Ultra-Sorb Steam Dispersion Panels:

- Guaranteed short non-wetting distances
- Reduce wasted energy and condensate up to 85%
- Higher capacities per insulated tube increase efficiency, reduce cost
- No steam jackets; no unnecessary heat gain
- Lowest installation cost
ULTRA-SORB STEAM DISPERSION PANELS

Stead for humidification can be non-pressurized or pressurized. DriSteem steam dispersion units disperse steam generated by pressurized steam boilers or by nonpressurized steam humidifiers. The steam is distributed through ducts, air handlers, and even directly into finished spaces, where it is released in the airstream with a steam dispersion system.

WHY CHOOSE ULTRA-SORB DISPERSION PANELS

GUARANTEED, SHORT NON-WETTING DISTANCES
Install within inches of downstream devices. Rapid, drip-free absorption means steam does not condense on downstream devices.

EFFICIENT BY DESIGN

- **Reduce wasted energy and condensate up to 85%**
  High-Efficiency Insulated Tubes significantly reduce airstream heat gain and condensate production.

- **Higher capacities per tube increase efficiency, and reduce cost**
  Insulated dispersion tubes produce less condensate, leaving more steam available for humidification, and increasing the capacity of each tube. As a result, fewer tubes may be required to meet application requirements, further lowering condensate production and heat gain while reducing resource consumption and cost.

- **No steam jackets; no unnecessary heat gain**
  When there is no call for humidity, Ultra-sorb panels are at duct temperature while conventional jacketed steam injection systems stay hot and continue to add heat to the airstream.

- **Disperse pressurized or nonpressurized steam**
  Ultra-sorb Models LV, LH, and MP disperse steam generated by pressurized steam boilers or by nonpressurized steam generators.

MODEL XV: HIGHEST PERFORMANCE

Integral condensate management

- Ultra-sorb Model XV vaporizes dispersion-generated condensate and returns pressurized condensate to the boiler without additional pumps, valves, vents, or controls.

Zero water waste

- All condensate returns to the boiler saving energy, water, and boiler chemicals. Pressurized condensate return minimizes piping space required under the panel.
- Lowest heat gain - High-Efficiency Insulated Tubes and an insulated steam delivery header reduce airstream heat gain by up to 85%.

MODEL MP: LOWEST TOTAL INSTALLED COST

- Same side steam inlet and drain for reduced piping
- In-frame condensate drain piping maximizes available face dimensions and minimizes blank-off requirements.
- Integral steam header allows clear space on exterior walls of AHUs.
### Table 3-1: Ultra-sorb models comparison

<table>
<thead>
<tr>
<th>Model XV</th>
<th>Ultra-sorb Model LV</th>
<th>Ultra-sorb Model LH</th>
<th>Ultra-sorb Model MP</th>
<th>Lowest total installed cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integral condensate management</td>
<td>Pressurized boiler steam or nonpressurized steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
</tr>
<tr>
<td><strong>Steam source</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidification steam inlet: Steam from boiler or STS humidifier</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
</tr>
<tr>
<td>Heat exchanger: Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
<td>Pressurized boiler steam</td>
</tr>
<tr>
<td><strong>Steam capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per panel: Pressurized boiler steam: Up to 2720 lbs/hr (1235 kg/h) One Ultra-sorb Model XV with STS: Up to 450 lbs/hr (204 kg/h)</td>
<td>Per panel: Up to 4000 lbs/hr (1815 kg/h)</td>
<td>Per panel: Up to 3268 lbs/hr (1482 kg/h)</td>
<td>Per panel: Up to 3268 lbs/hr (1482 kg/h)</td>
<td>Per panel: Up to 3268 lbs/hr (1482 kg/h)</td>
</tr>
<tr>
<td>Per tube: 80 lbs/hr (36 kg/h)*</td>
<td>Per tube: Insulated: 86 lbs/hr (39 kg/h)** Uninsulated: 80 lbs/hr (36 kg/h)**</td>
<td>Per tube: Insulated: 86 lbs/hr (39 kg/h)** Uninsulated: 80 lbs/hr (36 kg/h)**</td>
<td>Per tube: Insulated: 86 lbs/hr (39 kg/h)** Uninsulated: 80 lbs/hr (36 kg/h)**</td>
<td>Per tube: Insulated: 86 lbs/hr (39 kg/h)** Uninsulated: 80 lbs/hr (36 kg/h)**</td>
</tr>
<tr>
<td><strong>Steam pressure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat exchanger: 5 to 50 psi (35 to 345 kPa) Humidification steam inlet: Up to 50 psi (345 kPa)</td>
<td>Heat exchanger: 5 to 50 psi (35 to 345 kPa), pressurized boiler; or atmospheric, STS humidifier</td>
<td>Heat exchanger: 5 to 50 psi (35 to 345 kPa), pressurized boiler; or atmospheric, STS humidifier</td>
<td>Heat exchanger: 5 to 50 psi (35 to 345 kPa), pressurized boiler; or atmospheric, STS humidifier</td>
<td>Heat exchanger: 5 to 50 psi (35 to 345 kPa), pressurized boiler; or atmospheric, STS humidifier</td>
</tr>
<tr>
<td><strong>Airflow</strong></td>
<td>Horizontal</td>
<td>Horizontal</td>
<td>Horizontal</td>
<td>Horizontal</td>
</tr>
<tr>
<td><strong>High-Efficiency Insulated Dispersion Tubes</strong></td>
<td>Standard</td>
<td>Available option</td>
<td>Optional header enclosure provides air gap insulation</td>
<td>Optional header enclosure provides air gap insulation (standard on units &gt; 60 width)</td>
</tr>
<tr>
<td><strong>Header insulation</strong></td>
<td>Header inside of enclosure is insulated</td>
<td>Header enclosure provides air gap insulation</td>
<td>Header enclosure provides air gap insulation</td>
<td>Header enclosure provides air gap insulation</td>
</tr>
<tr>
<td><strong>Condensate drain</strong></td>
<td>Pressurized</td>
<td>Atmospheric</td>
<td>Pressurized</td>
<td>Pressurized</td>
</tr>
<tr>
<td><strong>Condensate lifting</strong></td>
<td>Vaporizes dispersion tube-generated condensate in header; returns pressurized condensate to condensate return main</td>
<td>Available pump</td>
<td>Available pump</td>
<td>Available pump</td>
</tr>
<tr>
<td><strong>Airstream heat gain</strong></td>
<td>Lowest</td>
<td>Law with High-Efficiency Insulated Tubes option</td>
<td>Law with High-Efficiency Insulated Tubes option</td>
<td>Law with High-Efficiency Insulated Tubes option</td>
</tr>
<tr>
<td><strong>Non-wetting distance</strong></td>
<td>Shortest; performs to published Ultra-sorb non-wetting distance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Face dimensions</strong></td>
<td>12&quot; x 12&quot; up to 144&quot; x 144&quot; (305 x 305 to 3660 x 3660 mm)</td>
<td>12&quot; x 12&quot; up to 144&quot; x 144&quot; (305 x 305 to 3660 x 3660 mm)</td>
<td>12&quot; x 12&quot; up to 120&quot; x 120&quot; (305 x 305 to 3050 x 3050 mm)</td>
<td>12&quot; x 12&quot; up to 144&quot; x 144&quot; (305 x 305 to 3660 x 3660 mm)</td>
</tr>
<tr>
<td><strong>Assembly</strong></td>
<td>Pre-assembled (shipped unassembled by request or as larger dimensions require)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dispersion tube mounting</strong></td>
<td>Spring-loaded tubes and frame</td>
<td>Slip couplings and frame</td>
<td>Sealing grommets and frame</td>
<td>Sealing grommets and frame</td>
</tr>
<tr>
<td><strong>Steam / drain connections</strong></td>
<td>Inlet: Steam for humidification Inlet: Pressurized steam for heat exchanger Outlet: Pressurized condensate to return main Outlet: For optional header overflow (if no float switch)</td>
<td>Inlet: Steam for humidification Outlet: Condensate drain</td>
<td>Inlet: Steam for humidification Outlet: Condensate drain</td>
<td>Inlet: Steam for humidification Outlet: Condensate drain</td>
</tr>
<tr>
<td><strong>Piping connections</strong></td>
<td>Same-side connections</td>
<td>Top or side steam inlet, opposite-side drain connection</td>
<td>Top or side steam inlet, 2 drain connections (one per header)</td>
<td>Same-side steam supply and condensate drain connections</td>
</tr>
</tbody>
</table>

**Notes:**

- * Consult DriSteem when face height is less than 24" (610 mm).
- ** Consult DriSteem when face height is less than 26" (660 mm).
- *** Consult DriSteem when face width is less than 25" (635 mm).
DRI-STEEM Corporation
a subsidiary of Research Products Corporation
DriSteem U.S. operations are
ISO 9001:2015 certified

U.S. Headquarters:
14949 Technology Drive
Eden Prairie, MN 55344
800-328-4447 or 952-949-2415
952-229-3200 (fax)

Continuous product improvement is a policy
of DriSteem; therefore, product features and
specifications are subject to change without
notice.

DriSteem, DriCalc, GTS, Rapid-sorb, Ultra-sorb,
and Vapor-logic are registered trademarks of
Research Products Corporation and are filed
for trademark registration in Canada and the
European community.

Product and corporate names used in this
document may be trademarks or registered
trademarks. They are used for explanation only
without intent to infringe.

© 2021 Research Products Corporation

EXPECT QUALITY FROM THE
INDUSTRY LEADER

Since 1965, DriSteem has been
leading the industry with creative and
reliable humidification solutions. Our
focus on ease of ownership is evident in
the construction of the Ultra-Sorb Steam
Dispersion Panels. DriSteem leads
the industry with a Two-year Limited
Warranty and optional extended
warranty.

For more information:
www.dristeem.com
sales@dristeem.com

For the most recent product information
visit our website:
www.dristeem.com

Form No. US-BRO-EN-2021-1121