

## Dimension Stability System **DSS**

# Module **WSD 02**

## Wet Stretch Dynamics Analyzer

Measuring Instrument to determine the Dynamics of Wet Expansion of Paper by means of one-sided Liquid Contact



Measurement of the dynamics of the change in dimension of paper by means of **one-sided contact** with water or water based liquids under adjustable tension

### Main Applications

- Decor paper in contact with:
  - | Water | Melamine Resin | Gravure ink
- Coating base paper, newsprint paper, offset printing paper, label paper, ink jet-paper etc. in contact with:
  - | Water | Fountain solution | Ink jet-ink
- Linerboard in contact with:
  - | Water (flatness problem)

### Main User

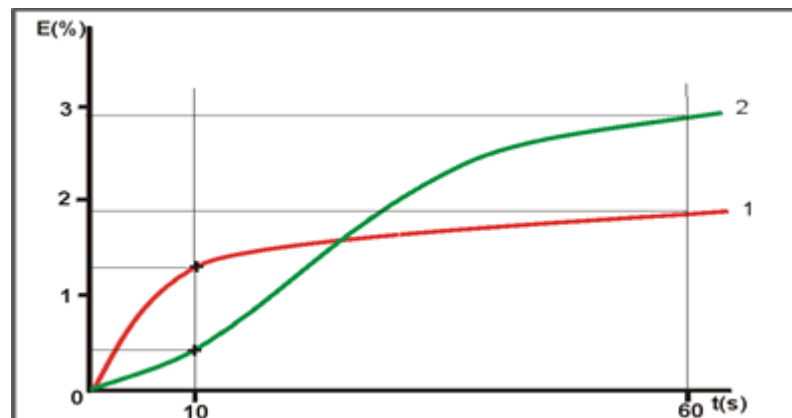
- Paper/board producer
- Chemical Supplier
- Converter of Paper

➔ Replacing classical wet expansion methods, which are using two-sided liquid contact.

## Features

- Benefits:
  - **One-sided liquid contact**
  - **Integrated measurement of paper moistness, humidity and ambient temperature**
  - **Fast contacting of the paper and liquid**, important especially for high absorbent paper
  - **Real trial conditions by adjustable tension**
  - Objective measuring method, free of subjective errors
  - High reproducibility of the results:  $\pm 0.05\%$  of result
  - Accuracy better than  $\pm 0.1\%$  abs.  $\pm 5\%$  of the analytical value in the area of 0 to 3% stretching
  - Resolution approx.  $\pm 0.013\%$
  - **Easy handling**
- Measuring range:
  - **Wet expansion to a maximum of 25%, measuring duration unlimited**
  - **Recording the expansion from the moment of liquid contact**, displaying the results from approx. 100 ms after initial contact
- Measuring results:
  - **Expansion-time diagram**
  - **Expansion value at a free selectable time point**
- Software:
  - Convenient user interface for measurements
  - Easy to handle in quality assurance

**Example:**  
 Wet stretch dynamics of two label papers  
 – contrary behavior at 10s and 60s!



## Technical data

Sample dimension: min. 210mm x (60 $\pm$ 0.5)mm  
 Dimension: 300 x 280 x 320mm (H x W x D)  
 Weight: 8.5 kg  
 Power supply: 230V, 50Hz / 115V, 60H