

Heating Elements



Heating Elements for Rotating Regenerative Heat Exchanger

The performance of a regenerative air preheater or gas/gas heater is primarily determined by the type of heating elements installed in the rotor matrix. The design of air preheaters requires weighting of often-conflicting demands for high heat transfer, small pressure drop, reduced fouling, and ease of cleaning. BWE has more than 40-years' experience in design and delivery of elements for regenerative heat exchangers.

Element Types

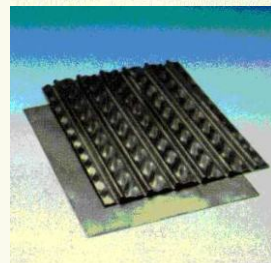
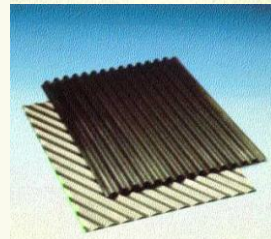
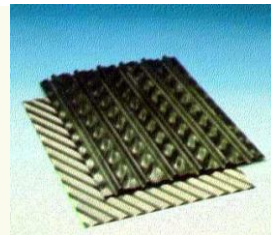
Various types of element surface profiles have been developed each with special properties for the many different types of applications and operational conditions.

The types of elements most commonly used are the following three types:

The DU-Element is a very efficient element. It has a high heat transfer coefficient and at the same time a relatively small pressure drop factor. The parallel notches makes the element very suitable for soot blowing.

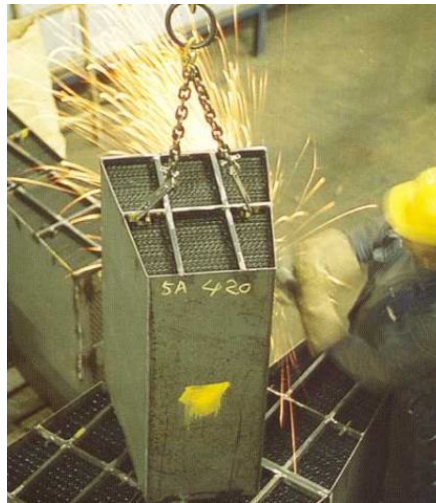
The CU-Element is a very efficient element in relation to heat transfer but it has a relatively high pressure drop factor. This means a lower air preheater but with more surface area. This element is especially suited for gas and oil fired boiler.

The UNF-Element is a special easy-to-clean element, which is used in the cold end of the air preheater and in gas-gas heaters.

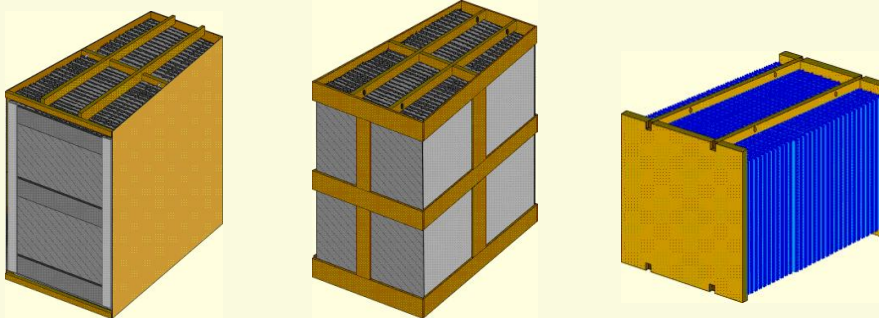


Materials

The element sheets are supplied in various materials according to the application and the environment in which they are going to work. The hot end elements are normally made of carbon steel in thickness' of 0.5 or 0.7 mm. For the cold end elements in an air preheater, the materials in question can be either Cor-tén in 1.0 mm thickness, where the outlet flue gas temperature is well above the acid dew point, or enamelled decarbonized steel plates.

**Baskets**

The element plates are packed in baskets for easy handling. The baskets can be all-wall baskets or frame baskets in mild steel or Cor-tén. For GGHs a special basket with thick end plates has been developed.

**World leader in steam power technology**

Burmeister & Wain Energy A/S has specialized in the development and design of advanced steam boiler plants for utility power stations.

Furthermore, BWE designs a wide range of auxiliary power station equipment such as the BWE Low-NOx coal/oil/N-gas burners, Air Preheaters, Gas-Gas Heaters and Flue Gas Desulphurization.

BWE is part of the Italian STF S.p.A. Group.

BURMEISTER & WAIN ENERGY A/S
Lundtoftegårdsvej 93A
DK-2800 Kgs. Lyngby, Denmark
Tel. +45 39 45 20 00
Fax. +45 39 45 20 05
E-mail: info@bwe.dk
[Http://www.bwe.dk](http://www.bwe.dk)