ELETTA Reality Report

#2

Holmen Paper • Hallstavik • Sweden

Holmen Paper – versatile A series

The paper mill in Hallstavik originates from 1913. Eletta flow monitors have been used since the 1960's.

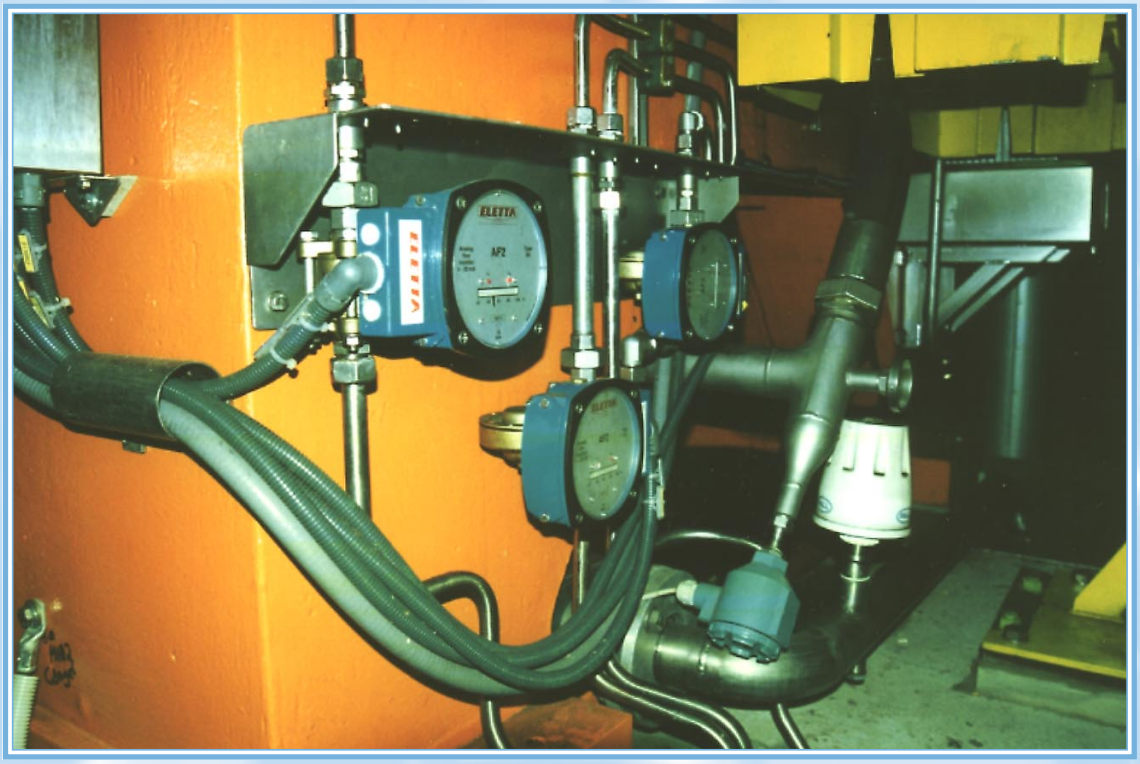
The paper and pulp industry has always been an important end user for Eletta Flow. The Hallstavik paper mill is a good example how a customer stays with Eletta for a good reason. The A-series adds modern features to range characterised by reliability and longevity.

Decisive factors – summary:

- Favorable price compared to magnetic flow meters
- Measures both oil and water as opposed to magnetic flow meters
- Need for one supplier
- Sufficient accuracy for the application
- Good record of reliability
- 4-20 mA output

Eletta flow

when you want to know



There are four paper machines producing 700 – 800 000 tonnes, of printing paper

Background

The paper mill in Hallstavik is situated about 90 km north of the Swedish capital Stockholm. The mill originates from 1913 and has had various owners over the years, today it belongs to the Swedish company Holmen Paper.

There are four paper machines producing 700 – 800 000 tonnes, of printing paper for newspapers and magazines, annually. The mill in Hallstavik is an integrated pulp and paper mill, meaning that all pulp is produced and supplied internally.

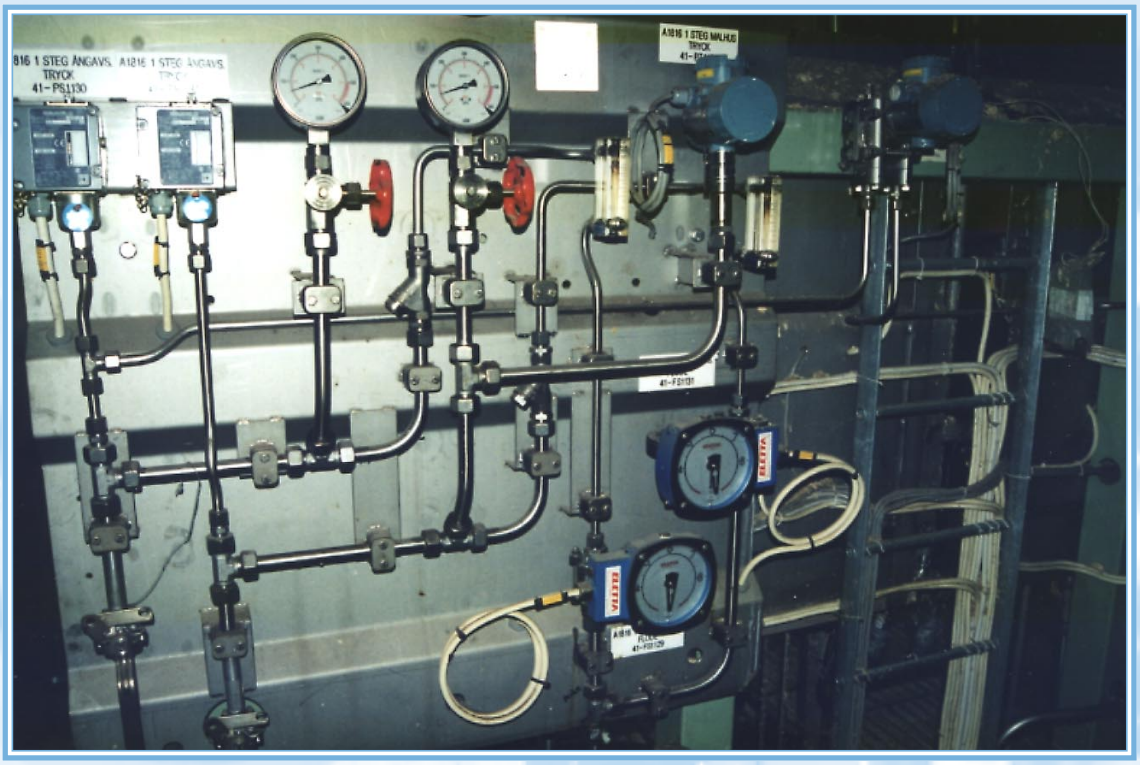
Three kinds of pulp are produced at the mill: thermo mechanical pulp (TMP), de-inked pulp and ground wood pulp.

Eletta flow monitors have been used since the 1960's for producing thermo mechanical pulp.

Problem

Eletta's flow monitors are used in the high-speed refiners. A brief description of the process follows in three steps: The first step is to remove the rind from the wood; this is done in a drum barker. Then the wood is chopped into chips. The wooden chips are stored in a special silo in order to ensure an even supply. From the silo the chips are supplied to one of three pulp lines, where they are actually refined into pulp by a sophisticated grinding process. The grinding is performed in four high-speed refiners produced by the Austrian manufacturer Andritz. Each one of the high-speed refiners has an output of 17 MW.

The Eletta Flow monitors are used for measuring the supply of flush water for the rubber-sealings and lubricating oil for the high-speed refiners as well as the electrical engines.



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Line of argument

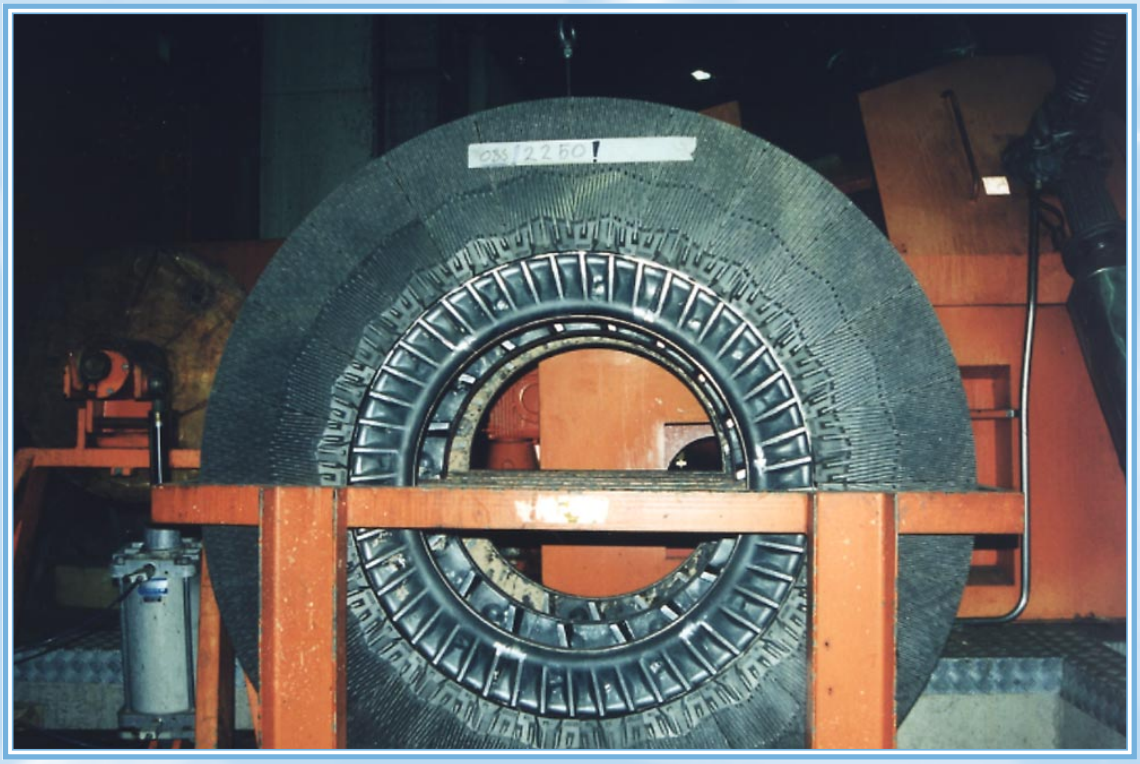
Accuracy: The accuracy provided by the Eletta flow monitors, +–5FS; was regarded as reasonable.

Price: The price was a decisive factor, it was favourable in comparison to a magnetic flow meter

Standardization: The trend towards DCS-systems favored the A-series with a 4-20 mA output signal. Being able to monitor the flow continuously on a monitor as well as being able to readjust alarms etc. remotely is a major advantage. Sometimes only the built in relay of the monitor is needed and then you could argue that a simpler and less expensive solution would be more appropriate. However, having just one standard unit was considered more important. The differential pressure principle, well suited for measuring flows of both oil and water was a further advantage for Eletta compared to a magnetic meter flow meter in terms of standardization.

Reliability: Having supplied Hallstavik paper mill since the 1960's Eletta's reputation as a supplier of extremely durable and reliable equipment is rock solid.

The differential pressure principle, well suited for measuring flows of both oil and water was a further advantage for Eletta.



Holmen specified that the four refiners from Andritz should be equipped with Eletta A5 flow monitors.

Solution

The final decision was that the A-series with a 4-20 mA and adjustable relays was the best solution.

Since it is the most complete model in the Eletta range it was the one that best fulfilled the requirement of standardization. Holmen specified that the four refiners from Andritz should be equipped with Eletta A5 flow monitors. In all 21 units were installed to measure both the lubricating oil and the flush water for the sealings of the machinery.

The combination of thermometers, pressure gauges and pressure switches gives a complete picture of the process. Monitoring deviations, which may cause costly, breakdowns, at an early stage and take counter actions or adjusting the alarms is a relatively easy process.

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