

STEAM INJECTION

Humidifiers



Steam Injection Humidifiers

- *Suitable for a wide range of applications*
- *Lightweight construction*
- *Steam jacket dispersion tubes*
- *Stainless steel construction*
- *For use with steam boilers*

SUITABLE FOR A WIDE RANGE OF APPLICATIONS



ADDED FLEXIBILITY WITH OPTIONAL STAINLESS STEEL COMPONENTS

Single-tube, Mini-bank, and Multiple-tube humidifiers are available with options for applications requiring all stainless steel construction.

- Stainless steel components reduce corrosion potential and are compatible with steam derived from RO/DI water.
- Modulating electric and pneumatic stainless steel valves are manufactured to precise tolerances, with some configurations capable of achieving the highest turndown ratio in the industry.

STEAM INJECTION HUMIDIFIERS

Steam Injection humidifiers from DriSteem® use steam from an external source, such as an in-house boiler or a district steam system. DriSteem's Steam Injection humidifiers are adaptable to virtually any size application, and a wide variety of models accommodate a broad range of steam absorption requirements.

STEAM JACKETED DISPERSION TUBE MODELS FOR DUCTS AND AIR HANDLERS

Single-tube, Mini-bank®, and Multiple-tube humidifiers are designed for ducts and air handlers, and capable of a wide range of guaranteed non-wetting distances.

WHY CHOOSE STEAM INJECTION

PROVEN PERFORMANCE

- 304 stainless steel construction allows instantaneous heat-up, which minimizes condensation and eliminates spits at cold start-up.
- 304 stainless steel separator removes entrained condensate with proven centrifugal design.
- Lightweight construction requires no special supports or hangers.
- Bronze modulating steam control valves:
 - Rangeability between 13:1 and 205:1 provides enhanced controllability at minimum controllable flow.
 - Wide Cv (Kv) selection permits close matching to humidifier output capacity for precise control and no valve hunting.
 - Valves are independent from separators for easy removal.
 - Pressure drop allowance of 50 psi (345 kPa) provides control reliability at high entering steam pressure and low dispersion-side pressure.

APPLICATION FLEXIBILITY

- Wide range of models and non-wetting distances meet virtually any humidification need.
- Numerous valve Cv (Kv) choices permit close matching to actual job requirements.
- Steam is dispersed through vertical or horizontal ducts or directly into a space.

SINGLE-TUBE HUMIDIFIER

- Suitable for small- to medium-capacity systems, 1.5–525 lbs/hr (0.7–238 kg/h)
- Moderate to long non-wetting distance
- Pre-assembled separator/tube assembly



MINI-BANK HUMIDIFIER

- Suitable for small-capacity systems, 1.6–84 lbs/hr (0.7–38 kg/h)
- Short to moderate non-wetting distance
- Sized for small ducts
- Pre-engineered and pre-assembled header/tube assembly, ready for mounting and hookup



MULTIPLE-TUBE HUMIDIFIER

- Suitable for small- to large-capacity systems, 6.5–3989 lbs/hr (2.3–1809 kg/h)
- Sizes to fit small ducts and large air handlers
- Short to moderate non-wetting distance
- Field assembled (with interconnecting piping and header supplied by contractor)
- Maxi-bank™ option:
 - Pre-assembled, except when height exceeds 85" (2159 mm)
 - Includes 304 stainless steel header, with option for 316 stainless steel
 - Includes black iron piping, with options for 304 or 316 stainless steel



AREA-TYPE HUMIDIFIER

- Suitable for medium-capacity systems, 1.8–286 lbs/hr (0.8–130 kg/h)
- Used in open spaces
- Application-dependent non-wetting distances



Table 3-1:
Single/multiple-tube humidifier standard dispersion tube face lengths

Tube model	Tube capacities*		Face lengths
	Single-tube	Multiple-tube	
60	Up to 180 lbs/hr (81 kg/h)	Up to 250 lbs/hr (113 kg/h)	6" to 144" in 1/2" increments (150 mm to 3658 mm in 13-mm increments)
70	Up to 250 lbs/hr (113 kg/h)		18" to 192" in 1/2" increments (457 mm to 4877 mm in 13-mm increments)
80	Up to 525 lbs/hr (238 kg/h)	Up to 525 lbs/hr (238 kg/h)	24" to 192" in 1/2" increments (610 mm to 4877 mm in 13-mm increments)

* Depending on length of tube

Table 3-2:
Mini-bank humidifier specifications

Face height		Required number of tubes	Face width
inches	mm		
6-9	150–230	2	6" to 48" in 1/2" increments (150 mm to 1220 mm in 13-mm increments). For face dimensions larger than 48" x 24" (w x h) (1220 mm x 610 mm), use Multiple-tube humidifier.
10-12	250–305	3	
13-15	330–380	4	
16-18	405–460	5	
19-21	480–535	6	
22-24	560–610	7	

All Steam Injection humidifiers shown here, except Area-type, are available with options for applications requiring all stainless steel construction.

**DRI-STEEM Corporation**

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**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 steam injection humidifier. DriSteem leads the industry with a Two-year Limited Warranty and optional extended warranty.

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