

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

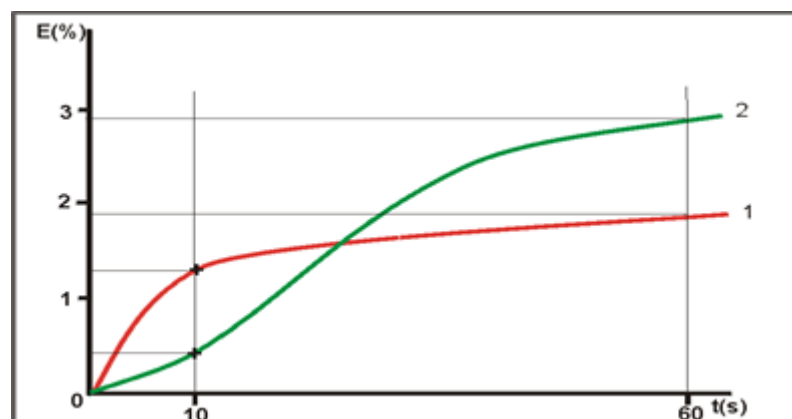
- Paper/board producer
- Chemical Supplier
- Converter of Paper

➔ 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