L&W Consistency Meter measures the amount of water at various stages in the forming section. Measurement results make it possible to see if all dewatering elements are correctly adjusted in relation to the product that is currently being produced. It is designed to analyse, and optimize dewatering in paper, board, and pulp machinery. With L&W Consistency Meter you can gain control of drainage at the forming section so that such things as fibre orientation, formation, and the distribution of fine particles are correct.

All products have different dewatering characteristics therefore it is important to have control of the dewatering. To obtain correct fibre orientation, formation and distribution of fine particles it is important to control the dewatering in the beginning of the wire. To not risk losing other qualities, such as porosity it is important to optimize the dewatering further on, along the wire. With controlled dewatering energy consumption can be minimised by not using more vacuum than necessary in the dry suction boxes, and yet ensuring that the material arrives in the press section as dry as possible. Knowing how to correctly adjust the dewatering elements is based on knowledge on how they were set when producing maximum quality.

**Storing information for repeatability**

With L&W Consistency Meter, all measurements are saved in a database, so that one can at any time download earlier measurement results and use them for comparison with new measurements. Previous results can be displayed while taking new measurements making it possible to immediately see whether any part of the dewatering has changed or needs to be adjusted. This saves time and means that errors can be quickly rectified. The results are shown in both numerical and graphical form on the built-in, well lit colour display. Normally the average of the measured position is displayed, but it is also possible, in appropriate cases, to measure and display CD profiles. The enclosed program contains built-in frequency analysis that can be used to identify variations caused by pumps or vacuum, for example. Uneven wires and vibrations are other causes of production variations.

All measured data is transferred to the L&W Multiview 3D PC program and saved in a database for analysis and reports to be printed out. The transfer usually takes place wirelessly, either using WiFi, Bluetooth or via a USB connection. The information can also be co-ordinated with measured data from the press section, and all measured data can, if desired, be exported to other file formats such as Excel.

**Specially designed**

L&W Consistency Meter has been developed and designed to be used as easily and securely as possible. This means that special attention has been paid to the design of the measuring head, the display and transfer of collected data to other computers, and the transport design. The instrument uses high frequency technology and is therefore not dependent on a special permit in order to be used or transported. The technology also means that the accuracy increases as measurements are made closer to the end of the wire, in other words precisely where it is needed. The effect of the wire and the amount of fibre on the measured results is very small, and the results are normally presented in the form of $\text{gH}_2\text{O/m}^2$. It is also possible, if the dry weight is known, to present the result as % dry content.
Benefits
- Reduced energy consumption
- Balanced chemical usage
- Reduced emissions
- Reduced wear and maintenance requirements
- No radioactivity (High frequency technology)

Technical specifications
L&W Consistency Meter – code 897

Inclusive
L&W Consistency Meter, L&W Multiview, 3D program for PC, battery charger with power cable, 12 V cable for car, USB cable, reference plate, user manual, carrying case

Measurement
Range 30–50 000 grams of water/m²
Resolution Approx 2 % of measured value but not better than 5 g/m²
Measuring sampling rate 1 000 values /sec
Measuring area 25 × 70 mm
Measuring method High frequency electromagnetic resonance.
Measurement type Single point measurements on forming fabrics between stepfoils and vacuum boxes or CD profiles

Instrument
Consist of 3 parts: Handle with electronics and display, extension rod and measuring head. Can be used with the extension rod for single point measurements or without extension rod for CD measurements.

Display
Colour display 320 × 240 pixels
Results g H₂O / m² % H₂O % dry content

Dimensions
Length: 1200 – 1600 mm (extendable) 47.2 – 63 in
Width: 140 mm (electronic box) 5.5 in
Thickness: 80 mm (electronic box) 3.15 in

Aluminium carrying case 0.55 x 0.38 x 0.22
(21.6 x 15 x 8.7 in)
Volume 0.046 m³ 1.6 ft³

Net weight 4.3 kg 9.5 lb
Weight incl. accessories 8 kg 17.6 lb

For more information, please contact:

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