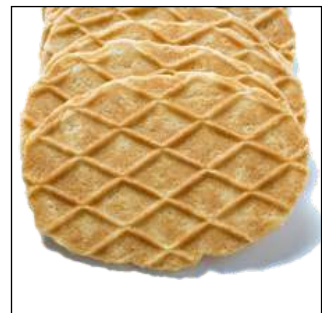
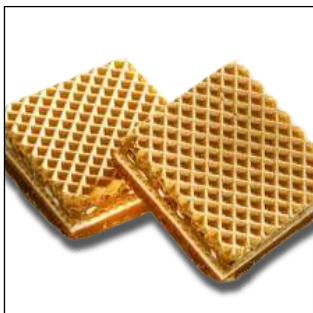




An ISO 9001:2008 Company

## “SWIFT” Wafer Baking Line



### SWIFT 24

Capacity approx. 80-120kg/hr

### SWIFT 36

Capacity approx. 120- 160kg/hr

The SWIFT wafer production plants comprise of the following single machines:

- Batter Mixer TM 3- 100 litre
- Automatic Wafer Baking Machine ZWA
- Wafer Sheet Cooler SC
- Automatic Wafer Creaming Machine CR
- Automatic Wafer Cutting Machine WC
- Conveyour C1 & C3

On customer request, cream preparation & wafer book cooler can be integrated to the line.

## Wafer Manufacturing process:

The wafer batter is produced in batches, transferred to the batter depositing station of the automatic wafer baking machine and poured onto the baking plates.



The wafer sheets are baked in accordance with the baking time and baking temperature, then removed automatically and transferred to the further processing production line.

The wafer sheets are conveyed over a wafer sheet cooler to cool them down before they reach the wafer spreading machine. The cream for wafer filling is also produced in batches and fed into the cream hopper of the spreader head. The cream filling is applied in fully automatic mode. The wafer sheets stacked on top of one another according to the preset number, the top sheets are put on and afterwards the wafer books are calibrated to the thickness desired. The wafer book sandwiches are then conveyed for the subsequent cutting and packing process.

A fully automatic cutting machine is provided for cutting the wafer sandwiches to the desired product dimensions.



### Automatic Wafer Baking Machine ZWA:

- 24 or 36 baking tongs.
- Baking plate size: 460 x 290mm.
- Baking plate Engraving on request.
- Fully automatic Imported Gas train
- Electronic batter depositing control.
- Automatic wafer sheet take-off system.
- Stainless steel insulating enclosure.
- Exhaust dampers above oven provided.



**Baking Tongs**

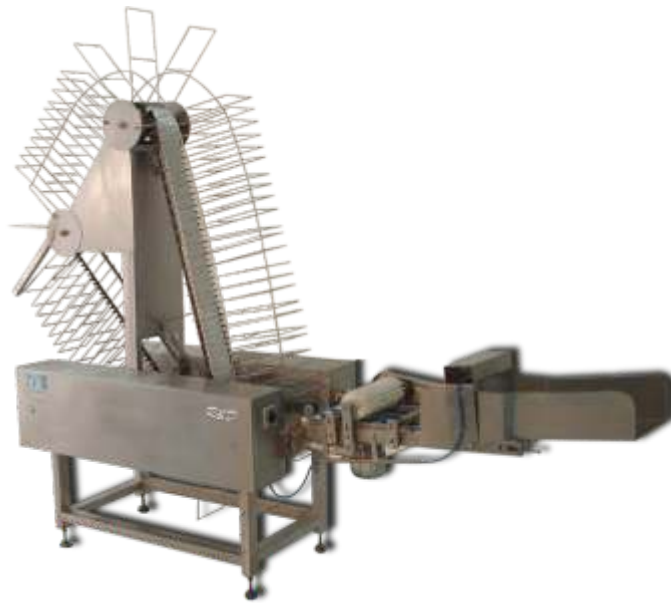


**Triangle Burner**



**Wafer Moulds**

## Wafer Sheet Cooler

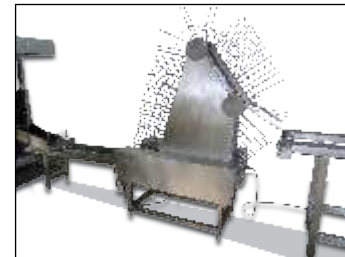
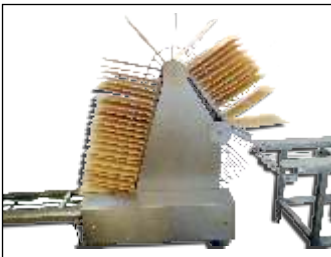


Sheet Coolers are used to cool the baked wafer sheets in ambient air. The baked wafer sheets enter the sheet cooler equipment where uniform cooling & stress relieving takes place.

The wafer sheet cooler is designed in the form of an arch so that operator can supervise several machines and move from one to other without hindrance.

The wafer sheets are fed into pair of metallic wire brackets which are positioned to each other. The wire brackets are fastened to a pair of endless roller chains forming an endless chain of holders. Sensing device notes when a sheet has been placed in a bracket and signals the motor to advance the chain one step so that an empty bracket awaits the next wafer sheet.

The carrier brackets, guide plates and all other components of the unit coming into contact with the products are fabricated from stainless steel. Wear-resistant plastic rails are used to guide the carrier chain. The cooler is fabricated from modular components thus allowing the length, width and carrying capacity to be varied easily and as required.



### **Batter Mixer: TM 3** Stainless steel execution.

The batter mixer is used for the batch production of batter. Consistent batter is required for quality products.

Wafer Batters for these products are fluid mixtures of flour and water to which small amounts of other ingredients are added.

A recommended formula would be

- 100 parts flour,
- 140 parts water,
- 0.5 part sodium bicarbonate,
- 0.5 part salt,
- 0.1 part lecithin and 1 part vegetable Fat.

The other ingredients used may include flavours, colors, ammonium bicarbonate, dried whole milk, corn starch, egg yolk, and soya lecithin.



## Automatic Wafer Spreading Machine CR5:

For spreading of the cream fillings using the contact method.



Cream spreading machines can apply a wide range of creams to all kinds of wafer sheets. Normally these machines operate on contact system or optionally on film system. Spreading machines spread an exact amount of fat cream onto the wafer sheets and automatically stack the requested number of spread sheets together with the un-creamed top sheet into a wafer block. A thermostat allows to heat the cream spreading roller as well as the counter-roller up to an exact temperature. The speed of the two rollers and of the spreading belt can be variably adjusted independently of each other.

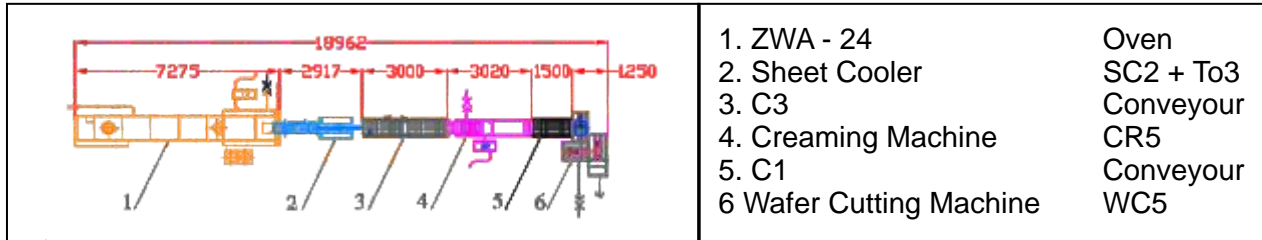


## Automatic Wafer Cutting Machine -WC5

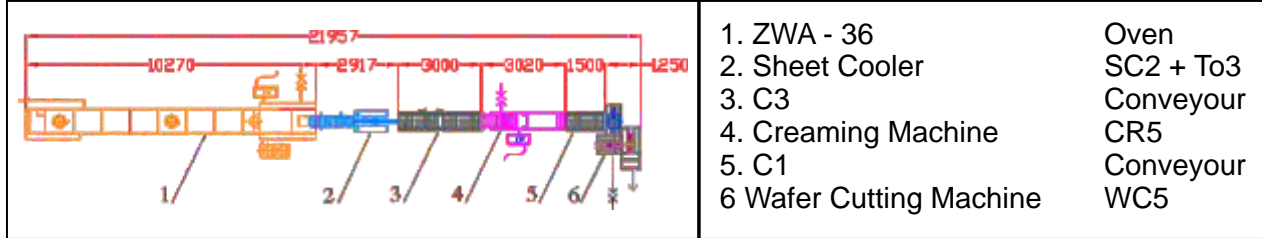
- Automatic infeed of the wafer sandwiches.
- Stacking device with counter
- Pair of cutting frames for additional cutting sizes easily exchangeable

These are fully automatic machine for cutting flat and hollow wafers filled with cream. These machine take over the cooled down wafer blocks coming from the cooling device or creaming machine and cut them into required number of blocks.

# SWIFT 24 Layout



# SWIFT 36 Layout

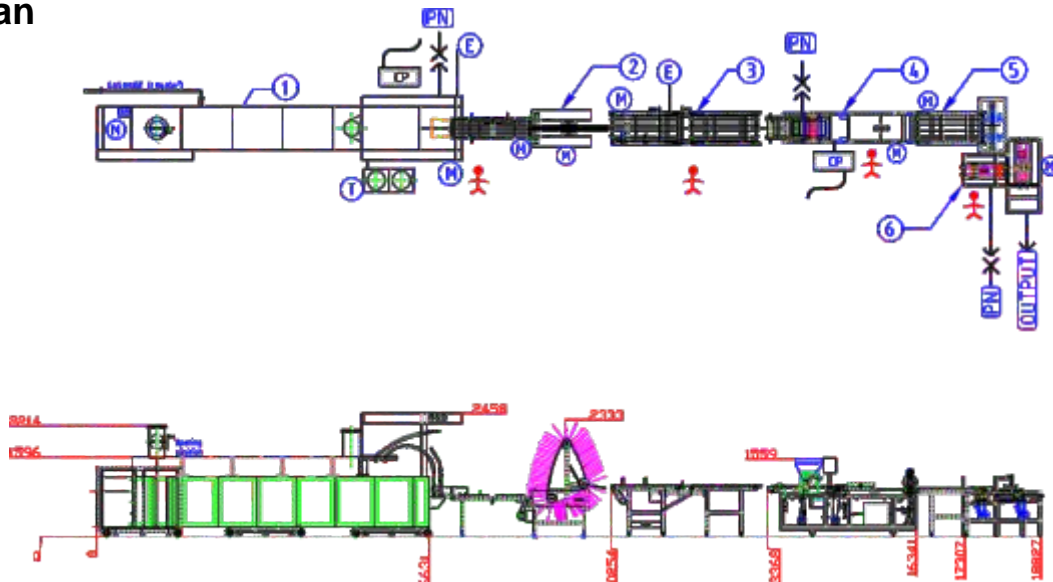


## Technical Data:

The plants for the production of cream-filled flat wafers are offered in two versions:

	SWIFT 24	SWIFT 36
<b>Batter Mixer TM 100</b>		
Batch size (l):	80	80
<b>Automatic Wafer Baking Machine ZWA</b>		
Number of baking tongs:	24	36
Baking plate size (mm):	460 x 290	460 x 290
Baking time (min)*:	2	2
Capacity (Sheets/min)*:	12	18
Gas Consumption:		
Natural(m3 /h)*:	9-11	12-15
Propane/Butane (kg/h)*:	9-11	12-15
<b>Wafer Sheet Cooler SC-2</b>		
Number of effective brackets:	30	30
<b>Automatic Wafer Creaming Machine CR5</b>		
Spreading width approx (mm):	455	455
Product possibilities (wafer sheets / fillings):	2/1,3/1,4/1,5/1	2/1,3/1,4/1,5/1
<b>Automatic Wafer Biscuit Cutting Machine WC-5</b>		
Capacity, max. (double cuts/min.):	6	6
Wafer sandwiches/stack, max.:	3	3

## Swift 24 Plan



Producers of wafer products are always looking to improve efficiency. Because the Wafer market is very competitive with only a few product types, it is important for these companies to produce at the highest efficiency possible, and to do so, it's important that the lines run to their full potential.

For a baker that wants to begin making wafers, R & D Engineers introduces the SWIFT wafer line here.

## ENTRY LEVEL SWIFT BAKING LINE

The SWIFT wafer oven is finding increasing interest as a cost-efficient and convenient 'Entrance Ticket' to the wafer business.

The reason for this interest is that the oven is part of a whole package of machinery that meets the needs of small producers who want to extend their business as well as those who may be new to industrial production of wafers.

The fully automatic SWIFT lines feature the baking oven, a batter mixer, a wafer sheet cooler, a cream spreader that also builds the wafer books and cutter. The lines are available in two capacities, producing either (120 kg\*) or (160 kg\*) of cream filled wafer fingers per hour.

The oven is equipped with either 24 or 36 supported baking plates made of gray cast iron. A variable-frequency-controlled motor drives the baking chain .

Wafer sheets cool at ambient temperatures, and the cooler is synchronized to the oven speed and actuated by a photo cell controlled motor.

The wafer cream spreader uses the contract spread method and produces books with up to 4 creme and 5 wafer layers or wafer books without a top sheet. Then, the books cut with wires or blades. Cutting frames are easily exchangeable for quick and un- complicated changeover.

## Advancements & Developments

Another area that we have addressed in recent years is energy consumption.

As energy costs continue to increase this becomes a bigger issue for manufacturers..

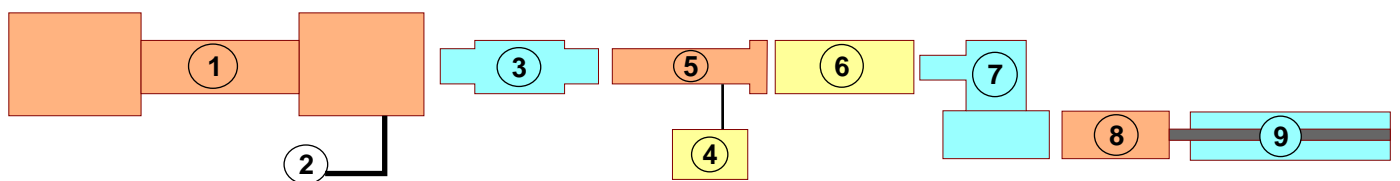
Our newly designed burners and baking chambers within its ovens reduce the gas consumption by as much as 15 to 20% compared with previous models.

This system also reduces the carbon monoxide emissions by two-thirds, an important factor as environmental issues continue to be stressed.

The company is continually making small improvements to its lines to aid with maintenance and sanitation. For the most part there has been a great push to introduce new wafer lines therefore, there could be great opportunities for companies to introduce new and exciting products to consumers.

A wide variety of automated lines are available for the production of flat and hollow wafers.

## Wafer Biscuit Manufacturing - Typical Factory Layout



1. Wafer Oven

2. Batter Mixer

3. Wafer Sheet Cooler

4. Planetary Cream Mixer ☆

5. Cream Spreading Machine

6. Book Cooler ☆

7. Wafer Cutting Process ☆

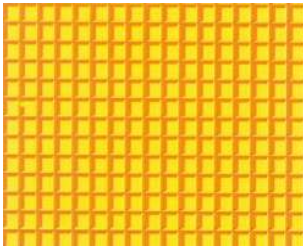
8. Wafer Fanning Device ☆

9. Packing Process ☆

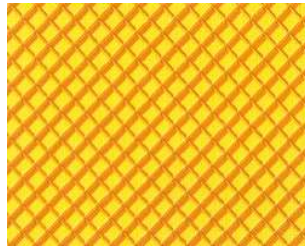
☆ Not included in the swift line

## Wafer Design Selection Guide

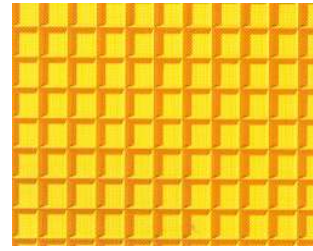
**Regular Designs**



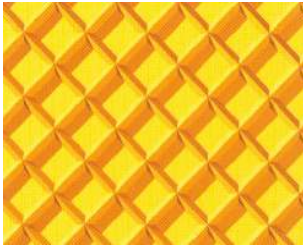
2.5 X 0.4 (90°)



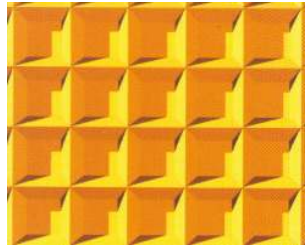
2.5 X 0.4 (45°)



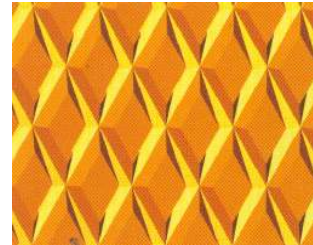
4.0 X 0.6 (90°)



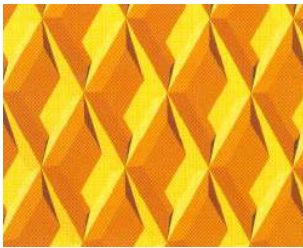
6.0 X 1.0 (45°)



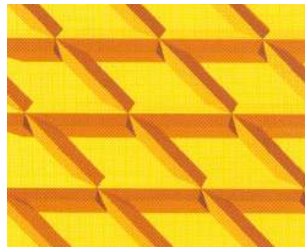
8.0 X 2.0 (90°)



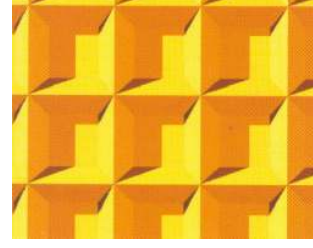
8.0 X 2.0 (60°)



10 X 2.5 (60°)



10 X 2.0 (45° & 0°)



12 X 3.0 (90°)



12 X 3.0 (60°)

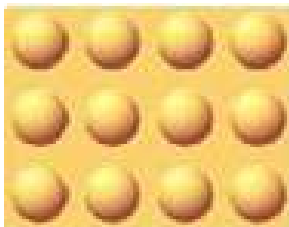


12 X 3.0 (45°)

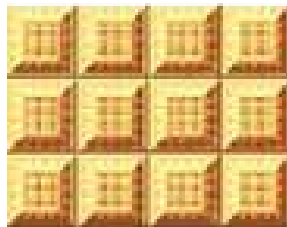


12 X 3.0 (45° & 0°)

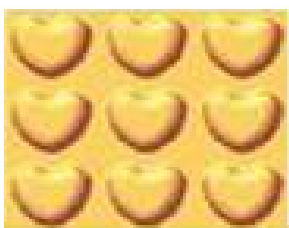
**Special Designs**



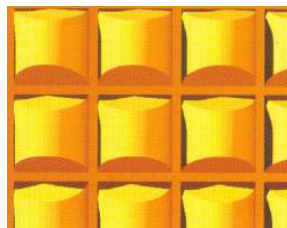
Round shell Design



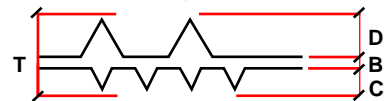
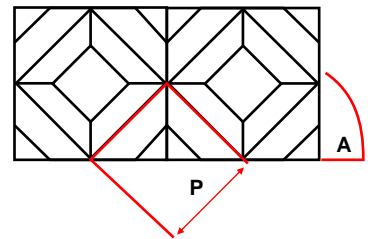
Canape Design



Heart Design



Tray Design



- A - Angle of Reeding
- B - Body
- C - Depth of Engraving
- D - Depth of Engraving
- P - Pitch of reeding
- T - Total Thickness

*Design Requirements*

# Certifications



**ISO 9000:2008 Certified**

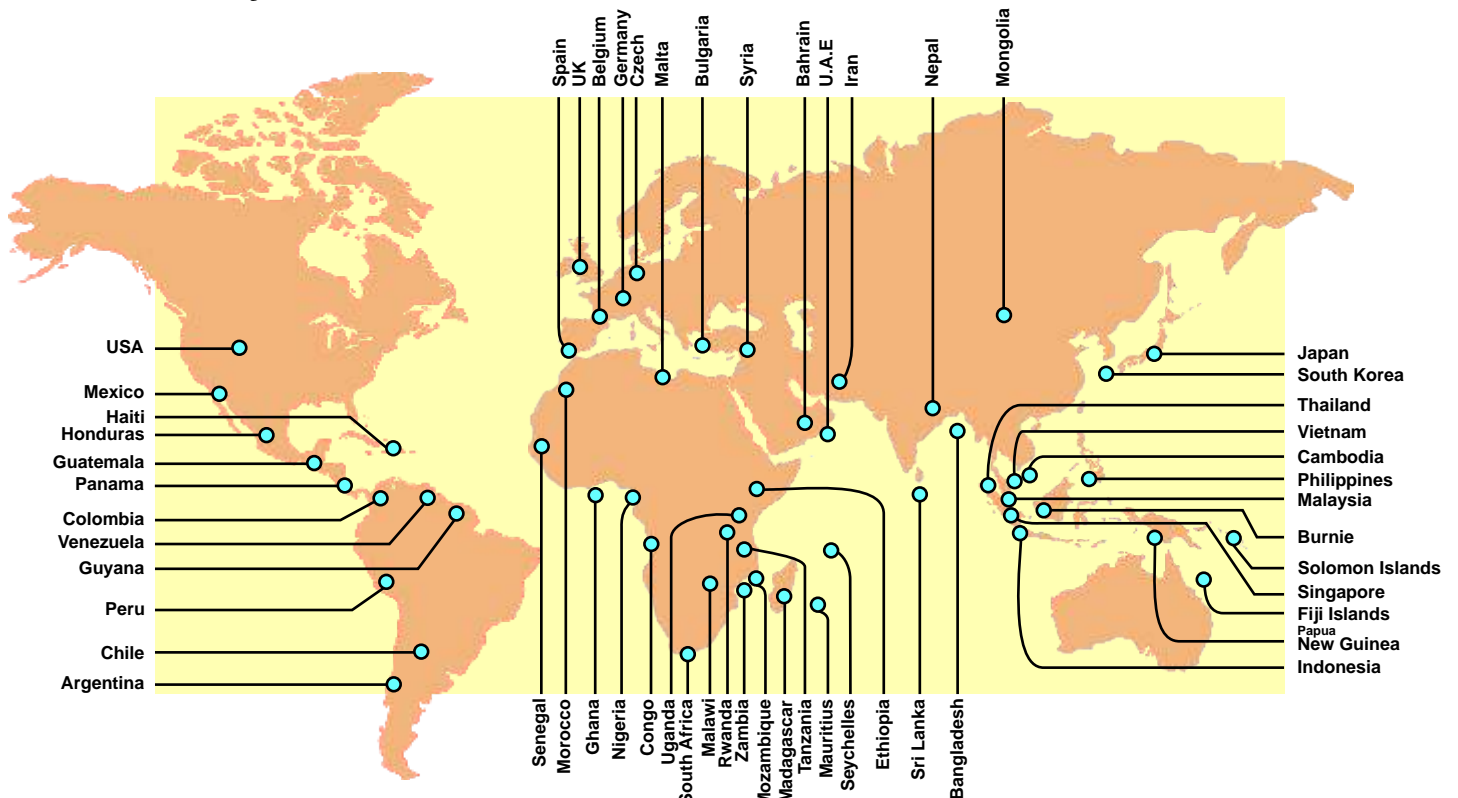


**CE Certified**



**Export Award**

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