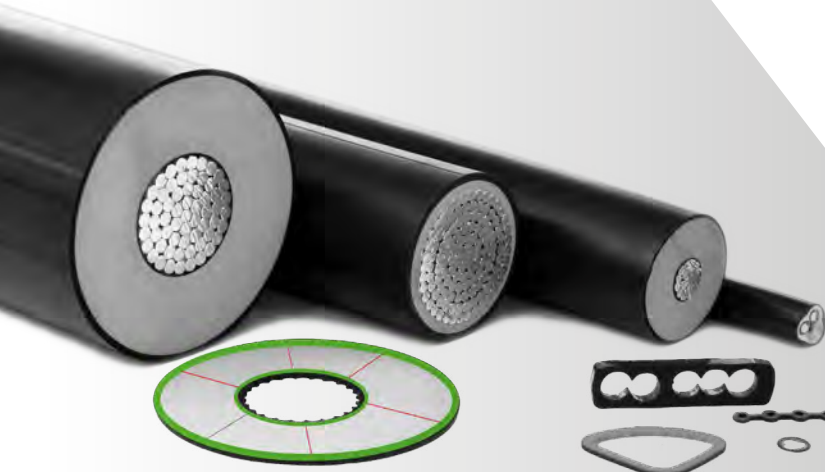
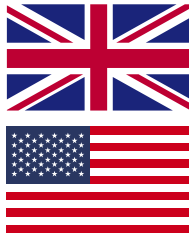


# VisioCablePro<sup>®</sup> VisioTubePro<sup>®</sup>

General Catalogue  
V0224EN



**EXPERT  
TOOLS  
FOR  
MEASURING  
CABLES & TUBES**

© 2024, iiM AG measurement + engineering, Neuer Friedberg 5, 98527 Suhl, GERMANY

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# Foreword

Dear reader,

Thank you for showing interest in our products and our service. In this catalogue we want to introduce our cable & tube measurement engineering portfolio to you. Here you receive a complete overview of our standard product range of **VisioCablePro®** and **VisioTubePro®**.

**VisioCablePro®** and **VisioTubePro®** - the names stands for highest quality and functionality. All products that we deliver are produced and inspected according to the strict process guidelines within our ISO 9001:2015 certification.

The optical measuring devices of the **VisioCablePro®/ VisioTubePro®** series create high resolution video images of cable and tube samples with a diameter up to 130 mm. The software VELOX additionally helps you to evaluate the images and by using the CAQ-system ProCable 3 you can archive the obtained results and manage your orders.

Furthermore, we offer various devices to prepare cable and tube samples like the ORC-Family for cutting samples with an outer diameter from 0.5 up to 150 mm (0.019 - 5.9 Inch) and other devices to inspect cable samples according to the standard IEC 60811.






For technical information or a detailed consultation we will gladly advise you. Please contact our headquarters under the telephone number **+49 (3681) 45519-0** or send us an email to **VisioCablePro.Sales@iimAG.de**.





We look forward to a successful working relationship.  
Best regards from Suhl. Your **VisioCablePro®/ VisioTubePro®** team.

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# Measurement Devices by VisioCablePro® / VisioTubePro®






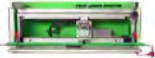

## Product overview



iiM cable and tube measurement engineering has especially been developed to carry out cross-sectional measurements, which specifically fulfill producers requirements to measure the geometrical features of insulating skins and cable sheaths. The complete package consists of one of the devices from the VisioCablePro® / VisioTubePro® series VCPX5, AlphaOne, VCPLab and VCPEX+ as well as the measuring software VELOX and optionally the CAQ-System ProCable 3. The new generation of the VCPX5 - is standardly equipped with the measuring software VELOX. The optical measuring devices create high resolution video images of samples with a diameter up to 130 mm (5.11"). The software VELOX with its optional database module additionally help you to evaluate these images and archive your obtained results. By using the CAQ-software ProCable 3 you can also manage your articles and orders and furthermore analyse trends.

With our calibration scales and optional accompanying certificates up to the highest German standard DakkS and further reference to ILAC, you can easily check and calibrate your measuring devices with complete traceability.

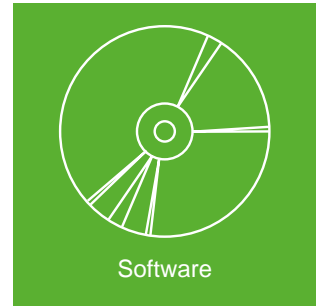
Further measuring devices for testing cables or tubes are available for both the laboratory as well as for the production process. With our Twist Length Detector, it is initially possible to automatically measure the twist/ lay/ pitch length of a cable without cutting open the insulation for a visual measurement and thus manipulating the sample.



Model	Size (width x length x height)	Weight	Resolution	Lighting	Camera	Samples
 <b>VCPLab</b>	600 x 360 x 1110 mm 23.6 x 14.2 x 43.7 Inch	33 kg 73 lbs	corresponds to 0.1% of the image field	LED	1-2 cameras	samples up to max. 48 mm (1.89") outer diameter
 <b>VCPX5</b>	600 x 560 x 910 mm 23.6 x 22.0 x 35.8 Inch	54 kg 119 lbs	corresponds to 0.1% of the image field	LED	1-3 cameras	samples up to max. 130 mm (5.11") outer diameter
 <b>AlphaOne</b>	450 x 400 x 720 mm 17.72 x 15.75 x 28.35 Inch	25 kg 55.12 lbs	corresponds to 0.1% of the image field	LED	customised, 1 camera	samples up to max. 95 mm (3.74") outer diameter
 <b>VCPEX+</b>	750 x 430 x 320 mm 29.5 x 16.9 x 12.6 Inch	28 kg 61.7 lbs	corresponds to 0.1% of the image field	LED	customised	wire guides & extrusion nozzles up to max. 15 mm (0.6") inner diameter in various configurations
 <b>VCPEX+ Stand</b>	400 x 460 x 630 mm 15.75 x 18.11 x 24.80 Inch	15 kg 33.1 lbs	corresponds to 0.1% of the image field	LED	one measurement area, configurable	up to 35 mm (1.37") hole diameter
 <b>Twist/ Lay/ Pitch Length Detector - TLD</b>	1320 x 420 x 480 mm 52.0 x 16.5 x 18.1 Inch	43 kg 95 lbs	-	-	-	80 mm (3.14") measuring distance (100 mm (3.93") on request) for a 100 mm cable sample
 <b>Calibration Scales</b>	different sizes	7 g (0.02 lbs) 23 g (0.05 lbs) 30 g (0.07 lbs)	-	-	-	for calibrating optical measuring devices

# Software by VisioCablePro<sup>®</sup> / VisioTubePro<sup>®</sup>

## Product overview

Our standardly included software VELOX assists measuring and evaluating cross sectional features from cables and tubes together with one of our various measuring devices. With the CAQ-system ProCable 3, test plans can be developed, orders administrated and the received test results can be archived with corresponding additional information into the database. ProCable 3 generates a list of results from the measurements according to the applied test plans. Afterwards, the test results are filed well structured and accurately. With the Software VELOX it is possible to connect external devices with the iiM CAQ-database or with other CAQ systems, e.g. CIQ, SAP, ADVARIS, new systems possible. Your own system can also be connected upon request. External devices are e. g. elongation, adherence or resistance meters, which can also be connected to the complete HUB system of VELOX.



Software	Functions	Measurement device	System requirements		
			Operating system	RAM	Hard drive space
<p><b>VELOX</b></p>  <p>→</p>	<ul style="list-style-type: none"> <li>Standard-compliant, fully automated measurement</li> <li>Your guarantee for secure quality testing of geometrical attributes of cables, isolated conductors and hosepipes</li> <li>Excellent traceability and repeatability</li> <li>Reliable evaluation of obtained measuring results</li> <li>Intuitive operation – designed for use directly next to the extrusion line</li> </ul>	<p>VCPLab, VCPX5, AlphaOne, VCPEx+</p>	<p>Windows 10 (64bit)</p>	<p>2 GB</p>	<p>5 GB</p>
<p><b>ProCable 3</b></p>  <p>→</p>	<ul style="list-style-type: none"> <li>Test plan development</li> <li>Order administration</li> <li>Archiving of obtained test results</li> <li>Creation of result lists according to the test plans (product report recipes)</li> <li>Correct and structured deposition of test results</li> <li>Exceedance of tolerance limits are immediately reported and saved</li> <li>Possibility to connect with other devices (please inquire type)</li> <li>By analysing the data in graphs, trends can be detected easily</li> </ul>	<p>any PC</p>	<p>Windows 7, Windows 8.x, Windows 10</p>	<p>2 GB</p>	<p>5 GB</p>

























# Devices for Sample Preparation

## Product overview

Our devices for the sample preparation and the following inspection meet the highest quality requirements. With the new ORC VC65, ORC 80 and ORC 150 it is possible to cut thin, even and parallel samples with a smooth surface. The ORC Micro is optimal for cutting very small samples. Furthermore, we offer various other preparation devices for material testing in laboratories, e.g. the Splitting Cutter for standardised slices to further process and use in the Hot Set Test or Tensile Test.



Devices for Sample Preparation

Model	Size (width x length x height)	Weight	Supply Voltage	Input Power	Blade	Lighting	Material	Field of Application
 	430 x 800 x 430 mm 16.9 x 31.5 x 18.9 Inch	54 kg 119.05 lbs	-	-	-	-	Aluminium, Stainless steel, PVC	for separating cable jackets / -insulations from the electrical conductor
 	170 x 360 x 450 mm 6.7 x 14.2 x 17.7 inch	15.6 kg 34.4 lbs	-	-	-	-	Iron, Stainless steel	punch to remove solid electrical conductors
 	910 x 730 x 600 mm 35.83 x 28.74 x 23.62 Inch	100 kg 220.46 lbs	230 - 400 V 50 Hz	max. 1100 Watt	Chisel 150-1	LED	Aluminium, Stainless steel	for cutting O-rings up to 150 mm (5.91"), (special chuck jaws for larger samples up to 200 mm (7.87"))
 	250 x 380 x 260 mm 9.84 x 14.96 x 10.23 Inch	17.3 kg 38.14 lbs	100 - 240 V 50 - 60 Hz	max. 221 Watt	Stainless steel blade	LED	Aluminium, Stainless steel	for cutting O-rings up to 80 mm (3.15")
 	330 x 340 x 305 mm 12.99 x 13.39 x 12.01 Inch	14.6 kg 32.19 lbs	100 - 240 V 50 - 60 Hz	max. 120 Watt	special grinding, 2-sided usable	LED	Stainless steel	for cutting O-rings of multiple material up to 65 mm (2.56")
 	200 x 200 x 170 mm 7.87 x 7.87 x 6.69 Inch	3.25 kg 7.16 lbs	100 - 240 V 50 - 60 Hz	max. 60 Watt	Stainless steel blade	LED	Stainless steel	for cutting O-rings up to 3.5 mm (0.14")
 	135 x 190 x 135 mm 5.31 x 7.48 x 5.31 Inch	1.8 kg 3.97 lbs	230 V AC	max. 230 Watt	-	-	Stainless steel, Rubber	easy positioning of very small samples
 	225 x 235 x 450 mm 8.85 x 9.25 x 17.71 Inch	7.7 kg 16.97 lbs	-	-	one-side grinded special blade by iIM	-	Aluminium, Stainless steel	for cutting samples up to 75 mm (2.95") width
 	380 x 460 x 300 mm 14.96 x 18.11 x 11.81 Inch	18.5 kg 39.68 lbs	-	-	Stainless steel blade	-	Aluminium, Stainless steel	on request
 	760 x 500 x 500 mm 29.92 x 19.68 x 19.68 Inch	58 kg 127.8 lbs	100 - 240 V 50 - 60 Hz	max. 100 Watt	Stainless steel blade	-	Aluminium, Stainless steel, Plastic housing	130 mm 5.11 Inch 150 mm (5.91") on request
 	156 x 292 x 475 mm 5.98 x 11.49 x 18.7 Inch	10.75 kg 23.69 lbs	-	-	-	-	Aluminium, Stainless steel, PVC	for punching out dumbbell samples
 	345 x 308 x 164 mm 13.5 x 12.1 x 6.5 Inch	2.4 kg 5.3 lbs	-	-	-	-	PVC, Stainless steel	practical Tool Box with all required tools for sample preparation



# Laboratory Equipment for Material Tests

## Product overview

iiM AG continuously develops devices for measuring, testing and preparing cable and tube samples according to the standards. By using the Hot Set Test you can easily perform an elongation and a heat pressure test of your samples. With this Hot Set Test device, you needn't attach your samples in the oven, as with other products. You just place the complete device with the samples into the oven. In addition to the Hot Set Test for thermal testing, iiM also offers instruments for Cold Impact and Cold Bend Testing under the VisioCablePro® / VisioTubePro® brand.

With our Sample Alignment Device it is easy to adjust a sample under a microscope. By spinning two friction wheels you can adjust your sample optimally, for measuring e.g. the indentation of the heat pressure test.



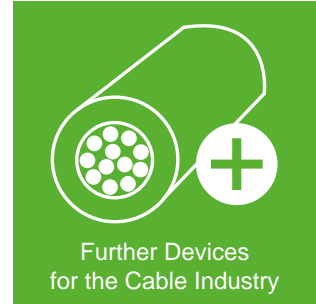
Model	Size (width x length x height)	Weight	Material	Functions
 <b>Hot Set Test</b> 	Device: 200 x 170 x 315 mm 7.87 x 6.69 x 12.4 Inch Equipment: 375 x 290 x 70 mm 14.76 x 11.41 x 2.75 Inch Laser: 210 x 130 x 540 mm 8.26 x 5.11 x 21.26 Inch	Device: 2.3 kg (5.1 lbs) Equipment: 3 kg (6.6 lbs) Laser: 6.4 kg (14.1 lbs)	Aluminium, Stainless steel	<ul style="list-style-type: none"> <li>Hot Set Test</li> <li>Heat Pressure Test</li> </ul>
 <b>Cold Impact Test CIT</b> 	200 x 200 x 520 mm 7.9 x 7.9 x 20.5 Inch (Technical changes reserved)	15 kg 33.1 lbs (Technical changes reserved)	Stainless steel	<ul style="list-style-type: none"> <li>Cold Impact Test</li> </ul>
 <b>Cold Bend Test CBT</b> 	470 x 280 x 200 mm 18.5 x 11.0 x 7.9 Inch	Device: 7.1 kg (15.7 lbs) Accessories: 14 kg (30.8 lbs)	Stainless steel	<ul style="list-style-type: none"> <li>Cold Bend Test</li> </ul>
 <b>Sample Alignment Device</b> 	130 x 80 x 65 mm 5.11 x 3.14 x 2.55 Inch	0.96 kg 2.1 lbs	Aluminium, Stainless steel, Brass, Rubber	<ul style="list-style-type: none"> <li>Simplifies the arrangement of a cable sample for measuring under a microscope</li> </ul>




# Further Devices for the Cable Industry

## Product overview

Efficient products towards supporting sustainable production and resource conservation in the cable and wire manufacturing industry are also available from iiM under the VisioCablePro® Brand. Our automatic bobbin unwinder ABU24 makes it possible to simultaneously, gently and quickly feed up to 24 braiding spools back into the braiding process, thus reducing costs.



Model	Size <small>(width x length x height)</small>	Weight	Material	Functions
 <p><b>Automatic Bobbin Unwinder ABU24</b></p>	<p>1200 x 800 x 700 mm 47.24 x 31.5 x 27.55 Inch</p>	<p>Device: 47 kg (104 lbs) incl. packaging: 55 kg (121 lbs)</p>	<p>Aluminium, stainless steel, PVC</p>	<ul style="list-style-type: none"> <li>Gentle and automatic unwinding of up to 24 braiding spools</li> </ul>

## Measurement Devices by VisioCablePro® / VisioTubePro®

Product data sheets



# Measurement Device VCPLab

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

Product No.: 401.0003.05



## Technical details:

<b>Size</b> (width x length x height)	600 x 360 x 1110 mm 23.6 x 14.2 x 43.7 Inch
<b>Weight</b>	33 kg 73 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Resolution</b>	corresponds to 0.1% of the image field
<b>Lighting</b>	LUMIMAX® LED lighting
<b>Camera*</b>	1-2 cameras
<b>Measuring range</b>	up to max. 48 mm (1.89") outer diameter
<b>Measuring according to cable standards</b>	EN 50396 HD 605 ICEA S-94-649-2000 IEC 60502 -1 IEC 60811 -201; -202; -203 IEC 60840 LV112 (A Factor)

## Device details:

- Extremely precise measurements thanks to integrated high-resolution sensors
- Manual focusing and exposure for 2D measurements in the laboratory
- Robust case
- Excellent seals against extraneous light
- Safe from impacts and vibrations
- Measurement results in just seconds
- Use of high performance LUMIMAX® lighting
- Quasi shadow-free transmitted light illumination
- 2 integrated camera systems possible
- Standardised individual components
- Very easy measuring procedure
- Suitable software: VELOX, CAQ-System ProCable3

## Area of application:

- Camera-based system for measuring cable geometries of insulations and sheaths
- For very thin cores smaller than 1 mm (0.04") up to sheath thicknesses with an outer diameter of 48 mm (1.89")
- Sustainable cost savings through fast and efficient measurement
- Designed especially for the use in laboratories

## Optional:

- VCPLab inclusive All-In-One Windows PC



\* the most suitable configuration can only be determined with your minimum and maximum sample outer diameter



# Measurement Device VCPX5

For measuring cable and tube samples with an outer diameter up to 130 mm (5.11")

Product No.: 401.0010.21



## Technical details:

<b>Size</b> (width x length x height)	560 x 600 x 910 mm 22 x 23.6 x 35.8 Inch
<b>Weight</b>	54 kg 119 lbs
<b>Supply Voltage</b>	110 - 230 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Resolution</b>	corresponds to 0.1% of the image field
<b>Lighting</b>	LED
<b>Camera*</b>	1-3 cameras
<b>Measuring range</b>	up to max. 130 mm (5.11") outer diameter
<b>Measuring according to cable standards</b>	IEC 60811 -201; -202; -203 LV112 (A Factor) ICEA S-94-649



Demo video

## Device details:

- Object size / measuring range up to 130 mm (5.11") (larger customisations are possible)
- Quick and very easy measurement
- Little training required (without a customer specified database an initial operating instruction takes only 15 min)
- Suitable software: VELOX (measuring software), ProCable 3 (CAQ system)
- Various external CAQ software are connectable (CIQ-AESA; ADVARIS; QDA-ASI-DATAMYTE; QUASAR; etc.)
- No user influence on default optical focus as well as default optimised, intelligent and homogeneous lighting
- Shock and vibration resistant due to an optimised sensor arrangement and balanced weight distribution
- Quick and very precise measurements due to the robust construction and easy operation
- Measuring software enables various operator level settings (production, laboratory, administrator, service, etc.)
- Standardised individual components lead to supply security and therefore a short delivery period
- Easy connection with external devices

## Area of application:

- Camera-based system for measuring cable and tube geometries of insulations and sheaths (measurement according to standards)
- Measuring device especially designed for use in production as well as in laboratories
- By using different lenses and high-resolution cameras, very small and very large sample measurements are possible

\* the most suitable configuration can only be determined with your minimum and maximum sample outer diameter



Measurement  
Devices



Software



Devices for Sample  
Preparation



Laboratory Equipment  
for Material Tests



Further Devices  
for the Cable Industry

# Automatic Measuring Device AlphaOne

For measuring cable and tube samples with an outer diameter up to 95 mm (3.74")

Product No.: 401.0030.03



## Technical details:

<b>Size</b> (width x length x height)	450 x 400 x 720 mm 17.72 x 15.75 x 28.35 Inch
<b>Weight</b>	25 kg 55.12 lbs
<b>Supply Voltage</b>	110 - 230 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Resolution</b>	corresponds to 0.1% of the image field
<b>Lighting</b>	LED
<b>Camera*</b>	customised 1 Camera, high resolution
<b>Measuring range</b>	up to max. 95 mm (3.74") outer diameter
<b>Measuring according to cable standards</b>	IEC 60811 -201; -202; -203 LV112 (A Factor) ICEA S-94-649

## Device details:

- Specific object size - depending on the production line
- Quick and very easy measurement
- Little training required
- Measuring software VELOX included
- Compatible with all database software of the VCP family
- Various external CAQ software are connectable
- Low operator influence due to fixed focusing as well as preset illumination
- Robust design and simple, user-friendly operation
- Shock and vibration resistant due to an optimised sensor arrangement and balanced weight distribution
- Measuring software enables various operator level settings (production, laboratory, administrator, service, etc.)
- Standardised individual components lead to supply security and therefore a short delivery period
- Easy connection with external devices



## Area of application:

- Highly precise measuring device for cross section measurements of cables and tubes
- Measuring device especially designed for the use at a production line

## Optional:

- AlphaOne inclusive All-In-One Windows PC



\* the most suitable configuration can only be determined with your minimum and maximum sample outer diameter



# Measuring Device for Extrusion Tools VCPEX+

Stand-alone system for high-precision and fast measurement of wire guides and extrusion nozzles

Product No.: 401.0007.04



## Technical details:

<b>Size</b> (width x length x height) (Technical changes reserved)	750 x 430 x 320 mm 29.5 x 16.9 x 12.6 Inch
<b>Weight</b> (Technical changes reserved)	28 kg 61.7 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Resolution</b>	corresponds to 0.1% of the image field
<b>Lighting</b>	telecentric LED lighting
<b>Camera</b>	up to 2 measuring fields depending on the diameter range
<b>Measuring range</b>	up to 15 mm (0.6") in various configurations

Ensure your product quality right from the beginning - even before the production process. ✓



Demo video

## Device details:

- Fast, reliable and highly accurate measuring process
- Telecentric cameras and lighting guarantee exact measurement results
- Up to 2 cameras and measuring fields in one compact device
- Simple handling and positioning of the extrusion tools (including conical tools / conical wire guides)
- Focus indicator for easy focus adjustment
- No extraneous light influences thanks to measuring within a closed housing
- VeloxExtrusion measurement software included
- Robust and compact design, easy to handle

## Possible measurement results:

- Maximum, minimum and average inner diameter  
(In this way, deformations or wear and tear of the tools can be detected - in order to avoid undefined over extrusion or undercutting of the wall thickness.)

## Area of application & benefits:

- Camera-based system for measuring wire guides and extrusion tools mean that only independently tested tools without user influence are used within the production process
- Specially designed for use in production, the tool handout and the laboratory
- Reliable, fast and accurate quality control
- Traceability of results for convenient presentation of the life cycle of your tools
- Time and cost savings for your measurement

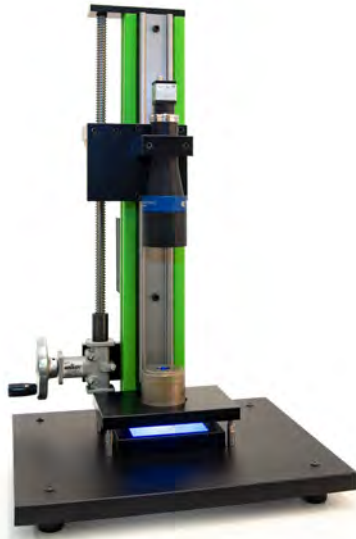




# Measuring Device for Extrusion Tools VCPEX+ Stand

Stand-alone system for high-precision and fast measurement large wire guides and extrusion nozzles

Product No.: 401.0007.07



## Technical details:

<b>Size</b> (width x length x height) (Technical changes reserved)	400 x 460 x 630 mm 15.75 x 18.11 x 24.80 Inch
<b>Weight</b> (Technical changes reserved)	15 kg 33.1 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Resolution</b>	corresponds to 0.1% of the image field
<b>Lighting</b>	homogeneous lighting by LUMIMAX®
<b>Camera</b>	one measurement area, configurable
<b>Measuring range</b>	up to 35 mm (1.37") hole diameter

Ensure your product quality right from the beginning - even before the production process. ✓

## Device details:

- Measuring device for large extrusion tools up to 35 mm (1.37") hole diameter
- Automated measurement process
- Focus indicator allows you to easily adjust the focus
- Homogeneous transmitted light illumination - made by iiM AG - for the ideal presentation of the area to measured
- The influence of the user is reduced to a minimum
- Robust, ergonomic design
- Ideal addition to the 2-camera system VCPEX+

## Possible measurement results:

- Maximum, minimum and average inner diameter  
(In this way, deformations or wear and tear of the tools can be detected - in order to avoid undefined over extrusion or undercutting of the wall thickness.)

## Area of application & benefits:

- Replaces inaccurate measurement methods (calipers, tactile measurements, etc.) with an automated measurement method
- The VCPEX+ Stand is a camera-based system for measuring large wire guides and dies
- Specially designed for use in production, the tool handout and the laboratory
- Reliable, fast and accurate quality control
- Traceability of results for convenient presentation of the life cycle of your tools
- Time and cost savings for your measurement

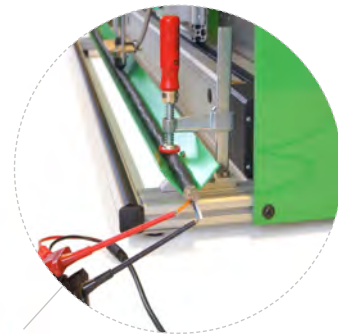
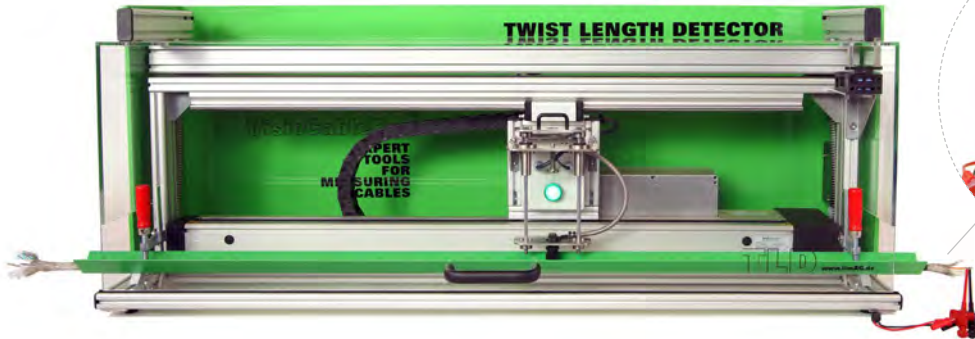
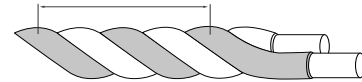




# Twist/Lay/Pitch Length Detector - TLD

For measuring the twist/lay/pitch length of sheathed cables

Product No.: 402.0013.01



## Technical Details:

<b>Size</b> (width x length x height)	1320 x 420 x 480 mm   52.0 x 16.5 x 18.1 Inch
<b>Weight</b>	43 kg   95 lbs
<b>Supply Voltage</b>	100 - 240 V, 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Material</b>	Aluminium, Stainless Steel, PVC
<b>Measuring accuracy</b>	1 mm   0.04"
<b>Measuring according to standards</b>	LV212; LV122
<b>Measurable twist lengths</b>	min. 10 mm   0.39" / max. 800 mm   31.5" (with the standard measuring distance) <i>ATTENTION: Customizations possible on request (Please send some samples)</i>
<b>Measuring distance</b>	800 mm   31.5" <i>ATTENTION: Customizations possible on request</i>
<b>Sample outer diameter</b>	min. 2 mm   0.08" (requires an adapter for fixing thin cables) <i>ATTENTION: Customizations possible on request (Please send some samples)</i>
<b>Driving speed of the sensor</b>	The speed can be set in the configuration file <i>ATTENTION: The slower the driving speed, the more accurate the measurement</i>

## Device details:

- Measurements according to the standards **LV212** und **LV122**
- The twist length of the samples is measured without removing the sheath  
→ this ensures a precise measurement
- Traditional methods manipulate the sample (cable stripping / unwinding of conductors)  
→ a precise measurement is not possible anymore
- Via a PC connection, the measuring results can directly be exported
- **Fully automatic:** By clicking one button, the measuring sensor automatically moves along the sample

## Results:

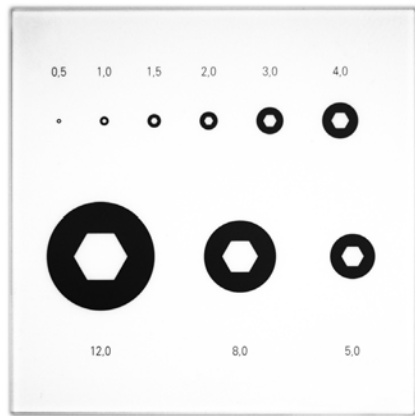
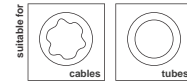
- Result file: It is possible saving the following result data into a text file (export function):
  - Amount of twists
  - Measured distance (distance from the first twist to the last overlapping twist)
  - Driving distance of the sensor
  - Minimum / Maximum twist length
  - Average of the detected twist lengths

## Calibration:

- The calibration is performed with an especially designed master-sample (calibration piece)

# Calibration Scale with optional Calibration Certificate

For calibrating optical measuring devices (e.g. VCPX5)



## Calibration scale 0.5 - 12 mm (0.02 to 0.5") polygon

- 9 different circles from 0.5 to 12.0 mm outer diameter (0.02 to 0.5")
- Distance measurements are possible with the polygonal inner shape
- Available with DAkkS- or factory calibration certificate

### Technical Details:

<b>Size</b> (width x length x height)	45 x 45 x 2 mm 1.77 x 1.77 x 0.07 Inch
<b>Weight</b>	7 g 0.02 lbs
<b>Material</b>	Glass



## Calibration scale 20 / 60 mm (0.8 / 2.4") polygon

- 2 different circles:  
(20 / 60 mm (0.8 / 2.4") outer diameter)
- Distance measurements are possible with the polygonal inner shape
- Available with DAkkS- or factory calibration certificate

### Technical Details:

<b>Size</b> (width x length x height)	80 x 80 x 2 mm 3.15 x 3.15 x 0.07 Inch
<b>Weight</b>	23 g 0.05 lbs
<b>Material</b>	Glass

## Calibration rings 65 / 95 mm (2.5 / 3.7")

- 2 different circles (65 / 95 mm (2.5 / 3.7") outer diameter)
- Available with DAkkS- or factory calibration certificate

### Technical Details:

<b>Size</b> (width x length x height)	65 x 65 x 1 mm 2.5 x 2.5 x 0.04 Inch 95 x 95 x 1 mm 3.7 x 3.7 x 0.04 Inch
<b>Weight</b>	30 g 0.07 lbs

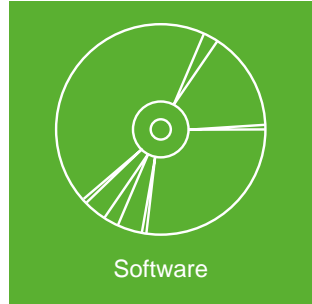


## Calibration case - practical storage of calibration scales



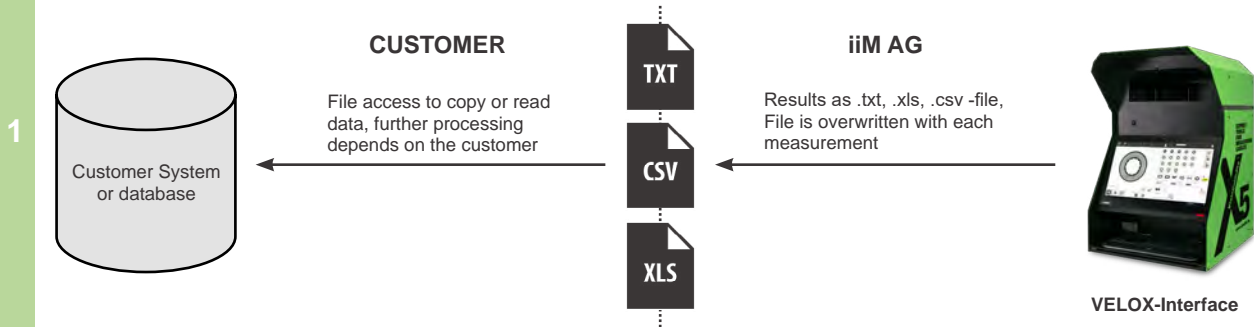
# Software by VisioCablePro® / VisioTubePro®

## Product data sheets

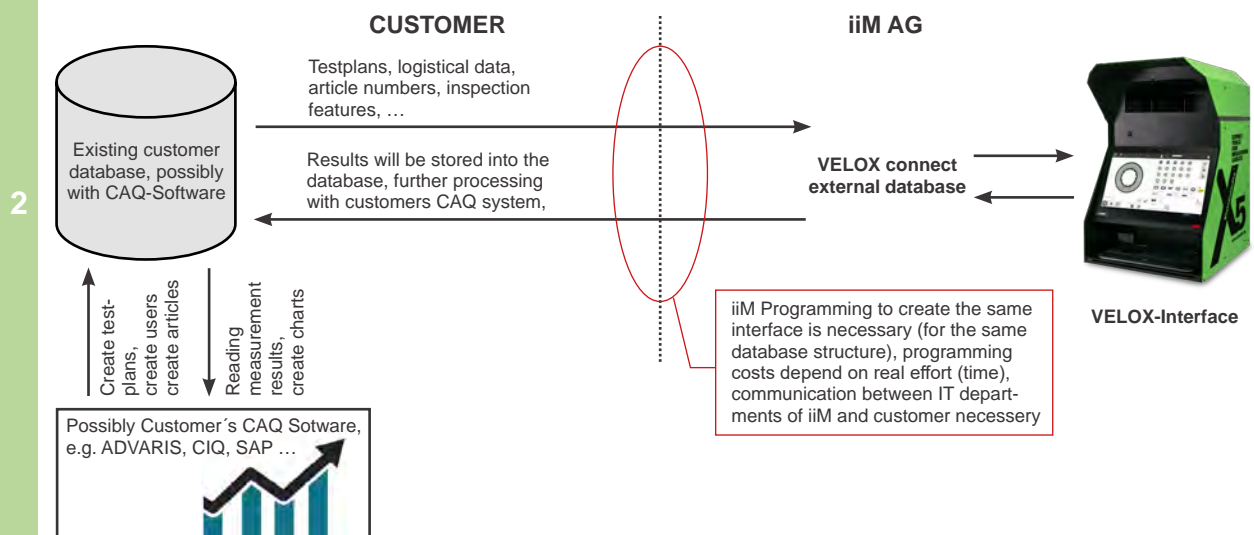


# Overview Database Scenarios

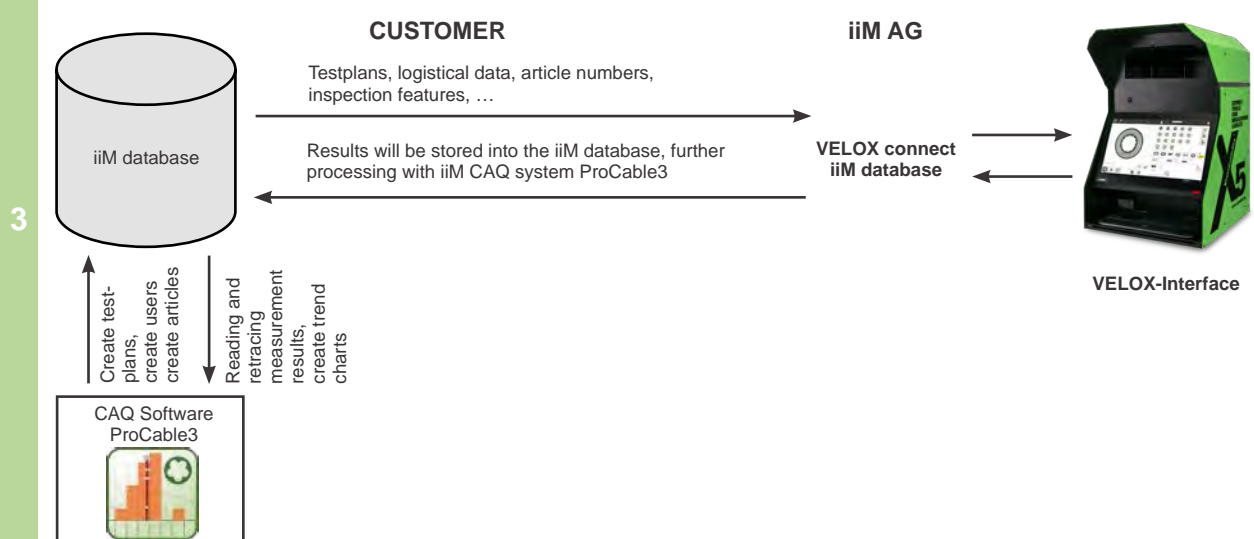
**Scenario 1:** The measurement device stands alone without database connection, it is possible to store the measurement results into an export file, which is overwritten in each measurement. The customer has the option to read the data for further own processes.



**Scenario 2:** The customer uses an existing database and wants to connect the VCPX5 to send testplans, logistical data, inspection features to select the article direct on the VCPX5. 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).



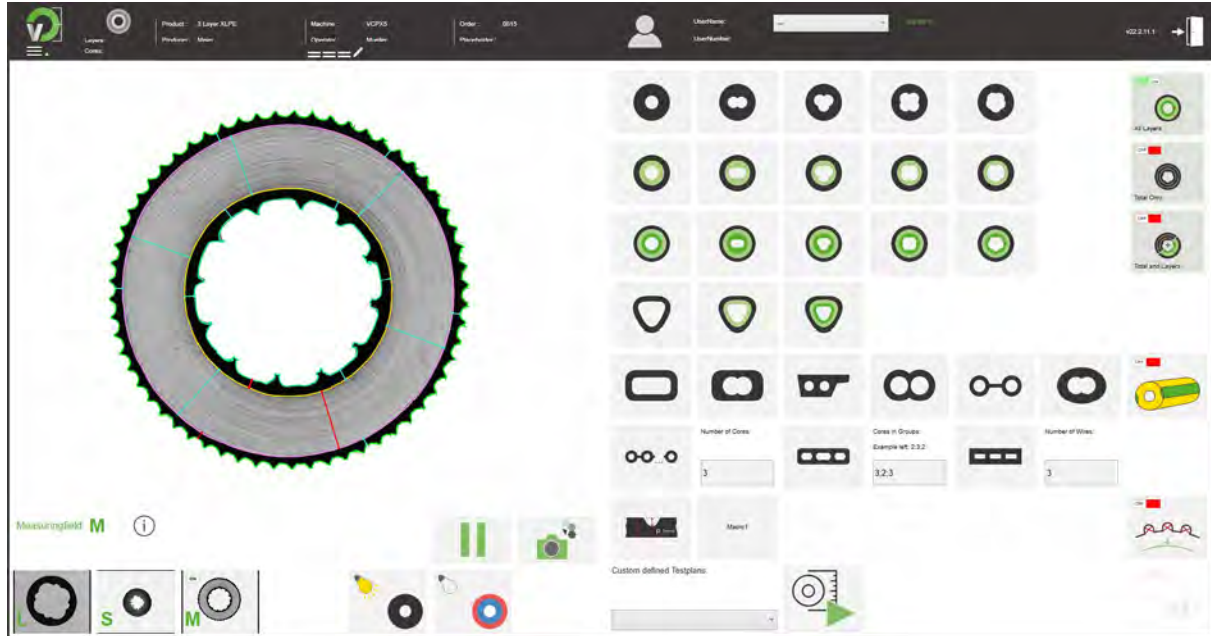
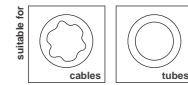
**Scenario 3:** iiM provides a complete and comfortable solution with the iiM database, iiM CAQ system ProCable3. Further measurement devices, e.g. resistance measurement devices, can be integrated and the results can be stored and analysed.



# Software VELOX

Highly complex standard-compliant image processing – simply with one click

Product No.: 403.0001.30



The measuring software VELOX evaluates obtained measuring results of the cross section measuring devices VCPX5 and AlphaOne with the latest generation of image processing algorithms.

## System requirements:

Measurement device	VCPLab VCPX5, AlphaOne, VCPEX+
Operating system	Windows 10 (64bit)
RAM space	2 GB
Hard disk space	5 GB

## Important cable standards for the measurement:

- EN 50396
- IEC 60811 (-201; -202; -203)
- LV112 (A Factor)
- ICEA S-94-649



## Details:

- Standard-compliant, fully automated measurement
- Your guarantee for secure quality testing of geometrical attributes of cables, isolated conductors and tubes
- Excellent traceability and repeatability
- Reliable evaluation of obtained measuring results
- Intuitive operation – designed for use directly next to the extrusion line
- Operation possible without training – highly complex in the background – but easy, safe and quick to use
- All measurements are performed with image processing algorithms of the latest generation
- Modularly expandable (database interfaces, special geometries/shapes ...)
- Clear, individually configurable and comprehensive result display
- The report design can be modified on an Excel basis

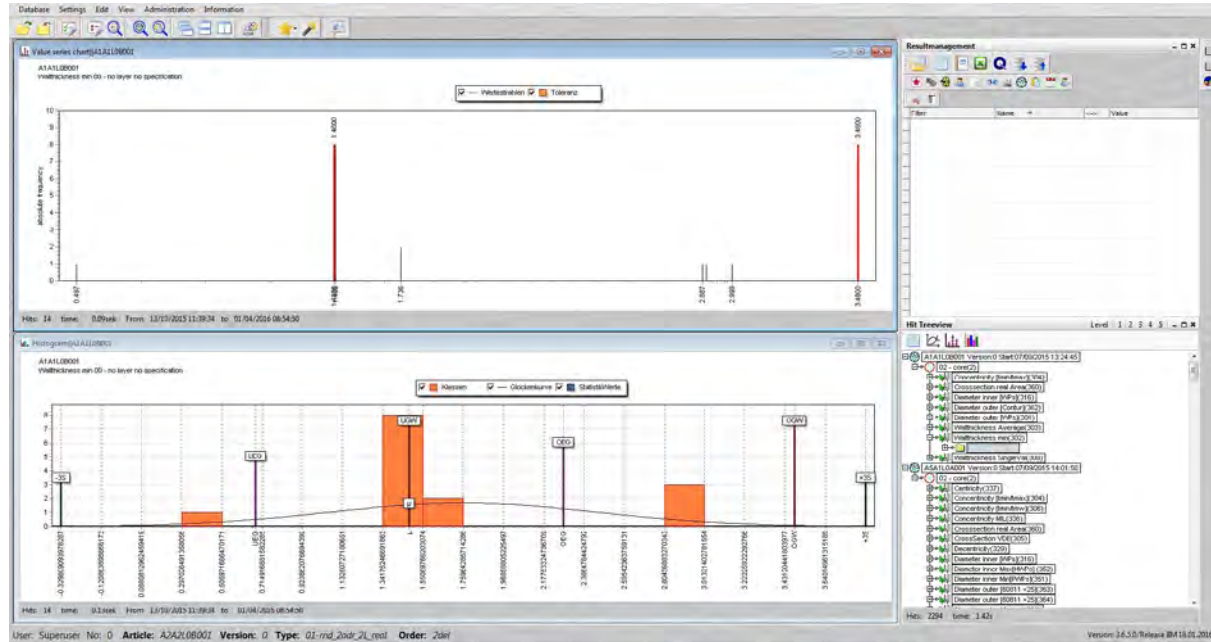
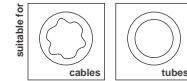




# Software ProCable3

The CAQ-System customised for producer requirements

Product No.: 403.0002.01



## System requirements:

Measurement device	any PC
Operating system	Windows 7, Windows 8.x, Windows 10
RAM space	2 GB
Hard disk space	5 GB

## Easy handling - Highest functionality

- Test plan development
- Order administration
- Archiving of obtained test results
- Creation of result lists according to the test plans (product report recipes)
- Correct and structured filing of test results
- Exceedance of tolerance limits are immediately reported and saved
- Possibility to connect with external measuring devices (please inquire type)
- Connection with an SQL or MS Access® database possible
- By analysing the data in graphs, trends can be detected easily (e.g. growing outer diameter displays the wear of the extrusion tool)

## Retraceable CAQ-System

- Achieved test results are compared with test plans and exceedances of tolerance limits are immediately reported
- Retraceability is guaranteed
- Compact CAQ-System, especially developed for cable producer requirements
- Various functions for safe administration and archiving of your test results
- Retraceability: Due to the comparison with the deposited test plans, ProCable reduces operator influences and guarantees safe measurement results
- Various filter functions enable finding any result
- Results are displayed in charts, tables and histograms
- Export to MS Excel® and qs-STAT possible



# Devices for Sample Preparation

Product data sheets



Devices for Sample  
Preparation

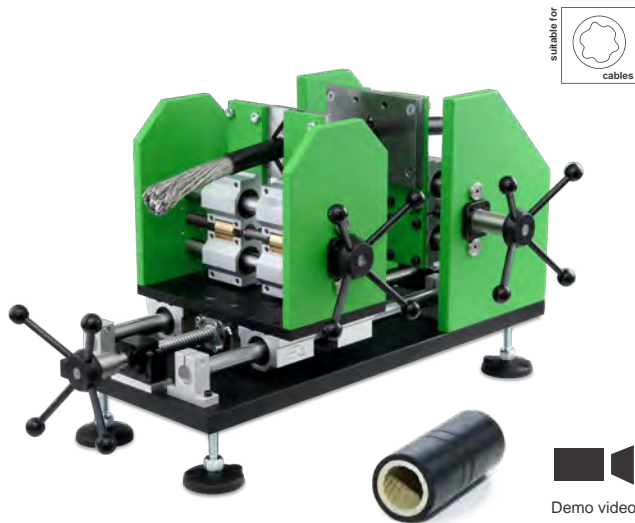




# Cable Stripper - CS100

For separating cable jackets / -insulations from the electrical conductor

Product No.: 402.0005.04



## Technical Details:

<b>Size</b> (width x length x height)	430 x 800 x 430 mm 16.9 x 31.5 x 16.9 Inch
<b>Weight</b>	54 kg 119 lbs
<b>Material</b>	Aluminium, Stainless Steel, PVC
<b>Length Cable Sample</b>	min. 150 mm (5.91") (at 50 mm (2") Stripping)
<b>Ø - Cable sample</b>	15 - 100 mm 0.06 - 3.9 Inch
<b>Cable Stripping</b>	ca. 10 - max. 250 mm 0.4 - 9.8 Inch depending on material



## Device details:

- Easy separation of cable jackets from the electrical conductor
- Suited for samples with a high strip force
- Also designed for larger sample outer diameters
- Suitable preparation before cutting cable samples for measuring (e.g. with the ORC-series)
- Robust, stable construction
- Easy operation

## Operation:

1. Cut around the cable
2. Insert the cable into the CS100  
(cut side towards the front)
3. Close the clamps
4. Turn the front wheel to remove the cable jacket



## Suitable additional equipment

- **Modified pipe cutters**  
3 - 35 mm (0.1 - 1.4") OD\* - Product No.: 402.0017.02  
10 - 63 mm (0.4 - 2.5") OD\* - Product No.: 402.0017.03  
50 - 110 mm (2.0 - 4.3") OD\* - Product No.: 402.0017.04

\* Outer diameter of the cable sample

# Core Removal Punch - CRP

Punch to remove solid electrical conductors

Product No.: 402.0018.01



## Technical Details:

<b>Size</b> (width x length x height)	170 x 360 x 450 mm 6.7 x 14.2 x 17.7 Inch
<b>Weight</b>	15,6 kg 34.4 lbs
<b>Material</b>	Iron, Stainless steel
<b>Equipment</b>	Metal ring underlays; Metal pins

## Device details:

- Preparation of cable samples for further processing
- Metal ring underlays enable tilting the sample according to the conductor twist
- Applicable for cable types with solid core cross-sections
- E.g. Sample preparation for cutting with ORC family



# O-Ring Cutter - ORC 150

Cutting device for large cable & tube samples

Product No.: 402.0007.02



## Technical details:

<b>Size</b> (width x length x height)	910 x 730 x 600 mm 35.83 x 28.74 x 23.62 Inch
<b>Weight</b>	100 kg 220.4 lbs
<b>Supply Voltage</b>	230 - 400 V 50 Hz
<b>Input Power</b>	max. 1100 Watt
<b>Blade</b>	Chisel 150-1 Product No.:404.0004.06
<b>Lighting</b>	Light bulb
<b>Ø - Sample</b>	20 - 150 mm (0.78" - 5.9") special chuck jaws for larger samples up to 200 mm (7.87")
<b>Length - Sample</b>	min. 40 mm / max. 85 mm min. 1.57" to max. 3.34"
<b>Sample preparation according to cable standards</b>	IEC 60811

Save up to 2/3 measuring uncertainty with well prepared samples!



## Device details:

- Quick and efficient cut
- Thin, evenly and parallel cut samples with a smooth surface
- Very robust device made of aluminium and stainless steel - no corrosion
- By using special chuck jaws it is even possible to cut larger samples with an outer diameter up to 200 mm (7.87")
- Light to illuminate the cutting process
- Precise and repeatable measuring results possible with the cut samples

## Area of application:

- Cable sample preparation according to IEC 60811
- Optimal sample preparation device for measurements with offline measurement devices
- Cut samples complement the measuring devices from the VisioCablePro®/ VisioTubePro® series
- Use of the O-Ring Cutter is essential for your Quality Management
- Easy use in laboratories and production halls



Measurement Devices



Software



Devices for Sample Preparation



Laboratory Equipment for Material Tests



Further Devices for the Cable Industry

# O-Ring Cutter - ORC 80

Device for sample preparation of hard materials up to 80 mm (3.15 Inch)

Product No.: 402.0007.10



## Technical details:

<b>Size</b> (width x length x height)	250 x 380 x 260 mm 9.84 x 14.96 x 10.23 Inch
<b>Weight</b>	17.3 kg 38.14 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 221 Watt
<b>Blade</b>	Stainless steel blade
<b>Lighting</b>	LED
<b>Ø - Sample</b>	8 - 80 mm 0.31 - 3.15 Inch
<b>Length - Sample</b>	min. 30 mm / max. 50 mm min. 1.18 to max. 1.96 Inch
<b>Sample preparation according to cable standards</b>	IEC 60811

Save up to 2/3 measuring uncertainty with well prepared samples!

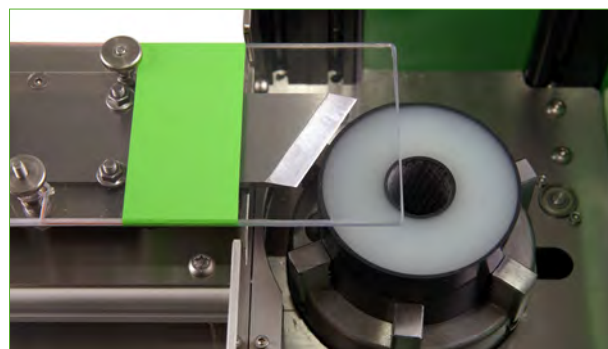


## Device details:

- Quick and efficient cut
- Thin, evenly and parallel cut samples with a smooth surface
- Perfect for cutting sector shaped samples
- LED light to illuminate the cutting process

## Area of application:

- Cable sample preparation according to **IEC 60811**
- Quick and efficient cut of hard materials (PE, XLPE) with an outer diameter up to max. 80 mm (3.15")
- Optimal sample preparation device for measurements with offline measurement devices
- Use of the O-Ring Cutter is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls





# O-Ring Cutter - ORC VC65

Precision cutting of multiple materials

Product No.: 440.2007.000



## Technical details:

<b>Size</b> (width x length x height)	330 x 340 x 305 mm 12.99 x 13.39 x 12.01 Inch
<b>Weight</b>	14.6 kg 32.19 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 120 Watt
<b>Blade</b>	special grinding, 2-sided usable Product No.: 910.2007.009
<b>Ø - Sample</b>	1 - 65 mm 0.04 - 2.56 Inch
<b>Length - Sample</b>	min.30 mm / max. 70 mm min. 1.18 to max. 2.76 Inch
<b>Sample preparation according to cable standards</b>	IEC 60811

Save up to  $\frac{2}{3}$  measuring uncertainty with well prepared samples! ✓



## Device details:

- Ideal cutting results
- Improved sample quality through an exact and reproducible sample thickness
- Suitable for a wide variety of materials
- Robust and durable blade with double wear time (2-sided usable)
- Exact adjustment of the rotating speed
- The influence of the operator is minimized by the predefined blade feed
- Fine, manual dosing of the progressive feed
- Easy exchange of the wire grips possible, with standard tooling
- Intelligent control electronics ensure an intuitive and safe operation

## Area of application:

- Cable sample preparation according to **IEC 60811**
- Cutting device for samples with an outer diameter up to 65 mm (2.56")
- Optimal preparation of samples before the precise analysis on the offline measurement device
- Use of the O-Ring Cutter VC is essential for your Quality Management
- Precise and repeatable measuring results possible with consistent cut samples
- The VC65 supplements the measurement devices of the VCP series with even and consistently cut samples
- Compact and light device for laboratories and in the production



# O-Ring Cutter - ORC Micro

Sample cutting device for very small cable & tube samples

Product No.: 402.0007.03



## Technical details:

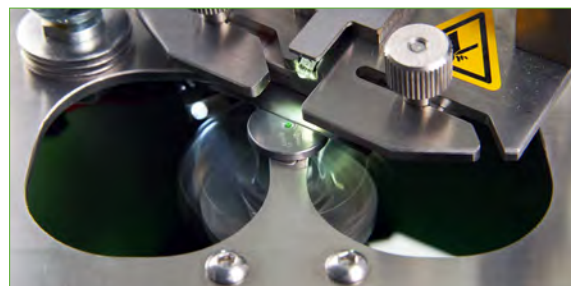
<b>Size</b> (width x length x height)	200 x 200 x 170 mm 7.87 x 7.87 x 6.69 Inch
<b>Weight</b>	3.25 kg 7.16 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 60 Watt
<b>Blade</b>	Stainless steel blade Product No.: 404.0004.04
<b>Lighting</b>	LED
<b>Ø - Sample</b>	0.5 - 3.5 mm 0.019 - 0.14"
<b>Length - Sample</b>	min. 15 mm / max. 40 mm min. 0.59 to max. 1.57"
<b>Sample preparation according to cable standards</b>	IEC 60811

Save up to 2/3 measuring uncertainty with well prepared samples! ✓



## Device details:

- Easy and fast operation
- Robust, compact device out of stainless steel - no corrosion
- 4 different adapters to stabilise the samples (on request more adapters of different sizes available - Product No.: 402.0007.13)



## Area of application:

- Cable sample preparation according to **IEC 60811**
- Sample cutting device for cutting very small samples up to 3.5 mm (0.14") outer diameter depending on material and wall thickness
- Optimal sample preparation device for measurements with offline measurement devices
- Use of the O-Ring Cutter is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls

## Suitable additional equipment:

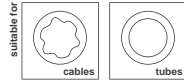
- **Sample Picker** - Ideal for positioning small samples  
Product No.: 402.0015.01 ➔ **page 29**



# Sample Picker

Easy positioning of small samples

Product No.: 402.0015.01



## Technical Details:

<b>Size</b> (width x length x height)	135 x 190 x 135 mm 5.31 x 7.48 x 5.31 Inch
<b>Weight</b>	1.8 kg 3.97 lbs
<b>Supply Voltage</b>	230 V AC
<b>Input Power</b>	max. 230 Watt
<b>Material</b>	Stainless steel, Rubber

## Device details:

- Vacuum pump to pick up small samples
- Suitable for the measuring device VCPLab and the o ring cutter ORC Micro





# Flat Cable Cutter 75 - FCC 75

Device for sample preparation of flat cables up to max. 75 x 8 mm (2.95 x 0.31") width x height

Product No.: 402.0007.15



## Technical Details:

<b>Size</b> (width x length x height)	225 x 235 x 450 mm 8.85 x 9.25 x 17.71 Inch
<b>Weight</b>	7.7 kg 16.97 lbs
<b>Blade</b>	one-side grinded special blade by iiM
<b>Cable sample</b>	width: max. 75 mm   2.95" height: 1 - max. 8 mm   0.04 - 0.31" length: min. 30 mm   1.18"
<b>Sample preparation according to standards</b>	IEC 60811

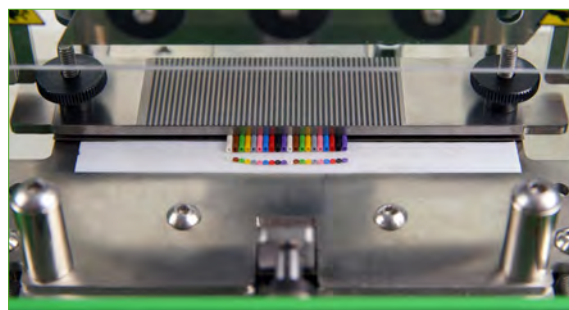
Save up to 2/3 measuring uncertainty with well prepared samples! ✓



## Device details:

**ATTENTION: Electrical conductors must be removed before cutting!**

- Very robust device for quick and efficient cutting of flat cables
- Exact adjustment of the sample thickness (depending on material)
- Thin, evenly and parallel cut samples with a smooth surface (especially the very small and many cores require a very thin cut to avoid shadows)
- Precise and repeatable measuring results due to reproducible samples



## Area of application:

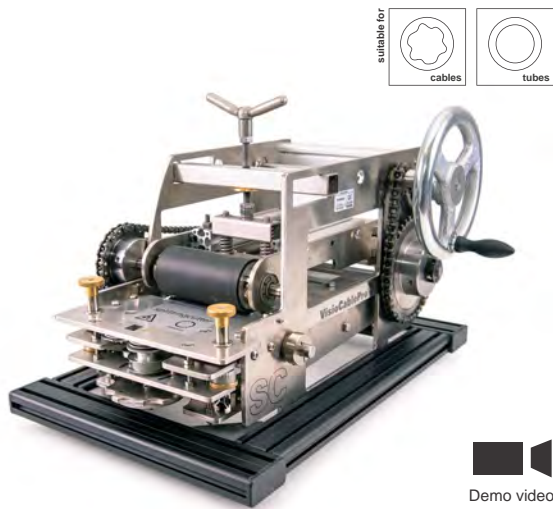
- Sample preparation according to **IEC 60811**
- Cutting device for flat cable samples up to a width of max. 75 mm (2.95") and a height of max. 8 mm (0.31")
- Optimal cable preparation device for measurements with offline cable measurement devices
- Use of the FCC 75 is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls



# Splitting Cutter - SC

Sample preparation for heat elongation and tensile tests conforming to standards

Product No.: 402.0006.01



## Technical Details:

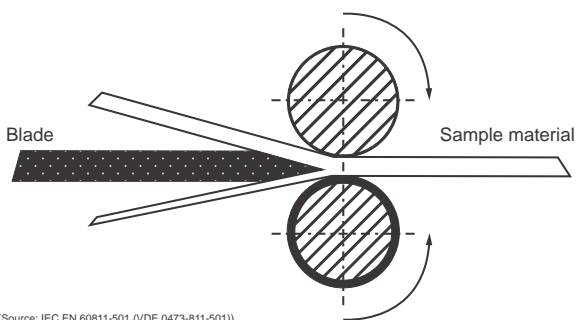
<b>Size</b> (width x length x height)	300 x 460 x 300 mm 11.81 x 18.11 x 11.81 Inch
<b>Weight</b>	18.5 kg 33.1 lbs
<b>Material</b>	Steel housing, hardened steel spindle, aluminium
<b>Blade</b>	Stainless steel blade Product No.:404.0004.02
<b>Setting the cutting thickness</b>	according to IEC 60811 -501, -507
<b>Sample preparation according to cable standards</b>	<b>IEC 60811 -501, -507</b>

*Especially designed for soft materials. Hard materials, e.g. PE, XLPE, HDPE, or hard rubbers partially possible depending on the sample characteristics. To eliminate any doubts, please send samples to iiM AG for evaluation.*

## Device details:

- Device is according to the cable standard **IEC 60811 -501, -507** (Heat elongation test, tensile test)
- The samples are taken from the inner side of the sheath and isolator
- All grooves and/ or conductive layers are removed
- Developed to slice samples with a **thickness between 0.8 and 2.0 mm (0.04" – 0.08")**

## Operating principle:



(Source: IEC EN 60811-501 (VDE 0473-811-501))

## Operation:

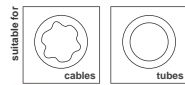
1. Set the cutting thickness
2. Insert the sample for cutting
3. Cut the sample
4. Remove the sample



# Splitting Cutter - SC-PE

Sample preparation for heat elongation and tensile tests conforming to standards

Product No.: 402.0006.02



## Technical details:

<b>Size</b> (width x length x height)	760 x 500 x 500 mm 29.92 x 19.68 x 19.68 Inch
<b>Weight</b>	58 kg 127.8 lbs
<b>Supply Voltage</b>	100 - 240 V 50 - 60 Hz
<b>Input Power</b>	max. 100 Watt
<b>Material</b>	Aluminium, Stainless Steel, Plastic housing
<b>Blade</b>	Hardened stainless steel
<b>Ø - Sample</b>	max. outer diameter 130 mm 5.11 Inch
<b>Setting the cutting thickness</b>	according to IEC 60811 -501, -507 adjustable
<b>Sample preparation according to cable standards</b>	IEC 60811 -501, -507

## Device details:

- Device is according to the cable standard **IEC 60811 -501, -507** (Heat elongation test, tensile test)
- Handy, electric device for material tests in laboratories
- Developed to slice samples with a **thickness between 0.8 and 2.0 mm** (0.04" – 0.08")
- Especially for medium and high voltage cables or tubes from hard materials

## Operation:

1. Insert the sample
2. Set the cutting thickness
3. Close the cover
4. Cut
5. Open the cover
6. Remove the sample



# Toggle Press - KHP

For punching dumb-bell test specimen for further tests (e.g. Hot Set Test)

Product No.: 402.0008.01



## Technical Details:

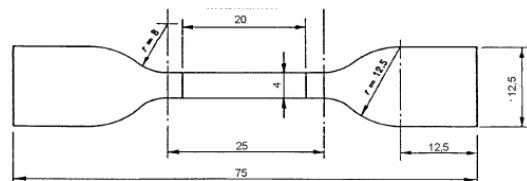
<b>Size</b> (width x length x height)	156 x 292 x 475 mm 6.14 x 11.5 x 18.70 Inch
<b>Weight</b>	10,75 kg 23.70 lbs
<b>Material</b>	Aluminium, Steel cutting surface: PVC
<b>Punch</b>	Stainless steel blade with automatic sample ejection
<b>Stamping force</b>	8 kN
<b>Sample preparation according to cable standards</b>	IEC 60811 -501, -507

## Operation:

1. Prepare the sample thickness with a splitting cutter (e.g. Splitting Cutter from iiM AG)
2. Place the sample under the punch
3. Punch out the dumb-bell test specimen
4. Your sample is prepared for the Hot Set Test

## Device details:

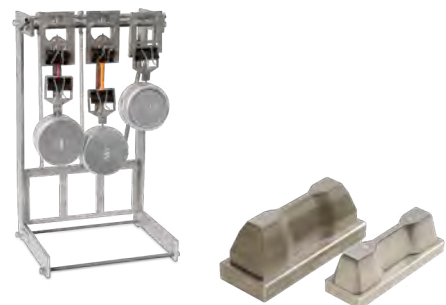
- Cable sample preparation according to **IEC 60811 -501, -507**
- Available with either 100 mm (3.93"), 75 mm (2.95") or 50 mm (2.97") dumb-bell tool
- For inspecting cable and tube sheaths in laboratories
- As a preparation for further tests
- Applicable for all cable and tube types
- Cutting surface also available individually



## Suitable additional equipment

- After punching a dumb-bell test specimen, it can be tested with VisioCablePro's / VisioTubePro's **Hot Set Test** in an oven according to **IEC 60811-507** (previously 60811-2-1) or with tensile tester etc.
- Dumb-bell tools with automatic sample ejection:
  - 100 mm (3.93") - Product No.: 405.0008.05 (ASTM D-412 Type D; UL-62-D)
  - 75 mm (2.95") - Product No.: 405.0008.02 (IEC 60811-501 or -507; ISO 37-2; ISO 527-2-5A; IEC 260-12; BS 6746; DIN 53504 S2)
  - 50 mm (1.96") - Product No.: 405.0008.03 (IEC 60811-501 or -507; ISO 37-3; IEC 261-12; DIN 53504 S3A)

More types available on request

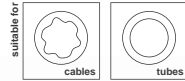




# Tool Box

## Practical Tool Box with tools for cable & tube sample preparation

Product No.: 402.0010.01

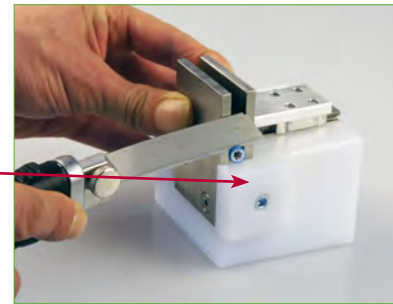


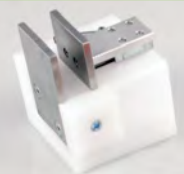


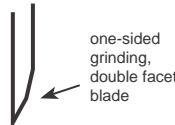



### Technical details:

<b>Size</b> (width x length x height)	162 x 144 x 370 mm 13.5 x 12.1 x 6.5 Inch
<b>Weight</b>	2.4 kg 5.3 lbs
<b>Material</b>	PVC case
<b>Content</b>	1 Cutting block 1 Cutting knife 10 Special blades 3 Cable strippers (different sizes)

### Cutting block SB 18:

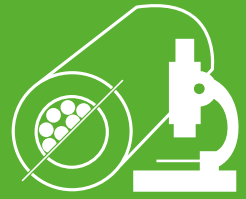
- The cutting base can be rotated by 360° to ensure a fresh cutting surface and is exchangeable → always an optimal cutting base



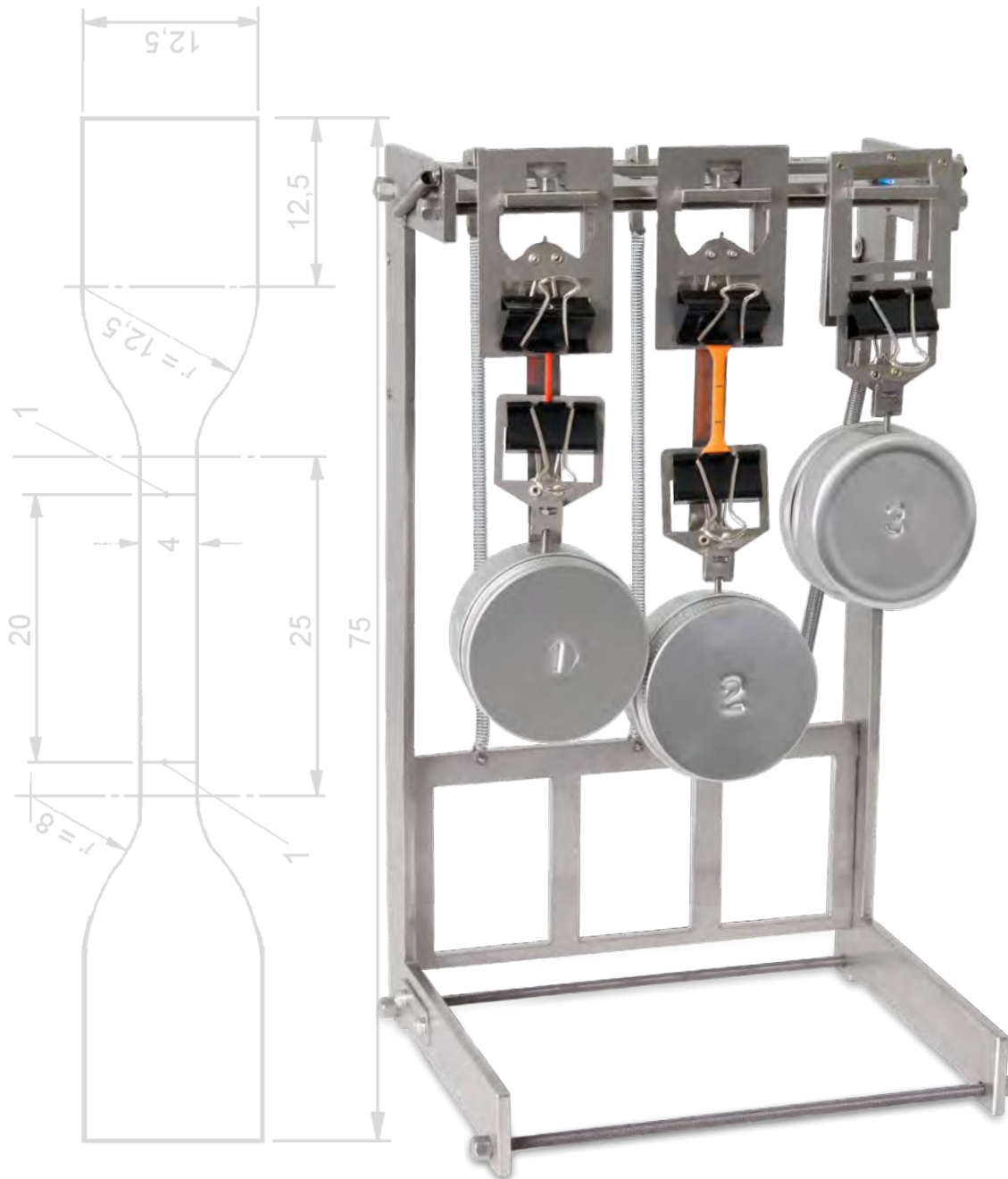
Content	Description
 1 Cutting block SB 18 Product No.: 402.0009.01	<ul style="list-style-type: none"> <li>For cutting samples up to 18 mm (0.7") outer diameter Ø</li> <li>The cutting surface is rotatable and exchangeable</li> <li>The sloped cutting block enables a parallel incision for an optimal sample preparation</li> </ul>
 1 Cutting knife	<ul style="list-style-type: none"> <li>With special blades for an optimal guidance and sample cut</li> </ul>
 10 pcs/set Special blades Product No.: 404.0005.02	<ul style="list-style-type: none"> <li>These blades are especially developed for sample preparation</li> <li>One-sided, double facet profile for a perfect guidance</li> <li>One-sided grinding prevents the blade from tilting, ensures a smooth cutting surface and parallel sample</li> </ul> 
 1 Cable stripper 8 - 13 mm   0.3 - 0.5"	<ul style="list-style-type: none"> <li>For stripping solid and stranded wires</li> <li>Including additional integrated blade for cutting cable sheaths lengthwise</li> </ul>
 1 Cable stripper 4.8 - 7.5 mm   0.18 - 0.29"	<ul style="list-style-type: none"> <li>Especially for round cables and strands</li> </ul>
 1 Cable stripper 8 - 28 mm   0.3 - 1.1"	<ul style="list-style-type: none"> <li>Especially for cables with high stripping force</li> </ul>

# Laboratory Equipment for Material Tests

Product data sheets



Laboratory Equipment  
for Material Tests



# Hot Set Test

## Hot Set Test & Heat Pressure Test

Product No.: 401.0009.03



### Technical details:

<b>Size</b> (width x length x height)	Device: 200 x 170 x 315 mm 7.87 x 6.69 x 12.4 Inch Equipment: 375 x 290 x 70 mm 14.76 x 11.41 x 2.75 Inch Laser: 210 x 130 x 540 mm 8.26 x 5.11 x 21.26 Inch
<b>Weight</b>	Device: 2.3 kg   5.1 lbs Equipment: 3.0 kg   6.6 lbs Laser: 6.4 kg   14.1 lbs
<b>Material</b>	Aluminium, Stainless steel PVC case
<b>Device and Equipment according to cable standards</b>	IEC 60811 -507, -508



### Device details:

- 2 in 1: device contains the Hot Set Test as well as the Heat Pressure Test
- Robust and compact set including the device and an equipment case
- Possibility to attach a thermometer directly near the sample
- Measurement according to the cable standards **IEC 60811 -507 (Hot Set Test)** and **IEC 60811 -508 (Heat Pressure Test)** regarding sample attachment and weight attachment
- Precise choice of weights due to practical containers
- Simultaneous measurement of up to 3 cable or tube samples

### Optional - Hot Set Test complete

- Sample rack for heat pressure and heat elongation test - Product No.: 401.0009.03
- Laser gauge - Product No.: 405.0009.01
- Thermal heat oven **UN55** - Product No.: 405.0009.02  
Size (WxLxH): 585 x 514 x 784 mm (23 x 20.2 x 30.9")  
Weight: 57 kg (125.6 lbs)  
Volume: 53 l  
Air exchange rate: 8-20x
- Thermal heat oven **UN110** - Product No.: 405.0009.06  
Size (WxLxH): 745 x 584 x 864 mm (29 x 23 x 34")  
Weight: 74 kg (163 lbs)  
Volume: 108 l  
Air exchange rate: 8 - 20x



Example





# Cold Impact Test - CIT

Device for an impact test at low temperature

Product No.: 402.0001.01



Full version with 3 samples

## Technical details:

<b>Size</b> (width x length x height) (Technical changes reserved)	200 x 200 x 520 mm 7.9 x 7.9 x 20.5 Inch
<b>Weight</b> (Technical changes reserved)	15 kg 33.1 lbs
<b>Material</b>	Stainless steel
<b>Operation according to cable standards</b>	IEC 60811-506 (IEC 60811-1-4 point 8.5) VDE PV01:2008-02

## Device details:

- Device and operation are according to the cable standard **IEC 60811-506 (IEC 60811-1-4 point 8.5)**
- Case set offers all required weights for the test
- Easy operation
- Very robust and solid construction
- Steel impact piece included
- Up to 3 cable or tube samples can be tested simultaneously
- Device suitable for positioning in a cold chamber - Product No.: 402.0020.02

## Options:

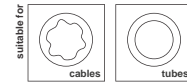
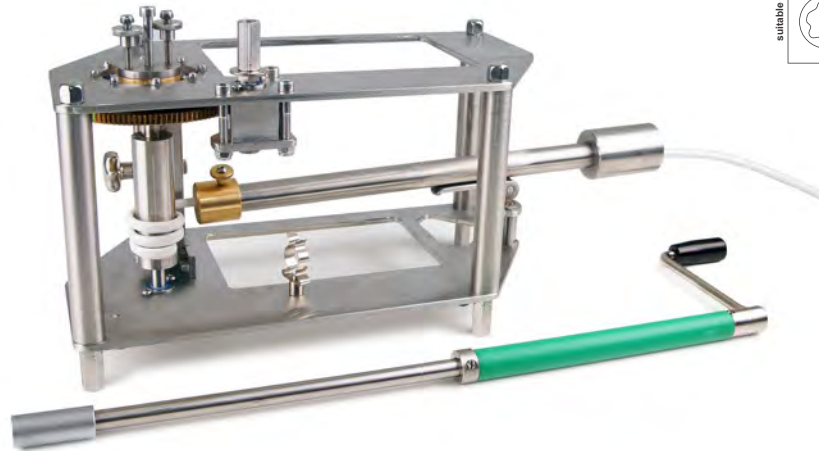
- Cold Impact Test „one sample“
- Cold Impact Test „up to 3 samples“
- Cold Impact Test „1 x photovoltaics“ (VDE PV01:2008-02)
- Laboratory freezer - technical specifications on request
- Cold chamber - up to -55 °C (-67 °F) - technical specifications on request
  - Cold chamber without raised floor - Product No: 402.0020.02
  - Cold chamber including raised floor (for Cold Bend Test) - Product No: 402.0020.04



# Cold Bend Test - CBT

Device for Cold Bend Test at low temperature

Product No.: 402.0020.01



## Technical details:

<b>Size</b> (width x length x height)	470 x 280 x 200 mm   18.5 x 11.0 x 7.9 Inch
<b>Weight</b>	Device: 7.1 kg   15.7 lbs; Accessories: 14 kg   30.8 lbs
<b>Material</b>	Stainless steel
<b>Operation according to cable standards</b>	IEC 60811-504

## Device details:

- Device and operation according to the cable standard **IEC 60811 -504**
- The complete set consists of various winding spindles and guides for various diameters:  
Winding spindles: 10, 12, 14.5, 18, 22, 27, 33.5, 41, 50 mm | 0.4, 0.5, 0.57, 0.7, 0.86, 1.06, 1.32, 1.61, 1.96 Inch outer diameter  
Guides: 3.2, 4, 5, 6.2, 7.7, 9.6, 12, 15 mm | 0.12, 0.15, 0.19, 0.24, 0.30, 0.38, 0.5, 0.59 Inch inner diameter
- The winding spindles and cable / tube guides interlock easily and are easily fastened
- Maneuver Ratio: 5/1: 5x Crank rotation = 1x spindle rotation
- Spindle/Guide diameter ratio: 4-5x sample diameter
- Device suitable for positioning in a cold chamber - Product No.: 402.0020.04



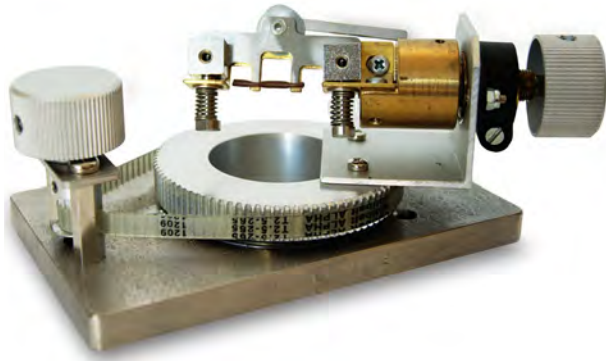
Accessory case



# Sample Alignment Device

Easy and precise arrangement of cable samples

Product No.: 402.0002.01

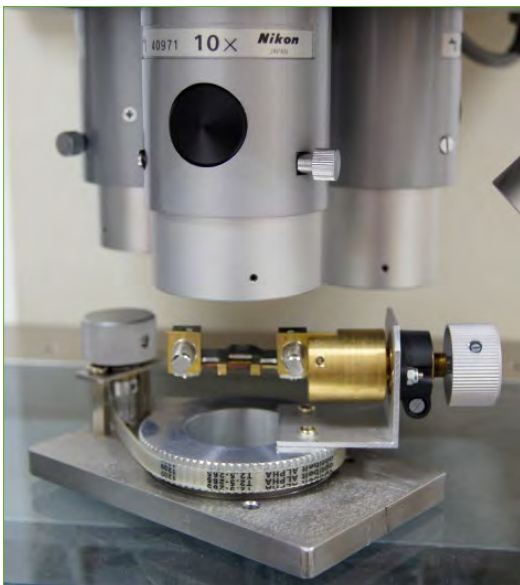


## Technical Details:

<b>Size</b> (width x length x height)	130 x 80 x 65 mm 5.12 x 3.15 x 2.56 Inch
<b>Weight</b>	960 g 2.1 lbs
<b>Material</b>	Aluminium, Stainless steel, Brass, Rubber

## Device details:

- Simplifies the cable sample arrangement for measuring under a microscope or the VCPLab
- Arranging with friction wheels, cogwheels and a durable rubber tooth belt
- Easy and quick operation
- Robust device made of aluminium, stainless steel and brass - no corrosion
- Quick sample fixing of a cable sample due to a lever mechanism
- Perfect for e.g. measuring the heat pressure test indentation according to IEC 60811-508



# Further Devices for the Cable Industry

Product data sheets



Further Devices  
for the Cable Industry





# Automatic Bobbin Unwinder ABU24

Gentle and automatic unwinding of braiding spools

Product No.: 402.0007.52



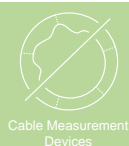
## Technical Details:

<b>Size</b> (width x length x height)	1200 x 800 x 700 mm 47.24 x 31.5 x 27.55 Inch
<b>Weight</b>	47 kg / 104 lbs 55 kg / 121 lbs incl. packaging
<b>Material</b>	Aluminium, stainless steel, PVC
<b>Supply voltage</b>	230 V / 50 - 60 Hz
<b>Input Power</b>	max. 200 W
<b>Appropriate individual diameter</b>	0.05 - 0.3 mm 0.002 - 0.011 Inch
<b>Max. thread cross section</b>	20 mm <sup>2</sup>
<b>Minimum bend radius</b>	> 10 mm > 0.39 Inch
<b>Appropriate materials</b>	Metal wire; plastic; natural, glass and carbon fibres

*The perfect machine to quickly and automatically return the winding material remaining on the spools to the recycling process. The spools do not suffer any damage and can therefore be used over a long period of time.*

## Device details:

- Enables up to 24 braiding spools to be unwound at the same time
- Appropriate spools:
  - Diameter of mandrel 23 mm (standard version)
  - Spool outer diameter up to 100 mm
  - Other spools with different inner and outer diameters possible
- Suitable for different winding materials, e.g. metal wire, plastic, natural, glass and carbon fibres





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