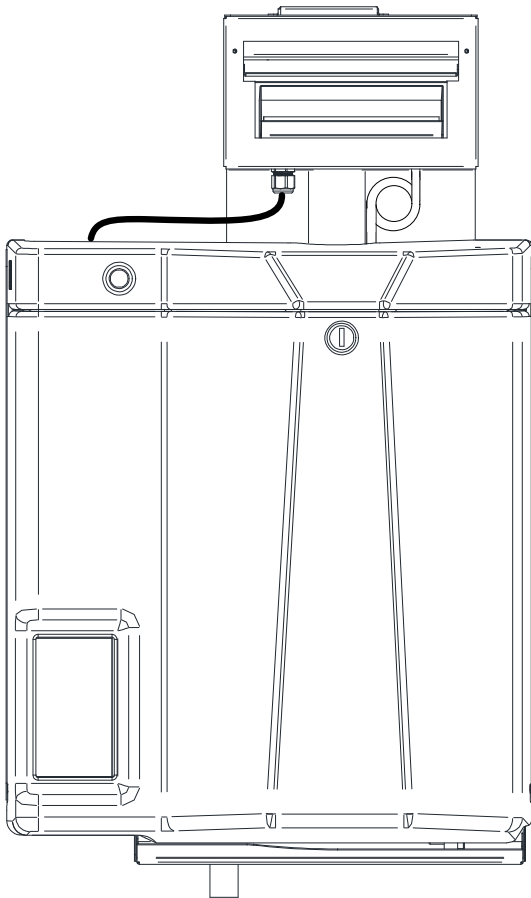


SPACE BLOWER FOR STEAM HUMIDIFIER



Installation and Operation Manual

Please read and save this manual

Introduction

Foreword

Thank you for purchasing IER steamOvap electric steam Humidifier.

If you have questions or comments please contact us:

www.steamOvap.com

info@steamOvap.com

1-844-357-4477

Intended use

SB space blower for steam humidifier is intended exclusively to distribute steam produced by a steam humidifier for direct in-space air humidification.

Operating conditions are specified in this Installation and Operation Manual (IOM).

Operation of this Space blower in the intended use scope requires that all directions and information contained in this IOM are observed.

Any other use or operation outside the above design scope without written authorization from steamOvap may lead to trouble and hazardous conditions and will void warranty.

No alteration or modification to the Space blower must be done without written authorization from steamOvap.

Replacement of any defective components must be done with original component and spare parts from steamOvap representative.

Installation and Operation Manual Limitation

This IOM is intended for trained and qualified personnel and must be applied along with the applicable local codes and regulations.

Any work related to installation or service for this humidifier must comply with local code and regulation regarding safety and prevention of accidents.

End of life disposition

Disconnect **Space blower** from power supply, electrical control signal, Steam line, and condensate line. **Space blower** can then be removed from the wall or from steam humidifier.

Space blower is an electrical equipment and as such **MUST** not be disposed of in domestic waste.

This Space blower should be returned to the closest steamOvap authorized representative for proper dismantling, recycling and disposition of components according to local regulations.

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Safety warnings

General



Risk of electric shock.

Disconnect power supply before installation or service.

For safety and warranty reasons, Installation and service of this humidifier should be carried out by trained and qualified personnel.

Any work related to installation and service of this humidifier must comply with local code and regulation regarding safety and prevention of accidents.

Electrical Warning



Risk of electric shock.

Disconnect power supply before installation or service.

Power supply connexion must be done by a trained and qualified electrician.

Any work related to power supply installation or service of this humidifier must comply with local code and regulation regarding safety and prevention of accidents.

Steam safety warning



Any work related to steam line and condensate returns lines installation or service of such for this space blower for humidifier must comply with local code and regulation regarding safety and prevention of accidents.

Risk of malfunction. Steam lines should not have any restriction or blockage that may cause a burst of pressure in the steam line.

Risk of malfunction. Do not block steam outlet(s).

Before to proceed to Installation

Please read this Installation and Operation manual before to proceed to the Installation

Receiving & Unpacking

1. Upon receipt verify that packaging is complete and not damaged.
In case of damage, and/or missing boxes advise immediately the carrier by writing a note on the waybill.
2. Verify that model of the space blower matches the purchase order and that all accessories are included.
3. Any missing item should be reported as soon as possible to steamOvap or its representative and within 5 business days after receipt.
steamOvap will not assume any responsibility for missing item after this delay.
4. Proceed carefully to unpacking, and check that the humidifier and its accessories are not damaged. in case of damage please proceed as for point 3

Included in standard delivery of Space blower

1. This IOM
- For Remote model:
2. Collar(s) to secure steam hose
 3. 3 feet long condensate line & collars

Space blower Overview

Space blower

Built-in

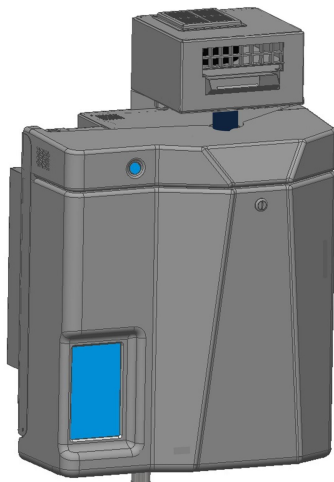


Figure 1 – SB Built-in Overview

Remote

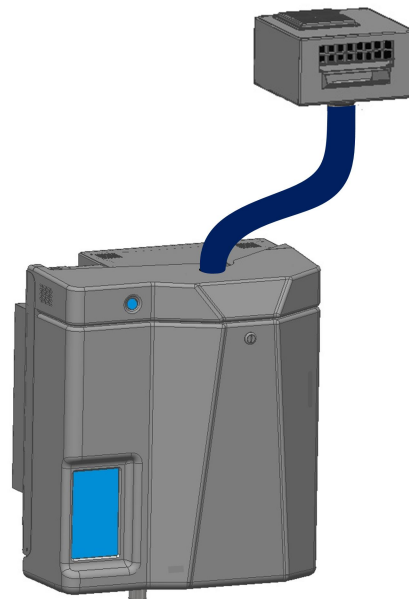
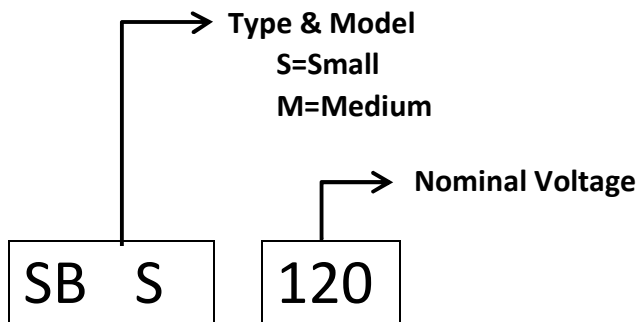


Figure 2 – SB Remote Overview

Model designation and options codification



OVERVIEW

SB ratings

Model	Steam Capacity	Airflow	Power	Voltage		Current
				Remote	Built-in	
SBS	26lb/h [12kg/h]	220CFM [375m ³ /h]	34W	120Vac	Same as IER	0.3A @ 120Vac
SBM	65lb/h [29.5kg/h]	330CFM [560m ³ /h]	60W	120Vac	Same as IER	0.6A @ 120Vac
SBL	96lb/h [44kg/h]	330CFM [560m ³ /h]	60W	120Vac	Same as IER	0.6A @ 120Vac

IER Dimensions

Built-in

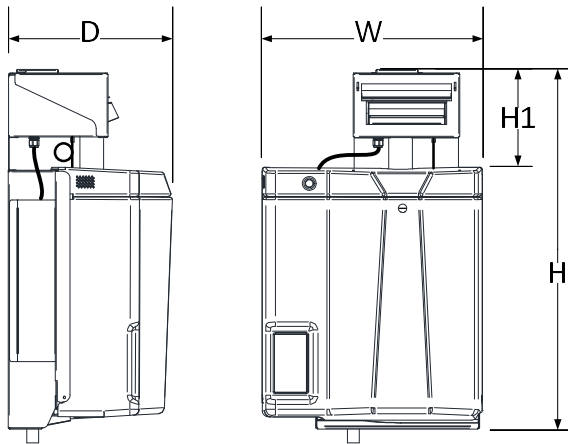


Figure 3 – Built-in SB dimensions

Remote

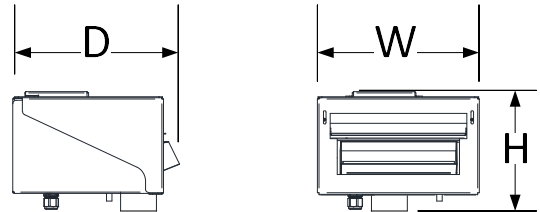


Figure 4 – Remote SB dimensions

Model	Dimensions				Steam Inlet Ø	Net weight
	W	H	H1	D		
SBS Built-in	20in [510mm]	23in [585mm]	8.5in [216mm]	13in [330mm]	1.5in [DN40]	8lb [3.6kg]
SBS Remote	9.25in [235mm]	7in [178mm]	/	9in [229mm]		
SBM / SBL Built-in	23.5in [590mm]	38in [965mm]	10.5in [267mm]	17.5in [445mm]	2in [DN50]	10lb [4.5kg]
SBM / SBL Remote	11.25in [292mm]	9in [229mm]	/	12in [305mm]		

Installation overview

General

1. Installation of this space blower should be carried out by trained and qualified personnel.
2. Any work related to installation of this space blower must comply with local code and regulation regarding safety and prevention of accidents.



WARNING. Risk of electric shock.

Power supply must be disconnected during installation.

Main power should be connected only after all installation steps have been completed and properly verified.

Installation steps :

1. Positioning & mounting of **Space blower/humidifier**
2. If Remotely installed from humidifier
 - a. Steam line installation
 - b. Condensate line installation
 - c. Power supply installation
 - d. Control signal installation

Installation – step 1

IER Positioning & Mounting

General guidelines for positioning

Space blower should be positioned so that:

- Length of the steam line (or hose) is as short as possible,
- In case steam hose is used, the bend radius of 12in (300mm) is ensured
- Space blower is easily accessible for service



CAUTION: Risk of water damage. Ensure that the surrounding area below and around the space blower will not be damaged by any possible water projection.

CAUTION: Do not install Space blower above any electrical equipment, as water leak from connection or abnormal operation can cause malfunction or short circuit.

IER maximum ambient conditions:

Temperature: 41°F to 122°F [+5 to +50°C]

Relative Humidity: 90%RH max (non condensing)

Ingress Protection for **SB space blower** standard enclosure: IP20

Clearances for Space blower

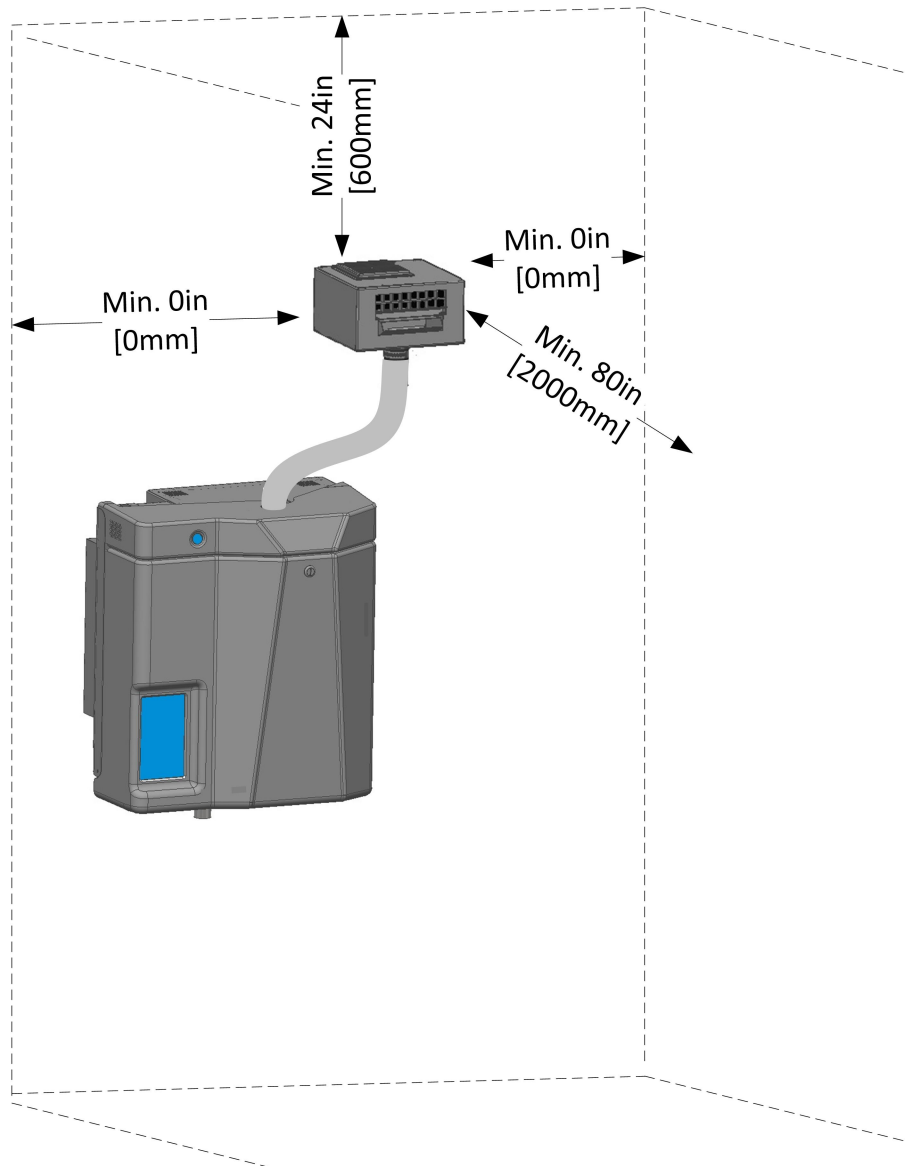


Figure 5 – minimum clearances for SB

Clearance guidelines

There is no minimum clearance on both side of the Space blower, but it is a good practice to have a clearance of 4 to 8 in [100 to 200mm] for ease of installation and service

Front clearance of 80in [2000mm] is required for steam absorption.

A top clearance is required of 24in [600mm] for access and for steam absorption to avoid any condensing on the ceiling.

General guidelines for Mounting



CAUTION. Risk of malfunction. Space blower must be levelled in X & Z axis.

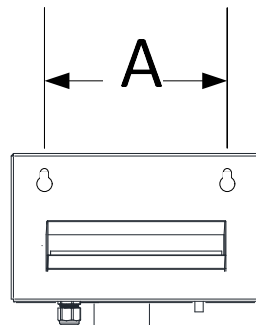
CAUTION: Do not install Space blower above any electrical equipment, as water leak from connection or abnormal operation can cause malfunction or short circuit.

Built-in SB

There are no specific installation steps for the mounting of the built-in space blower since it is directly attached on the top of the IER steam humidifier.

Follow same installation steps for mounting as the one included in the IER electric steam humidifier IOM.

Remote SB



Model	A
SBS SBM SBL	6.5in [165mm]

Figure 6 – SB mounting holes location

Wall installation

1. Verify that wall structure and strength is appropriate to support the operating weight of the Space blower.
 2. Mark the wall or support according to the above holes location, and drill 2 holes to the wall or support as per the size of anchors and/or screws.
 3. Use anchors of sufficient size (at least 1/4in [6mm]). Insert those anchors and the 2 screws, ensure that the screw heads extends 1/4in [6mm] from the wall, so that the **Space box** will be able to be hung on those 2 screws.
 4. With Top cover removed, hung the Space blower onto the 2 screws.
Ensure that the Space blower is properly levelled.
Tighten the 2 screws. Re verify the level in the 2 direction X and Z axis.
 5. Re-install the top cover to the Space blower.
Ensure that the mounting bracket is properly levelled.
1. With front cover removed, hung the IER electric steam humidifier onto the mounting bracket.
 2. Insert the bottom screw through the back plate of the humidifier and into the anchors in the wall.
Tighten the bottom screw. Re verify the level in the 2 direction X and Z axis.

Installation – step 4

Steam line installation

Built-in SB

Steam line and condensate return are factory installed on Built-in Space blower.

Remote SB

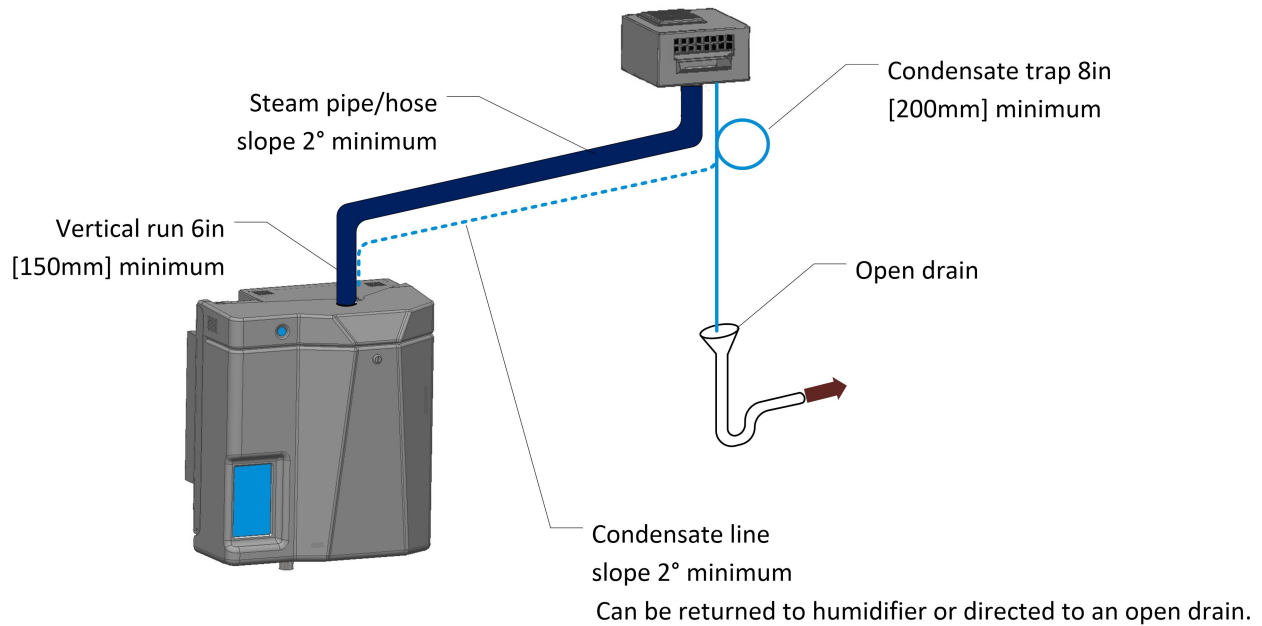


Figure 7 – Steam & condensate line for Remote SB

Installation steps :

1. Install the steam hose or rigid steam pipe between the steam humidifier and the Space blower.
Note: when using rigid steam pipe (stainless steel or copper) it is a good practice to install a small length of steam hose in between steam humidifier and rigid pipe and then Space blower for ease of installation and service.
Allow for a slope of 2° minimum.
2. Secure all connexion with hose clamps
3. Connect the condensate return from Space blower and provide a condensate trap of 8in [200mm] minimum as shown on above figure.
Allow for a slope of 2° minimum.
Condensate return can be re-directed to the steam humidifier, or to an open drain.
4. Secure all connexion with hose clamps

Installation – step 5

Power supply installation

Electrical Warning



Risk of electric shock.

Disconnect power supply before installation or service.

Any work related to power supply installation of this humidifier must comply with local code and regulation regarding safety and prevention of accidents.

SB electrical ratings

Model	Power	Voltage		Current
		Remote	Built-in	
SBS	34W	120Vac	Same as IER	0.3A @ 120Vac
SBM / SBL	60W	120Vac	Same as IER	0.6A @ 120Vac

Built-in SB

Power supply is factory installed on Built-in Space blower, connected in the steam humidifier electrical panel, see wiring diagram.

Remote SB

Remote Space blower is provided with standard 120Vac electrical plug for easy connection to electrical outlet

Installation – step 6

Control installation

Built-in SB

Control signal wiring is factory installed on Built-in Space blower, connected in the steam humidifier electrical panel, see wiring diagram.

Remote SB

Remote Space blower is provided with 15feet of control wire cable.

Connect the 2 wires as indicated below on the steam humidifier control PCB.

Red wire = + signal, White wire = -signal

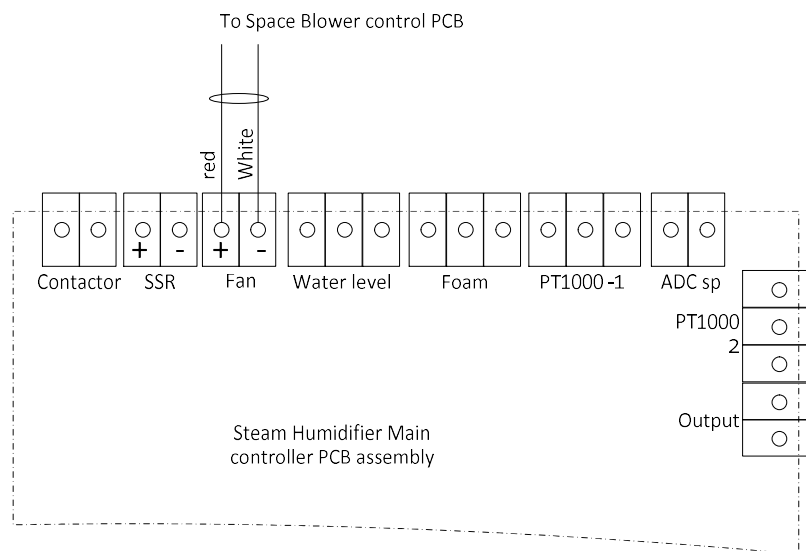


Figure 8 – Control connection

Verification before start-up

Warning

For safety and warranty reasons, Installation and service of this Space blower should be carried out by trained and qualified personnel.

Any work related to installation and service of this humidifier must comply with local code and regulation regarding safety and prevention of accidents.



Risk of electric shock.

Disconnect power supply before verification.



Risk of malfunction. Steam lines should not have any restriction or blockage that may cause a burst of pressure in the steam line.

Risk of water damage. Ensure that the surrounding area below and around the space blower will not be damaged by any possible water projection.

Do not install Space blower above any electrical equipment, as water leak from connection or abnormal operation can cause malfunction or short circuit.

Risk of malfunction. Do not block steam outlet(s).

Check list

- **Mounting**
 - Check mounting to verify that the Space blower is level and securely supported before start-up.
- **Steam**
 - Verify that all steam piping has been completed as recommended and that a slope of minimum 2° is provided.
 - Ensure that there is no sag or kink or any possible obstruction in the steam line, and condensate line.
- **Condensate return line**
 - Verify that all condensate return line has been completed as recommended and that a slope of minimum 2° is provided.
 - Ensure that there is no sag or kink or any possible obstruction in condensate line.
 - If condensate is returned to the main drain verify that an open drain deported from Space blower is provided.
- **Power supply**
 - Verify that power supply is connected.
- **Control circuit**
 - Verify that a control signal wires are connected to the steam humidifier main PCB.

Once all above verification has been completed and found satisfactory you can powered up the steam humidifier, and ensure that Space blower is operating properly.

Start-up & normal operation

- **Space blower will be ON** when the following conditions are met:
 - Steam humidifier is ON
 - There is a demand for humidity either from a control signal demand or from a room RH% sensor.
 - Steam humidifier has completed all internal conditions to start producing steam.
- **Blower ON**
 - As soon as the steam humidifier is heating up water in order to produce steam, the blower will start.
- **Blower OFF delay**
 - Fan Off delay can be set in the Humidifier settings tab on the humidifier user interface touch panel.
Please refer to steam humidifier IOM.
 - When humidifier will stop steam production (when demand is reached) the blower will stop after this pre-set delay is reached.

Maintenance & service

Space blower is equipped with an air filter located on the air inlet of the blower on the top cover of the one.

Air filter should be cleaned up regularly.

Air filter should be verified at least every 3 months and cleaning operation frequency should be adapted depending on the degree of dust present in the surrounding air.

Warranty

steamOvap technologies inc. (hereinafter referred to as **steamOvap**), warrant for a period of 3 years after installation, that steamOvap manufactured and assembled products are free from defects in material and workmanship; provided that a start-up report with no default has been done and signed by the authorized **steamOvap** local representative. Otherwise the warranty period is reduced to 18 months.

steamOvap's obligations and liabilities under this warranty are limited to furnishing replacement parts to the customer, F.O.B. **steamovap's** factory, providing the defective part(s) is returned freight prepaid by the customer. Parts used for repairs are warranted for the balance of the term of the warranty on the original product or 90 days, whichever is longer.

No liability whatsoever shall be attached to **steamOvap** until said products have been paid for in full and then said liability shall be limited to the original purchase price for the product. Any further warranty must be in writing, signed by an officer of **steamOvap**.

steamOvap makes no warranty and assumes no liability unless the equipment is installed in strict accordance with installation manual in effect at the date of purchase and by qualified and trained personnel and in accordance to local codes and regulations.

steamOvap makes no warranty and assumes no liability whatsoever for consequential damage or damage resulting directly from misapplication, incorrect sizing or lack of proper maintenance of the equipment.

steamOvap retains the right to change the design, specification and performance criteria of its products without notice or obligation.

In case of litigation or dispute arising, all parties agree that the exclusive venue for any litigation shall be vested with a court of competent jurisdiction located in the Judicial District of Montreal, Quebec, Canada.



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