

HEATING ELEMENTS for ATEX

Heat exchangers, columns



DESCRIPTION:

- options : Ex d, Ex e
- control: ON/ OFF with option - smooth regulation of power using a thyristor
 - installation: vertical, horizontal
- material of the spiral: AISI316, Duplex SAF 2205, Inconel 625
 - certification: ATEX, IECEx, EAC, CSA, cCSAus, INMETRO

APPLICATION:

- food factory
- mechanical engineering
 - power engineering
 - heating
 - hydraulics

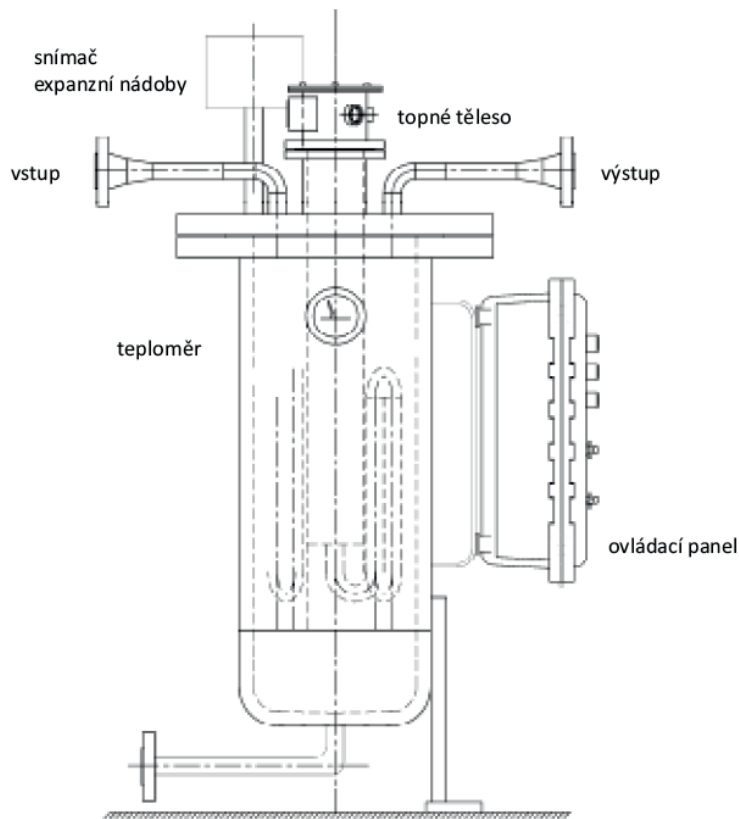
TECHNICAL PARAMETERS:

- max PM: up to 500barg
- max.temperature: up to 350°C
- ambient temperature: -60 + 70°C
 - protection: IP 66/IP 68

SPECIFICATIONS:

The double-walled electric duplicator for indirect heating, due to its compactness, high performance and a considerable degree of precision in the regulation of the operating temperature, forms a particularly interesting area of heating and rectification of liquids with the subsequent possibility of releasing the gaseous phase with high vapor tension. They can also be used in applications where, due to the heating of corrosive substances, there is a steep rise in surface temperatures and, as a result, an extreme increase in the corrosive properties of liquids, acids or alkaline substances. Materials normally resistant to corrosion can be destabilized by critical action as a result of these factors, in these cases it is advisable to use an indirect heating system in which the fluid passes through a spiral immersed in a liquid, depending on the working temperatures, it can be water, glycol or oil. It is an electric indirect type heat exchanger, with a more complex structural system than conventional el. exchanger, because it requires the use of specific fuses. systems such as level control, expansion tank and safety valve.

Diagram of an indirect electric heat exchanger



Another variant of indirect heating is a heat exchanger made of cast aluminum, where the spiral with heating elements is integrated directly into the aluminum incast - the result is a compact monolithic construction that is particularly safe because the operating fluid is not contaminated when the heater fails. With this product, the safety and control system is greatly simplified, as sensors to control the liquid level, expansion vessels, or safety valves (to protect against overpressure due to overheating of the secondary liquid) are no longer needed. The big advantage of this system is the relative lack of maintenance, on the other hand, the disadvantage is the absence of the possibility of replacing the heating system (only the temperature sensors can be changed). Greater thermal inertia compared to traditional indirect exchangers has a significant effect on accuracy temperature control, especially with variable flow rates. It is therefore suitable for processes with very constant operating parameters, such as high-pressure natural gas heating driven by rotary compressor. Compactness predestines this heat exchanger for heating anywhere where great emphasis is placed for variability and saving space, e.g. on platforms and applications where higher mobility is required.