

Air Dryer & Economizer

SUSTAINABLE, VERSATILE AND TAILORED



DESIGN & FUNCTION

Our single tube heat exchangers are tailored for individual applications and are available in a wide range of materials. Air fin coolers, air preheater and air dryer represent the optimal solution in design of processes to operate more efficiently and to reduce operating costs.

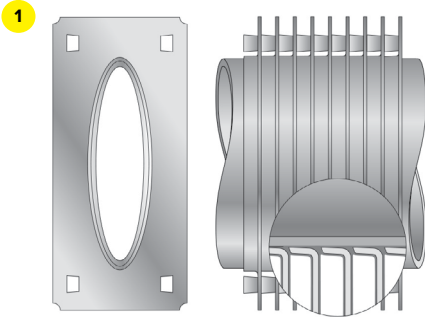
The heat exchangers are manufactured from individual elliptical or round finned tubes, or from smooth tubes, or as compact heat exchangers. Kelvion uses dedicated machines and processes to produce the various finned-tube systems: both for individual finned-tube production, as well as for compact heat exchangers. Kelvion manufactures these systems completely in its own production plants.

Economizers are heat exchangers for heat recovery by using waste heat from various industrial processes. Kelvion calorific-value Economizers provide a valuable contribution for the saving of primary energy and are used by boilermakers who provide initial equipment, by specialized companies that build new plants, as well as in the retrofitting of existing industrial facilities.

ADVANTAGES

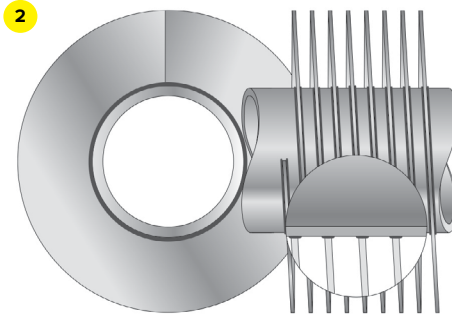
- ▶ **ECONOMIZERS: SAFE GAS BYPASS SOLUTIONS**
- ▶ **AIR DRYERS: CUSTOMIZABLE FOR YOUR PROCESS**
- ▶ **GREAT VARIETY OF TUBES AND CASINGS**
- ▶ **SOLUTIONS DEDICATED FOR CLEAN CHEMICAL AND FOOD PROCESSES**

TAILORED DESIGN



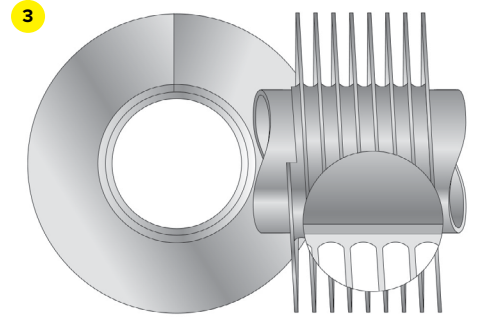
FE

- ▶ Elliptical finned tubes have a wide, stamped fin collar
- ▶ Enables excellent heat transfer and is absolutely insensitive to thermal and mechanical stress
- ▶ Maximum operating temperature: 360 °C



S-Fin

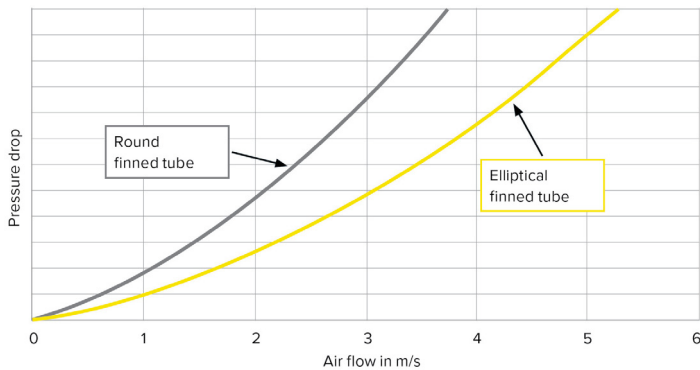
- ▶ Finned tubes made of seamless steel tubing are continuously welded with fins made of steel strip wrapped helically onto the tubes
- ▶ Maximum operating temperature: 550 °C



E-Fin

- ▶ Finned tubes are rolled out of a pure-aluminum, blank tube that is slid onto the core tube
- ▶ Suited for use with chemically aggressive media
- ▶ Maximum operating temperature: 200 °C

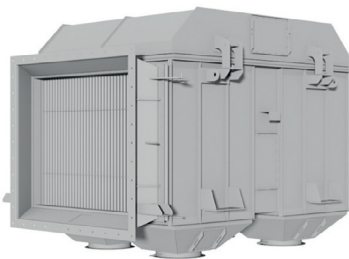
ELLIPTICAL VS. ROUND



YOUR BENEFITS

- ▶ Aerodynamically favorable core tubes
- ▶ Low pressure drop, as well as minimal fouling and contamination
- ▶ Large heat-transfer coefficients, resulting in small heat-exchange surface areas
- ▶ Quiet noise emissions
- ▶ Good corrosion protection by hot-dip galvanizing, with optimal metallic bond between core tube and fins
- ▶ Compact design, good utilization of limited floor space

EXAMPLE: 1000°C HEAT EXCHANGER



- ▶ High temperature heat recovery
- ▶ 1.4828 (AISI 309)
- ▶ Heat recovery after boiler melting aluminium scraps

