

PETRODIST® 350 CC



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Fully automatic crude oil distillation system, processor controlled according to ASTM D-1160 but with automatic fraction collector for the determination of boiling ranges of crude oil products under vacuum. The system can be operated in strict accordance to the ASTM D1160 procedure or alternatively, by using the automatic fraction collector with 5 receivers. The system also provides possibility to work similar to ASTM D5236 and can be optionally equipped with flask sizes of 1000 ml or 2000 ml.

Special advantages of the new **PETRODIST® 350 CC**

- parameter input, display as well as calculation of distillation and final data and print out of the distillation curve
- PILODIST IP65 control panel with 15,6" touch screen mounted at the side of framework or alternatively stand alone as tabletop unit
- distillation process can be set on pause to remove the receiver with Bromine Number cut and can be continued with new receiver and the same sample immediately
- easy operation due to userfriendly software
- sophisticated safety system
- individual distillation reports and curves can be re-called any time
- precise distillation data due to automatic calculation of the density data based on the receiver temperature
- anti-foaming by dynamic vacuum reduction during evacuation phase
- precise vacuum control by automatic throttle valve
- automatic washing run
- calculation of charge according to receiver temperature and charge density
- quick set up effort as the system is delivered pre-installed
- automatic controlled termination of distillation process and start of cooling
- automatic fraction collector with 5 receivers independent of operation pressure
- new PILODIST-brand fully automatic continuously working discharge (gear) pump
- dynamic vacuum reduction procedure analogue ASTM D-5236 (Potstill) is possible
- atmospheric distillation
- water removal (dehydration) process prior to distillation **(by adding option 1)**
- cutting according to temperature or volume also in different pressure stages

The PILODIST fully automatic ASTM-D1160 systems PETRODIST 300 CC and PETRODIST 350CC are delivered with a double pressure sensor system in standard configuration without additional charge. A high accuracy and high resolution sensor covers the vacuum ranges according to the standard from 0,1 Torr (mmHg) up to 50 Torr (mmHg). To extend the functionality and flexibility of the instrument a second high precision sensor covers the atmospheric pressure for an automatic ambient air pressure correction and for vacuum distillations at all pressure levels from ATM down to 0,1 Torr (mmHg) without limitations. This allows to earn high reliable data of atmospheric distillations independent of the laboratory location and the possibility to handle samples with wide boiling point ranges. For example whole crudes can be distilled fully automatic through different pressure levels to achieve a complete distillation report and yield-temperature-curves. This can be used for quick analyses of crudes and to characterize feedstocks.

The distillation runs automatically from the initial boiling point to the pre-selected end boiling point or detected break-off. The criteria for break-off are:

- the pre-selected final AET (atmospheric equivalent temperature) is reached
- the maximum flask temperature is reached
- the pre-selected distillate volume is reached
- the flask insert cracks
- the distillate pressure drops

The distillation volume is measured automatically in receivers, temperature controlled by IR-heater. The yield is calculated in percentage to the charge quantity. Distillation report, final data and distillation curve are printed out and stored tamper-proof as pdf file.

A safety enclosure of the system to adequately shield the operator from the distillation apparatus in case of mishap as suggested by ASTM D1160-15 is quoted as an option as some customers will use the system within a fume hood.

Technical Data

Flask size:	500 ml
Optional Flask sizes available:	1000 ml, 2000 ml
Max. flask temperature:	400° C (750° F)
Operation pressure:	ATM, 95 Torr down to < 1 Torr (abs.)
Fraction collector:	5 calibrated receivers, 200 ml each
Power consumption:	3500 W
Mains supply:	208-250 V, 60 Hz
Dimensions (w x h x d):	0,65 x 2,02 x 0,75 m



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