



DEENA II

**AUTOMATED METALS DIGESTION
AND SAMPLE PREPARATION**

DEENA II

AUTOMATION

DEENA is a sample digestion system that fully automates the digestion process. DEENA will accurately dispense small volumes of reagents into sample tubes, mix thoroughly, apply heat, and then fill to volume after the digestion is completed. Automating each step of the process ensures that each sample is treated exactly the same and safeguards against human error.

SAFETY

The digestion system significantly increases laboratory safety by eliminating the manual dispensing of corrosive acids and other dangerous reagents. DEENA can also safely operate on a benchtop with the optional self-contained fume hood, freeing up valuable hood space.

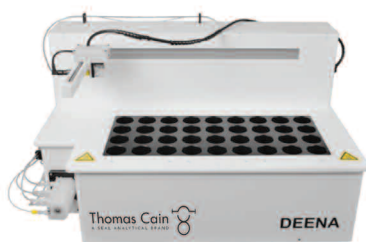
The digestion system comes in four different configurations:



60 position block for 50ml tubes



96 position block for 15ml tubes



36 position block for 100ml tubes



30 position block for 50ml tubes

DURABLE

Designed with durability in mind, all of the DEENA's electronics are securely protected inside an instrument body comprised of high grade PTFE and powder-coated steel. All of the wetted parts are made of high purity plastics. This allows the DEENA to reliably run despite the harsh digestion environment it operates in.

EFFICIENT

DEENA has a standby (warm) feature which allows for a new batch to rapidly be brought up to digestion temperature. Overnight digestions can be set up to automatically start at a predetermined time so that samples are ready for analysis at the beginning of each day. Having a DEENA fully automate the entire digestion procedure frees up valuable lab personnel.

RELIABLE METALS DIGESTION

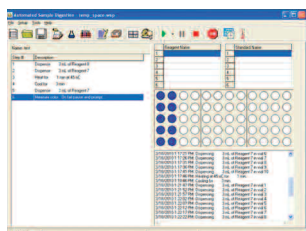
AUTOMATED

- ▶ **Dispense**
- ▶ **Mix**
- ▶ **Heat**
- ▶ **Fill to volume**

Suitable for EPA
Approved Methods:
200.2, 200.7, 200.8, 245.1,
3050B, 7470A, 7471A

SOFTWARE

DEENA's intuitive software is designed for simple navigation with user-friendly icons and menus. Methods are completely customizable with easy to understand commands, and several commonly used methods come pre-loaded in the software. Each instrument command is time-stamped on reports and will satisfy any audit requirements. A detailed log can be printed or exported for tracking every sample throughout the run. Real time functions allow the user to track sample temperature and insert comments while the run is in progress. Runs on Windows 7 and above.



Reliable digestions

DEENA evenly heats every sample to ensure complete, uniform, reproducible digestion

UNIQUE BENEFITS

No manual acid handling

No cross contamination

No direct contact with sample or vial

ACCESSORIES



Fume Hood **► HIGHLY RECOMMENDED**

Free up valuable hood space with this self-contained HEPA filtered fume hood. Connecting directly to your existing duct work, this allows the DEENA to operate safely on your laboratory bench.



Syringe Module

Accurately dispense standards and automatically spike samples with this precision syringe add-on. Fully integrated into the DEENA, it is controlled by the software.



Polypropylene Vials

SEAL offers polypropylene vials for any size DEENA, with either a flat or conical bottom. These tubes can be heated up to 135°C.



PTFE Vials

Designed for more strenuous digestions, our 50 mL PTFE Vials can be heated up to 200°C.



TECHNICAL SPECIFICATIONS

DEENA II H x W x D
19.5" x 34" x 19.5"

w/ Fume Hood
24" x 35" x 21"

w/ Fume Hood & Syringe
24" x 48" x 21"

Weight
≈ 120 lbs | 55 kg

DEENA m H x W x D
19.5" x 23.5" x 19.5"

w/ Fume Hood
24" x 24.5" x 21"

w/ Fume Hood & Syringe
24" x 37.5" x 21"

Weight
90 lbs | 40 kg

Temperature Control
Ambient - 180°C

Communication
USB - RS-232

Voltage
110 or 240 V

Power
15A at 110V, 8A at 240V

Accuracy
< 0.025 mL or 1%

Precision
< 0.035 mL or 1%

Range
> 0.5 mL

Ideal for
Metals, Mercury, TP

Other applications are always being developed. Contact us!

Colorimetric Nutrient Analyzers

DISCRETE ANALYZERS



AQ270



AQ300



AQ400

SEGMENTED FLOW ANALYZERS



AA100



AA500



AA3



QuAAtro39

50 Years' Experience in Environmental Analysis Built into Every Analyzer

50 years' experience in designing, developing and manufacturing automated wet chemistry analyzers specifically for very low detection levels in environmental applications has helped SEAL to apply the most useful, easy to use features into the SEAL range of Discrete and Segmented Flow analyzers. The SEAL analyzers are widely acknowledged as the best for environmental analysis, giving you everything you need to achieve equal or superior results to the manual and approved laboratory methods the SEAL analyzer replaces.

SEAL Analyzers are monitoring environmental samples in every corner of the globe. They are manufactured in the USA, Germany and the Netherlands. Engineering and chemistry support is provided from SEAL global facilities in USA, Germany, England, the Netherlands and China along with a worldwide network of specialist distributors.

COMPREHENSIVE SUPPORT

We offer comprehensive applications, technical service and software support.

INCLUDING

- ▶ A choice of preventative maintenance and service contracts to meet your specific requirements
- ▶ In-house and online training
- ▶ Guaranteed availability of genuine consumables and spare parts
- ▶ Adaptation of methods to specific requirements such as matrix, range or detection limit
- ▶ Continuous in-house development of software to incorporate new customer requested features

Robotic Handling Systems

SEAL Robotic Minilab systems for automating sample (pre) treatment in the laboratory – improving your sample handling efficiency. Typical applications include BOD, pH, COD, Alkalinity, and conductivity measurements with options such as decapping/capping, sample splitting, and filtration. Call us about your laboratory needs and we will design a robot to suit you.



SEAL Minilab 1200

Digestion Systems

FOR METALS AND TKN, TP DIGESTION



BD50



SmartBlock II



DEENA 3

SEAL Analytical



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