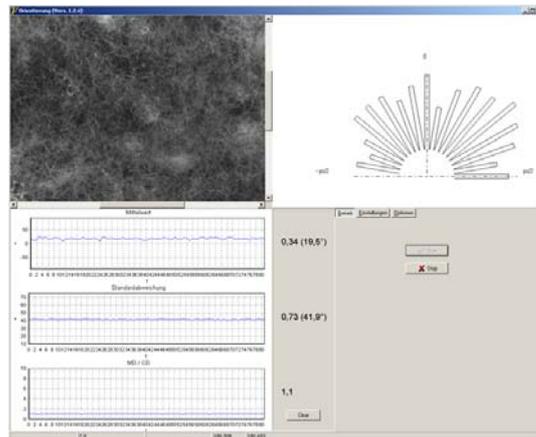


# NOS 200



The fiber orientation and its distribution along and across the machine direction is of crucial importance for web characteristics such as strength, tenacity and working capacity.

This demand for accurate monitoring of the fiber orientation is fulfilled by **NOS 200**, which offers online or offline inspection of the web. Out of the detected distribution of the fiber orientation, the relation of the strength along and across the web can be estimated.

With **NOS 200**, producers of nonwoven web receive fast and non destructive control of the MD:CD ratio of the fiber orientation, thereby also receiving an indication of the homogeneity of the fiber orientation.

Applied online, **NOS 200** leads to faster and less costly set up of machines and processes at production begin or beginning a new charge. The consistent process monitoring means less waste and a constant quality level, which can be controlled automatically by applying the optional closed-loop control.

Developed in cooperation with FIBRE fibre institute in Bremen, Germany

*The Testing Company*

# NOS 200

# NONWOVENS ORIENTATION SYSTEM

### Scope:

Determination of the fiber orientation characteristics of a nonwoven web, online or offline. Since the strength of the nonwoven material is directly connected to the fiber orientation, the web strength can be derived based on the automatic calculation of the ratio of fibers in machine- and cross direction of the web.

### Method:

An intensive LED lamp illuminates the web with incident light whereas images are grabbed continuously by a fast CCD-camera. By means of a special algorithm, the fiber orientation is then calculated.

### Results:

The algorithm analyses the fiber orientation according to the frequency of the fiber position angle related to the machine- and cross directions. Thereafter the mean value of the angle, the standard deviation and the ratio between CD:MD are calculated and presented in the software.

**NOS 200** features a real time software analysis program, which continuously gives feedback about the present fiber orientation.

### Illumination:

LED lamp(white)  
24 V, 32 W

### Web speed:

max. 80 m / min  
(optional: 300 m / min)

### Power requirements:

100 - 240 V  
60 / 50 Hz

### Distance optics - object:

10 - 50 mm

### Ambient temperature:

10 - 60°C

### PC minimum requirements:

Intel Core2 Duo, 2GHz  
4GB Ram  
Microsoft Windows XP Professional SP2  
Hard disk 200 GB  
Interface:  
Gigabit Ethernet (GigE)  
Network Adapter (either PCI card or LOM): For ultra high performance, an Intel PRO/71000 MT adapter must be used. The NIC should have „Jumbo Frame“ support.

### Observed image area:

20 mm x 20 mm

### Relative humidity:

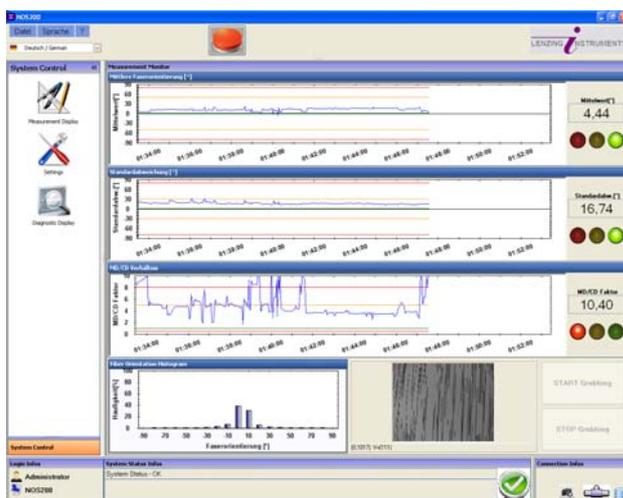
max. 90%, not condensing

### Sampling rate:

Selectable;  
max. 20 measurements/min  
(option: 60 measurements/min)

### Protection class:

IP 64



Example of a results printout

Technical data and pictures are subject to change!

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