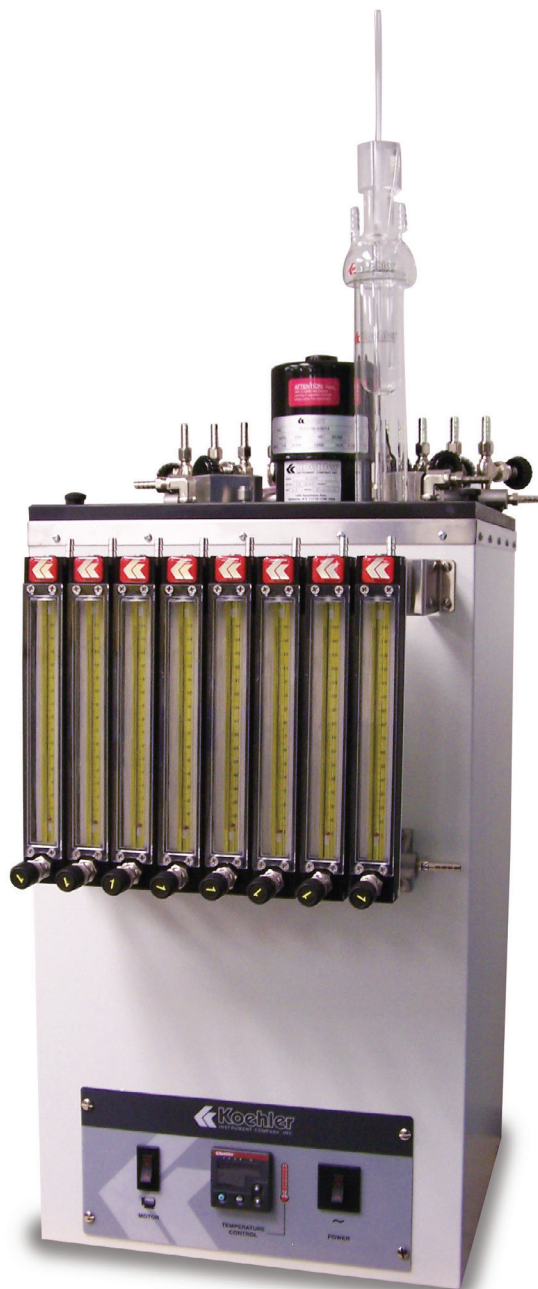


OXIDATION



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OXIDATION

Test Method

Evaluates oxidation stability by subjecting the sample to a temperature of 95°C in the presence of oxygen or dry air. For inhibited mineral oils, the sample is reacted with oxygen in the presence of water and an iron-copper catalyst.

Oxidation Stability Apparatus

- Eight and twelve-place liquid baths for benchtop placement
- Conforming to ASTM and related test method specifications
- Special baths for ASTM D2893 and AOCS CD12-57 tests

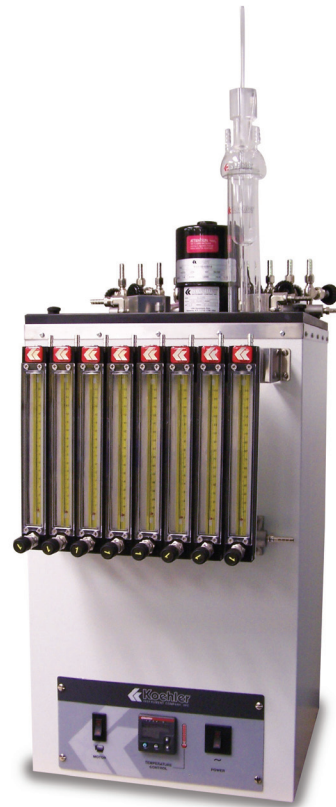
Eight and Twelve-Place Oxidation Baths

- Conforming to ASTM and related test method specifications

Constant temperature baths with solid state temperature control, calibrated flowmeters and condenser water manifold for oxidation stability tests on fuels and lubricants. Individual flowmeters and control valves for each oxidation cell deliver air flow at the rate of 3L/h. Condenser water manifold has individual control valves for each cell. Microprocessor PID control provides quick temperature stabilization without overshoot, and the bath is protected by a redundant overtemperature control circuit that interrupts power should bath temperature exceed a programmed cut-off point. Display provides actual setpoint temperature values in °C/°F format. Communications software (RS232, etc.), ramp-to-set and other enhanced features are available as extra cost options. Double-wall insulated baths are equipped with copper immersion heaters and a 1/20 hp circulation stirrer. Stainless steel bath interior has a built-in support rack and overflow/drain to immerse the test cells at the required depth. Order oxidation cell glassware and accessories separately.

Specifications

Conforms to the specifications of:
ASTM D943, D2274, D2893*, D4310, D6158; AOCS CD12-57**
DIN 51586, 51587; ISO 4263, ISO 12205; NF M 07-047; NF T 60-150
Test Capacity: 8 or 12 oxidation cells
Temperature Range: ambient to 212°F (100°C)
Temperature Control Stability: ±0.2°F (±0.1°C)
Bath Medium: white technical oil
Bath Capacity:
8-place model: 10 gal (37.8L)
12-place model: 19 gal (71.9L)
Electrical Requirements:
8-place model: 115V 50/60Hz, Single Phase, 13.0A
220-240V 50/60Hz, Single Phase, 6.8A
12-place model: 115V 50/60Hz, Single Phase, 32.6A
220-240V 50/60Hz, Single Phase, 17.0A



Dimensions wxdxh,in.(cm)

8-place model: 17 1/2x25x42 (44x64x107)
12-place model: 25 1/2x24x42 (65x61x107)

Shipping Information

Shipping Weight:
8-place model: 137 lbs (62.1kg)
12-place model: 213 lbs (96.6kg)
Dimensions:
8-place model: 29 Cu. ft.
12-place model: 29 Cu. ft.



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OXIDATION

Ordering Information

Catalog No.	
K12200	Oxidation Bath, 8-Unit, 115V 50/60Hz
K12290	Oxidation Bath, 8-Unit, 220-240V 50/60Hz
K12212	Oxidation Bath, 12-Unit, 115V 50/60Hz
K12219	Oxidation Bath, 12-Unit, 220-240V 50/60Hz
<i>*Modified versions of this equipment are available for ASTM D2893</i>	
<i>***Oxidation Characteristics of Extreme Pressure Lubricating Oils" and AOCs CD12-57 "Fat Stability-Active Oxygen Method." Information will be furnished upon request.</i>	

Oxidation Cell Glassware and Accessories

Ordering Information

Catalog No.	
K12281	Oxidation Cell Assembly for ASTM D943 and D4310 Includes oxidation cell, condenser, oxygen delivery tube, thermometer bracket, oil level indicator strip, syringe sampling tube, sampling tube holder, spacer, PTFE stopper and O-rings
K122-0-18	Oxygen Delivery Tube
K122-0-19	Oxidation Test Tube
K122-0-20	Condenser
K122-0-21	Thermometer Bracket
K122-0-22	Oil Level Indicator Strip
K122-0-23	Syringe Sampling Tube Holder
K122-0-27	PTFE Stopper
K122-0-28	Syringe Sampling Spacer
K122-0-30	Syringe Sampling Tube
AS568-009-V14	O-rings

For ASTM D2274, order one each K122-0-18 Oxygen Delivery Tube, K122-0-19 Oxidation Test Tube, and K122-0-20 Condenser for each cell.

Iron-Copper Catalyst

For ASTM D943 and D4310

Ordering Information

Catalog No.	
K12210	Catalyst Coil Low-metalloid steel wire and electrolytic copper wire wound in a double spiral conforming to ASTM specifications. Packed in a sealed glass tube with a nitrogen atmosphere. Ready for use.
K24000	Wire Coiling Mandrel Mounts on bench for winding steel and copper wire into catalyst coils meeting ASTM specifications.
K12250	Steel Wire Low metalloid steel wire, 0.0625" (1.59mm) diameter, for catalyst coils. Supplied in 1000 ft (304.8m) lengths.
K12260	Copper Wire Electrolytic copper wire, 0.064" (1.63mm) diameter, for catalyst coils. Supplied in 1000 ft (304.8m) lengths.
380-100-001	Silicone Carbide Paper Used to polish steel and copper wire prior to winding into catalyst coils. 100 grit.

Thermometers

Ordering Information

Catalog No.	
250-002-001	Oxidation Cell Thermometer Range: 80 to 100°C. For ASTM D943 and D4310.
250-000-40C	ASTM 40C Thermometer Range: 72 to 126°C. For constant temperature baths.



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