

AHS-N SERIES - INSTALLATION GUIDE

Information to consider before installing your RAYPA autoclave.

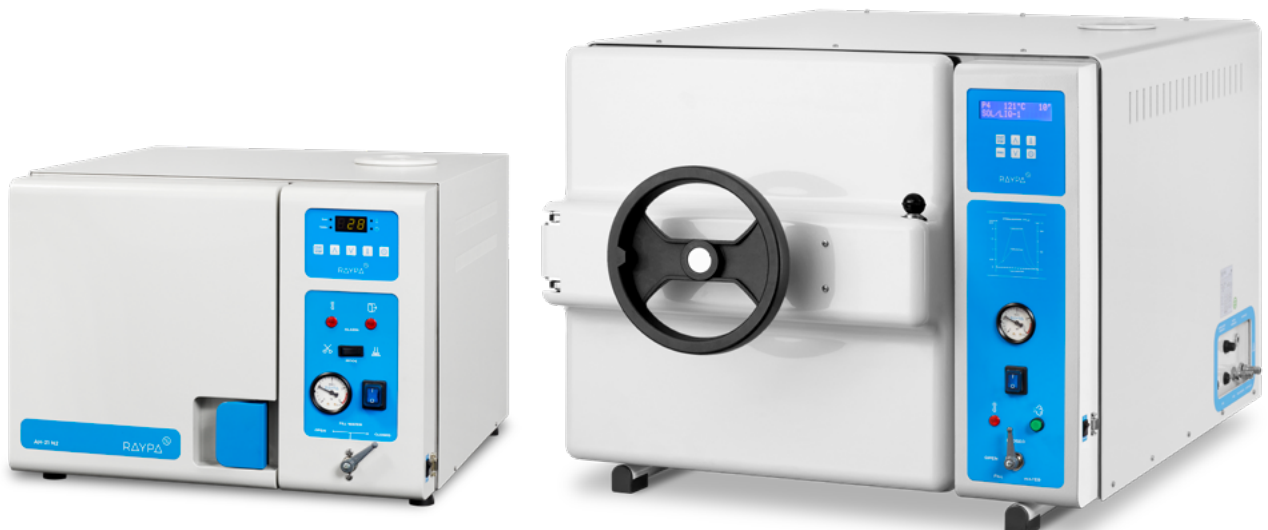
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AH-21-N2 MODEL

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AHS-50-N AND AHS-75-N MODELS

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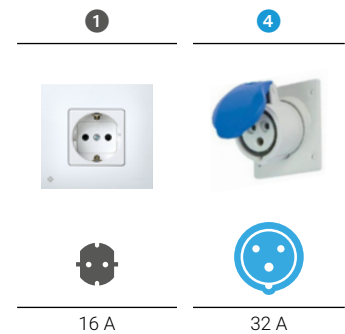
FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AH-21-N2 MODEL

ELECTRICAL CONNECTION

The following table shows the plug configuration according to IEC and SCHUKO international standards. For customers who require other plugs and other electrical configurations, please contact our technical team.

| MODEL | FREQUENCY | POWER | AMPERES / PHASE | VOLTAGE | CONNECTION |
|---------------|-----------|--------|-----------------|-----------------|------------|
| AH-21-N2 | 50/60 Hz | 2000 W | 9 A | 230 (1P+N+PE) V | 16 A ① |
| AH-21-N2-115V | 50/60 Hz | 2000 W | 17 A | 120 (1P+N+PE) V | 32 A ④ |



CONNECTIONS GRAPH

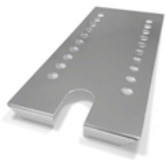


FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AH-21-N2 MODEL

COMPONENTS INCLUDED

In addition to the accessories chosen at the time of purchase of the autoclave (tray support, software kit, basket, etc.), the following components are always included:



1 stainless steel protective cover for the heating elements of 175 x 390 mm to place it on the inner base of the sterilization chamber.



1 stainless steel frame of 200 x 400 x 180 mm, with capacity for 4 trays. It includes 3 stainless steel wire trays of 190 x 350 mm. Special frame compatible with up to 5 trays available under request.



1 auxiliary plastic tray of 200 x 280 mm, to collect the condensed water after opening the door.



1 metal clamp for moving trays.



1 silicone hose with fast connection of $\text{Ø}5 \times \text{Ø}8$ mm and 1 m long, for draining the independent water tank.

For:

1. INDEPENDENT WATER TANK DRAIN OUTLET

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AH-21-N2 MODEL

DRAINAGE CONNECTIONS

To drain the independent water tank, connect the included quick connection silicone hose to the INDEPENDENT WATER TANK DRAIN OUTLET **(1)**.

See "DRAINAGE HEIGHT for draining the independent water tank" on page 6.

To clean the drain filter or drain the sterilization chamber, unscrew the screw on the ACCESS TO THE DRAIN FILTER AND STERILIZATION CHAMBER DRAIN OUTLET **(2)**, while placing the supplied plastic tray underneath.



2. ACCESS TO THE DRAIN FILTER AND STERILIZATION CHAMBER DRAIN OUTLET

1. INDEPENDENT WATER TANK DRAIN OUTLET



ATTENTION: If using the INDEPENDENT WATER TANK DRAIN OUTLET **(1)** or the ACCESS TO THE DRAIN FILTER AND STERILIZATION CHAMBER DRAIN OUTLET **(2)** shortly after sterilization is complete, water may run out at a high temperature.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AH-21-N2 MODEL

WATER SUPPLY FOR STERILIZATION

Purified water is necessary for the operation of the autoclave and is added manually into the independent water tank with a capacity of 6L by unscrewing the cap on the ACCESS TO THE INDEPENDENT WATER TANK (3). Then, the valve (4) can be activated to dispense water into the sterilization chamber until the upper part of the heating elements cover is covered with water.

See "FREE HEIGHT for filling the independent water tank" on page 6.

It must be filled up to the level mark inside the independent water tank. If the maximum water level is exceeded, discharge will come out through the INDEPENDENT WATER TANK OVERFLOW OUTLET (9).



Access to the independent water tank (3) located on the top of the autoclave.



The valve (4) must be in the "CLOSED" position when filling the independent water tank and during regular operation of the autoclave.



The valve (4) must be in the "OPEN" position to dispense water into the sterilization chamber.

ECOPUR-500 accessory

The ECOPUR-500 accessory is an eco-efficient purifier designed to filter water directly from a water inlet, allowing for easy and economical filling of containers. This system is ideal as an alternative in situations where purified water networks are unavailable or when purchasing purified water containers is not preferred. With high-efficiency reverse osmosis technology, our ECOPUR-500 water purifier removes up to 99% of chlorine and chemical contaminants, ensuring high-quality water. Additionally, it features a quickconnect system for easy and secure installation, making this accessory a practical and sustainable solution for providing purified water anywhere.



IMPORTANT NOTE:

PURIFIED WATER

The water used to feed the autoclave must be free of contaminants and meet the following hardness and conductivity requirements:

- Hardness: ≤ 0.02 mmol/l
- Conductivity: between $5 \mu\text{S/cm}$ and $15 \mu\text{S/cm}$

Multiple systems can be used to obtain water with these requirements: osmotized, demineralized, decalcified, distilled water, etc*.

*Note: Take into account that distilled water that is too pure (conductivity less than $5 \mu\text{S/cm}$) is not recommended as it may cause long term corrosion on stainless steel.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

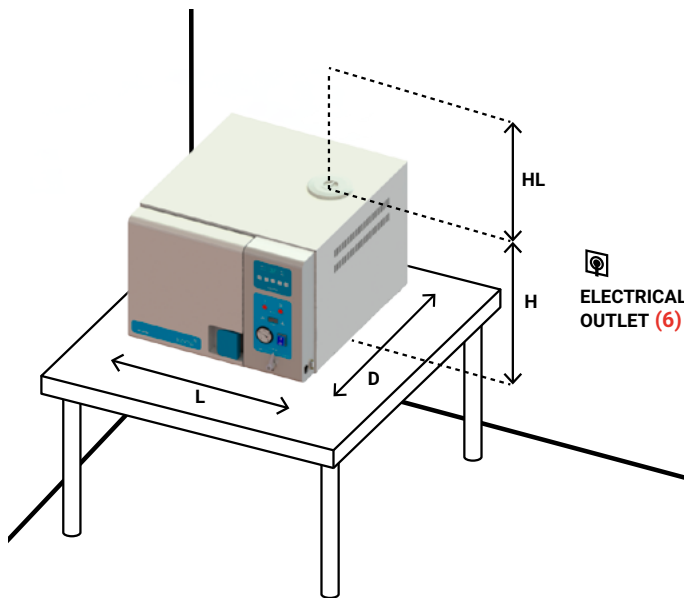
AH-21-N2 MODEL



DIMENSIONS TO CONSIDER FOR THE INSTALLATION OF YOUR AUTOCLAVE

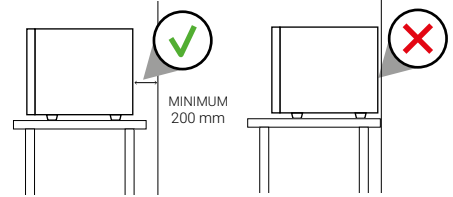
For safety reasons, the distance between both sides of the autoclave and the wall or any other object must be 100 mm, and between the autoclave and the rear wall must be at least 200 mm.

| MODEL | L LENGTH with closed door | L1 LENGTH with maximum door opening | D DEPTH | D1 DEPTH with maximum door opening | H HEIGHT | LA x DA SUPPORT AREA | HL FREE HEIGHT for filling the independent water tank | HD DRAINAGE HEIGHT independent water tank overflow outlet |
|----------|---------------------------------|--|------------|---|-------------|-------------------------|---|--|
| AH-21-N2 | 560 mm | 740 mm | 680 mm | 970 mm | 425 mm | 537 x 527 mm | 400 mm | 50 mm |

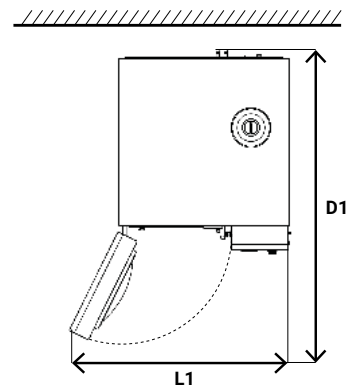


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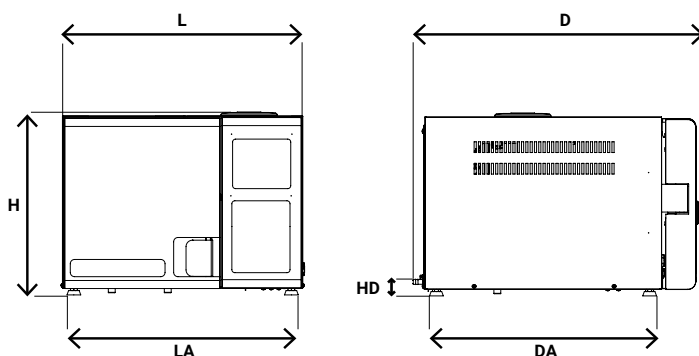
Respect the recommended distances.



PLAN VIEW



FRONTAL AND LATERAL VIEWS



ENVIRONMENTAL CONDITIONS

This autoclave can operate under the following maximum conditions:

- Ambient temperature: 30 °C
- Humidity: 75%
- Altitude: 3,000 meters above sea level. Take into account that from 1,000 meters above sea level an adjustment of the purge parameter must be made; consult with our technical team.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AH-21-N2 MODEL

RECOMMENDED MAINTENANCE

Autoclaves are like cars: they need regular maintenance for them to work properly, to ensure good condition, prevent deterioration of its components, and maximize their useful life. Frequent cleaning and regular maintenance are essential, as autoclaves work at high pressures and temperatures and are therefore subject to a high level of stress.

For clients that perform multiple cycles each day, we recommend carrying out maintenance and cleaning tasks more frequently.

DAILY MAINTENANCE

Clean the gasket using a clean cotton cloth with a mild vinegar solution (or a comparable product) to reduce the formation of lime deposits.

Wipe the external surfaces with a clean cotton cloth moistened with water and a neutral detergent. Ensure all surfaces are thoroughly dried afterwards.

WEEKLY MAINTENANCE

Clean the sterilization chamber and all the components with a clean cotton cloth dampened with water and neutral detergent. Dry them after

Perform a complete drainage of the sterilization chamber and proceed to refill it with purified water.

MONTHLY MAINTENANCE

Carefully clean the discharge filter under running water, following the detailed instructions in the user and maintenance manual. If it is clogged with agar, hot water will be needed. If the filter cannot be restored, replace it with a new one.

ANNUAL MAINTENANCE

Conducting a technical inspection is essential to ensure consistent process safety over time. It is necessary to periodically verify the thermodynamic process parameters (pressure and temperature), ensuring they remain within the accepted limits.



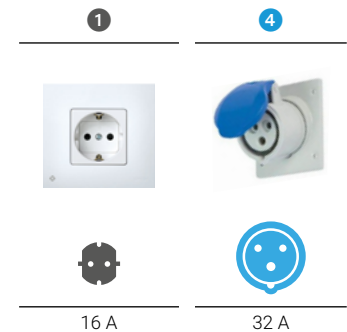
FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AHS-50-N AND AHS-75-N MODELS

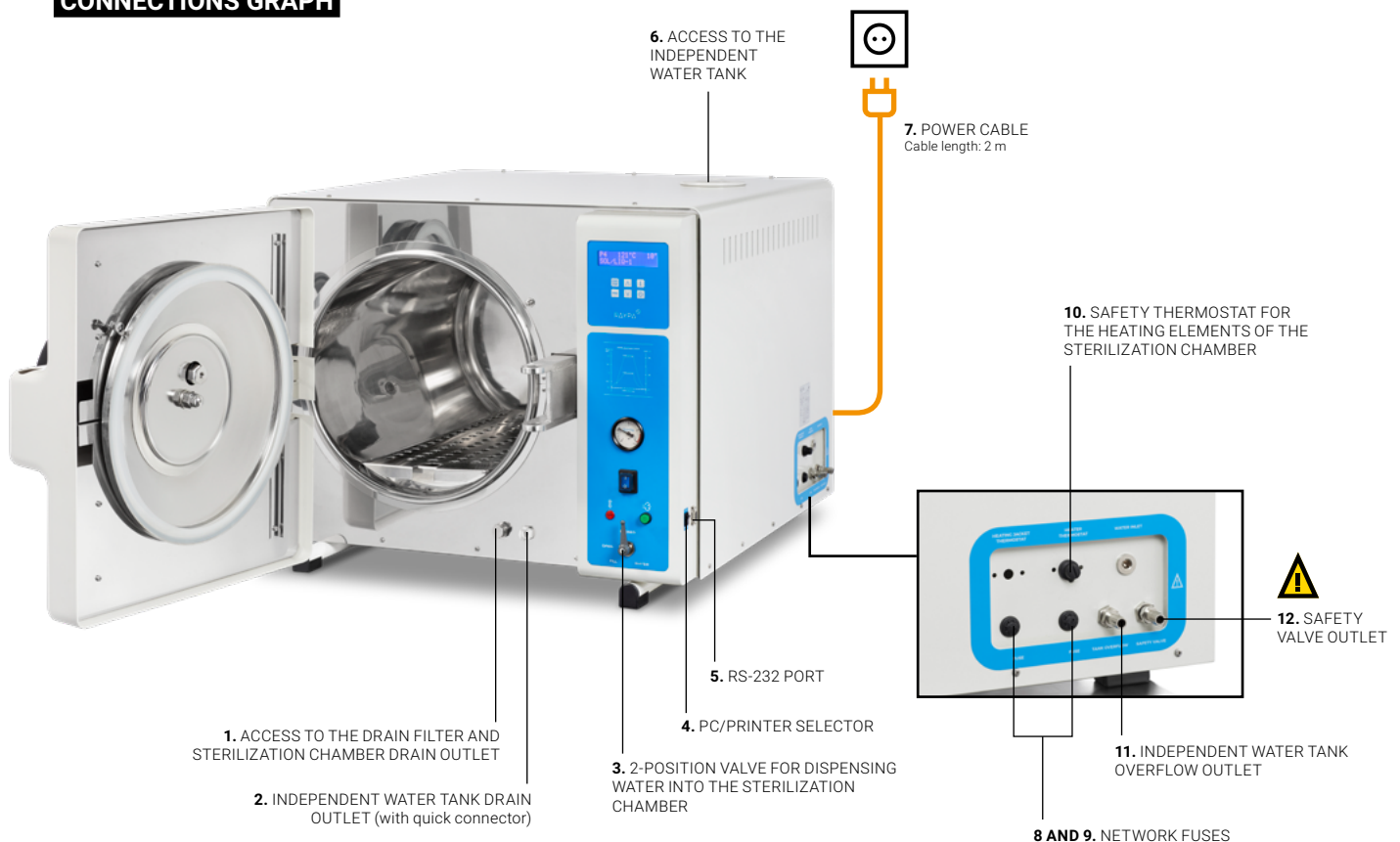
ELECTRICAL CONNECTION

The following table shows the plug configuration according to IEC and SCHUKO international standards. For customers who require other plugs and other electrical configurations, please contact our technical team.

| MODEL | FREQUENCY | POWER | AMPERES / PHASE | VOLTAGE | CONNECTION |
|---------------|-----------|--------|-----------------|-----------------|------------|
| AHS-50-N | 50/60 Hz | 2800 W | 9 A | 230 (1P+N+PE) V | 16 A ① |
| AHS-50-N-115V | 50/60 Hz | 2800 W | 17 A | 120 (1P+N+PE) V | 32 A ④ |
| AHS-75-N | 50/60 Hz | 3200 W | 14 A | 230 (1P+N+PE) V | 16 A ① |
| AHS-75-N-115V | 50/60 Hz | 3200 W | 27 A | 120 (1P+N+PE) V | 32 A ④ |



CONNECTIONS GRAPH



FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AHS-50-N AND AHS-75-N MODELS

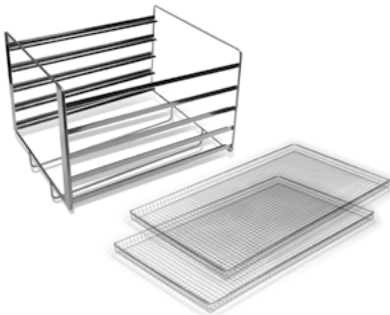
COMPONENTS INCLUDED

In addition to the accessories chosen at the time of purchase of the autoclave (tray support, software kit, basket, etc.), the following components are always included:



1 stainless steel protective cover for the heating elements to place on the inner base of the sterilization chamber.

| MODELS | DIMENSIONS L X D |
|----------|---------------------|
| AHS-50-N | 235 x 370 mm |
| AHS-75-N | 235 x 570 mm |



1 stainless steel frame with capacity for 5 trays. Includes 2 stainless steel wire trays.

| MODELS | FRAME DIMENSIONS L X D X H | TRAY DIMENSIONS L X D |
|----------|-------------------------------|--------------------------|
| AHS-50-N | 320 x 360 x 270 mm | 315 x 330 mm |
| AHS-75-N | 320 x 565 x 270 mm | 315 x 530 mm |



1 auxiliary plastic tray of 250 x 350 mm, to collect the condensed water after opening the door.



1 metal clamp for moving trays.



1 silicone hose with fast connection of $\text{Ø}5 \times \text{Ø}8$ mm and 1 m long, for draining the independent water tank.

For:

2. INDEPENDENT WATER TANK DRAIN OUTLET



2 stainless steel threaded pins which must be installed at the lateral connections.

For:

11. INDEPENDENT WATER TANK OVERFLOW OUTLET

12. SAFETY VALVE OUTLET

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

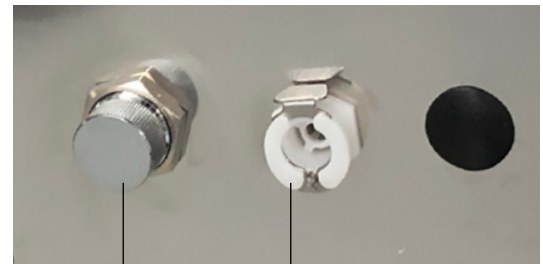
AHS-50-N AND AHS-75-N MODELS

DRAINAGE CONNECTIONS

To drain the independent water tank, connect the included quick connection silicone hose to the DRAIN OUTLET OF THE INDEPENDENT WATER TANK **(2)**.

See "DRAINAGE HEIGHT for draining the independent water tank" on page 12.

To clean the drain filter or drain the sterilization chamber, unscrew the screw on the ACCESS TO THE DRAIN FILTER AND STERILIZATION CHAMBER DRAIN OUTLET **(1)**, while placing the supplied plastic tray underneath.



1. ACCESS TO THE DRAIN FILTER
AND STERILIZATION CHAMBER
DRAIN OUTLET

2. INDEPENDENT WATER
TANK DRAIN OUTLET
(with quick connector)



ATTENTION: If using the INDEPENDENT WATER TANK DRAIN OUTLET **(2)** or the ACCESS TO THE DRAIN FILTER AND STERILIZATION CHAMBER DRAIN OUTLET **(1)** shortly after sterilization is complete, water may run out at a high temperature.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AHS-50-N AND AHS-75-N MODELS

WATER SUPPLY FOR STERILIZATION

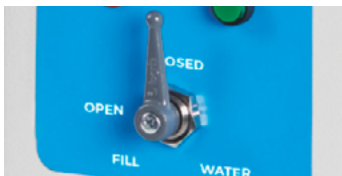
Purified water is necessary for operation of the autoclave and is added manually into the independent water tank with a capacity of 6L by unscrewing the cap on the ACCESS TO THE INDEPENDENT WATER TANK (6). Then, the valve (3) can be activated to dispense water into the sterilization chamber until the upper part of the heating elements cover is covered with water.

See "FREE HEIGHT for filling the independent water tank" on page 12.

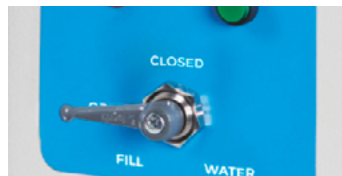
It must be filled up to the level mark inside the independent water tank. If the maximum water level is exceeded, discharge will come out through the INDEPENDENT WATER TANK OVERFLOW OUTLET (11).



Access to the independent water tank (6) located on the top of the autoclave.



The valve (3) must be in the "CLOSED" position when filling the independent water tank and during regular operation of the autoclave.



The valve (3) must be in the "OPEN" position to dispense water into the sterilization chamber.

ECOPUR-500 accessory

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IMPORTANT NOTE:

PURIFIED WATER

The water used to feed the autoclave must be free of contaminants and meet the following hardness and conductivity requirements:

- Hardness: ≤ 0.02 mmol/l
- Conductivity: between $5 \mu\text{S}/\text{cm}$ and $15 \mu\text{S}/\text{cm}$

Multiple systems can be used to obtain water with these requirements: osmotized, demineralized, decalcified, distilled water, etc*.

*Note: Take into account that distilled water that is too pure (conductivity less than $5 \mu\text{S}/\text{cm}$) is not recommended as it may cause long term corrosion on stainless steel.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

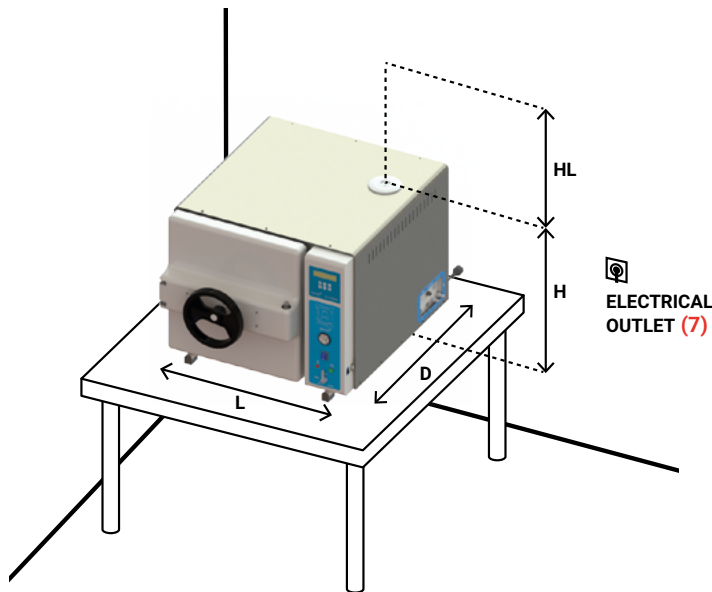
AHS-50-N AND AHS-75-N MODELS



DIMENSIONS TO CONSIDER FOR THE INSTALLATION OF YOUR AUTOCLAVE

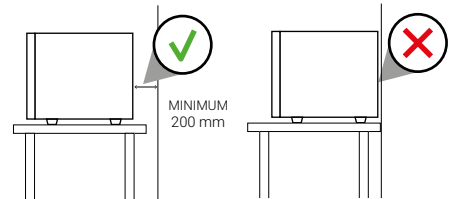
For safety reasons, the distance between both sides of the autoclave and the wall or any other object must be 100 mm, and between the autoclave and the rear wall must be at least 200 mm.

| MODEL | L LENGTH with closed door | L1 LENGTH with maximum door opening | D DEPTH | D1 DEPTH with maximum door opening | H HEIGHT | LA x DA SUPPORT AREA | HL FREE HEIGHT for filling the independent water tank | HD DRAINAGE HEIGHT independent water tank overflow outlet |
|----------|---------------------------------|--|------------|---|-------------|-------------------------|--|--|
| AHS-50-N | 805 mm | 1240 mm | 805 mm | 1230 mm | 650 mm | 622 x 670 mm | 400 mm | 95 mm |
| AHS-75-N | 805 mm | 1240 mm | 1005 mm | 1430 mm | 650 mm | 622 x 830 mm | 400 mm | 95 mm |

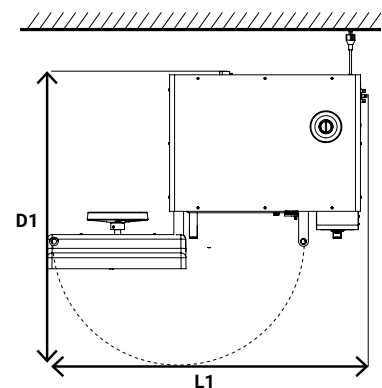


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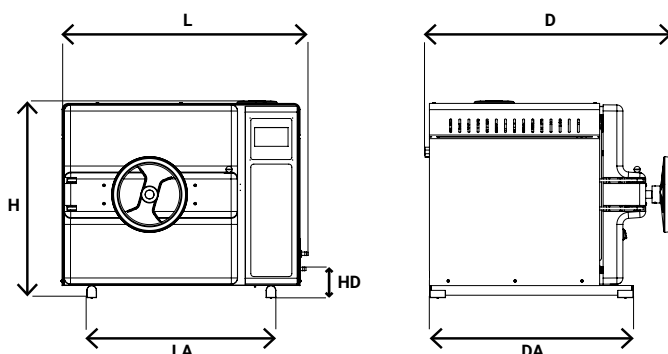
Respect the recommended distances.



PLAN VIEW



FRONTAL AND LATERAL VIEWS



ENVIRONMENTAL CONDITIONS

This autoclave can operate under the following maximum conditions:

- Ambient temperature: 30 °C
- Humidity: 75%
- Altitude: 3,000 meters above sea level. Take into account that from 1,000 meters above sea level an adjustment of the purge parameter must be made; consult with our technical team.

FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

AHS-50-N AND AHS-75-N MODELS

RECOMMENDED MAINTENANCE

Autoclaves are like cars: they need regular maintenance for them to work properly, to ensure good condition, prevent deterioration of its components, and maximize their useful life. Frequent cleaning and regular maintenance are essential, as autoclaves work at high pressures and temperatures and are therefore subject to a high level of stress.

For clients that perform multiple cycles each day, we recommend carrying out maintenance and cleaning tasks more frequently.

DAILY MAINTENANCE

Clean the gasket using a clean cotton cloth with a mild vinegar solution (or a comparable product) to reduce the formation of lime deposits.

Wipe the external surfaces with a clean cotton cloth moistened with water and a neutral detergent. Ensure all surfaces are thoroughly dried afterwards.

WEEKLY MAINTENANCE

Clean the sterilization chamber and all the components with a clean cotton cloth dampened with water and neutral detergent. Dry them after.

Perform a complete drainage of the integrated water tank and proceed to refill it with purified water.

MONTHLY MAINTENANCE

Carefully clean the discharge filter under running water, following the detailed instructions in the user and maintenance manual. If it is clogged with agar, hot water will be needed. If the filter cannot be restored, replace it with a new one.

ANNUAL MAINTENANCE

Conducting a technical inspection is essential to ensure consistent process safety over time. It is necessary to periodically verify the thermodynamic process parameters (pressure and temperature), ensuring they remain within the accepted limits.



FRONT-LOADING BENCHTOP AUTOCLAVES WITHOUT DRYING AHS-N SERIES

TECHNICAL SUPPORT, ORIGINAL SPARE PARTS AND EXPERIENCED CONSULTING SERVICES

For an optimal operation of the autoclave, always use original spare parts and schedule periodically, with a specialized technician, the relevant maintenance tasks, such as calibration of the temperature and pressure sensors or replacement of the sterilization chamber door gasket.

Additionally, we provide a comprehensive range of services to ensure a satisfactory user experience throughout the entire lifespan of our products. These services include support and training programs, guided start-up and qualification services, preventive and corrective maintenance, periodic calibration, technical support and repairs, as well as consulting on special applications.

Should you encounter any issues, have questions, or require further information regarding maintenance of the AHS-N Series autoclave, please don't hesitate to reach out to our technical support service using the following contact details.



Technical support

<https://www.raypa.com/en/contact/>

+34 937 830 720 (Ext. 2109)

+ info

 YouTube



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AHS-N SERIES
VIDEO

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