# STEAM DISTRIBUTORS FOR HUMIDIFIERS

## **EASYSTEAM**



### Installation manual

**READ AND KEEP** 







#### STEAM DISTRIBUTOR

Thank you for choosing a PEGO steam distributor for immersed electrodes humidifiers EASYSTEAM.

The complete reading of this manual will allow you to perform a correct installation.

We therefore recommend that you keep this manual.

#### **GENERALITY**



A good distribution of steam, to obtain the desired level of humidity in any environment, is linked to two main variables: the amount of steam introduced into the environment and its distribution.

In fact, when the steam is introduced into an environment in a non-homogeneous way, it tends to create saturated zones and zones deficient in humidity, causing a phenomenon of excessive condensation and the difficult control of the production of steam and triggering a "pendulum" effect. It is advisable to introduce the steam with a PEGO steam distributor, inserting it into the air duct or in front of a fan unit where you want to put the steam directly in an environment without an air duct.

#### MAIN INSTALLATION WARNINGS

- 1. Use only PEGO HUMIDIFIERS steam tube or other tube with certification that guarantees its use in the presence of high temperatures without internal vulcanization processes and release of harmful substances.
- 2. The steam tube must be of a suitable diameter and must be firmly fixed to the steam distributor with a hose clamp.
- 3. Do not make bottlenecks, siphons or lengths greater than 5 meters.
- 4. Do not make sharp bends or at 90 °. The minimum bending radius (at 20 ° C) is 115mm for the **UMITUBVAP25M** tube and is 180mm for the **UMITUBVAP40M** tube.
- 5. If rigid pipes are used, use only copper or stainless steel pipes and connect the rigid steam line to the steam distributor, using a small portion of steam tube, fixed with the appropriate clamps.
- 6. The provisions of points 2, 3 and 4 also apply to rigid pipes.
- 7. To facilitate the installation of steam distributors and for control reasons, an inspection hole of sufficient size must be provided inside the air duct.
- 8. Within the humidification distance, the ventilation duct should be watertight.
- 9. The air ducts that pass through cold environments must be insulated so as to avoid condensation of the humidified air on the walls of the duct.
- 10. Unfavorable fluid dynamic conditions inside the air duct (eg. due to obstacles, tight bending radii, etc.) can cause condensation of the humidified air.
- 11. For any questions, please contact the Pego service center, listed on the back of this manual.



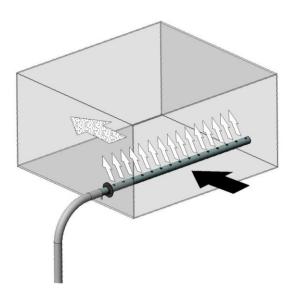
#### **EXAMPLE OF DISTRIBUTION IN AIR DUCT**

The PEGO steam distributor must be inserted transversally to the air flow in the duct and with the holes facing upwards.

The steam distributor must be positioned horizontally, tilted so that the tip is slightly higher than the base; this to allow an efficient recovery of any condensation. To improve the efficiency of the distribution, the steam distributor must cover the width of the airflow as much as possible.

**NB:** The maximum airflow pressure in the air duct must not exceed 1,200Pa (fig. 1).





#### **EXAMPLE OF DISTRIBUTION IN AMBIENT**

The PEGO steam distributor must be positioned transversely in front of the air flow of a fan unit and with the holes facing upwards.

The steam distributor must be positioned horizontally, tilted so that the tip is slightly higher than the base; this to allow an efficient recovery of any condensation.

To improve the efficiency of the distribution, the steam distributor must cover the width of the airflow as much as possible (fig. 2).

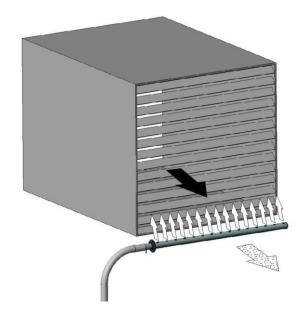


Fig. 2

#### **EXAMPLE OF DISTRIBUTION IN TURKISH BATH**

The steam diffusion nozzle must be positioned at the bottom and in such a way as not to direct the steam jet directly onto the users of the Turkish bath.



#### STEAM DISTRIBUTORS MODELS

| CODE           | TOTAL<br>LENGTH | LENGTH OF THE<br>STEAM SUPPLY | MATERIAL         | STEAM TUBE<br>DIAMETER |  |
|----------------|-----------------|-------------------------------|------------------|------------------------|--|
| 400ILAN25X200  | 300mm           | 200mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X250  | 350mm           | 250mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X350  | 450mm           | 350mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X500  | 600mm           | 500mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X650  | 750mm           | 650mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X800  | 900mm           | 800mm                         | Stainless steel  | 25mm                   |  |
| 400ILAN25X1000 | 1100mm          | 1000mm                        | Stainless steel  | 25mm                   |  |
| 400ILAN25X1050 | 1150mm          | 1050mm                        | Stainless steel  | 25mm                   |  |
| 400ILAN25X1100 | 1200mm          | 1100mm                        | Stainless steel  | 25mm                   |  |
| 400ILAN25X1700 | 1800mm          | 1700mm                        | Stainless steel  | 25mm                   |  |
| UMILANSAUNA    | 260mm           | 160mm                         | Stainless steel  | 25mm                   |  |
| 400LAN25X200   | 280mm           | 200mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X250   | 330mm           | 250mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X350   | 430mm           | 350mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X500   | 580mm           | 500mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X650   | 730mm           | 650mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X800   | 880mm           | 800mm                         | Aluminum         | 25mm                   |  |
| 400LAN25X1000  | 1080mm          | 1000mm                        | Aluminum         | 25mm                   |  |
| 400LANSAUNA25  | 109mm           | /                             | Plastic material | 25mm                   |  |
| 400LANWEL25    | 156mm           | /                             | Plastic material | 25mm                   |  |
| 400ILAN40X200  | 300mm           | 200mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X250  | 350mm           | 250mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X350  | 450mm           | 350mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X500  | 600mm           | 500mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X650  | 750mm           | 650mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X800  | 900mm           | 800mm                         | Stainless steel  | 40mm                   |  |
| 400ILAN40X1000 | 1100mm          | 1000mm                        | Stainless steel  | 40mm                   |  |
| 400ILAN40X1200 | 1300mm          | 1200mm                        | Stainless steel  | 40mm                   |  |
| 400ILAN40X1500 | 1600mm          | 1500mm                        | Stainless steel  | 40mm                   |  |
| 400ILAN40X1600 | 1700mm          | 1600mm                        | Stainless steel  | 40mm                   |  |
| UMILANSAUNA40  | 260mm           | 160mm                         | Stainless steel  | 40mm                   |  |
| 400LAN40X200   | 246mm           | 200mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X250   | 296mm           | 250mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X350   | 396mm           | 350mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X500   | 546mm           | 500mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X650   | 696mm           | 650mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X800   | 846mm           | 800mm                         | Aluminum         | 40mm                   |  |
| 400LAN40X1000  | 1046mm          | 1000mm                        | Aluminum         | 40mm                   |  |
| 400LAN40X1200  | 1246mm          | 1200mm                        | Aluminum         | 40mm                   |  |
| 400LAN40X1400  | 1446mm          | 1400mm                        | Aluminum         | 40mm                   |  |
| 400LANSAUNA40  | 74,5mm          | /                             | Plastic material | 40mm                   |  |
| 400LANWEL40    | 121,50mm        | /                             | Plastic material | 40mm                   |  |



PEGO offers the possibility to request steam distributors with customized length.



#### **CONDENSATION RECOVERY**

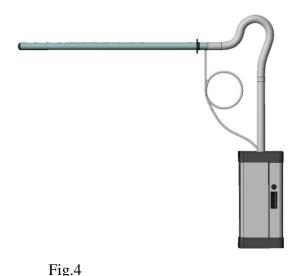
1. Regardless of the type of application, a certain amount of condensation forms inside the steam distributor.

This condensation must be drained in order not to obstruct the steam flow. If the steam distributor is positioned at a point higher than the humidifier and the steam tube does not generate siphons, the condensate recovery tube may not be installed (eg. fig. 3).



Fig. 3

2. If the steam distributor is positioned at a point higher than the humidifier and the steam tube generates a siphon (e.g. Fig. 4), the condensate recovery tube must be installed, directly discharging in the appropriate cylinder sleeve of the humidifier (Fig. 5) or in a water collection well. Condensate recovery is performed by connecting the PEGO **UMITUBODN10** tube, specific for this type of application, to the 10mm diameter sleeve of the steam distributor. In the path of the condensate recovery tube, from the steam ditributor to the humidifier or from the steam ditributor to the well, it is necessary to perform a siphon with a complete turn with a minimum diameter of 200mm; the siphon must also be filled with water before installation. This will prevent the steam outlet from the condensate recovery tube (fig. 4).



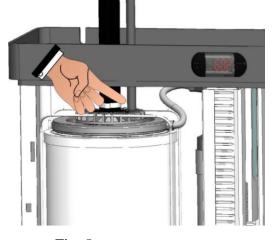


Fig. 5

3. If the steam distributor is positioned lower than the humidifier, as generally happens in installations with OEM series humidifiers, it is essential to perform the condensate recovery by discharging into a water collection well.



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