Some University

Economizer

City 2010

Plan:

- Introduction;
- Steam generator components;
- Economizer;
- Advantages of economizer;
- Boiler economizer;
- Construction of economizer;
- Conclusion.

Introduction

Steam generators, or boilers use heat to convert water into steam for variety of applications. Steam is widely used on thermal power plants to produce electricity.

Steam generator components

The major components in the steam generating and heat recovery system are the following:

Furnace

steam superheaters

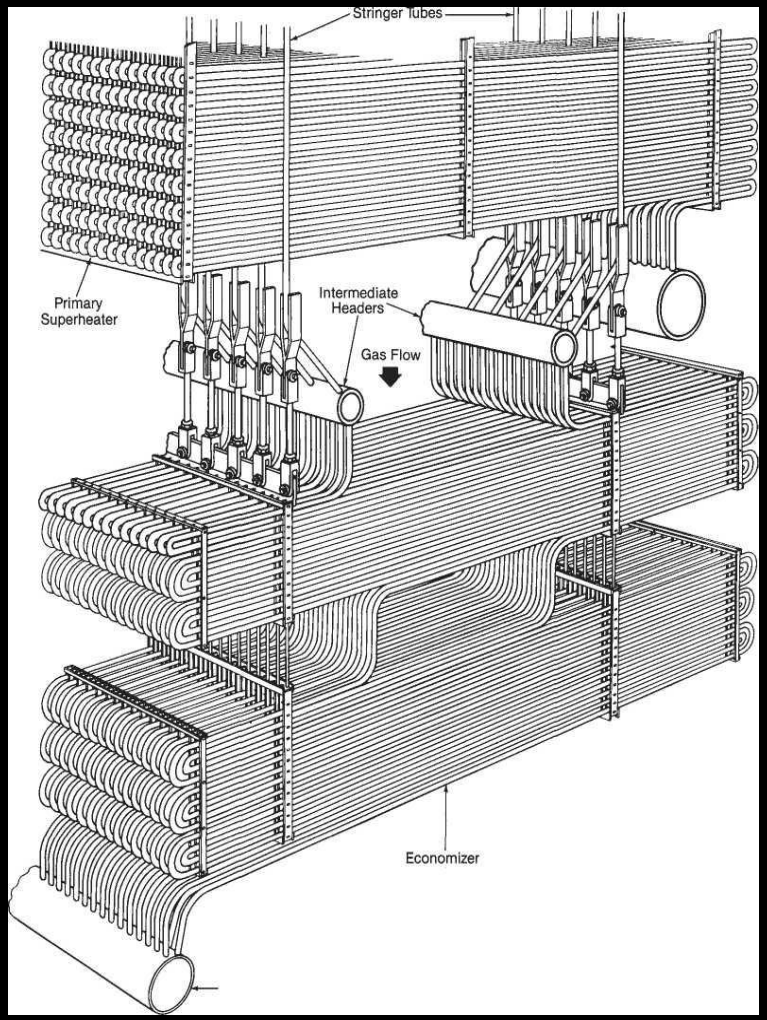
steam reheater

economizer

steam drum

air heater

Economizer

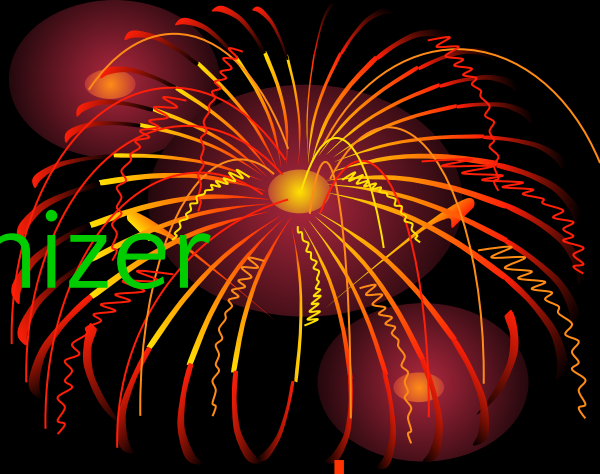


The ***economizer*** is a mechanical device intended to reduce energy consumption, or to perform another useful function like preheating fluid.

Advantages of economizer

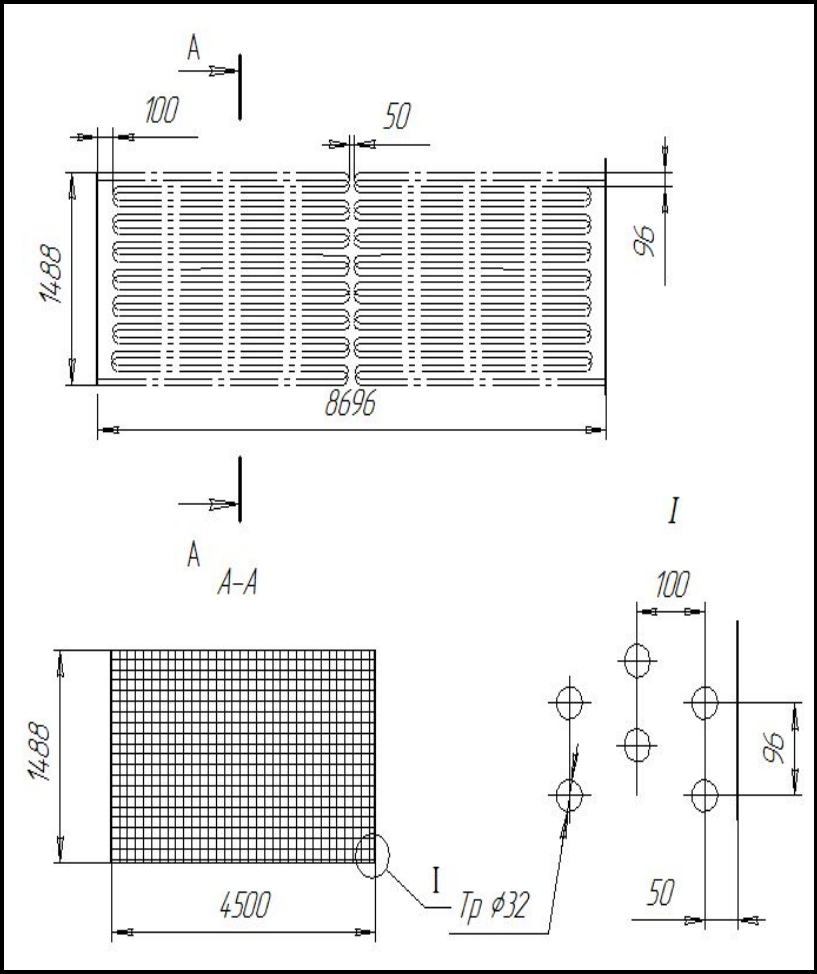
- Fuel economy;
- Longer life of the boiler;
- Increase in steaming capacity.

Boiler economizer



In boilers, economizers are heat exchange devices that heat fluids, usually water, up to but not normally beyond the boiling point of that fluid.

Construction of economizer



Boiler economizers are series of horizontal tubular elements generally made from low-carbon steel.

Conclusion

The common application of economizers in steam power plants is to capture the waste heat from boiler stack gases and transfer it to the boiler feedwater.

Thanks for your attention!