



PERMI Application note

Better quality and 15 % more production rate



Case in a nutshell:

GRADE:

Filtration paper

ISSUE:

Slow grade changes – loss of production

ROOT CAUSE:

Approval according to the lab measurement

SOLUTION:

PERMI on-line measurement

KEY VALUE:

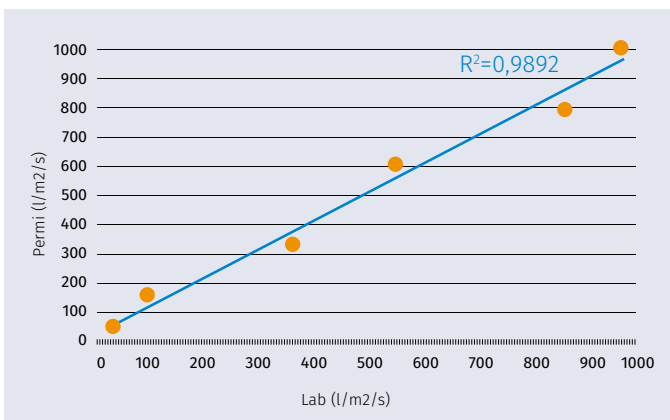
Better quality and 15 % more production rate

Problem

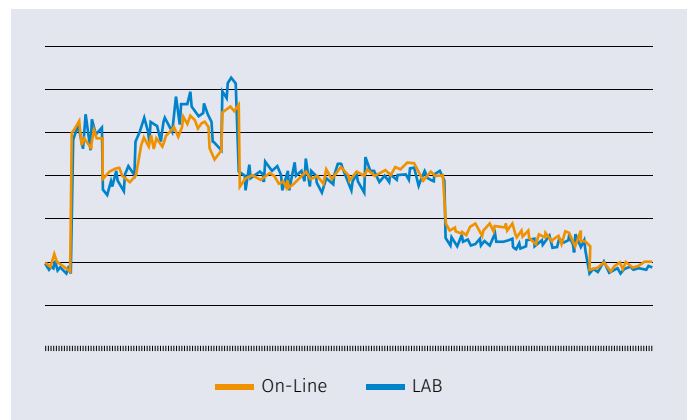
We produce and deliver filtration papers for several industries and end uses. The uniform filtration result is the core requirement from our customers. We have noticed that the air permeability is the best indicator for the uniform separation performance and thus we measure it regularly in our laboratory. However, due to various end uses, our permeability range is wide and the right level needs to be adjusted for every grade. This takes time and during the adjustment we produce broke and lose money!

Solution

It was clear that the laboratory measurement did not respond fast enough for our grade changes so we explored different on-line air permeability devices in order to follow the air flow through our filter web continuously. Our wish list for such an analyzer was following: **1)** Great correlation with the laboratory results ie. reliability. **2)** Wide measurement range **3)** No need for calibrations between various grades. There was only one analyzer that could fulfill all these requirements and we purchased PERMI by ACA Systems. Results were amazing: we speed up the grade changes and increased the production rate by 15 % at the same time we improved our quality by having more uniform filtration result.



The correlation between PERMI and Lab measurements



PERMI measures different air permeability levels without any calibrations

Learning

Uniform filtration results is a key deliverable for industrial customers. The air permeability measured on-line in machine direction is a great indicator of a filtration web structure and thus reflects directly the separation performance. PERMI is designed for such applications as it does not require any calibrations for certain permeability level, but follows continuously the air flow through the substrate.

Comment from the mill

“The payback of our PERMI investment was 2 weeks”