

HotPlates & Racks

For digestion and evaporation of your samples, or any other HotPlate function.
Ideal for trace and ultra trace analysis.

Non contractual pictures



HotPlate 250°C



Racks

International Ambassador of our products, whether they are rectangular, square or round.

Made of special graphite, the temperature homogeneity of the hotplates between each sample is close to perfection. Wherever you place your jar, the temperature is homogenous over 99% of the hot plate (measurements have been taken (5mm away from the edge).

The temperature is stable and accurately regulated (+/- 2°C). The maximum temperature is set at 250°C which is quite enough for most of the acids commonly used. For specific requirements, please consult us.

All Analab® hotplates are made of PFA coated graphite, materials inert to acids. They do not emit any particles which could contaminate samples and the laboratory. They have all successfully passed acceptance testing cleanroom class 1.

Longevity and flexibility

Our devices are offered in standard sizes and can also be **tailor-made to customer specifications**, depending on the available workspace and size of your vessels.

The heating elements are placed in a cavity almost waterproof, are not attackable by reagents.

Ideal for traces and ultra-traces analysis.

The safety design of the temperature controller (4 electronic and physical safety fuse) allow for an intensive use.

Model:

Dimension:	PL-A4 (without rim):	300 x 200 x H120 mm (total height with feet)
	PL-A4-R (with rim):	320 x 220 x H130 mm (total height with feet)
	PL-A3 (without rim):	400 x 300 x H120 mm (total height with feet)
	PL-A3-R (with rim):	420 x 320 x H130 mm (total height with feet)
	PL-A2 (without rim):	600 x 400 x H120 mm (total height with feet)
	PL-A2-R (with rim):	620 x 420 x H130 mm (total height with feet)

Dimension custom made - With or without rim

Analab inert hotplates are equipped with PTFE bench thermal protection. Simple to install, adaptable to every size of hotplates, thermal bench protection is easily removable allowing to clean it properly if needed. This thermal protection protects fume hood's environment from radiation heat and offer a better heating homogenization of the hotplate.



Side thermal protection (Option)

The Side Thermal Protection protects the user against accidental burns due to contact with the device and improves homogeneity.



Net weight:	A4 Model: 4.5 kg
	A3 Model: 9 kg
	A2 Model: 18 kg

Racks

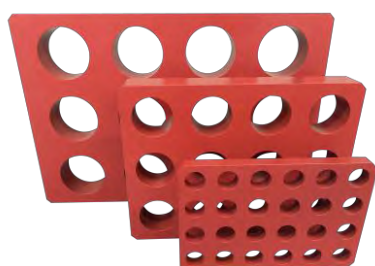
The use of racks on a hotplate is very interesting. It allows a uniform temperature from bottom to top of the container or beaker which avoids the effects of the temperature gradient: bubbling and blistering down that hatch surface with micro risk loss of the sample.

They are tailor-made to your vessels' sizes.

Dimensions: **A4:** 300 x 200 mm x height depending on your vessel's size

A3: 300 x 400 mm x height depending on your vessel's size

Custom made – Diameter and number of holes adapted to your vessel.



Material: PFA coated graphite - **Caution: cannot be use over 250°C**

Nota: For a matter of weight and user's comfort, we suggest you to use one or several A4 racks

Non contractual pictures

CleanAcids®

Purification system designed to obtain extra pure reagents from standard quality acids, essential for trace and ultra-trace analysis.



CleanAcids 1000 mL



CleanAcids 3-500 mL



CleanAcids 3-125 mL

Non contractual pictures

Acid inertness

The 400µm thick PFA coating on our devices offers protection from corrosion by aggressive reagents, ensuring that the **risk of contaminating your samples**, work spaces and clean rooms is eliminated. All devices have successfully passed acceptance testing cleanroom class1.

Performance

Perfect temperature uniformity across the heating surface; your reagents are purified at the same temperature and rate.

Reliability

The temperature controller, connected to the device by a 1.7m long cable (held inside a PFA tube), can be placed outside the fume hood for better protection and is **safe for continuous use**.

All heated parts are fully encased and impervious to attack by corrosive reagents, ensuring a **long, maintenance-free life**.

Flexibility

Our devices are offered in standard sizes and can also be **tailor-made to customer specifications**, depending on the available workspace and size of your vessels.

Functioning

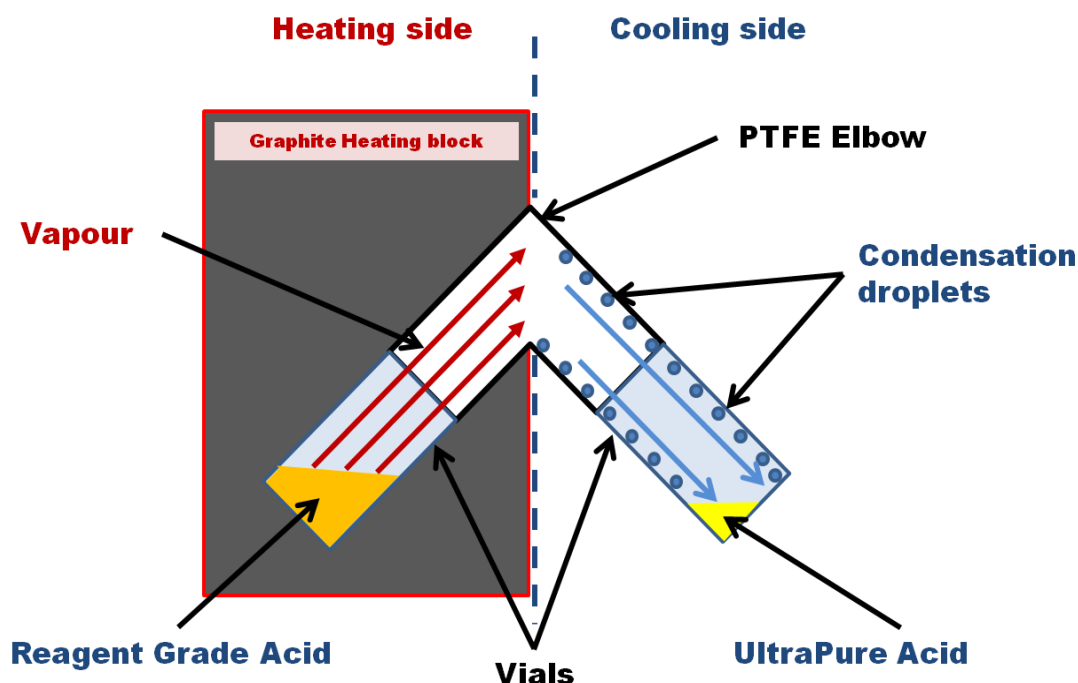
The purification of the reagent is held to a constant, uniform and controlled temperature. This temperature is slightly under the boiling point. The isolated vapors from the atmosphere are condensed, canalized and stored in the coldest part with no way back possible to the reagent to be purified.

With a unique and patented design, the CleanAcids® range is designed for wet laboratories which carry out chemical analysis. Its uniqueness is to be able to simultaneously purify different acids or solvents in a totally closed environment, without need of an external gas flow to carry out the vapor towards a condensation device.

CleanAcids® allows the production of ultrapure reagents from standard quality reagents. The purification of small volumes of reagents before the analysis avoids the risks of contamination which can happen during long term storage of your high purity reagents.

It purifies your reagents into concentrated solutions for less contamination of your sample and greatly reduces your cost analyzes related to the purchase of high-purity reagents (HCl, HNO₃, HBr, HF, HClO₄, NH₄OH, H₂O₂ ... H₂SO₄ (very low productivity)).

The purification stations, up to 12 per device, can treat volumes between 25 mL and 1L. The isolation stations are isolated from each other, which allow removing independently a container during the purification process.



Reminder: All Analab devices are made completely in inert to acid materials. They do not emit any particles that could contaminate the samples and the laboratory. The temperature homogeneity is perfect. All devices have successfully passed acceptance testing cleanroom class1.

Purification conditions for concentrated solutions of acids

For purification of concentrated acid solutions, it is recommended to evaporate solutions composition close to the azeotropic composition. The temperature of the heating block is fixed in relation to the boiling point of the mixture, 5°C below:

- | | |
|-----------------------------------|------------------------|
| - HCl : 20,2 % weight, | Boiling point : 110 °C |
| - HNO ₃ : 68 % weight, | Boiling point : 121 °C |
| - HF : 38 % weight, | Boiling point : 111 °C |
| - HBr : 49 % weight, | Boiling point : 126 °C |

Speed of purification: around 35mL/h

PS. because fluoropolymers are thermal insulators, you can adjust the set temperature to the boiling point of the acid to be purified and sometimes several degrees above, but you have to test.

For purification of solutions with concentration higher than the azeotropic composition, adapt an evaporation temperature significantly lower in adequacy with the equilibrium vapor diagram of the binary mixture acid/water.

Utilization

Wear protective gloves against heat when handling hot vials, jars and elbows.

Do not take support on the block during heating at risk of burns.

Be sure to condition elbows before first use.

Be sure to well condition vials and jars before use.

Containers are screwed firmly on the elbows without forcing which could damage the thread.

During the device's functioning, make sure there is no drop of reagent on the outside wall of the container, which would mean there is a leak (the container is not sufficiently screwed or the thread has been damaged).

Technical data

Reference	Length (mm)	Width (mm)	Height (mm) Feet included	Weight (kg)
CA-3.125mL	284	176	245	19
<i>Required space</i>	360	300	390	
CA-3.125+5.25	284	176	245	25
<i>Required space</i>	410	410	390	
CA-6.125mL	571	176	245	41
<i>Required space</i>	655	300	390	
CA-12.125mL	571	352	245	71
<i>Required space</i>	655	410	390	
CA-3.500mL	330	180	300	
<i>Required space</i>	386	236	416	
CA-1.1000mL	275	155	390	14
<i>Required space</i>	355	215	535	

Reference	Number of positions on the CA's side	Volume of vials and jars	Number of positions on the CA's top	Kit vessel corresponding
CA-3.125mL	3	125ml	6	3X KIT-VESSEL-25ML
CA-3.125+5.25	3 + 5	125ml + 25ml	14	3X KIT-VESSEL-125ML + 5X KIT-VESSEL-25ML
CA-6.125mL	6	125ml	12	6X KIT-VESSEL-125ML
CA-12.125mL	12	125ml	24	12X KIT-VESSEL-125ML
CA-3.500mL	3	500ml	6	3X KIT-VESSEL-500ML
CA-1.1000mL	1	1000ml	--	1X KIT-VESSEL-1L

Reference	Power	Amp for CleanAcids 230V	Amp for CleanAcids 110V
CA-3.125mL	2200 W	9.6 Amp	--
CA-3.125+5.25	2200 W	9.6 Amp	--
CA-6.125mL	3600 W	15.6 Amp	--
CA-12.125mL	3000 W	13 Amp	--
CA-3.500mL	2000 W	9 Amp	
CA-1.1000mL	1500 W	6.5 Amp	13.6 Amp

Temperature: 250°C maximum – Uniformity +/- 2°C
 Temperature rise: 6°C / minute
 Temperature drop: 1°C / minute

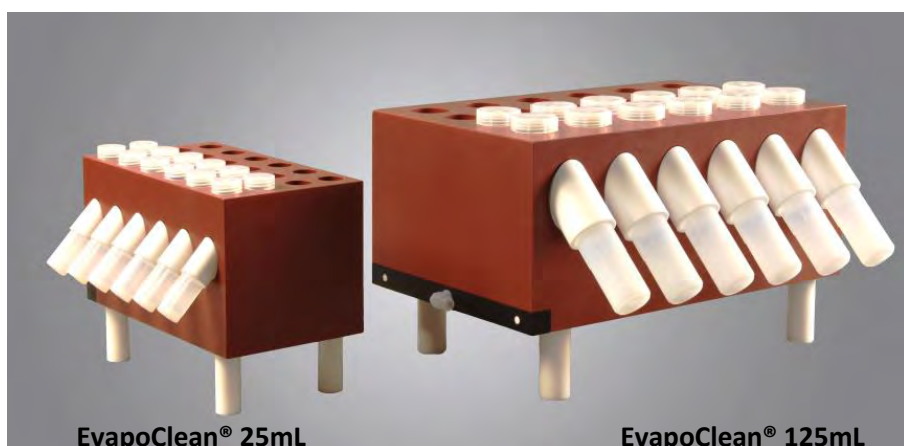
Material: PFA coated graphite

Warranty: 1 year for electronic and electric elements
 2 years for the graphite (under normal use, without putting on any sharp vessel)

EvapoClean®

**Closed environment sample evaporation device.
Protect samples from all external sources of contamination during evaporation.**

Non contractual pictures



All our Evapoclean are equipped with a side protection to increase the quality of the heating.

Acid inertness

The 400µm thick PFA coating on our devices offers protection from corrosion by aggressive reagents, ensuring that the **risk of contaminating your samples**, work spaces and clean rooms is eliminated. All devices have successfully passed acceptance testing cleanroom class1.

Performance

Perfect temperature uniformity across the heating surface; your samples are evaporated at the same temperature and rate.

Reliability

The temperature controller, connected to the device by a 1.7m long cable (held inside a PFA tube), can be placed outside the fume hood for better protection and is **safe for continuous use**. All heated parts are fully encased and impervious to attack by corrosive reagents, ensuring a **long, maintenance-free life**.

Flexibility

Our devices are offered in standard sizes and can also be **tailor-made to customer specifications**, depending on the available workspace and size of your vessels.

Functioning

The evaporation of the reagent to be eliminated or purified is held to a constant, uniform and controlled temperature. This temperature is slightly under the boiling point. The isolated vapors from the atmosphere are condensed, canalized and stored in the coldest part with no way back possible to the solution to be evaporated.

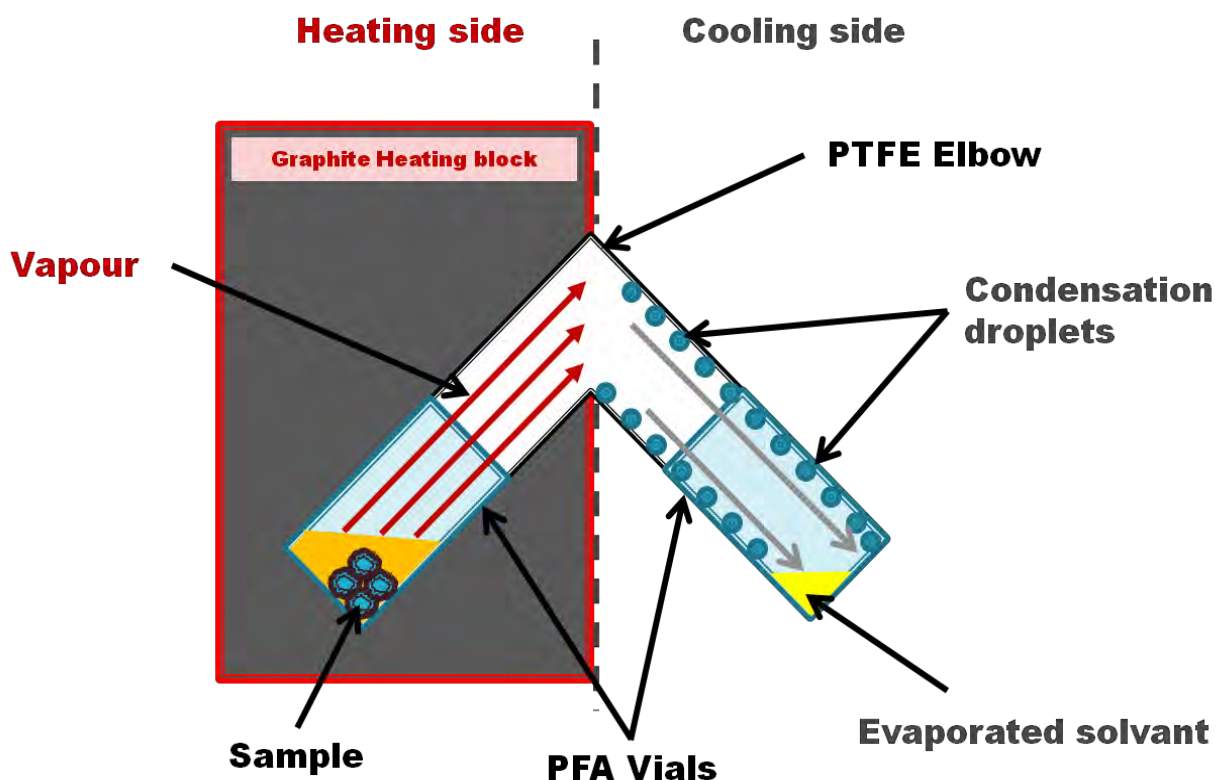
The EvapoClean® allows partial or complete evaporation of solutions at a constant and controlled temperature without any loss of elements and without contamination of the atmosphere. It makes the detection of traces and ultra-traces easier by different method of analysis.

Mineralization wells allow you to put in solution several samples simultaneously or condition your vessel with CleanClever. Elbows are simply conditioned by evaporation of a reagent.

The functioning in closed environment protects users and your labs' environment against acid fumes. It greatly reduces your operating costs and your expensive investments in neutralizing system installation of corrosive and toxic fumes. The elbows / containers joints are sealed, but it is strongly recommended to install the equipment in a fume hood. In all cases, you must comply with your laboratory's regulations.

Before the first use, we recommend you to clean the elbows by evaporation / condensation of a diluted acid solution and water.

The sample introduction can be carried out simultaneously or independently of each other.



Nota: Speed evaporation, 25-35mL /h

Utilization

Wear protective gloves against heat when handling hot vials, jars and elbows.
Do not take support on the block during heating at risk of burns.
Elbows do not have a way of use.
Be sure to condition elbows before first use.
Be sure to well condition vials and jars before use.
Containers are screwed firmly on the elbows without forcing which could damage the thread.

During the device's functioning, make sure there is no drop of reagent on the outside wall of the container, which would mean there is a leak (the container is not sufficiently screwed or the thread has been damaged).
When properly closed (firmly but without forcing) the container should not move. Otherwise, unscrew and screw it back in place.

Technical data

Dimensions (required space)

Reference	Length (mm)	Width (mm)	Height (mm) Feet included	Weight (kg)
EV-3.25mL	315	210	305	8
EV-6.25mL	450	210	305	21
EV-12.25mL	450	370	310	38
EV-3.125mL	360	300	390	36
EV-3.500mL	386	236	416	
EV-6.125mL	655	300	390	57
EV-12.125mL	647	500	390	90
EV-3.125mL + 5.25mL	410	410	390	30

Number of positions

Reference	Number of positions on the EV's side	Volume of vials and jars	Number of positions on the EV's top	Additional information
EV-3.25mL	3	25mL	6	3X KIT-VESSEL-25ML
EV-6.25mL	6	25mL	12	6X KIT-VESSEL-25ML
EV-12.25mL	12	25mL	24	12X KIT-VESSEL-25ML
EV-3.125mL	3	125mL	6	3X KIT-VESSEL-125ML
EV-3.500mL	3	500mL	6	3X KIT-VESSEL-500ML
EV-6.125mL	6	125mL	12	6X KIT-VESSEL-125ML
EV-12.125mL	12	125mL	24	12X KIT-VESSEL-125ML
EV-3.125mL + 5.25mL	3+5	125mL + 25mL	14	3X KIT-VESSEL-125ML + 5X KIT-VESSEL-25ML

Power

Reference	Power	Amp for EvapoClean 230V	Amp for EvapoClean 110V	Temperature
EV-3.25mL	1000 W	4.3 Amp	9.1 Amp	250°C
EV-6.25mL	1500 W	5.6 Amp	11.8 Amp	250°C
EV-12.25mL	3000 W 2000 W	13 Amp --	-- 18.2 Amp	250°C 200°C (20A)/150°C (15A)
EV-3.125mL	2200 W 2000 W	9.6 Amp --	-- 18.2 Amp	250°C
EV-3.500mL	2600 W	11.3 Amp	--	250°C (230V)/Not available in 110V
EV-6.125mL	3600 W	15.6 Amp	32.7 Amp	250°C (230V)/150°C (110V)
EV-12.125mL	3600 W	15.6 Amp	--	180°C (230V)/Not available in 110V
EV-3.125mL + 5.25mL	2200 W	9.6 Amp	--	250°C

Voltage: 230V (50Hz) or 110V (60Hz)

Temperature: 250°C maximum – Uniformity +/- 2°C
Temperature rise: 6°C / minute
Temperature drop: 1°C / minute

Material: PFA coated graphite

Warranty: 1 year for electronic and electric elements
2 years for the graphite (under normal use, without putting on any sharp vessel)

350°C Hotplate

Overall dimensions: **Model A4:** 410 x 310 x H160 mm (total height)
Model A3: 530 x 430 x H170 mm (total height)
Model A2: 720 x 520 x H170 mm (total height)
(Graphite plate always has an edge)

Dimensions of the graphite part:
Model A4: 320 x 220 x 50 mm
Model A3: 420 x 320 x 50 mm
Model A2: 620 x 420 x 50 mm

Volt: 230V (50Hz)

Power in watts
A4 = 3000 = 13Amp in 230V
A3 = 3400 = 15Amp in 230V
A2 = 4400 = 19Amp in 230V

Materials: Graphite body without coating
PFA coated stainless steel support

Warranty: 1 year

