
Liquid Circulation Heat Exchangers

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Working Principle

Liquid circulation heat exchanger is liquid to air heat exchanger, heat exchangers installed in both fresh air side and exhaust air side, the pump between the 2 heat

exchangers make the liquid circulate then the heat in the liquid preheat or precool the fresh air. Normally the liquid is water but in order to decrease the freezing point,

moderate ethylene glycol will be added into the water according to reasonable percentage.

Features

(1) Fresh air and exhaust air heat exchanged by separated liquid pipes, zero cross contamination. Suitable for hospital, germfree lab and industries which discharge

poisonous and harmful gas.

(2) Stable and reliable operation, long service life

(3) Flexible connection between fresh air and exhaust air exchangers, easy installation which is convenient for old AHU improvement.

(4) Accessories like water pump, heat exchangers are conventional, easy and low maintenance costs.

(5) Wide range of application, various connection ways like one to one, one to many or many to many.

Specifications

(1) Liquid circulation heat exchanger is sensible heat exchanger, efficiency is between 55% to 60%.

(2) Suggested rows are 6 or 8, face velocity not over 2.8m/s

(3) The choice of circulating pump can refer to the fresh air and exhaust air pressure drop and the

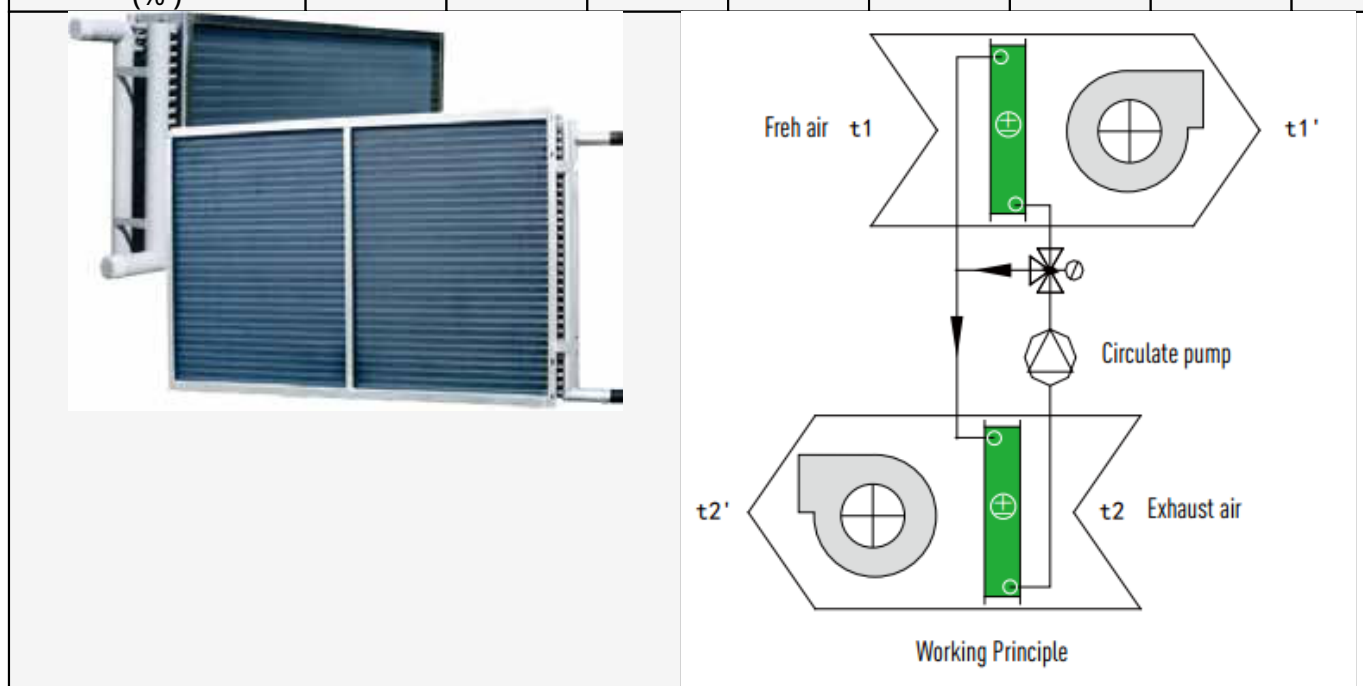
waterflow pressure drop.

(4) Air flow direction has significant effect on the heat recovery efficiency, influence rate up to 20%.

(5) Freezing point of the hybrid ethylene glycol and water should be 4 to 6 celsius lower than the local minimum winter outdoor temperature, percentage of hybrid can

be referred to the following table.

Freezing point	-1.4	- 1.3	-5.4	-7.8	-10.7	-14.1	-17.9	-22.3
Weight percentage (%)	5	10	15	20	25	30	35	40
Volume percentage (%)	4.4	8.9	13.6	18.1	22.9	27.7	32.6	37.5



Product link : <https://www.holtop.net/product/8.html>