



## Energy Recovery Box

English

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MATTEI STAND-ALONE HEAT RECOVERY SYSTEM

ERB



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### PLUG & PLAY ENERGY RECOVERY

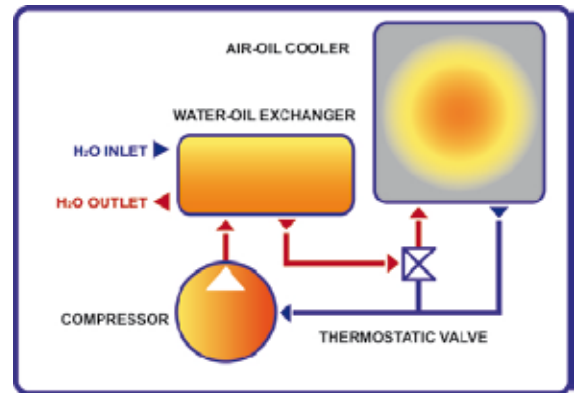
The **Energy Recovery Box** is a stand-alone system of heat and, more in general, energy recovery, which can be installed in a few minutes, on compressors that are already operative on the client's premises and by any manufacturer.

#### INSTANT PAYBACK

With a Mattei Energy Recovery Box Mattei it's easy to save more than 10.000 euros a year.

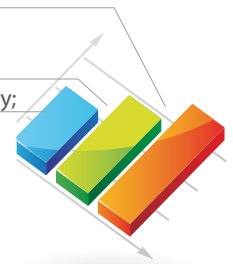
#### HOW MUCH CAN YOU SAVE BY RECOVERING HEAT?

The possibility to use the energy recovered as hot water during an entire year depends on the use you make of it. Up to 80% of the recovered heat can be used in your industrial building to produce hot sanitary water or for space heating. It is even possible to recover up to 100% of the thermal energy if there is an industrial process that requires heat.



The mechanical energy used for compression is wasted as follows:

- about 80% for oil cooling;
- about 10-12% transferred to the compressed air as heat;
- about 2-3% in compressed air as energy;
- the rest due to heat radiation.



#### EXAMPLE OF SAVING - NATURAL GAS

Recoverable power from oil	= 88 kW (80% of 110) = 75,680 Kcal/h
Equivalent saving in natural gas m <sup>3</sup>	= 9.17 m <sup>3</sup> /h (75,680 / 8,250)
Equivalent saving of natural gas in Euros/h	= € 4,60/h (9.17 x 0.50)
Yearly saving of natural gas in Euros	= € 11500 (4,60 x 2500)

Calculation of potential saving with a compressor, according to the following conditions:  
Absorbed power at the shaft = 110 kW - Yearly working hours = 2,500  
Cost of natural gas per m<sup>3</sup> = € 0.50 - Specific heat of natural gas = 8,250 Kcal/m<sup>3</sup>

**Payback on investment cost for a Mattei ERB, Energy Recovery Box: less than 1 YEAR**

	ERB 30	ERB 60	ERB 100	ERB 150
Thermal power (kW)	9.1-20.9	25.9-45.2	54.6-89.1	105.8-123.9
Motor rated power (kW)	11-22	30-45	55-90	110-132



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