

### I HARDWARE

- › Principles: thermal decomposition, amalgamation, and atomic absorption
- › Typical analysis time: 5-6 minutes
- › Sample types: solids, liquids and gasses
- › Max. sample weight (solid)\*: 1,5 gram
- › Max. sample weight (liquid)\*: 1,5 mL
- › Carrier gas: air or oxygen
- › Interference filter: 254 nm, 9 mm bandwidth
- › Detector: UV enhanced photodiode
- › Input pressure: 4 bar
- › Flow: ca. 100 mL/minute
- › Sample boats: multiple materials available such as metals or quartz
- › Combustion furnace: catalyst-filled quartz tube with dual-temperature zone: drying and thermal decomposition
- › Combustion temperature: time-to-temperature and time-at-temperature programs

	DMA-1 evo
<i>Spectrophotometers Design</i>	Single Beam
<i>Light source</i>	One low-pressure mercury lamp
<i>Wavelength</i>	253.65
<i>Detector</i>	One UV-enhanced photodiode
<i>Detection limit</i>	0.003 ng Hg
<i>Working Range</i>	0.03 ng to 1500 ng Hg
<i>Typical precision</i>	≤ 1 % @ 10 ng Hg
<i>Calibration</i>	Standard solutions and/ or certified reference materials
<i>Pre-concentration</i>	Up to 10 samples

\* Depending on the sample type

### | USER INTERFACE

- › Touch-screen industrial grade controller
- › 6,5" screen with 64.000 colors
- › 640x480 VGA resolution for sharp process graphics
- › 5 USB ports for printers, keyboards, mouse, storage devices and other external peripherals
- › 1 RS-232 port for an analytical balance interface
- › 1 LAN port to enable network connection

### | USER INTERFACE (PC REQUIREMENTS)

- › CPU Pentium III 800
- › 256 MB of RAM
- › 20 MB of usable space on the hard drive
- › 1 USB port and network connection
- › 1 CD-ROM reader
- › Windows XP or newer

### | SOFTWARE

- › Icon-driven multi-language software allowing the user the edit, save and run a virtually unlimited number of methods
- › Temperature driven methods to control sample decomposition
- › Auto-blank
- › Data post-processing
- › Data import/export from/to Excel
- › LIMS connectivity
- › Autosave function
- › System auto diagnosis
- › Fully compliant with FDA regulation 21 CFR part 11
- › History of applications, errors, system and log-ins

### | MERCURY DETERMINATION OF GAS

- › Mercury determination in gas via sorbent traps
- › Gas sampling done through a dedicated module using a sorbent trap
- › DMA-1 evo compatible with Milestone sorbent traps
- › Wide dynamic range (0,01 to 1500 ng)

### | OFFICIAL METHOD COMPLIANCE

- › US EPA method 7473 (Mercury in solids and solutions by thermal decomposition, amalgamation, and atomic absorption spectrophotometry)
- › ASTM method D-6722-01 (Standard test method for total mercury in coal and coal combustion residues by direct combustion analysis)
- › ASTM method D-7623-10 (Standard test method for total mercury in crude oil using combustion-gold amalgamation and cold vapor atomic absorption method)
- › UOP Method 938-10 (Total Mercury and Mercury Species in Liquid Hydrocarbons)

### | OTHER INFORMATION

- › Dimensions: 650 (w) x 445 (d) x 450 (h) mm
- › Weight: 28 Kg
- › Power supply: 230 V, 50-60 Hz

### | SAFETY STANDARDS

- › IEC 61010-1:2010, IEC 61010-1:2010/AMD1:2016, EN 61010-1:2010/A1:2019, UL 61010-1:2012/R:2018-11, CAN/CSA-C22.2 No. 61010-1:2012/A1:2018-11