RUDOLPH RESEARCH ANALYTICAL

VERSATILE INSTRUMENT COMBINATIONS FROM RUDOLPH RESEARCH ANALYTICAL.

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

NVLAP LAB CODE: 200898-0
Accreditation to ISO/IEC 17025:2005

COMBINED DENSITY / REFRACTIVE INDEX INSTRUMENTS

Many users need to measure both refractive index and density and feel that a combined system will be a good alternative. The advantages of such a system are many;

- Since parts are shared the total cost of the system may be less
- There may be less operator time needed to load and clean the system.
- Many laboratories combine the density and refractive index results and use them to calculate a third parameter. Having both results exported into the same file makes the calculations easier.

THE SYSTEMS OFFERED BY RUDOLPH ARE AS FOLLOWS

BASIC – DENSITY METER AND REFRACTOMETER OPTICS MODULE BOX

Description

This system is the optic module from a Rudolph J-Series Refractometer attached to a Rudolph DDM Series Density Meter. The user loads and cleans each measurement system exactly the same way they do with two separate instruments.

Who should consider this system?

- A smaller laboratory that does not have many samples. The ability to share a common screen means a combined system like this has a significantly lower cost than two separate instruments.
- A laboratory that wants to combine density results with refractive index results and calculate a third parameter from them.

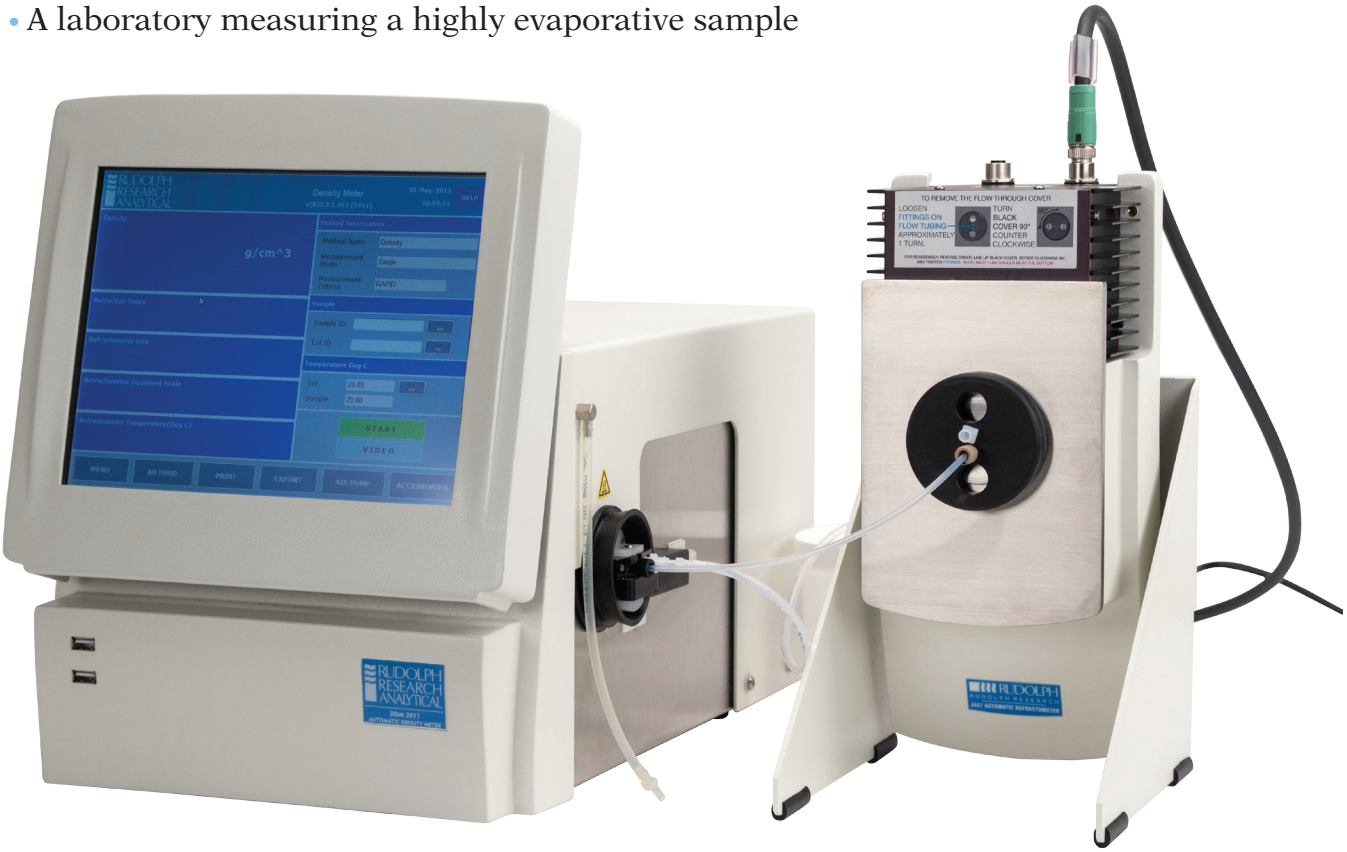
BASIC DENSITY METER AND REFRACTOMETER OPTICS MODULE BOX WITH FLOW THROUGH SAMPLE INJECTION.

Description

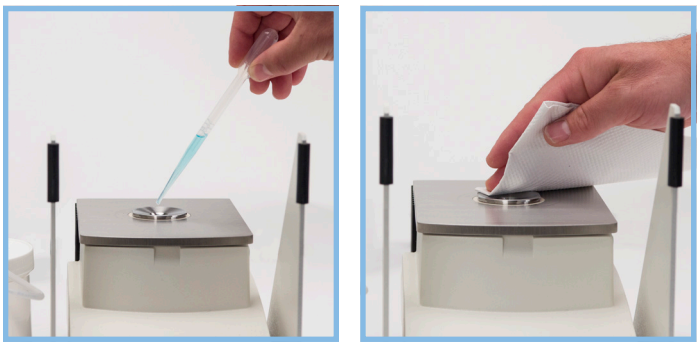
This system is similar to the one above but uses the DP (Dual Purpose) optics module. Primarily offered as a bridge between manual and automatic sample loading. Users can load samples in fully manual mode or via a Syringe.

Who should consider this system?

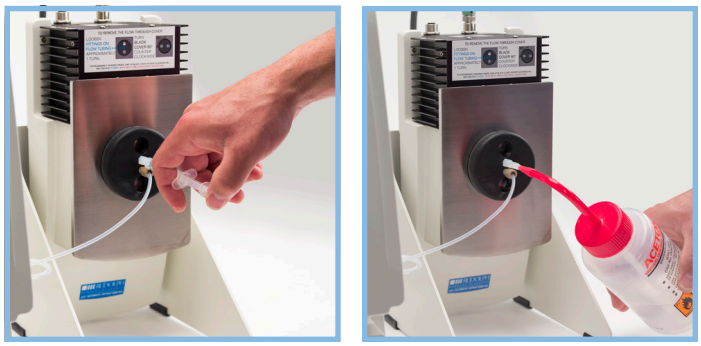
- A laboratory that plans on automating at a future time. With the cover and stand removed this system can be used exactly like the basic system above. With the cover and stand attached the system is ready to be attached to an automatic loading and cleaning system
- A laboratory that wants to integrate with external equipment for example a sampling system from a pilot plant reactor
- A laboratory measuring a highly evaporative sample



SAMPLE LOADING AND CLEANING IN MANUAL MODE.



SAMPLE INJECTION AND CLEANING IN SYRINGE MODE.



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DENSITY METER, REFRACTOMETER OPTICS MODULE BOX WITH PERISTALTIC PUMP SYSTEM

Description

The most basic of the fully automatic systems. The user drops a sipper tube into the sample and the pump sucks the sample through both instruments and then measures. The measured sample is then displaced by the following sample.

Who should consider this system?

- Users measuring low viscosity samples such as beverages
- Users who don't mind needing 50ml of sample for measurement.

DENSITY METER, REFRACTOMETER OPTICS MODULE WITH A RUDOLPH EASY CLEAN SYSTEM

Description

This system is the most versatile. The user loads the sample in a similar way to the peristaltic pump system but after measuremet the instrument rinses with two solvents and then dries with air from the included pump. The system can also be quickly disassembled and used in manual mode.

Who should consider this system?

- Users who want only have a small amount of sample
- Users with samples that have too high a viscosity to be pumped with a peristaltic pump.
- Users with samples that are difficult to clean

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