

Standard Industrial Direct Air to Water Heat Recovery Unit

VentilationComponents.com's
direct air to water heat recovery
units are durable and cost effective.



Application

- Direct air to water heat recovery and wet scrubbing of process exhaust
- Built to service airflows up to 200,000cfm and 800°F at the inlet

Features

- Flanged inlet and outlet connections
- Eliminator blades for mist removal
- Flanged drain and high level overflow
- Removable shower heads
- Inspection ports

Benefits

- Heat recovery rate is predictable with calculable payback period
- The heated water can be used for a variety of processes, such as heating building make up air or pre heating process air
- The air is cleaned
- Compact design and modular construction
- Simple, reliable, and easy to maintain
- Heavy duty construction

Function

- Hot air enters the bottom section and flows upwards
- Shower water is uniformly distributed and falls through the upwards airflow
- The air is cooled, moisture condenses out, and particulate is encapsulated in water
- Droplets approaching the outlet are separated from the air stream with the eliminator blade section

Options

Nominal capacity

Nominal capacities up to 200,000cfm are available and are built to suit each unique application.

Flange bolt patterns

The flange bolt pattern follows our standard. Different patterns are available upon request.

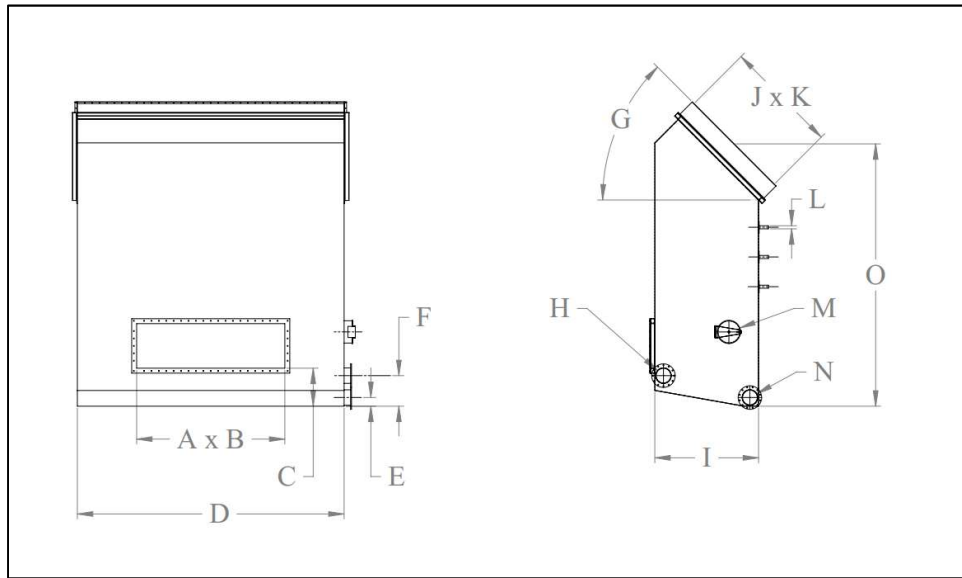
Recovered Energy

The amount of recovered energy to expect is application dependent and is provided during the ordering stage.

Materials

The materials are application dependent.

Data and dimensions

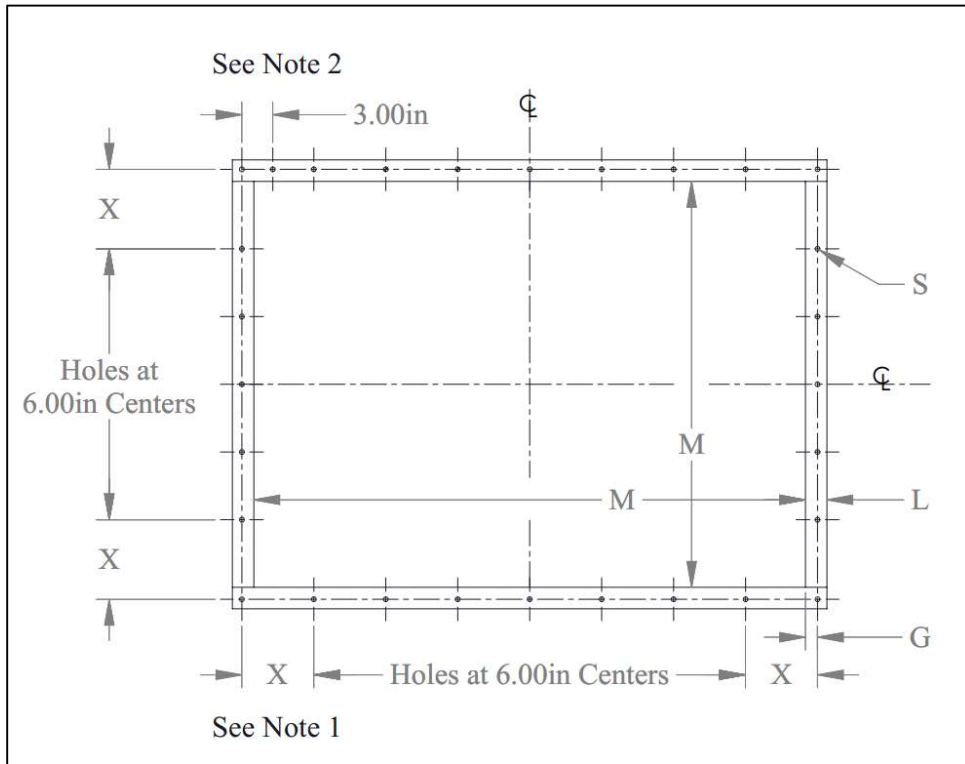


Item Number	Nominal Capacity	Air Temperature at Inlet	Mass Flow of Air at Inlet	Humidity Ratio at Inlet	Air Temperature at Outlet	Energy Recovered	"A x B" Inlet Size	"C" Inlet Height	"D" Width	"E" Drain Height	"F" Overflow height	"G" Outlet Angle	"H" Overflow Size	"I" Length	"J x K" Outlet Size	"L" Shower Water Pipe Size	"M" Access Door Size	"N" Drain Size	"O" Height	Total Number of Shower Water Pipes
	cfm	°F	lb/min	dimensionless	°F	kilowatts	inches	inches	inches	inches	inches	degrees	nominal pipe	inches	inches	nominal pipe	inches	nominal pipe	inches	quantity
HR-01-ALL	Application dependent																			

Notes

- 3D model files and general arrangement drawings with installation details available upon order.

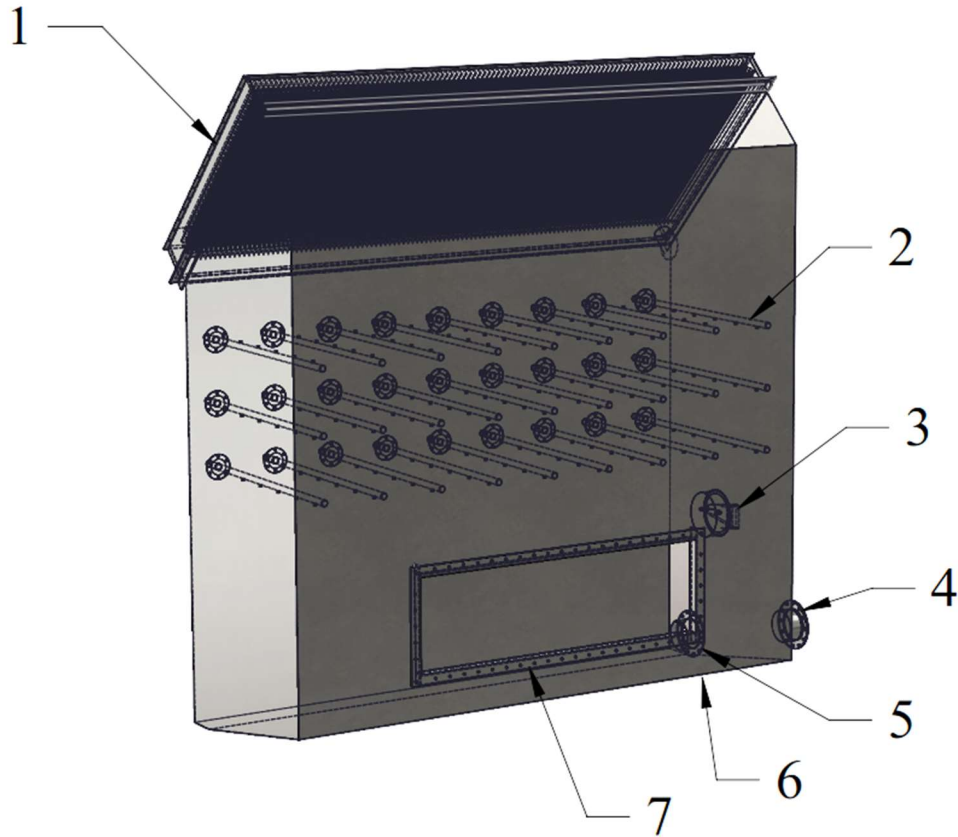
Standard rectangular flange details



"M" Largest Dimension Width or Height		"L" Flange Leg	"G" Gauge	"S" Hole Diameter	Bolt Size
M _{LOWER}	M _{UPPER}				
inches	inches	inches	inches	inches	inches
0	31.00	1.50	0.875	0.500	3/8
31.01	39.00	2.00	1.125	0.500	3/8
39.01	78.00	2.50	1.375	0.625	1/2
78.01	101.00	3.00	1.750	0.625	1/2
101.01	120.00	4.00	2.250	0.625	1/2

Notes

1. "X" is minimum 2.50in and maximum 8.50in.
2. If "X" is greater than 6.00in, add an extra hole 3.00in from corner hole.
3. Holes always land on centerlines and corners.



Parts list

Number	Quantity	Description
1	1	Outlet on eliminator blades section
2	Varies	Shower water pipe
3	Varies	Access door
4	1	Over flow drain
5	1	Drain
6	1	Sump section
7	1	Inlet

Notes

1. All hardware provided. For most sizes, the unit is delivered split for shipping purposes.

How to order

To fully specify the HR-01 Direct Air to Water Heat Recovery Unit, make a selection from the code boxes below.

Example: HR-01-C-C-C-C-C-S, shown below, is a direct air to water heat recovery unit with our standard flange bolt patterns. The customer has provided a document that details the application for the heat recovery unit to suit.

1	2	3	4	5	6	7	8
HR	01	C	C	C	C	C	S
Other Specifications							
Please provide a drawing for our approval of a direct air to water heat recovery unit that suits the application detailed in the attached document.							

1	Equipment type	
HR	Heat Recovery Unit	
2	Equipment sub-type	
01	Direct Air to Water Heat Recovery Unit	
3	Air temperature at inlet	
C	Customer Specified	
4	Mass flow of air at inlet	
C	Customer Specified	
5	Humidity ratio at inlet	
C	Customer Specified	
6	Desired outlet temperature	
C	Customer Specified	
7	Materials	
C	Customer Specified	
8	Flange bolt pattern	
S	Standard	C Customer Specified Flange Bolt Pattern

Many types of customizations are available upon request.

Note: There are various factors which should be considered when selecting a heat recovery unit for a specific application. Some of these factors are outside of the scope of this data sheet. If you have any questions regarding the application, compatibility, or use of this heat recovery unit, contact VentilationComponents.com for more information.

Contact@VentilationComponents.com