

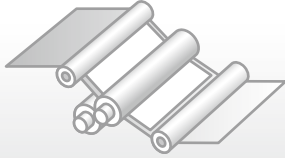
Pressure Measurement Film

PRESCALE

Application Examples

[No.11]

Measured Object



Size press rubber rolls

Uses

Checking wear of rubber rolls of size presses

Benefits

Less material loss

Higher quality

Industry

Paper manufacturing (papermaking process)

Applications

Checking for wear on size press rubber rolls when changing paper sizes

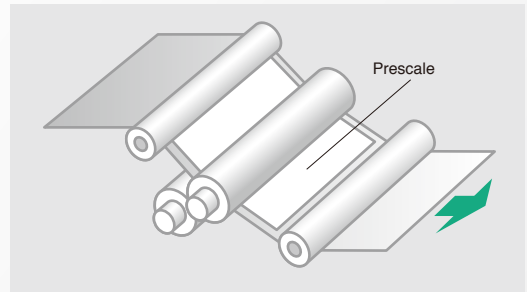
Challenges

When switching from narrower to wider paper gauge: If there is even a slight amount of wear where the edges of the narrower size press rubber rolls touch, "striping" or other irregularities may occur when wider rolls are used. Up until now, such abnormalities could only be detected by checking the rolled paper after the papermaking process was started. In the worst situations, it has been necessary to perform repeated cycles of applicator roll polishing and test rolling to remedy such problems.

Measurement

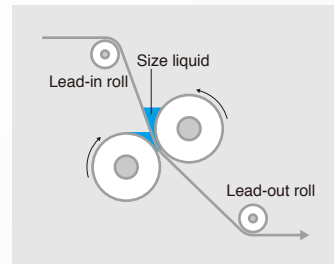
Product used: Prescale (Super Low Pressure LLW)

In size press processes, chemicals and coatings are applied to the surface of dried paper. As a check before papermaking, Prescale film (LLW) is passed through the press (without any size liquid applied) to check for the presence of wear. A final assessment after polishing can also be made using the same method.

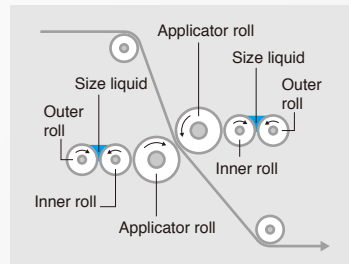


[For all types of size presses]

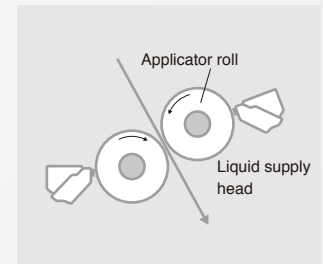
■ Pond type



■ Gate roll type



■ Metered size press type



Results (images)

The presence of fine wear and scratch marks on size press rolls, which previously could not be detected before starting the papermaking process, can now be identified beforehand.

[Not Good]

Rubber roller wear can be seen near the edges of the narrow roller.



[Good]

There are no signs that the rubber roller is worn, thus indicating pressure is being applied evenly.



Benefits of Prescale

If there are scratches in the size press roll when the size is changed, various losses occur:

- **Loss of time**
Approx. half a day for repairs
- **Loss of materials**
Loss of hundreds of meters of material
- **Loss of quality**
Quality abnormalities occur if roll wear is overlooked

Without using Prescale

After the size is changed, as the papermaking process is started, the output paper is checked for problems. If “striping” or another defect is found, the faulty roll is polished and papermaking is restarted. If the “striping” has not been fixed, the process must be repeated. Thus, **time and material losses occur.**

With Prescale

When the size is changed, Prescale is used to check for roll wear before starting the process. It only takes about 30 minutes to perform this check, and it can be done while making other size changes. If scratches are found, polishing and checking with Prescale can be repeated until no further scratches are observed. Papermaking can then be started with confidence. **The result is higher productivity and quality.**

*Note that the specifications and performance data described in this catalog are subject to change without notice for the purpose of improvement. Since the images provided are used for illustration purposes, they may differ slightly from actual products.

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<http://www.fujifilm.com/products/prescale/>