



# A-CORREX® Technology



**Corrosion-Resistant Heat Exchangers**

# A-CORREX<sup>®</sup> Heat Exchangers

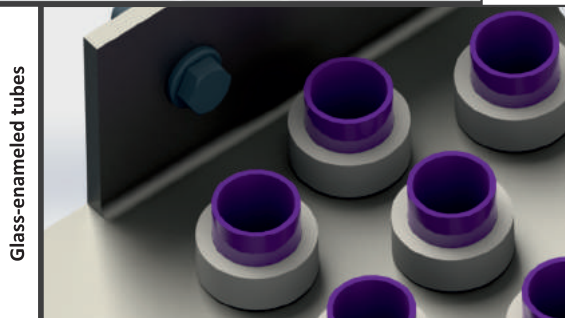
**APEX Group** is specialized in designing and manufacturing high quality heat transfer equipment.

CORPEX<sup>®</sup>, A-CORREX<sup>®</sup> and APEX-delfino<sup>®</sup> plate-type and tubular exchangers are designed to bear the most extreme requirements.

We provide innovative engineering solutions for high performing heavy-duty gas/gas and gas/liquid equipment for heat recovery and environmental projects.

## A-CORREX<sup>®</sup> - Anti-CORROSION EXchangers

**A-CORREX<sup>®</sup> Products**, designed and manufactured by APEX Group, are proprietary plate-type and tubular heat exchangers coated with borosilicate glass, for handling highly corrosive fluids. Corrosion-resistant borosilicate layers are applied on a metallic substrate (plate or tube), as a proven solution for cold-end protection. The metallic substrate imparts mechanical strength to heat transfer surfaces during operation and water/steam washing.



Glass-enameled tubes

### Main Applications & Industries:

- Combustion Air Preheaters
- Gas/Gas Reheaters
- Gas Coolers
- Heat Recovery from Incinerators
- Gas Turbine Exhaust Recovery
- DeNOx Applications
- DeSOx Applications
- Steam/Water Coils
- Glycol Coils

### Corrosion-Resistant

The glass-enameled surface is highly resistant to corrosion. It can withstand temperatures between -60 °C and 450 °C and can handle acids and alkalis.

Glass surfaces in contact with the flowing fluids are extremely smooth, effectively repelling fouling and easily cleanable with water or steam.

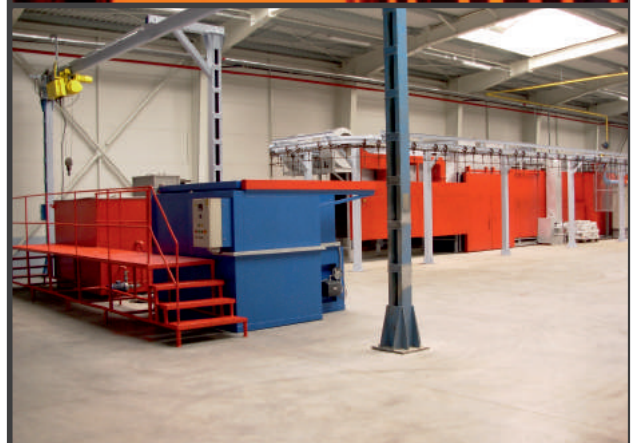
The materials used for manufacturing are environmentally and operationally friendly, being free of nocive substances.

### Thermal Shock Resistant

Our glass-enameled products are thermal shock tested and approved by third parties. They can resist temperature variations of 400 °C. Contact us for more information and references.

### APEX Group's Facilities for Enameling

The enameling furnace is the heart of APEX Group's enameling process; this process is supported by auxiliary operations such as glass-beads blasting or degreasing. The enameling furnace is placed in a separate building, which ensures low contamination risk for dust particles, supporting the high quality of the glass-enameled products.



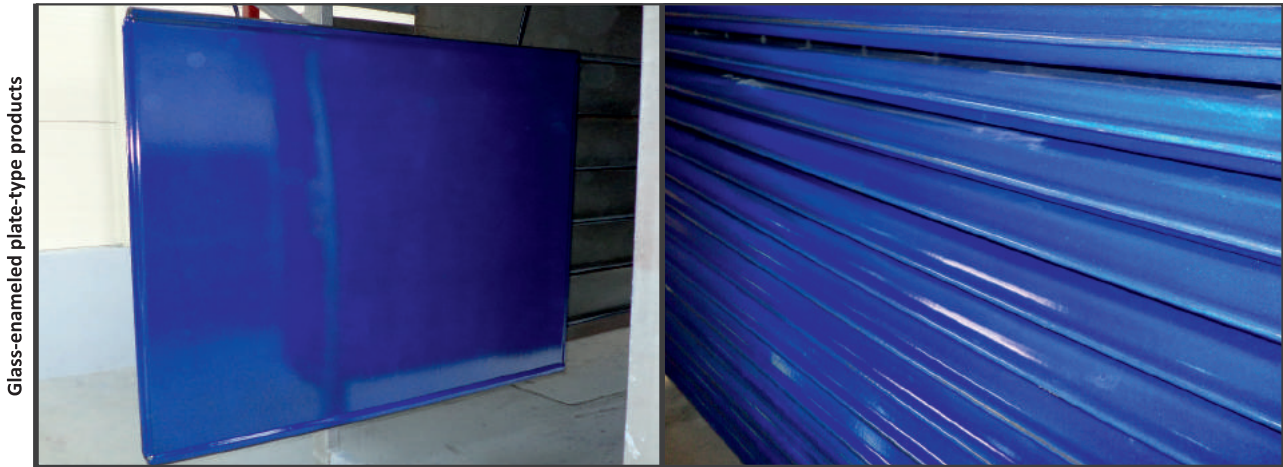
APEX Group's furnace for glass-enameled products

## A-CORREX® Glass-Enameled Plates

The exchanger is built from parallel glass-enameled plates assembled by proprietary methods. The plate-core is free to expand, which prevents cracking of the glass layer during the thermal cycles. The rigid frame consists of panels, protected by Teflon layers or glass-coating in the area in contact with the corrosive gases.

## Main Fluids Handled by A-CORREX® Products:

- Combustion air
- Fluegas from combustion of: gaseous fuels, liquid fuels, coal, wood, solid waste
- Steam, water, glycol
- Vapour, condensing or non-condensing
- Liquids, sub-cooled or boiling
- Industrial exhaust streams

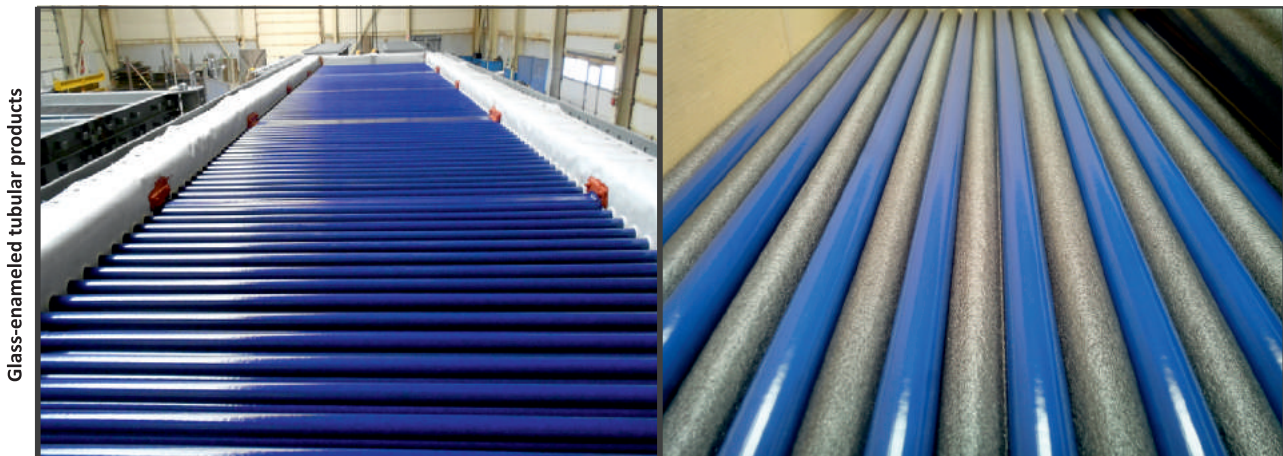


Glass-enameled plate-type products

## A-CORREX® Glass-Enameled Tubes

Glass-enameled metallic tubes offer an alternative design to glass-enameled metallic plates, characterized by the same extraordinary resistance against high differential pressure and temperature shocks during operation. The glass-enameled metallic tubes are placed in a rigid frame. A special sealing method, used for connecting the tubes into the tubesheets, helps to prevent leakage.

The tubes are easy to replace, provide a good resistance against acid corrosion and do not break; they are less fragile compared to glass tubes. The tubes can contain pressurized fluids, e.g. high-pressure steam and water.



Glass-enameled tubular products

## Advantages of A-CORREX® Technology

- acid-resistant
- corrosion-free
- nickel-free
- thermal shock resistant
- replaceable elements
- non-breakable
- easy & low maintenance
- reduced fouling
- easy cleaning



**“APEX Group is dedicated to offering engineering solutions, not just a commodity.”**

**Mircea Dinulescu, Founder of APEX Group**

**Company Profile**

APEX Group is specialized in designing and manufacturing high quality heat transfer equipment. CORPEX®, A-CORREX® & APEX-delfino® plate-type and tubular exchangers are designed to bear the most extreme requirements. We provide innovative engineering solutions for high performing heavy-duty gas/gas and gas/liquid equipment for heat recovery and environmental projects.

**Experience and Vision**

We encompass 45+ years of experience and expertise of our founder, Mr. Mircea Dinulescu, and share his vision - **to research, create and provide engineering solutions** for heat transfer industrial applications. To this day, our *Credo* remains unchanged, creating the strong foundation for APEX Group’s position in the international market:

*Started in 1990 as a small independent business, APEX GROUP will grow into a reputable designer and manufacturer of high quality low-priced industrial heat transfer and combustion equipment for the international market operating according to the quality principles laid out by international standard ISO 9001.*

*M. Dinulescu, 1991*

**Quality and Innovation**

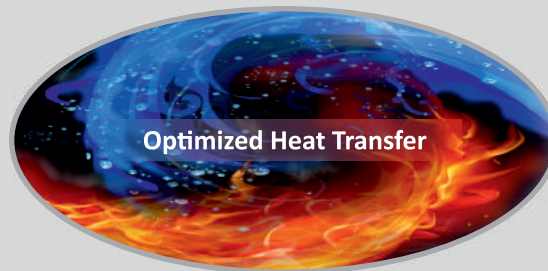
APEX Group’s strength consists of know-how, patented technology, professionalism and leading-edge engineering. Our Research and Development Department supports APEX Group’s activities by providing new solutions for continuously upgrading APEX Group’s products and guaranteeing optimal heat transfer, long lifetime, trouble-free and user friendly operation.

**Customers Worldwide**

We take pride in being a family-owned company, which allows us to build close connections with our customers and guarantees a personal approach to each project. We strive to support our customers by engaging in dialogue and developing long-term partnerships. Our company is renowned worldwide and naturally we deliver to every corner of the world.

**Broadening Horizons**

By encouraging feedback from customers, APEX Group develops solutions and products that anticipate market needs. To materialize our concepts we have expanded our Engineering, Research and Fabrication facilities. Apex engineers are continuously keeping up to date with the newest industrial developments in order to provide optimum design for our customers.



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