

# EXISTENT GUM IN FUELS BY JET EVAPORATION

## Test Method

Gum formed during fuel storage can deposit on induction system surfaces, intake valves, stems and guides. To test for gum content, a 50mL sample is evaporated in an aluminum block bath for a specified period under controlled conditions of temperature and flow of air (aviation and motor gasolines) or steam (aircraft turbine fuel).

## Existent Gum Test Apparatus

Evaporates aircraft turbine fuel and motor and aviation gasoline samples under controlled conditions in accordance with ASTM specifications. Consists of a high temperature evaporation bath with 100mL test beakers and, for aircraft turbine fuels, a steam generator and steam superheater.

## Evaporation Baths

- Conforming to ASTM D381 and related specifications
- Choice of three-unit and six-unit models
- Available with built-in steam superheater
- Microprocessor programmable high accuracy temperature control
- Built-in pressure regulators and air flowmeters

Electrically heated baths for determining existent gum in aircraft turbine fuels by steam-jet evaporation and in motor and aviation gasolines by air-jet evaporation. Fully insulated, aluminum block design assures safe, efficient high temperature operation. Equipped with air/steam pressure regulator with gauge and a flowmeter for adjusting air flow per ASTM specifications. Stainless steel jets deliver air or steam flow to the test wells through removable brass conical adapters. Microprocessor PID control provides quick temperature stabilization without overshoot, and the bath is protected by an overtemperature control circuit that interrupts power should bath temperature exceed a programmed cut-off point. Dual LED displays provide actual and setpoint temperature values in °C/°F format. *Communications software (RS232, etc.), ramp-to-set and other enhanced features are available as extra cost options. Contact your Koehler representative for information.*

**Model K33800 with Built-in Superheater**—Six-unit bath with a built-in thermostatically controlled superheater which delivers dried steam to the bath inlet for steam-jet method testing of aircraft turbine fuels. Has digital-indicating solid state bath temperature control with digital setpoint and display.

**Model K33700**—Six-unit bath without built-in superheater.

**Model K33780**—Three-unit bath without built-in superheater. All controls are housed in the bath cabinet.



K33700 Existent Gum Evaporation Bath

## Specifications

Conforms to the specifications of: ASTM D381; IP 131; ISO 6246; DIN 51784; FTM 791-3302; NF M 07-004

Testing Capacity:

K33800 and K33700: 6 sample beakers

K33780 and K33781: 3 sample beakers

Maximum Temperature: 475°F (246°C)

Temperature Control Stability: ±1°F (±0.5°C)

Bath Configuration: machined aluminum block with multiple cartridge heaters

Heater Range:

K33800 and K33700: 0-3000W

K33780 and K33781: 0-1500W

Superheater: (Model K33800 only)

Superheating chamber and condensate trap constructed of stainless steel

Solid state thermoregulator (0-550°F) Heater Range: 0-1500W

Electrical Requirements: **CE**

K33700: 220-240V 50/60Hz, Single Phase, 13.6A

K33800: 220-240V 50/60Hz, Single Phase, 20.4A

K33780: 115V 60Hz, Single Phase, 13.0A

K33781: 220-240V 50/60Hz, Single Phase, 6.8A

## Included Accessories

Conical Brass Adapters for air/steam jets

## Dimensions l x w x h, in.(cm)

K33800: 32½x20x20 (83x51x51)

K33780: 32½x11x19 (83x28x48)

K33700: 28x20x16 (71x51x41)

Net Weight:

K33800: 230 lbs (104.3kg)

K33780: 85 lbs (38.6kg)

K33700: 203 lbs (92.1kg)

## Shipping Information

K33800

Shipping Weight: 313 lbs (142kg)

Dimensions: 17.2 Cu. ft.

K33780

Shipping Weight: 140 lbs (63.5kg)

Dimensions: 8.3 Cu. ft.

K33700

Shipping Weight: 271 lbs (123kg)

Dimensions: 13.7 Cu. ft.

## Ordering Information

### Catalog No.

<b>K33800</b>	Existent Gum Evaporation Bath, 6-Unit with Superheater, 220-240V 50/60Hz
<b>K33700</b>	Existent Gum Evaporation Bath, 6-Unit, 220-240V 50/60Hz
<b>K33780</b>	Existent Gum Evaporation Bath, 3-Unit, 115V 60Hz
<b>K33781</b>	Existent Gum Evaporation Bath, 3-Unit, 220-240V 50/60Hz

 Software compatible, inquire with Customer Service.

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