

# VELOX

THE ONE  
MEASUREMENT SOFTWARE  
FOR YOUR CABLE QUALITY.

**VELOX - Heart of our measuring devices.**

The essential software for measuring and evaluating the cross-sectional characteristics of your cables. It guarantees reliable quality testing of your products. It combines the latest image processing algorithms, smart & self-explanatory operation, the integration of the latest standards and a cutting-edge design.

Convince yourself of one of the best measurement software solutions on the market.

YOUR KEY TO  
**SAVING**  
MATERIAL,  
TIME & MONEY



ONE CLICK  
INSPECTION

AUTOMATED  
MEASUREMENT

VARIOUS  
STANDARDS

WIDE VARIETY  
OF REPORTS

DATABASE  
EXPORT

# VELOX

## FEATURES AT A GLANCE.

VELOX – Heart of VisioCablePro® measuring devices.

### SOFTWARE FEATURES

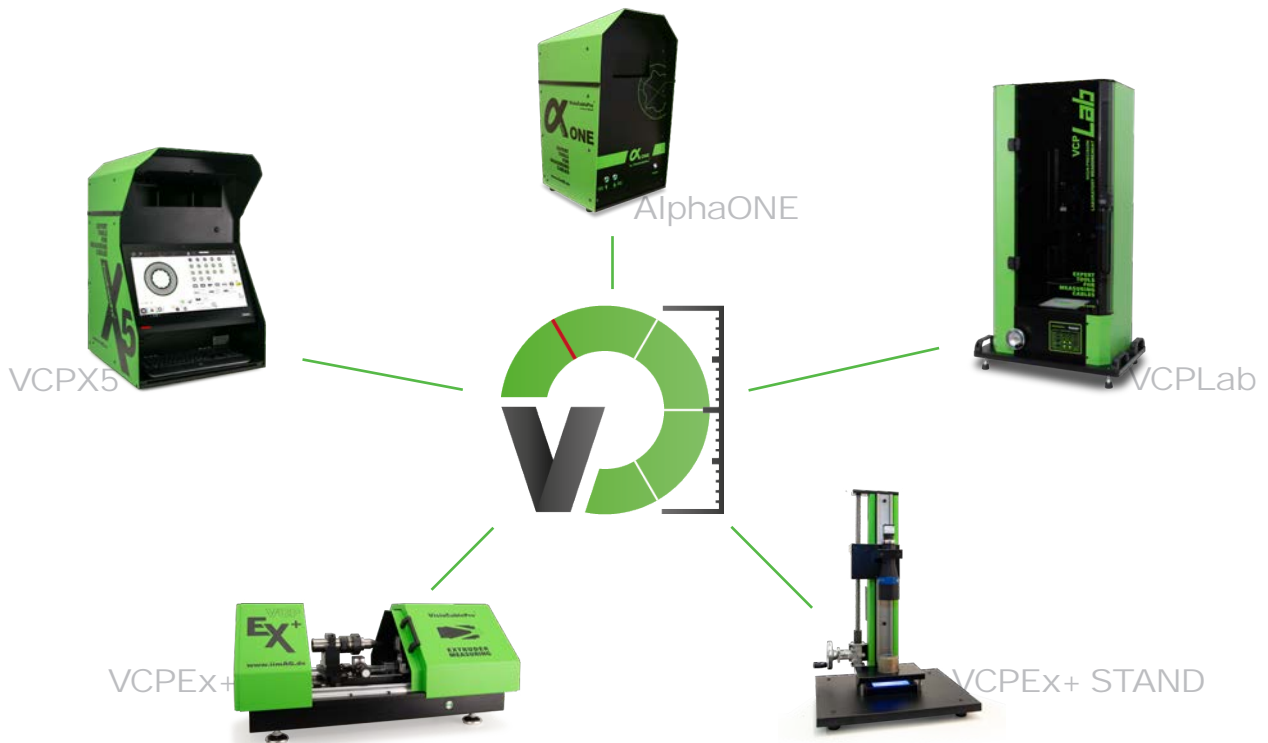
- 1 CLICK OPERATION
- QUICK AND EASY MEASUREMENT
- EXTENSIVE FEATURE LIBRARY
- STANDARD INDUSTRY FEATURES INCL.
- INTUITIVE USER INTERFACE
- OPERATION VIA TOUCH SURFACE
- REPORT EXPORT (XLSX, CSV, PDF, ...)
- IEC 60811 -201; -202; -203
- ICEA S-94-649; LV112
- DATABASE CONNECTION POSSIBLE
- ONLINE SUPPORT

...

### MEASUREMENT VALUES

- WALL THICKNESS OF EVERY LAYER
- MINIMUM WALL THICKNESS
- AVERAGE WALL THICKNESS
- MAXIMUM WALL THICKNESS
- OUTER DIAMETER
- INNER DIAMETER
- CONCENTRICITY
- ECCENTRICITY
- OVALITY
- CROSSSECTION
- FIXED ANGLE MEASUREMENTS

...



MONEY SAVING



TIME SAVING



MATERIAL SAVING



1 CLICK MEASUREMENT



LOW TRAINING EFFORT



LOW OPERATOR INFLUENCE



REMOTE SUPPORT & LOW-MAINTENANCE



TOUCH / MOUSE INPUT

# TRADITIONAL MEASUREMENT VS. VELOX.

**VELOX** – Reduction of time expenditure and measurement mistakes.



## MANUAL MEASUREMENT

- Knowledge and experience about measurement procedure and standards required
- High user influence
- High time expenditure for:
  - Point-by-Point Measurement
  - Setup

## VELOX

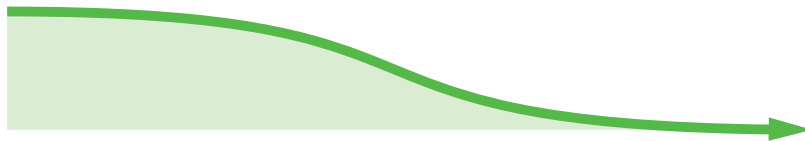
- No knowledge about measurement procedure and standards required
- No user influence on measurement
- Immediate results within seconds
- Automatic report generation



## REDUCED MEASUREMENT TIME



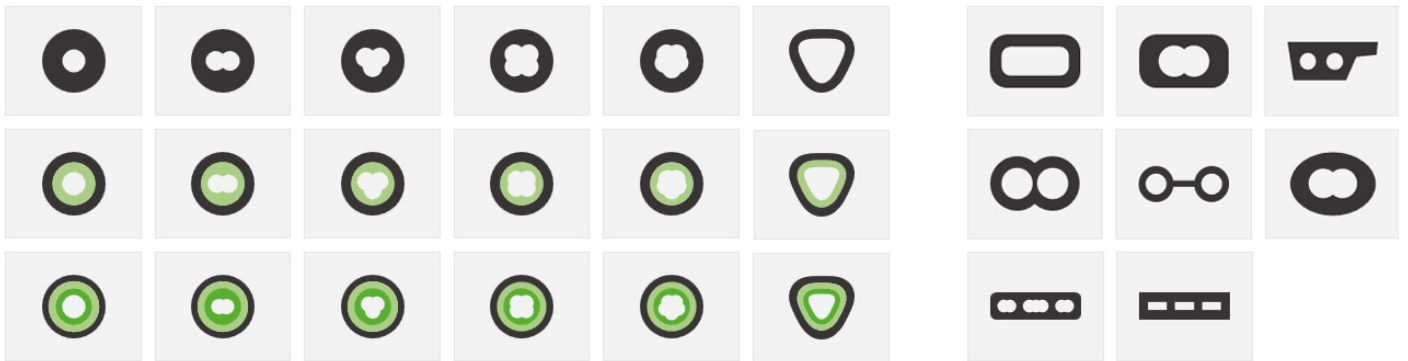
Several hours of working time



Less than one minute working time

## 1-CLICK MEASUREMENT

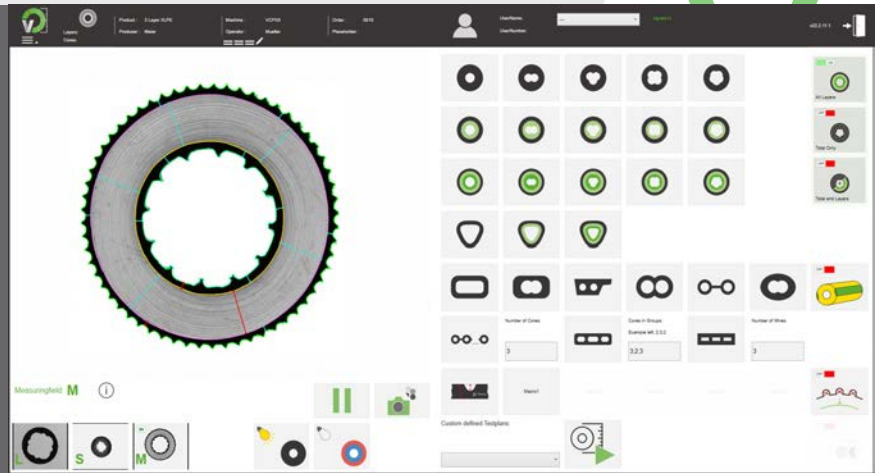
of an extensive variation of shapes.



# VELOX

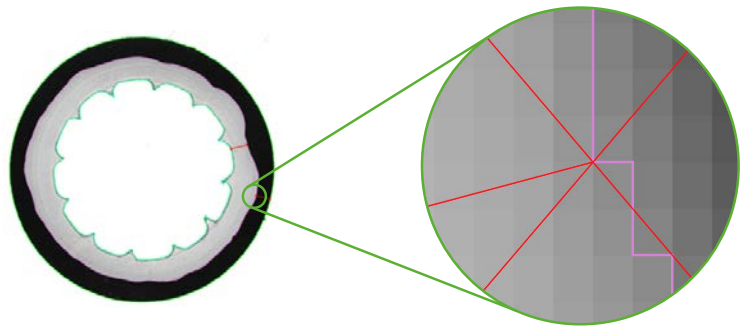
Our **software VELOX** helps you evaluate obtained test results from VisioCablePro® cable measuring devices securely.

Therefore, VELOX is your guarantee for secure quality testing of geometrical attributes of cables, isolated conductors, hoses and pipes.



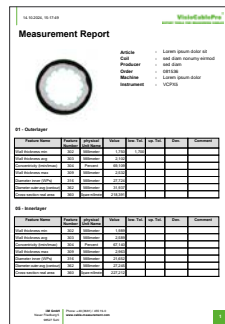
## Several tens of thousands MEASURING POINTS

An advanced function that analyses the width at several tens of thousands points in the sample. It provides a comprehensive understanding of width variations across the entire sample.

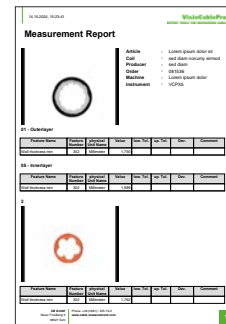


## REPORT GENERATION

The report format is fully customisable and features colour-coded pass/fail indicators for tolerance parts. It complies with ISO specifications and allows direct data export to .pdf, .txt, .xlsx, .csv and .xlm. Multiple cable sample reports can be consolidated into a single report, making comparative analysis significantly easier.



SINGLE REPORT



BATCH REPORT



## Integrated analysis DATABASE EXPORT

The software includes powerful trend monitoring and statistical analysis for each measured variable. Key features include trend analysis of each measured variable across different parts, which is essential for understanding deviations within the tested batch. → See page 8

1 DB SCENARIO

- TXT
- CSV
- XLS

2 DB SCENARIO

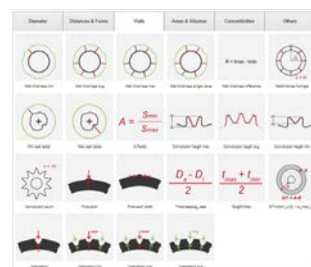
Connect to specific customer database CAQ software, e.g. ADVARIS, CIQ, SAP, ...

3 DB SCENARIO

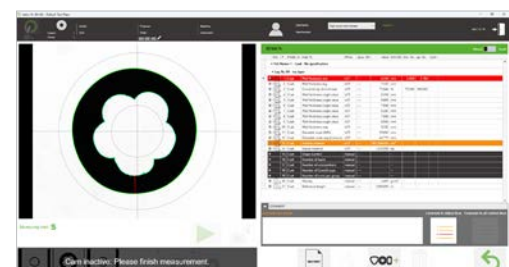
CAQ Software ProCable3

## Wire recipes TOLERANCES

VELOX includes all common types of tolerance settings with colour-coded pass and fail output. If a part or feature is out of tolerance, you will know immediately. All out of tolerance features are displayed in red.



EXTENSIVE LIBRARY

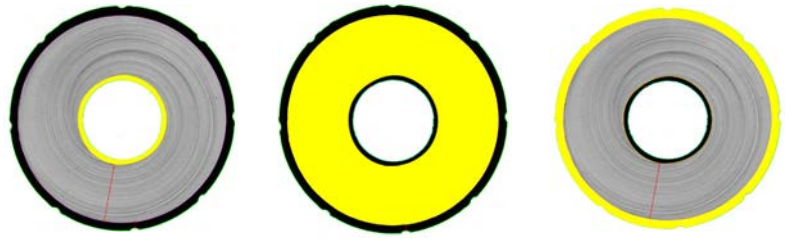


TOLERANCE EXCEED

# ELOX

## REAL CROSS-SECTION

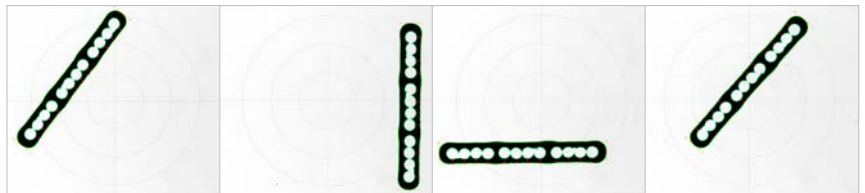
VisioCablePro® devices place tens of thousands of measurement points around the samples on several layers. Based on these, the device can determine the real-cross sectional area of each layer for material consumption calculations and precise material planning.



MM<sup>2</sup> / SQ INCH FOR INDIVIDUAL LAYERS WITH ONE CLICK

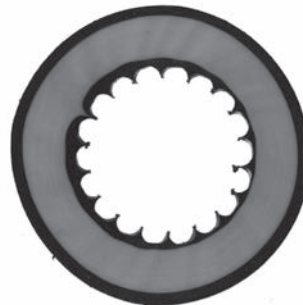
## FREE POSITIONING

The position and orientation of the sample are automatically adjusted, so there is no need to manually align or set up a fixture before measuring. Simply place the sample anywhere and press the 'Measure' button to start.



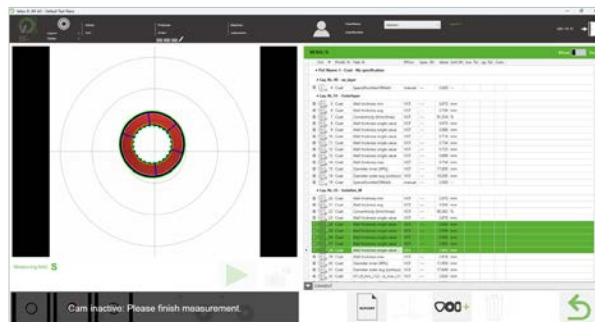
## ZOOM FUNCTION

Zoom into any position of the sample for further inspection. Find defects and measure these manually.



## COLOUR MEASUREMENT

The software supports various types of colour measurement and enables colour image acquisition by RGB lighting.



## 1-CLICK INSPECTION

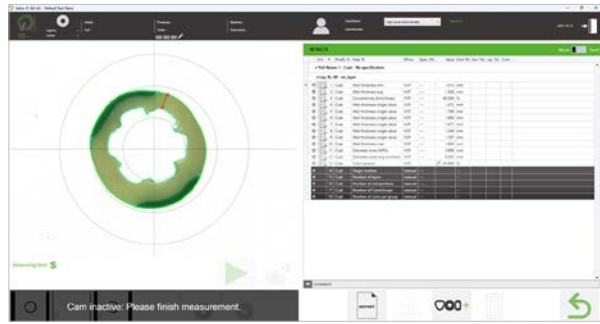
Place the sample on the device, click on the corresponding geometry and get results.



# MEASURING SOFTWARE VELOX.

## COLOUR PORTION

Automatically determine colour portion of up to six stripes on the cable.



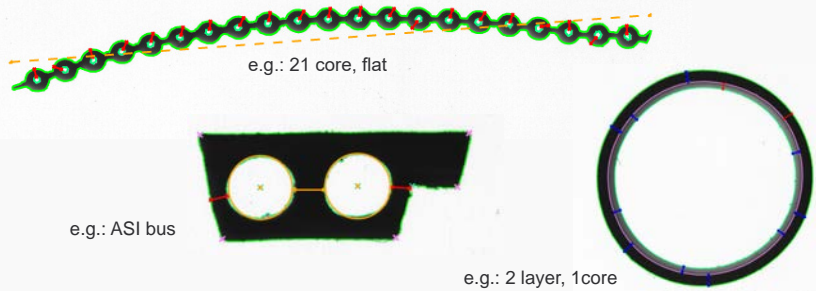
## XLPE CABLE ANALYSIS

3 layer XLPE cable analysis integrated.



## COMPLEX SAMPLES

VELOX is able to precisely measure even highly complex samples such as flat cables. The individual measured values are highlighted within the measuring area and can be selected on demand.



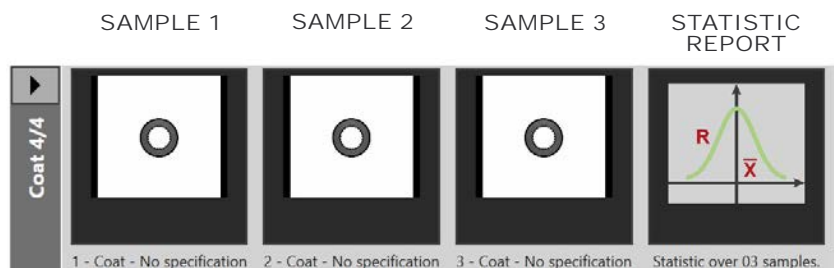
## CUT SAMPLES

If it is required to measure cut samples, VELOX can perform measurements on 1-, 2-, 3-layer, round- and sector cable.



## STATISTIC

Generate a statistical analyses with X number of samples accurately and within minutes.



## REPORTING FORMATS.


VELOX automatically creates and outputs clear and well-arranged reports.

ONE SAMPLE

14.10.2024, 15:17:49

**VisioCablePro**  
EXPERT TOOLS FOR MEASURING CABLES

### Measurement Report



Article : Lorem ipsum dolor sit  
Coil : sed diam nonumy eirmod  
Producer : sed diam  
Order : 081536  
Machine : Lorem ipsum dolor  
Instrument : VCPX5

#### 01 - Outerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,750	1,700			
Wall thickness avg	303	Millimeter	2,102				
Concentricity (tmin/tmax)	304	Percent	69,109				
Wall thickness max	309	Millimeter	2,532				
Diameter inner (WPs)	316	Millimeter	27,724				
Diameter outer avg (contour)	362	Millimeter	31,937				
Cross-section real area	360	Square millimeter	218,391				

#### 05 - Innerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,989				
Wall thickness avg	303	Millimeter	2,589				
Concentricity (tmin/tmax)	304	Percent	67,140				
Wall thickness max	309	Millimeter	2,963				
Diameter inner (WPs)	316	Millimeter	21,652				
Diameter outer avg (contour)	362	Millimeter	27,245				
Cross-section real area	360	Square millimeter	227,212				


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Neuer Friedberg 5 | 98527 Suhl

MULTIPLE SAMPLE

14.10.2024, 15:23:41

**VisioCablePro**  
EXPERT TOOLS FOR MEASURING CABLES

### Measurement Report



Article : Lorem ipsum dolor sit  
Coil : sed diam nonumy eirmod  
Producer : sed diam  
Order : 081536  
Machine : Lorem ipsum dolor  
Instrument : VCPX5

#### 01 - Outerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,750				

#### 05 - Innerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,989				

#### 2

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,762				


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TOLERANCE VIOLATION

14.10.2024, 15:19:59

**VisioCablePro**  
EXPERT TOOLS FOR MEASURING CABLES

### Measurement Report



Article : Lorem ipsum dolor sit  
Coil : sed diam nonumy eirmod  
Producer : sed diam  
Order : 081536  
Machine : Lorem ipsum dolor  
Instrument : VCPX5

#### 01 - Outerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,730	1,800		-0,080	
Wall thickness avg	303	Millimeter	2,102				
Concentricity (tmin/tmax)	304	Percent	69,109				
Wall thickness max	309	Millimeter	2,532				
Diameter inner (WPs)	316	Millimeter	27,724				
Diameter outer avg (contour)	362	Millimeter	31,937				
Cross-section real area	360	Square millimeter	218,391				

#### 05 - Innerlayer

Feature Name	Feature Number	physical Unit Name	Value	low. Tol.	up. Tol.	Dev.	Comment
Wall thickness min	302	Millimeter	1,989				
Wall thickness avg	303	Millimeter	2,589				
Concentricity (tmin/tmax)	304	Percent	67,140				
Wall thickness max	309	Millimeter	2,963				
Diameter inner (WPs)	316	Millimeter	21,652				
Diameter outer avg (contour)	362	Millimeter	27,245				
Cross-section real area	360	Square millimeter	227,212				

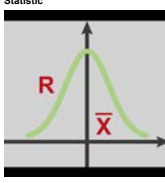
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STATISTIC REPORT

01.04.2025, 15:54:41

**VisioCablePro**  
EXPERT TOOLS FOR MEASURING CABLES

### Statistic



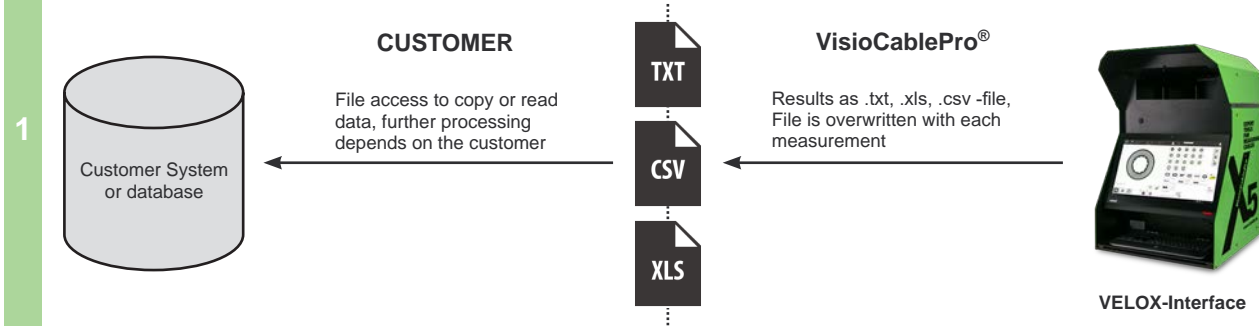
Feature Name	Feature Number	physical Unit Name	AVG	MIN	MAX	MAX-MIN	Comment
Wall thickness min	302	Millimeter	1,391	1,305	1,426	0,121	
Wall thickness avg	303	Millimeter	1,634	1,610	1,648	0,038	
Concentricity (tmin/tmax)	304	Percent	71,631	69,556	75,103	5,548	
Wall thickness single value	308	Millimeter	1,391	1,305	1,426	0,121	
Wall thickness single value	308	Millimeter	1,632	1,653	2,009	0,357	
Wall thickness single value	308	Millimeter	1,598	1,577	1,617	0,041	
Wall thickness single value	308	Millimeter	1,481	1,445	1,546	0,103	
Wall thickness single value	308	Millimeter	1,637	1,577	1,773	0,196	
Wall thickness single value	308	Millimeter	1,664	1,739	2,013	0,274	
Wall thickness max	309	Millimeter	1,544	1,773	2,013	0,240	
Diameter inner (WPs)	316	Millimeter	9,629	9,607	9,657	0,050	
Diameter outer avg (contour)	362	Millimeter	12,912	12,986	12,948	0,062	

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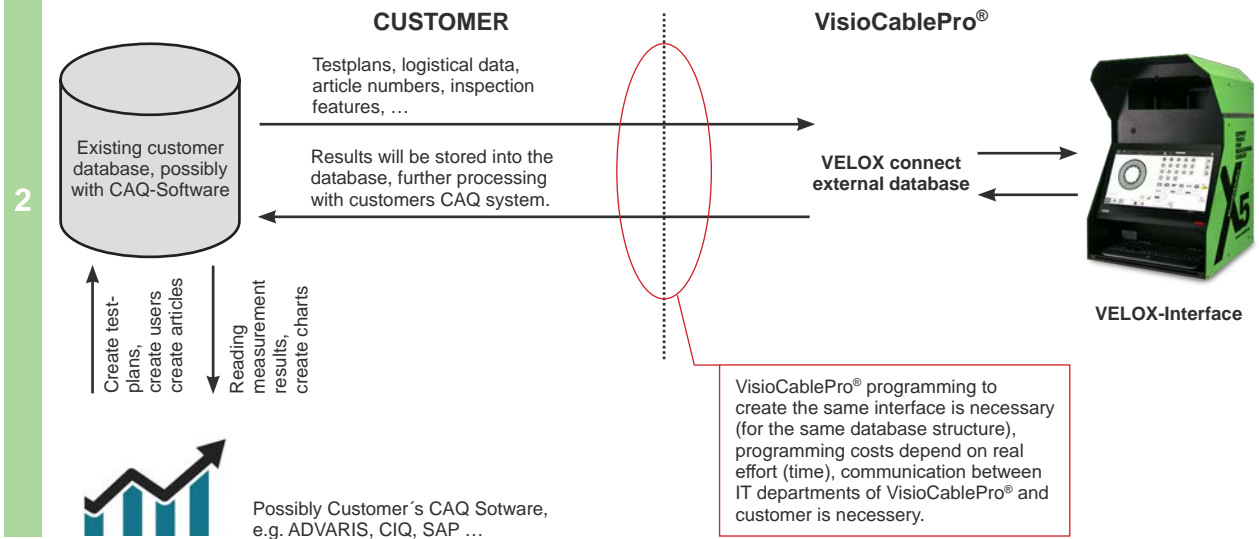
# OVERVIEW DATABASE SCENARIOS.

VisioCablePro® provides you with 3 different options for communicating with a database to process test plans, save and document measurements and for statistical analyses.

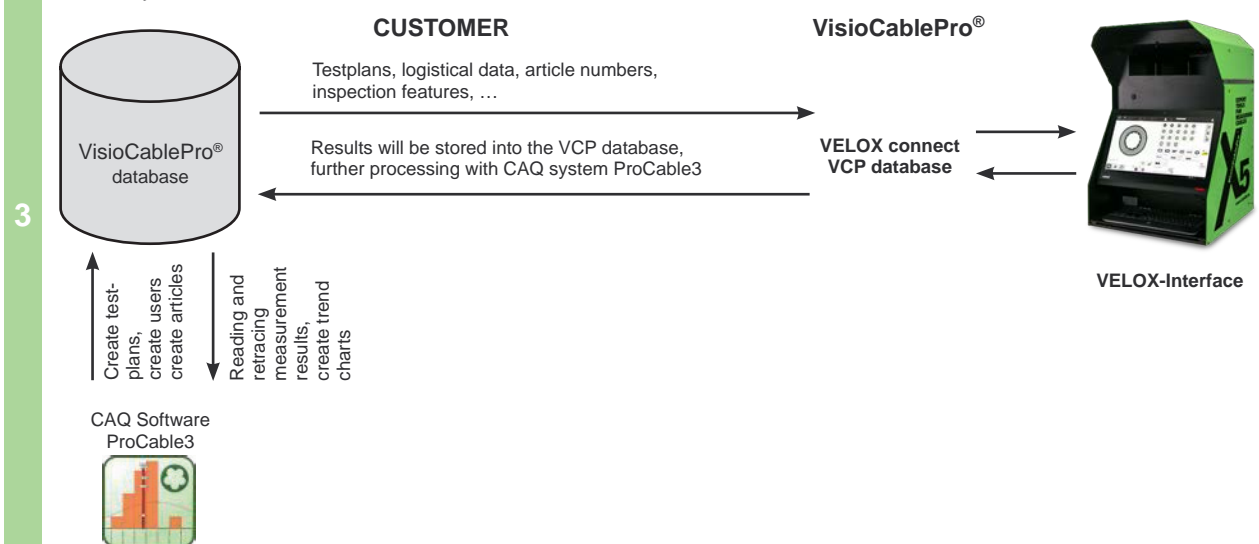
**Scenario 1:** The measurement device stands alone without database connection, it is possible to store the measurement results into an export file, which is overwritten in each measurement. The customer has the option to read the data for further own processes.



**Scenario 2:** The customer uses an existing database and wants to connect the measuring device to send testplans, logistical data, inspection features to select the article direct on the device. After the measurement, the results are sent back to the customers database. If the customer uses a CAQ system it is possible to analyse the results (charts, developments).



**Scenario 3:** VisioCablePro® provides a complete and comfortable solution with its own VCP database and the CAQ system ProCable3. Further measurement devices, e.g. resistance measurement devices, can be integrated and the results can be stored and analysed.



# SERVICE

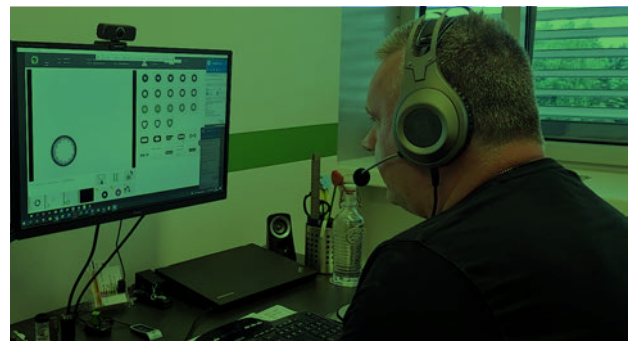
## SOFTWARE MAINTENANCE CONTRACT.

- ✓ **Regular software updates** including possible adaptations to standards, new cable geometries and possible macro developments.
- ✓ **Online support** including assistance concerning measuring process and sample preparation.



## ONLINE SUPPORT.

VisioCablePro® offers a **strong english speaking technical support** worldwide. Our technicians can access your device remotely by e.g. TeamViewer. 99% of the issues can be solved online in some cases with small assistance of the operator or your IT department.



## FREE FEASIBILITY STUDY.

At VisioCablePro®, we guarantee that our equipment and software will meet your specific requirements. We invite you to send your product samples, which will be checked thoroughly on our devices.

- ✓ **Preparation of specimens** for the set task.
- ✓ **Detailed measurements** will be performed and returned to you for analysis, along with the physical samples.
- ✓ The entire process **can be demonstrated online**, giving you the opportunity to **ask any relevant questions**.
- ✓ **Your data confidentiality is assured**. An NDA can be signed upon request.



## CALIBRATION SERVICE.

Inhouse calibration by your own technical team with VisioCablePro® calibration scales and corresponding certificates.



This service includes the general maintenance of the device:

- Ideal measurement light settings
- Cleaning of all parts relevant to the optics
- Check-Up of all other VisioCablePro® equipment



## ADDITIONAL EQUIPMENT.

Your **measuring device** for your individual requirements.



### LABORATORY MEASURING DEVICE VCPLab

For samples with an outer diameter up to 48 mm (1.89")



### AUTOMATIC MEASURING DEVICE VCPX5

For samples with an outer diameter up to 130 mm (5.11")



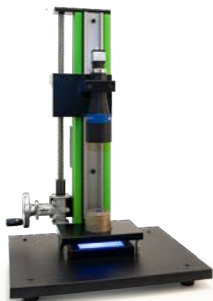
### AUTOMATIC MEASURING DEVICE AlphaONE

For samples with an outer diameter up to 95 mm (3.74")



### MEASURING DEVICE FOR EXTRUSION TOOLS VCPEX+

For measurements up to 15 mm (0.6") in various configurations



### MEASURING DEVICE FOR EXTRUSION TOOLS VCPEX+ STAND

For measurements up to 35 mm (1.37")

## ADDITIONAL EQUIPMENT.

Choose your perfect **sample preparation device** from a complete portfolio for a wide range of cable types.



CABLE STRIPPER  
CS100

For separating cable jackets / -insulations from the electrical conductor



O-RING CUTTER  
ORC Micro

For very small samples up to 3.5 mm



O-RING CUTTER  
ORC VC65

For samples up to 65 mm



O-RING CUTTER  
ORC VC100

For samples of hard materials up to 100 mm



O-RING CUTTER  
ORC 150

For large samples up to 200 mm



FLAT CABLE CUTTER  
FCC 75

For flat cable samples up to 75 mm

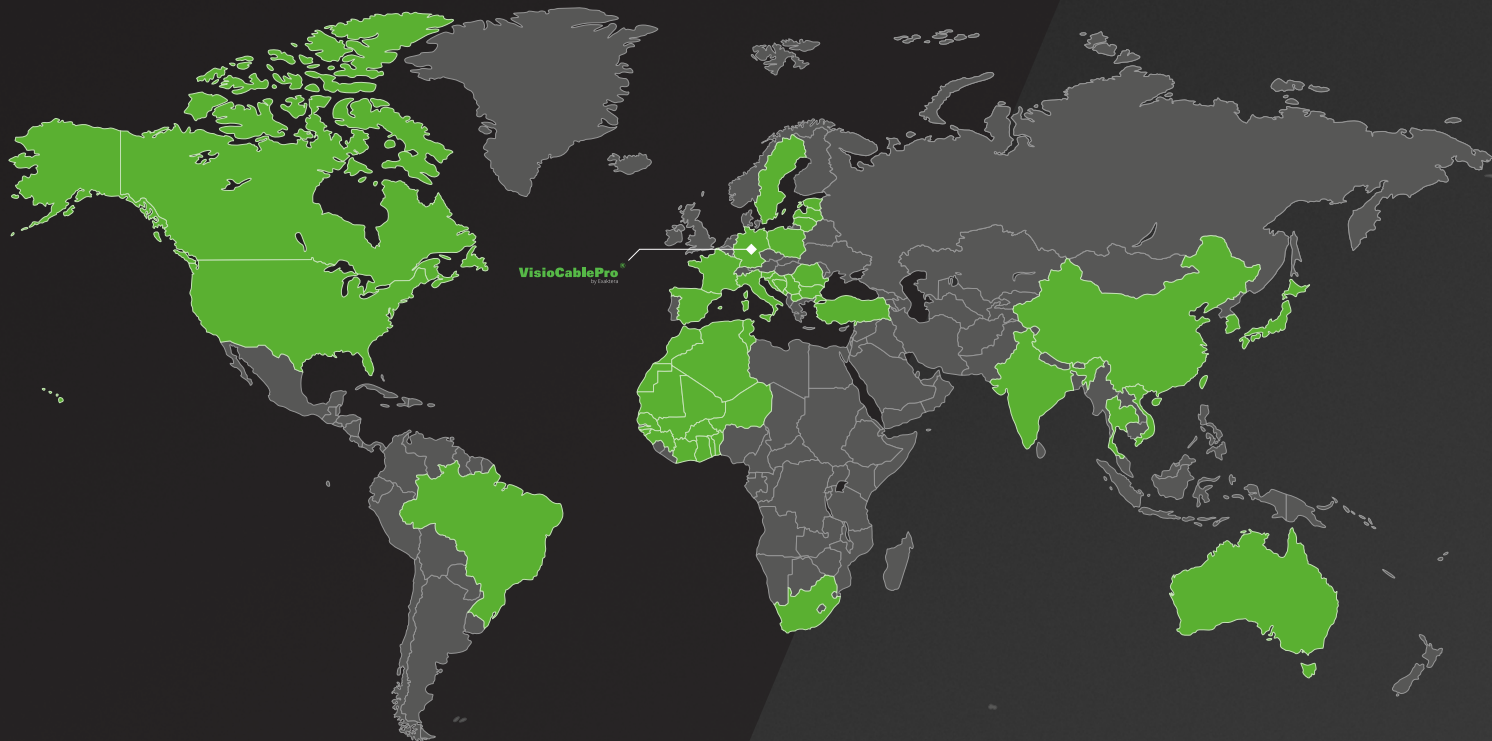


SAMPLE PICKER

Easy positioning of small samples

# GLOBAL VisioCablePro® NETWORK.

VisioCablePro® is worldwide on site for you through our distribution partners.



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by Exaktera

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