Anton Paar

RapidOxy

Oxidation Stability Tester

RapidOxy
The Ultimate Solution for Oxidation Stability Investigation

Safety and isolation hood

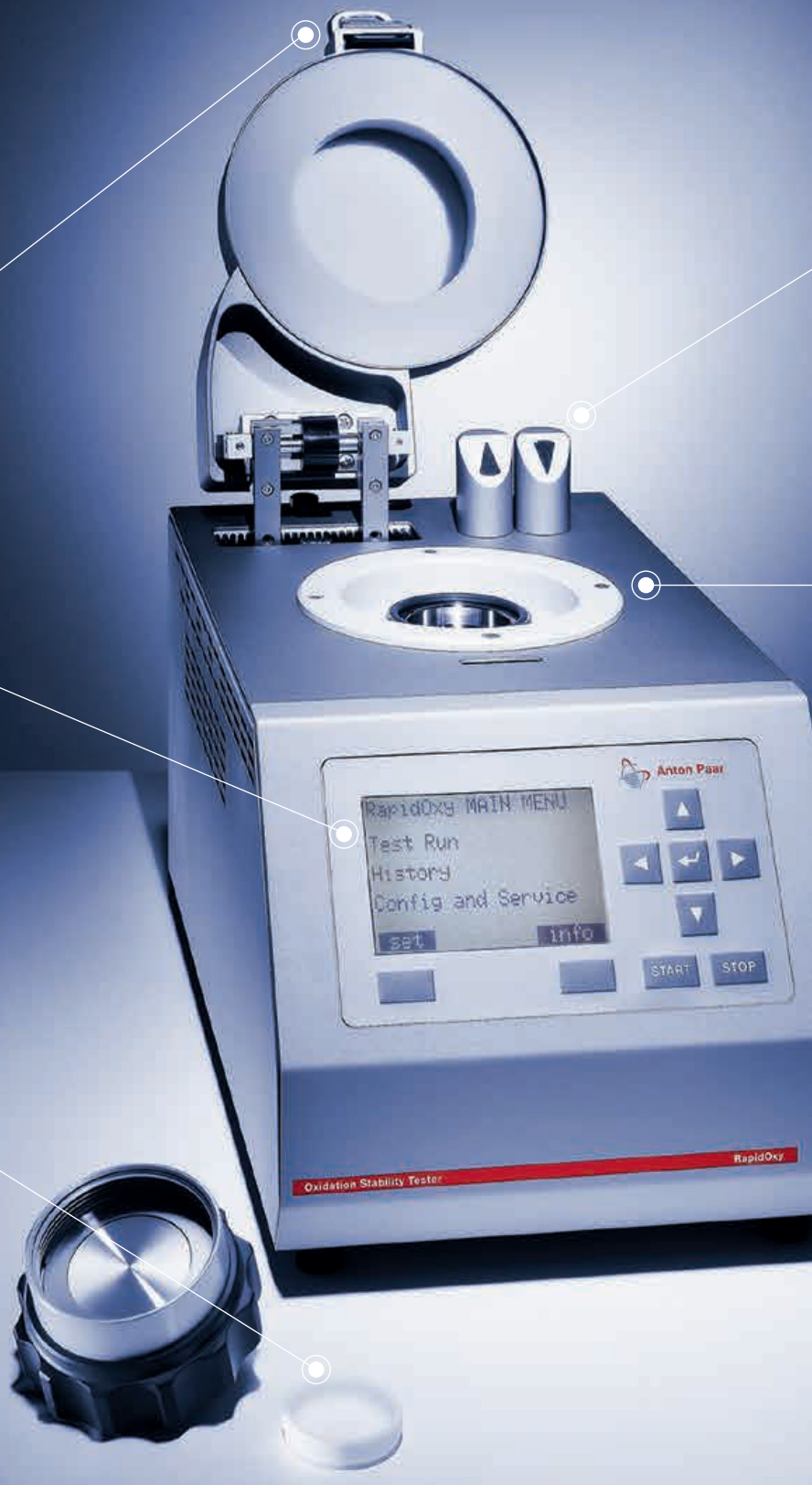
- For maximum user safety and perfect temperature stability

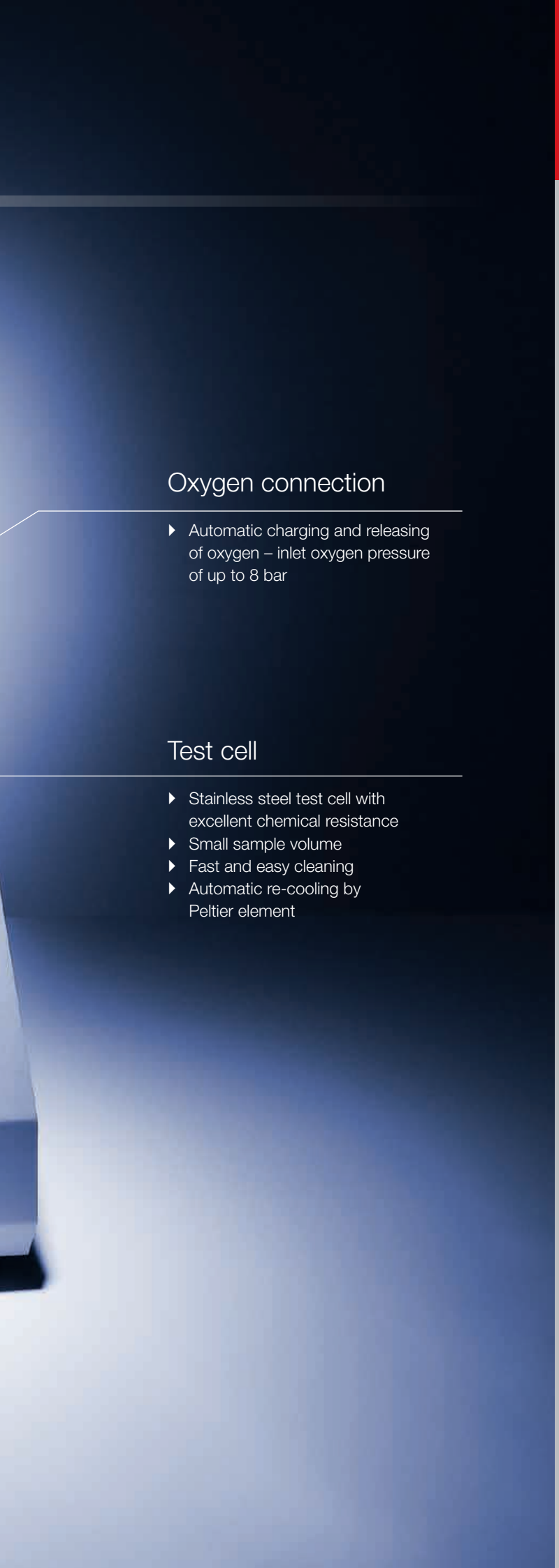
Display

- Real-time display of pressure curve and current sample temperature

Sample dish

- No need for sample preparation – PTFE dish (<7 mL) for liquid, solid and semi-solid samples
- Glass dishes for small (<4 mL) and large (<10 mL) sample volumes (optional)





Oxygen connection

- Automatic charging and releasing of oxygen – inlet oxygen pressure of up to 8 bar

Test cell

- Stainless steel test cell with excellent chemical resistance
- Small sample volume
- Fast and easy cleaning
- Automatic re-cooling by Peltier element

Measure the Whole Sample – No Preparation Required

Oxidation stability

In contact with atmospheric oxygen, the chemical decomposition of samples containing natural fats or other lipids begins. Oxidation is one of the most common reasons for product degradation.
Oxidation stability characterizes the resistance of the sample against oxygen. It is a necessary requirement for shelf-life investigations, quality control of incoming goods and during product development.

Test principle

RapidOxy artificially accelerates the oxidation process by using increased temperature and oxygen pressure. It is a rapid test method to determine oxidation stability without preliminary sample preparation.
After placing the sample in the test cell and sealing it, the test chamber is charged with oxygen and heated. Oxygen consumption will be marked by a pressure decrease. The measurement is continued until the breakpoint – a defined pressure drop.
The result is reported as the induction period (IP), the time elapsed between the start of the test and the breakpoint, which indicates the oxidation stability of the tested sample.

Applications

RapidOxy works directly on the whole sample, making sample preparation unnecessary. It is an accelerated test method for testing the oxidation stability of:

- Cosmetics like lip balm, hand cream, body lotion, etc.
- Foods like vegetable oils and animal fats
- Other food samples like mayonnaise, biscuits, etc.

Advantages

- Minimum test time
- Small sample volume
- No sample preparation necessary
- No need for expensive and environmentally hazardous reagents
- Fast and easy cleaning
- Based on ASTM D7525, ASTM D7545, EN 16091 and IP 595
- Safety approved by the Federal Institute for Materials Research and Testing (Germany)

Technical specifications	
Application range	Ambient to 200 °C
Pressure range	Up to 1800 kPa
Oxygen supply	800 kPa (maximum input)
Sample volume	Typically 5 mL
Interface	RS232
Power supply	115/230 V, 50/60 Hz
Dimensions	240 mm x 400 mm x 260 mm (W x D x H)
Weight	11 kg

H57IP002EN-D

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