



# NINcha series

With the **NINcha** series, Attestor Forensics offers three different sizes of climate chambers, especially designed for the development of fingerprint evidence. Evidence is usually treated with Ninhydrin or DFO by bathing or spraying. Following this actual treatment process, for an optimum result, the samples need to be developed under given temperature and humidity conditions. Many forensic laboratories simply „dry“ the treated evidence in vented extraction cabinets. Other laboratories utilise industrial ovens or climate chambers, originally designed and developed for other purposes and other applications, e.g. as incubators for bacterial cultures or the like. Where many aspects - important for forensic use - are neglected, other features are achieved at the expense of ease of forensic use and user safety.

In forensic use, evidence should be developed under homogenous conditions with fixed parameters. Further it should be possible to observe the development and document the relevant parameters for quality control. **NINcha** enables all of this, using a user friendly, multi-lingual touch panel control with a USB data logger and a novel and innovative air stream concept.

In difference to many other climate chambers, **NINcha** monitors and controls the temperature and humidity not directly in the air stream at the air outlets but uses actual values inside the cabinet. For a forensic climate chamber it is important, that it can be easily cleaned and kept free from DNA contamination. **NINcha** therefore features an integrated air filter system, which reduces the amount of airborne dust from samples that might be loaded with the development chemical. Any area that comes in contact with the air stream is easily accessible for cleaning off remaining Ninhydrin or DFO particles. This limits the risk of cross-influencing of the various chemicals used and reduces the cleaning effort. Many other features round off the innovative **NINcha** concept. For further details concerning the product specification, please do not hesitate to contact us.

## Technical Data

	NINcha S31	NINcha M31	NINcha L31
<b>External Dimensions (HxWxD)</b>	105 x 70 x 60 cm (with adjustable legs)	185 x 70 x 60 cm (on castors)	205 x 70 x 60 cm (on castors)
<b>Internal Dimensions (HxWxD)</b>	50 x 48 x 48 cm	100 x 48 x 48 cm	150 x 48 x 48 cm
<b>Levels</b>	2 + additional top hanging level	4 + additional top hanging level	6 + additional top hanging level
<b>Temperature Range</b>	25°C <sup>1</sup> - 110°C		
<b>Humidity Range</b>	40 – 80% RH <sup>2</sup> (and humidifier OFF)		
<b>Internal Illumination</b>	2 lamps (one lamp per level)	4 lamps (one lamp per level)	6 lamps (one lamp per level)
<b>Basic Configuration / Optional Features</b>			
<b>Filter System</b> LFD31/LFN31/LFI31	•/•/•	•/•/•	✓/✓/•
<b>USB Datalogger</b> USB31	•	✓	✓
<b>UV Decontamination</b> UVS31/UVM31/UVL31	•	•	•
<b>External Ventilation Upgrade</b> EAA31	•	•	✓
<b>Electrical Data</b>			
<b>Voltage:</b>	230V AC/50Hz (110-120V AC or 60Hz version on request)		
<b>Power Requirements:</b>	max. 2.200 W		
<b>Current:</b>	ca. 10 A (on 230V AC)		
<sup>1</sup> min. temperature is ambient temperature + approx. 5°	✓ fitted in basic configuration		
<sup>2</sup> RH range depending on selected temperature	• available as an option, additional charge		

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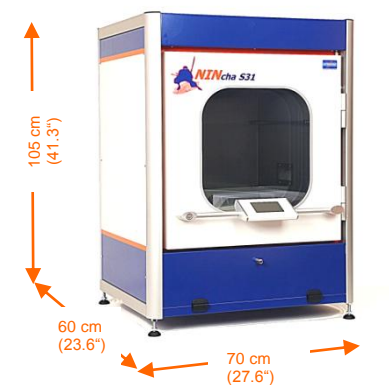
NINcha L31



NINcha M31



NINcha S31



**NINcha S31** is a desktop system with adjustable legs. Optionally available is the wheeled rack **FUG S31** with the storage box **BOX31** for any accessory not use (see picture bottom left and on inner pages). For each cabinet we offer a UV decontamination unit adapted in power output to the cabinet size (bottom right, e.g. **UVM31** for **NINcha M31**).



This is a product info brochure. Images might not be true to scale. Binding is solely the separately available technical specification. Attestor Forensics GmbH reserves the right to alter the design or specification without prior notice.



# NINcha series



## Forensic Climate Chamber

for the development of Ninhydrin and DFO treated latent fingerprints





## Air Filter and External Ventilation

In order to reduce the risk of a contamination of evidence with particles or dust, loaded with chemicals from former treatment cycles, **NINcha** features a special air filter system. Additionally the chamber can be fitted with process controlled flaps for inflow and exhaust for the connection to external ventilation.



# NINcha

## Airflow and Anti-Condense Screen

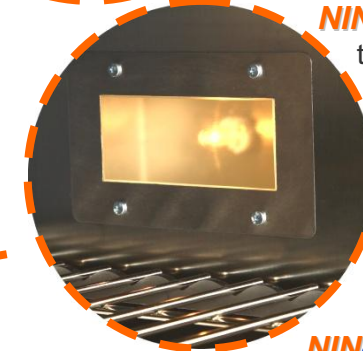
The heated up air is guided via a second glass screen on the inside of the **NINcha** door. This eliminates any condensation and ensures clear view into the cabinet. Different to the use of air outlets at the interior walls as with many industrial climate chambers, this also cares for a homogenous and gentle airstream throughout the entire chamber.



## Integrated Illumination

The development process must be easily observable with a forensic climate chamber.

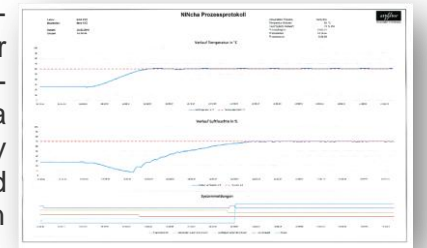
**NINcha** therefore features – besides the innovative anti-condensation screen – also integrated illumination modules on each shelving level.



## Touch Panel Display and Process Data Logger

**NINcha** is microprocessor-controlled and communicates with the user via a touch panel display. For ease of use pre-programmed development routines for Ninhydrin or DFO can be selected and activated via a timer. If required, the user can easily alter the parameter and timer conditions in a manual mode.

An optionally available USB data logger records all relevant process parameters onto a USB pen drive for quality control documentation and later graphical analysis in an MS Excel template.



## Advantages at a glance

■ **Pre-Programmed Treatment Cycles** for Ninhydrin, DFO and Indandione ensure simple operation and consistently high quality of evidence development. Parameters and timers can be adjusted by a user to his demands. In addition a manual mode is available.

## Variable Shelving Concept

The carriers on the inner sides of the chamber are suitable for the usage with easy to clean metal grills and hanging rods.

## Air Filter and External Ventilation

In order to limit cross-contamination and reduce the cleaning requirements, a special air filter system has been integrated into the cabinet to clean out chemical loaded evidence abrasion particles or dust. The filters are coded to prevent the use of Ninhydrin, DFO or Indandione filter units with the wrong process. Alternatively or additionally, the cabinet can be upgraded for external ventilation with process controlled air inflow and exhaust valves.

## UV-Decontamination Unit

For easy elimination of DNA inside the cabinet, a short wave UV illumination unit (see picture on the back page) can be fitted. The control system automatically detects, when the unit is placed inside.

## Water Supply and Drainage

Integrated into the cabinet is a tank for distilled water as well as a container for accumulated condensed water. The touch panel display informs the user about a due re-fill or drainage.

## Deflagration Protection

A novel locking mechanism for the door prevents too high pressure inside the cabinet, built up e.g. by steam pressure to escape for increased user safety. The cabinet is though not explosion proof!

The door opens to the right by default. On request it can also be offered with hinges on the left side.



**NEW: Now also with Indandione development cycle!**

## Water Supply

**NINcha** features an internal tank for distilled water, required for the humidification process. Condensed water, produced by the process is collected in a removable container at the bottom of the cabinet.

## Variable Shelving Concept

The carriers on the inner sides of **NINcha** are suitable for the use of easy to clean metal grills as well as for hanging rods. The grills are made with only two rungs, in order to make cleaning more easy. To support more heavy evidence, a number of hanging rods can be used in combination. An additional carrier at the top of the cabinet allows the use of the cabinet's full height.

