

高效 可靠  
**High performance  
and reliability**



隧道烤炉  
**Tunnel Oven**

# Sveba-Dahlen 隧道烤炉 满足未来的需要



Sveba-Dahlen在瑞典制造烤炉超过60年。  
为全球提供了350多条隧道烤炉。

我们拥有丰富的经验，并一直为帮客户找到  
最佳解决方案而不懈努力，到了今天我们已经拥有独一无二的烤炉概念，适合不同类型的  
产品和需要。

我们的隧道烤炉是按照客户的需要来设计和  
制造，有着独特的灵活性，适合烘烤不同类型  
产品。

Sveba-Dahlen的隧道烤炉非常灵活，方便  
用户使用，以其高性能、可靠性与低维护成  
本而享负盛名。

Sveba-Dahlen has manufactured baking  
ovens in Sweden for more than 60 years.  
Today we have supplied more than 350  
tunnel ovens to clients all over the world.

Our extensive experience and aim to provide  
correct applications adapted to our clients  
needs enable us to offer a unique tunnel  
oven concept suitable for all conceivable  
types of products and requirements.

Sveba-Dahlen tunnel ovens are produced to  
match our client's specific need and can be  
used to bake all types of products.

Sveba-Dahlen tunnel ovens are well known  
all over the world for their flexibility, energy  
efficiency, high performance, high  
reliability and low maintenance cost.





Sveba-Dahlen Tunnel Ovens

## Meet the requirements of the future.

每条隧道烤炉外形尺寸取决于客户的生产能力和布局设计。烤炉可以配置不同的输送带。

All our ovens are built to specification to meet our customers needs.



### 蒸汽系统

在烤炉内，第一个烤箱有数个由耐酸不锈钢制成的蒸汽喷盒，用来连接蒸汽发动机。带有刻度指示的调节阀安装在烤炉的两旁用于设定准确的蒸汽量。

蒸汽控制器可选用数量控制/光电控制。

### Steam system

In ovens built for connection to a steam generator, a part of the first oven chamber is provided with steam spreader boxes made of acid proof stainless steel. Regulating indicator valves with dial clocks are fixed on the sides of the oven to set the correct volume.

Steam control with quantity control/ photocell control can be selected as an option.

### 驱动装置

驱动马达速度通过变频器控制，能精准控制烘烤时间。特长及烘烤重型产品的烤炉装有双驱动滚筒和双驱动马达，每个驱动滚筒都各自带有驱动装置，由统一的变频器控制。



驱动系统非常可靠和耐用。

The belt driving system is designed for adequate baking and optimal reliability.

### Driving equipment

The speed of the drive motor is controlled by a frequency converter to maintain the exact baking time. Long ovens and ovens for heavy products are fitted with double drive rollers. The driving rollers, each of them has their own driving unit, are controlled by a common frequency converter.



# 满足未来的需要 Meet the requirements of the future.

## 控制

控制面板简单清楚地显示了烘烤时间以及温度等讯息。

用户可选择带食谱料理程序参数，报警及数据记录的PLC系统，可连接主控制系统是另一种选择。

## Control

The control panel is designed to give best overview and simple control displaying baking time, temperature etc.

PLC control with recipe handling of process parameters and handling of alarms and data logging is available as option. Connection to a master control system is another possible choice.

## 加热

电热式隧道烤炉通过双层加热螺旋管进行加热，整个烤炉的内壁上下都装有加热管，可轻易向炉两边进行加热。每个加热管都有热量发出设备，使输送带能迅速全面加热。加热管是为了保证最大限度的热量分布和质量为每个烤炉特别制造。一般每个烤炉平均每米装有12个加热管。我们可以按客户要求设计为电热、燃气或燃油加热

## Heating

The electric tunnel ovens are heated by tube elements with double heating spirals. The elements are installed over and under the oven chamber, along the entire oven, and are easily accessible from the side. Each element has its heat-emitting part positioned so that the band is heated efficiently over its full width. The tube elements are specially manufactured for each individual oven for maximum control of the heat distribution and quality. On an average, a tunnel oven consists of about 12 elements per metre.

Our ovens are available with oil, gas or electrical heating systems.



带有PLC 操控系统的仪表板。  
Instrument panel with PLC control.

## 循环风扇

很多类型的食品最好使用结合热量辐射和空气循环的烤炉。这样的烤炉可选配带有循环风扇。金属网带式烤炉的空气循环通常是垂直的，向上通过带子；而钢带式烤炉的空气是打横沿着钢带循环。通过空气循环，烘烤时间可缩短，并能降低烘烤温度。而且可以使面包边沿上色更好，特别是烘烤那些土司产品。通过调节马达速度可以获得最佳的循环效能。



循环风扇  
Fan motor for air turbulence

## 用料和部件

我们生产的烤炉外部用不锈钢制造。烤炉室的用料是专门根据每个烤炉的烘烤温度和食品类型精心挑选。所有的烤炉均采用绝缘岩棉以避免热量流失。

## Air turbulence

For many types of products, it is appropriate to use a combination of radiant heat and air circulation. If so the oven can be equipped with turbo zones. In wire mesh band ovens, air circulation is most often vertical, up through the band, in steel band ovens it is horizontal along the band. With air circulation, the baking time can be shortened, and lower temperatures utilized. This also gives the sides of the bread better colour, especially by baking with tins. By controlling the speed of the drive motor, optimal turbo power of the turbo fans can be obtained.

## Materials and components

We manufacture the exterior of the oven in stainless steel. The materials in the oven chamber are specifically selected for each oven, for the baking temperature and the product range. All the ovens are insulated with rockwool to minimize the heat loss.

## 观察窗

烤炉设有玻璃观察窗，内有照明装置，方便用户观察烘烤情况。(但高温版本的烤炉不具备这一功能)。

排气风门可用人手调节，用户也可以选择带有马达驱动和PLC控制系统的烤炉。

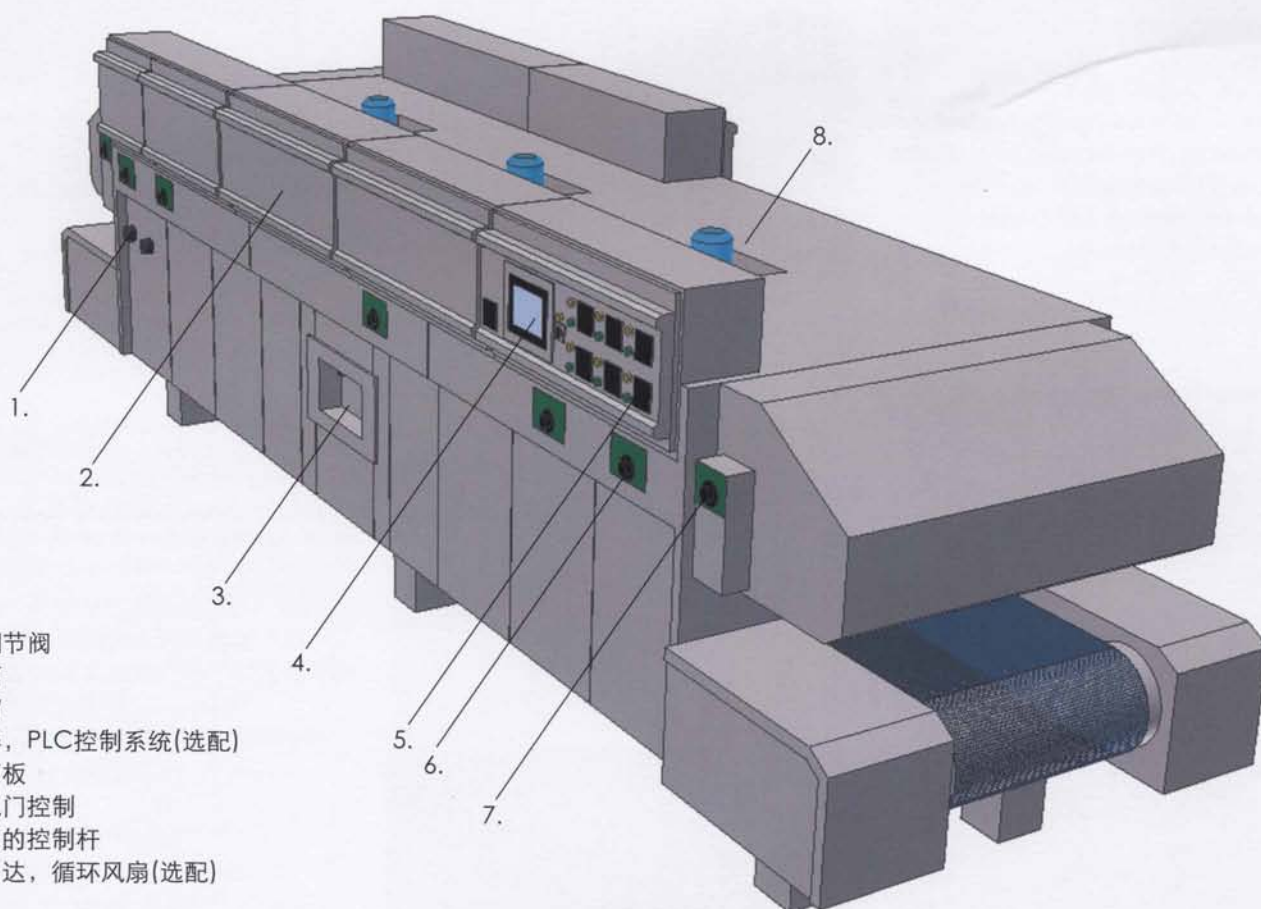
## Inspection window

The ovens have inspection doors made of glass, with builtin-lighting for easy supervision of the baking process. (Not applicable for high temperature vision).

Exhaust damper manually adjustable or, as an option, motor-driven together with PLC control.



观察窗位于烤炉方便观察的位置。  
Inspection doors on strategical places along the oven.



1. 蒸汽调节阀
2. 电力箱
3. 观察窗
4. 触摸屏, PLC控制系统(选配)
5. 控制面板
6. 排气风门控制
7. 滚动门的控制杆
8. 风扇马达, 循环风扇(选配)

1. Steam regulating valve
2. Electrical component box
3. Inspection window
4. Touch screen, PLC control (option)
5. Control panel
6. Damper control
7. Lever for roll-type door
8. Fan motor, turbo section (option)

## 还有其他需要吗?

如阁下有其他需要请联系我们, 我们将为您提供一个能解决问题的最佳方案。

## Anything else?

Please contact us with your requirements and we will offer you a solution that works.



## 计算你自己隧道烤炉的尺寸

通过下面的例子，你可以很容易计算出符合你对烤炉容量要求的隧道烤炉的大概尺寸。

## Calculate the size of your own tunnel oven

Following the examples below, you can easily calculate the approximate size of a tunnel oven that will meet your capacity requirements.

尺寸 (平方米) =  
产品长度 X 宽度 X 产品数量  
/小时 X 烘烤时间/60 X 常数

这个常数根据不同的产品变化，但通常都是在1.3-1.6之间；第一次计算尺寸的时候，基本上土司产品都是在1.3左右，而装在有凹槽的烤盘上的汉堡包和面包等产品在1.6左右。

Size m<sup>2</sup> =  
Length x Width of the product  
x Number of products/hour x  
Baking time/60 x Constant

The constant varies between different products, but is most often within the range 1.3 – 1.6; at the first attempt to calculate the size the factor 1.3 can most often be used for products in tins, 1.6 for products on indented trays for hamburger buns and for individual loaves.



### 例一

烤面包的烤炉：每小时2000个。产品尺寸：300X140mm。烘烤时间：25分钟。

尺寸：0.3 x 0.14 x 2000 x 25/60 x 1.6 = 56 平方米烘烤面积，即烤炉尺寸：长 19米 宽 3 米 (TU 19/3)。

### Example 1

Oven for individual loaves: 2000 loaves per hour. Product size: 300 x 140 mm. Baking time: 25 minutes.

Size: 0.3 x 0.14 x 2 000 x 25/60 x 1.6 = 56 m<sup>2</sup> baking area, for example, oven size L = 19 and W = 3 m (TU 19/3).

### 例二

烤装在有凹槽烤盘上产品的烤炉：每小时烤25000个。产品尺寸：直径100mm。烘烤时间：10分钟。

尺寸：0.1 x 0.1 x 25000 x 10/60 x 1.6 = 66.5 平方米烘烤面积，即烤炉尺寸：长 18 米 宽 3.8 米 (TU 18/3.8)。

### Example 2

Oven for products baked on indented trays: 25000 loaves per hour. Product size: Ø100 mm. Baking time: 10 minutes.

Size: 0.1 x 0.1 x 25000 x 10/60 x 1.6 = 66.5 m<sup>2</sup> baking area, for example, oven size L = 18 m and W = 3.8 m (TU 18/3.8)

### 例三

烤土司产品的烤炉：每小时烤4000个。产品尺寸：280 x 110mm。烘烤时间：30分钟。

尺寸：0.28 x 0.11 x 4000 x 30/60 x 1.3 = 80 平方米烘烤面积，即烤炉尺寸：长 27米 宽 3 米 (TU 27/3)。

### Example 3

Oven for products baked in tins: 4000 loaves/hour. Product size: 280 x 110 mm. Baking time: 30 minutes.

Size: 0.28 x 0.11 x 4000 x 30/60 x 1.3 = 80 m<sup>2</sup> baking time, for example, oven size L = 27 m and W = 3 m (TU 27/3).

以上数值只能粗略计算烤炉的尺寸。  
请联系Sveba-Dahlen AB 计算更为精确的烤炉尺寸。

The values above should only be used for a rough estimate of the size of the oven.  
Always contact Sveba-Dahlen AB for a more exact calculation of size.

产品：面包  
每小时烤1500个  
尺寸：TU 13/4

Product: Individual Loaves  
Number per hour: 1,500  
Size: TU 13/4



产品：俄罗斯馅饼  
每小时烤11000个  
尺寸：TU 12/3

Product: Russian pasties  
Number per hour: 11,000  
Size: TU 12/3



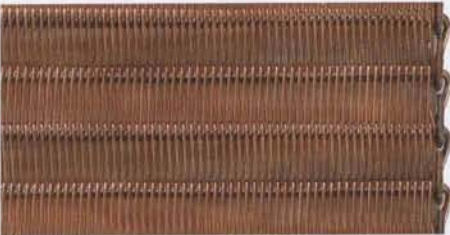
产品：汉堡包  
每小时烤24000个  
尺寸：TU 20/3.75

Product: Hamburger buns  
Number per hour: 24,000  
Size: TU 20/3.75

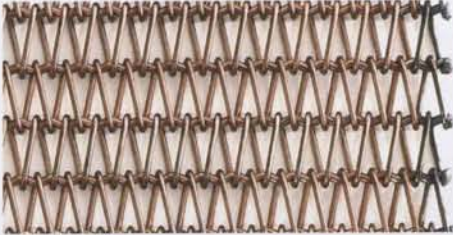


各种输送带  
Different bands

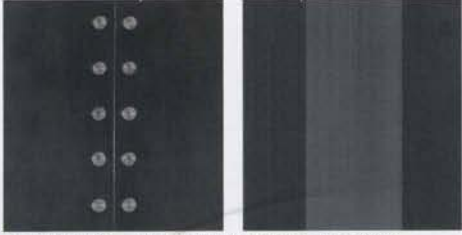
	最小带宽 Minimum band width	最大带宽 Maximum band width	使用例子 Exemples of use				
			面包 Individual loaves	土司或烤盘产品 Products in tins or on plates	小面包和蛋糕 Buns and cakes	瑞士卷和面包卷 Swiss rolls and rolls	薄饼 Pizzas
	米 m	米 m					
精细网带 Fine wire mesh band	0.5	4.2	x	x	x		x
宽间距网带 Wide-spaced wire mesh band	0.5	4.2		x			
实心钢板带 Solid steel band	0.5	3.56		x	x	x	x
石底 Stone sole	0.5	3.0	x				x



精细网带  
Fine wire mesh band



宽间距网带  
Wide-spaced wire mesh band



实心钢网带，分别用铆接和焊接方式接合  
Solid steel band, riveted and welded joint  
respectively

隧道式醒发线  
Fermentation lines

隧道式醒发线

Sveba-Dahlen拥有超过50年生产醒发线的丰富经验。  
醒发线制造分一到两个级别的版本，根据容量的要求和建筑结构计算尺寸。最高带宽为 4米，按整个宽度进行缕纫。通常选用模块化塑料带烘烤土司或烤盘产品。  
醒发通道通过蜂窝塑料绝缘，同时内外都采用铝板或塑料制造。  
大部分的边板可以轻易拆除方便清洁输送带。

Fermentation lines

Sveba-Dahlen has over 50 years of experience of manufacturing fermentation lines.

The fermentation lines are manufactured in one or two level versions, and the size is calculated in view of the capacity requirements and the layout of the premises. The maximum band width is 4 metres, and the bands are threaded over the full width. A modular plastic belt is commonly selected where tins or plates are used.



已醒发的产品在醒发线和隧道烤炉之间输送。

Proven products in transition between the fermentation line and tunnel oven.

The fermentation channel is well insulated with cellular plastic and lined externally and internally with aluminium sheets or plastic.

Most of the side panels can easily be removed to facilitate cleaning of the band.

# 我们有您需要的烘培设备！ We have the equipment for your bakery!



自1970年起开始制造并交付隧道式烤炉给世界各地的用户。  
我们的烤炉出众、可靠，并能满足面包师傅对功能、舒适性及经济等方面的要求。

Sveba-Dahlen has developed and delivered tunnel ovens worldwide since 1970. Our ovens are robust, reliable and designed to satisfy all the baker's requirements for functionality, comfort and economy.

Represented By

**Femac**

The Bakery Equipment Specialist

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•SALES•SERVICE•SPARE PARTS•