PAC | Moving the World Forward, Safely and Sustainably

OptiDist

The Benchmark in Atmospheric Distillation Testing

- Advanced real-time optimization from initial heat to FBP
- User-friendly, straightforward operation with superior precision
- Unparalleled versatility for significant laboratory time and cost savings
- Enhanced built-in instrument safety features
- In compliance with ASTM D86, D1078, D850, EN ISO3405, ISO 918, IP123, IP195, DIN51751, JIS K2254, NFN 07-002

www.paclp.com

OptiDist

THE MOST USED ATMOSPHERIC DISTILLATION ANALYZER

Thousands of users worldwide trust OptiDist™ for its state-of-the-art solution for performing atmospheric distillation, offering the most precision and ease of use. The versatile design enables multi-methods and non-standard capabilities which can easily be adapted for different applications. The testing and results are in full compliance with all atmospheric distillation methods.

KEY ADVANTAGES

EASY TO USE, ONE BUTTON STRAIGHTFORWARD OPERATION

- Built-in optimizer contributes to a trouble-free operation requiring less operator expertise
- No need for preliminary trials and manual heater settings
- Select the test method and start the distillation by just pressing the “Start” button

SUPERIOR PRECISION FROM THE FIRST RUN

- Optimal distillation conditions for any sample through the unique heating optimizer technology
- Delivers up to two times better precision for all common distillation samples
- Perfect results from the first run, even for “unknown” samples!

FULLY AUTOMATED REGULATION

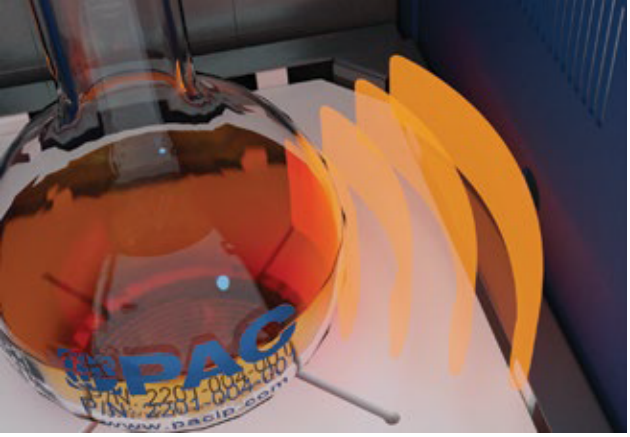
- No sample specific heat parameters required
- Automatic residue and loss calculation
- Perfect results on the first test, even for “unknown” samples
- Fully automatic final heat adjustment for the last 5 ml to distillate

ADVANCED BUILT-IN SAFETY FEATURES

- Optimized heating prevents overheating of the distillation flask, improves flask life-time, and protects from potential fires
- Built-in fire extinguisher
- The VOC-blower reduces volatile organic compound (VOC) emissions
- Operator is protected from exposure to harmful sample vapours

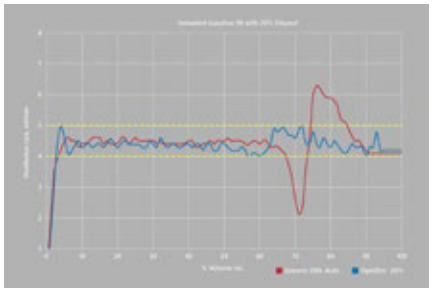
SIGNIFICANT LAB SAVINGS

Benefits	Savings	PAC-Herzog OptiDist	Other Distillation Analyzer
Operator Training Cost savings	$$	High level of automation makes the system so easy to use that no extensive operator training is required	Complicated operation requires system users to be extensively trained
Laboratory efficiency	$$$	The Optimizer ensures perfect results starting with the first run without time-consuming and costly re-work	2 - 3 attempts are required to have the correct initial heating setting to meet the IBP and 5% with the first test as required by the method
Time Savings	$$$	Analysis time is 35 min. Time-saving of 60%!	Analysis time is 135 minutes
Sample Volume Savings	$	Only 100 ml required for a full distillation test	200 - 300 ml sample volume required



OPTIMIZE YOUR DISTILLATION RATE

The patented optimizer performs continuous monitoring and controls the initial heat by a proprietary algorithm without requiring any input from the operator. The optimizer function also improves the distillation rate by avoiding surges or reductions. This predictive control results in better distillations even for difficult or unknown samples.



MISTAKE PROOF UNIT

- With one hand quickly install the flask with automatic detection
- Intelligent Vapor Probe memorizes calibration data and does not require manual adjustment in the flask neck
- Automatic base plate detection
- Self-positioning heater lift

CORROSION RESISTANT RECEIVER CHAMBER

- Automatic charge volume measurement for precise sample volume
- Automatic alarm for condenser cleaning

EASY TO OPERATE TOUCH SCREEN INTERFACE

Start a test in only three steps:

1. Enter sample number
2. Select product (e.g distillation group
3. Push startbutton

The user does not have to enter individual heater parameters per sample

NETWORK CAPABILITY

OptiDist operate as a stand-alone unit or it can operate in a PAC IRIS network.

- Simple connection setup and usability
- Connect instruments locally or from anywhere in the world
- Password protection at various levels
- User traceability
- Designed for regulatory compliance
- Integrated statistical process control charting
- Remotely control multiple instruments from a single workstation
- Customizable to meet laboratory specific needs
- Centralized database for results, products, methods and reports
- Share printer with multiple instruments
- Centralized LIMS transfer and configuration

SPECIFICATIONS

Ordering Information	OptiDist™, a compact self-contained instrument with factory filled CFC-free cooling system, delivered with 125ml flask, 100ml receiver cylinder, vapor probe with centering device, heater plates 38 and 50mm, flask connection silicone tube, receiver cap and condenser cleaner
Standard Test Methods	ASTM D86 (group 0,1,2,3,4), D1078, D850, IP195, IP123, DIN51751, NFM07-002, EN ISO3405, JIS K2254, ISO918; ASTM D189, D524, D4350. EN ISO 10370* *OptiDist can prepare the 10% bottom residue for EN ISO 10370
Operation User Interface Heating System Condenser System Receiving Chamber	Large graphic TFT-LCD color touch-screen with solvent-proof protection Low mass and low voltage, self-positioning heating system Unique Optimizer function for fully automatic initial heat settings and heating regulation; detectors for heater plate, vapor probe and centering device Temperature range from 0 to 65°C (32 to 149°F); programmable constant temperature, temperature ramping or special temperature profile; instantaneously ready at switch on Temperature range from 0 to 40°C (32 to 104°F); corrosion proof design; programmable temperature or automatic adjustment to sample charge temperature; compatible with 100ml and 200ml receiver cylinders
Measurements Vapor Temperature Sample Volume Ambient Pressure	Range: 0 to 450°C (32 to 842°F), accuracy Pt 100 IEC 751 probe Class A Built in calibration memory with 10 point calibration table and automatic probe ID detection; calibration history; optional calibration certificate Optical measuring system compatible with samples producing smoke in the receiver; range 0 to 103% charge volume; resolution: 0.03ml, accuracy: ± 0.1ml Built-in pressure sensor, range to 70 to 110 kPa A (500 to 800 mmHg) Calibration: Single point against reference barometer
Safety	Built in fire extinguisher with 2 fire sensors
User Errors Prevention	Detector for heater base plate type, Detector for vapor probe and centering device Detectors for “receiver in place” and “receiver chamber door open” Detector for “condenser cleaned”
PAC IRIS Software features for OptiDist	• Run Control • Calibration • Quality Control • Specs Definition • Results • Reports • Method Definition • Test Start • Results Evaluation
Connectivity	3 USB for external printer, barcode reader and memory stick; RS232C serial port for LIMS connection; Ethernet RJ45 port for LIMS connection and unit networking; Connection to external PC with PAC IRIS Software
Operating Requirements	Temperature 10 to 35°C (50 to 95°F); relative humidity up to 80% at 35°C (95°F) Multi Voltage 100 to 240V; 1400 W
Dimensions and Weight	44cm W * 57cm D * 65cm H (17,3” * 22,4” * 25,6”); 68kg (150lb)
Options and Accessories	Built-in ticket printer; External printer; Barcode reader; External status indicator; Ambient temperature sensor; Automatic dry point kit for 200cc; Automatic dry point kit for 125cc; 200cc measuring cylinder kit for determination of 10% distillation residue; VOC reduction kit; Doctor Box for instrument diagnostics; CRM reference materials.

Continuing research and development may result in specifications or appearance changes at any time

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, PetroSpec and Phase Technology. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

PAC LP | 8824 Fallbrook Drive | Houston, Texas 77064 | USA
T: +1 800.444.8378 | F: +1 281.580.0719

Contact us for more details.
Visit our www.paclp.com to find the PAC representative closest to you.

OptiDist Brochure - Rev3 - 07/20