## Process Simulation & Lab Testing

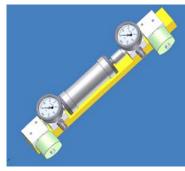
# Ronningen-Petter®



### **New Capabilities for Process Simulation**

The Ronningen-Petter Application Development Lab is adding new capabilities to improve the filter sizing and media selection capabilities for our fine filtration product line.

We are pleased to announce the availability of the new Process Simulation Cell, a benchtop test method that can be used to estimate application performance of backwashing and bag/cartridge filter systems, using a small quantity of customer-supplied sample.



Model of Process Simulation Apparatus (filter housing & valves)

The Process
Simulation Cell
is a compact,
portable unit
which can be
operated either
as an external
backwashing
filter or as a
removable media filter. It is
fully instrumented and

works in conjunction with a flow-calibrated pump. This system provides a fully controlled test environment in which filter media can be evaluated under process conditions similar to those of actual customer applications.

Besides providing media performance data, the Simulation Cell can estimate basic system performance information, such as cycle time, backwash system effectiveness and flux-rate optimization.

The sample quantity needed by the Process Simulation Cell is typically 5—10 gallons, a quantity that is easily provided and shipped by customers.

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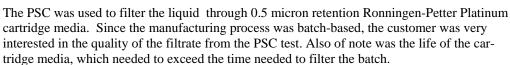
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The Process Simulation Cell is capable of handling temperatures of up to 180°F and can analyze non-hazardous liquid samples of low-viscosity consistency (water, alcohol, and oil-based).

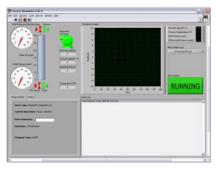
#### **Process Simulation Success Story**

During the weeks of June 20 — June 27, 2005, components of the Process Simulation Cell (PSC) were used to validate the Ronningen-Petter 740 Platinum cartridge series on several essential oil samples provided by a Midwestern manufacturer.

The liquids were evaluated using the filter body and pump components of the PSC. This evaluation was done with the customer present in the test lab at Ronningen-Petter's Portage, Michigan facility.



Based on the superior quality of filtrate and long run time from the PSC test, the customer placed an order with his local Ronningen-Petter representative for an additional 740 system and filter media.



Concept for Process Test Cell control software

### **Process Simulation Cell:**

- Backwash and Cartridge Systems
- Application-Focused
- Provides System Performance Info
- Controlled Test Environment
- Small Sample Size
- Portable Test Unit



Model of Process Simulation Apparatus (filter housing & valves)

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