

# Celebrating the 80<sup>th</sup> anniversary

- A time for reflection and for celebration.

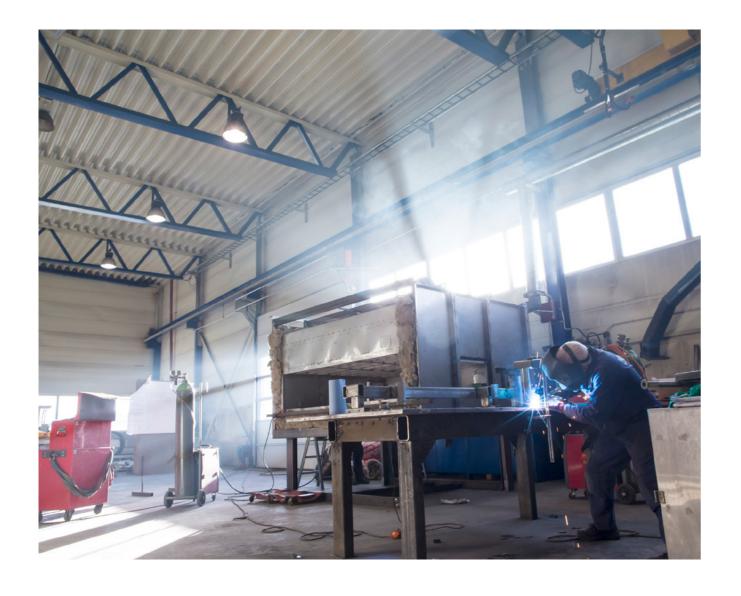
We have the trust of our customers, and we thrive on a good relationship with our business partners. The outstanding commitment of our employees are the reason that we can look back at 80 years of innovative operation. We are convinced that visions and ideas for the future are formed from our own experiences.

This attitude has developed C. H. Evensen Industriovner AS into a global focused company. By being oriented towards the future, we recognize the changing needs of the market. This enables us to anticipate and meet the future demands.

80 years of Evensen: After a brief look into the past and the present, we hope to be able to show you how we will continue.

Henrik Johan Wulff Managing Director





### About

C. H. Evensen Industriovner AS develops, designs and produces industrial furnaces and equipment for a variety of heat treatment processes.

The depth of our experience is to custom engineer heat treating equipment for demanding applications.

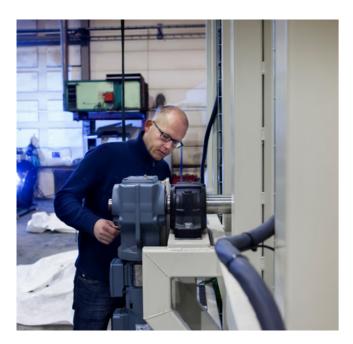
We pride ourselves in providing innovative, state-of-the-art equipment that helps our customers improve their bottom line and gain a competitive edge.

Innovation is essential for our company. We are continuously improving and optimizing our technology, building "custom made" heat treating equipment through systematic innovation.

Offering only the best in customer service has earned C. H. Evensen Industriovner AS a recognized and enviable reputation. A team of skilled and committed engineers are available around the clock, 365 days a year to offer service and support to customers around the globe.

CHE has subsidiary companies, UAB Termoskalé in Lithuania and Evensen Furnaces AB in Sweden. The CHE production sites are in Fredrikstad, Norway and Utena, Lithuania.

Today we have more than 4000 installations in more than 45 countries worldwide.

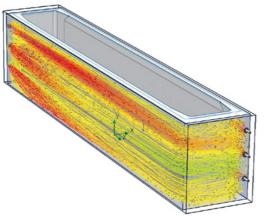






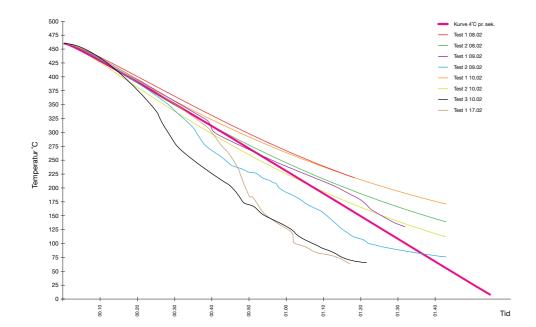






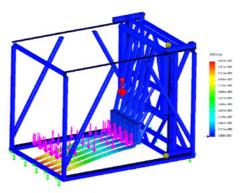
Our computerized calculation programs enables us to make advanced burner and air flow simulations.

In order to provide appropriate quoations we have the possibility to perform full heat treatment cycles on various customer specific products.



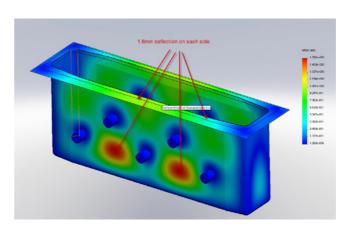
Engineering / Manufacturing / R&D

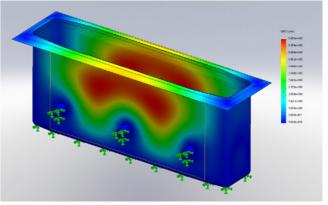




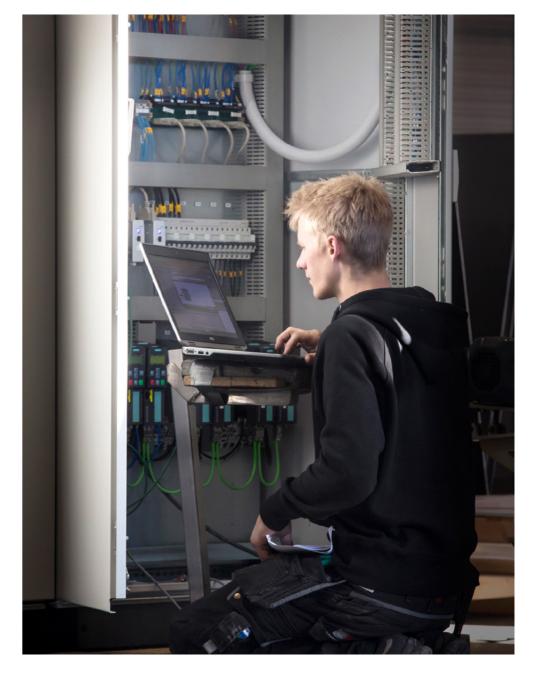
From simple applications to large "turnkey" constructions with advanced temperature control, motions, traceability and logistics. Functionality, combined with innovative design gives each project a "state of the art" solution.

In modern development of furnace and logistics design, we use Eplan and Solid Works for efficient engineering. Traceability, logging and logistics are areas where we are highly competent. We are able to deliver according to the latest standards and norms such as CQI-9 and NORSOK.











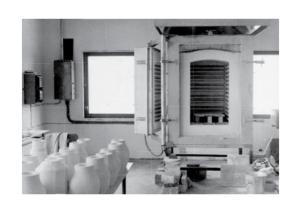






## History





















In 1937 Cato Herulf Evensen starts his own company at the age of 24.

The company's first products were standard box furnaces for annealing, hardening and enamelling. Also a range of ceramic kilns were introduced. The company obtained an order for two large tunnel kilns in 1947. These kilns are still in operation.



2017







16 Employees 1962, C.H.E. 25 Years 23









The world's largest galvanising bath in 1970 at Vickers in Newcastle, UK

Through installations of surface coating lines for aluminium products, CHE's innovative ideas and quality products were appreciated by Norway's aluminium industry, which resulted in numerous deliveries of heat treatment furnaces to companies like Hydro Aluminium and Raufoss.

In the 70's CHE went into the export market, especially within the Hot Dip Galvanising industry world wide. In 1970 CHE installed the world's largest galvanising bath at Vickers in Newcastle, UK; a top fired ceramic bath with 1,100 tons of zinc at 17.5 metres length.

Today CHE has more than 4000 installations in more than 45 countries worldwide.



King Olav V – Opening Ceramic Lined Hot Dip Galvanizing furnace at the Jarlsø Factory









<sup>18</sup> 18 19 23







Salt bath furnace





Annealing furnace











On-site commissioning 



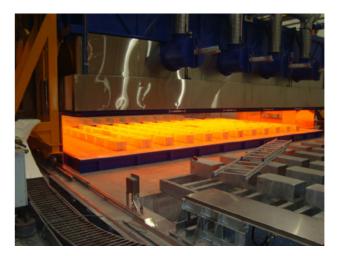














# Heat Treatment Furnace and Billett re-heater Furnace

Fully automated according CQI 9 Standard. Delivered 2016 to automotive client in Norway.









### Gas Fired chamber Furnace

For Ageing of Aluminium according to CQI 9 standard. Delivered 2016 to automotive client in Puebla Mexico.













# Fully automated Line for batch Heat Treatment

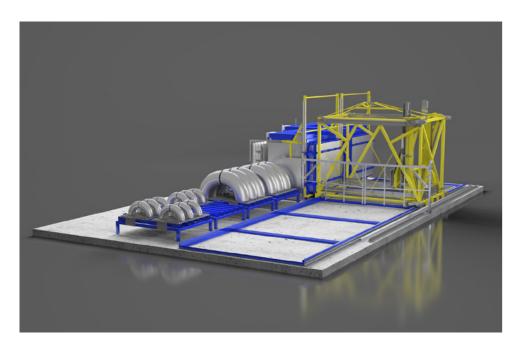
Six Electric Heated, Hot Air re-circulation Furnaces and four cooling chambers with logitics unit. Delivered to Sweden.



# Fully automated Line for batch Heat Treatment

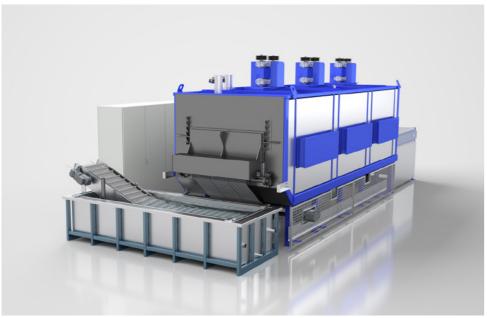
Twelve Electric Heated, Hot Air re-circulation Furnaces and twelve cooling chambers with logitics unit.

Fully Automated Line for Solution Heat Treatment and Ageing.



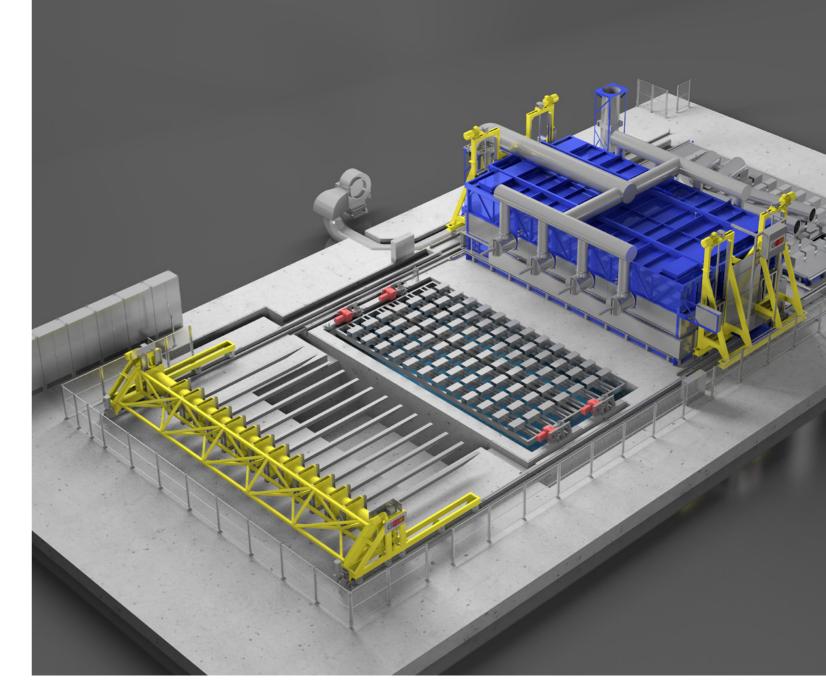
# Fully automated line for stress relieving

1250°C operating temperature and protective atmosphere. Delivered to Örnsköldsvik, Sweden.



# Tunnel-type furnace with conveyor belt

For Solution Heat Treatment of Aluminum parts - Automotive industry. Water quench with conveyor belt and water circulation propeller. Prepared for Heat recovery.





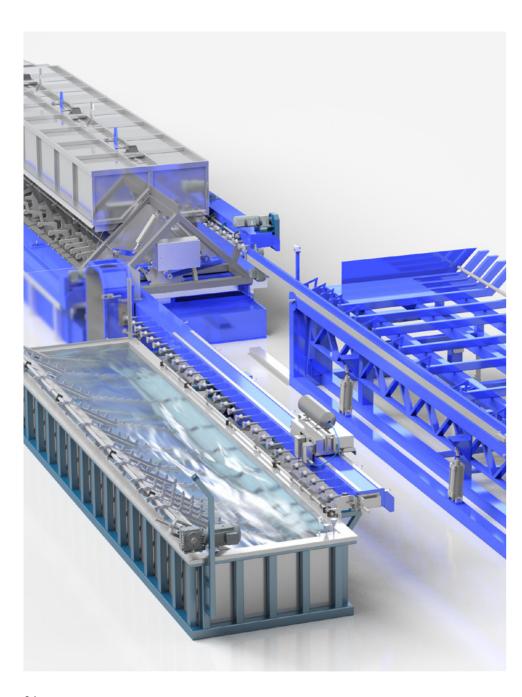


## Belt-type furnaces

For the bakery industry with elevated heating unit, fume capture and conveyors.



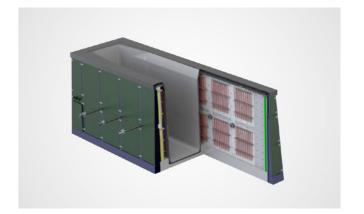
Europe's largest "Rock and Roll" furnace for Plastic Rotational moulding. Zero level installation – requires minor foundation pit.

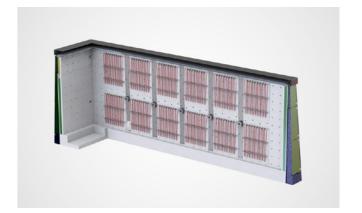


Fully automated Hot Dip Galvanizing plant for threaded bolts and rods. Gasfired furnance with steel kettle. Installed in China.

## Electric resistance heated Galvanizing furnace with radiant wall

The kettle is heated through a system of separate panels with ribbon heating elements, creating a radiant wall against the kettle. This ensures optimal conditions for extended life of the kettle.

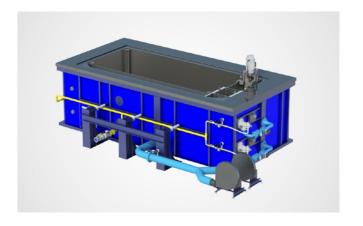




## Gas-fired recirculation furnace with high velocity burners

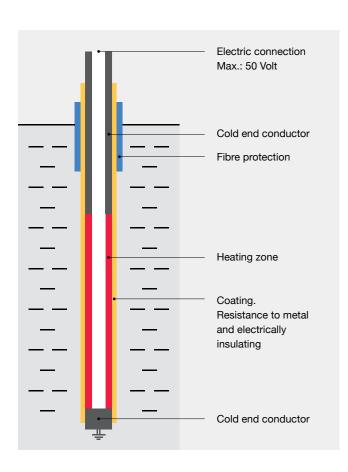
Optional two-zone regulation and pulse firing.

The burner flames are short and the kettle is equipped with insulated heat shields. The danger of hot spots is eliminated. The furnace is constructed as a separate unit. The steel kettle can be lifted out without removing the heating system or furnace walls.

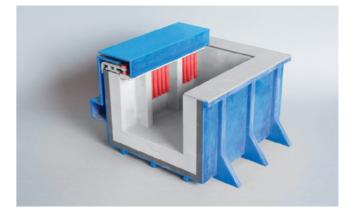


## Silicoat – Ceramic lined Galvanizing Furnace with immersion heating rods.

The development of the Silicoat immersion heating rod has enabled a new concept for electric resistance heating of metals. With the unique physical and electrical properties of the rod, it can be installed directly in molten metals.



The total energy from the Silicoat immersion rod is transferred directly to the metal by conduction. Hence, there is no energy loss from the energy source.



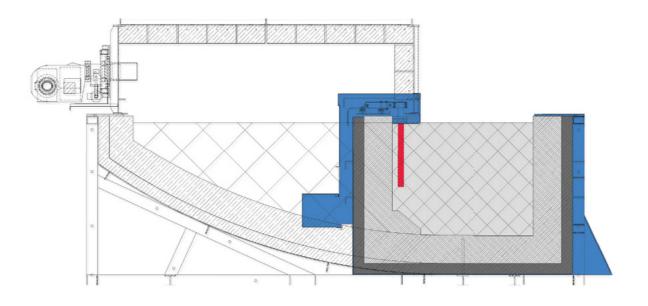
### Topfired vs. Silicoat

#### Topfired:

- Higher zinc volume (Due to heat transfer surface)
- Higher losses from furnace construction
- More space needed

#### Silicoat:

- Less energy consumption
- Less zinc volume (up to 60%)
- Less losses from furnace construction
- Less space needed





#### Services

- 24h service telephone (+47) 954 33 333
- Service contracts
- C.H. Evensen Industriovner AS offers ongoing Support and Technical Service for owners of both CHE and other manufacturers' heat treating equipment.
- Renovations, repairs and spare parts
- Furnace control and calibration
- Conducting repairs
- Furnace upgrade and reconditioning
- Inspections
- Technical support, consulting, and training



C. H. Evensen Industriovner ASTomteveien 191618 Fredrikstad, Norway

(+47) 69 94 91 00 post@che.no



youtube.com/evensenfurnaces



C. H. Evensen Industriovner AS

Design: Sand-Dalen AS
Trykk: Print House AS



Main office and production site Fredrikstad, Norway



C. H. Evensen Industriovner ASTomteveien 191618 Fredrikstad, Norway

(+47) 69 94 91 00 post@che.no



youtube.com/evensenfurnaces



C. H. Evensen Industriovner AS

www.che.no