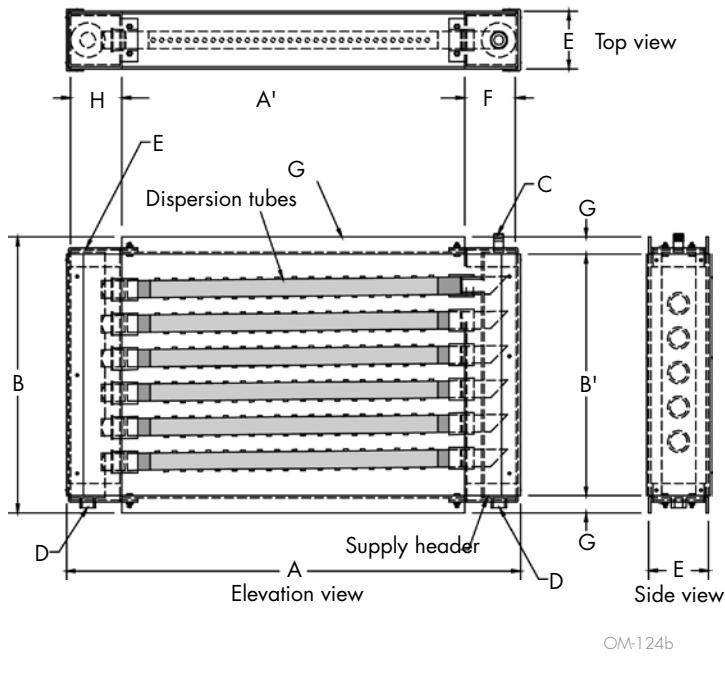


Ultra-sorb® Model LH mechanical specifications

FIGURE 1-1: ULTRA-SORB® MODEL LH DIMENSIONS



Ultra-sorb Model LH

- Horizontal dispersion tubes
- Suitable for AHUs or ductwork
- Use when duct width is greater than duct height
- May use with pressurized steam in a vertical or horizontal airflow; may use with nonpressurized steam in a vertical airflow

**Table 1-1:
Ultra-sorb Model LH capacities**

Header capacity		Header diameter	
Evaporative steam	Boiler steam	inches	DN
lbs/hr	kg/h	lbs/hr	kg/h
300	135	980	445
600	270	1750	793
1100	500	2750	1245
1850	820	3268	1482

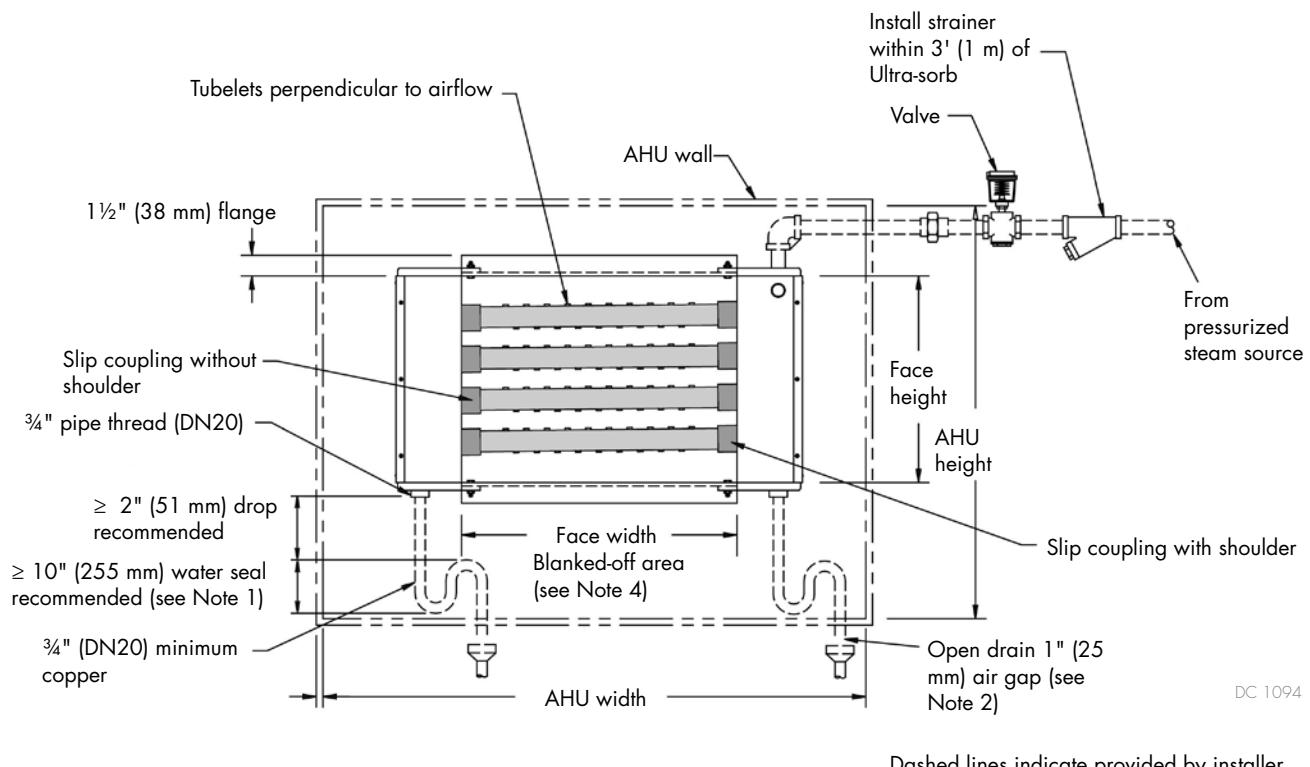
**Table 1-2:
Ultra-sorb Model LH dimensions**

A Unit width	21" (530 mm) min, 129" (3280 mm) max, in 1" (25 mm) increments
A' Face width	12" (305 mm) min, 120" (3050 mm) max, in 1" (25 mm) increments
B Unit height	15" (380 mm) min, 123" (3125 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, 120" (3050 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 LH mounting

FIGURE 2-1: MOUNTING ULTRA-SORB MODEL LH IN A HORIZONTAL AIRFLOW (PRESSURIZED STEAM APPLICATIONS ONLY)



Dashed lines indicate provided by installer.

Notes:

1. A water seal is required on each condensate line. For pressurized steam applications we recommend installing a 10" (255 mm) minimum water seal.
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.
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 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. 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 120" (305 mm to 3050 mm) x 12" to 120" (305 mm to 3050 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 trap on Model LH.
2. Inlet "Y" strainer.
3. Normally closed steam valve with stainless steel parabolic plug and seat.

Ultra-sorb Model LH connections and dispersion tube detail

FIGURE 3-1: ULTRA-SORB MODEL LH STEAM INLET AND CONDENSATE OUTLET POSITIONS

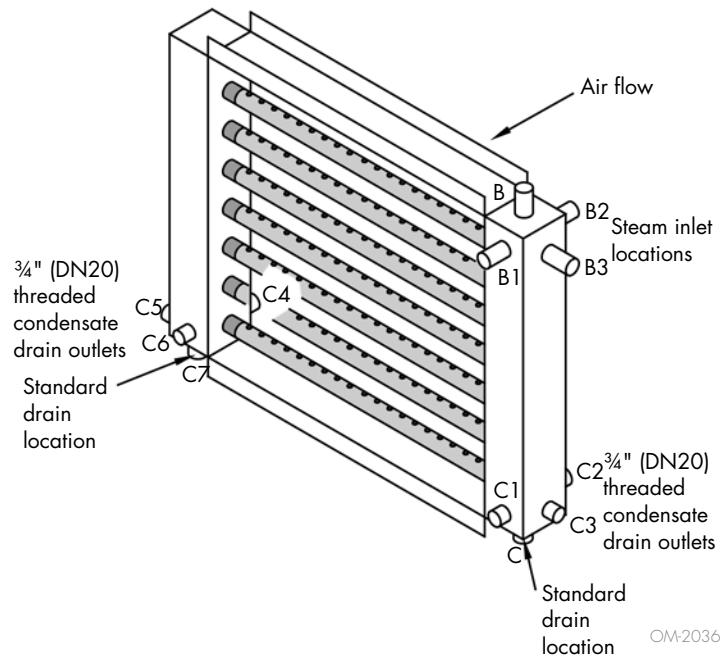


FIGURE 3-3: ULTRA-SORB MODEL LH STEAM INLET TYPES

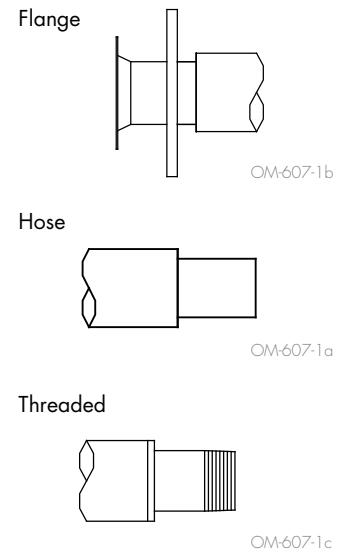


FIGURE 3-2: DISPERSION TUBE DETAIL

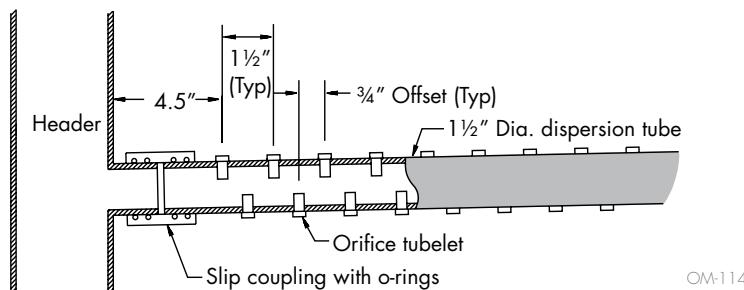


FIGURE 3-4: INSULATED TUBE DETAIL (HIGH-EFFICIENCY TUBE OPTION)

