

# HRU4

## Halton Heat Recovery Unit



- The HRU recovered heat can also be used to preheat water during summer months.
- Pay back original cost of the HRU in two to five years.
- Units are available from 2,000 cfm to 20,000 cfm
- Adaptable for M.A.R.V.E.L. Demand Control Ventilation Systems.
- ETL and UL 762 Grease Exhaust Ventilator, UL 705 Power Roof Ventilator and UL 1812 Ducted Heat Recovery Ventilator Listed.

Halton's Heat Recovery Unit (HRU) is a packaged exhaust fan and make-up air unit with heat reclaim. The HRU recovers heat from exhaust air to preheat incoming make-up air. Heat from exhaust air can pre-treat's incoming make-up air eliminating the need for a dedicated make-up air unit. In the summer, waste heat can be used to preheat hot water further accelerating the payback time.

### Options & Modifications

- DHW (Domestic Hot Water) Preheat
- Supplementary Cooling DX Coil (Condenser/controls by others)
- Supplementary Glycol Heating Coil
- Supplementary Glycol Cooling Coil
- Coil Monitoring System
- Side Discharge
- Motorized Supply Inlet Damper for LEED Applications
- Rated MERV 13 Filters for LEED Applications
- M.A.R.V.E.L. Demand Control Ventilation System



## APPLICATION:

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## GENERAL

The Halton HRU shall be a Model \_\_\_\_\_, as manufactured by Halton, size 152" long, 74" wide and 50" in height, The HRU Model \_\_\_\_\_ will weigh approximately 3600 lbs, supplied complete with supply fan and motor, exhaust fan and motor, exhaust recovery coil and supply off load coil. Optional MERV 13 filters available on supply inlet for LEED applications.

## CASING

Halton HRU shall be cold rolled steel primed and painted. Exhaust travel path shall be 16ga, continuous welded, liquid tight, primed and painted. Frame will be 4" C Channel for units 4000 and 6000 and 6" C Channel on units 8,000 and 10,000 for curb mounting, primed and painted. Prefabricated roof curb shall be 14 ga. galvanized, 18" high.

## CONTROLS

All controls/relays will be pre wired and mounted in approved enclosure. Exhaust and supply fan will be interlocked and controlled by VFD's. VFD's will be controlled by PLC controllers. System On/Off is controlled by a 7 day 24V timer located remotely (supplied loose) within the building. Terminal strip connections provided for interlock with fire suppression system (by electrical or mechanical div.).

## CODE REQUIREMENTS

The Halton HRU is constructed in compliance with NFPA 96 as per ETL listing 3143655. The HRU complies with the applicable requirements of the standard for the outline of Roof Top Ventilators for Restaurants.

- **UL 762**, Power Ventilator for the Removal of Smoke and Grease-Laden Vapors
- **UL 705**, Power Ventilators
- **UL 1812**, Ducted Heat Recovery Ventilators
- **CSA C22.2**, Standard for Fans & Ventilators

## EXHAUST FAN

20" Backward Inclined  
Belt Drive  
4,000 CFM Max @ 2" ESP

## SUPPLY FAN

Centrifugal  
Belt Drive  
3,600 CFM @ 1.5" ESP

## HEAT EXCHANGER COMPONENTS

### EXHAUST AIR COIL

Velocity < 500 fpm  
Air pressure drop .44"  
8 fpi 4 Rows Deep  
50 gpm @ 4' WC

### SUPPLY AIR COIL

Velocity < 400 fpm  
Air pressure drop .42"  
8 fpi 4 Rows Deep  
50 gpm @ 4' WC

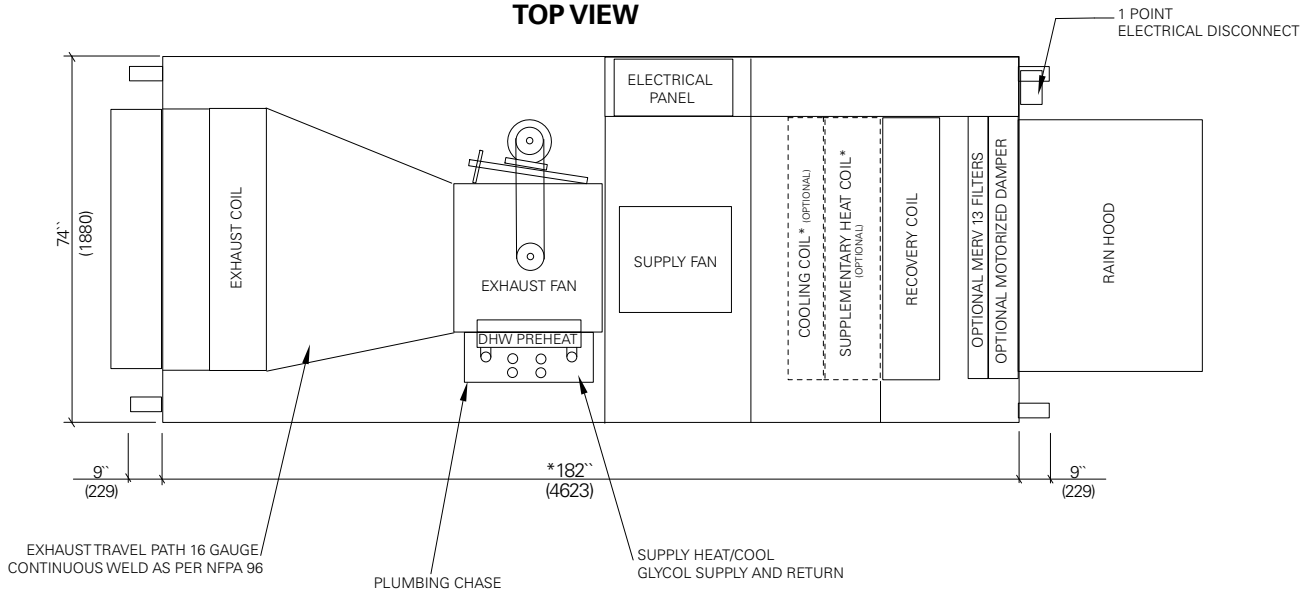
## CIRCULATING PUMP

50 gpm @ 10' WC  
Complete with air removal device, expansion tank and pressure gauge.

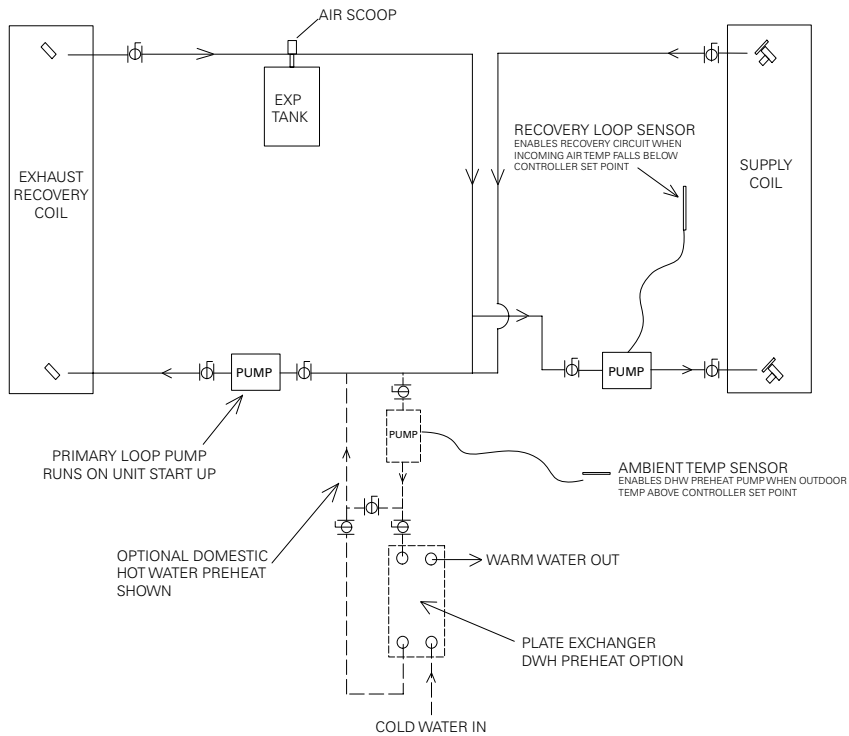
Inch  
mm

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**TOP VIEW**



**PLUMBING SCHEMATIC**  
(WITH OPTIONAL DOMESTIC HOT WATER PREHEAT SHOWN)

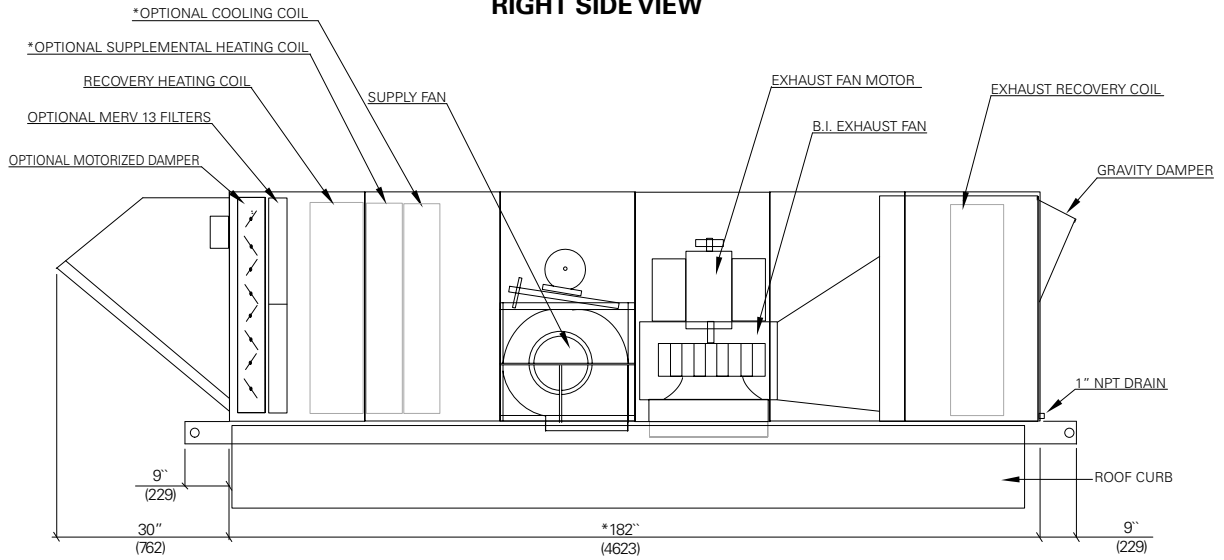


**Note:** \*If optional Heat and Cooling is not selected, deduct 30" from overall length.  
A service clearance equal to the width of the unit is required on both sides.

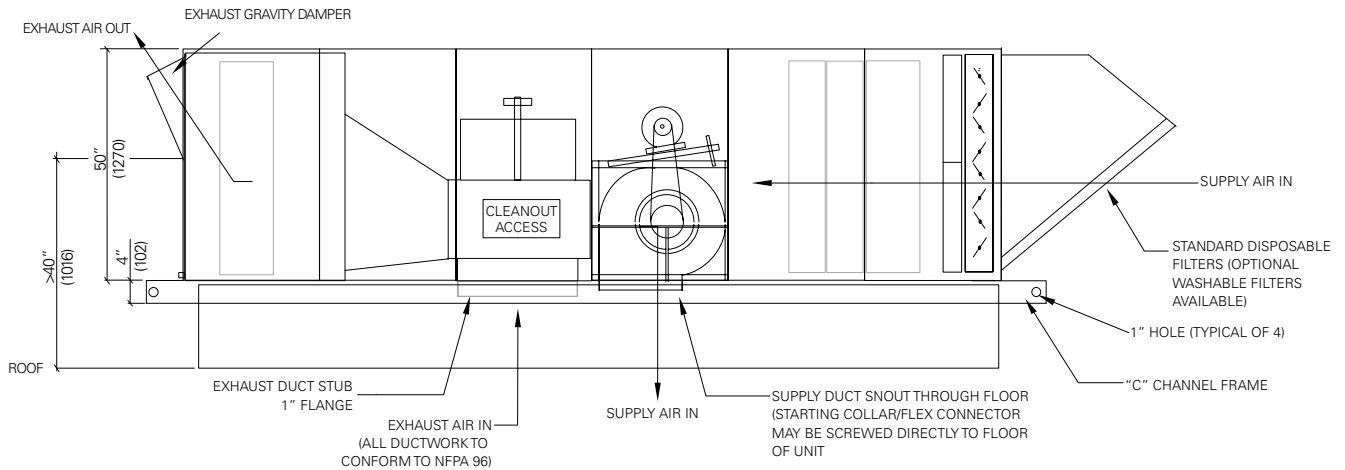
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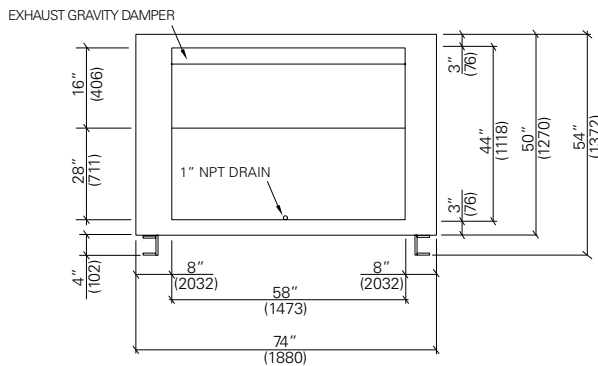
**RIGHT SIDE VIEW**



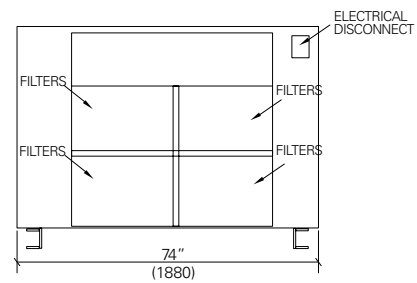
**LEFT SIDE VIEW**



**EXHAUST END VIEW**



**INLET END VIEW**



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