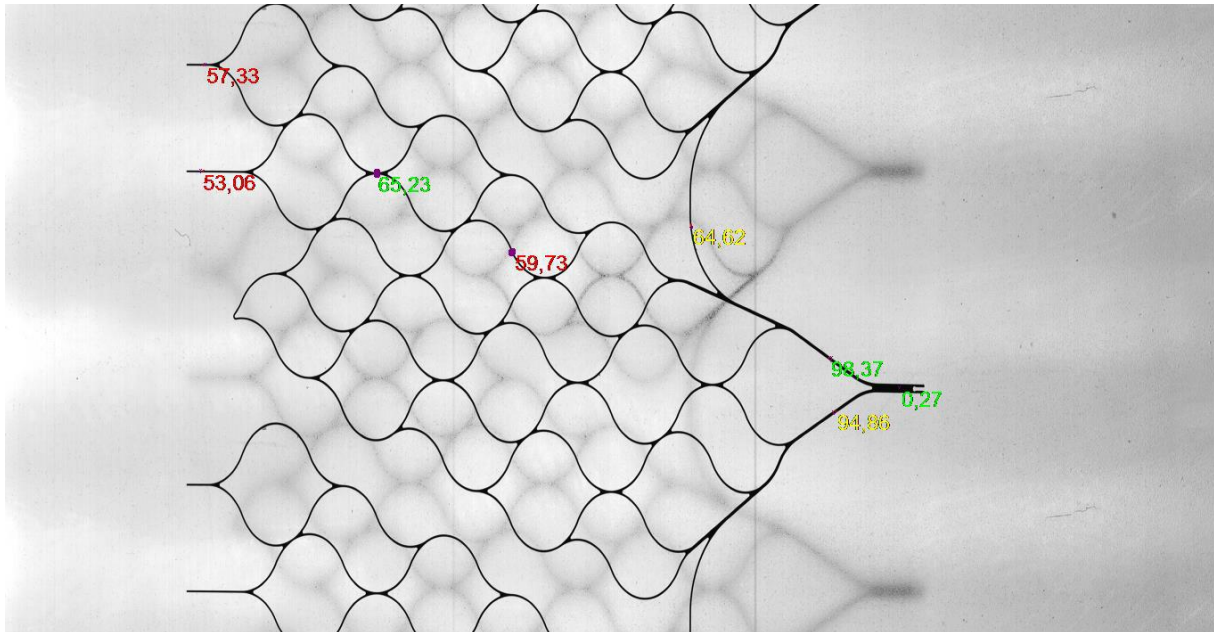


Stent Microscope Description



Depiction 1: Unwinding

The imess Stent Microscope evaluates various characteristics of the artery sustainer called stents. Usually, the width and format of the partition walls. These characteristics are pre-defined and implemented in the measurement process.

Typical Measurement Dimensions

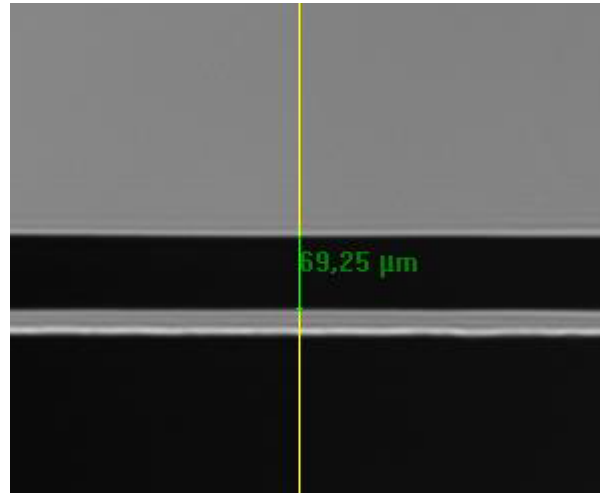
- Stent Diameter: 3-6 mm
- Stent Length: max. 54 mm
- Measurement Speed: approx. 8 secs.

Process of Stent Measurement

1. A glass bolt fitting the stent is inserted into a jaw chuck. The stent is then placed over the glass bolt and the light switched on.
2. Subsequently, the respective data set in the software is loaded and the measurement started by pushing a button.
3. If necessary, the focus of the line scan camera can be adjusted by the operator. A live image is switched on and a micrometre screw of the linear table serves as focus aid.
4. During the measurement itself, the stent is rotated in front of the line scan camera. The rotation speed is calculated with the exposure time and stent diameter. Thus, a distortion-free picture is ensured. The software creates an unwinding image over 540° (see depiction 1).
5. Another button starts the evaluation. The results are graphically depicted and coloured according to their tolerance exceedance. In addition, the measurement results are stored in an Excel table.

Process of Wall Width Measurement

1. If the wall width has to be measured, the software has to be switched to wall width measurement. The light of the line scan camera is deactivated.
2. The camera picture of the surface camera is now shown which can be adjusted by a setup screw, if required.
3. By using two arrow keys on the keyboard, the stand can be rotated manually. A part of the stent has to reach over the glass bolt.
4. Once the wall width measurement has been started, it is shown live permanently as live image. Therefore, a reference line is drawn within the camera image (see depiction 2). The stent has to cross the line (the camera can be adjusted by screws in x and y direction).
5. The measurement result is shown in the software.



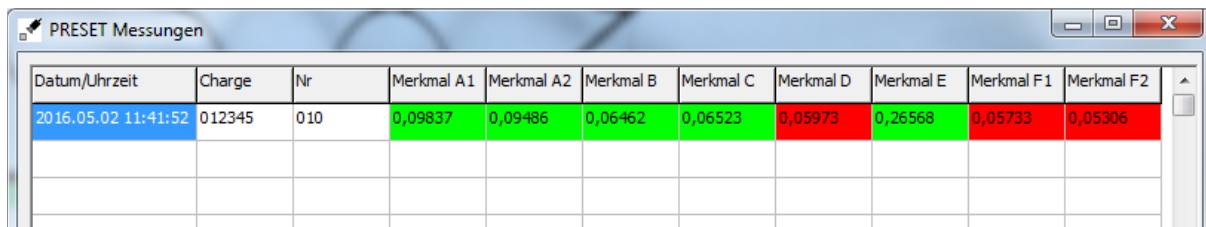
Depiction 2: Wall Width Measurement

The measurement system is basically consisting of the following components

- Line scan camera + telecentric lenses + lightning
- Surface camera + telecentric lenses + telecentric lightning
- Servo motor + jaw chuck
- Light bolt for distortion free picture of the stent

The measurement can be fully automatic on demand.

Do not hesitate to contact us by mail (info@imess.com) or phone +49 2302 96 888 0



Datum/Uhrzeit	Charge	Nr	Merkmal A1	Merkmal A2	Merkmal B	Merkmal C	Merkmal D	Merkmal E	Merkmal F1	Merkmal F2
2016.05.02 11:41:52	012345	010	0,09837	0,09486	0,06462	0,06523	0,05973	0,26568	0,05733	0,05306

Depiction 3: Measurement results in a table