

# Feltest TensioMaster



**Instruction manual**

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## Description

The Feltest TensioMaster is an instrument for measuring tension in flexible thin webs generally encountered in paper mills, such as:

DRYER FELTS

DRYER FABRICS

PRESS FELTS

PRESS FABRICS

FORMING FABRICS

SOME PAPER SHEETS

The operation is based on the principle that the amount of deflection of a flexible membrane (fabric) under load is dependent upon the tensile stresses in the membrane. The load is provided by an internal spring, and the amount of web deflection is measured by a dial indicator, calibrated in thousandths. The deflection is converted to tension in N/mm.

The design of the instrument is such that the reading is normally unaffected by the amount of pressure applied by the operator.

The Feltest TensioMaster can be used on webs running in any angular attitude, and it can be applied on either side of a web. The magnitude of readings is also independent of speed or moisture content of the web.

The instrument can be used safely in wet surroundings since the internal mechanisms are protected by seals and rubber bellows.

The range of tension measurable with the instrument is 0.5 to 20 N/mm with an accuracy of  $\pm 8.5\%$  of the tension reading.

## Operation

1. Set the pointer of the dial indicator to the zero mark by moving the sliding pointer back.
2. Hold the instrument by the outer housing assembly. Do not contact the base plate/frame while taking measurements.

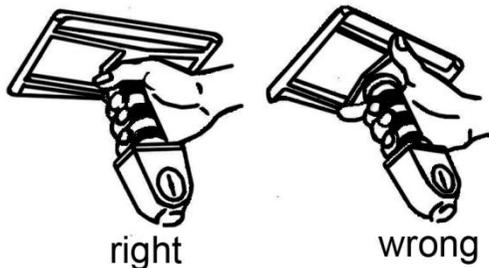
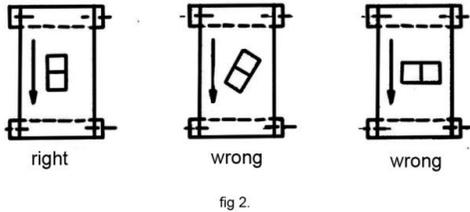


fig. 1

3. With the longer side of the frame oriented in the machine running direction, press the instrument slowly against the web until the pointer of the indicator stops.



4. Remove the instrument and read the dial.
5. Reset the pointer of the dial to the zero position and perform the measurement at least once more to check repeatability.

## Recommendations

To ensure your own safety and to prevent machine damage, do not apply the instrument near an ingoing nip.

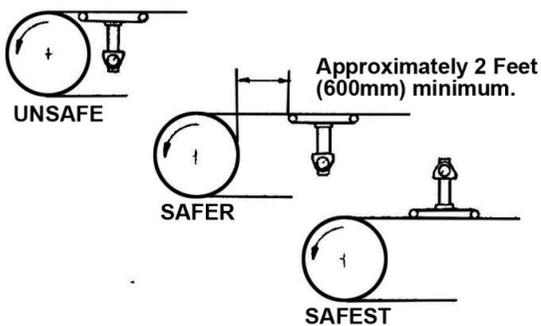


Fig. 3

Where lapped seams are present, avoid seam impact on the instrument by timing the measurement to correspond with web cycles.

When measuring slack spans, avoid wrinkling the web by measuring close to a support roll.

Apply the TensioMaster gently

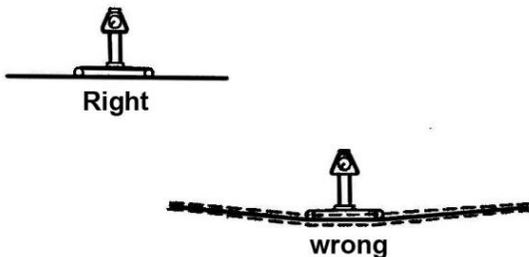


Fig. 5

Do not use the TensioMaster on top of a roll

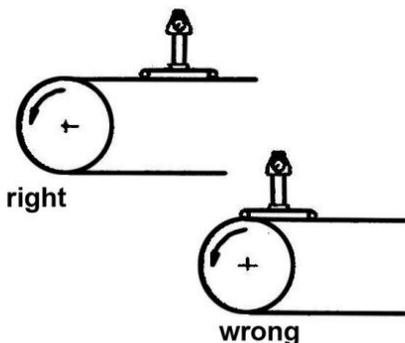


fig. 6

## Safety

Please consult site safety systems before using the Feltest TensioMaster. Avoid ingoing nips.

## Maintenance

No special maintenance procedures are required. However, the Feltest TensioMaster should be externally cleaned and dried after use. If necessary apply a small quantity of silicone grease to the spindle where it enters the rubber bellows seal. This is required to ensure smooth operation.

DO NOT DISASSEMBLE THE INSTRUMENT



## Service

For service (exchange / refurbishment) please contact the address below:

Feltest Equipment BV

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