



FLEXIBLE-DESIGN **ECONOMIZER**

Industrial economizers are heat recovery units designed to recover waste heat from exhaust air, flue gases and process gas streams.

Economizers can significantly improve energy efficiency and reduce operating costs by recovering waste heat and returning it to the process. Depending on the plant's needs (whether it is new or existing), this **recovered energy can be used for air pre-heating, hot water production or other thermal applications**. The units themselves can be designed for dry or condensing operation.

Consequently, the investment benefits from a faster payback period.

KEY TECHNICAL ADVANTAGES

Scalable Capacity

Designed to handle a wide range of exhaust air, flue gas and process gas flow volumes, all the while maintaining suitable gas velocity, heat transfer performance and pressure drop.

Matched Design

Selected according to temperature profile, medium composition, flow volume, pressure drop limits and operating mode, including dry or condensing applications.

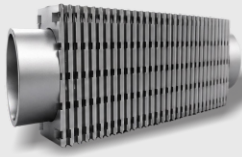
Tube & Material Options

Finned or plain tube systems, carbon steel or stainless steel versions, connection arrangements and condensate drainage can be adapted to the process.

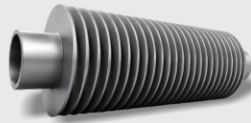
Investment Return

Recovering heat that would otherwise be wasted improves energy efficiency and reduces operating costs. Flexible and scalable configurations can minimise engineering effort, reduce lead times, and enable a faster return on investment.

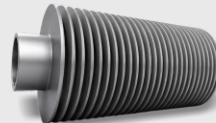
OUR TUBE TYPES, FEATURES AND BENEFITS



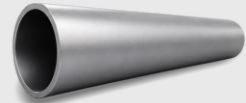
Elliptical finned tube



Round extruded tube



Round welded tube



Round plain tube

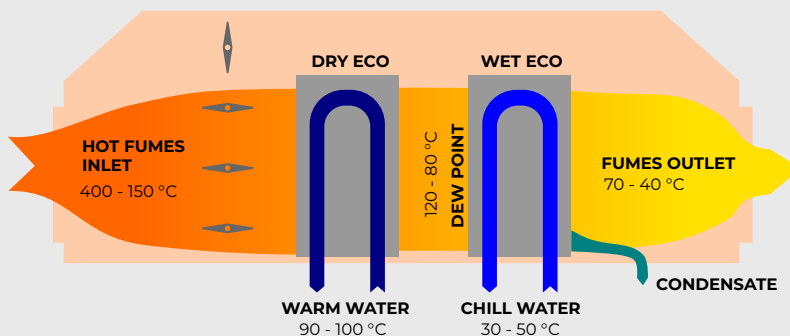
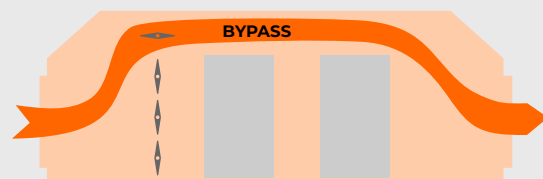
Feature	Elliptical galvanized	Elliptical brazed	Welded	Extruded	Plain
Cost efficiency	●●●	●●●●●	●	●●●●	●●
Thermal performance	●●●●	●●●●●	●●	●●●●	●●●
Pressure drop	●●●●●	●●●●●	●●●	●●●	●
Compact design	●●●●	●●●●●	●●	●●●	●
Fouling resistance	●●●●	●●●	●●	●●●	●●●●●
Cleanability & durability	●●●●	●●●	●●●●●	●●	●●●●●
Temperature range [°C]	●●	●●●	●●●●	●●●	●●●●●
	-20/220	-20/300	-190/550	-50/350	-190/750
Material range	●	●●	●●●●	●●●	●●●●●
Tube material	seamless CS	seamless CS	seamless or welded, CS, SS, high-alloys	seamless or welded, CS, SS	seamless or welded, CS, SS, high-alloys
Fin material	CS	aluminium	same as tube	aluminium	n/a

SAMPLE ECONOMIZER CONFIGURATIONS

BYPASS MODE

Louvers blocking access to the flue gas, so that heat is not transferred.

This mode is used in emergencies or when the system is not operating, for example when water circulation is switched off.



RECOVERY MODE

In operation, heat exchangers cool flue gas. High-temperature section (above dew point) can be made from lower-cost materials, while low-temperature section operating below dew point should be made from stainless steel.

