# **Cochran Economisers**

Founded more than 130 years ago and operating in over 100 countries around the world, Cochran are the internationally acknowledged experts in the provision of packaged steam, hot water generation and heat transfer systems utilising shell boiler designs, combustion and ancillary technology constructed to meet the most stringent UK, European and international standards.

### **Cochran Solutions**

Cochran offers the range and flexibility to deliver solutions that match the application; backed-up by a complete package of technical advice and design and manufacture, from the smallest system through to the planning, management and delivery of the largest turnkey projects.

The comprehensive Cochran offering extends to include servicing, spares and planned maintenance solutions, combined with in-depth technical support throughout the long operational life of a Cochran boiler and it's ancillary equipment.

### Cut fuel consumption, reduce emissions ...AND save money

The thermal efficiency of a boiler is dependent on the heat lost in the exhaust gases. Wastage is directly related to the temperature of the boiler water, since the exhaust temperature cannot be less than that of the boiler water.

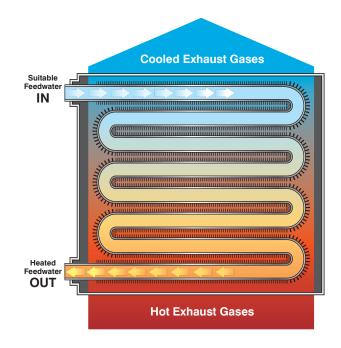
Cochran Economisers reduce the temperature of exhaust gas by transferring its heat into the feed water before it enters the boiler, thereby raising its temperature and increasing the overall nett thermal efficiency typically to as much as 95%. Improving thermal efficiency cuts fuel use, resulting in significant cost savings and reduced emissions. Infact, the capital cost of fitting a Cochran Economiser is often recovered within a pay back period of 12 months.

Cochran's Economisers can be fitted to all makes and models of oil and gas fired boilers, new or old. However, in the case of oil-fired boilers, potential fuel and efficiency savings are limited by the need to avoid acid 'dewpoint' temperature conditions within the chimney.

The Company can factory fit Economisers to every new Cochran boiler pre-despatch and can retrofit units to the full spectrum of existing boilers.

### The Benefits of Cochran Economisers

- Environmental: An economiser substantially reduces overall emissions and consumption of global resources.
- Cost Savings: Our Economiser will reduce a boiler's overall fuel consumption by more than 6%.
- Flexibility: Units can be constructed to suit the geometry of the site and can be fitted to suitable heat sources.
- Retrofit: Whilst today almost every Cochran boiler is supplied with an Economiser already in place, we design, build and retrofit units to fit every make of boiler, no matter how old it is.
- Maintenance: Our Economisers have ease of maintenance and reliability designed-in.
- Efficiency: Every Cochran economiser delivers an increase of 5% in efficiency, increasing to 6% at turndown.





## **Cochran Economisers**

## Economisers for both new and existing installations

Cochran Economisers can be supplied to fit every make and model of boiler, new or old. Each unit is supplied complete with a Safety Valve, Vent Valve, Drain Valve, Outlet Water Temperature Gauge, and an Auto-Bleed Valve.

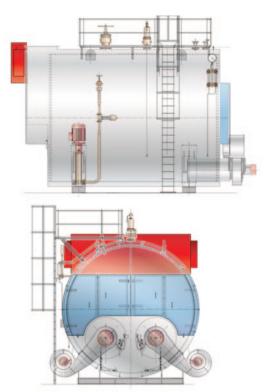
The Auto-Bleed Valve is supplied with an actuator switch, which is fitted to the boiler feed Water Regulating Valve. At low operating loads, or whenever the regulating valve approaches its closed position, the Bleed Valve automatically operates to ensure a flow of water through the Economiser at all times. This prevents overheating and 'steaming' within the unit that can result in 'vapour locking'. The outlet from the Auto-Bleed Valve is piped back to the boiler feed tank.

Whether boiler-mounted or standalone, every Cochransupplied Economiser also features aluminium cladding and external insulation to maximise efficiency. Ideally, Economiser units should be formatted to provide a vertical gas flow. However, if utilised within a horizontal gas flow, then additional vent and drain connections are fitted.

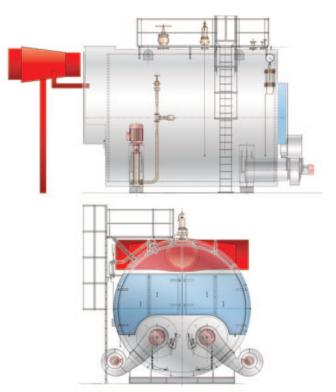


<sup>\*</sup> Based on Net Calorific Value of 34828 kJ/m³ for Natural Gas or Net Calorific Value of 35863 kJ/m³ for Distillate Oil.

### **Economiser fitted to the rear of the Boiler**



### Standalone Economiser at the rear of the Boiler



+44(0) 1461 202 111 www.cochran.co.uk

Newbie Works, Annan, Dumfries & Galloway, UK DG12 5QU.

