TAPIO Analyzers
Tapio Automatic Roll Quality Profiler

AUTOMATIC TAPIO RQP

Key features of Automatic Tapio RQP:

- Fully automated roll quality profile
- Precise robotic sensor movements to avoid human hand errors
- Confirm overall roll quality
- Rule out off-spec rolls
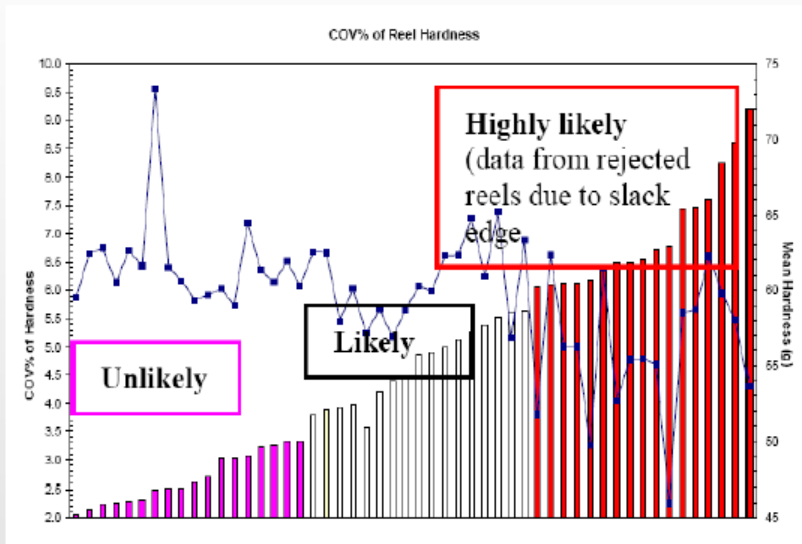- Roll ranking based on profile and key values (COV)

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COV% roll hardness and mean hardness*

COV% of Reel Hardness

Highly likely (data from rejected reels due to slack edge)

Likely

Unlikely

Roll Ranking
Good/Fair/Poor

Rule of thumb in deterning poor roll structure *

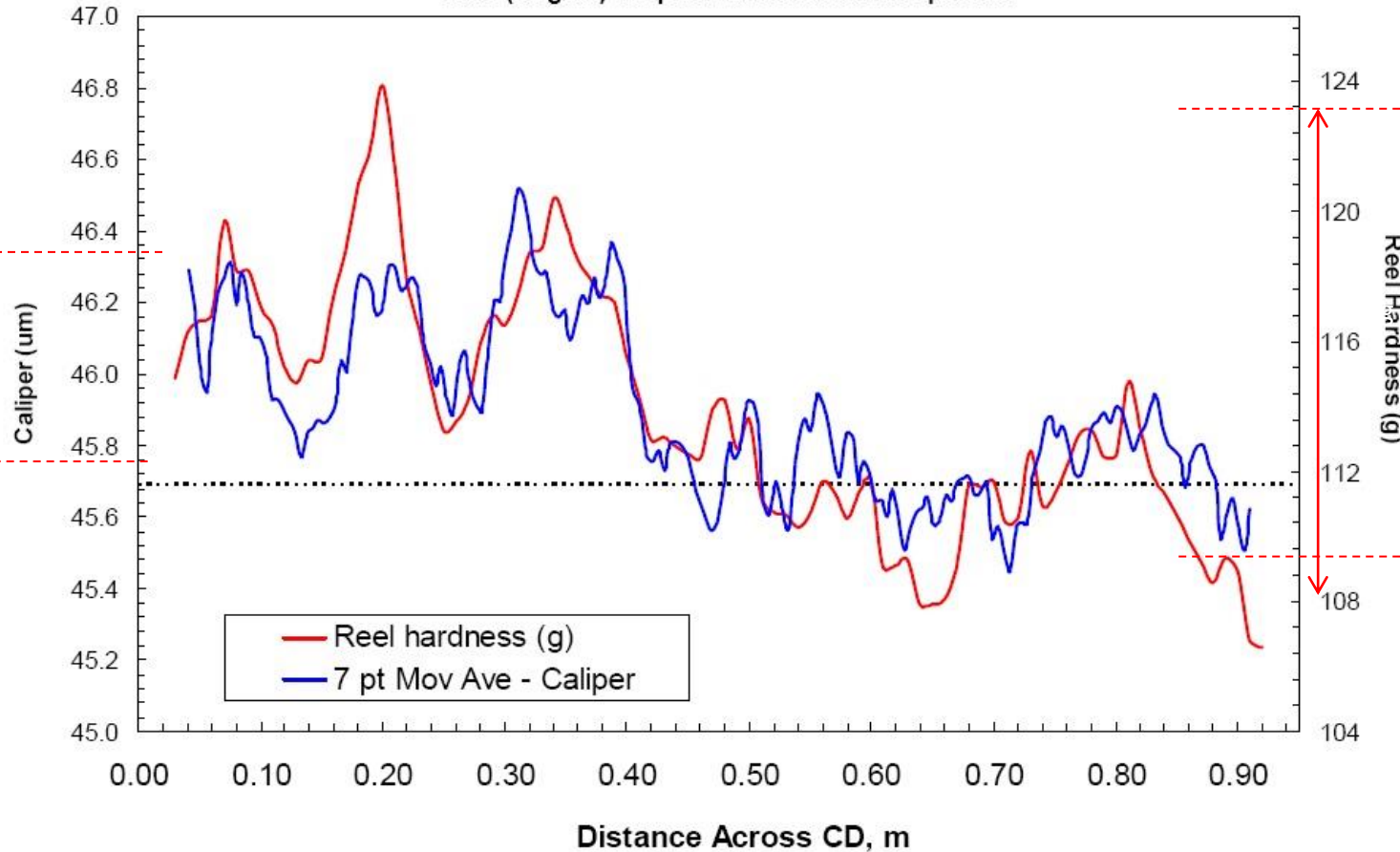| Variation in Reel hardness COV%	0-3.5%	3.5-6.0%	>6.0%
Comment	**Unlikely** to cause runnability	**May** cause poor runnability. Consider other factors	**Highly likely** to cause problems

*D. Wanigaratne, Appita 2010

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LWC (52 g/m^2) Caliper and Reel hardness profiles
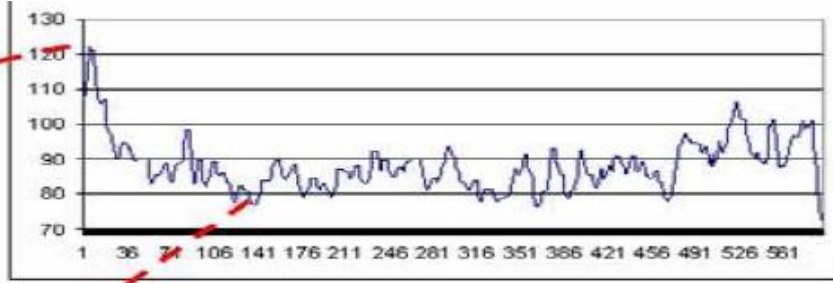
- 0,5 um thickness variation
- 15 % hardness variation

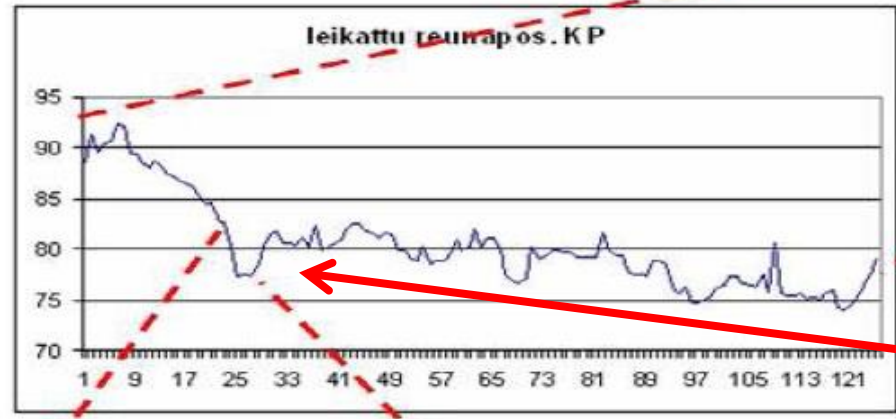$\Rightarrow$ HARDNESS IS VERY SENSITIVE PROFILE MEASUREMENT

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Parent reel

Customer roll

leikattu reunapos.KP

Quick and sharp variations in RQP profile indicate issues in quality of the customer rolls.

Picture from the surface of the customer roll. Streak problem.