

RECUPERATOR THE HEAT EXCHANGER



V 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.

	Model 850 (Model 1700 with 2x2)	Model 1200 (Model 2400 with 2x2)
Plate Dimension	850 x 850 mm / <i>33.5 x 33.5 in</i>	1200 x 1200 mm / <i>47.3 x 47.3 in</i>
Plate Material	PVC (virgin material)	
Casing Material	Galvanized steel with epoxy painted (150 μm min / 0.0059 in min)	
Plate Geometry	The geometries of the two sides (supply and extract) are different, thus the pressure drop are different. Please refer to (1) and (2). The design has been chosen to withstand to high differential pressure.	
Fin Spacing	8.8 mm / 0.346 in (average)	10.9 mm / <i>0.429 in</i> (average)
Plate Thickness	360 μm / <i>0.014 in</i>	420 μm / <i>0.016 in</i>
Performance	vf = 14m/s (196787 ft/min) DP = 50400Pa (0.201.606 in WC) η = 5046% Please refer to the picture (2) for details.	Designed to have an equivalent performance of the Model 850.
Leakage Rate	An ultrasonic welding machine welds the plates together guaranteeing the highest tightness. EN 1886 – Class L1 Max Leakage @ DPdiff 400Pa 0.15l/m2 (1.607 in WC 0.0036 US gal/ft ²)	
Temperature Range	-20 °C + 60 °C (70 °C1) / -4 °F + 140 °F (158 °F)	
Max Differential Pressure	3000 Pa² (<i>12.04 in WC</i>)	

¹ Without solicitations

² The plate has a specific direction towards the overpressure side

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196.8

51

50

Temperature Ratio [%]



787.4

885.8



Fins Package and junction (1)

Plate Geometry (2)

Resistance to fungi and bacteria (Hygienic tests) > Method A (21LA17907 - ISO 846) > Method C (21LA17907 - ISO 846) All the components, plates, casing and sealing (all the plastic parts) have been tested to guarantee the resistance to fungi and bacteria growth. The results of external laboratories show these excellent resistance behaviours.

Resistance to chemical substances (3)

4

Many tests have been carried out. For more information about a specific chemical substance, please contact the Recuperator team.

Model 850 test 22/017

Temperature ratio (4)

Pressure drop for the two air sides (5) Overpressure side: circle, under pressure: triangle.

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ISO 9001 • ISO 14001 ISO 45001	UKAS MANAGEMENT SYSTEMS 0001

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49 48 47 46 45 1.5 2 3 4.5 1 2.5 3.5 4 Frontal velocity [m/s] Frontal velocity [ft/min] 787.4 450 1.808 400 350 300

Frontal velocity [ft/min]

492.1

1.406 Pressure drop [Pa] 250 200 0.803 150 100 0.401 50 0 1.5 2 2.5 3 3.5 4 4.5 1 5 Frontal velocity [m/s]

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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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