Fertigung von Economisern
Economizer Manufacturing









DE

Merkmale

Der Economiser gewinnt Restwärme aus Rauchgasen zurück, senkt deren Temperatur und spart Brennstoff. In Dampf-, Wärme- und Energieanlagen sitzt er im Rauchgaskanal zwischen Kessel und Schornstein.

Funktionsprinzip

Die heißen Rauchgase umströmen Glatt- oder Rippenrohre. Im Rohrinneren fließt Speise- oder Prozesswasser im Gegen- oder Gleichstrom.

Das Rauchgas kühlt ab, während das Wasser Wärme aufnimmt. Das vorgewärmte Wasser gelangt zur Dampferzeugung in den Kessel. Daraus ergeben sich:

- Geringerer Brennstoffverbrauch
- Höherer Kesselwirkungsgrad
- Geringere Betriebskosten
- Geringere Umweltbelastung

EN

Features

An economizer is a heat recovery element that reduces the flue gas temperature and recovers its residual heat to lower fuel consumption. It is widely used in steam, heat, and power generation systems and is installed in the flue gas path before the exhaust gases reach the chimney. At this stage, a portion of the heat contained in the hot flue gases is recovered.

Working Principle

When fuel is burned in the boiler, high-temperature flue gases are generated. As these gases move toward the chimney, they pass through the economizer. Inside the economizer, the gases flow over heat transfer surfaces (either finned or plain tubes). At the same time, feedwater or process water flows inside the tubes in a counterflow or parallel arrangement.

As the gases transfer their heat to the water flowing through the tubes, their temperature decreases while the water temperature increases. The preheated water is then sent into the boiler for steam generation. As a result:

- Fuel usage is reduced
- Boiler efficiency improves
- Operating costs are lowered
- Environmental impact is minimized