



Nozzle air humidification

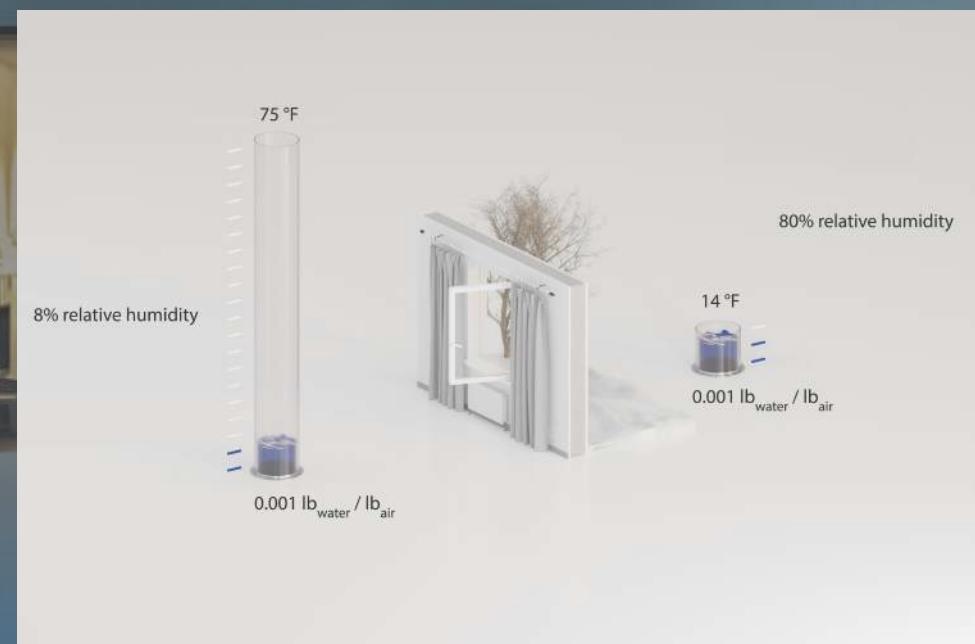
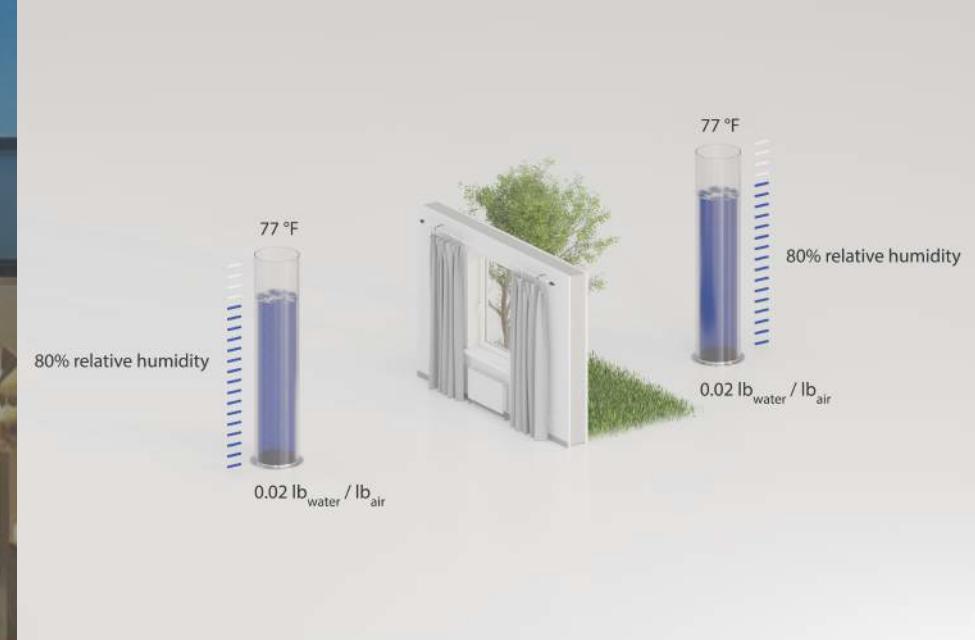
## It is humid outside, so why is the air so dry in my home?

Humidity dips because of the temperature difference inside and outside of a heated room.

The warmer it is outside, the more moisture the air can absorb.

At 41 °F, for instance, about 0.006 lb<sub>water</sub> can be absorbed per 1 lb<sub>air</sub>, while at 77 °F over 0.020 lb<sub>water</sub> are absorbed per 1 lb<sub>air</sub>.

In winter, outdoor air comes into a building and gets heated, without changing its actual moisture content. For example, if the temperature in winter is 14°F outside and 75 °F in your apartment, the relative humidity of the heated air will be about 8%.



# Why do I need to humidify air?

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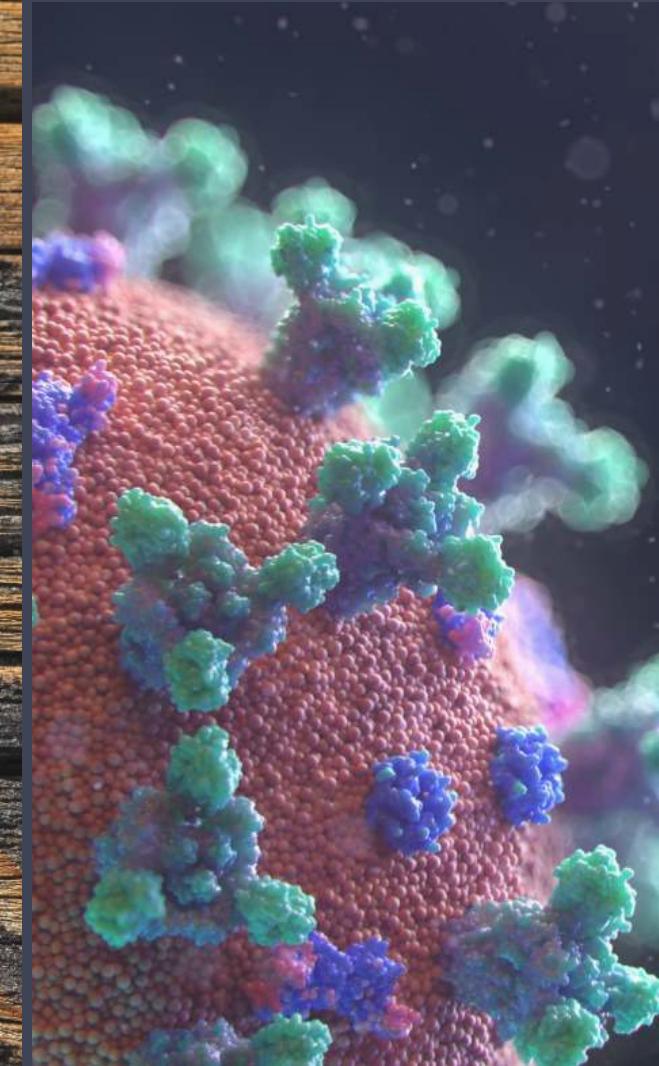
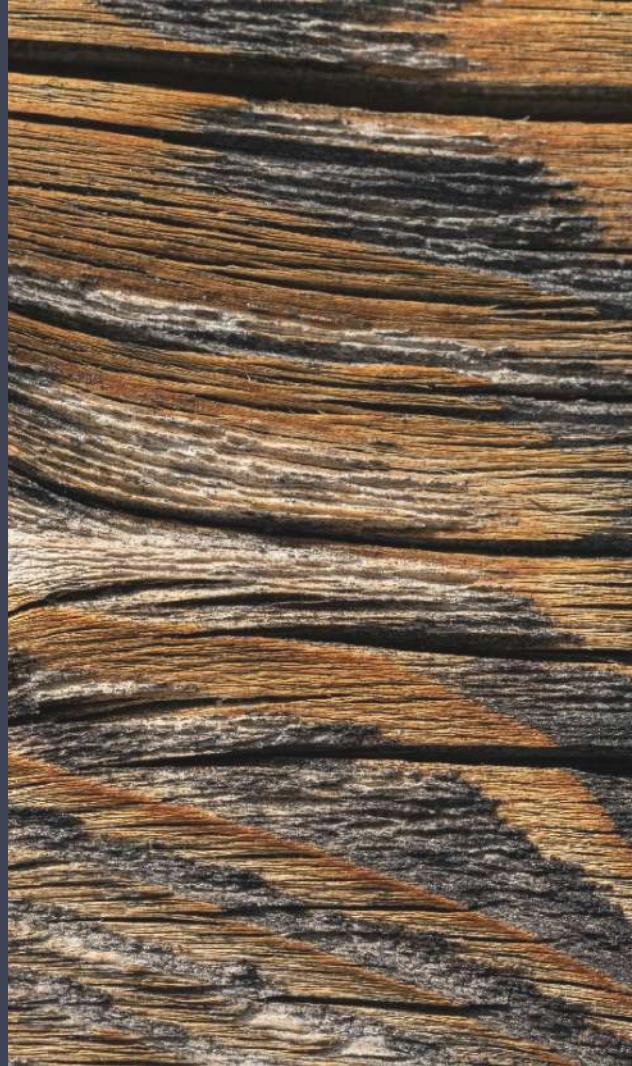
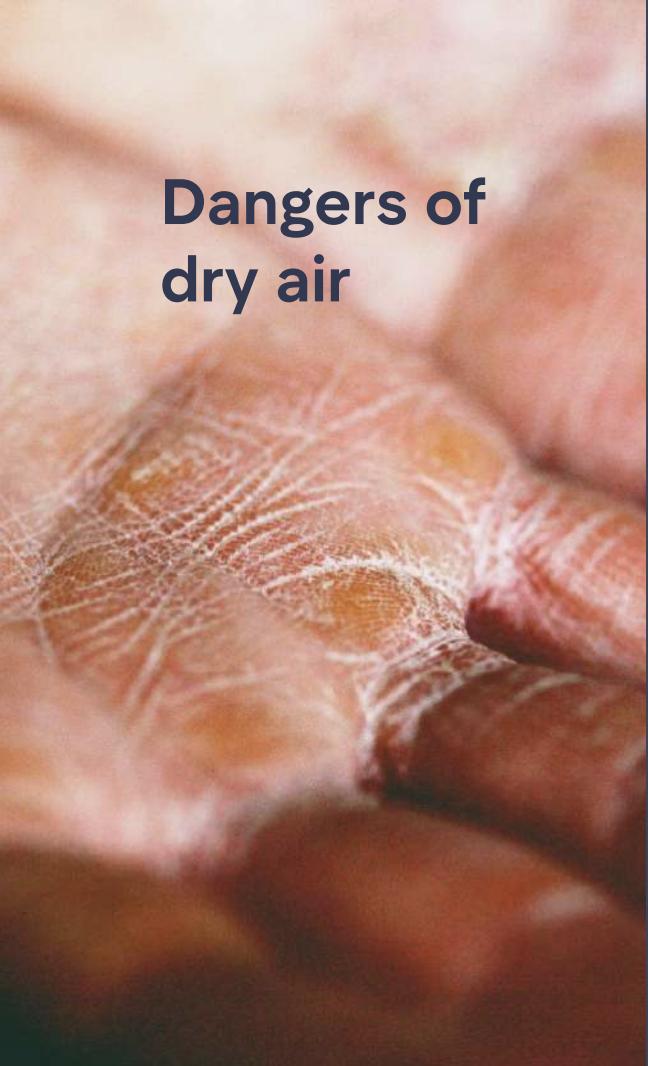
Today, there are a number of scientific studies proving that the optimal air humidity level is beneficial for human health, interior items, pets and furniture. We are not going to bore you with tedious theory and tell you about every study. Suffice to say, based on 10+ years of Liechty specialists' experience in air humidification, we recommend you keep to the following humidity parameters:

- 35 to 45 % in winter,
- 40 to 60 % in summer.

In a cold season, when the difference between indoor and outdoor temperatures is the greatest, the relative indoor air humidity drops to 10–15%. Air starts drawing moisture from any available source: fabrics, wooden interior items, walls, our skin or mucous membranes. Dehydration not only causes discomfort and a general feeling of being unwell, it can also be at the root of some serious health problems.

Our mission is to help you set up a perfect microclimate for your home, and relative humidity is a key part of that. Liechty air humidification systems are effective, safe and fully autonomous. See it for yourself!

## Dangers of dry air



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**Dry, cracked skin and mucosae**

**Damage to furniture or wooden interior items**

**Viruses remain active in the air for many hours**

**Children catch URTIs more often**



## Why should we humidify air?



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**Moisturized skin and mucosae perfectly perform their protection functions**

**Furniture and wooden interior items remain in pristine condition**

**Less dust & fresher air**

**Children get sick less often in a cold season**

Why us?

Liechty

15 years

of experience in air humidification for  
premium residences and commercial  
facilities

>3000 projects

of varying complexity implemented by us and  
our partners all over Canada and in the U.S.

2 years

of warranty

ASHRAE

Liechty equipment meets the  
requirements of the American  
professional engineering association

SPoU

Service at Place of Use is a concept  
allowing for equipment to be serviced  
on site

# Why us?

Liechty



Double  
reverse osmosis



Full-volume UV  
sterilization



Service at place  
of use



Wired / wireless  
control units



HP line circulation  
for repeated UV  
sterilization



Installation into  
finished interior



Full automated



Silent  
operation

# CL Playgreen

CL Playgreen are dual zone air humidification systems. Each zone has its own high pressure hoseline. Each humidification zone can be divided into multiple subzones (separate rooms). Each zone has a separate control unit; maximum humidistats are installed in subzones.

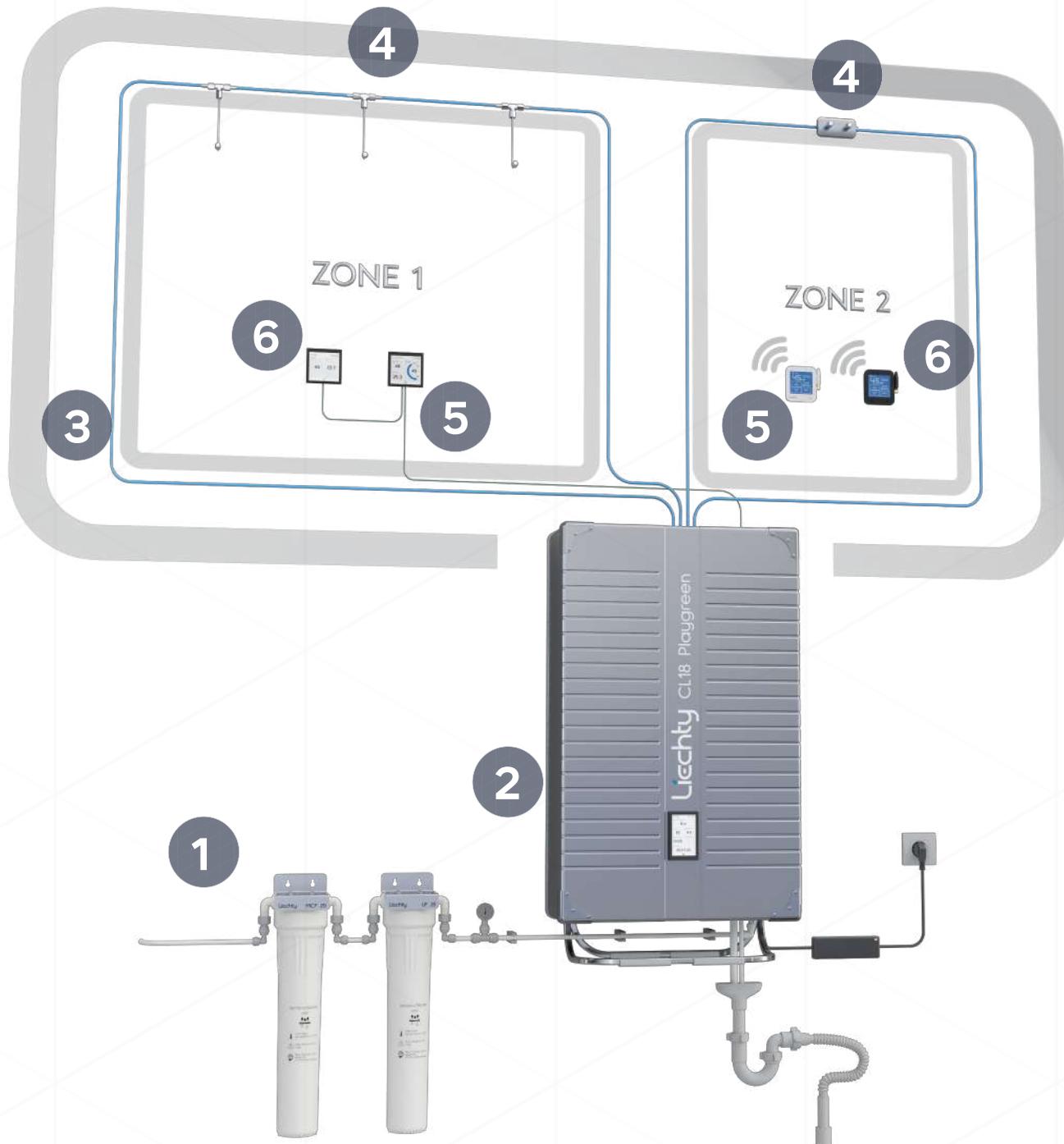
CL6 Playgreen and CL18 Playgreen models offering maximum output are available.

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# CL Playgreen structure diagram

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- 1 Preliminary filtration
- 2 Central module
- 3 High pressure hoseline
- 4 Nozzles
- 5 Control units
- 6 Additional units

# CL Manitoba

CL Manitoba are multizone humidification systems that can control separately set humidity levels in 6 or 12 rooms at the same time.

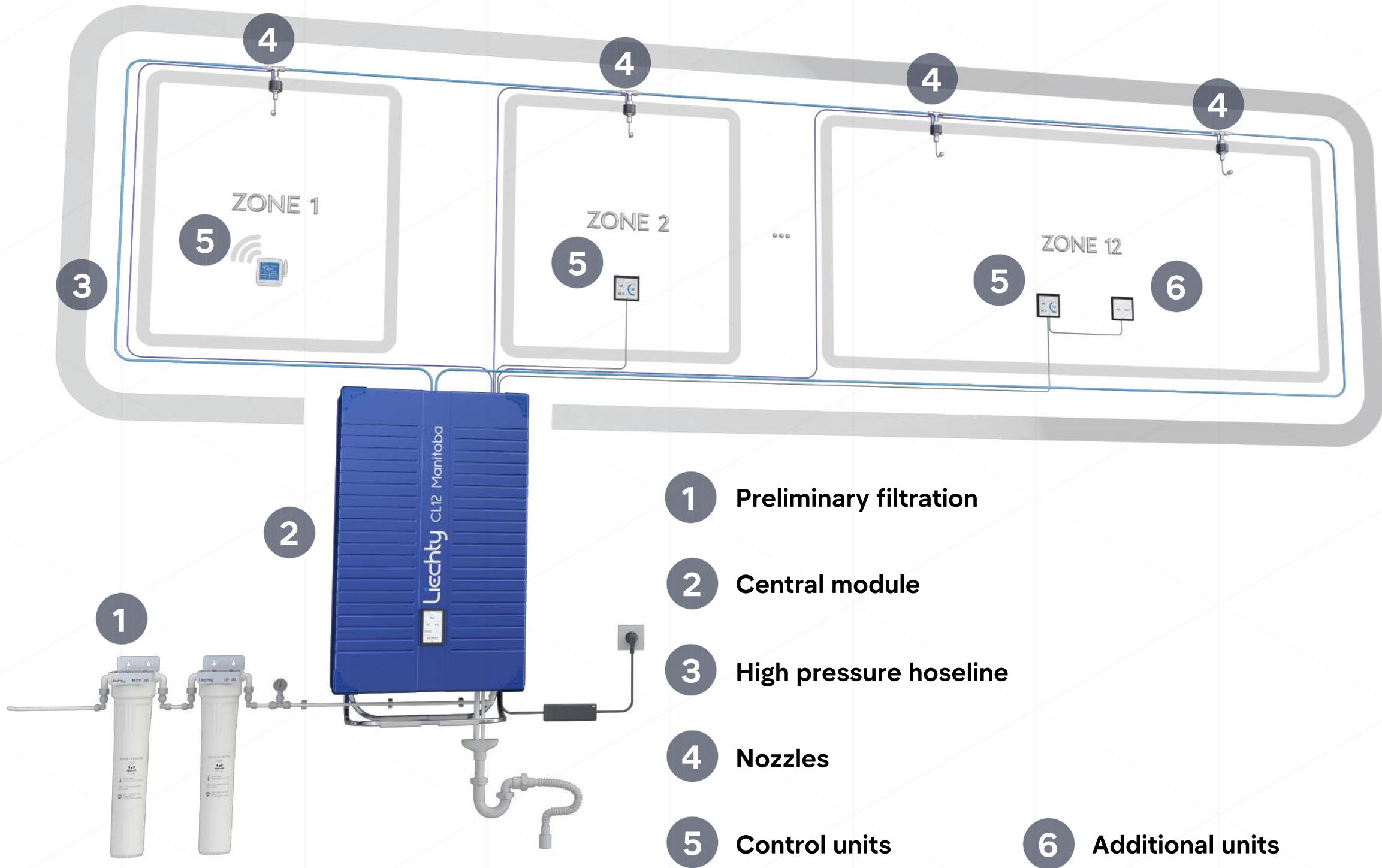
Each zone has its own control unit. The high pressure hoseline is looped, going out of the module and returning back into it for maintenance flushing and repeat UV sterilization.

CL6 Manitoba and CL12 Manitoba models are available. They offer an impressive output and differ in a maximum number of zones they can simultaneously control (up to 6 or 12 separate zones).



# CL Manitoba structure diagram

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# Air humidity control

Liechty air humidification systems can be controlled both using dedicated control units and third-party automated devices.

This section presents the entire range of Liechty dedicated control units.

## HS4 control units

HS4-W control unit is used to set the required humidity in the humidification zone, as well as to select the operation mode of the nozzles: automatic, timed, off. The built-in sensor measures the humidity level with high accuracy.

The first screen of the interface displays set and actual humidity levels, room temperature, operation status, additional menu. In HS4-W it is possible to set the schedule of nozzle operation in a certain humidification zone. In addition, HS4-W is equipped with a protection circuit that can be used as a maximum humidistat.

Thanks to its laconic and luxurious design, as well as several variants of housing (white, nickel, gold, white gold, wood) HS4 will complement any interior.



### SPECIFICATIONS

|                            |                 |
|----------------------------|-----------------|
| dimensions, W x H x D, in: | 3.3 x 3.3 x 0.6 |
| RH control range, %:       | 5...55          |
| frequency range, MHz:      | 315             |
| sensor accuracy, %:        | ± 1,8           |
| voltage VDC:               | 24              |
| display, inches:           | 4", color       |
| mount:                     | magnetic        |
| protective output:         | 1               |

# HS3 / HS5 control units

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HS3 – wired control units, connected with a low voltage cable.

HS5 – wireless control units, operating by use of free 315 MHz frequency range.

Both series are available in two colors – white and black.

HS3-B



HS3-W



HS5-B



HS5-W



## SPECIFICATIONS

3.2 x 2.8 x 0.7 inches

wired

wired

wireless

wireless

black

white

black

white

cable, 24 VDC

cable, 24 VDC

-

-

screen: 3", monochrome

magnetic mount

# Protection against overhumidity

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Maximum humidistats performs a protective function by controlling RH level and switching off nozzles in a particular humidification zone when the maximum value is exceeded.

By principle of operation, maximum humidistats can be either mechanical (MHS2) or electronic (MHS3, MHS4, MHS5).

MHS2



MHS3



MHS4



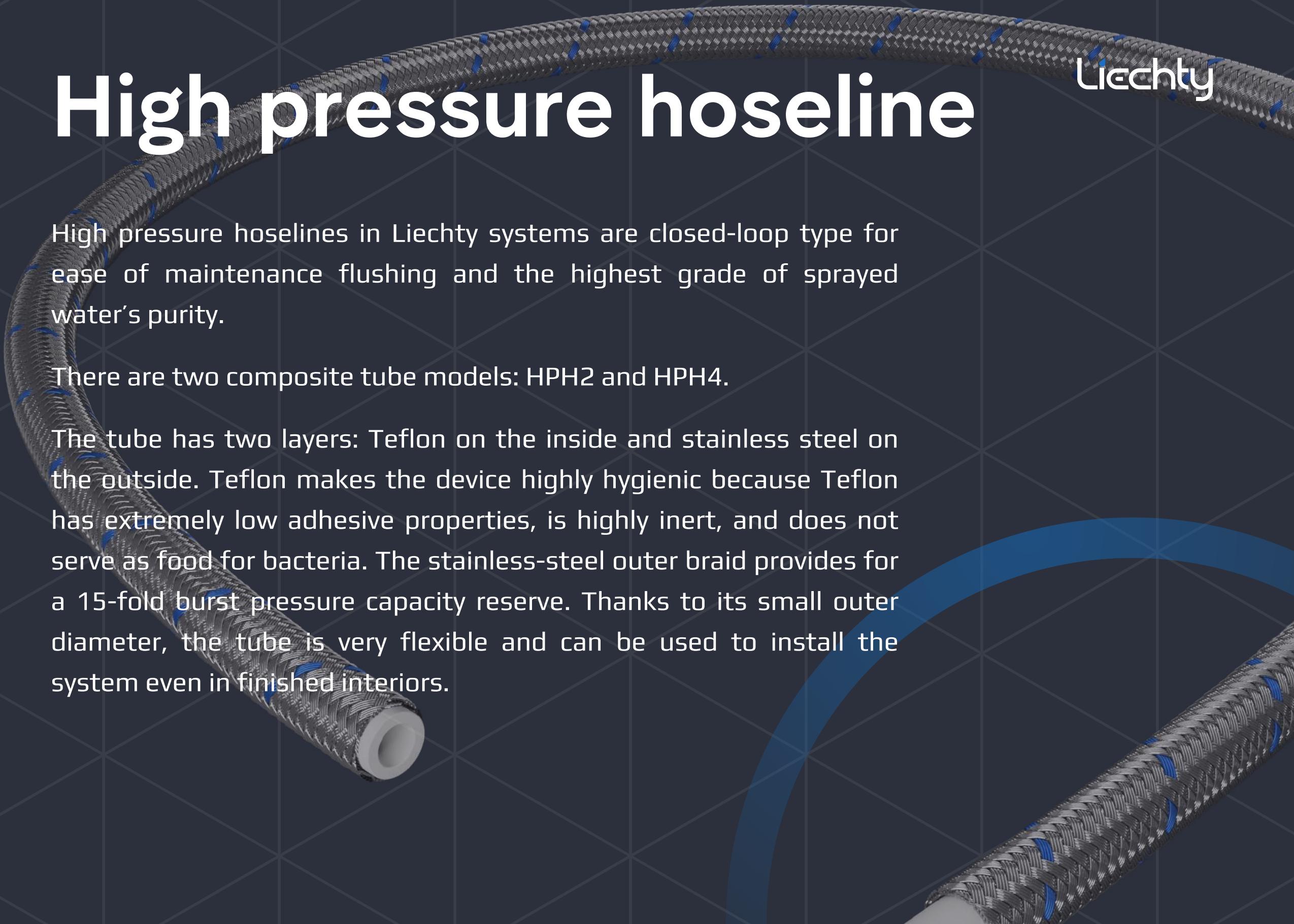
MHS5



## ХАРАКТЕРИСТИКИ

|                 |                 |                  |                 |
|-----------------|-----------------|------------------|-----------------|
| 3.3 x 3.3 x 1.2 | 3.2 x 2.8 x 0.7 | 3.3 x 3.3 x 0.6  | 3.2 x 2.8 x 0.7 |
| wired           | wired           | wired / wireless | wireless        |
| mechanic        | electronic      | electronic       | electronic      |
| cable, 24 VDC   | cable, 24 VDC   | cable, 24 VDC    | -               |
| -               | 3", monochrome  | 4", color        | 3", monochrome  |
| screws          | magnetic        | magnetic         | magnetic        |

# High pressure hoseline



High pressure hoselines in Liechty systems are closed-loop type for ease of maintenance flushing and the highest grade of sprayed water's purity.

There are two composite tube models: HPH2 and HPH4.

The tube has two layers: Teflon on the inside and stainless steel on the outside. Teflon makes the device highly hygienic because Teflon has extremely low adhesive properties, is highly inert, and does not serve as food for bacteria. The stainless-steel outer braid provides for a 15-fold burst pressure capacity reserve. Thanks to its small outer diameter, the tube is very flexible and can be used to install the system even in finished interiors.

# Nozzle mounting options

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Liechty systems offer multiple options for configuring nozzles mounted on the high pressure hoseline.

In order to ensure proper hygiene and meet the manufacturer's requirements, nozzle outlets should open directly into the room. Nozzle outlets are small; their chromium plating makes them look stylish, so they will be a perfect match for any interior.

Nozzle outlets can be introduced into a room in the following ways:

- from vent shafts or air conditioning ducts on flexible extenders;
- via GRM8 or M8 T-type splitters;
- from a wall or the ceiling on flexible extenders.



Nozzle heads  
PNS / PNM



GRM splitters  
for 3 nozzle heads



M8 Tee splitter  
for 2 nozzle heads

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