PRODUCTION PROGRAM

Rotary air and gas-gas heaters
Rotary air and gas-gas heaters

PBS INDUSTRY, a. s. manufactures rotary air and gas-gas heaters including heating elements and a complete assortment of spare parts. Assembly fixtures are used for manufacturing rotors and stators, which allows the complete assembly of these most important parts of the heater with diameters up to 20 m.

Rotary air heaters

Utilization of heat from flue gas is one of the ways which lead to a rational use of energy and fuel resources. The air heaters can utilize this waste heat for heating combustion air, the result of which is a fuel saving of up to 1% for each 20°C of the combustion air.

The use is especially suitable for:
- Steam boilers with output from 10 t/h to 1600 t/h, which burn liquid, gas or solid fuel
- Hot-water boilers
- Process ovens in petrochemical use
- Manufacture of bricks and ceramics
- Ferrous and non-ferrous metallurgy
- Glass plants

Benefits

Comparing to other types, the air heaters are widely used for the following reasons:
- Light compact design
- Effective sealing system
- Small built-up space
- Easy replacement of the heating elements
- Possibility of choosing lower output temperatures
- Easy installation
- Usable with most combustion equipment

PBS INDUSTRY, a. s. manufactures

1. Packed regeneration air heaters of horizontal PH, SPH or vertical PX, SPX type
2. Regenerative air heaters with a vertical shaft - type CX for installation on site

Rotary gas-gas heaters

For desulphurization of flue gas behind the boiler by the wet lime method or the regenerative method, it is necessary to heat the flue gas coming out of the absorber with a temperature of approx. 50°C to the so-called chimney temperature, i.e. approx. 90°C.

PBS INDUSTRY, a. s. manufactures

Regenerative gas-gas heaters which utilize heat from flue gas before desulphurization for heating flue gas after desulphurization. This solution considerably reduces or even completely eliminates energy consumption needed for this purpose.
Use

The materials used, the design, the cleaning device (soot blowing with pressure air and washing with high pressure water during operation) and other accessories meet all the requirements for resistance to operational conditions of desulphurization systems.

HEATING ELEMENTS

PBS INDUSTRY, a.s. manufactures heating elements used by well-known manufacturers of air and gas-gas heaters in practice in all types of equipment.

The profiling of the heating elements is made on a modern automatic manufacturing line, the only one in the territory of the former Czechoslovakia. A special cutting system allows the plates to be cut with a tolerance of max. +/- 1 mm, which guarantees the high shape accuracy of the heating elements in the baskets.

According to customer requirements we are able to provide heating elements in several versions of basket, depending on the design of the rotor and the environment.

For burning fuel with a high content of sulphur, the heating elements used for the cold side of the rotary heater are protected from low-temperature corrosion by using CORTEN material or enameled coating for extremely high resistance in environments with sulphur acid. Endurance functional tests of the enameled heating elements in real environments proved that the operating life of the enameled heating elements is at least 4 times longer than that of heating elements made of unprotected carbon steel. The enameled surface also reduces the formation of deposits. The weight of deposits on the enameled heating elements is only 15 to 40% of the weight of deposits on unprotected steel. Also the possibility of reducing the output temperature of the flue gas is important.