

## *Smartline / Performance*



# Manual

Frisch - Spritzmatic Ramminger Straße 4 89129 Öllingen Tel.: 0 73 45 – 75 04

**CE** **Frisch Spritzmatic GmbH**  
Ramminger Straße 4  
D-89129 Öllingen

+49 (0) 73 45 – 75 04  
+49 (0) 73 45 – 2 18 19

**Smartline 2200**  
Operation manual  
Edition: 29.04.2026 rev. 1

## **Smartline 2200 operation manual**

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## Frisch-Spritzmatic

Ramminger Straße 4 – 89129 Öllingen  
Tel.: 0 73 45 – 75 04 / Fax: 0 73 45 – 2 18 19



### Machine description

The belt device Smartline is the modular pass-through spraying system, designed for special purposes of efficient bakeries. Use of various spray heads and feeding stations makes Smartline the especially flexible belt device. Small dimensions, only 100 x 100 cm, are particularly important for applications in the bakery rooms of limited space. The device is designed for spraying with eggs, oil, apricot gel, cake mass and various other materials. The belt width is 600 mm. It makes the device perfect for using euro trays. The device may be loaded with - often already purchased - Profi-Jet or Uno-Jet. In case of cold materials it is possible to use Spray-Hit or Spray-Profi.

### Equipment



Examples of equipment

The belt device Smartline is the perfect solution for small bakeries which emphasize the production speed and repeatability.

In order to achieve the most optimal adaptation to the given needs there is a possibility to select among the following equipment versions:

- Egg station (with two automatic nozzles for one substance)
- Oil station (with one automatic nozzle for one substance)
- Apricot gel (with two automatic nozzles for one substance)
- Pressure tank (e.g. for spraying of eggs, oil, etc.)
- Pump (for direct supply from drums or containers)
- Belt return (possibility of using by one person)
- and many more

Standard set:

- Laser reader for the optimal control of material transfer
- Controller Siemens OP7

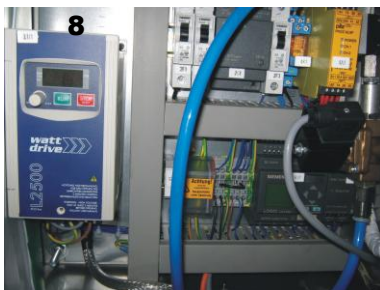
## Connecting box



**7** on the side

Connection:  
230 V / 50 Hz AC

- 1 Main switch
- 2 Speed controller
- 3 Cabinet lock
- 4 Confirmation button
- 5 Emergency switch
- 6 Forward/backward movement
- 7 Compressed air switch  
for cleaning of nozzles (on /off)



**9**

- 8 Frequency converter  
Adjustment of belt speed  
and time (according to description)
- 9 Control module LOGO  
Adjustment of parameters for  
time values

## **Belt control**

### ***Change of rotation speed:***

1. Press Prog DATA
2. Using buttons  $\uparrow\downarrow$  select group from main menu
3. Press Prog DATA
4. Using buttons  $\uparrow\downarrow$  select group from main menu
5. Press Prog DATA
6. Using buttons  $\uparrow\downarrow$  change or enter the value
7. Press Prog DATA – the value will be stored

### ***Example of change of frequency parameter 5.03***

1. Press Prog DATA , main menu appears
2. Using the arrow buttons select menu 5  $\uparrow\downarrow$
3. Press Prog DATA , submenu appears
4. Using the arrow buttons select menu 03  $\uparrow\downarrow$
5. Press Prog DATA , set value appears (e.g. 90 Hz)
6. Using the arrow buttons change the frequency (e.g. 80 Hz)  $\uparrow\downarrow$
7. Press Prog DATA, the value will be stored
8. Using MODE button return to the main menu

### **Time change:**

1. Press ESC
2. Using the down arrow button  $\downarrow$  select Set Parameter
3. Press OK
4. Using the up/down arrow buttons  $\uparrow\downarrow$  select required time (see table)
5. Press OK
6. Using one of left/right buttons  $\leftarrow \rightarrow$  select the position to be changed
7. Using one of up/down buttons  $\uparrow\downarrow$  select the number
8. Confirm by pressing OK
9. Press ESC to return to initial position

### **In case of error:**

1. Press Prog DATA , main menu appears
2. Using the arrow buttons select menu 6  $\uparrow\downarrow$ 
  - 6.08 last stored error
  - 6.09 last but one stored error
  - 6.10 last but two stored error
3. Read the value
4. Follow the operation manual (sheet 8-9)
5. Limit the number of errors

## Frisch-Spritzmatic

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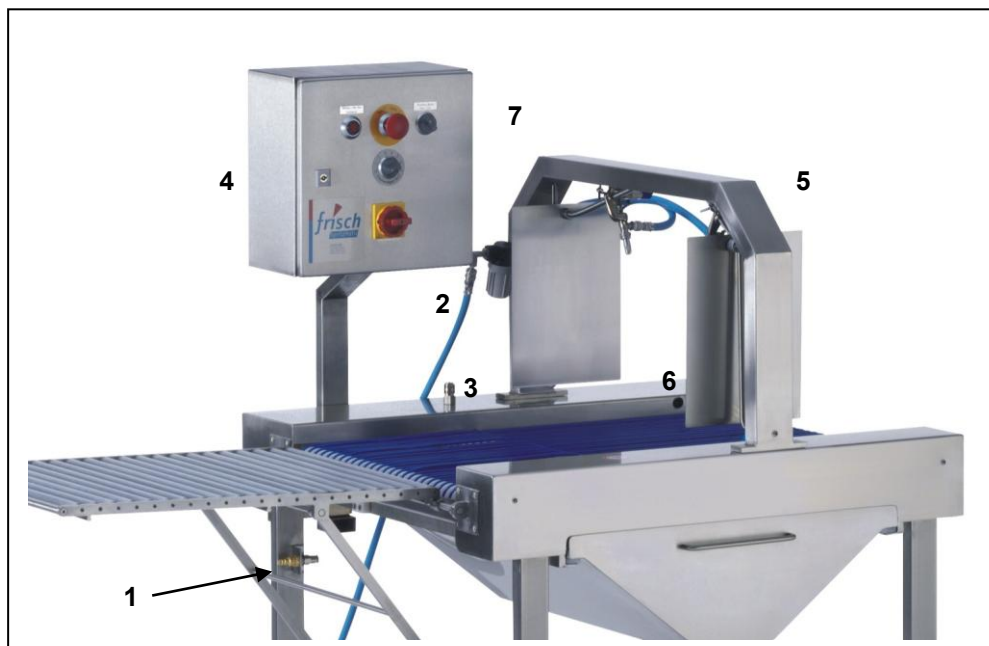


### Adjustable parameters of Smartline

#### Controller module LOGO / inverter WATT DRIVE L2500

	Default settings		Customer's settings
	10 Hz		
	Spraying	9.0 sec.	_____ sec.
	Additional spraying	0.7 sec.	_____ sec.
	20 Hz		
	Spraying	4.0 sec.	_____ sec.
	Additional spraying	0.6 sec.	_____ sec.
	30 Hz		
	Spraying	2.5 sec.	_____ sec.
	Additional spraying	0.5 sec.	_____ sec.
	40 Hz		
	Spraying	2.0 sec.	_____ sec.
	Additional spraying	0.4 sec.	_____ sec.
<b>Speed 1:</b>	50 Hz		
	Spraying	1.5 sec.	_____ sec.
	Additional spraying	0.3 sec.	_____ sec.
<b>Speed 2:</b>	60 Hz		
	Spraying	1.0 sec.	_____ sec.
	Additional spraying	0.2 sec.	_____ sec.
<b>Speed 3:</b>	70 Hz		
	Spraying	0.9 sec.	_____ sec.
	Additional spraying	0.1 sec.	_____ sec.
<b>Speed 4:</b>	80 Hz		
	Spraying	0.8 sec.	_____ sec.
	Additional spraying	0.1 sec.	_____ sec.
<b>Speed 5:</b>	90 Hz		
	Spraying	0.7 sec.	_____ sec.
	Additional spraying	0.1 sec.	_____ sec.
<b>Speed 6:</b>	100 Hz		
	Spraying	0.6 sec.	_____ sec.
	Additional spraying	0.1 sec.	_____ sec.
<b>Return</b>	100 Hz		
	Return time	3.0 sec.	_____ sec.
	Supply	0.5 sec.	_____ sec.
	Inverting	0.3 sec.	_____ sec.
<b>These values must not be changed:</b>			
	Stroke	TH value	0.01 sec. On value
	Stroke	TL value	0.01 sec. Off value
	Counter	TH value	1
	Counter	TL value	1

**Description**



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### Preparation

What materials will be used?

The belt device Smartline allows for using either cold-processes and hot-processed materials (eggs, icing, glycerine, oil, separating agents, apricot gel, custard, etc.). Appropriately for the final product the following are used:

- Egg station
- Separating wax station
- Apricot gel station

Above stations may be quickly replaced.

As the supply stations Profi-Jet, Uno- Container- and Schleier-Jet may be used. Cold materials are supplied with use of pressure tank or Spray-Profi directly from the drums or large industrial containers.

### Location of faults:

1. Apricot gel, eggs, custard, anti-adhesive agent
  - bad appearance of spray: unscrew and clean the nozzle
  - clogged material filter: unscrew the filter housing, remove the filter sleeve and clean thoroughly.
  - Apricot gel too thick or granules: dilute the material

### Maintenance and cleaning :

In order to prevent the deposits of material residues (like eggs or apricots) on the belts, drive rollers and bearings it is recommended to clean the device thoroughly after work, also on the outside.

The spray systems may be cleaned with use of owned Profi-Jest with installed water cleaning or optionally available Spray-Hit. To do this, connect the water supply hoses to the material connections of the belt device. Use the lukewarm water if possible. In case of eggs it is recommended to use the disinfectant



**Safety regulations:**

Protect yourself and your environment by using appropriate safety measures.

- Do not use the device contrary to appropriate application.
- Do not clean the device with use of pressure or steam washer.
- Pressure devices must be operated and maintained only by the trained personnel. Keep away from children!
- Keep calm and focus during work.
- Do not touch the moving belts.
- Connect the compressed air with use of quick-coupling.
- Adjustment of the operational pressure must be realized with use of pressure reducer in the supply station.
- Do not use oxygen and flammable gases as the energy source.
- Do not use the flammable materials.
- Before any repairs disconnect the device from the compressed air and electric energy supply.
- Use only the original spare parts.
- Order the repairs to the trained professional personnel.
- Do not allow for exceeding the maximum allowable pressure.
- After work turn the device off with the main switch and disconnect the compressed air supply.
- The underage persons must operate the device only under the supervision of adults.
- Before each activation check the ball valves for their permeability. In case of no air flow clean or replace the valve.

**Caution:**

- **During opening of the venting valve hot air may come out.**
- **The device must be supplied from the electric system protected with the residual current switch (tripping current 30 mA).**

## Frisch-Spritzmatic

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# EC Declaration of Conformity

(Original EC declaration of conformity)

According to the machine directive 2006/42/EG, appendix II A  
according to directive EMV 201/30/EU

Producer/launcher

Frisch Spritzmatic GmbH  
Ramminger Straße 4  
D-89129 Öllingen

hereby declares that the product.

Product name: Belt device Smartline  
Operation description: Enrichment of bakery products in pass-through technology  
Model designation: 2200  
Type designation: 2200  
Machine number: 36392  
Trade name: Smartline

is consistent with the provisions of above directives - including amendments valid in the day of signing the declaration.

The mentioned product fulfils the protective requirements of low voltage directive 2014/35/EU.

The following harmonized standards have been used:


- EN 60439-1:1999 – Low-voltage switchgear and control gear assemblies – Part 1: Type-tested and partially type-tested assemblies (IEC 60439-1:1999)
- EN 61000-6-4:2007 Electromagnetic compatibility (EMC) – part 6-4: Generic standards - Emission standard for industrial environments (IEC 61000-6-4:2006)
- EN 61800-3:2004 Adjustable speed electrical power drive systems - part 3: EMC requirements and specific test methods (IEC 61800-3:2004)
- EN ISO 12100-1:2003 Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)
- EN ISO 12100-2:2003 Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles (ISO 12100-1:2003)

Documentation attorney:

Jürgen Frisch  
Ramminger Straße 4  
89129 Öllingen

Öllingen, 21.11.2023  
(Issue place and date)

J.Frisch  
(name and signature or equivalent  
designation of authorized person)



**Commissioning report**

It is hereby confirmed that the machine/system of designation

Frisch – Spritzmatic Type: **Belt device Smartline 2200**

.....

Machine number:

.....

in condition not causing claims in range of appearance and operation has been

commissioned today.

**The detailed training has been realized.**

.....

**The following faults have / have not been found:**

.....

Trained persons:

Trained by:

Released by:

Received by:

**Place**

**Date:**

.....

Bakery representative

Frisch – Spritzmatic representative

## Commissioning report

It is hereby confirmed that the machine/system of designation

Frisch – Spritzmatic Type: **Belt device Smartline 2200**

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Released by:

Received by:

**Place**

**Date:**

.....

Bakery representative

Frisch – Spritzmatic representative



## ***Spray - Hit***



Art. no.: 0300

# Manual

Frisch - Spritzmatic Ramminger Straße 4 89129 Öllingen Tel.: 0 73 45 – 75 04

## **Operation manual for Spray Hit 0300 ( SET 3 )**

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Appendix: Addition for Smartline-Ei	

## Frisch-Spritzmatic

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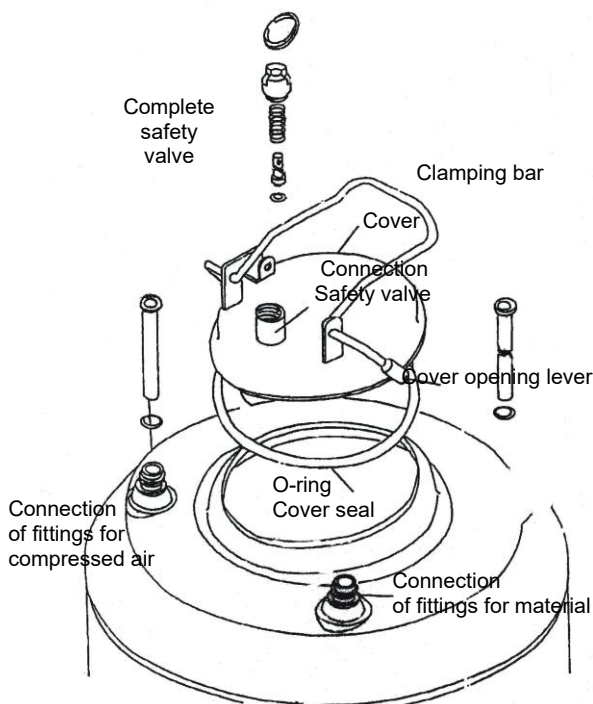
### Machine description

Spritzmatic **Spray-Hit** is the high-quality dispenser for spraying of eggs, separating wax and other cold-applied materials. After special modification Spray-Hit may also spray fresh eggs. To do this the dispenser must be continuously supplied with compressed air.

**Spray-Hit** dispenser is made from high-grade stainless steel. It is produced with use of state-of-the-art technological processes and tested before delivery for the pressure resistance. It allows to give you only the reliable, pressure-resistant dispensers. Moreover the dispensers are equipped with the safety valves preventing the excessive pressure rise.



1. Compressed air connection
2. Material supply connection
3. Manometer
4. Pressure controller
5. Pressure tank
6. Material supply hose
7. Nozzles
8. Spray gun



### Spare parts:

1. Complete cover
2. Cover seal
3. Safety valve
4. Pressure controller
5. Manometer
6. Material supply hose
7. Spray gun
8. Nozzles

### Tank filling

Before filling with possibly liquid "egg mass" it is required to open the quick-coupling. To do this turn aside the bar for holding the cover, which is removed after 1/4 of rotation with simultaneous tilting towards the tank.

**Caution:** Operations at the quick-coupling must be performed only after complete removing of pressure from the device.

The tank is filled with the pasteurized egg mass up to 3/4 of its volume, which correspond to the operational volume of 5 or 10 litres. The residual volume is used as the air bag, required for spraying.

During closing of quick-couplings pay attention that the sealing ring must be uniformly placed on the oval tank hole, and the bar must be tilted towards the tank.

It is also possible to use the spray mixture of yolks with water or milk in ration 6 : 4.

### Supplying of pressure to the dispenser

The dispenser may be now connected to the existing compressed air supply system. After reaching of maximum pressure of 6 bar it is possible to disconnect the air supply. The check valve prevents the pressure loss through the connection pipe. Perform test at low pressure.

### Spraying

Spraying should be performed with appropriate caution. Perform short sprays in quick movements. You will notice that obtaining of thin coating requires only a moment.

**It is possible to order different nozzle when required.**

### Reducing of pressure

After spraying or before opening of tank for refilling or cleaning it is required to lift the safety valve in order to remove pressure.

### Daily cleaning

After use of Spray-Hit for spraying of egg mass it is required to close the material valve and connect hose supplying clean water to the cleaning connection pipe. Rinse with water until obtaining the cleanness of hose and gun.

The gun must not be immersed in water for a long time.

Wash the hose and gun for the material transport with Frisch P&D agent (disinfecting action). After disinfection rinse with large amount of clean water.

### Daily maintenance of Spray-Hit

After using the content of the tank fill it with water and dishwashing fluid, then perform pressure rinsing through the hose and gun.

**Safety regulations:**

Protect yourself and your environment by using appropriate safety measures.

- Do not use the spray device contrary to appropriate application.
- Pressure devices must be operated and maintained only by the trained personnel. Keep away from children!
- Keep calm and focus during work.
- Do not use the flammable materials.
- Use only the original spare parts.
- Order the repairs to the trained professional personnel.
- Do not allow for exceeding the maximum allowable pressure.
- The underage persons must operate the device only under the supervision of adults.
- Keep the seals of covers and edges of tanks clean.
- The dispenser must be opened only after removing of pressure.

**Caution:**

- **If the pressure is not completely removed, the tank content may flow out during opening.**

**Safety provisions for the operation of pressure guns**

- The spray guns must be used according to their purpose.
- It includes following of important guidelines of this instruction and all professional regulations.
- The spray guns must be operated only by persons familiarized with the operation method.
- Keep away from children.
- Before work make sure that all connections are stable.
- Do not direct the fluid stream towards people - the chemical additives and/or high pressure may cause serious injuries.
- The personnel must wear the protective clothes.
- Continuously control and assure free movements of all moving parts - maintenance instead of force.
- The valve lever must not be blocked.
- Before work make sure that the device operates correctly.
- The reaction forces may occur at high pressure - hold the device firmly - assure body stability.
- After spraying the gun and hose must be released from pressure.

## Frisch-Spritzmatic

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Tel.: 0 73 45 – 75 04 / Fax: 0 73 45 – 2 18 19



# EC Declaration of Conformity

(Original EC declaration of conformity)

According to the machine directive 2006/42/EC, appendix II A  
according to directive EMV 2014/30/EU

Producer/launcher

Frisch Spritzmatic GmbH  
Ramminger Straße 4  
D-89129 Öllingen

hereby declares that the product

Product name: Spray - Hit  
Operation description: spraying of cold-applied materials  
Model designation: 0300  
Type designation: Set 3  
Machine number:  
Trade name: Spray - Hit

is consistent with the provisions of above directives - including amendments valid in the day of signing the declaration.

The mentioned product fulfils the protective requirements of low voltage directive 2014/35/EU


The following harmonized standards have been used:

- EN ISO 12100-1:2003 Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)
- EN ISO 12100-2:2003 Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles (ISO 12100-1:2003)

Documentation attorney:

Jürgen Frisch  
Ramminger Straße 4  
89129 Öllingen

Öllingen, 02.05.2023  
(Issue place and date)

  
\_\_\_\_\_  
J.Frisch  
(name and signature or equivalent  
designation of authorized person)