



Sugar & Bioethanol

# LEADING GLOBAL COMMODITY FOR FOOD AND FUEL



## EXPERT SOLUTIONS FOR YOUR PROJECT

Every year around 173 million tonnes of sugar are consumed worldwide, an average of 24 kilograms per capita. The top ten sugar producers, headed by Brazil, India and the EU, account for 75% of global supply.

As well as being one of the **most important commodities** in the **global food industry**, sugar is playing an increasing role as a **green alternative to fossil fuel**. The growing awareness of the effects of greenhouse gases has prompted governments to support the production of biofuels, including **ethanol from sugar**, as an **environmentally-friendly** replacement for gasoline.

At Kelvion we provide **innovative engineering solutions** for all applications in the sugar industry. Our **state-of-the-art** range of **heat exchange technology and expertise** enables customers to operate **profitably and energy efficiently**.

## OUR AREAS OF EXPERTISE



# SOLUTIONS FOR ALL APPLICATIONS IN THE SUGAR INDUSTRY

## GASKETED PLATE HEAT EXCHANGERS

- ▶ High efficiency at low operating expenses
- ▶ Greater application possibilities at lower investment costs
- ▶ Maximum economic efficiency
- ▶ Service and maintenance charges are kept low



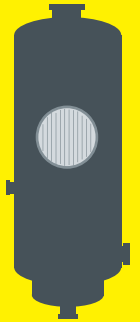
## PLATE RISING FILM EVAPORATORS

- ▶ Easy to install
- ▶ Low maintenance costs
- ▶ Stand alone effect or
- ▶ Extends existing evaporator effect



## PLATE FALLING FILM EVAPORATOR

- ▶ **EVAPplus**
- ▶ Outstanding heat transfer coefficient
- ▶ Lowest retention time
- ▶ Low flow rate of vapor



**LESS LOSS**  
of sugar



**20 YEARS**  
of experience



**REDUCED**  
energy costs

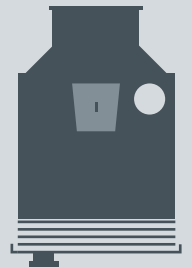
## SHELL & TUBE HEAT EXCHANGERS

- ▶ For a wide variety of applications
- ▶ Cost efficient and reliable solutions
- ▶ Standardized product lines for an optimal price/quality ratio
- ▶ Customized designs for the most demanding duties



## WET COOLING TOWERS

- ▶ Modular cooling tower system can be expanded and customized
- ▶ Standardized system allows for significant cost advantages
- ▶ Customized modifications to meet your special requirements



## TUBE FALLING FILM EVAPORATORS

- ▶ Robust technology
- ▶ Improved heat transfer coefficient



## AIR COOLED CONDENSERS

- ▶ Customized engineered design for each project
- ▶ Reliable finned tube performance
- ▶ Environment-friendly: minimized water consumption
- ▶ Long year experience and robust technology

