



RECUPERATOR THE HEAT EXCHANGER

PLATE HEAT EXCHANGERS | F SERIES



Applications



F SERIES

Recuperator designs and manufactures plate and rotary heat exchangers, the “core” of any heat recovery system. The high efficiency allows a drastic reduction of energy consumption and air pollution.

Incorporating heat recovery into new and retrofit projects is a duty of all of us in this environmentally aware age.

Range

- › Airflow over 100'000 m³/h
- › High efficiency, up to 80%
- › Low pressure drops; suggested ΔP 200 Pa.
- › Max differential pressure up to 2000 Pa (extra option up to 2500 Pa)
- › Max working temperature up to 90°C (no silicone) Option up to 200°C

Characteristics

- › Aluminium fins, epoxy coated fins (Gold) and hydrophilic aluminium B-BLUE.
- › Aluminium corner profiles and epoxy coated aluminium corner profiles. Galvanised steel, aluminium and epoxy coated galvanised steel side plates.
- › With or without bypass and damper



High tightness between the two airflows

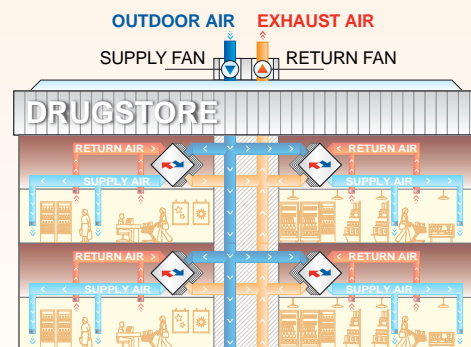


Exclusive fins geometry turbulences

(+) Free software is available.
More information on
www.recuperator.eu

FULL
ERP2018
COMPLIANT

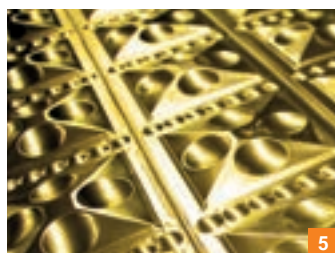
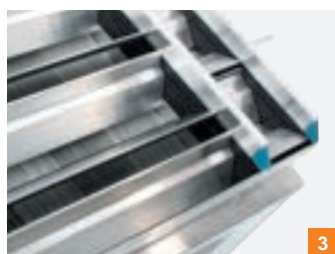
Example: Drugstore



The air quality in a building is one of the main factors for internal comfort. The air must be continuously changed to maintain safe conditions. This process wastes energy, which can be recovered by installing a plate heat exchanger. Let's examine a drugstore with an area of 1235 m², and an average density of 310 people. To change the air, 10,000 m³/h of fresh air, is needed. The example shows a system with our air to air plate heat exchanger:

- › **Model**
FI AL 12 N 1400 U 1 AF SC
- › **Thermal efficiency 74.9%**
(ERP Directive)
- › **Total year saving:**
Euro 2.390,00

PAY-BACK OF THE INVESTMENT: ABOUT 10 MONTHS



Bypass options

- › Only bypass section (1)
- › Lateral bypass (3)
- › Central bypass (2)
- › Aluminium damper and painted damper
- › Damper NO plastic parts
- › Damper with external command (3)
- › Damper with internal command (2)
- › Recirculating damper
- › Wide range about the shaft positions of the damper
- › Different shaft external length
- › Shaft shape square or round
- › Shaft side or diameter 12 mm or 16 mm

Materials characteristics

Aluminium (4)

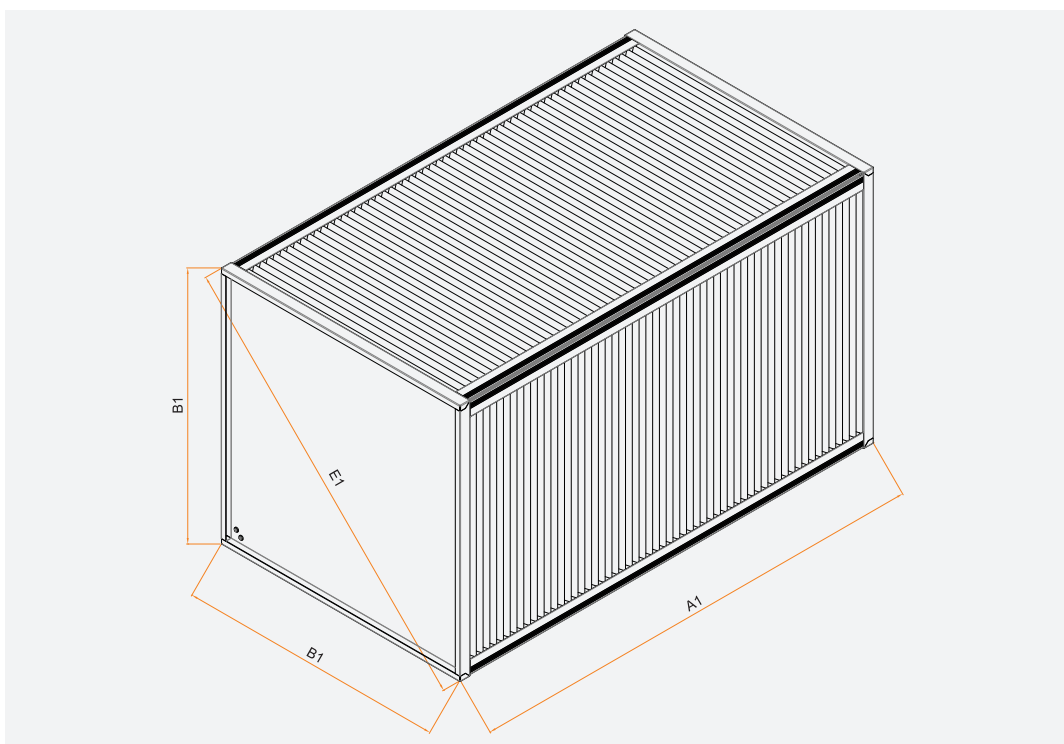
Aluminium is used in most of the applications. This is thanks to its characteristics regarding corrosion resistance, ease of processing, non-flammability and reliability over the time.





Aluminium with epoxy protection (Gold) (5)

In environments with aggressive atmosphere, usually is recommended that aluminium is protected by a paint coating non-toxic based epoxy corrosion resistant (AC version - GOLD).

B-Blue (6)

To reduce the consumption of electricity for cooling, it's possible to integrate a plate heat exchanger in an indirect evaporative cooling system. Recuperator has developed a new hydrophilic aluminium coating that improves system efficiency and ensures high corrosion resistance. For more information, consult the dedicated **B-Blue** documentation.



Type	Model	B1 x B1	E1	Max Length A1	Fins spacing
	07 - 08 - 09	705 - 805 - 905	998 - 1139 - 1280	2500	from 3 to 12
	10 - 12	1005 - 1205	1421 - 1705	2500	from 3.80 to 15
	14 - 16 - 18 20 - 24	1410 - 1610 - 1810 2010 - 2410	1994 - 2277 - 2560 2843 - 3409	2500	from 4.50 to 15
	27 - 30 - 36	2715 - 3015 - 3615	3840 - 4264 - 5112	2500	from 4.50 to 15

NB: - Measurements in mm

- The overall dimensions can be divided into more modules, in accordance with the spacings and weights.



Recuperator S.p.A. reserves the right to introduce alterations in its production and computer programs due to improvements in its quality and without prior notice.



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