food and beverage industry

Koehler Instrument Company's line of analyzers and testers for food and beverage industry can be used to test for quality, integrity, flavors, and appearance of liquid, semi-liquid, semi-solid, and solid food samples. Please inquire with your Koehler sales representative to learn more about our instruments and how they can provide a solution for your specific application. Or visit our website at www.koehlerinstrument.com to find detailed specifications on each of the products you see listed here.

Koehler INSTRUMENT COMPANY, INC.

service | innovation | technology

food and beverage industry

K13560
AC500 Automatic Colorimeter

ASTM D156, D1209, D1544; DIN 6162; ASTM Color, Saybolt Color

The high-performance Spectral Colorimeter measures the color of clear and transparent liquids of over 25 different color scales. Additional capabilities include transmission, extinction measurements and wavelength scans, making the K13560 a versatile instrument for every lab. An EtherNet connection allows users to easily integrate the unit into their laboratory network and transfer results directly to the network. Extremely user friendly; providing clear operating instructions on the 7inch, high resolution touch screen.

K27550 and K27580
Refractometer

ASTM D1218, D1747, D5006, D5775

The Koehler Automatic Refractometer uses precision optics and superior image analysis to extend the repeatability and accuracy of refractive index. Subjectivity is removed from tests results because no manual activities such as aligning shadow-lines or reading analog scales are necessary. Opaque hydrocarbons present no problem for this unit which uses reflected light measurement technology as opposed to manual refractometers which are of the transmission type. The refractometer incorporates numerous innovations designed to improve the accuracy of petroleum product testing. This product can be used to test vegetable products, juices, soy bean oils, syrups, and more.

K90500 and K90590
Automatic Potentiometric Titrator

ASTM D664, D2896, D3227, D4739

Titration is the fundamental chemical analysis procedure whereby the concentration of a chemical substance in solution is determined by reacting it with a measured amount of another chemical. The Automatic Titrator performs this analysis using a motor driven dispenser, stirred reaction vessel and electrodes which sense the completion of reaction by measuring the potential difference between two electrodes. Automatic titration increases accuracy, repeatability and reproducibility as well as minimizing errors in calculation and documentation.

K33050-K33061 Constant Temperature Water Baths

Our economical Constant Temperature Water Baths offer superior temperature control, range, and uniformity. Bath fluids can be controlled at temperatures as high as 100°C (60°C without cover) with 0.1°C precision and +/- 0.2°C uniformity. Bath temperature is displayed continuously on a bright, easy-to-read LED panel in your choice of °C or °F. Set point temperature is recalled with just the touch of a button. Three user-defined temperature preset buttons allow for quick selection of often-used temperature set points. Dual thermostats provide optimum protection for your work and water bath. The high-limit alarm alerts you if bath temperature exceeds your pre-set limit. A secondary safety set thermostat guards against thermal runaway, automatically disconnecting heater power should the bath temperature get too high or the liquid level drop too low. The Constant Temperature Water Baths are also designed for operating convenience. The steeply gabled, polycarbonate cover accommodates glassware of varying heights and tilts out of your way when loading or removing samples, allowing condensate to drain neatly back into the bath.

Extraction Equipment – Soxhlet, Twisselmann and Randall Hot Extraction

Extraction processes are used to separate soluble components from a solid sample. In the food industry, extraction methods are mostly used to determine the fat content in foods. Both Raw Fat Determination and Total Fat Determination can be performed with the wide selection of extraction units that Koehler has to offer. The Koehler extraction line consists of Soxhlet Extraction, Randall Hot Extraction, and Twisselmann Gentle Hot Extraction systems. All three types of extraction apparatus come in a wide variety of options to create a solution that is ideal for your laboratory testing needs.

Kjeldahl Determination

Kjeldahl analysis is the worldwide method used for determining tota nitrogen and crude protein calculation in many different applications including the food and beverage industry. Kjeldahl Analysis is a three-step process with the main steps being Digestion, Distillation, and Titration. Koehler offers products for all 3 steps with different levels of automation, sample capacity, and sample volume depending on your budget and testing needs. crystals of sufficient quantity can plug filters used in some fuel systems. The pour point of a petroleum product is an index of the lowest temperature of its utility for certain applications. Flow characteristics, such as pour point, can be critical for the correct operation of lubricating oil systems, fuel systems, and petroleum blending and pipeline operations.

K95500-00000 and K95590-00000 Digital Penetrometer

ASTM D5, D217, D937, D1321, D1403, D2884, D4950, D5329; IP 49, 50, 179, 310; ISO 2137; DIN 51579, 51580, 51804; FTM 791-311, 791-312, 791-313

Penetration tests are performed on petroleum products to determine consistency and shear stability for design, quality control and identification purposes. A standard cone or needle is released from a penetrometer and allowed to drop freely into the sample for 5 seconds (or a different specified interval) at constant temperature. The depth of penetration of the cone or needle into the sample is measured in tenths of a millimeter by the penetrometer.

K30162, K30163 and K30164 Nitrogen Solubility Apparatus

AOCS Ba 11-65

The Nitrogen Solubility Apparatus determines the dispersible nitrogen in soybean products under the conditions of the test. In contrast to the alternate fast-stir method for Protein Dispersibility Index (PDI), AOCS Official Method Ba 10-65, the slower stirring technique used in this method will give generally lower results. Applicable to ground soybeans, whole or ground full-fat and defatted soy flours and grits, and soy-bean meal.

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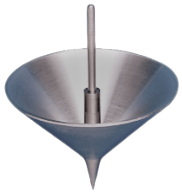
For a complete list of Koehler products to suit your Food & Beverage testing requirements, please contact your Koehler Sales Representative or visit us at **www.koehlerinstrument.com/product-packages/food-industry**

Material	Test Methods	Description of Penetrator	Shape
* Chocolate * Confectioneries * Yeast	ASTM D5 DIN 52010 IP 49	Standard Needle (2.5 g) * Stainless Steel * S. S. w/. Brass ferrule * S. S. w/. S.S. ferrule	
* Fats (small quantity)	ASTM D1403 IP 310 DIN 51804 Part 2	Quarter-Scale Cone * Aluminum (2.48 g)	
* Jam * Marmalade * Ketchup * Mustard * Fruit Penetration	ASTM D217 IP 167 ISO 2137	Solid Cone * Magnesium (102.5 g) * Brass (102.5 g)	
* Edible Fats * Butter * Margarine * Confectioneries * Candy	AOCS Method (Cc 16-60) AACC 58-14	Aluminum Cone (45 g)	

calibrated glassware, hydrometers and thermometers

Koehler provides calibrated thermometers, hydrometers and a wide array of glassware specifically suited for a food testing laboratory.

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