

ORBIS BV

Innovation in distillation



PAM V2

Automatic Distillation



“Development of new instruments is possible if you understand the specific needs of your customer.”

Intuitive & Easy with iPad

The special DistPad app on the iPad gives you easy, yet complete control over the distillation process.

The DistPad app comes with pre-programmed ASTM D86 programs and a set of major ASTM methods. New programs can be easily created from method presets and customized for special products.

Standard users will enjoy an intuitive and automatic operating experience, while high-experience users are allowed to explore a lot of distillation parameters, which is great for research purposes and special products. Service level login allows our trained engineers to optimize programs for extremely difficult samples with unparalleled performance levels.

Different user types with variable access rights give each user the right protection and freedom in their own working environment.

Free software updates are easily downloaded from the Apple Appstore.



Volume Scan

Measuring the actual recovery rate with a CCD camera at the bottom of the meniscus, the volume scan eliminates errors and offers you a high resolution and a perfectly accurate measurement result.

Why read the volume at the bottom line of the meniscus?

1. At the bottom the volume acts calmer and more stable, assuring you an extremely precise volume to measure.
2. Test methods demand reading the meniscus at the bottom, it is the well-know and preferred technique to be used.

Together with the Peltier elements that regulate the temperature in the receiver chamber, the volume scan is totally solid state (no moving parts). Ring marks on the receiver are calibrated and used to automatically calibrate the volume scanner every distillation run, enabling you to use any receiver on any instrument.



Update the software by simply downloading it from the App Store!

Why choose for PAMV2?

- Extremely precise, reliable and comparable test results
- Fast, easy, fully automatic operation yet with unparalleled customization options
- High end, solid state hardware:
 - Volume Scan – accurate detection of the bottom of the meniscus
 - Condenser with Peltier elements: reliable with fast cooling interactions
 - Low voltage heater with reflection system: 30% more heat & efficiency
- Safety through fire extinguisher with advanced fire and nitrogen detection
- Multiple language support



Innovation in distillation

Precise
High tech
Reliable
Safe



Multiple language support



CCD volume scanning device

User friendly

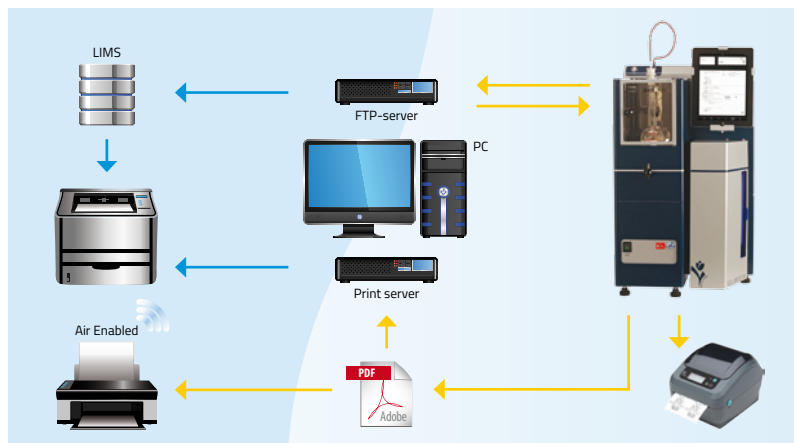
Customizable

Smallest footprint

Low maintenance

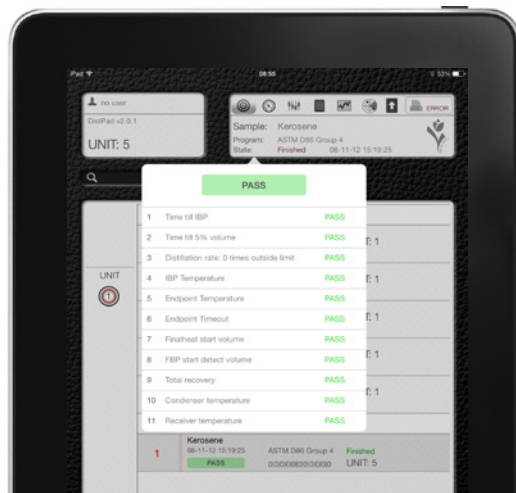
Data handling and printing options

Automatically store, restore and synchronise data with an FTP-server. Send to LIMS, save as PDF, email, print with optional Zebra printer and direct print on A4. PAMV2 offers you a wide variety of flexible data handling, compatible with Windows operated systems and all common modern techniques.



Specifications

Methods	ASTM D86, D1078, D850. E123, IP195, IP191, IP123, DIN51751, NFM07-002, EN ISO 3405, JIS K2254, ISO918, BS2000 Parts 123, 191, 195, BS 7392, 10% residue for carbon residue measurement. Gasoline E10, E15 & E20 samples.
User interface	iPad (protection touch screen & stylus pen included) with Dist-Pad app software.
Heating system	Low mass low voltage heater with reflector, providing 30% more heat, durability and energy saving. Automatic In-Heat settings for perfect distillation right from the start.
Final heat	Automatic & customizable.
Condenser system	Thermo- electric with Peltier elements: fast cooling interactions, reliable solid state. Temp. range 0 – 65 °C. Resolution 0.1 °C.
Volume scan system	Smart CCD camera measuring bottom of meniscus. Receiving chamber equipped with thermo- electric Peltier elements: fast cooling interactions, reliable solid state. Temp. range: 0 – 45 °C. Resolution 0.1 °C. Resolution: 0.01 ml Accuracy: 0.01 ml Charge volume: 0- 103%
Residue determination	Automatic or manual measurement.
Vapor temp. measurements	0 – 450 °C on ASTM or 0 – 500 °C Absolute. PT-100 class A probe, automatic probe ID detection, calibration certificate standard supplied. Dynamically accurate correction of electronic thermometer results to Mercury in-glass thermometer results. (instead of the common used static-formula correction).
Ambient pressure	Automatic system calibration against built-in pressure sensor. 80 to 110kPa (0,1 kPa resolution).
Safety	Advanced fire detection with fire extinguisher and nitrogen detection (nitrogen required in lab).
System health	Automatic fast system health check before every distillation run ensuring all components are in excellent state.
Connectivity	1 x ethernet and WiFi, used for connection to LIMS, optional Zebra printer, connection between multiple PAMV2 units, A4 lab printer, email, PC, FTP server and iPad.
Dimensions & Weight	Dimensions: 40cm x 40cm x 65cm (WxDxH). Weight: 40 kg.
Accessories	Optional Zebra printer.
Voltage	100-240 VAC 50/60 Hz
Power	1.2KW
Operating requirements	Environment temperature 10 °C – 35 °C. Environment humidity up to 80 % at 35 °C.



Simplicity and flexibility

Easily run your samples using automated programs with preset ASTM methods.

Run special sample products with program customization and have our in-house experts help you to optimize for extremely difficult samples.

Quick & Easy evaluation

DistPad shows you the results on all important ASTM checkpoints. When results are out of specification, it gives you improvement advice to change parameters and perform autotune. Accept this advice with one click and the changes will be implemented to the program automatically.



Automatic calibration and verification

Every distillation run the Volume Scan? is automatically calibrated on the specially calibrated ring marks on the receiver glass.

Built-in reminders assist you to plan and keep track of required unit Calibration and Verification moments, allowing you to operate the unit in the meanwhile.

Automatic In-Heat for unknown samples

DistPad will dynamically search and choose the right initial heat settings to ensure a perfect run right from the start for most of your samples. Providing:

- First time right IBP
- First time right time to 5 milliliter
- First time right entering right within the 4 to 5 milliliter distillation rate

With real time optimization PAMV2 follows the ideal distillation line, constantly measuring and adjusting itself.



Repeatability and reproducibility

For evaluating repeatability and reproducibility, DistPad is equipped with a Round Robin database. Simply add any reference point to the program and the software will show you the results in a table or graph.

Custom points and program settings

With PAMV2 you can easily set custom points for retrieving custom data from your distillation, and also change program settings at will. Before, during and **even after** the distillation run.

ORBIS BV

We offer analytical solutions for the petro- & chemical industry

And we understand the specific needs of our customers, because we've know the industry for over 30 years, with a lot of experience in the field of research and development.

This is our mission:

Develop high end laboratory equipment that saves worldwide customers time and money while producing the best achievable test results.

PAM V2

Unparalleled simplicity and flexibility

Testing and analyzing petroleum and chemical products according to ASTM D86, D1078 and D850.

Contact us for a demo – contact us for sample analysis.

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