

Run Around Heat Recovery Coil

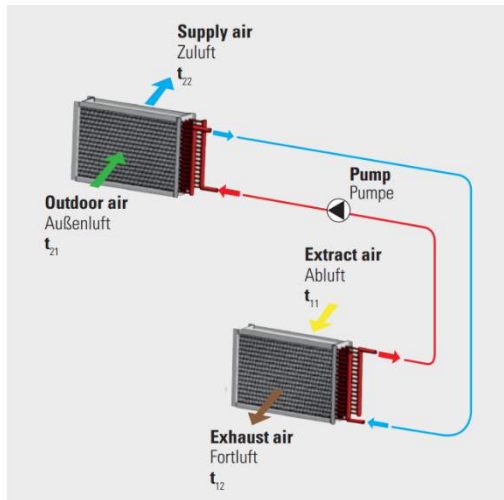


Chart 2: Simple coil energy recovery loop system
Bild 2: Einfaches Kreislauf-Verbund-System

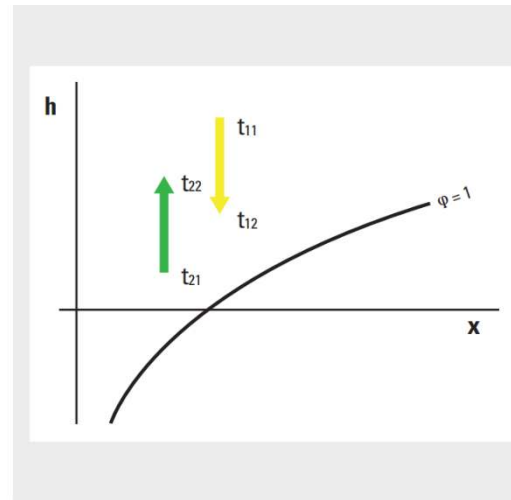
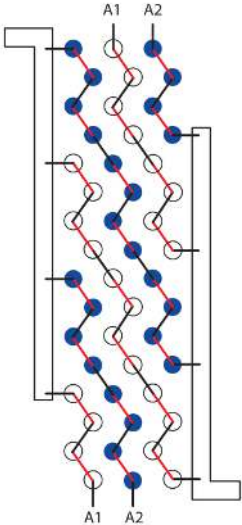


Chart 1: Sensible heat recovery
Bild 1: Trockene Wärmerückgewinnung

- The heat exchangers are made of corrosion resistant material and are cleanable. The special design with fins which are technically flat and produced out of one piece in air direction is complying with the requirements of

- DIN EN 13053:2012-02, 6.4
- DIN 1946-4:2008-12, 6.5.8.1+2
- VDI 3803-1:2010-02, 5.2.3
- VDI 6022-1:2011-07, 4.3.16
- AHU-Guideline 01:2014-08, 5.6 [3]

Run Around Heat Recovery Coil - 2



Special circuitry for high efficiency heat exchangers for energy recovery loop systems

Special Internal Software for HRC

Heat Recovery Tester

Supply Coil

General Input Parameters

Geometry: F 38x33-12 F.S. m

Tube: Copper 0.35 mm

Fin: Aluminum 0.2 mm

Fin Distance: 2.7 mm

Manifold: Manifold Copper 28 28

Manifold Sets: 1 Connection Pipes: 1

Length: 1081 mm NC 6

NT: 27 NP 4

NR: 12

Selected Supply Coil:

Summary		Coil Properties	
Capacity	29.6 kW	Fluid Inlet Temperature	21.5 °C
Exchanger Surface	310.1 m²	Fluid Outlet Temperature	8.5 °C
Air Outlet Temperature Dry Bulb	18.6 °C	Fluid Side Pressure Drop	106.8 kPa
Air Outlet Relative Humidity	20.4 %	Fluid Volumetric Flow	2.12 m³/h
Air Side Pressure Drop	57.1 Pa	Fluid Mass Flow	2203 kg/h
Air Volumetric Flowrate	6137 m³/h	Fluid Velocity	0.90 m/s
Air Velocity	1.53 m/s	Price	

Exhaust Coil

General Input Parameters

Geometry: F 38x33-12 F.S. m

Tube: Copper 0.35 mm

Fin: Aluminum 0.2 mm

Fin Distance: 2.7 mm

Manifold: Manifold Copper 28 28

Manifold Sets: 1 Connection Pipes: 1

Length: 1081 mm NC 6

NT: 27 NP 4

NR: 12

Selected Exhaust Coil:

Summary		Coil Properties	
Capacity	29.8 kW	Fluid Inlet Temperature	8.5 °C
Exchanger Surface	310.1 m²	Fluid Outlet Temperature	21.6 °C
Air Outlet Temperature Dry Bulb	11.4 °C	Fluid Side Pressure Drop	107.0 kPa
Air Outlet Relative Humidity	65.8 %	Fluid Volumetric Flow	2.12 m³/h
Air Side Pressure Drop	58.8 Pa	Fluid Mass Flow	2203 kg/h
Air Volumetric Flowrate	6608 m³/h	Fluid Velocity	0.90 m/s
Air Velocity	1.65 m/s	Price	

Heat Recovery System

System Properties

Fluid: EthyleneGlycol

Fluid Concentration: 25 %

Provide flowrate

Mass Flowrate: 2203 kg/h

Total Fluid Pressure Drop: 300 kPa

Air Pressure Drop Per Coil: 100 Pa

Efficiency: 68 %

System Output Parameters

Efficiency	68 %
Capacity	29.6 kW
Fluid Volumetric Flowrate	2.12 m³/h
Total Fluid Pressure Drop	213.8 kPa

Calculate

Internal software for coil energy recovery loop systems