	0,25 µm
Ø Beam of light:	38 µm

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## Flash VisionX Measurement software

The new reference for measuring your parts using DXF/PDF comparison:  
**Precise, fast and super simple at the touch of a button!**

The innovative 'VisionX Pro' measuring programme enables geometries and their elements to be captured with just a few clicks, without coordinates, by means of image analysis and the simultaneous creation of measuring programmes.

Automatic measurements can then be carried out at the touch of a button without aligning the parts.

In the programming phase, the software fully guides the user by always suggesting the automatic focus and lighting functions to select the best possible view.

The results are displayed with clear OK and NOK/NG indicators according to the set tolerances.

The PRINT button can be used to create an instant report in PDF format.

Thanks to the different user access levels, the control can also be entrusted to inexperienced operators and is done in a few moments with a simple press of the measurement button.

**Ryf-RVX8200 Set: 200 x 200mm / 130 x 130mm // Ryf-RVX8300 Set: 300 x 200mm / 230 x 130mm**

Camera sensor:	<b>Two 20 MPx, CMOS Kameras</b>
Axis and ring light movement:	CNC- motorised
Lens type:	Two telecentric high-end fixed lenses
Software:	VisionX
Resolution:	± 0,1 µm
Repeatability without stitching:	± 0,5 µm / Large field of vision = ± 1,0 µm
Repeatability with stitching:	± 1,5 µm / Large field of vision = ± 2,0 µm
Measuring accuracy without stitching:	± 1,5 µm / Large field of vision = ± 3,0 µm
Measuring accuracy with stitching:	± (3+0.02L) µm / Large field of vision = ± (5+0.02L) µm
Field of view FOV* Large:	200 x 200mm (RVX8300: 300 x 200mm)
Stiching FOV* high Precision:	130mm x 130mm (RVX8300: 230 x 130mm)
Measuring range X-Y-Z:	X = 110mm Y= 110mm Z = 75mm (RVX8300 = 210x110mm)
Max. Load:	5 kg
Outer dimensions (LxBxH):	530x386x730mm, 50kg (RVX8300 = 210x110mm, 75kg)
Two screens:	10,4 Zoll XGA, 1024x768 und 24 Zoll, XGA 1920x1080
Standard lighting:	Coaxial LED transmitted light and segment ring light, motorised
Optional lighting:	Coaxial incident light LED / fade-in
Automatic calibration:	Very easy with the large Checkerboard measuring glass plate
Computer:	HP PC with appropriate graphics cards with WIN11/10
Warranty:	24-month Ryf full warranty with on-site support

(\*FOV = Field of View)

www.ryfag.ch



## Digital measuring projector Ryf-Chotest Set RVX8200

There are only very few suppliers worldwide in the field of digital measuring projectors the combination of the simplest handling and sophisticated software. CHOTEST from China is one of the market leaders in this field. The high-tech company supplies its measuring systems to renowned companies such as **Samsung, Heidelberg, Hitachi, ABB, Bosch, BMW, Mercedes, Toyota and VW.**

We are therefore very pleased that we are now responsible for sales and service of the FLASH measuring projectors from CHOTEST as the general agency for Switzerland and the Principality of Liechtenstein.

The precision measuring machines of the RVX series are an excellent addition to our product range and strengthen our claim to be your competent partner for CNC measuring projectors as well.

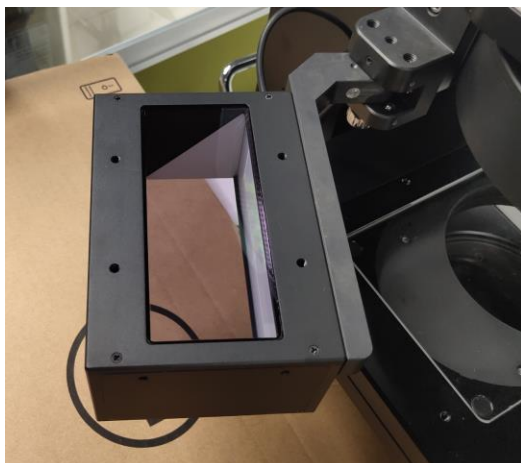
SWISS MADE continues to play a key role in our endeavours to provide the perfect overall solution in the fields of microscopy and measurement technology. Numerous accessories and supplementary parts are manufactured in-house in Grenchen/Seeland.

In the info brochure you can find out more about our general agency CHOTEST. At the same time show you some examples of customising Made by Ryf AG.

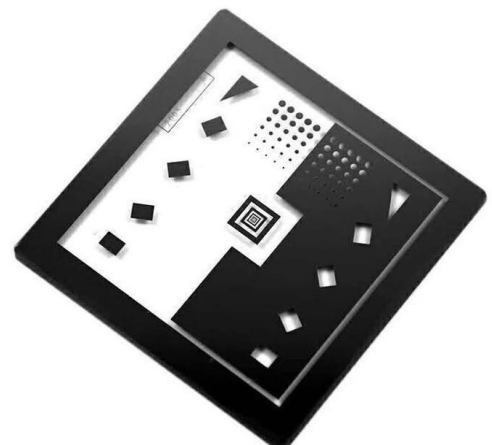
**We look forward to hearing from you.**

### At a glance

- **Self-explanatory operation**
- **Autofocus**
- **Measuring process at the touch of a button**
- **No specialised personnel required**
- **Fast measurement results**
- **Deviations immediately visible**
- **Test report at the touch of a button**



Koaxial Aufsicht Einheit, einschwenkbar



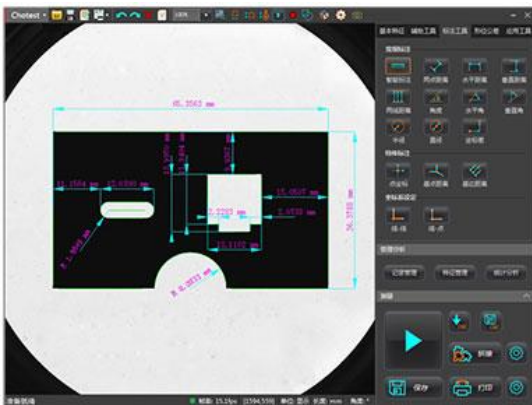
Original Glas Platte zum kalibrieren

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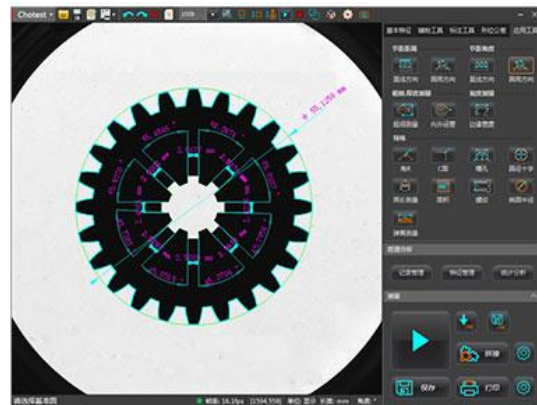
## Applications:

The **VisionX software** offers up to 80 extraction analysis tools, including [Feature Extraction] (e.g. maximum points, centre lines, arcs, peaks, etc.), [Accessory Tools] (e.g. arbitrary points, lines and circles, fitted straight lines, fitted circles, tangents, inscribed circles, etc.), [Smart Labelling], [Shape Tolerance], special [Application Tool] (e.g. pitch distance, pitch angle, slot, thread, round cross, downward angle, rounded circle, etc.), [Smart Labelling], [Shape Tolerance], special [Application Tool] (e.g. pitch distance, pitch angle, slot, thread, round cross, downward angles, rounded corners, etc.)

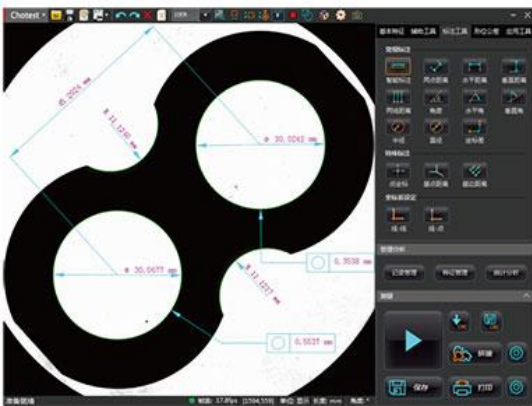
The measurement results and their main statistical values (such as average,  $\sigma$ ,  $3\sigma$ ,  $6\sigma$ , Ca, Cp, Cpk, etc.) are automatically recorded and archived. Operators can select different filter conditions for extracting the history.



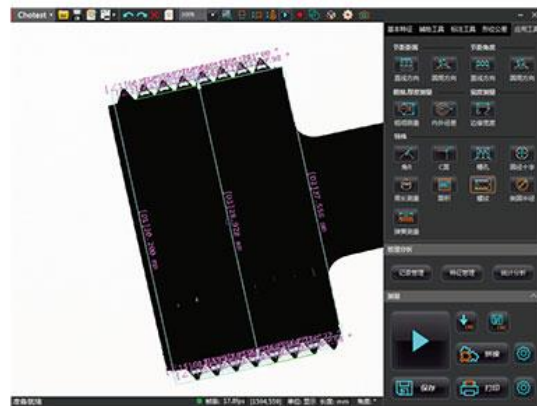
Punched part steel



Gear wheel



Milled part made of steel



Thread

## Applications:

Based on the principle of visual measurement with precise image analysis algorithms and two telecentric lenses with a high depth of field, the RVX series flash measuring machines enable super-fast dimensional measurement with one-button operation.

The RVX series is suitable for precise dimensional measurements in the following areas:

- Watch industry / microtechnology
- Med-Tech / medical devices / pacemakers / implants
- Electronics, wafers and printed circuit boards / electronic components
- Moulds and injection moulding
- Precision stamping / fine blanking
- Connectors
- Cutting and milling tools

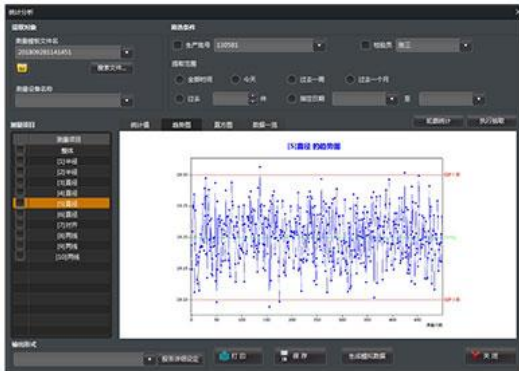
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## Statistics:

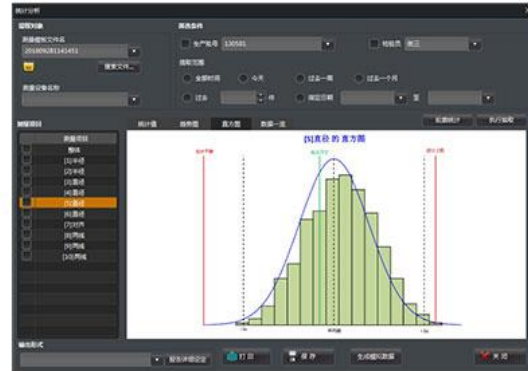
The trend chart shows the regular trend of the measured values, such as the monotonic and periodic change of the measured values, which can be used to monitor the abnormalities in the production process of the production equipment. The histogram reflects the status and distribution of fluctuations in product quality and can intuitively reveal information about the quality situation in the production process, which can be used to predict product quality and defect rate.

By diagnosing and analysing quality using statistical methods, SPC can monitor product quality and the changing trend of the production process. With SPC, we can find preventive solutions for the production process so that subsequent inspections and repairs are reduced

Consequently, the control of the production process and the improvement of product quality are achieved.



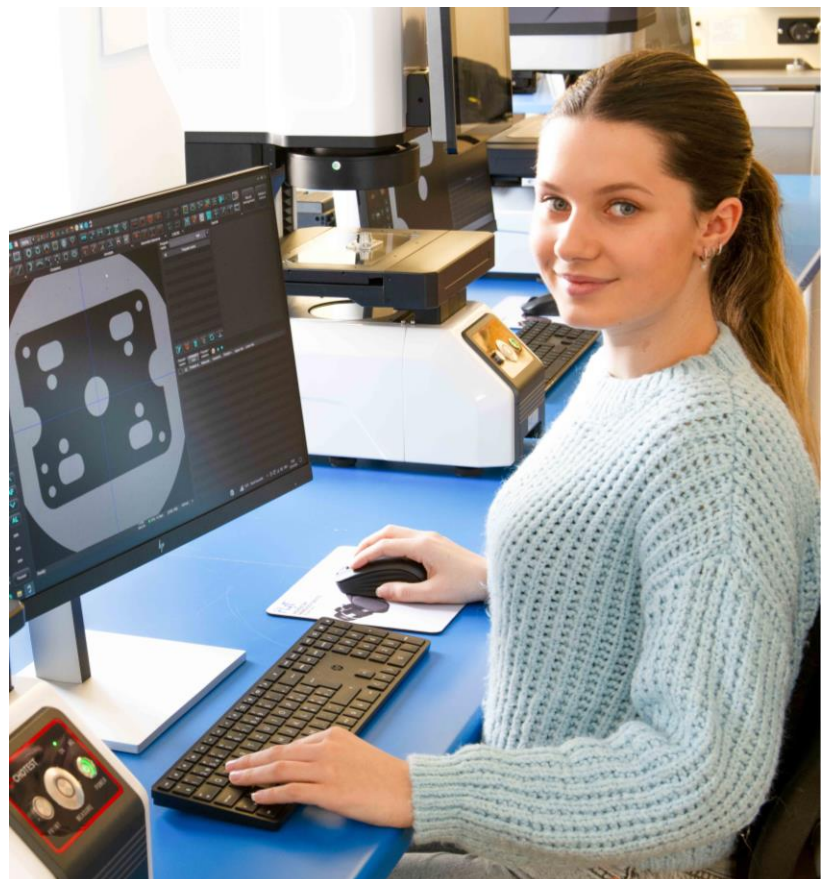
Trend Graph



Histogram



RVX8200









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As the market leader for microscopy and optical measurement, control and testing systems, Ryf AG always requires micromechanical CNC manufacturing expertise for in-house production and customised special solutions. special solutions, Ryf AG repeatedly requires micro-mechanical CNC manufacturing expertise. Modern machines: Various CNC milling centres with three to five axes, CNC drilling and milling machines, CNC turning machines, centre lathes and bed milling machines form the basis for for the economical and high-precision production of assemblies.

**NEU!**

- **Hochpräzise Resultate ganz einfach mit einem Knopfdruck**
- **Bedienerunabhängige automatische Messung**
- **Prüfprotokoll per Knopfdruck abgespeichert**
- **Multimesure: mehrere Teile gleichzeitig messen**
- **24 Monate Vollgarantie mit Support vor Ort**



**Ryf Service: at your service**



**Maintenance and service**

## After Sales Service Ryf AG:

Measuring instruments and microscopes need to be checked, calibrated and cleaned at regular intervals. A maintenance and service contract from Ryf AG protects you from unpleasant surprises, because we automatically contact you at the agreed time (after 6, 12, 18 or 24 months) and carry out the maintenance professionally and competently. Of course, we also carry out all work without a maintenance agreement.

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