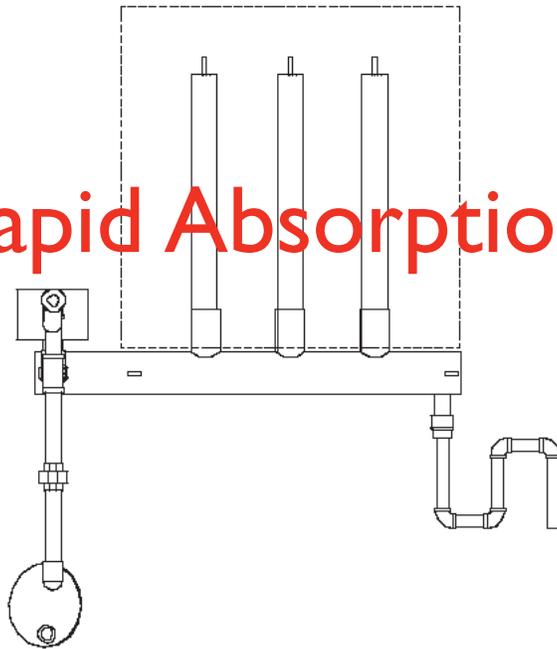


Direct steam humidifier

Rapid Absorption



CAREL

Technology & Evolution



Hot Steam, Not Hot Air

The **ultimateSteam** uses a hi-tech insulation coating to minimize heat loss to the duct and improve overall efficiency by reducing condensate. Skin temperature on the **ultimateSteam** is kept to less than 120°F - even with 250°F live steam inside the manifold, less than 2mm away from the surface!



This results in greatly reduced heat gain to the surrounding air and minimal condensate losses.

ultimateSteam

The **ultimateSteam** is the world's highest efficiency direct steam humidifier, using hi-tech insulation to reduce condensate and minimize duct heat gain.

Due to our Patented Variable Aperture (PVA) technology, the **ultimateSteam** is the champion of short evaporation distance.

No other humidifier can equal the **ultimateSteam** for short evaporation distance or efficiency of steam use!



Patented PVA Technology

The inverted PVA slot creates a sheet of steam that flows evenly out both sides of the manifold. This creates 100% contact of air to steam, far superior to manifolds using nozzles that can produce a maximum of only 15% contact of air to steam.



Patented Fishbone Wick

Inside the manifolds, a patented laser cut fishbone condensate wick draws any condensate back from the outlet slots to the center of the manifold where much of it is reevaporated. The wick is so effective that in most cases, not even one drop of condensate escapes.



Easy Assembly

Assembly is easy with slip fitting parts that require no O-rings or plastic parts, resulting in zero maintenance. The **ultimateSteam** manifold is truly an "install and forget" type of system.

OEM manufacturers can easily custom build the **ultimateSteam** right on the factory floor.

...shortest absorption distance



Precision Valves

A full range of precision plug-type steam valves are available with either pneumatic or electronic actuators.

Applications

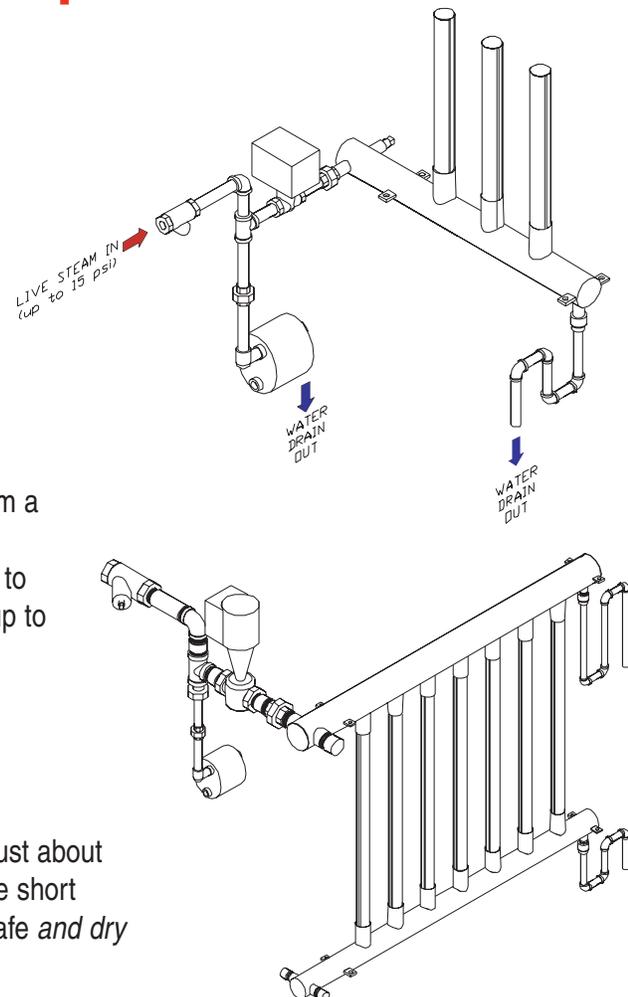
ultimateSteam is perfect for hospitals, libraries, museums, offices or just about anywhere steam is available and there is a need for humidification. The short absorption distances of the **ultimateSteam** humidifier help to insure safe and dry operation.

Low Pressure Drop

Vertical dispersion pipes are on standard 0.15m (6") centers for optimum air to steam surface area while minimizing pressure drop.

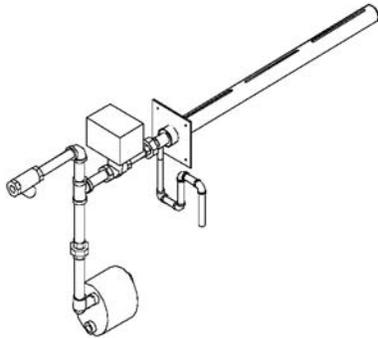
High Capacity

The vertical dispersion pipes are fed from a bottom or top manifold, depending on capacity. **ultimateSteam** is available up to 3m (120") wide by 3m (120") high and up to 907 kg/hr (2,000 lbs/hr) steam capacity.

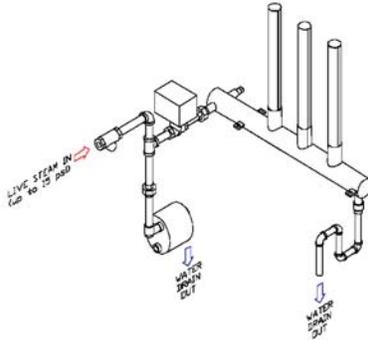


Technical Specifications

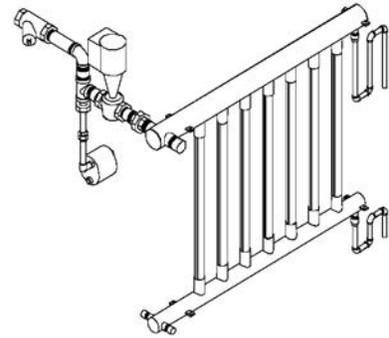
**DS0 - Single Pipe System
To 100 lbs/hr**



**DSB - Multipipe System
To 500 lbs/hr**



**DST - Multipipe System
To 2000 lbs/hr**

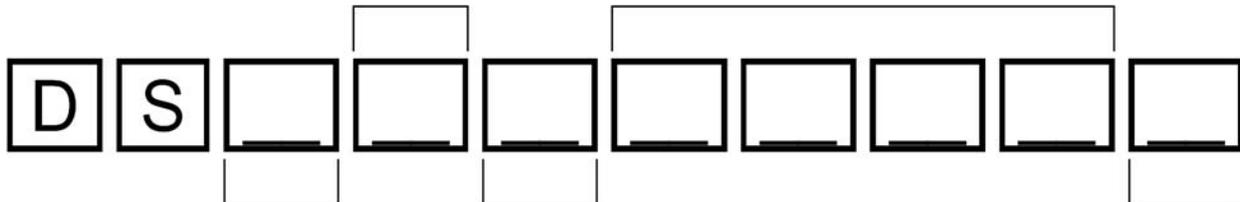


Product Model Numbers

Duct/AHU width (in.):

A=12 B=18 C=24 D=36 E=48 F=60
G=72 H=84 I=96 L=108 M=120

Required capacity (lbs/hr):



Manifold:

0 = single
B = bottom fed
T = top fed

Duct/AHU height (in.):

0 with DS single
A=12 B=18 C=24 D=36 E=48 F=60
G=72 H=84 I=96 L=108 M=120

Steam pressure:

A=2 B=5 C=10
D=15 (psi)

Construction: Type 316 Stainless Steel

Insulation: Proprietary high R value pliable coating, plenum safe, non-toxic

Maximum temperature: 500°F

Maximum manifold pressure: 1 psi

Control valves:

Electric: Siemens or other, full pressure drop

Pneumatic: Siemens or other, full pressure drop

(Carel uses Siemens valves as standard with maximum 15 psi inlet pressure)

Steam traps: float & thermostatic standard

(Carel uses Barnes & Jones traps as standard)

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