

Determining the Best Nitrogen Blowdown Evaporator for Your Lab

What is nitrogen blowdown evaporation?

Nitrogen evaporation is a common step in sample preparation that is meant to concentrate down small liquid samples prior to analysis. The evaporation process is initiated by a constant, gentle stream of nitrogen gas being blown onto the sample's surface. This decreases the pressure right above the sample, allowing the solvent to vaporize quickly and be whisked away.

Nitrogen evaporators often utilize a heat source in tandem with blowdown technology to further speed up the concentration process. The test samples will sit in either a heated water bath or dry heat block, causing the solvent molecules to speed up and vaporize at an accelerated rate.

Due to their affordability and low level of maintenance, nitrogen blowdown evaporators have become a staple in a wide variety of sectors including pharmaceutical, environmental, food & beverage, toxicology, government, and academic.

3 blowdown evaporator options

Organomation offers three different nitrogen blowdown evaporators: the N-EVAP, MULTIVAP, and MICROVAP. Each product line has varied capacities, controls, and features that are designed to serve different applications. Let's go over each of the product's attributes and the applications they're designed for, so you can determine the best model for your lab.

The N-EVAP

Determining the Best Nitrogen
Evaporator for your Lab

The N-EVAP nitrogen evaporator is designed for labs who work with various tube sizes, solvent volumes, or methods at once. The flexible spring-assisted sample holder can hold a wide variety of tube sizes at once without any modification. The individual needle valves at each position also allow the user to customize the evaporation experience for each sample.

AVAILABLE MODELS

- **6 positions** (mechanical thermostat)
- **12 positions** (mechanical thermostat)
- **24 positions** (optional digital controls and timer)
- **34 positions** (digital controls & timer feature)
- **45 positions** (digital controls & timer feature)

MAIN FEATURES

- Can hold multiple test tube sizes at once with an OD between 10-30 mm
- Individual gas flow control at each position
- Full rotation of sample holder to access each samples from the front
- 6, 12, and 24 position models include a mechanical thermostat
- 34 and 45 position models include digital controls and timer feature for both heat and gas flow
- Standard N-EVAPs are water baths, but dry bath models are also available

POPULAR INDUSTRIES

- Environmental
- Academic
- Food & Beverage



The MULTIVAP

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The MULTIVAP evaporator is curated for laboratories who need to evaporate medium to large batches of identical samples. A custom drilled heat block or rack to hold your tubes securely and a single nitrogen manifold to instantly start and stop solvent concentration make batch processing a breeze. Best for labs only working with 1 or 2 vial sizes.

AVAILABLE MODELS

- **9 positions** (dry block for 50 mm OD beakers)
- **30 positions** (dry block for tubes 16-30 mm OD)
- **48 positions** (dry block for tubes 10-22 mm OD)
- **64 positions** (water bath for tubes 11-30 mm OD)
- **80 positions** (dry block for tubes 10-17 mm OD)
- **100 positions** (water bath for tubes 11-22 mm OD)

MAIN FEATURES

- All models include digital controls and a timer feature for both heat and gas flow
- Toggle switches allow each row of unused sample positions to be turned off, conserving N2 gas
- Heat blocks (for dry bath models) and racks (for water bath models) are custom drilled for your specific tube size(s)
- Uniform evaporation across all sample positions
- Gas delivery needles attached to a single manifold allow the user to start/stop evaporation instantly

POPULAR INDUSTRIES

- Academic
- Medical
- Government



The MICROVAP

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The MICROVAP is designed for laboratories who will be concentrating down standard or deep 96 well microplates, small batches of test tubes, or both. Optional conversion kits transform this single unit to a 2-in-1 powerhouse. As Organomation's smallest and most affordable product line, the MICROVAP is ideal for startup labs, or those with specific space constraints.

AVAILABLE MODELS

- **Single plate** (holds one 96 well microplate)
- **Triple plate** (holds three 96 well microplates)
- **15 positions** (holds tubes 10-22 mm OD)
- **24 positions** (holds tubes 10-17 mm OD)

MAIN FEATURES

- Digital temperature controller for easy and accurate temperature regulation
- Custom drilled heat block for your specific tube size (15 and 24 position models only)
- Uniform evaporation across all sample positions
- Optional conversion kits that allow one unit to switch from evaporating microplates to test tubes (not available for triple plate model)
- Small footprint to conserve valuable space
10 x 12.5 x 17 in (W x D x H)
- Toggle switch to instantly start or stop nitrogen gas flow to all samples

POPULAR INDUSTRIES

- Environmental
- Biotechnology
- Pharmaceutical



Your Partners in Sample Preparation Since 1959



Organomation[®]



MISSION STATEMENT

Organomation exists to partner with its customers by providing high quality instruments and support services, while ensuring its employees participate in a safe, financially secure and respectful workplace.



MADE IN AMERICA

All of our instruments are carefully assembled and tested, by hand, in the USA, with the highest quality materials.



CUSTOMER SERVICE

We take pride in being partners with our customers and providing lifetime support from the first interaction through post-purchase.



ABOUT US

Since being founded in 1959 by the late Dr. Neal McNiven, Organomation strives to manufacture reliable, yet affordable nitrogen blowdown evaporators, solvent extractors, and nitrogen generators.

Our instruments are designed to automate the sample evaporation process ahead of LC-MS, GC-MS, and HPLC. We specialize in removing excess solvent from samples held in test tubes and microplates. Our quality instruments are highly respected worldwide, with a reputation for being well-made, trustworthy, and low maintenance.

CONTACT US



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