

# ICARUS HEAT EXCHANGE GROUP

## General

We design and manufacture tailor made electrical heaters for the purpose of heating gasses and fluids. We manufacture explosion-proof air electric heaters with ATEX certified head for use in explosive environment **Eex-de, Area 1 and 2 – II2G/D ATEX**. Units are provided with the CE marking and are manufactured in full compliance with the CEI and CENELEC standards in force.

## Certification

The entire production cycle of our electric heat exchangers is subject to the strictest dimensional checks and electric tests in compliance with the standards set forth by ISO 9001:2008 certified Corporate Quality System and in full compliance with the CEI/EN requirements in force.

## Gas Heaters

The standard electric heaters for safe area applications, containing finned or smooth heating elements, are suitable for use in countless applications and industrial processes to create air/gas flows at controlled temperature. The type of design and choice of materials depends on the application. These units can be installed inside a ventilation cabinet/air handler or directly between air ducts. The so called air window can be made either *air tight* or *not air tight*. Finned heating elements or smooth tubular elements, to warrant less dirt accumulation onto the elements, can be used.

This type of electric heaters can be manufactured using a variety of materials.

Heating elements : carbon steel, stainless steel AISI-304, AISI-321, AISI- 316 and Incoloy 800

Frames : galvanized steel or stainless steel AISI-304/316

Connection boxes : up to IP66

Cable glands : standard CrNi with option stainless steel. (NPT or GAS)



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## Applications

- Air conditioning/ventilation systems (HVAC).
- Hazardous areas: oil platforms, shipbuilding industry, petrochemical industry
- Heating of products and/or fluids considered dangerous for industrial processes
- Drying ovens, packaging machines, air drying systems
- Painting systems, preheating ovens, autoclaves heating

## Process heater/continuous heater

Flanged heating bundles installed inside a pressure vessel, insulated or non-insulated, are referred to as process heaters or continuous heaters. There are used to heat up continuous flows of fluids (water, thermal oils, fuel oil), air or gasses (nitrogen, bio-gas)

The heating elements are standard fixated permanently onto the head flange (direct heating) but on request they can be made exchangeable (indirect heating). Units can be designed for both horizontal and vertical installation.

Because we use high quality raw materials our electric heating elements are able to reach a high operating temperature, still granting a considerate life span.

## Applications

- Fluids heating under forced convection (air, oil, water, fuel oil) in safe (non ATEX) environment.
- Fluids heating under forced convection (biogas, methane, process gas)
- Gas regeneration systems
- Dangerous gases recovery systems
- Oil platforms and chemical plants
- Nuclear plants and nuclear reactors cooling plants

## HEADQUARTERS

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