

## Paper machine: Felt adjustment

- High speed paper machine
- System Reporter 200 with software version 5

This application note describes a problem with the felt in the press section of a paper machine. The felt had a varvtal of 0.7 Hz.

The problem was detected when an alarm was triggered in the frequency range 30-100 Hz (the third and fourth bars in ). On this paper machine, alarms in this region often originate from felt vibrations.

To adjust the problem, a riktvals (roll 7 in Figure 2) was adjusted (snedställning), while using the minute measurement facilities in System Reporter. The minute measurement performs a FFT calculation every minute which is displayed in a trend such as in Figure 3. Adjustments are rapidly reflected in the trends and optimum settings for the felt can be set.

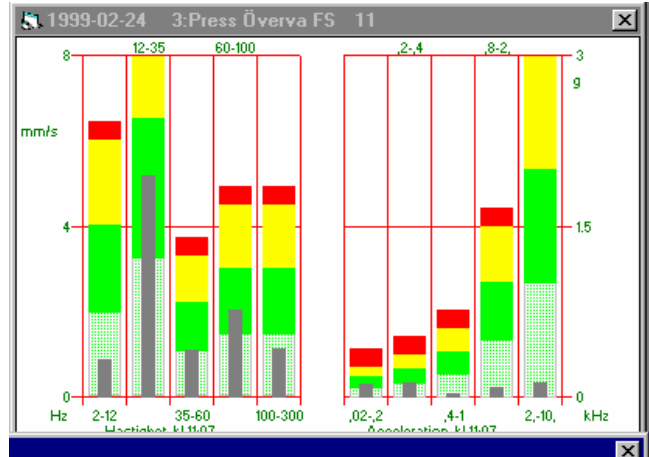


Figure 1. Bar graph with 10 adjustable frequency ranges, each with separate alarm limits. Both alarm levels and current values (narrow bars) are shown in the graph.

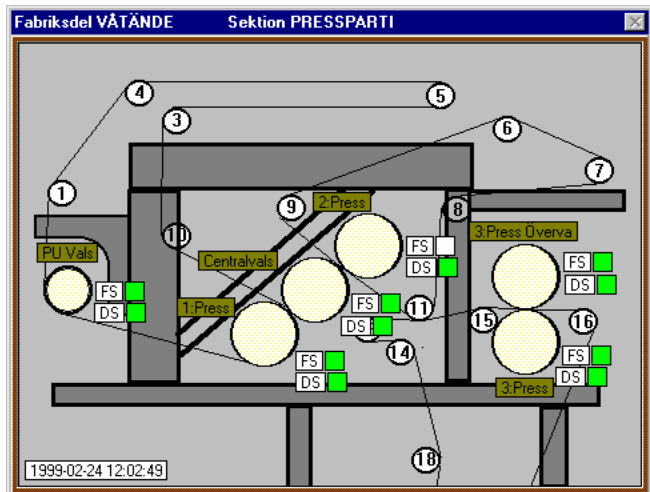


Figure 2. Press section.

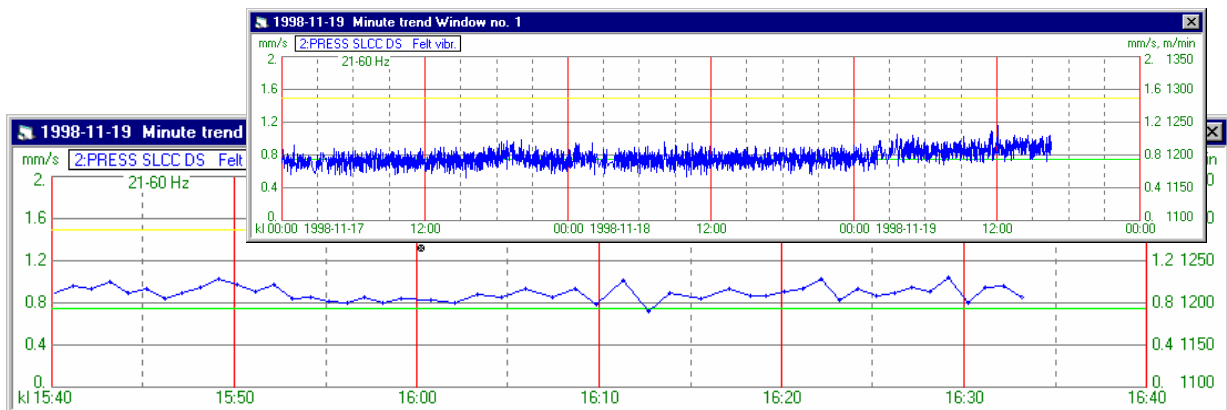


Figure 3. Minute trends with time scale three days (upper) and one hour (lower).

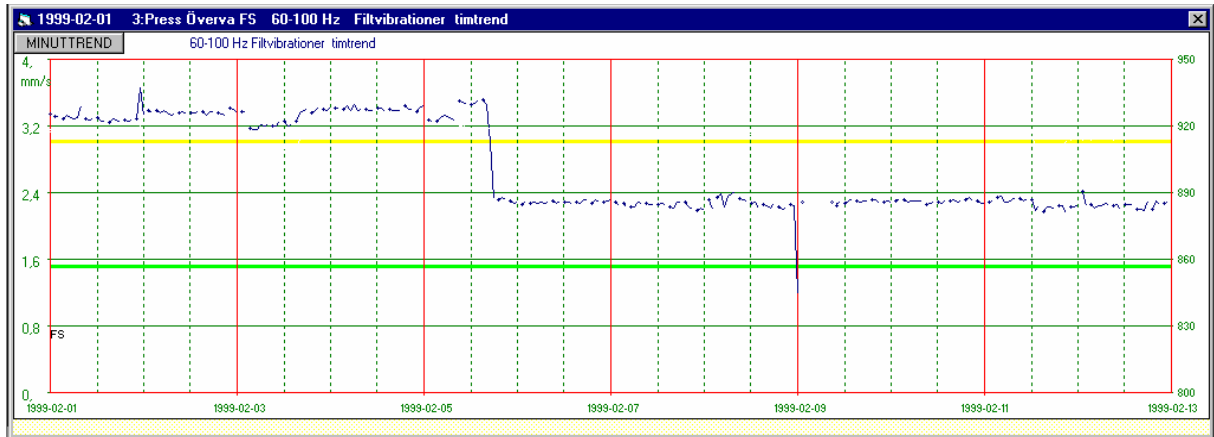


Figure 4. Trend showing the frequency range 60 – 100 Hz from February 1 to 13. The felt adjustment was performed on February 5, and the vibration level dropped consecutively below the alarm limit.

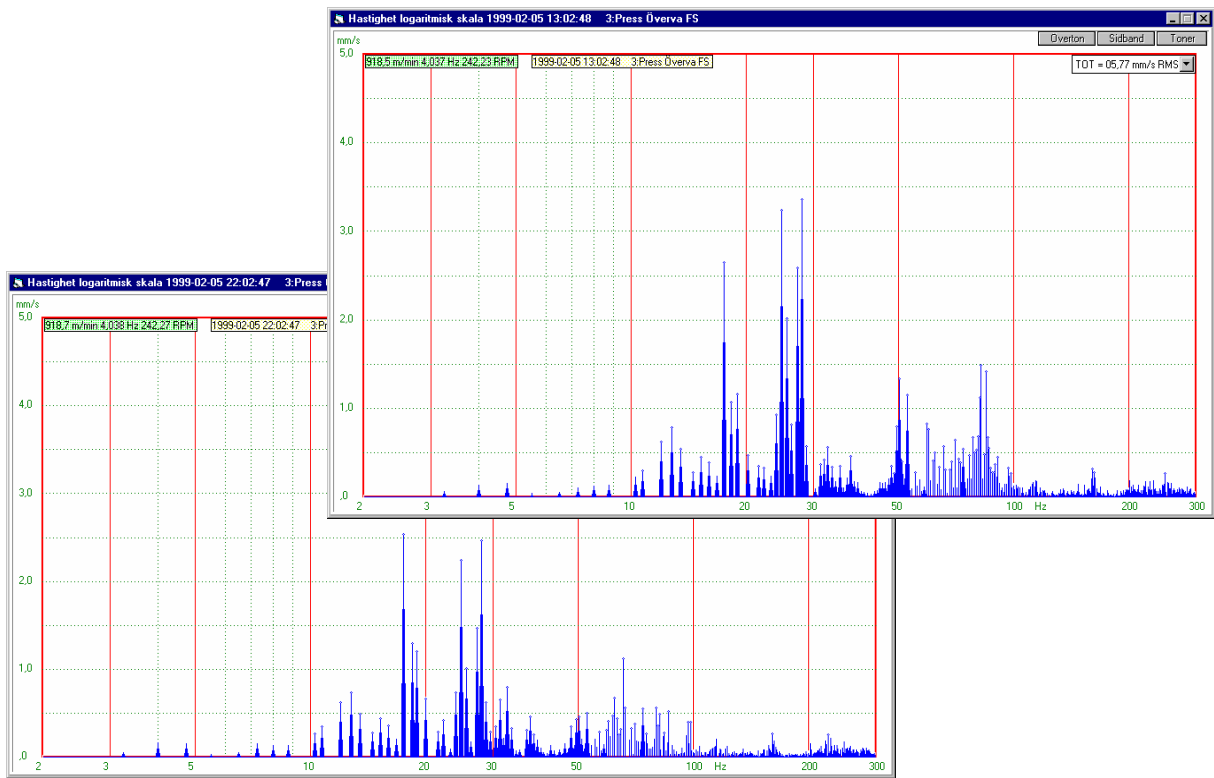


Figure 5. Spectra taken before (upper) and after (lower) the felt adjustment. The peaks originating from the felt, in the area 30 – 100 Hz, are considerably reduced in the lower spectra.



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