Fowler®

HIGH PRECISION

baty

Venture FV

High Accuracy
Image-Based Inspection

Made in ENGLAND

www.willrich.com

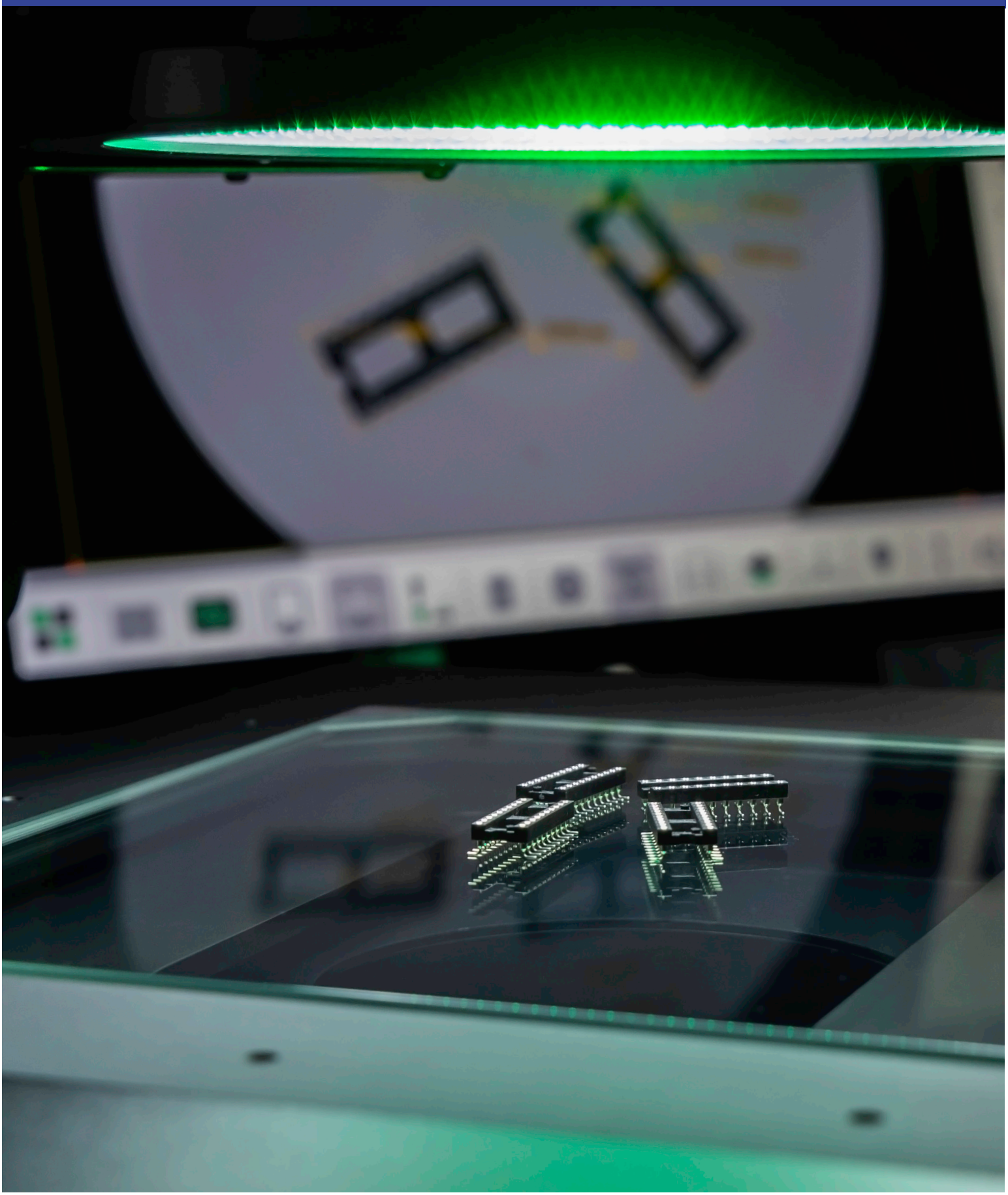
The Baty Venture FV Series

The Baty Venture FV series offers a range of high accuracy, field-of-view inspection machines. Instant high resolution measurements and user-friendly software.

Features:

- Auto Part Recognition
- Intuitive Software
- 20 Megapixel Camera
- Split Ring & Telecentric LED Lighting

Venture FV



Instant

- Instant measurements at the push of a button
- Ultra-fast reporting with SPC included
- Character recognition automatically reads & reports individual part numbers during batch measurement
- Hundreds of dimensions in 1 second

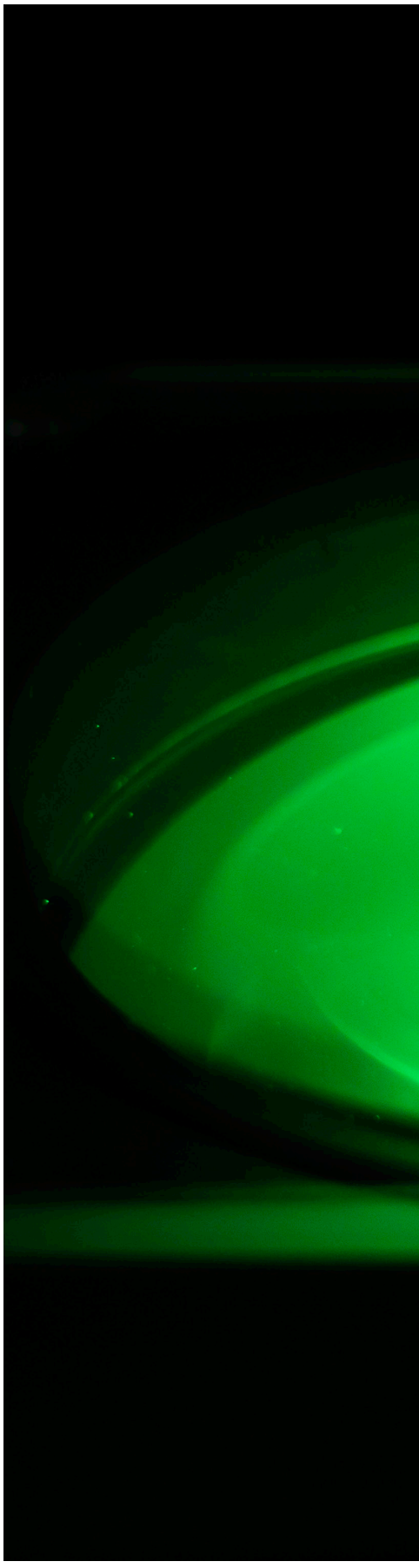
Highly Accurate

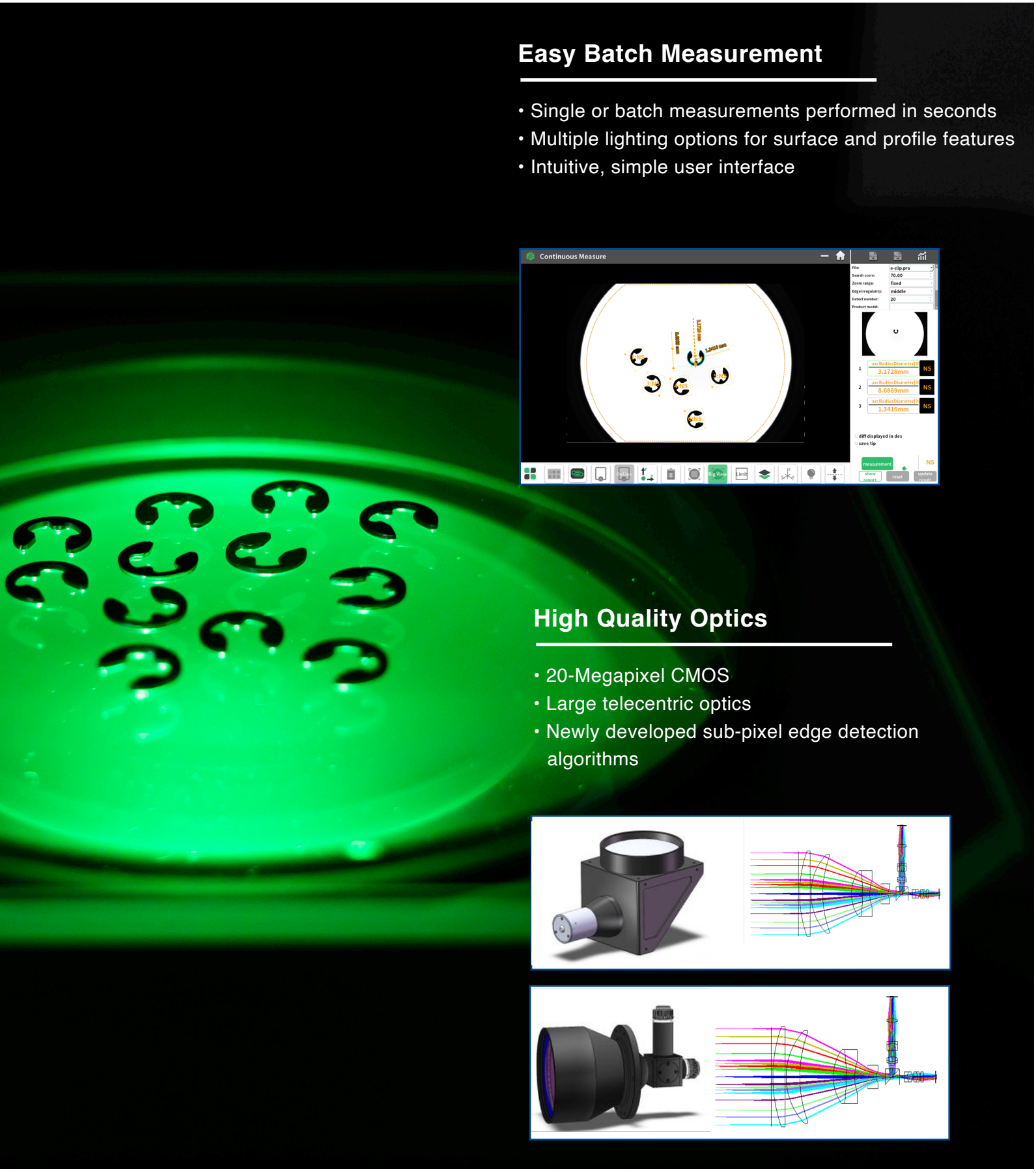
- Double telecentric optics for high resolution
- Motorized auto focus
- Auto feature edge detection removes operator influence

User Friendly

- Simple, intuitive software and user interface
- Automatic measuring and dimensioning
- Auto import dimensions and tolerances from CAD

Venture FV





Easy Batch Measurement

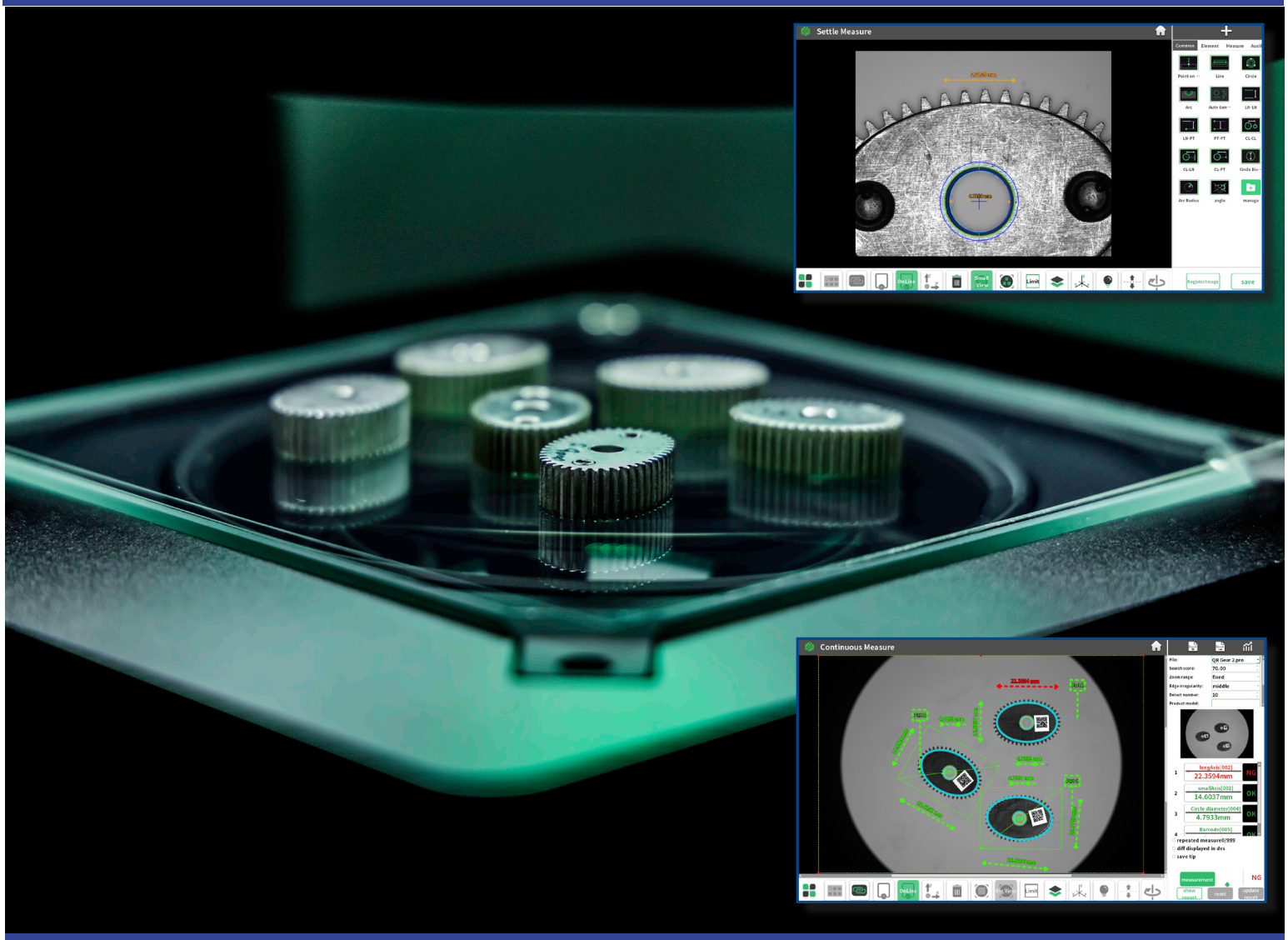
- Single or batch measurements performed in seconds
- Multiple lighting options for surface and profile features
- Intuitive, simple user interface

High Quality Optics

- 20-Megapixel CMOS
- Large telecentric optics
- Newly developed sub-pixel edge detection algorithms

Specifications subject to change without notice.

The Baty Venture FV Series



Ultra Fast Dimensional Measurement

Create instant measurements by simply placing known components randomly on the stage. New parts can be easily measured by automatically extracting features from the scanned image and adding dimensions to create an inspection which is then saved for future use.

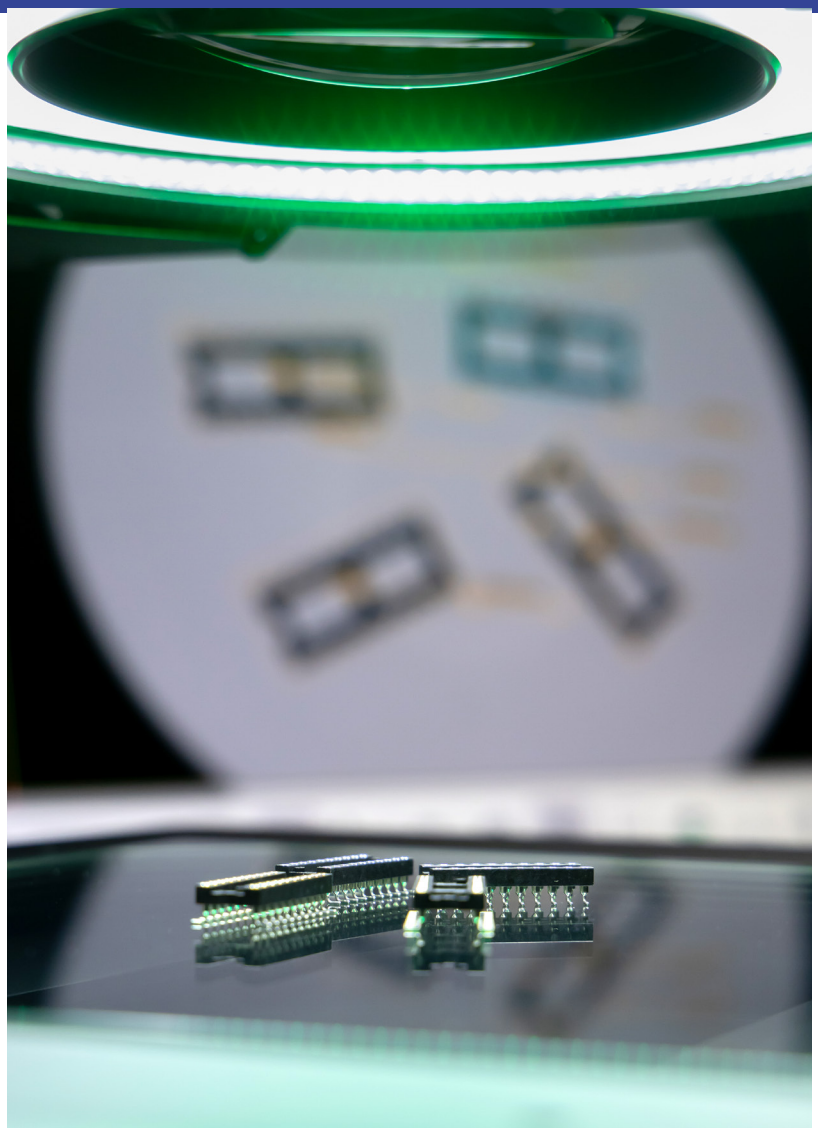
Automated part inspection with additional CNC playback for parts larger than the field of view. Fast set up and inspection time to achieve reduced production costs.

Automatic Part Recognition

No need to select a program or orientate a part with automatic part recognition. The intuitive software will recognise the part, select the inspection program and measure each part in the batch, saving time and eliminating operator error.

Simultaneously Measure Multiple Parts & Measurements

Quickly and accurately measure hundreds of dimensions on hundreds of parts in seconds using multiple lighting conditions. Instant on screen pass/fail classification for the inspector, with detailed reports automatically saved to your preferred location.

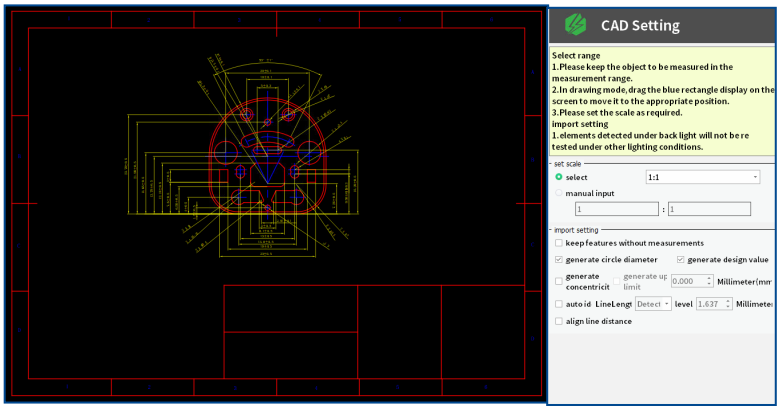


Large Field-Of-View

Large diameter telecentric optics with motorised auto-focus range of 75mm combined with a measurement area of up to 300x200mm. Motorised split-ring LED ring light, and telecentric profile lighting as standard on all models.

Automatic Programming From CAD

Create full inspection programs before the part is made. Our ‘PROGRAM FROM CAD’ feature can import all features, dimensions and their associated tolerances directly from the CAD file. Ready for the parts to be measured and classified as soon they are placed on the stage.standard on all models.



Programmable Led Ring Illumination

Programmable, segmented, split ring LED surface lighting is standard on all FV models. This allows the edges of features to be accurately defined for automatic detection by the software.

The motorised ring light can also be driven in the vertical axis to highlight features with minimal height. In addition, optional Coaxial lighting can be introduced for parts with surface features such as blind bores.

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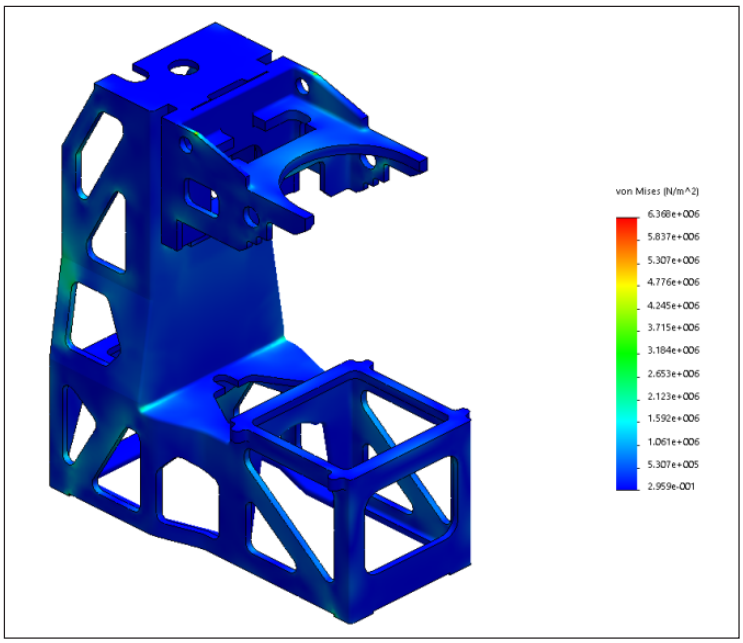
The high precision, CNC work stage utilizes heavy duty cross-roller rail guides for optimum performance and accuracy.



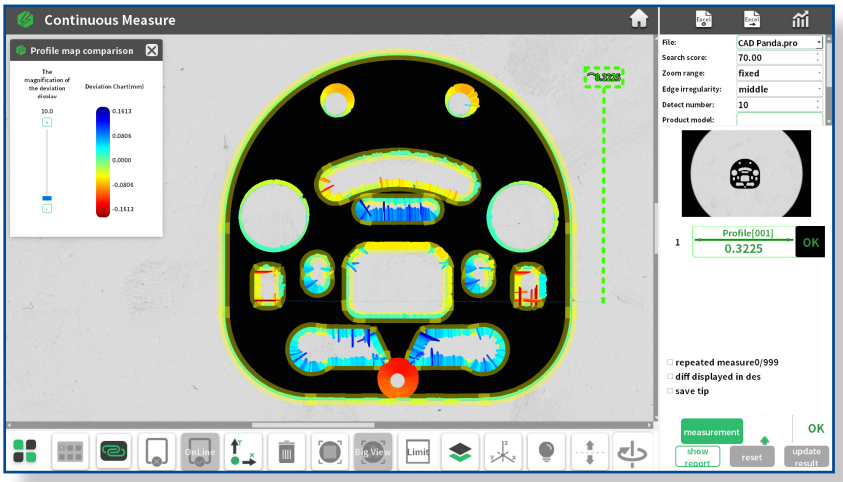
The heavy duty chassis casting provides a stable foundation for the substantial motorised X-Y measuring stage. Ensuring correct alignment is maintained to the motorized focus and lighting axes.

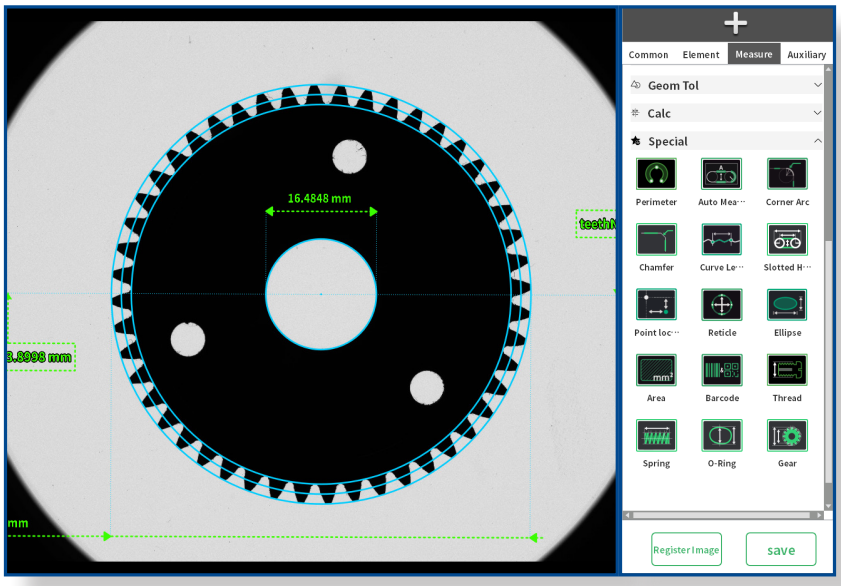
Optional Coax Lighting

Coaxial lighting enables a crisp high resolution image to be achieved on all surface features, even at the bottom of a blind bore or taper. This option is available on all models.

User Friendly Software

- Simple and intuitive user interface designed with operator in mind.
- Easy to use software allows creation of new inspections quickly and easily with minimal experience
- Dedicated functions for measuring gears, threads, O rings and springs
- CAD import enable user to compare profiles to CAD model.
- Auto-create complete inspections from an imported .dwg file, including dimensions and tolerance information.
- Easy reporting including on screen pass / fail classification





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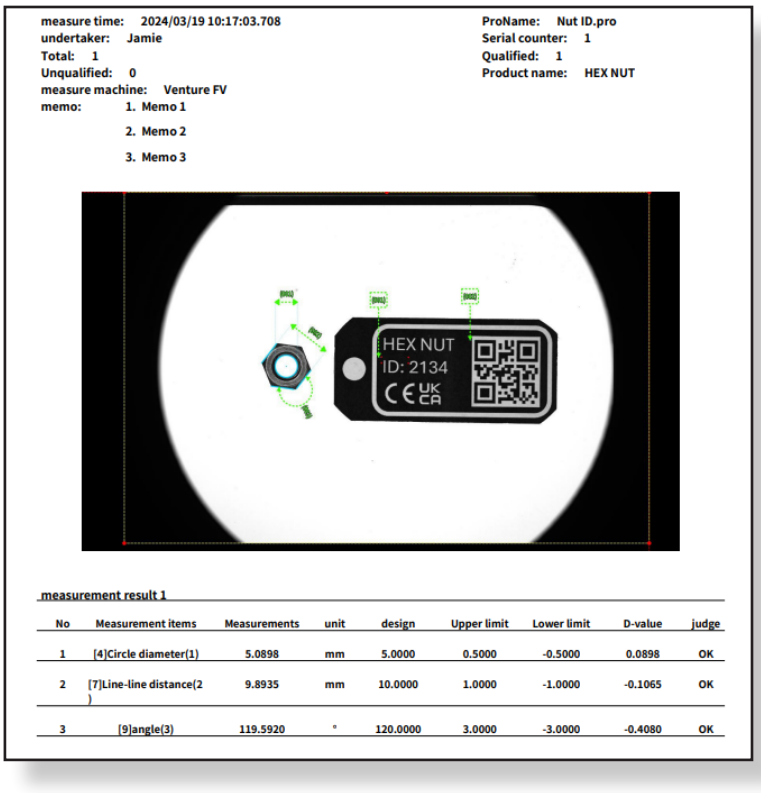
Automatic Inspection Reports

A range of Excel compatible reports are immediately available after each inspection, providing measurement data for each measurement including a pass / fail classification. Single part reports include a dimensioned image of the part for easy comparison to the drawing.



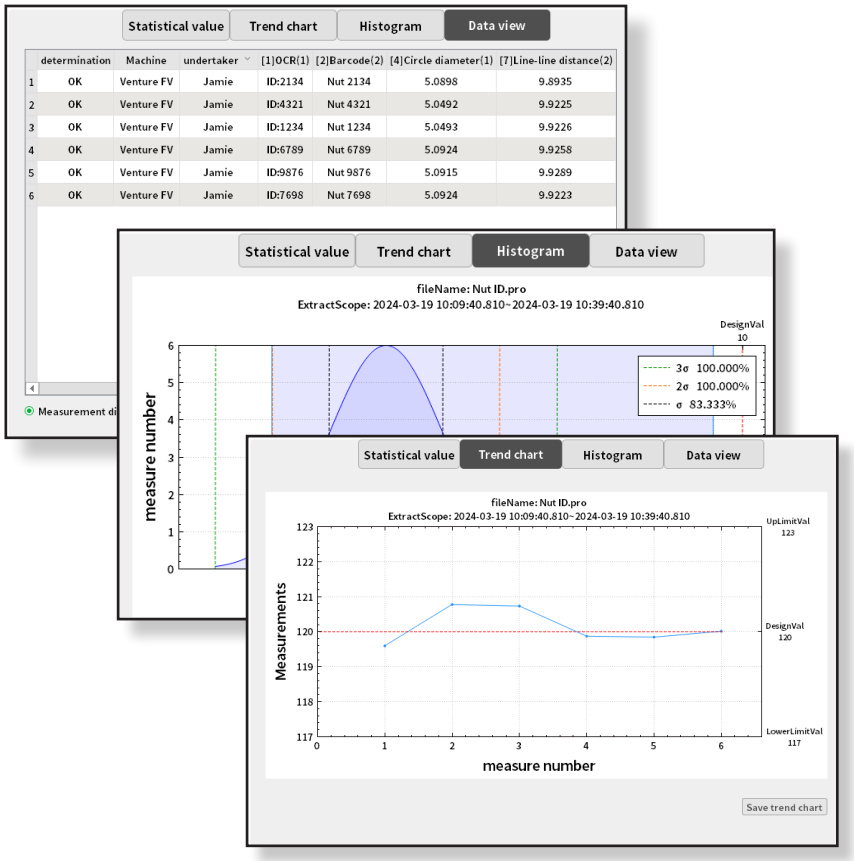
measure time: 2024/03/19 10:17:03.708
undertaker: Jamie
Total: 1
Unqualified: 0
measure machine: Venture FV
memo: 1. Memo 1
2. Memo 2
3. Memo 3

ProName: Nut ID.pro
Serial counter: 1
Qualified: 1
Product name: HEX NUT

measurement result 1

No	Measurement items	Measurements	unit	design	Upper limit	Lower limit	D-value	judge
1	[4]Circle diameter(1)	5.0898	mm	5.0000	0.5000	-0.5000	0.0898	OK
2	[7]Line-line distance(2)	9.8935	mm	10.0000	1.0000	-1.0000	-0.1065	OK
3	[9]angle(3)	119.5920	°	120.0000	3.0000	-3.0000	-0.4080	OK

Batch inspection results are conveniently compiled into a single batch report. Using character recognition, the sw automatically detects identification numbers on each part and then lists the measured results against each part number.



SPC data reports are also included as standard including normal distribution curves and CP, CPK calculations to monitor process capability.

Technical Specifications

Model	FV-1080	FV-2020	FV3020
Order No.	54-305-108-0	54-305-202-0	54-305-302-0
Measuring Range	100 x 80mm	200 x 200mm	300 x 200mm
Single / Dual Field	Single	Dual	Dual
Camera	20 Megapixel	20 Megapixel	20 Megapixel
Motorized Auto-focus	Standard	Standard	Standard
Stage	Fixed	CNC	CNC
Split Ring Motorized LED Ringlight	Standard	Standard	Standard
Optional Coaxial Lighting	Yes	Yes	Yes
Optional 3D Chromatic confocal sensor *(Z axis measurement)*	No	No	Yes

FV-1080 with Optional Coaxial Lighting

FV-2020 with Optional Coaxial Lighting

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