

Genius² 3020

Site Preparation Guide



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Customer Responsibilities

To ensure a successful and timely installation of your Peak generator, please refer to this set of requirements.

Correct site preparation is the first key step in ensuring that your generator and systems operate reliably over an extended lifetime.

This document is an information guide and checklist that outlines the requirements for your site.

It is essential your site meets the following specification prior to the installation date.

For details, see specific sections within this document

- The necessary spatial requirements are met.
- The correct environment is provided for the generator.
- Electrical outlet locations and quantities are planned.
- Adequate exhaust ventilation is provided.
- The correct tubing lengths and diameters are used in relation to the distance from the instrument.

Failure to meet the Site requirements of your Peak generator as stated above and detailed in this document could result in the unit underperforming and **possible loss of warranty**.

Please sign below to confirm your compliance with the aforementioned requirements.

Once complete please return to Peak Scientific, or whomever the unit was purchased from.

Return addresses can be found on the back page of this document.

Name: _____ Company: _____

Signed: _____ Date: _____

Model: _____ Cust. Sales Order No.: _____

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Change History

Rev.	Comment	Name	Date
1	Amended Shipping Crate Information	Liam Couattie	26/07/11
2			
3			
4			



Related Manuals

Document number	Manual name	Description
UM-3020-01	Genius ² 3020 User Manual	Describes the operation of the generator and all service requirements . Supplied with the generator.
IG-3020-00	Genius ² 3020 Installation Guide	Details the installation process of the generator. Supplied with the generator.

Safety Notices

Symbols

This manual uses the following symbols to highlight specific areas important to the safe and proper use of the Generator:

	A WARNING notice denotes a hazard. It calls attention to an operating procedure, process or similar, which if not correctly performed or adhered to, could cause personal injury or in the worst case death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood or met.
	A CAUTION notice denotes a hazard. It calls attention to an operating procedure, process or similar, which if not correctly performed or adhered to, could cause damage to the Generator or the application. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood or met.

Safety Notice to Users



This site preparation guide must be read thoroughly and understood before installation and operation of your Peak Genius² 3020 Generator. Incorrect preparation or use of the Generator in a manner not specified by Peak Scientific MAY impair the SAFETY provided by the equipment.



When handling, operating or preparing for installation, personnel must employ safe practices and observe all relevant local health and safety requirements and regulations. The attention of UK users is drawn to the Health and Safety at Work Act 1974, and the Institute of Electrical Engineers regulations.

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Technical Specification

Environment

Minimum operating ambient temperature	5°C (41°F)
Maximum operating ambient temperature	35°C (95°F)
Maximum relative humidity	80% Non-Condensing
Maximum altitude	2000 meters
Minimum storage temperature*	-20°C (-4°F)
Maximum storage temperature*	60°C (140°F)

*NOTE - When taken out of storage the Generator should be allowed to acclimatize at room temperature for a minimum of 3 hours before operation.

Generator Outlets

Maximum Flow	2 x 32L/min (2 x 1.13CFM)
Maximum Pressure	6.90Bar (100PSI)
Particles	<0.01µm
Phthalates	NONE
Suspended liquids	NONE
Gas outlets	2 x ¼" BSPP
Drain outlet	1 x ¼" BSPP
Pressure gauges	2

Electrical Requirements

Voltage	230 VAC ± 10%
Frequency	50/60 Hz
Current	12 Amps
Input connection	C20 Plug
Power cord (Supplied)	C19 socket to local connection (13A minimum)
Pollution degree	2
Insulation category	II

General

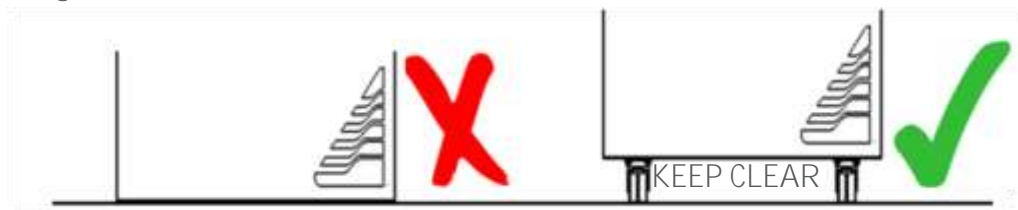
Generator dimensions in cm W x D x H	60 x 85 x 130.3 (23.6" x 33.5" x 51.29")
Generator weight	189 kg (417 lb)
Shipping crate dimensions in cm W x D x H	90 x 105 x 152 (35.4" x 41.3" x 59.8")
Shipping weight	265.5 kg (585 lb)
Noise level	54 dBA @1m
Maximum heat output	2.76kW , 9418 BTU

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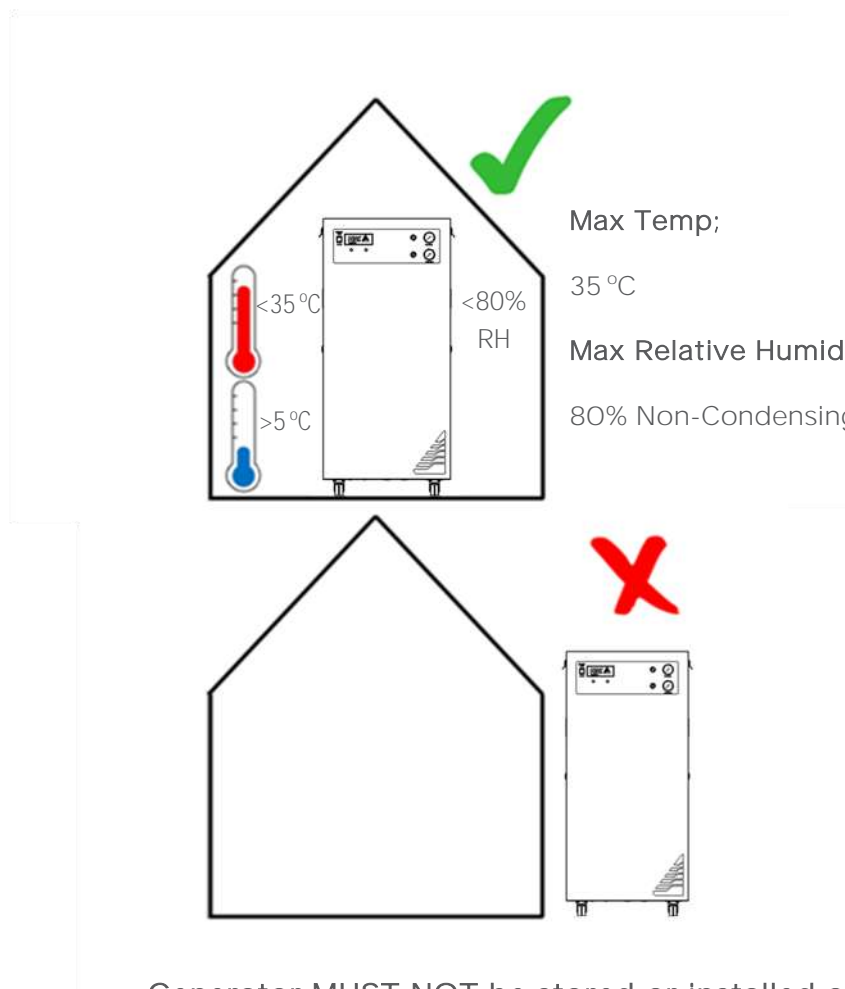
Site preparation

Environmental control

The generator must remain on its castors to allow air intake from the bottom of the generator.



If the generator is stored in an enclosed space the environment must be controlled via an air conditioner or extraction fan.

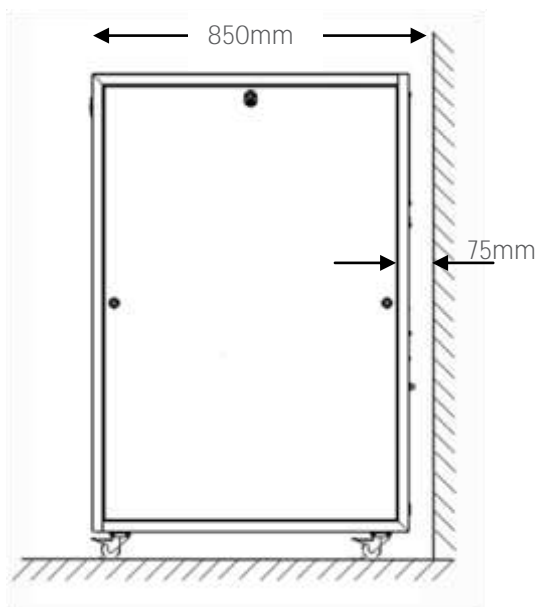
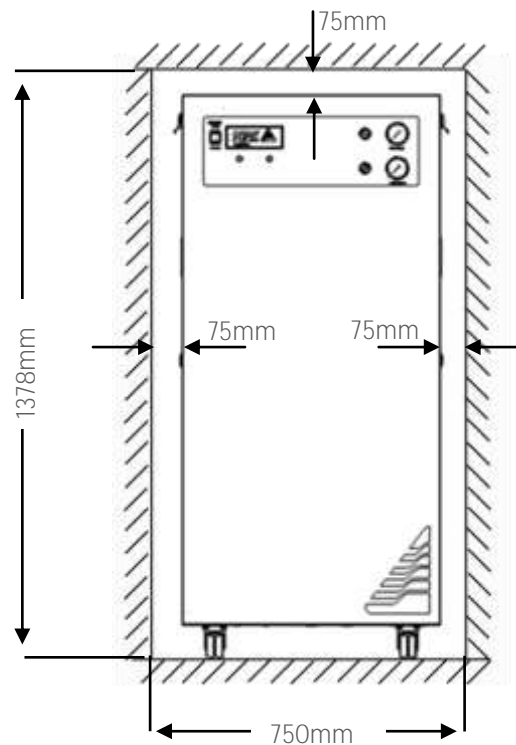


Generator MUST NOT be stored or installed outside.

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Space provision

The minimum space should be provided as follows....

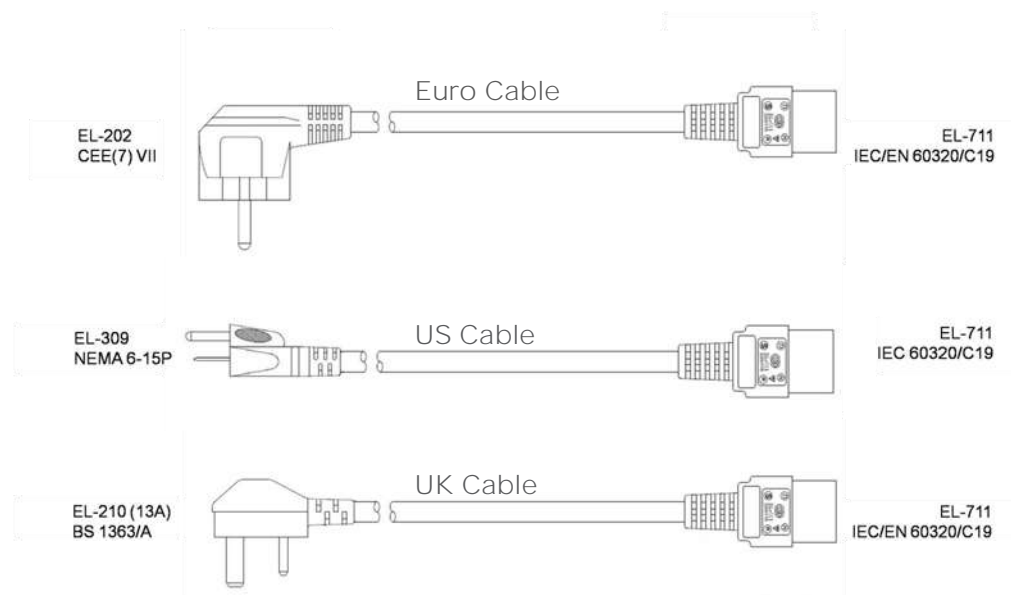


Failing to provide adequate cooling space around the generator may cause damage to the membranes and cause the compressors to run continually. This will reduce service life and invalidate warranty.

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Electrical requirements

The below power cables are supplied with the generator.



For cables pertaining to countries not displayed above, it is the responsibility of the end user to provide an appropriate power cable which meets the requirements defined in the Technical Specification section on page 6.



This unit is classified as **SAFETY CLASS 1**. **THIS UNIT MUST BE EARTHED**. Before connecting the unit to the mains supply, please check the information on the serial plate. The mains supply must be of the stated AC voltage and frequency.

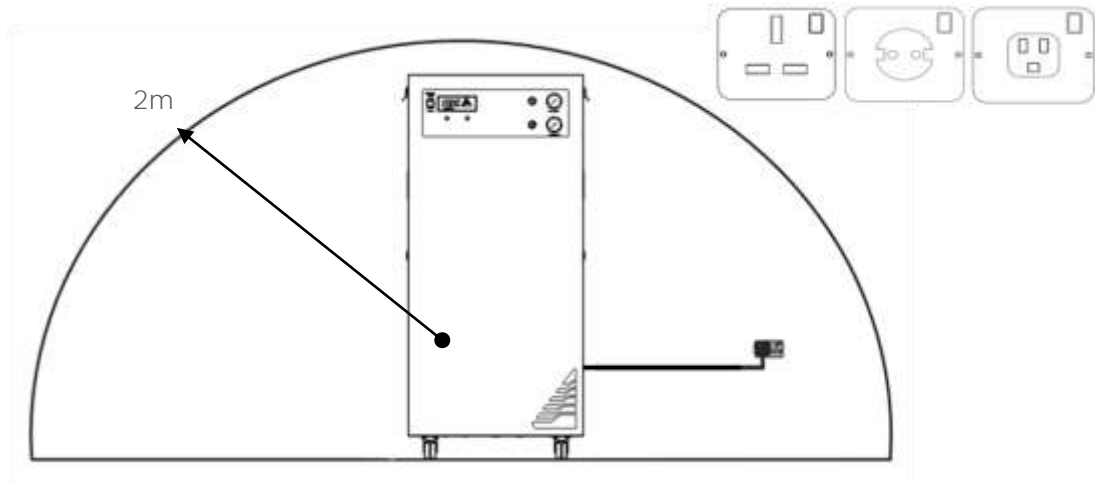
If the mains power at your location is less than 220V then a transformer can be supplied with the generator to boost the mains power to an acceptable level. Details as follows:-

Product Description	Part Number
Dual Tap Transformer 200V - 230V	06-3200

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The power cable supplied with the generator is 2.5m long.

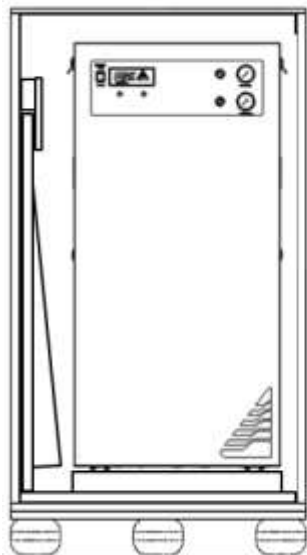
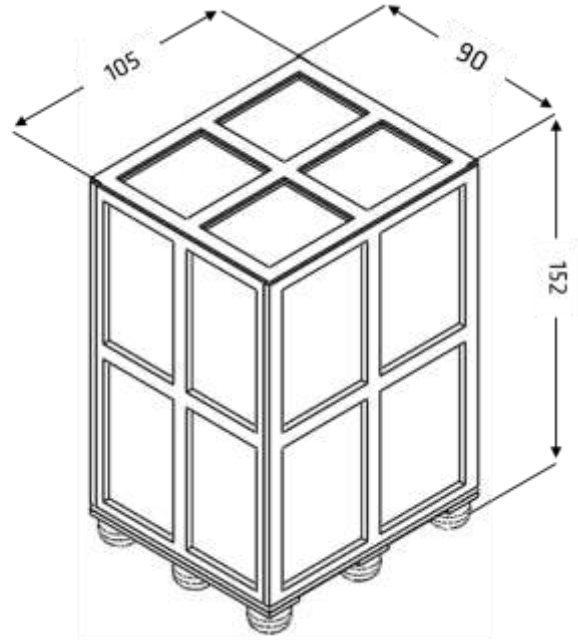
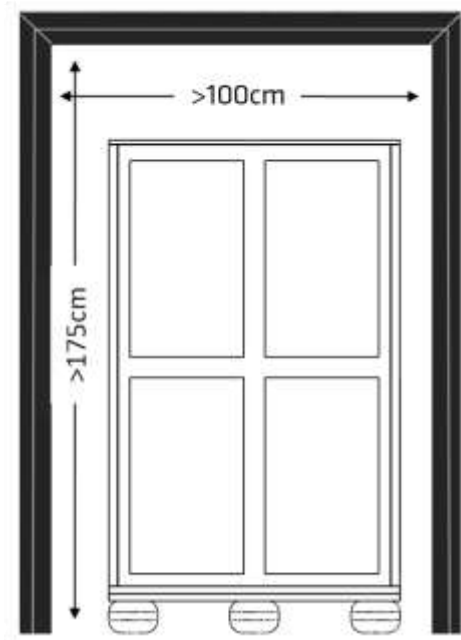
A mains socket providing the power should be located adjacent to the generator and within a 2m radius to the generator.



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On-Site Transit

When moving the generator in its shipping crate, doorways and other openings such as elevators must fit with the sizes in the figure below.



=

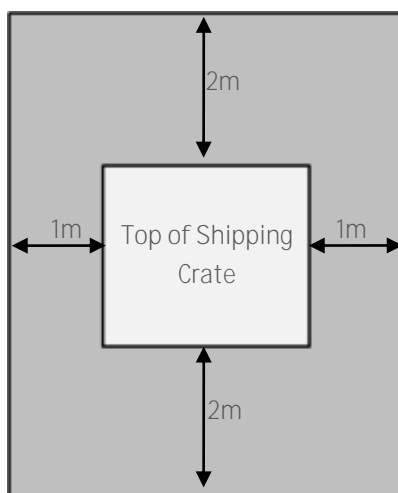


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Unpacking

Space Required

The image below shows the minimum space required to unpack the generator from its shipping crate.



Tools

Required :



17mm Spanner



Pozidrive #2 Screwdriver

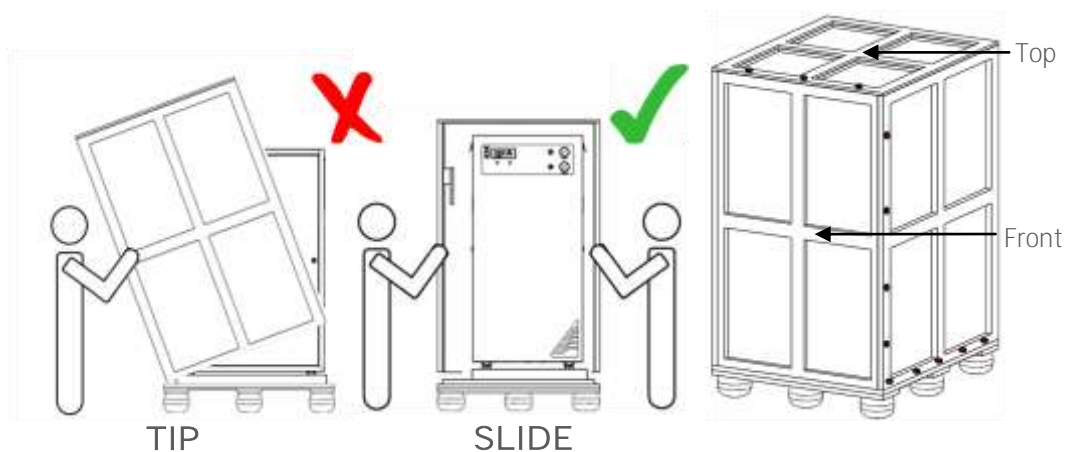
Recommended :



Drill with Pozidrive #2 Bit

Unpacking

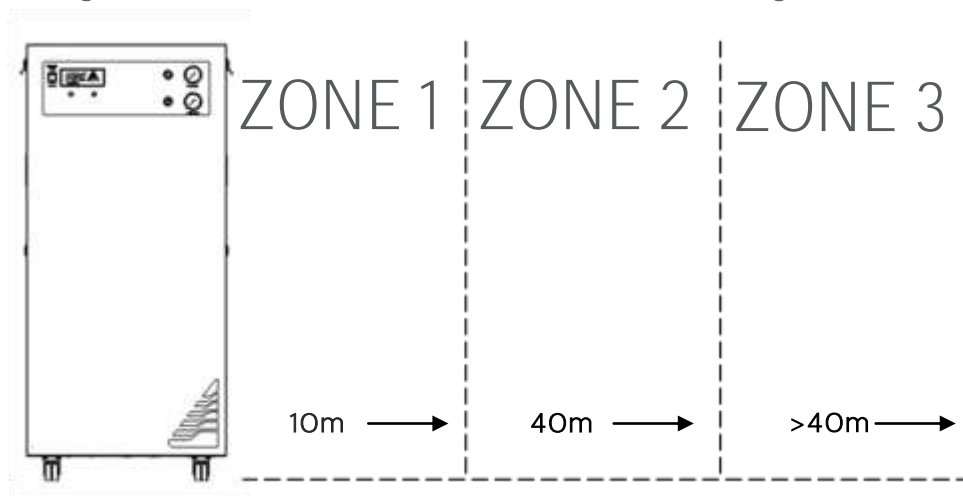
Remove all screws encircled in red, use Drill or Pozidrive #2 screwdriver. Once all screws have been removed, slide back the upper half of the crate.



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Tubing lengths

Tubing sizes should be chosen with accordance to the diagram below.

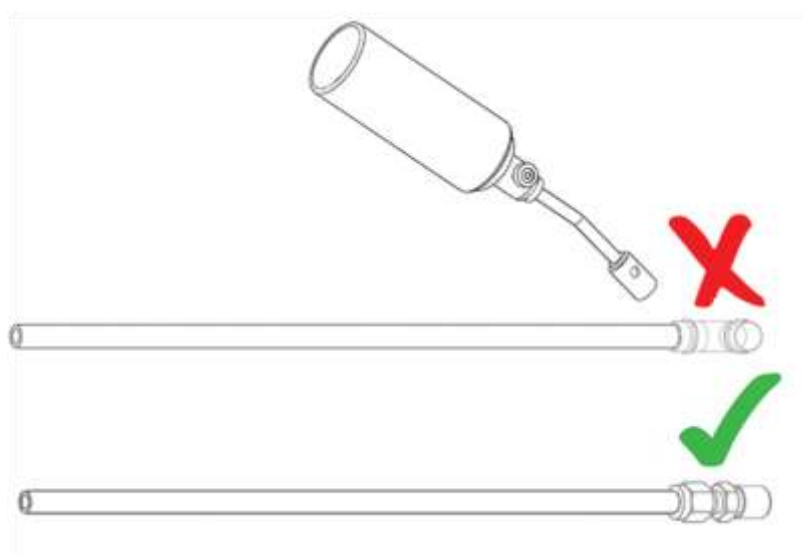


Zone	Distance from Instrument	Tubing Thickness OD/ID mm (Inches)
1	Up to 10m	6mm/4mm (1/4" 3/16")
2	Up to 40m	10mm/8mm (3/8" 5/16")
3	Over 40m	Consult Peak Scientific



The diameter of the tubing which will be connected to the gas outlet is important and is determined by the length of tubing required. Failure to follow these recommendations could lead to accelerated compressor wear.

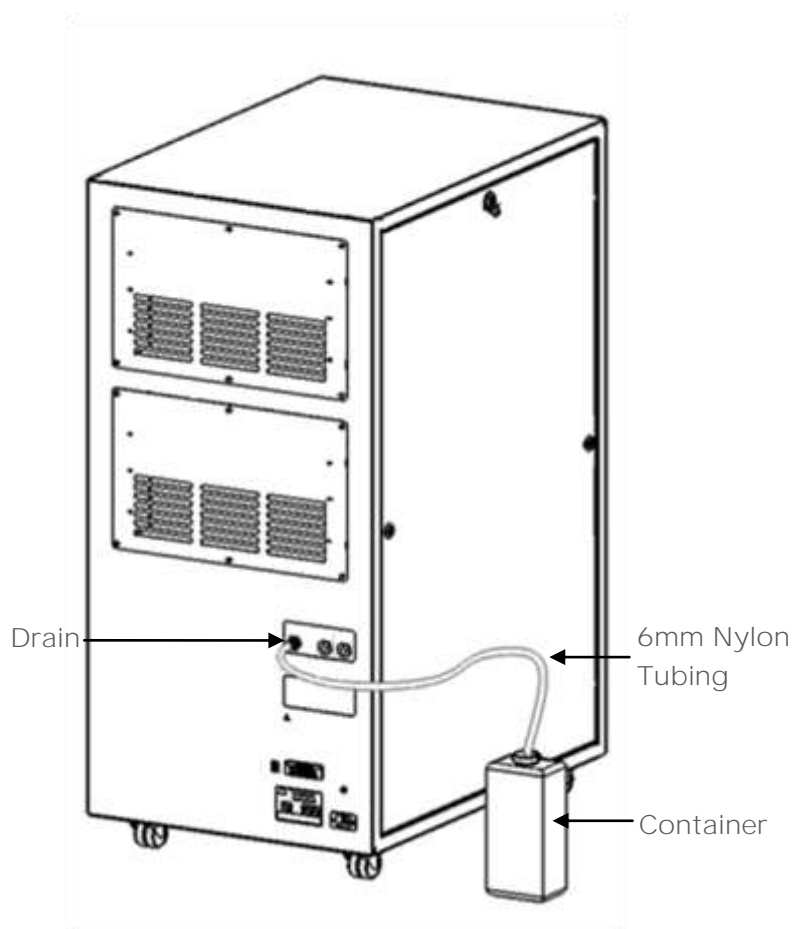
Copper Tubing



Soldering may lead to contamination. Compression fittings recommended.

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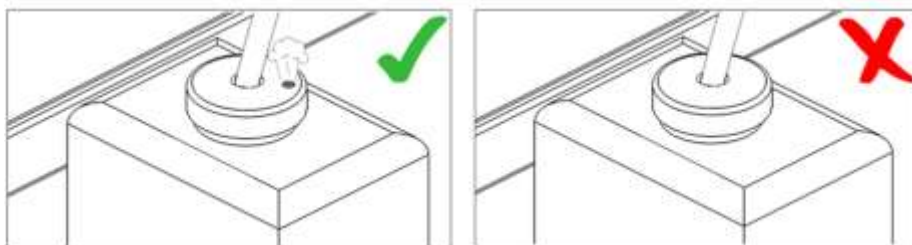
Drainage



Connect the 2m Nylon tube to the drain outlet, ensure the tube is pushed fully in and gripped securely by the fitting.

Fit the other end of the drain line to a suitable drain connection or container.

Containers **must not** be airtight.



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