Kelvion

COMPACT FIN
HEAT EXCHANGERS

## Kelvion Charge Air Cooler

# EFFICIENCY BOOST FOR ENGINES


## DESIGN & FUNCTION

The lower the temperature of engine intake air, the better the fuel consumption which, in turn, reduces emissions.
For more than 50 years, Kelvion has led the way in developing and manufacturing charge air coolers. Specially designed for diesel and gas engines, they have a worldwide reputation for excellent performance and reliability.

Our charge air coolers are fitted in thousands of combustion engines around the globe, operating reliably on board ships, rail locomotives and mining trucks, as well as stationary installations, including power stations and cogeneration plants.

Through the use of special materials, advanced coating technology and new fin tube systems, Kelvion charge air coolers are also effective in engines that run with difficult fuels like biogas.

## ADVANTAGES

- **HIGH EFFICIENCY**
- **MINIMAL SPACE REQUIREMENTS**
- **CUSTOMIZED SOLUTIONS**
- **ROBUST DESIGN**
- **LONG LIFE CYCLE / DURABILITY**

# PRODUCT TYPES

**Insert Charge Air Cooler**

This model is used on combustion engines with an installed or integrated gas side casing. During servicing, it can be pulled out without dismounting the air duct, saving time and costs.

**Charge Air Cooler with housing**

This cooler comes with gas side casing. The cooler core is inserted into a special housing, which includes all air side connections. It is an ideal plug and play solution for engine manufacturers. Like the insert version, this cooler can be serviced without dismounting the air duct.

**Block Charge Air Cooler**

The gas side housing is formed by cooler components, such as the side wall or tube sheet. This configuration is a cost-efficient solution for small cooler units.

# OUR COMPACT FIN TUBE SYSTEM

## TUBES

- **Copper and nickel alloy: CuNi10**
  Good seawater resistance;
  Excellent heat exchange
- **Copper and nickel alloy: CuNi30**
  Excellent seawater resistance;
  Excellent heat exchange
- **Copper: Cu**
  Good resistance against tap water;
  Excellent heat exchange
- **Stainless steel 316L (1.4404):**
  Average heat exchange;
  High corrosion resistance (except sea water);
  High material strength

## FINS

- **Copper: Cu**
  Excellent heat exchange;
  Average resistance against condensation;
  Lower material strength
- **Aluminum: Al**
  Excellent heat exchange;
  Low weight
- **Stainless Steel 409L (1.4512)**
  Good to excellent corrosion resistance;
  Good heat exchange;
  High material strength
- **Stainless Steel 316L (1.4404)**
  Excellent corrosions resistance;
  Average heat exchange;
  High material strength
- **Stainless Steel 904L (1.4539)**
  Excellent corrosions resistance also against chlorides;
  Average heat exchange;
  High material strength

## APPLICATIONS

MARINE TRANSPORTATION POWER

**www.kelvion.com**