

# Nip studies

Troubleshooting – condition testing – optimisation - modernisations

**Nip studies** should be carried out, if there is some alarming visual changes in machine running parameters:

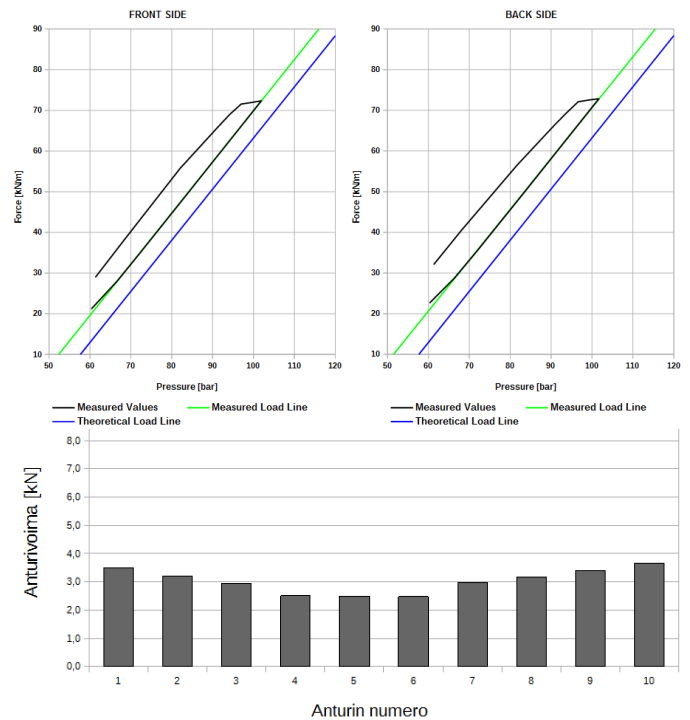
- press section runnability problems
- uneven moisture and permeability profiles in press felts
- uneven sheet moisture profile after press section
- strongly uneven steam box actuator profiles
- damages in felts or roll covers

Press section nips may also cause problems at the dry end. At size presses, sheet fluctuating and breaks can occur because of uneven nip loading. At calenders, uneven sheet CD thickness profiles, sheet breaks and uneven profiling system actuator profiles may be indications of uneven nip loading.

Nip studies can be made to all type of roll nips throughout the machine line (press, sizepress, calender, reel).

**Our specialists** have an experience of measuring and adjusting over 250 individual nips worldwide.

Measurements are carried out with **state-of-the-art equipment**.



Nip studies can include for example:

- Nip force measurements (actual linear load)
- Nip pressure profile measurements
- Loading and roll hydraulics/pneumatics measurements
- Automation system control program review
- Alignment measurements
- Design of sensor brackets for nip force measurements
- All needed tuning and repairing actions will be made during the visit

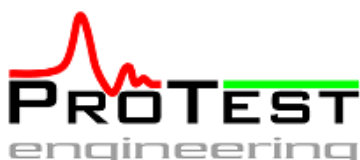


## Troubleshootings

- Profile problems
- Hydraulic/pneumatic problems
- Mechanical condition
- Runnability problems

## Modernisations:

- New control valve technology
- Hydraulic nip loading with position and force control
- Hydraulic units
- Complete nip control systems



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