

LMHD, LMHDT | Non-Airflow Mixing & Airflow Mixing

# LMHD, LMHDT Product Description -

#### CASING

 All dual duct unit casing panels are constructed of 22 gage galvanized steel with a 20 gage option.

## **INLET COLLARS**

 All round collars accommodate standard spiral or flex duct sizes. Unit sizes 4 - 16 have round inlet collars. The model LMHD, unit size 22, has a nominal inlet size of 16" x 24". (Hand is determined by looking at the unit in the direction of airflow with the unit in the installed position.)

## **OUTLET CONNECTIONS**

All outlet connections feature a slip and drive discharge duct connection.

## DAMPER ASSEMBLIES

- Unit sizes 4 16 utilize round volume control dampers. The model LMHD, size 22, has a rectangular opposed blade volume control damper. All damper assemblies utilize a solid 1/2" shaft that rotates in Delrin<sup>®</sup> bearings.
- Damper blades incorporate a flexible gasket for tight airflow shutoff and operate over a full 90°.
- The damper position is marked by an arrow embossment on the end of the damper shaft.

## CASING LINERS

All liners are attached to the unit casing with both adhesive and weld pins to ensure long term durability (excludes Sterilwall and Perforated Doublewall). The standard liner option is 1/2" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A.

- (Optional) 1" Thick Insulation: 1" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A.
- (Optional) Cellular Insulation: 1/2" or 1" thick, 1 1/2 lb. density, smooth surface, polyolefin, closed-cell foam insulation for fiber free application. Cellular insulation meets UL 181 and NFPA 90A and does not support mold or bacteria growth.
- (Optional) Steriliner Insulation: 13/16" thick, 4 lb. density, rigid board insulation with nylon reinforced foil covering insulation fibers that meets UL 181 and NFPA 90A. Liner shall be attached to unit casing by insulation adhesive and full-seam-length Z-strips to enclose and seal the insulation cut edges.
- (Optional) Sterilwall Insulation: 1/2" or 1" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A, enclosed between the unit casing and a non-perforated internal sheet metal cover extending over the fiberglass insulation, as well as covering the liner cut edges.
- **(Optional)** Perforated Doublewall Insulation: 1/2" or 1" thick, 1 1/2 lb. dual density fiberglass insulation, (additional options: 1/2" or 1" thick, 1 1/2 lb. density foil reinforced fiberglass insulation or 13/16" thick, 4 lb. density, rigid board insulation with fiber reinforced foil covering) that meets UL 181 and NFPA 90A, enclosed between the unit casing and a perforated internal sheet metal cover extending over the fiberglass insulation, as well as covering the liner cut edges.
- (Optional) No Liner: No internal insulation liner.

## **AIRFLOW SENSOR**

- All units are equipped with two factory installed airflow sensing devices.
- The standard sensor location for LMHD and LMHDT is in each of the hot and cold inlets.
- LMHDT offers a discharge sensor option to control the total CFM leaving the unit.
- The standard sensor is the K4 LineaCross, four quadrant, multi-point center averaging sensor.
- (Optional) Linear, multi-point, velocity averaging sensor with an amplified signal is also available.
- Balancing taps are provided to allow for easy airflow verification.
- Both the K4 LineaCross and linear sensors use the same flow constant.

#### CONTROLS

• Pneumatic, analog, or factory mounted direct digital control types are available. A "no control" unit option is also available for field mounting of direct digital controls.

## CONTROL TRANSFORMER

• An optional control transformer is factory mounted and wired inside the control enclosure.

## LABELS

• Label information adhered to each unit includes model name, unit size, configuration code, airflow (CFM), balancing chart and tagging data.

## PACKAGING

• Units are palletized. Each pallet of units is banded and stretch wrapped with cellophane.

# LMHD, LMHDT Damper Leakage

#### LMHD, LMHDT, DAMPER LEAKAGE DETAIL

	Damper Leakage		
Inlet Size	1.5" WG	3.0" WG	6.0" WG
	CFM	CFM	CFM
4	4	5	7
5	4	5	7
6	4	5	7
7	4	5	7
8	4	5	7
9	4	5	7
10	4	5	7
12	4	5	7
14	4	6	8
16	5	7	9

NOTES: Damper leakage is measured with the damper fully closed using an actuator. A precision low flow orifice is used upstream of the unit to measure the leakage rate as a function of the measured upstream static pressure. Casing leakage is determined with the damper fully open and the discharge of the unit sealed. A precision low flow orifice is used upstream of the unit to measure the leakage rate as a function of the supplied static pressure. Leakage testing conducted in accordance with ASHRAE 130-2008.

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