### Data sheet

# L&W SR Tester Lorentzen & Wettre Products | Pulp Measurements

L&W SR Tester measures the drainage of a pulp suspension, as determined by the Schopper-Riegler method and expressed as the SR number. The Schopper-Riegler method is intended for long fibred pulps that produce a dense fibre mat on the screen.

L&W SR Tester consists of a drainage chamber complete with a wire screen, sealing cone, and funnel mounted on a support which allows the unit to stand alone on the bench top. The wire screen forms the bottom of the drainage chamber and is held in place by a threaded frame. L&W SR Tester is intended for long fibred pulps that produce a dense fibre mat on the screen. At the start of the test, the sealing cone is lowered so that it closes the drainage chamber. The cone is moved up or down by means of a hydraulic piston, which is operated by a hand valve on the base plate. The upward velocity of the sealing cone is factory set, in order to obtain the proper results. A choke valve under the base of the instrument allows for precise control of the speed.

# Pulp preparation

The pulp sample must be properly prepared before a test can be performed. The pulp is diluted to a consistency of 0.20% (2g/l ± 0.02 g) and the temperature is adjusted to  $20^{\circ}C \pm 0.05^{\circ}C$ . A volume of 1000 ml is poured into the drainage chamber, with the sealing cone in the lowered position. The cone is raised 5 seconds after all the pulp suspension has been added. The discharge from the bottom and side orifices is collected. The filtrate from the side orifice is measured in a special cylinder, graduated in SR units. A discharge of 1000 ml corresponds to zero (0) SR units, and zero (0) discharge to 100 SR units. Therefore, one (1) SR unit = 10 ml. Duplicate determinations should be performed on each sample and must not differ by more than 4%.

# **Benefits**

- Suspension volume in drainage chamber 1000 ml
- Result volume expressed in ml, of the filtrate from the side orifice of the rate measuring funnel (original design)
- Scale on which a discharge of 1000 ml corresponds to a SR number of zero and zero discharge to a SR number of 100
- Measurement glass cylinder or balance can be used
- Wire screen of phosphor bronze with 24 weft and 32 warp meshes per 10 mm
- Two consecutive measurements with a difference greater than 4% shall be repeated



# **Technical specifications**

L&W SR Tester – code 014			
Measurement range		10- 90 SR°	
Consistency should be		0.2%	
Temperature		Correcting to 20°C	
Water		According to ISO 14487	
Water connection		400 kPa (60 psi) min	
		600 kPa (90 psi) max	
Drain require		50 mm diameter	
Dimensions	0.3 x 0.5 x 1.3 m	Volume	0.35 m <sup>3</sup>
	(12 x 20 x 51")		(12.36 ft <sup>3</sup> )
Net weight	26 kg (57 lbs)	Gross weight	50 kg
			(110 lbs)

#### Standards

ISO 5267/1, SCAN C19:65, Merkblatt V/7/61



## ABB AB / Lorentzen & Wettre

For more information, please contact:

P.O. Box 4 SE-16493 Kista Sweden Tel: +46 8 477 90 00

# www.abb.com/pulpandpaper

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