

Oxidation Stability of Mineral Oils (BAM) - DIN 51 538

DIN 51538

Product group(s): Oil

User group(s): Biodiesel, Fuel, Gear Oil, Hydraulic Fluid, Insulating Oil, Jet Lube, Lube Oil, Power Plant, Turbine Oil

Scope: The synthetically accelerated ageing of fluids with the Oxidation Stability Apparatus is usually only a pre-treatment of a sample according to the above methods. These methods determine the serviceability of lubricants and other non-aqueous fluids.



BAM - Oxidation Stability Test Equipment

to be composed of:

- Bath (Dry-Heat or Liquid Bath with 8 or 12 testplaces)
- Test Kit
- Catalyst Matter

Main Unit

16-1500 **8-Place Liquid Bath - Oxidation Apparatus "BAM-200"**
ASTM D 2440 - DIN 51 538 - DIN 51 373 - EN 61 125 A+B+C -
IP 280 - IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

Consisting of:

stainless steel liquid bath, volume 35 l, equipped with a removable anti-air draught screen and test tube holder, thermostatic control, infinitely variable up to 200 °C +/-0.02 °C, with digital display, stirrer, low level and temperature excess protection, thermometer IP 41C, +98 ... +152:0.2 °C, miniature spirit level vertical and horizontal, 2 flowmeter arrangements on very stable vibration avoiding stands, each comprising: 4 flowmeters with needle valve, flow rates of 0.08 ... 2 l/h. with works certificate.

Attention! Drain cock, glassware and catalyst matter are not included.

Power supply: 230 V, 50/60 Hz

16-1501 **8-Place Liquid Bath - Oxidation Apparatus "BAM-200"**
Like 16-1500 but:
Power supply: 115 V, 50/60 Hz

16-0720 **Drain Cock for thermostatic baths (G $\frac{1}{4}$ ")**

16-1566 8-Place Dry-Heat Bath - Oxidation Apparatus "BAM-200"

Tube Ø 26

ASTM D 2440 - DIN 51 538 - EN 61 125 A+B+C - IP 280 -
IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

Consisting of:

Dry Heat Bath (without accessories):

stainless steel dry-heat bath (ambient temperature up to
+205 °C) with a heater block of aluminum; equipped with a LED indicating PID heater control.

2 Flowmeter Units:

flowmeter unit (flow rates of 0.08 ... 2 l/h, 4-place), with calibration certificate and needle valve.

Supplied with:

2 Front plates for bath, heat protect for bath, miniature spirit level vertical and horizontal, cover for bath-opening 29 mm, temperature measuring tube, o-ring for tube, thermometer holding stopper, connection hose 4 m, silicon, t-connector and thermometer (ASTM 41C/IP 81C).

Attention! Glassware and catalyst matter are not included.

Power supply: 230 V, 50/60 Hz

16-1568 8-Place Dry-Heat Bath - Oxidation Apparatus "BAM-200"

Tube Ø 26

Like 16-1566 but:

Power supply: 115 V, 50/60 Hz

16-1573 12-Place Dry-Heat Bath - Oxidation Apparatus "BAM-200"

Tube Ø 26

ASTM D 2440 - DIN 51 538 - EN 61 125 A+B+C - IP 280 -
IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

Like 16-1566 but:

with 12-place bath and without protective screen for bath.

Power supply: 230 V, 50/60 Hz

16-1574 12-Place Dry-Heat Bath - Oxidation Apparatus "BAM-200"

Tube Ø 26

Like 16-1573 but:

Power supply: 115 V, 50/60 Hz

16-1518 Test Kit Type "DIN 51 538" for 8 test places

DIN 51 538

Consisting of:

8 oxidation tubes, complete with (ø 26 x 212 mm, NS 24/29)
(each tube with 2 removable hose connectors)

8 silicon connection hoses, 1m each

2 o-ring sets (pack of 10 pcs.)

16-0442 Fe-Catalyst Strips, 10 pcs.

DIN 51 373 - DIN 51 538

Options & Accessories

16-1557 Soap Bubble Meter Set 10 ml

ASTM D 2440 - DIN 51 538 - DIN 51 373 - EN 61 125 A+B+C -
IP 280 - IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

21-0697

Digital Stop Watch



Consisting of:

- 7-digit LC display, max. 10 hours countdown with 1/100 sec. precision, Lithium battery
- quartz-controlled
- water resistant
- memory function
- calendar

25-0485

Vacuum-Pump with Mini-Compressor & Accessories



Consisting of:

- 1 oil-free diaphragm pump with filter
- 1 hose (Ø 6 mm x 1 m, silicon, clear)
- 1 T-piece connection (Ø 7.5 mm)
- 1 Hoffmann-Clip

Technical Data:

Max. capacity: 6 l/min
End vacuum: 100 mbar
Operating pressure : 2.4 bar (overpressure)
Dimensions / Weight : 9 x 17 x 12 cm (WxDxH), 1.9 kg

Power supply : 220/230 V, 50 Hz, EU-plug

25-0486

Vacuum-Pump with Mini-Compressor & Accessories

Like 25-0485 but:

Power supply: 115 V, 60 Hz

17-0802

Circulation Air Oven



Consisting of:

thermostatically-controlled, includes of 2-hours & permanent time switch, thermometer for temperature inspection and perforated intermediate bottom.

Important: Not explosion protected!

Technical Data:

Temperature range: +60 to +200 °C
Temperature constancy: +/- 2-3 K
Capacity: 14 l
Inner dimensions (W x H x D): 19 x 20 x 36 cm
Outer dimensions (W x H x D): 31 x 38.5 x 47 cm
Weight: 17 kg

Power supply: 230 V, 50/60 Hz

25-0604

Cooling Coil

ASTM 2440 - DIN 51 538 - DIN 51 373 - EN 61 125 A+B+C -
IP 280 - IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

11-0091

Thermometer ASTM 40C / IP 80C

Range: +72 to +126 : 0.2 °C
Length: 395 mm, Immersion: 100 mm, Ø 7 mm

13-0702

Polishing Vice Set

consisting of:

- 1 metal strip polishing vise with 1-place
 - 1 metal strip polishing vise with 4-places
- (Note: without metal strips)



13-0711

Polishing Vice, 1-place

holding 1 metal test specimen
(Note: without metal strip)



13-0730



Polishing Vice, 4-place

holding up to 4 metal test specimens
(Note: without metal strips)

13-0714

Flat Viewing Tube, DIN-type

safety glass, 250 mm in length

13-0727

Silicon Carbide Grit Paper, 100 grit (P100), 10 sheets

13-0719

Silicon Carbide Grit Paper, 150 grit (P150), 10 sheets

13-0720

Silicon Carbide Grit Paper, 240 grit (P280), 10 sheets

13-0721

Silicon Carbide Grit Paper, 360 grit (P600), 10 sheets

13-0722

Silicon Carbide Grit Paper, 500 grit (P1000), 10 sheets

13-0723

Silicon Carbide Grit Paper, 600 grit (P1200), 10 sheets

Spare Parts

16-1539

Oxidation Tube, complete

ASTM D 2440 - DIN 51 538 - EN 61 125 A+B+C - IP 48 - IP 280 -
IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

16-1553

O-ring (25 x 5.0 mm, 10 pcs.)

ASTM D 2440 - EN 61 125 A+B+C - IP 48 - IP 280 - IP 306 -
IP 307 - IP 335 - ISO 7624 - JIS C2101

16-1556

O-ring for temperature tube, 1 pc

ASTM D 2440 - EN 61 125 A+B+C - IP 48 - IP 280 - IP 306 -
IP 307 - IP 335 - ISO 7624 - JIS C2101

16-1555

O-ring for dry-heat bath with tube Ø 26

ASTM D 2440 - DIN 51 538 - EN 61 125 A+B+C - IP 48 - IP 280 -
IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

16-1531

Temperature Measuring Tube

ASTM D 2440 - DIN 51 373 - DIN 51 538 - DIN 51 352-1+2 -
EN 61 125 A+B+C - IP 48 - IP 280 - IP 306 - IP 307 - IP 335 -
ISO 6617-1+2 - ISO 7624 - JIS C2101

16-1579

**Temperature Measuring Tube for dry-heat bath
with tube Ø 26**

ASTM D 2440 - DIN 51 373 - DIN 51 538 - DIN 51 352-1+2 -
EN 61 125 A+B+C - IP 48 - IP 280 - IP 306 - IP 307 - IP 335 -
ISO 6617-1+2 - ISO 7624 - JIS C2101

16-1532

Stopper, Silicone (27/30 / bored Ø 6 mm)

11-0093

Thermometer ASTM 41C / IP 81C

Range: +98 to +152 : 0.2 °C
Length: 395 mm, Immersion: 100 mm, Ø 7 mm

16-0563 **Flowmeter Unit (0.08-2.0 l/h)**
ASTM 2440 - DIN 51 538 - DIN 51 373 - EN 61 125 A+B+C -
IP 280 - IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

16-0469 **Soap Bubble Meter (10:0.5 ml)**
ASTM 2440 - DIN 51 538 - DIN 51 373 - EN 61 125 A+B+C -
IP 280 - IP 306 - IP 307 - IP 335 - ISO 7624 - JIS C2101

25-0602 **Heating Element DP, 2000 W, 230 V**

25-0603 **Heating Element DP, 1000 W, 115 V**

Order Guideline

Minimum equipment: 1x 16-1500 or 1x 16-1566 or 1x 16-1573, 1x 16-1518, 1x 16-0442
Additional requirements: To combine methods which need BAM-Apparatus
16-1500 & 16-1502, you may modify 16-1502 with
the following accessories:
2x 11-0093, 2x 16-0563, 1x 16-0469
(instead of ordering two baths)