

# Lovibond® Water Testing Tintometer® Group



## MD 100 Boiler Water

Precise water control with proven and compact measuring system



- High-precision optics
- High accuracy and reproducibility through precision interference filter (5 nm)
- Industry specific parameter combinations available

Part Number: 276230

The MD 100 has several key features that make it a favorite among users.

### Waterproof Design

The IP 68 design of this instrument ensures that the MD 100 remains water tight for up to 1 hour at 0.1 meter. Don't worry about dropping the instrument into a body of water - it floats!

### Accurate, Reproducible Results

The optical system of the MD 100 utilizes LEDs and interference filters which quickly gives you results that you can be confident in. You always measure in the spectral peak.

### User Calibration Mode

A one-point calibration is possible. Additionally, all MD 100 instruments have the ability to display readings directly in ABS or %T units.

### One-time-Zero Function

Don't waste time waiting for your instrument to Zero after each test. When testing a new sample, zero the instrument once and all subsequent tests of that sample do not require you to re-zero the instrument.

### Automatic Data Storage with Transfer Capabilities

The MD 100 automatically stores the last 16 readings with time and date stamp. These results can be transferred to a spreadsheet using the IRiM accessory.

### Ergonomic Design

Whether you're using the MD 100 out in the field or in the lab, the design of the instrument makes it easy to handle and view the display. If you're using the instrument in the lab, the rubber feet on the bottom of the housing eliminates the need for two hand operation or to chase your instrument around the workbench.

### Factory Programmed

All MD 100 instruments are supplied ready to use with up to 14 calibration curves. All you need to do is select the test you need, prepare your sample and test!

### Scroll Driven Menu System

The simple interface allows you to quickly reach the test you need. When the instrument is turned on, it will automatically display the last test used.

### 2-Year Warranty

## Industry

Chemical Industry | Food and Beverage Industry | Industries Others | Marine Industry | Oil and Gas | Pharmaceutical Industry | Power and Energy

## Application

Boiler Water | Cooling Water | Drinking Water Treatment | Galvanization | Pool Water Control | Raw Water Treatment | Waste Water Treatment

## MD 100 Boiler Water

Most faults in steam production plants occur as a result of deficient monitoring and control of the boiler water. This includes, in particular, the formation of scale, corrosion and local overheating. Therefore, a regular treatment and testing protocol of the boiler water is critical. By using the MD 100 Boiler Water colorimeter system, you have an overview of the key parameters of your boiler water and can perform purposeful water treatment at all times.

## Measuring Range

Test Name	Measuring Range	Chemical Method
Aluminium PP	0.01 - 0.25 mg/L Al	Eriochrom Cyanine R
Chloride L (B)	0.5 - 20 mg/L Cl <sup>-</sup>	Mercury Thiocyanate / Iron Nitrate
Copper T	0.05 - 5 mg/L Cu <sup>2+</sup>	Biquinoline
DEHA PP	0.02 - 0.5 mg/L DEHA	PPST
Hydrazine P	0.05 - 0.5 mg/L N <sub>2</sub> H <sub>4</sub>	Dimethylaminobenzaldehyde
Iron LR L (A)	0.03 - 2 mg/L Fe	Ferrozine / Thioglycolate
Oxygen dissolved C	10 - 800 µg/L O <sub>2</sub> <sup>o</sup>	Rhodazine D TM
Phosphate HR L	5 - 80 mg/L PO <sub>4</sub>	Vanadomolybdate
Polyacrylate L	1 - 30 mg/L Polyacryl	Turbidity
Silicate HR PP	1 - 90 mg/L SiO <sub>2</sub>	Silicomolybdate

## Technical Data

<b>Optics</b>	LEDs, interference filters (IF) and photo sensor in transparent sample chamber. Depending on the version, up to 3 different interference filters are used. Wavelength specifications of interference filters: 430 nm Δλ = 5 nm 530 nm Δλ = 5 nm 560 nm Δλ = 5 nm 580 nm Δλ = 5 nm 610 nm Δλ = 6 nm 660 nm Δλ = 5 nm
<b>Wavelength Accuracy</b>	± 1
<b>Photometric Range</b>	-2500 - 2500 mAbs
<b>Photometric Accuracy</b>	3 % FS (T = 20 °C – 25 °C)
<b>Display</b>	backlit LCD (on keypress)
<b>Interfaces</b>	Infrared
<b>Operation</b>	Foil keypad
<b>Auto – OFF</b>	Yes
<b>Calibration</b>	factory calibration and user calibration. Reset to factory calibration possible
<b>Internal Storage</b>	internal ring memory for 16 data sets
<b>Power Supply</b>	4 micro batteries (AAA)
<b>Battery Life Time</b>	approx. 17 hours
<b>Clock</b>	Real Time Clock and Date
<b>Portability</b>	Portable
<b>Environmental Conditions</b>	Temperature: 5 - 40 °C rel. humidity: 30 - 90 % (non condensing)

<b>Protection Class</b>	IP 68
<b>Compliance</b>	CE
<b>Dimensions</b>	155 x 75 x 35 mm
<b>Weight</b>	260 g

## Delivery Scope

- Instrument in plastic case
- Adapter for ø 16 mm cuvettes
- Adapter for ø 13 mm cuvettes
- 4 micro batteries (AAA)
- 3 round cuvettes (glass) with lid
- 3 round cuvettes ø 16 mm (glass) with lid
- Sealing rings
- Stirring rod
- Brush
- Syringe (20 ml)
- Measuring Beaker (100 ml)
- Plastic centrifuge tubes
- Instruction manual
- Quick Start Guide
- Certificate (COC)
- Warranty information

Title	Part Number
Water sampler with bottle 250 mL and lid, AF 631	170500
Adapter (13 mm) MultiDirect for Vacu-vial	192075
Micro batteries (AAA), set of 4	1950026
Multy cuvette-2, set of 12	197600
Round cuvette 24 mm ø, set of 12	197620
Sealing ring for round vials 24 mm ø, set of 12	197626
Round cuvette 24 mm ø, set of 5	197629
Cleaning cloth	197635
Round cuvette 16 mm ø, set of 10	197665
Adapter for round cuvettes 16 mm ø	19802190
Adapter for round cuvettes 13 mm ø	19802192
Mixing cylinder, 25 ml	19802650
Fixed price service package for MD100/MD110/MD200	19802701
Service plan - 3 years for MD100/MD110/MD200	19802801
Verification Standard Kit MD 100 / 200	215670
Stirring rod, 13 cm length	364100
Stirring rod, 10 cm length	364109
Stirring rod, 13 cm length, set of 10	364120
Stirring rod, 10 cm length, set of 10	364130
Pipette Tips	365032
Pipette, 200 µl	365042
Pipette, 1000 µl	365045
Membrane filter set for use when preparing samples, 25 membrane filters 0.45 µm, 2 syringes 20 ml	366150
250 mL bottle, AF 631	375072
Brush, 11 cm length	380230
Measuring beaker, 100 ml	384801
Measuring spoon, 1 g	384930
Cuvette stand for 6 round cuvettes Ø 24 mm	418951

<b>Title</b>	<b>Part Number</b>
Cuvette stand for 10 round cuvettes Ø 16 mm	418957
Pipette tips, 0,1-1 ml (blue), 1000 pc.	419073
Plastic funnel with handle (white)	471007
Stirring rod and spoon	56A006601
Factory calibration certificate ISO 9001 for MD100/MD110/MD200	999750
Additionally for each method	999855

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