

Distillation of Petroleum Products at Reduced Pressure

test method

Determines the range of boiling points for petroleum products that can be partially or completely vaporized at a maximum liquid temperature of 400°C at reduced pressures. The sample is distilled at a controlled, reduced pressure under conditions that are designed to provide approximately one theoretical plate fractionation. Initial and final boiling point is measured and a distillation curve relating volume percent distilled and the atmospheric equivalent boiling point temperature can be prepared.

VDS5000 manual vacuum distillation system

- Conforms to ASTM D1160 and related specifications
- Comes standard with glassware set and accessories kit for “Turn-Key” set up and operation
- Removable Catch Tray for hassle-free removal of the lower receiver
- Modified Door Hinge system to reduce footprint when doors are open
- Equipped with digital temperature and vacuum displays for improved measurement reading and accuracy
- Upgrade to glassware set composed entirely of quartz available upon request

The Koehler VDS5000 Manual Vacuum Distillation System is the latest design for determining, at reduced pressures, the range of boiling points for petroleum products according to ASTM D1160 and related specifications. The main body of the system or cabinet is composed of an aluminum frame and cold rolled steel walls. A 5 Liter Stainless Steel Surge Tank is used to reduce pressure fluctuations during testing. Dual temperature displays independently show both the overhead and flask temperature of the system. Built in cooling fan rapidly cools the distilling flask allowing the user to handle glassware and shorten turnaround time in between test runs. Equipped with complete glassware set and accessories kit for “Turn-Key” installation and operation of the Vacuum Distillation System.

The Standard Glassware Set consists of 500mL quartz distilling flask with thermowell, vacuum jacketed distilling column and condenser assembly, water jacketed receiving cylinder, 90° elbow adapter tube, Dewar-Type Cold Trap with 10mL graduated receiver and stopcock drain, PT100 probe adapter, PT100 vapor temperature probe and PT100 flask temperature probe. The system also includes an adjustable scissor jack, heating mantle, retaining springs, ball joint clamps, connection tubing, hose clamps, quick connect adapters and fittings for easy connection of jacketed glassware and tubing and vacuum grease.

Dimensions: wxdxh,in.(cm)

Cabinet: 29½ x 9¼ x 32½ “ (75 x 23.5 x 82.6)

Control Box: 7¾ x 9¼ x 9¾” (19.7 x 23.5 24.7)

Net Weight: Cabinet: 62 lbs (28.2 kg) Control Box: 21 lbs (9.6 kg)



K80500 VDS5000 Manual Vacuum Distillation System

specifications

Conforms to the specifications of:

ASTM D1160; ISO 6616; JIS K2254

Temperature Range: Ambient to 425°C (797°F)

Temperature Display: 0.1°C resolution

Temperature Accuracy: ±0.5°C

Vacuum Range: 0.1 Torr to Atmospheric Pressure (760 Torr)

Vacuum Display: 0.1 Torr resolution

Vacuum Accuracy: ± 0.2 Torr

External Circulator Temperature Range: Ambient +5°C to 150°C

Electrical Requirements:

115V 60Hz

220-240 50/60Hz

Shipping Information:

Shipping Weight: 120 lbs

Dimensions: 15 cu.ft.

ordering information

catalog no.

description

K80500 VDS5000 Manual Vacuum Distillation System
115V 60Hz

K80590 VDS5000 manual Vacuum Distillation System
220-240V 50/60Hz

accessories

K80320 VDS Vacuum Pump with Kit Consists of Vacuum Pump, Hose Nozzle, Centering O-Ring, Hinged Clamp, Outlet Filter, Filter O-Ring, Filter Clamp, 1 Liter Vacuum Oil, Connection Tubing, Hose Clamp (2)

K33062 Standard Constant Temperature Circulation Bath
115V 60Hz

K33063 Standard Constant Temperature Circulation Bath
220-240V 50/60Hz