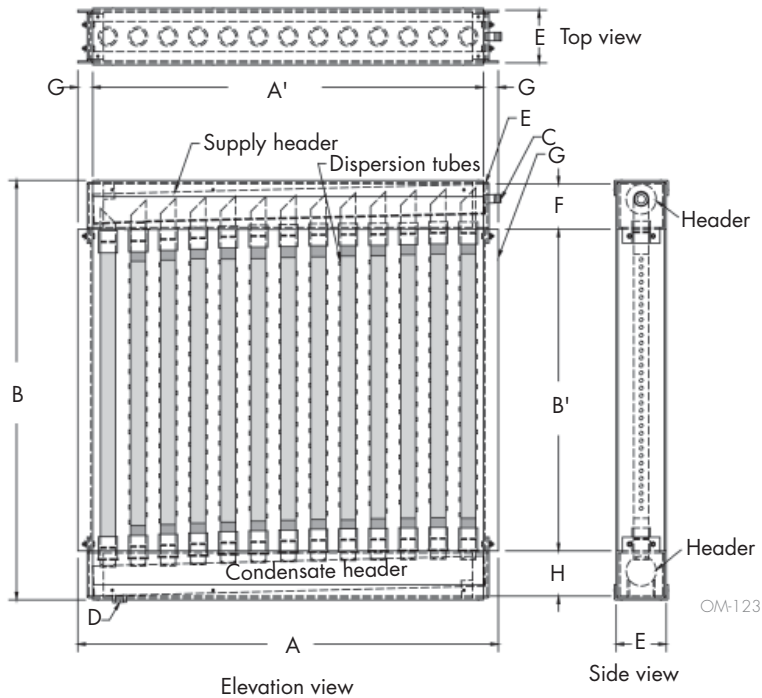


Ultra-sorb Model LV mechanical specifications

FIGURE 1-1: ULTRA-SORB MODEL LV DIMENSIONS



Ultra-sorb Model LV

- Vertical dispersion tubes
- Suitable for AHUs or ductwork
- Use when duct height is greater than duct width
- May use with pressurized or nonpressurized steam (horizontal airflow only)

**Table 1-1:
Header capacities**

Header capacity				Header diameter	
Evaporative steam		Boiler steam		inches	DN
lbs/hr	kg/h	lbs/hr	kg/h		
300	135	980	445	3	80
600	270	1750	793	4	100
1100	500	2750	1245	5	125
1850	820	4000	1815	6	150

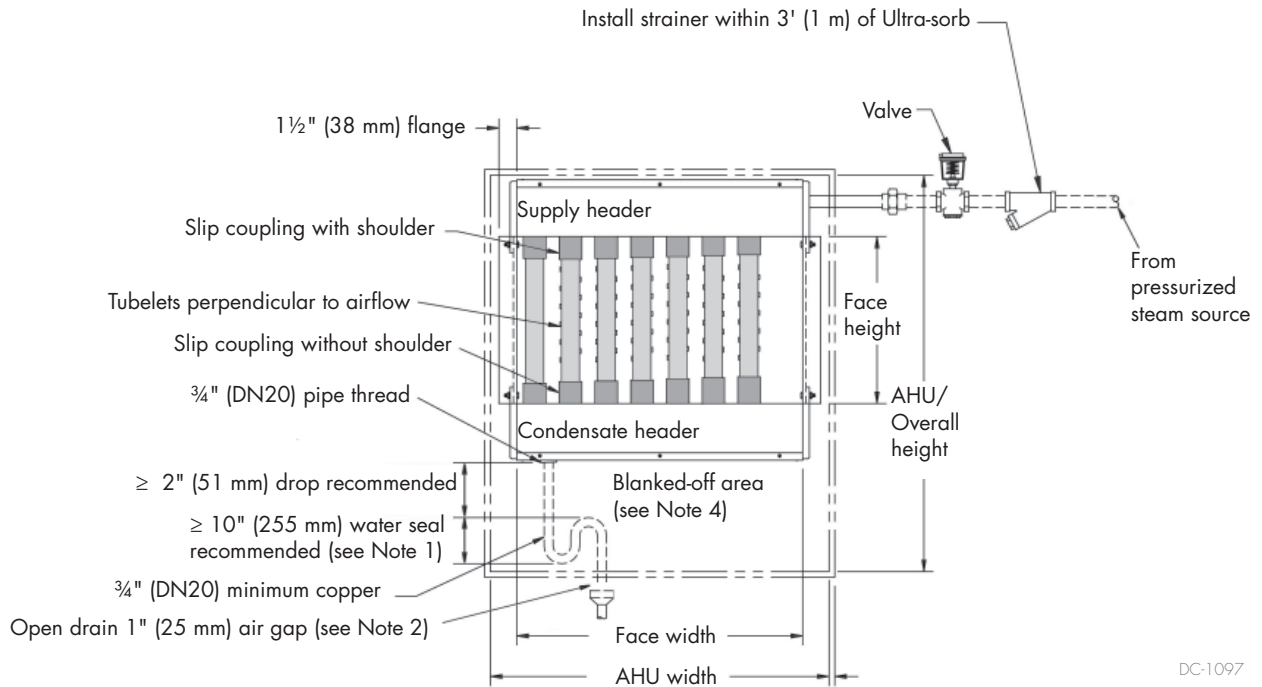
**Table 1-2:
Ultra-sorb Model LV dimensions**

A Unit width	15" (380 mm) min, 147" (3735 mm) max, in 1" (25 mm) increments
A' Face width	12" (305 mm) min, 144" (3660 mm) max, in 1" (25 mm) increments
B Unit height	21" (530 mm) min, 156" (3960 mm) max, in 1" (25 mm) increments Shipped unassembled by request or if overall height is more than 98" (2490 mm).
B Face height	12" (305 mm) min, 144" (3660 mm) max, in 1" (25 mm) increments
C Steam inlet diameter	Determined by maximum steam capacity
D Condensate drain	3/4" pipe thread (DN20)
E Header enclosure (front to back)	For 3" (DN80) and 4" (DN100) headers, E = 5" (127 mm); for 5" (DN125) header, E = 6" (152 mm); for 6" (DN150) header, E = 7" (178 mm)
F Header enclosure (top to bottom)	For 3" (DN80) header F = 4.5" (114 mm); for 4" (DN100) header, F = 5.5" (140 mm); for 5" (DN125) header, F = 6.5" (165 mm); for 6" (DN150) header F = 7.5" (191 mm)
G Mounting flange	1.5" (38 mm)
H Condensate header enclosure	4.5" (114 mm)

Note: Header dimensions are determined by capacity. See Table 1-1.

Ultra-sorb Model LV mounting

FIGURE 2-1: MOUNTING ULTRA-SORB MODEL LV IN A HORIZONTAL AIRFLOW (PRESSURIZED STEAM APPLICATION SHOWN)



Dashed lines indicate provided by installer.

Notes:

1. For pressurized steam applications we recommend installing a 10" (255 mm) minimum water seal or a float and thermostatic (F&T) trap. F&T traps are approximately 7" (180 mm) in height.
2. Locate air gap only in spaces with adequate temperature and air movement to absorb flash steam; otherwise, condensation may form on nearby surfaces. Refer to governing codes for drain pipe size and maximum discharge water temperature.
3. When mounting an Ultra-sorb in a duct, headers and flanges are mounted outside the duct. For vertical airflow, see Ultra-sorb LH.
4. 100% of the airflow must pass through the Ultra-sorb, which means that any openings surrounding it must be sealed. The blanked-off area below the Ultra-sorb provides clearance height for F&T traps, water seals, and condensate piping connections.
5. Model LV recommended when steam supply pressure is less than 2 PSI, specifically with steam generating humidifiers.
6. Due to the pressure drop across the valve, the steam pressure at the header traps is minimal, therefore you cannot lift condensate or return condensate to a pressurized return through header traps.
7. Dispersion tubes are available at : 3" (76 mm), 6" (152 mm), 9" (228 mm), 12" (305 mm) centers.
8. Ultra-sorb humidifiers will be assembled, crated, and shipped intact in all sizes up to 98" (2490 mm) tall. Ultra-sorb can be shipped unassembled, by request, requiring field assembly.
9. Standard sizes are 12" to 144" (305 mm to 3658 mm) x 12" to 144" (305 mm to 3658 mm) in 1" (25 mm) increments. Larger sizes are available.

Each Ultra-sorb humidifier is furnished with:

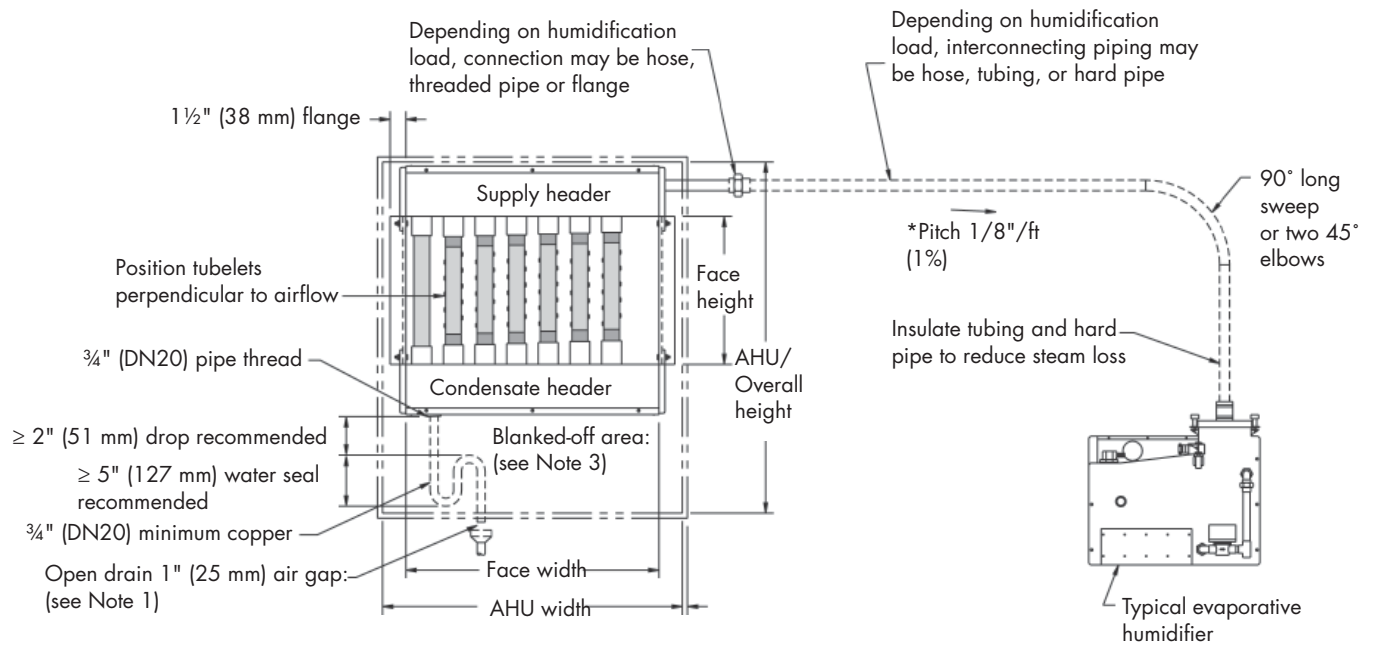
1. Type 304 stainless steel header/separator and dispersion tubes.
2. Tube adapters for connection of dispersion tubes to header (two per tube).

Each Ultra-sorb humidifier used with boiler steam is also furnished with:

1. One 3/4" NPT float and thermostatic header traps on Model LV.
2. Inlet "Y" strainer.
3. Normally closed steam valve with stainless steel parabolic plug and seat.

Ultra-sorb Model LV mounting

FIGURE 3-1: MOUNTING ULTRA-SORB MODEL LV IN A HORIZONTAL AIRFLOW (NONPRESSURIZED STEAM APPLICATION SHOWN)



DC-1098

Notes:

1. Locate air gap only in spaces with adequate temperature and air movement to absorb flash steam; otherwise, condensation may form on nearby surfaces. Refer to governing codes for drain pipe size and maximum discharge water temperature.
2. When mounting an Ultra-sorb in a duct, headers and flanges are mounted outside the duct.
3. 100% of the airflow must pass through the Ultra-sorb, which means that any openings surrounding it must be sealed. The blanked-off area below the Ultra-sorb provides clearance height for water seals and condensate piping connections.
4. Model LV recommended when steam supply pressure is less than 2 PSI, specifically with steam generating humidifiers. For vertical airflow, see Ultra-sorb LH.
5. Due to the pressure drop across the valve, the steam pressure at the header traps is minimal, therefore you cannot lift condensate or return condensate to a pressurized return through header traps.
6. Dispersion tubes are available at: 3" (76 mm), 6" (152 mm), 9" (228 mm), 12" (305 mm) centers.
7. Ultra-sorb humidifiers will be assembled, crated, and shipped intact in all sizes up to 98" (2490 mm) wide. Ultra-sorb can be shipped unassembled, by request, requiring field assembly.
8. Standard sizes are 12" to 144" (305 mm to 3658 mm) x 12" to 144" (305 mm to 3658 mm) in 1" (25 mm) increments. Larger sizes are available.

Each Ultra-sorb humidifier is furnished with:

1. Type 304 stainless steel header/separator and dispersion tubes.
2. Tube adapters for connection of dispersion tubes to header (two per tube).

* For electrode type humidifiers pitch towards Ultra-sorb.
 For non-electrode type humidifiers pitch towards humidifier.

Ultra-sorb Model LV connections and dispersion tube detail

FIGURE 4-1: ULTRA-SORB MODEL LV STEAM INLET AND CONDENSATE OUTLET POSITIONS

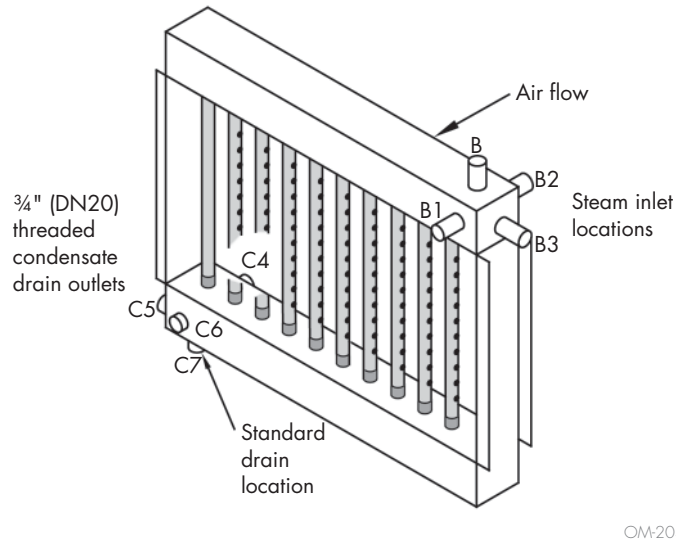


FIGURE 4-3: ULTRA-SORB MODEL LV STEAM INLET TYPES

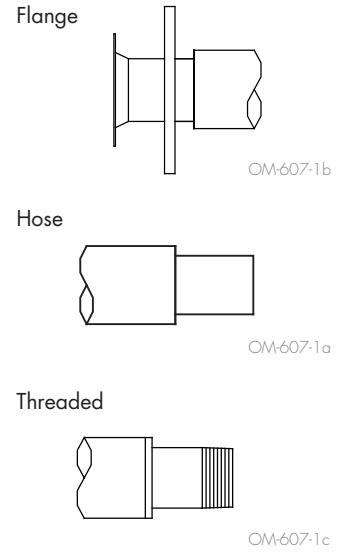


FIGURE 4-2: DISPERSION TUBE DETAIL

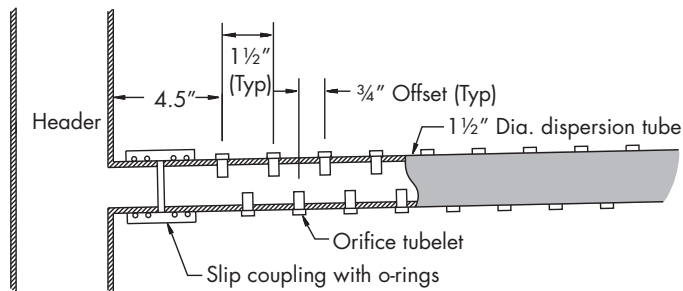


FIGURE 4-4: INSULATED TUBE DETAIL (HIGH-EFFICIENCY TUBE OPTION)

