



# Sveba Dahlen - a leading manufacturer of tunnel ovens

With around 400 tunnel ovens produced and delivered, many to some of the world's most well known bakeries and food producers, Sveba Dahlen is firmly established as a leading manufacturer in the industrial bakery segment. Our production of tunnel-ovens began in 1955, and most of our very first ovens are still in use – after half a century of continuous production.

The foundation of a Sveba Dahlen tunnel oven consists of carefully selected components that are designed for continuous production.

Sveba Dahlen tunnel ovens are known for their flexibility, energy efficiency and reliability. The modular design of both the electric and gas-heated version allows for the oven to be upgraded with additional zones, should production needs change over time.

In recent years, as food culture is evolving and bakeries need higher capacity, our tunnel-ovens have become increasingly popular worldwide.

**We believe in high performing, energy efficient and user-friendly equipment.**

We offer reliable technology that allows the professionals of the baking industry creative freedom at the lowest cost of ownership.

We become the professional business partner throughout the baking process, with an accessible organization, user-friendly designs and precisely controlled, reliable equipment.

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# TUNNEL

## OVENS

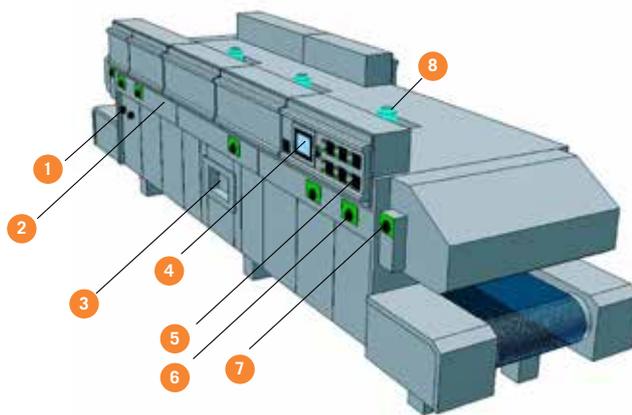




For easy supervision of the baking process, inspection windows with built in lighting are strategically placed along the length of the oven.



The belt driving system.



- 1 STEAM REGULATING VALVE
- 2 ELECTRICAL COMPONENT BOX
- 3 INSPECTION WINDOW
- 4 TOUCH SCREEN, PLC CONTROL
- 5 CONTROL PANEL
- 6 DAMPER CONTROL
- 7 LEVER FOR ROLL-TYPE DOOR
- 8 TURBO

## ELECTRIC TUNNEL OVENS

With a proven record of reliability and energy saving

Sveba Dahlens electric heated tunnel ovens have been produced for more than 60 years with a proven record of reliable round the clock production.

The design is flexible and energy efficient and is built for decades of continuous use. The ovens are suitable for a variety of products, ranging from buns to bread, cakes, moon-cakes and pastries.

The tunnel ovens are manufactured in two basic versions, depending on the desired temperature range: Normal temperature up to 320°C (610°F) or high temperature up to 500°C (935°F).\*

## FEATURES AND BENEFITS

### ENERGY SAVING TECHNOLOGY

Sveba Dahlen tunnel ovens are built with super insulating material that ensures that very limited heat escapes from the ovens resulting in the exterior being relatively cool. The exterior is made of stainless steel and our ovens are known throughout the world for their advanced technology and energy efficiency.

### HEATING

The tunnel ovens are heated by tube elements with double heating spirals. They are specially made for each oven to maximize the heat control and reliability of the elements. On average we use 12 elements per meter of oven.

The elements, placed on the top of the oven chamber and below the belt, are easily accessed from the side.

### TURBO ZONE

For some products, especially when baking with tins, the use of air circulation from turbo fans in combination with radiant heat is suitable. In such cases the oven is equipped with turbo zones. In a mesh belt oven, the hot air is forced through the belt and in a solid steel belt oven the hot air is blown horizontally along the zone.

Turbo zones allows for the baking time to be reduced, lower temperatures used and more equal colouring. With the adjustable fan speed the optimal turbo effect can be reached.

### STEAM SYSTEM

In ovens equipped with a steam system the first part of the oven contains steam spread boxes made out of the highest grade of stainless steel. Valves with indicators are used to adjust the proper flow of steam. Possibility to add photocell controlled and/or volume of steam/h system.

### OVEN CONTROL SYSTEM

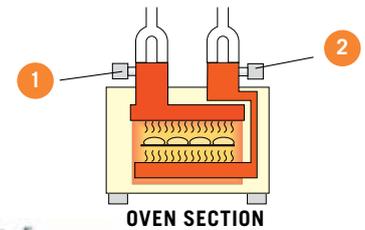
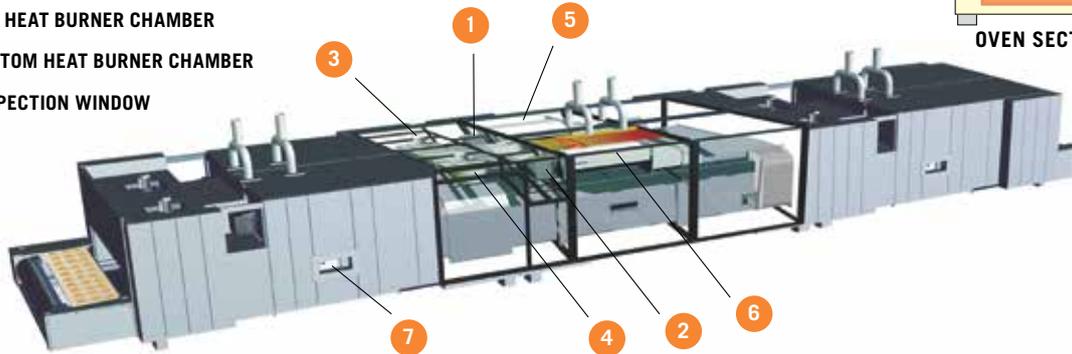
The PLC Touchscreen is designed to be easy to use and give the best possible overview and control.

Apart from temperature regulation and oven control, the touchscreen also comes standard with recipe handling, alarms, log function and Internet connectivity.

### BELT DRIVING SYSTEM

A frequency converter controls the speed of the drive motor, and the robust belt driving system provides optimal reliability and exact baking time. Long ovens and ovens for heavy products are fitted with double drive system, each with its own motor.

- 1 TOP HEAT BURNER
- 2 BOTTOM HEAT BURNER
- 3 TOP HEAT FAN
- 4 BOTTOM HEAT FAN
- 5 TOP HEAT BURNER CHAMBER
- 6 BOTTOM HEAT BURNER CHAMBER
- 7 INSPECTION WINDOW



\* Actual max temp can vary due to installed power and oven load.

## INDIRECT GAS HEATED TUNNEL OVENS

### High productivity and low maintenance

The Sveba Dahlen indirect fired gas tunnel oven offers a unique flexibility and capability for producing a wide variety of products. The oven is built on a concept where each zone has two Weishaupt™ gas burners heating the air and distributing it to the top and the bottom of the oven through heat exchangers.

Using separate burners for top and bottom provides optimal temperature control and fast reaction time, giving more flexibility compared to a traditional single burner oven.

Each oven zone is made up of flexible modules that are easy to transport and fast to install. Additional zones can be added if more capacity is needed.

As for all Sveba Dahlen tunnel ovens the indirect gas oven is made up of carefully selected components designed for continuous and very energy efficient production.

## FEATURES AND BENEFITS

### INDIRECT GAS HEATING

The ovens are divided into a number of heat zones where each zone can be separately regulated for top and bottom heat.

### STEAM SYSTEM

In ovens equipped with a steam system the first part of the oven contains steam spread boxes made out of the highest grade of stainless steel. Valves with indicators are used to adjust the proper flow of steam. Possibility to add photocell controlled and/or volume of steam/h system.

### TURBO ZONE

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Turbo zones allows for the baking time to be reduced, lower temperatures used and more equal colouring. With the adjustable fan speed the optimal turbo effect can be reached.

### OVEN CONTROL SYSTEM

The PLC Touchscreen is designed to be easy to use and give the best possible overview and control.

Apart from temperature regulation and oven control, the touchscreen also comes standard with recipe handling, alarms, log function and Internet connectivity.

### TEMPERATURE RANGE

The tunnel ovens are manufactured in two basic versions, depending on the desired temperature range: Normal temperature up to 275°C (530°F)\* and as option high temperature up to 340°C (645°F)\* in first zone bottom heat.

### BELT DRIVING SYSTEM

A frequency converter controls the speed of the drive motor, and the robust belt driving system provides optimal reliability and exact baking time. Long ovens and ovens for heavy products are fitted with double drive system, each with its own motor.

# BAND SPECIFICATIONS

## ELECTRIC TUNNEL OVENS

## INDIRECT GAS TUNNEL OVENS

	MINIMUM BAND WIDTH	MAXIMUM BAND WIDTH	LENGTH	FIXED BAND WIDTH			LENGTH PER SECTION
				m	m	m	
 Fine wire mesh band	0.5	4.2	4.0 - 65	2.1	2.5	3.0/3.1*	4.4 or 6.6**
 Wide-spaced wire mesh band	0.5	4.2	4.0 - 65	2.1	2.5	3.0	4.4 or 6.6**
 Solid steel band/riveted	0.5	3.56	4.0 - 65	N/A	N/A	N/A	

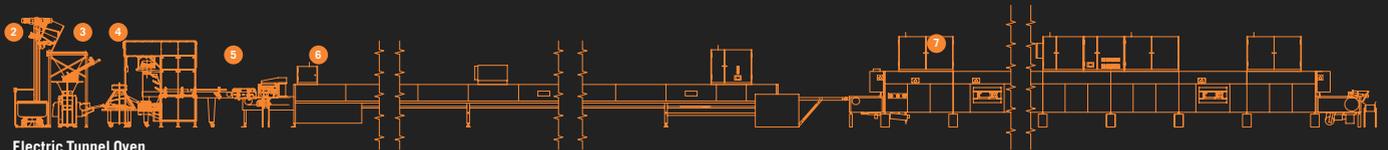
\* 3.1 m up to length about 20 meters.

\*\* 8.8 m section available for longer ovens.

# CUSTOMER ADAPTED INDUSTRIAL SOLUTIONS

A concept built on sensibility to the customers demand, close communication, world-leading trademarks and well-trained personell at all levels. With around 400 tunnel-ovens produced and delivered, many to some of the world's most well known bakeries and food producers, Sveba Dahlen is firmly established as a leading manufacturer in the industrial bakery segment. Our production of tunnel-ovens began in 1955, and most of our very first ovens are still in use – after half a century of continuous production. The foundation of a Sveba Dahlen tunnel oven consists of carefully selected components that are designed for continuous production.

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Electric Tunnel Oven

**1 INDUSTRIAL MIXER**  
Sveba Dahlen offers industrial mixers and mixing systems in many different executions, spiral mixers with removable bowl and also mixers with a bottom discharge system. Mixers for larger capacities than 200 kg on request.



**2 BOWL LIFT**  
Bowl Lift always adapted to the removable bowl size and desired tipping direction according to layout. Standard is tipping either left or right. Possibility to also be made for straight forward tipping.



**3 BULK HOPPER**  
The Bulk Hopper creates an even level in the divider hopper which gives better weight and accuracy. The photocell controlled portioning system gives automatic feeding into the divider. The uncomplicated design results in a reliable operation and less risk of production loss.

**4 INDUSTRIAL MAKE-UP SYSTEM**  
Very flexible make-up systems for bread production always adapted to the actual bread capacity, intermediate proving time and bread type and shape. The line is mostly made of stainless steel and is developed in order to withstand continual operation and the industry's stringent hygienic requirements.



**6 BELT PROVER**  
Belt Prover with textile belt or modular plastic belt is ideal when producing a range of products with a variety of shapes, i.e. loafs, buns, flat bread or tin bread. Also suitable when having long bakery area in combination with low ceiling height. Can be made up to 4,2 meter width, same as for the electrical tunnel ovens. The Belt Provers are also fully insulated and has fully automatic climate system.

**5 PROVER LOADING SYSTEM**  
Charging system for a precise positioning of the dough pieces row by row on the prover belt.

7 GAS TUNNEL OVEN / ELECTRIC TUNNEL OVEN



Gas Tunnel Oven



Electric Tunnel Oven