



We secure your competitive edge



# ACA Permi PD™

Smart solutions for the web industries

ONLINE PRESSURE DROP ANALYZER  
FOR FILTER MEDIA PRODUCTION



**ACA SYSTEMS OY – We secure your competitive edge**

**40** is the number of countries we have delivered our systems

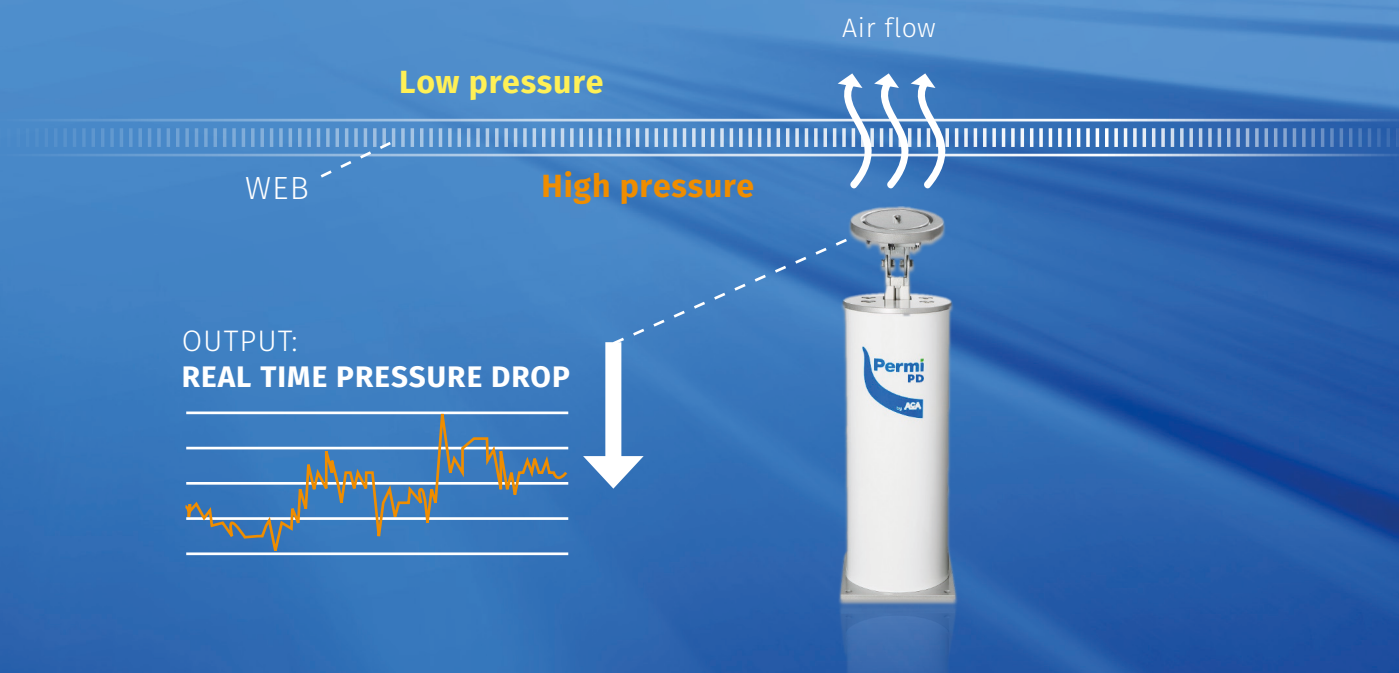
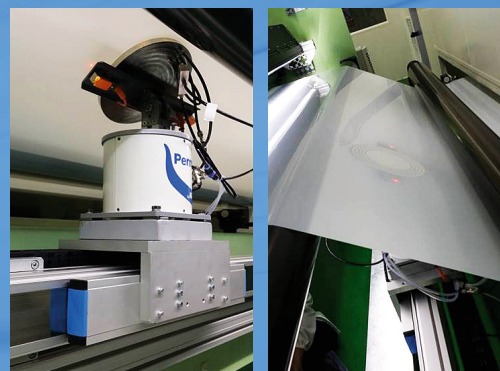
**30** years we have been in the business

**20 %** is the growth rate of our company

[www.aca.fi](http://www.aca.fi)

# On-line pressure drop measurement adds value in several ways:

- Uniform filtration results due to controlled quality
- Real time information about the process
- Possibility to control process parameters
- Understand the connection between the process and the quality
- Reduces the need of laboratory measurements



## ACA Permi PD delivers

### Stable process |



With PERMI our customers have stabilized their processes and achieved for example:

- Improved filtration results
- + 15 % production rate increase
- + 50 % faster grade changes
- 25 % production costs

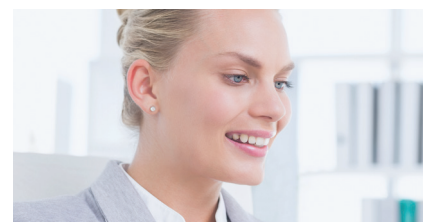
### Reliable data |



No other on-line device can deliver such reliable data than ACA PERMI PD

- >0.95 R2 correlation between PERMI PD and pressure drop analyzers
- Applicable to most common standards

### User Friendliness |



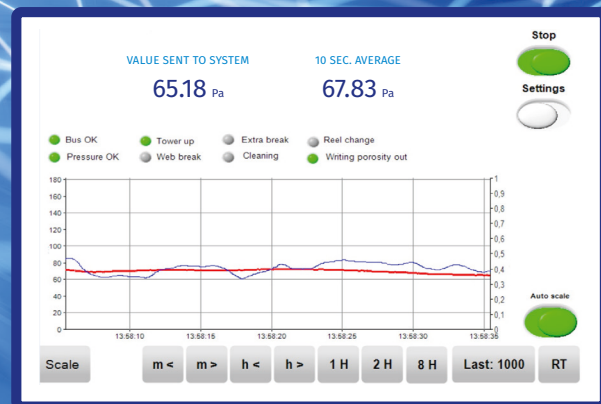
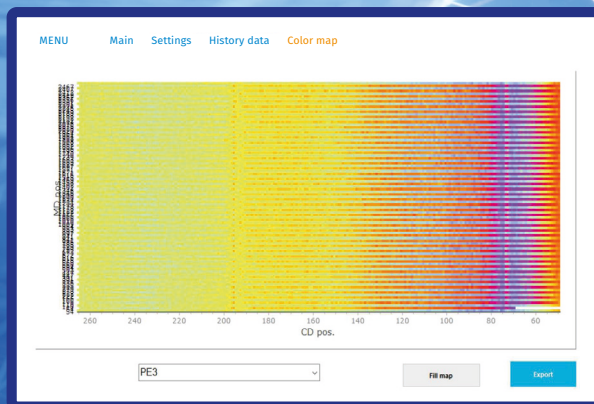
ACA PERMI is easy to install and use

- Wide measurement range with only one calibration
- Fixed point or scanning installation
- Automatic cleaning cycle
- ACA Process view interphase

# ACA PROCESS VIEW

## – Intelligent user interface

Multiple displays and calculations in cross and machine direction.



## Three steps and let's go!

1. Evaluation of measurement range and installation environment
2. Selection of right measurement head design and technology (fixed point / scanning)
3. Correlation set up against used lab measurement / method

“Permi is our early-warning-system for any undesired changes in our process”

“Permi is a great overall and cost effective measure of web structure”

**Payback time is measured in weeks rather than months or years**

Contact us for detailed information and application notes

## SPECIFICATIONS |

Measurement principle	Permi LP (Vacuum) or Permi HP (Air Blow) method Single side (usually lower side) Fixed point or Scanning Continuous air flow through the web Measurement sample time 2 ms
Output type	2-wire, three outputs, 4 – 20 mA & Ethernet
Operating temperature	Measuring unit, 110 deg C max Control unit, 50 deg C max
Dimensions	Measuring unit 630 x 200 x 200 mm, 13 kg Control unit 600 x 400 x 200 mm, 20 kg
Measurement ranges	Pressure drop 1 -2500 Pa 0,02–12 000 l/m <sup>2</sup> /s Gurley, 0,02–6 000 sec Bendtsen, 1–50 000 ml/min Coresta , 1–40 000 Cu Any other method
External connections	Power Supply: 100–240 VAC, 50/60 Hz or 24 VDC 2A Air Supply: 6–10 bar, 200 l/min, clean and dry air Instruments Signals: 2 Analog outputs, 4–20 mA; 2 Binary Inputs, Break Input; Reel turn up; Ethernet to PC (Optional)
Software	ACA ProcessView
Special features	<ul style="list-style-type: none"> <li>• Automatic self-cleaning cycle (adjustable time)</li> <li>• Optional cloud service for real time results and maintenance data over internet connection.</li> <li>• Possibility to send output data to all commercial data bus systems including OPC.</li> <li>• Possibility to tailor the user interface to meet customers' needs and standards.</li> <li>• Traceable parameters, all changes made to Permi parameters are stored into the system.</li> <li>• Local database can hold even months of measurement data which can be retrieved to user interface.</li> </ul>
Maintenance	Filters to be replaces every 4–8 weeks
Calibration	Single calibration curve per measurement system
Scanner options	Width and scanning speed are chosen according to the application.

**ACA SYSTEMS** is the leading supplier of process and quality control analyzers for the web and chemical industries.

Our solutions are well known all over the world in the paper, packaging, nonwovens, battery separator films and related industries.

Our product range consists of **PERMI** Air permeability analyzers and Pressure drop analyzers for both on-line and lab environment, **ACAV** ultra high shear rate viscometers, **DWR** dynamic water retention analyzer and the newest innovation **ROQ** roll hardness profiler.

We have worked 30 years closely together with our customers to develop new tools and solutions for the process and quality control.

Our expert services include trouble-shooting and product development consulting, maintenance and calibration services.

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