

DRISTEEM HUMIDIFIER DISPERSION

FIGURE 4-1: SINGLE DISPERSION TUBES WITHOUT CONDENSATE DRAIN

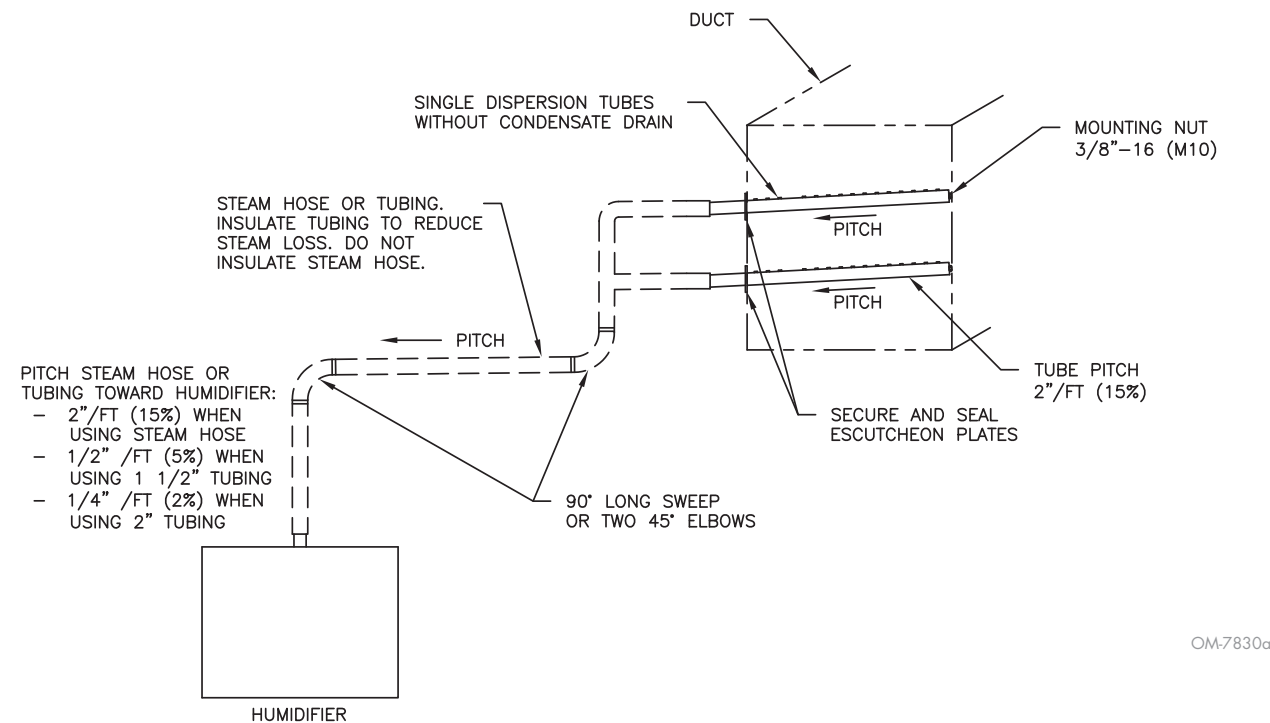


FIGURE 1-1: SINGLE DISPERSION TUBE WITHOUT CONDENSATE DRAIN

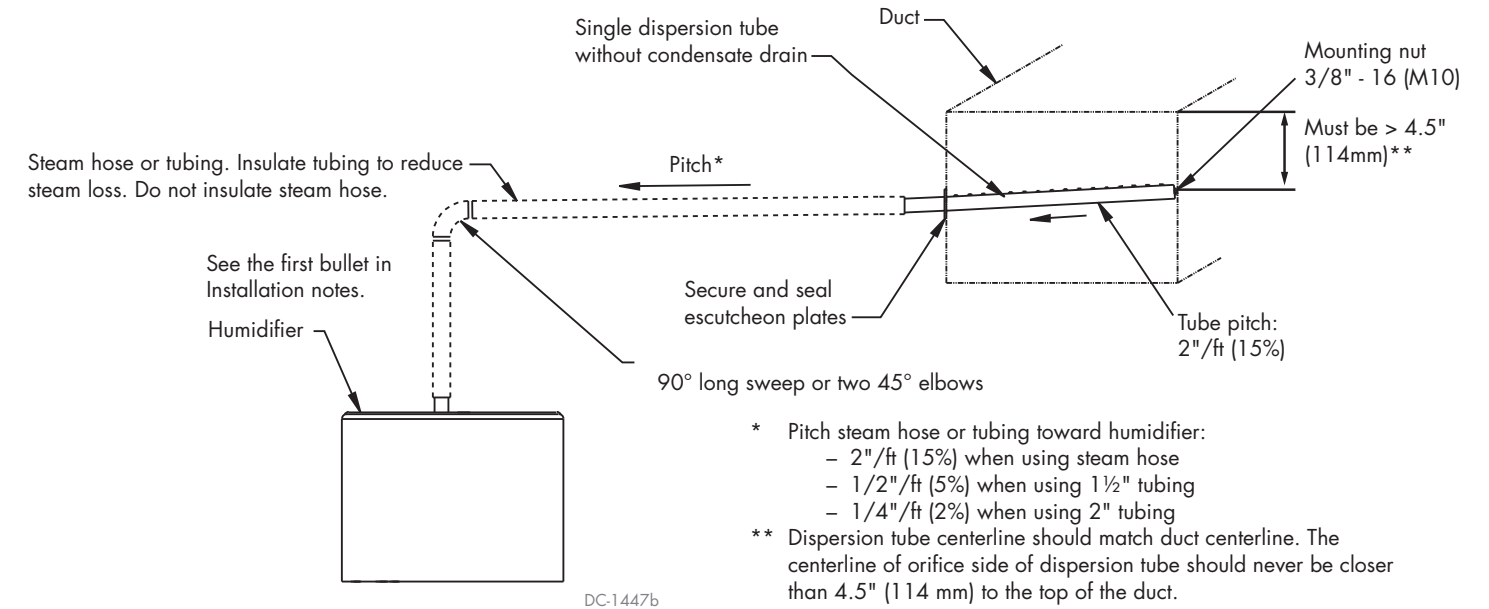
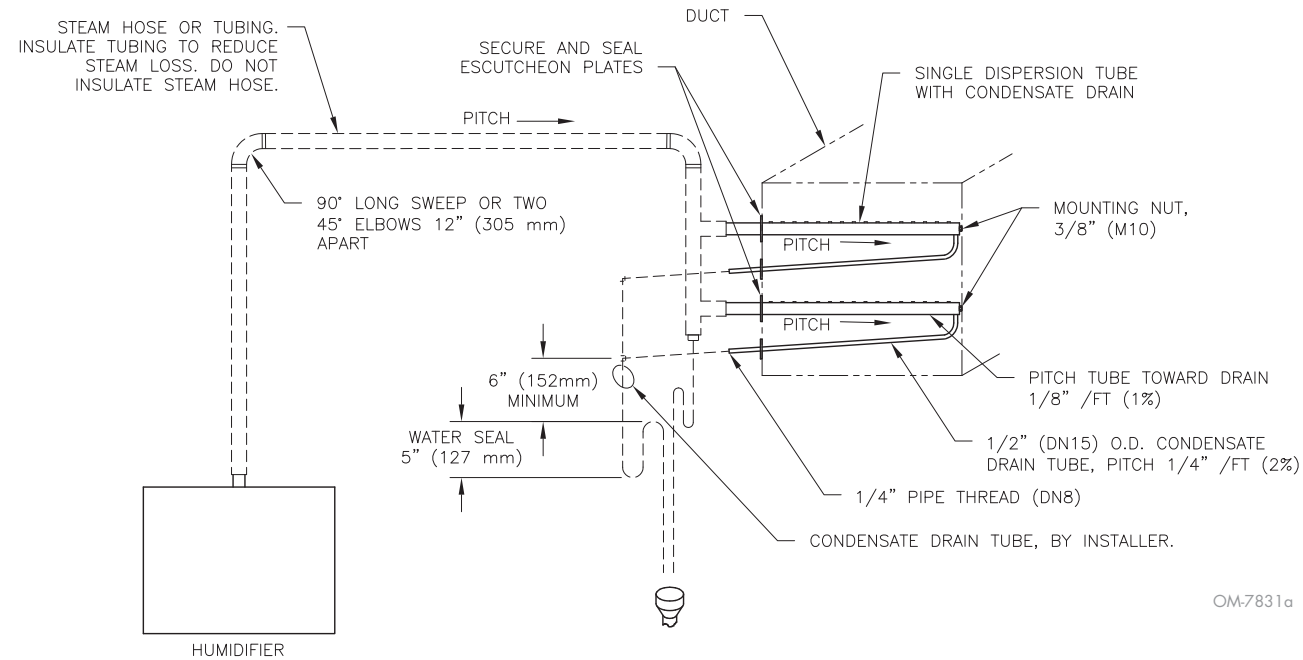


FIGURE 4-2: SINGLE DISPERSION TUBES WITH CONDENSATE DRAIN



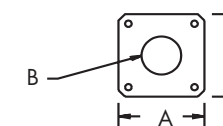
Dashed lines indicate provided by installer.

mc_062810_0720-VM

INSTALLATION NOTES

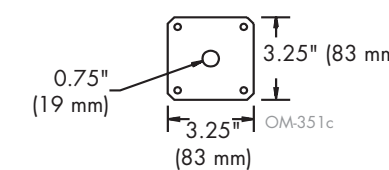
- Use a hose clamp to connect the steam outlet to steam hose. Use a hose cuff and clamps to connect the steam outlet to tubing.
 - Minimum tubing, steam hose, or piping inside diameter must match steam outlet size of humidifier.
 - Orient dispersion tube with tubelets (steam orifices) pointing up.
 - Variables such as capacity, number of fittings, elevation changes, and length of run may require the addition of drip legs to some systems. This will eliminate condensate in the steam supply piping. Contact DriSteem.
 - Maximum capacity of dispersion tube without condensate drain.
 - 1 1/2" (DN40):
 - 28 lbs/hr (12.7 kg/h) without insulation
 - 29 lbs/hr (13 kg/h) with insulation
 - 2" (DN50):
 - 62 lbs/hr (28 kg/h) without insulation
 - 65 lbs/hr (29.5 kg/h) with insulation
- Short tubes are derated. Contact DriSteem.

Dispersion tube escutcheon plate



- Dimension A:
- 1 1/2" tubes: 3.25" (82.5 mm)
 - 2" tubes: 5" (127 mm)

Condensate drain plate*



- Dimension B:
- 1 1/2" tubes: 1.51" (38 mm)
 - 2" tubes: 2.03" (52 mm)

* For dispersion tubes with condensate drain tubes

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Part No. 890000-641 Rev A

DISPERSION TUBES WITH CONDENSATE DRAINS

INSTALLATION

Note: Failure to follow the recommendations in this section can result in excessive back pressure on the humidifier. This will result in unacceptable humidification system performance such as leaking gaskets, blown water seals, erratic water level control, and spitting condensate from dispersion tubes.

DISPERSION TUBE MOUNTING

1. Orient dispersion tube(s) so the tubelets (steam orifices) point up.
2. See Table 2-1 for dispersion tube pitch requirements.
3. Maximum capacity of dispersion tube with condensate drain:

- 1½" (DN40):
 - 62 lbs/hr (28 kg/h) without insulation
 - 65 lbs/hr (29.5 kg/h) with insulation
- 2" (DN50):
 - 93 lbs/hr (42 kg/h) without insulation
 - 97 lbs/hr (44 kg/h) with insulation

Short tubes are derated. Contact DriSteam.

CONDENSATE DRAIN PIPING NOTES

1. Minimum diameter (ID) for draining from:
 - One or two dispersion tubes: ¾" (DN20)
 - Three or more dispersion tubes: 1" (DN25)
2. Condensate drain piping must be rated for 212 °F (100 °C) continuous operating temperature.
3. All drain lines must be installed and sized according to governing codes.

Table 2-1:
Pitch of dispersion tubes and interconnecting piping for single tube or multiple tube evaporative dispersion units

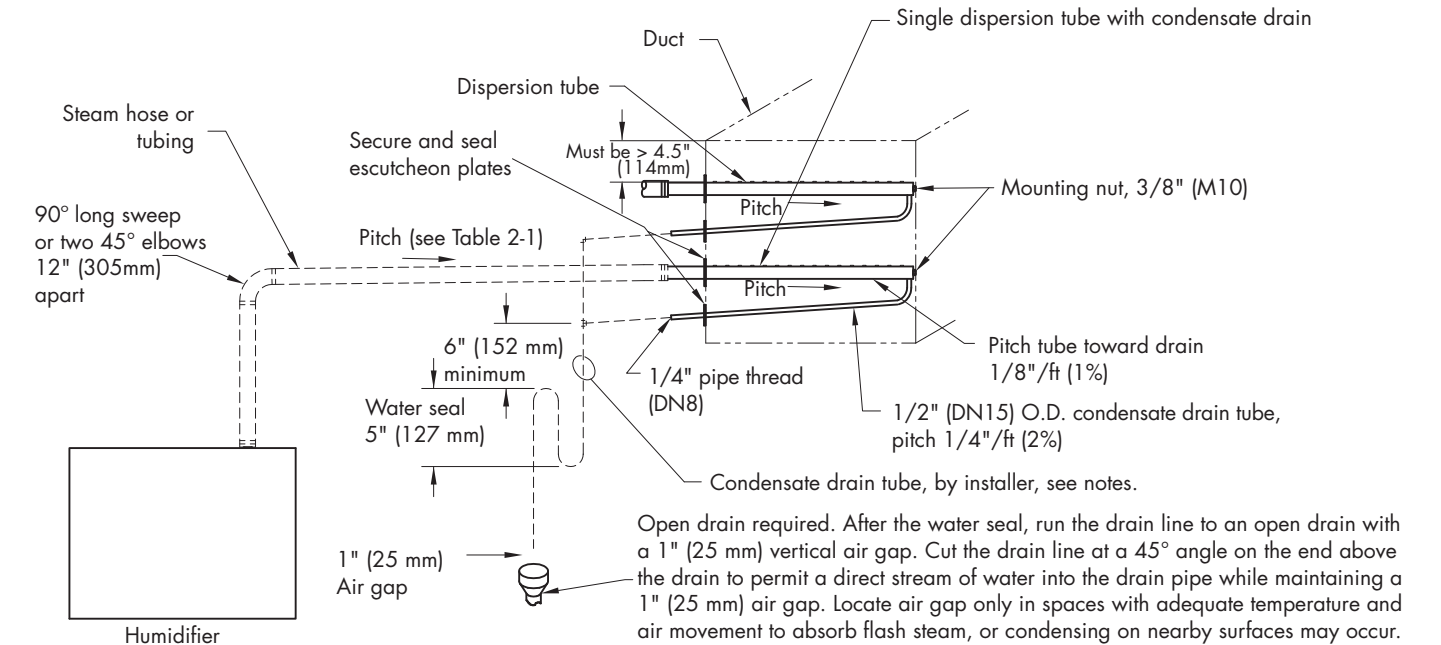
Condensate drain	Type of interconnecting piping	Diameter of dispersion tube and interconnecting piping	Pitch of interconnecting piping*	Pitch of dispersion tube(s)	Pitch of condensate drain
Without drain	Steam hose	1½" (DN40)	2"/ft (15%)	2"/ft (15%) toward humidifier	No drain
		2" (DN50)			
	Tubing	1½" (DN40)	1/8"/ft (1%)		
		2" (DN50)			
With drain	Steam hose	1½" (DN40)	2"/ft (15%)	1/8"/ft (1%) toward condensate drain	1/4"/ft (2%) toward floor drain or toward humidifier if humidifier is below dispersion unit
		2" (DN50)			
	Tubing	1½" (DN40)	1/2"/ft (5%)		
		2" (DN50)			

* Humidifiers with dispersion tubes and no drain pitch interconnecting piping to the humidifier.

Humidifiers with dispersion tubes and a drain pitch interconnecting piping to dispersion tube with drain.

DISPERSION TUBES WITH CONDENSATE DRAINS

FIGURE 3-1: CONDENSATE PIPED TO FLOOR DRAIN



CONDENSATE RETURNED TO HUMIDIFIER (APPLIES TO VAPORSTREAM®, GTS®, AND STS® HUMIDIFIERS ONLY)

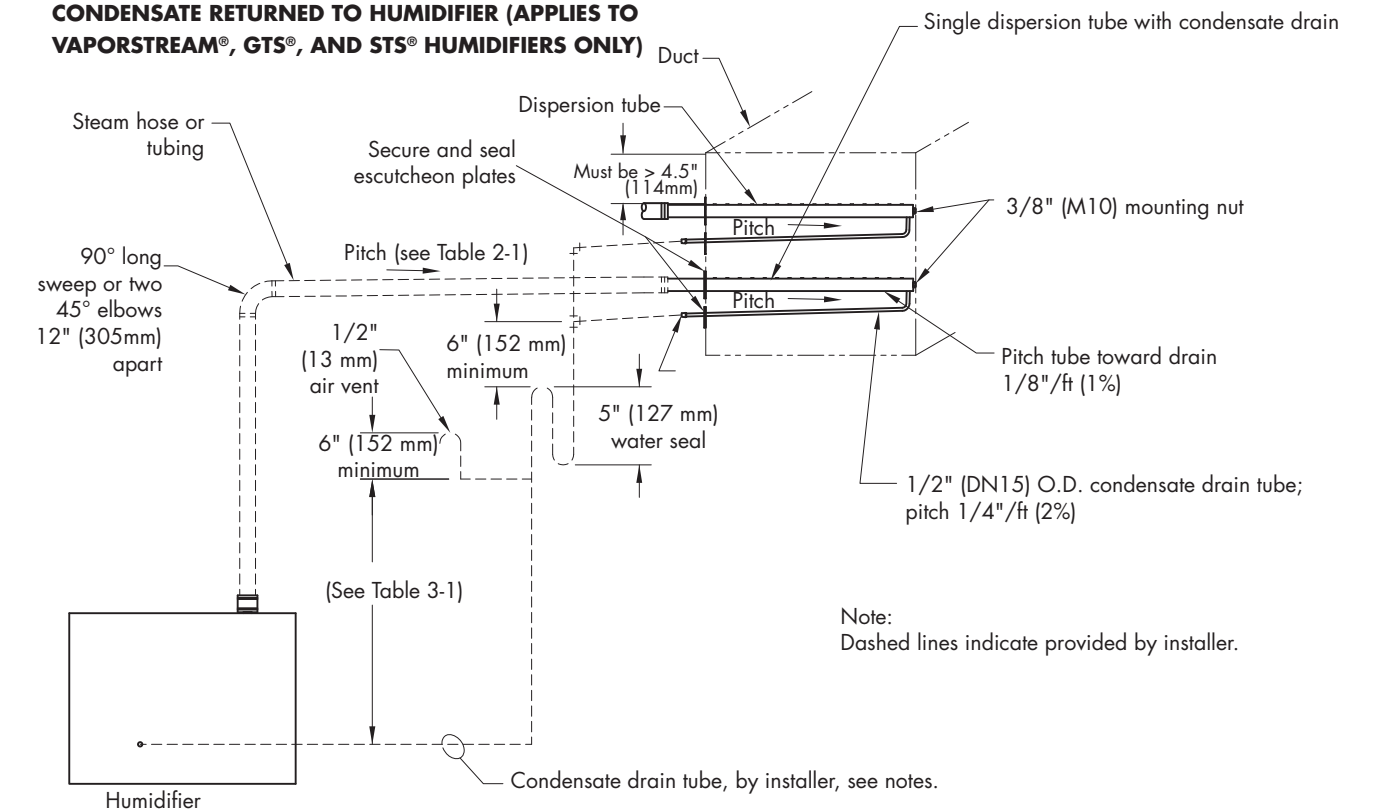


Table 3-1:
Unit output and air vent dimensions

Unit output			Air vent height minimum dimensions	
kW	lbs/hr	kg/h	inches	mm
≤ 48	≤ 138	≤ 62	22.5	577
49-64	139-183	63-83	27.5	700
>64	> 183	>83	30.5	775