

# ORBIS BV Innovation in distillation



# \* BRAND NEW FEATURES

#### **PrEval**

The sample temperature and exact percentage of volume can be measured by the Volume Scan before the start of each test. This information can then be used to set the temperature of the receiver accordingly, as well as correct the actual volume back to 100%.

# Voc Cold Trap

Designed to minimize evaporation loss of volatile organic compounds, this unique built-in feature ensures safer surroundings while improving the accuracy and repeatability of distillation results.

## **One-hand Flask insert**

The simple and elegant flask holder design ensures correct positioning of the distillation flask for both 125 ml and 200 ml flasks, making life easy for operators.

# **Optical Dry Sense**

This unique built-in feature for Dry Point Detection eliminates the need for an external dry point sensor. It ensures higher accuracy and easier handling while keeping operating costs lower. Especially suitable for tests in which dry point detection is required (tests according to ASTM D850 & D1078, but also D86 and other related methods)

# Automatic Heater Lift

The new heater lift not only applies the correct upward pressure to the flask; it also helps shorten the after-test cooling period by automatically going down after the test is finished. Increasing the level of operator ease even more, the heater chamber is equipped with two powerful fans for very fast flask and heater cooling after the test is finished.



## **Advanced Heater Control**

Heater control, one of the distillation unit's core tasks, can be challenging around IBP and FBP detection as well as for keeping the distillation rate between 4 - 5 ml per minute., epecially for unknown or difficult samples. STARDist detects the distillation behaviour at the earliest stage, allowing its advanced algorithm to dynamically set the exact right amount of heater power throughout the test.

## **HD Volume Scan**

This second generation Volume Scan is equipped with a HD CCD camera that provides two times the precision and accuracy of its predecessor in the former PAMv2 distillation unit. Includes Peltier controlled temperature regulation.



# "BUILT TO LAST. DESIGNED TO PERFORM."

## **Hardware & Safety**

STARDist's hardware has been completely redesigned, resulting in a robust distillation unit that is safe, reliable and easy to use. Including:

- Liquid-free powerful condenser cooling equipped with peltier elements and heat-pipe technology
- Voc Cold Trap for reducing voc emissions and providing safer surroundings
- Low mass / low voltage heater
- Double fans for quick cooling after test
- HD CCD camera for reliable and precise sample detection / no moving parts involved
- Sensitive UV fire detection sensor and connection to N / CO2 fire extinghuiser
- Clever Flask Holder design for easy operation
- Automatic Heater Lift

#### **Performance**

One of STARDist's key benefits is its automatic performance. Early-on detection of the distillation behaviour and smart internal algorithms enable real-time accurate heater control.

This results in "right-in-time" IBP detection and a distillation rate that is kept smoothly between 4 and 5 ml per minute, even with more difficult blends such as 20% ethanol-in-gasoline.

Automatic final heat adjustment from 5% remaining in flask is optimized for any type of sample, even for "heavy tail" samples.

Precision and repeatability have never been achieved easier.

#### **Software**

Simple screens and logical navigation structure give users quick access to basic functions such as "choose program", "start test", "monitor distillation" and "view results". Password protected access allows experienced users to customize program settings and manage the menus for connection to LIMS and Windows PC, printing, calibration and more. Storage on built-in iPad: 20.000 results, 1.000 programs and 100 users.



#### OTHER AVAILABLE PRODUCTS:

#### **AirSTAR CFPP & CPPP**

For Cold Filter Plugging Point, Cloud Point & Pour Point testing

#### Features:

- ColdBlock: AirSTAR's integrated cooling unit (cools down to -105°C)
- CFPP & CP/PP Heads: easy & modular use (and investment)
- Completely according to traditional test methods



#### AirProbe D86

#### Features:

- Digital thermometer for Manual Distillation testing
- Bluetooth connection to free iOS app
- All benefits of a digital vs mercury probe, yet with true mercury lag time & stem correction



## **Ordering information**

#### STARDist standard includes:

- PT-100 vapor probe
- 125 ml Flask
- Centering device for 125 ml Flask
- 100 ml receiver
- Stopper cap
- Condenser cleaning tool
- 38 mm heater plate
- 50 mm heater plate
- Optical Dry Sense for dry point detection

#### Optional for dry point testing:

- Starter set for testing according to ASTM D850 & D1078, including:
  - 200 ml Flask
  - Centering device for 200 ml Flask
  - 25 mm heater plate
  - 32 mm heater plate

# ORBIS BV

Innovation in cold behavior

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