Profi - Jet Item no.: 0600

Midi - Jet Item no.: 0700

Uno - Jet Item no.: 1000

Solo - Jet Item no.: 3000

Manual

Frisch - Spritzmatic Ramminger Straße 4 89129 Öllingen Tel.: 0 73 45 - 20095-0

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Hand spraying system
Original operating instructions Issue:
30.03.2022 Vers.1

Frisch-Spritzmatic
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Contents

1. Important basic information

1.1 Scope of delivery

The machines in the Jet hand-held sprayer series consist of the following as standard

- from the machine
- as accessories for hoses and guns
- the operating instructions with circuit diagram
- training for new customers

1.2 Responsibilities

1.2.1 Responsibilities of the manufacturer

Frisch-Spritzmatic GmbH hands over a machine to its customers that has been built in accordance with the applicable regulations and standards.

(EC Declaration of Conformity)

1.2.2 Responsibilities of the operator

The customer is for the proper operation of the machine. This includes the exclusive assignment of trained personnel, the care and regular maintenance of the machine, as well as compliance with the relevant regulations (e.g. pressure equipment regulations).

1.3 Legal Notes

The operating instructions may not be reproduced, distributed, modified, transmitted, translated into another language or used in any other way, either electronically or mechanically, in whole or in part, without the express written permission of Frisch-Spritzmatic GmbH.

Frisch-Spritzmatic GmbH is not liable for damage resulting from the fact that the operating instructions were not or only partially observed.

We would like to point out that

- the operating instructions part of the machine,
- the operating instructions must be kept and maintained (i.e. updated) for the entire service life of the machine,
- the operating instructions must be passed on to any subsequent owner.

1.4 Documentation

1.4.1 Content and Structure

The operating instructions describe all activities for the installation, commissioning, use and maintenance of the machine. The operating instructions do not replace the training of suitable personnel.

The operating instructions are primarily intended for the persons of a company who are responsible for the machine and who are responsible for the organization and training of the employees working with this machine.

The machine must not put into operation without prior training or instruction. These operating instructions must kept accessible to employees at all times.

1.4.2 Conventions

Representation

All function switches in angle brackets >.....<

All descriptive designations are shown in straight type. Special notes are shown in italics.

1.5 Service address

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Ramminger Street 4
89129 Öllingen

Phone: +49 (0) 73 45 - 20095-0
Fax: +49 (0) 73 45 - 20095-20 D-
eMail: info@frisch-spritzmatic.de

Emergency service telephone:
0172 - 853 75 04 (from abroad with international area code 0049)

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2. Machine description

The Jet series refers to high-quality manual spraying machines that are used for finishing fine baked goods. This can be done both as a single tank machine and as a double tank machine. The media is heated and can then be applied with the respective spray guns.

The hand-held jet sprayers described here include

Profi - Jet 2 material containers of 26 L (standard for apricot and fondant) **Midi - Jet** 2 material containers of 15 L (standard for apricot and fondant) **Uno - Jet** 1 material container 26 L (optionally for apricot or fondant) **Solo - Jet** 1 material container 15 L (optionally for apricot paste or fondant)

The material is heated using continuous flow heaters, which ensure that the material to be processed is handled sparingly andabove all, carefully. Only the material that is actually being processed is drawn. This means that the original quality of the other material in the containers remains unaffected.

The Jet series is designed for durability. All essential parts are made of stainless steel and components are installed that have proven themselves over many years of experience. Please note a few care principles that we have compiled separately. The stainless steel housing, material tanks, material hoses and guns are easy to clean and meet all hygiene requirements.

2.1 Future security

The Jet series was developed with the future in mind. Thanks to its durability, it is not only the basis of professional finishing technology today, but will also form the basis of your expansion in the future.

Do you have any questions? We will be happy to help you.

Just give us a call! Phone +49 (0) 73 45 - 20095-0

We wish you successful work with the Jet series.

3. Security

3.1 Convention for Safety instructions

3.1.1 Labeling on the machine

EU mark of conformity
Conforming to European standardization

Warning of dangerous electrical voltage Danger: electricity

3.1.2 Meaning of signal words

The signal words used in the manual and their meanings are defined below. Make sure you understand their meaning before reading this manual. Do not work on this machine until you have read this manual.

a fundamentally dangerous situation that must be avoided, otherwise it will lead to death or serious injury.

Indicates a potentially dangerous situation that must be avoided, otherwise it could lead to death or serious injury.

Indicates a potentially dangerous situation that must be avoided as it may otherwise lead to moderate or minor injuries.

Indicates a potentially dangerous situation that must be avoided as it may otherwise lead to material damage.

3.1.3 Meaning of security symbols

"Attention" points that you should observe. Be sure to read the relevant points in the operating manual before using the machine.

3.2 Behavior in an emergency (PROFI - JET)

In an emergency, switch off the Profi-Jet at the >Main switch< of the machine. Set the compressed air switches to "OFF". If necessary, bleed the material tanks manually at the ball valve on the cover of the material tank.

Immediately call in authorized personnel who can determine and rectify the cause of the emergency. Only then may the >main switch< be operated again.

Compressed air is used to feed the material from the containers to the guns.

Possible emergencies: 

- If there is excess pressure in the boiler, the safety valve opens.
  - Main switch to >OFF< . Compressed air to >OFF< .
  - Manually release the compressed air at the ball valve.
  - Maintenance and care (see manual).

- A hose bursts due to material fatigue.
  - Main switch to >OFF< . Compressed air to >OFF< .
  - Maintenance and care (see manual)

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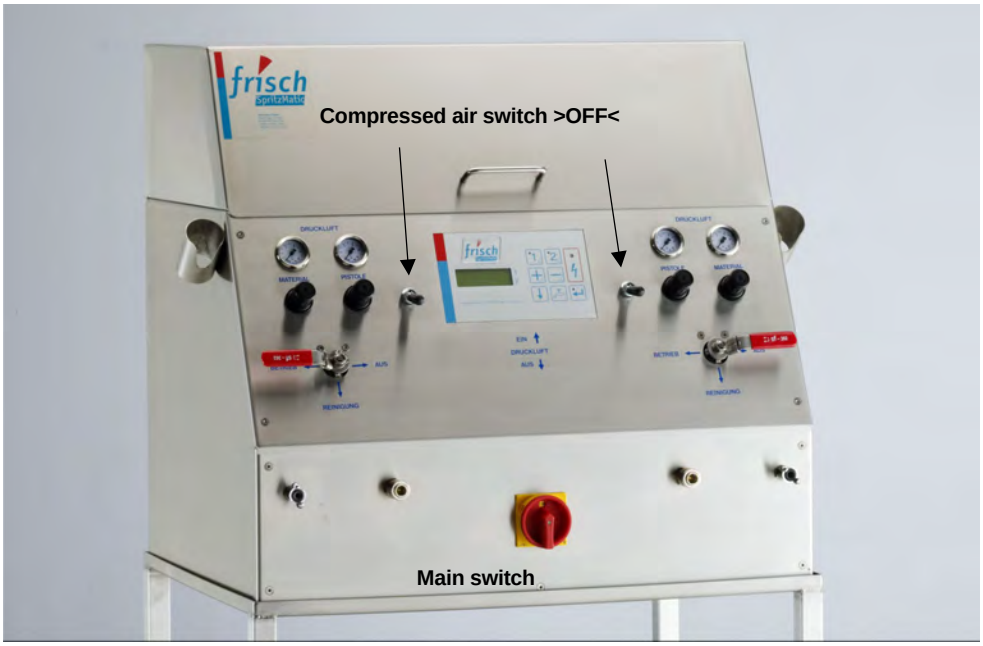
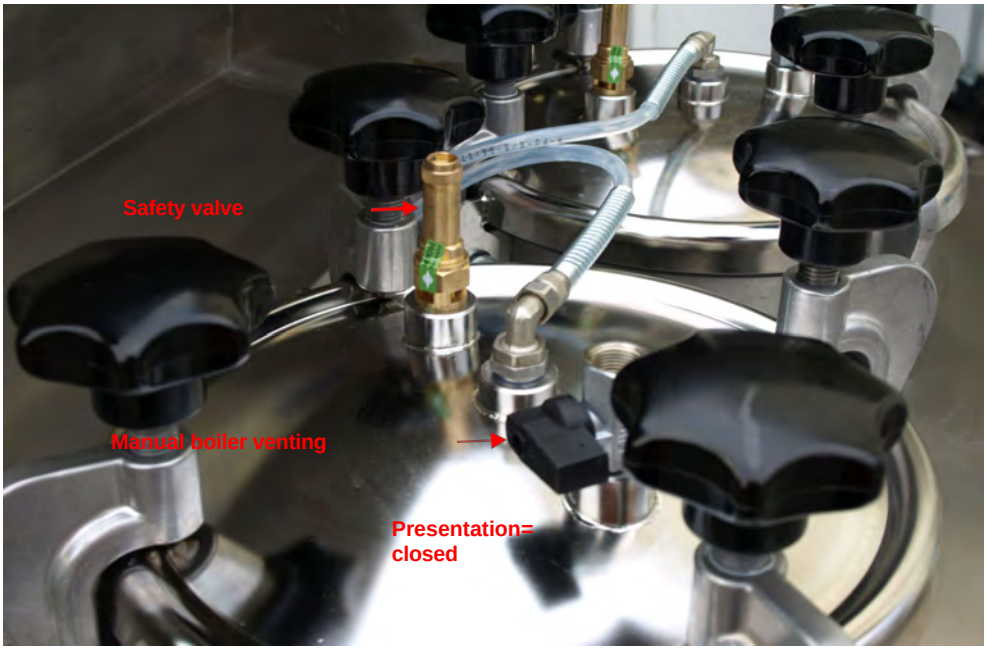
3.2 Behavior in an emergency (MIDI - JET)

In an emergency, switch off the Midi-Jet at the >MAIN SWITCH< of the machine. Set the compressed air switches to "OFF". If necessary, bleed the material hopper manually at the ball valve on the cover of the material hopper.

Immediately call in authorized personnel who can determine and rectify the cause of the emergency. Only then may the >main switch< be operated again.



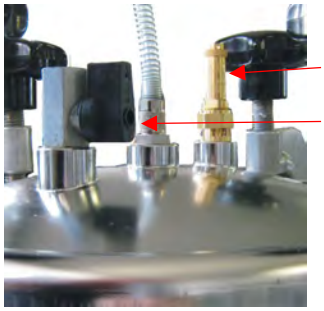


Compressed air is used to feed the material from the containers to the guns.

Possible emergencies: **⚠WARNUNG**

- If there is excess pressure in the boiler, the safety valve opens.
  - Main switch to >OFF< . Compressed air to >OFF< .
  - Manually release the compressed air at the ball valve.
  - Maintenance and care (see manual).

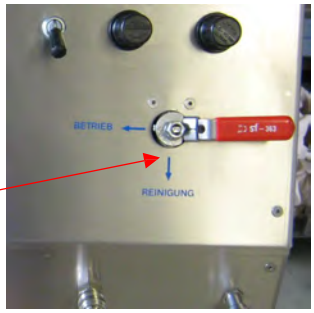
- A hose bursts due to material fatigue.
  - Main switch to >OFF< . Compressed air to >OFF< .
  - Maintenance and care (see manual.)



Safety valve

Compressed air ball valve (position: open)

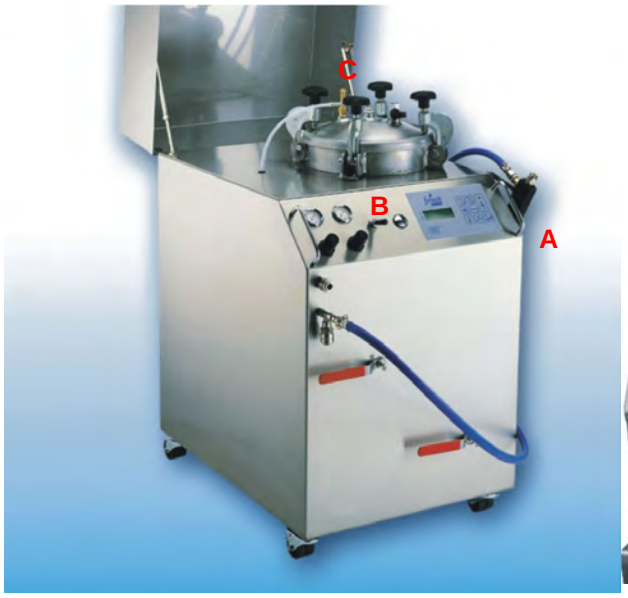
Material ball valve (position: OFF)



3.2 Behavior in an emergency (UNO - JET / SOLO - JET)

In an emergency, switch off the Midi-Jet at the >MAIN SWITCH< of the machine. Set the compressed air switches to "OFF". If necessary, bleed the material tanks manually at the ball valve on the cover of the material tank.

Immediately call in authorized personnel who can determine the cause of the emergency and it. Only then may the >main switch< be operated again.



A >emergency stop<
B Compressed air toggle lever
C Safety valve

Compressed air is used to feed the material from the container to the gun.

Possible emergencies: **⚠WARNUNG**

- If there is excess pressure in the boiler, the safety valve opens.
  - Main switch to >OFF< . Compressed air to >OFF< .
  - Manually release the compressed air at the ball valve.
  - Maintenance and care (see manual).

- A hose bursts due to material fatigue.
  - Main switch to >OFF< . Compressed air to >OFF< .
    Maintenance and care (see manual.)

3.3 Intended use of the machine

3.3.1 Field of application

The manual spraying machines in the Jet series are used for finishing pastries. Only food-approved media may be used for this purpose.

3.3.2 Requirements for the staff

⚠VORSICHT

The Jet series machines may only operated by personnel trained and specially instructed by Frisch-Spritzmatic GmbH. This personnel may, in accordance with the training provided by Frisch-Spritzmatic GmbH, pass on this instruction to other personnel.

Only personnel trained in this way are authorized to operate this machine in accordance with its intended use. The basic principles of the manual must be observed.

The description of the protective devices and displays / error messages are shown separately in the chapters on safety and control.

Work on electrical parts of the machine may only be carried out by a qualified electrician.

3.3.3 Safety-relevant Ambient conditions

The Jet series machines must be set up in such a way that electrical cables and pressure / material lines cannot be affected by external influences.

3.3.4 Safety-relevant information for certain life phases

Assembly, installation	Chapter 7
Installation	Chapter 7
Assembly	Chapter 7
Operation	Chapter 9
Dismantling	Chapter 15
Waste disposal	Chapter 15

3.4 Possible misuse

⚠WARNUNG

The machines in the Jet series may only used for finishing pastries. The media used must be matched to this and processed in accordance with the manual (chapter "Operation").

Make sure that no sealing film gets into the material containers. Do not process fresh or whole eggs!

If the material hose not properly connected to the bayonet catch, it may come off. In this case, the opening must never be held shut reflexively, as hot material will escape (risk of burns!).

3.5 Observe the operating instructions

This manual / operating instructions are an integral part of the machine. The employee must familiarize himself with the manual before using the machine. This means that

that the operating instructions must be observed in full

that the operating instructions must be kept in the immediate vicinity of the machine and must be available to all machine personnel at all times

that the operating instructions must be passed on to the next owner of the machine.

3.6 Safety marking on the machine

All safety-related information the machine in the form of stickers, signs or other notices must be observed. These must not be removed or pasted over.

Warning of dangerous electrical voltage Danger: electricity

3.7 Residual hazards and Protective measures

GEFAHR

- Before opening pressurized parts (e.g. hoses, heat exchanger), the machine must be depressurized (disconnected from the air supply)
- Before working on the electrical system, the machine must be . (Disconnect from the power supply).

Compressed air switch >OFF<

Switch off the machine

- Hoses and connections carrying material may be hot. Allow to cool down.
- Never touch the heat exchanger without first allowing the machine to cool down.

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4. Technical Data

Hand sprayers Jet series

Dimensions	**Professional jet**	**Midi-Jet**	**Uno-Jet**	**Solo-Jet**
Width	700 mm	750 mm	630 mm	570 mm
Depth	640 mm	550 mm	800 mm	600 mm
Height	1200 mm	700 mm	980 mm	690 mm
Weight	220 kg	120 kg	137 kg	85 kg
Connected loads				
Operating voltage	400 V	400 V	400 V	400 V
Protection	32 A	16 A	16 A	16 A
Apricot heating	9 KW	3 KW	9 KW or 9 KW	3 KW or 3 KW
Heating fondant	6 KW	3 KW		
Compressed air	8 bar	8 bar	8 bar	8 bar
Volume	350 liters/min.	350 liters/min.	350 liters/min.	350 liters/min.
Material container	approx. 26 Ltr.	approx. 15 Ltr.	approx. 26 Ltr.	approx.15 Ltr.

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5. Structure and function

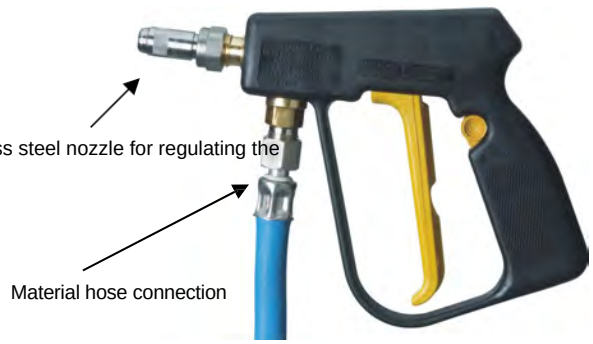
5.1 Structure

The manual spray machines in the Jet series are high-quality finishing machines that can process a wide range of materials.

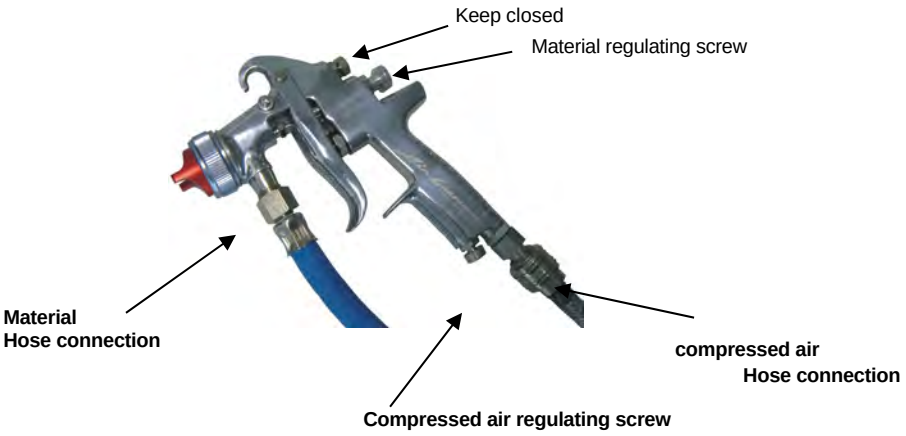
The material is heated using continuous-flow heaters, which ensure economical and, above all, gentle handling of the material to be processed.

The material is applied with a spray gun.

Apricot gun NP



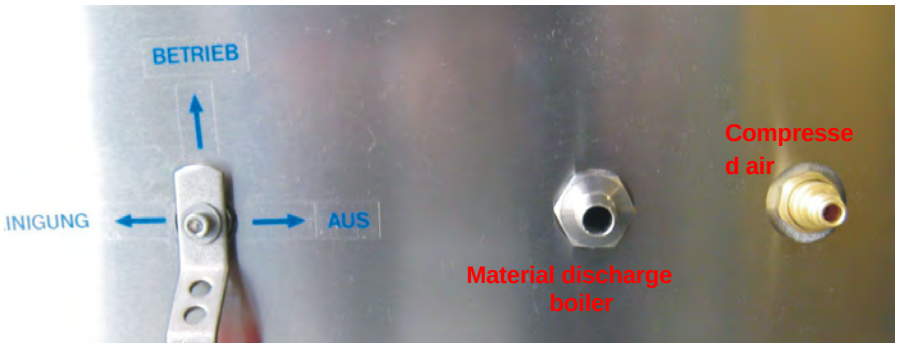
Fondant gun FP

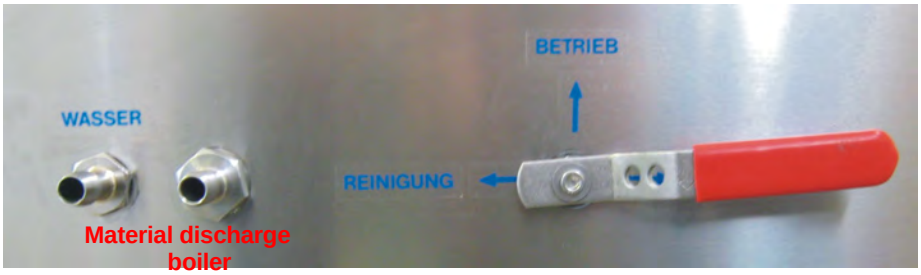


5.1.1 Main components Profi- Jet

A1> Compressed air main switch - Apricot gun A2 > Apricot gun pressure reducer	B1> Fondant air pressure master switch B2 > Fondant gun pressure reducer
A3> Pressure reducer material (apricot) A4 > Gun pressure gauge	B3> Material pressure reducer (fondant) B4 > Gun pressure gauge
A5> Pressure gauge material (apricot)	B5> Pressure gauge material (fondant)

Side view


BETRIEB
INIGUNG
AUS
Compresse
d air
Material discharge
boiler


BETRIEB
WASSER
REINIGUNG
Material discharge
boiler

5.1.1 Main components Midi- Jet

A1> Compressed air main switch - Apricot gun A2 > Apricot gun pressure reducer A3> Pressure reducer material (apricot) A4 > Gun pressure gauge A5> Pressure gauge material (apricot)	B1> Fondant air pressure master switch B2 > Fondant gun pressure reducer B3> Material pressure reducer (fondant) B4 > Gun pressure gauge B5> Pressure gauge material (fondant)

Rear view


frisch
SpritzMatic
Frisch Vertriebs-GmbH
Ramminger Straße 4
89129 Öllingen/Ulm
Telefon 0 73 45/75 04
Telefax 0 73 45/2 18 19
Gerät-Typ: SET 7 MIDI
Gerät-Nr.: 2827
Baujahr: 2010
Spannung: 400 VOLT
Leistung: 6 kW
Temperatur: 110°C
Betriebsdruck: 8 bar
CE
WASSER
Compresse
d air

5.1.1 Main components Uno- Jet

A1 > Compressed air main switch
A2 > Pressure reducer gun A3> Pressure reducer material

A4 > Gun pressure gauge A5> Material pressure gauge

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5.1.1 Main components Solo- Jet

A1> Compressed air main switch - Apricot gun A2 > Apricot gun pressure reducer
A3> Pressure reducer material (apricot) A4 > Gun pressure gauge
A5> Pressure gauge material (apricot)

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Back

5.1.2 Operator workstations

The Profi-Jet and Midi-Jet are designed for two workstations.
Apricotizing pastries or spraying cake glaze and spraying or filing fondant.

The Uno-Jet and the Solo-Jet are designed for one workstation.
Apricot icing, cake icing or fondant can be processed (depending on the appliance version).

5.2 Functional Description

Depending on the model, the machines in the Jet series heat apricot jam, cake icing and/or fondant. The media can be applied to the pastry using special spray guns. The manual spraying machines are operated with compressed air.

5.3 Process engineering Description

Once the material tanks have been properly filled, the machine is switched on and compressed air is supplied. Once the set temperature has been reached, the machine is ready for operation.

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6. Delivery, internal transport, Unpacking

6.1 Security

The machines in the Jet series are designed so that they can be transported, handled and stored safely at all times.

6.2 Delivery

When the machines are delivered, care must be taken to ensure that they not damaged during transportation. The machines are delivered by Frisch employees or by a forwarding agent. Installation is carried out by Frisch-Spritzmatic GmbH or by personnel instructed by us.

6.3 Internal Transportation

⚠VORSICHT

Risk of the machine rolling away. Only move the machine on level, stable ground. Always apply the parking brakes on the castors before parking the machine.

6.4 Unpacking

The Jet series machines are delivered wrapped in stretch film. This must be completely removed after installation.

7. Assembly and installation, Initial commissioning

7.1 Security

⚠VORSICHT

Ensure that the Jet series machines are standing securely and on a level surface. The brake rollers must be locked.

7.2 Assembly and Installation

⚠WARNUNG

Before installation, make sure that the power switch is set to "0" and the compressed air toggle lever is set to "Off".

The material hoses of the guns must be connected to the appliance in the correct direction. Make absolutely sure that the bayonet connections are secure. The fondant side is also connected to a compressed air hose using a quick-release coupling.

Only then is the appliance connected to the power, compressed air and water supply.

7.3 Initial commissioning

⚠WARNUNG

Initial commissioning may only be carried out by Frisch-Spritzmatic GmbH employees or appropriately trained personnel. The safety instructions must be observed.

7.3.1 Technical requirements and preparations

The manual spraying machines in the Jet series are designed for professional use for processing materials to be heated (e.g. apricot icing, fondant, cake icing).

The machines are set by default to the usual values, which should not be deviated from without good reason.

A 400 V three-phase connection (16A) **(Profi-Jet=32A)** and compressed air (oil-free) at 8 bar must be available. The manual spraying machines in the Jet series require an air volume of 350 liters / minute.

7.4 Setting up / preparing the Jet - hand sprayer

Danger from the machine rolling away.

⚠VORSICHT

The manual sprayers in the Jet series are equipped with smooth-running castors for easy maneuverability. The machines may only be positioned and moved on level, stable ground. Always apply the parking brakes on the castors before parking the machine.

- Connect the hoses in the correct direction.
  (make sure the connections are secure)
- Fill material into the machine containers.
- Connect the machine to the power supply (400 V)
  (observe fuse protection)
- Connect the machine to compressed air (compressed air line or compressor (oil-free!)).

Heating up the material:

- Set temperature (see control and control panel)
- Preheat the apricot oven to 95° C for 10 minutes
- Preheat the cake glaze to 80° C for 10 minutes
- Preheat the fondant to 45° C and for 10 minutes

⚠WARNUNG

Never open the switch box or parts of the machine's electrical equipment. Always inform a qualified electrician if you are concerned about faults in the machine's electrical equipment.

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8. Control and control panel

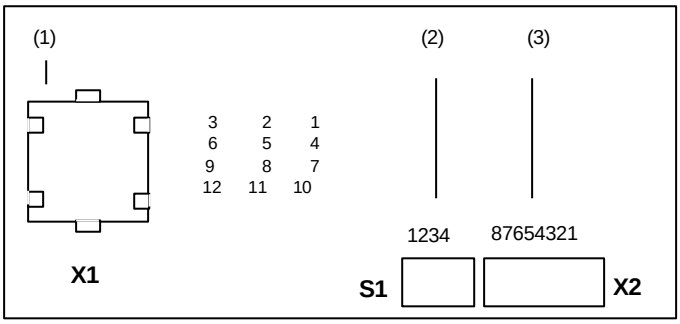
1.) Company logo
2.) LCD display
3.) Plus button / F1 function key
4.) Heating 1 / F3 function button
5.) Minus button / F2 function key
6.) Heating 2 / F4 function button
7.) Alarm - Display
8.) Select button
9.) Cleaning
10.) Return button

The Spritzmatic control unit is housed in a closed plastic housing and designed so that it can be installed behind a metal panel. A plastic film is applied to this panel for covering and operation.

The control unit contains an alphanumeric display, seven buttons and several LED indicators for user guidance. The electronics are designed to control the heating. The integrated fault monitoring system is able to detect various malfunctions. These are then shown on the display in the form of error messages. To return to normal operating mode, such error messages must be acknowledged with the >RETURN< button.

After switching on the device, a start message appears on the display for approx. 1 second, followed by the normal operating display with the setpoint settings. The operating modes and functions of the system are described below.

Rear of control unit



(1) Mains plug X1 AMP Mate-N-LOK no. 926681-3
Counterpart AMP no. 350735-1/6-5

(2) DIP switch S1

(3) Plug X2 AMP no. 0-280612-1
Counterpart AMP no. 280593-0

Normal operating display

Operating modes and functions

The system supports the control of two heating circuits, one heating circuit for >APRIKOTUR< and one heating circuit for >FONDANT<. Both circuits can be operated and adjusted independently of each other.

Target temperature setting

The setpoint temperature of the heaters can be preselected between 20°C and 120°C. The selection button is used to switch between the setpoints for heaters 1 and 2. The current display is indicated by an arrow. The PLUS and MINUS buttons can be used to change the values in 1° increments within the specified range. If a change has been made, this is documented by a flashing setpoint display and a flashing red LED in the RETURN button. The new value is only accepted after confirmation with the RETURN button. If this confirmation is not given, the old value is retained.

Switching the heating controls on and off

The heaters are switched on and off using buttons 1 and 2. When the heating control is switched on, the ACTUAL temperature value is shown on the display and adjusted to the set SET value within the permissible tolerances. The active status of the control circuits is documented by a green LED in the corresponding button.

Switching the cleaning function on and off

A valve is provided for cleaning the system's hoses and pipes. The cleaning system is activated using the >CLEANING< button. The cleaning function is locked when one of the two heaters is switched on. The message appears on the display:

Overheating protection

To protect the heaters, two safety thermostats must be fitted in the system's power circuit and connected in accordance with the wiring diagrams. If a heating circuit overheats, the circuit breakers are disconnected. The control unit recognizes this function and documents this error both in the display and by switching on the red ALARM LED.

The message appears on the display:

HEATING SYSTEM FAULT OVERHEATING IN BOILER 1

HEATING SYSTEM MALFUNCTION OVERHEATING IN BOILER 2

Temperature sensor monitoring

The temperature sensors in the boilers are permanently monitored for short circuits and wire breaks. If a fault in this respect, all units are switched off and the following error message appears on the display:

HEATING SYSTEM FAULT FAULTY SENSOR IN BOILER 1

HEATING SYSTEM FAULT SENSOR DEFECT IN BOILER 2

Special functions

The control unit contains a number of special functions that are not required for everyday use of the system.

To prevent these functions from being executed unintentionally, they can only be called up with an encrypted key combination.

If the >RETURN< >PLUS< and >MINUS< buttons are pressed together when the appliance is switched on, the menu with the special functions appears on the display:

<SPECIAL FUNCTIONS> F1: APRIC. F2: MEMSTD F3: CALIB1 F4: CALIB2

Cancel -> Return

The PLUS, MINUS, HEAT 1 and HEAT 2 buttons are assigned the dual functions F1 - F4.

F1 APRIK or GUSS

Press the F1 button to switch between the normal version of the control unit and the special version >CAST/GEL<. The setting is saved in the control unit's non-volatile memory.

F2 MEMSTD Program default values

The control unit contains a non-volatile memory in which various parameters required for the function are stored. Pressing the F2 button resets these parameters.

< STANDARD VALUE >

THE DEFAULT VALUES ARE ADOPTED

F3:CALIB1 - Calibrate measuring amplifier heating circuit 1.

The temperature of the control unit measured using a PT 100 sensor connected to an integrated measuring amplifier. The electronics must be calibrated for optimum temperature measurement. When the F3 button is pressed, the display shows

<CALIBRATE TEMP:1>

Measured value:
Cancel -> Return

The measuring circuit can now be calibrated with the aid of two calibration standards. (Attention: This is carried out at the factory)

F4:CALIB2 - Calibrate measuring amplifier heating circuit 2

The temperature of the control unit measured using a PT 100 sensor connected to an integrated measuring amplifier. The electronics must be calibrated for optimum temperature measurement. When the F3 button is pressed, the display shows :

<TEMP:2 CALIBRATE>

Measured value:
Cancel -> Return

The measuring circuit can now be calibrated with the aid of two calibration standards. (Attention: This is carried out at the factory)

System configuration

There is a multi-pole dip switch on the back of the housing, which is used to set various configurations. When the control unit is switched on, the status of the switches is recognized once and saved. Changes to the configuration are only possible when the device is switched off.

The individual switches have the following meaning:

Switch 1:

Switch 1 in the >ON< position means that heating control circuit 1 is enabled. If the switch in the >OFF< position, heating 1 cannot be activated. The first two lines in the display then remain blank.

Switch 2:

Switch 2 in the >ON< position means that heating control circuit 2 is enabled. If the switch is in the >OFF< position, heating 2 cannot be activated. The first two lines in the display then remain blank.

Attention: If both switches are in the >OFF< position, an error message appears.

Switch 3:

Switch 3 can used to switch between German and English. When the switch is in the >OFF< position, the text on the display appears in German; when the switch is in the
>EIN< accordingly in English.

Switch 4:

Switch 4 in the >ON< position means that the cleaning system can be activated. If the switch is in the >OFF< position, the CLEANING button is disabled.

Pin assignment

Plug connector X1

1,4,7,10	Mains connection 230V or 2 x 115V Depending on the operating voltage, jumpers are required according to the circuit diagram
9,12	Protective conductor - It is sufficient if one pole is connected to the protective conductor
2	Relay heater 1 (L1)
5	Relay output cleaning valve (L1)
8	Relay output heating 2 (L1)
11	Relay output (currently not used)
3	Safety thermostat 1

The safety thermostat should be wired so that if the heating circuit overheats, both the power contactor is switched off and phase L1 is connected to this terminal.

Plug connector X2

1,2,3	PT 100 - Sensor for 1st heating circuit (1:red, 2:red, 3:white)
4,5,6	PT 100 - Sensor for 2nd heating circuit (1:Red, 2:Red, 3:White)
7,8	Protective conductor connection possible

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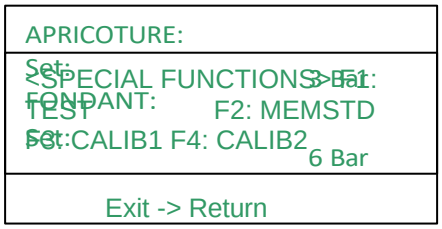
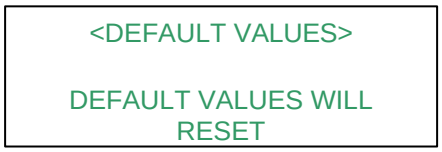
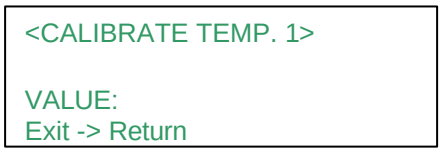
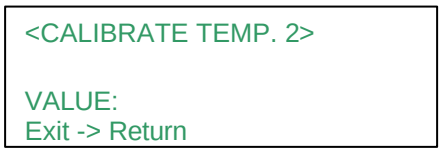
Texts in English:









Texts in English:

WATERVALVE CLEANING SYSTEM IS ACTIVE

ERROR HEATING SYSTEM OVERHEAT BOILER 1

ERROR HEATING SYSTEM OVERHEAT BOILER 2

ERROR HEATING SYSTEM SENSOR BOILER 1

ERROR HEATING SYSTEM SENSOR BOILER 2

9. Operation (professional Jet)

9.1 Security

Safety marking on the machine

Warning of dangerous electrical voltage. Sticker on the electrical box inside the machine door

.

9.2 Control elements

Operating lever
- Operation
- Cleaning Off
-
-

terial hose uckluftschlauch

Ma

Dr

Control system
Permanent monitoring of the target values.

Pressure switch
On / Off

Pressure gauge

Pressure reducer

9.3 Displays

see chapter "Control

9.4 Operating modes

The Profi-Jet can be operated with one material boiler or with both at the same time. To do this, press "Heating1", "Heating2" or both options in the control unit.

9.5 Materials

You do not need any special materials or equipment to operate the professional jet.

9.6 Commissioning

1. Connect the three-phase cable (400 V) to the power cable correctly.
2. Connect the appliance to the compressed air line or compressor (oil-free).
3. Connect the material hoses and material guns. For the fondant gun, also connect the compressed air hose.

The machine is set to the usual values at the factory. This should not be deviated from without good reason.

Apricotur:	Pressure regulator for gun and material (A2, A3)> 3-4 bar. Temperature: 95° C.
Fondant:	Pressure regulator for gun and material (B2, B3)> 5-6 bar. Temperature: 45° C.

9.6.1 Recommissioning after an emergency shutdown

⚠WARNUNG

If an emergency stop (main switch / compressed air switch) has been activated due to a machine-related condition, it must be ensured that the cause has been eliminated.

9.6.2 Recommissioning after a longer standstill

⚠WARNUNG

All safety-relevant components (safety valves, brackets, etc.) must be checked to ensure that they are in proper condition, i.e. fully functional.

9.7 Set-up, Material loading

Open the lid screws and fill the ready-to-spray material (observe any formulations) into the storage containers.

Important:

Close the cover and attach the screw bracket. Turn until the tips of the screws make contact with the cover. Tighten all four screws with one turn (do not use force!). Excessive tightening may damage the rubber seal and, as a result, possibly also the bracket and boiler.

9.8 Starting the machine

The machine is ready for use in 10 minutes.

1. Switch on the main electrical switch.
2. Switch on the heating by pressing the F3 and F4 buttons on the membrane keypad when starting work.
3. Switch on compressed air main switch (A1, B1)
4. Set the operating lever to >OPERATION<.
5. Press the spray gun handle until the material to be sprayed emerges.

The spray pattern on the gun can be influenced using material and compressed air. Compressed air and material fine-tuning are possible on the fondant gun. Spray some material in the feed until heated material emerges.

 Attention:

The water level of the instantaneous water heaters must be checked once a year!

9.9 Operate (processing)

Place the baking trays on a flat surface and hold the spray gun approx. 10 cm at a right angle above the pastry and work quickly in circular movements, piece by piece. With sufficient practice, can also work directly on the rack trolley. To do thispull out a tray almost to the end, hold it at an angle with one hand and spray as described above.

Important:
The warmer the pastry, the better the adhesion and shine of the apricot glaze.

Tip:
Before spraying fondant, close the compressed air supply on the fondant gun. Press the operating lever and open the compressed air supply until you reach the desired jet. This also makes it easy to cover puff pastry.

9.10. End of work

If you notice that only a small amount (approx. 1 sheet) remains to be processed, set the operating lever to >CLEANING< and spray out the material that is still in the lines. Spray until only air comes out! As there is now no material left in the hoses, nothing can stick together. Of course, instead of spraying out the remaining material, you can also collect it in a container and reuse it. (For details see chapter "Cleaning")

9.11 Emptying the material container

The side operating levers are set to >Cleaning<. Apply a little pressure to the bowl. As the material container is under slight pressure, the material is pressed out at the side material outlet. (Caution, place bucket under the material outlet)

9. Operation (Midi- Jet)

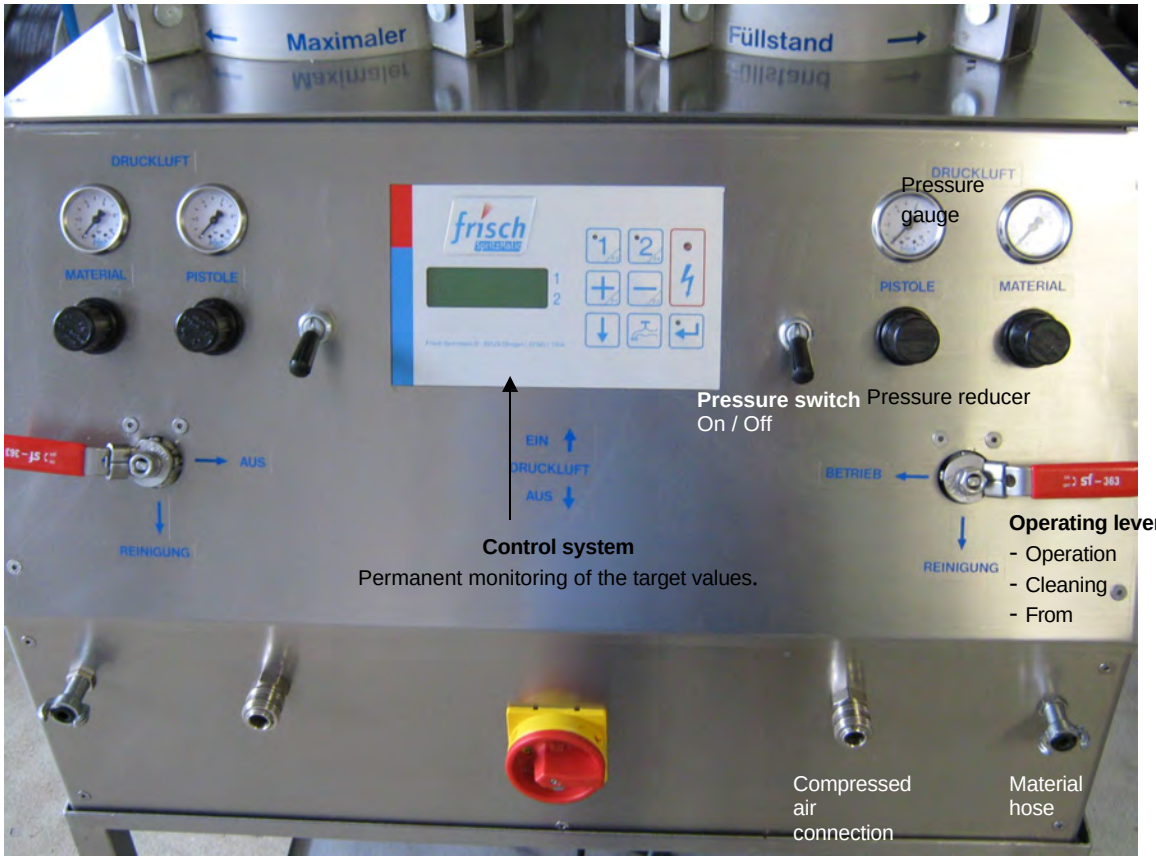
9.1 Security

Safety marking on the machine

Warning of dangerous electrical voltage. Sticker on the electrical box inside the machine.

.

9.2 Control elements



9.3 Displays

see chapter "Control

9.4 Operating modes

The Midi-Jet can be operated with one material boiler or with both at the same time. To do this, press "Heating1", "Heating2" or both options in the control unit.

9.5 Materials

You do not need any special materials or equipment to operate the Midi Jet.

9.6 Commissioning

1. Connect the three-phase cable (400 V) to the power cable correctly.
2. Connect the appliance to the compressed air line or compressor (oil-free).
3. Connect the material hoses and material guns. For the fondant gun, also connect the compressed air hose.

The machine is set to the usual values at the factory. This should not be deviated from without good reason.

Apricotur:	Pressure regulator for gun and material (A2, A3)> 3-4 bar. Temperature: 95° C.
Fondant:	Pressure regulator for gun and material (B2, B3)> 5-6 bar. Temperature: 45° C.

9.6.1 Recommissioning after an emergency shutdown

⚠WARNUNG

If an emergency stop has been at the main switch due to a machine-related condition, ensure that the cause has been eliminated.

9.6.2 Recommissioning after a longer standstill

⚠WARNUNG

All safety-relevant components (safety valves, brackets, etc.) must be checked to ensure that they are in proper condition, i.e. fully functional.

9.7 Set-up, Material loading

Open the lid screws and fill the ready-to-spray material (observe any formulations) into the storage containers.

Important:

Close the cover and attach the screw bracket. Turn until the tips of the screws make contact with the cover. Tighten all four screws with one turn (do not bang!). Excessive tightening may damage the rubber seal and, as a result, possibly also the bracket and boiler.

9.8 Starting the machine

The machine is ready for use in 10 minutes.

1. Switch on the main electrical switch.
2. Switch on the heating by pressing the F3 and F4 buttons on the membrane switch when starting work.
3. Switch on compressed air main switch (A1, B1)
4. Set the operating lever to >OPERATION<.
5. Press the spray gun handle until the material to be sprayed emerges.

The spray pattern on the gun can be influenced using material and compressed air. Compressed air and material fine-tuning are possible on the fondant gun. Spray some material in the feed until heated material emerges.

Attention:
l level of the instantaneous water heaters must be checked once a year!

9.9 Operate (processing)

Place the baking trays on a flat surface and hold the spray gun approx. 10 cm at a right angle above the pastry and work quickly in circular movements, piece by piece. With sufficient practice, can also work directly on the rack trolley. To do thispull out a tray almost to the end, hold it at an angle with one hand and spray as described above.

Important:
The warmer the pastry, the better the adhesion and gloss of the apricot glaze / fondant.

Tip:
Before spraying fondant, close the compressed air supply on the fondant gun. Press the operating lever and open the compressed air supply until you reach the desired jet. This also makes it easy to cover puff pastry.

9.10. End of work

If you notice that only a small amount (approx. 1 sheet) remains to be processed, set the operating lever to >CLEANING< and spray out the material that is still in the lines. Spray until only air comes out! As there is now no material left in the hoses, nothing can stick together. Of course, instead of spraying out the remaining material, you can also collect it in a container and reuse it. (For details see chapter "Cleaning")

9.11 Emptying the material container

The material is emptied from the material container via the guns.

9. Operation (Uno- Jet)

9.1 Security

Safety marking on the machine

Warning of dangerous electrical voltage. Sticker on the electrical box inside the machine door
.

9.2 Control elements

9.3 Displays

see chapter "Control

9.4 Operating modes

The Profi-Jet can be operated with one material boiler or with both at the same time. To do this, press "Heating1", "Heating2" or both options in the control unit.

9.5 Materials

You do not need any special materials or equipment to operate the professional jet.

9.6 Commissioning

1. Connect the three-phase cable (400 V) to the power cable correctly.
2. Connect the appliance to the compressed air line or compressor (oil-free).
3. Connect the material hoses and material guns. For the fondant gun, also connect the compressed air hose.

The machine is set to the usual values at the factory. This should not be deviated from without good reason.

Apricotur:	Pressure regulator for gun and material (A2, A3)> 3-4 bar. Temperature: 95° C.
Fondant:	Pressure regulator for gun and material (B2, B3)> 5-6 bar. Temperature: 45° C.

9.6.1 Recommissioning after an emergency shutdown

⚠WARNUNG

If an emergency stop has been triggered due to a machine-related condition, it must be ensured that the cause has been eliminated.

9.6.2 Recommissioning after a longer standstill

⚠WARNUNG

All safety-relevant components (safety valves, brackets, etc.) must be checked to ensure that they are in proper condition, i.e. fully functional.

9.7 Set-up, Material loading

Open the lid screws and fill the ready-to-spray material (observe any formulations) into the storage containers.

Important:

Close the cover and attach the screw bracket. Turn until the tips of the screws make contact with the cover. Tighten all four screws with one turn (do not bang!). Excessive tightening may damage the rubber seal and, as a result, possibly also the bracket and boiler.

9.8 Starting the machine

The machine is ready for use in 10 minutes.

1. Switch on the main electrical switch.
2. Switch on the heating by pressing the F3 and F4 buttons on the membrane keypad when starting work.
3. Switch on compressed air main switch (A1, B1)
4. Set the operating lever to >OPERATION<.
5. Press the spray gun handle until the material to be sprayed emerges.

The spray pattern on the gun can be influenced using material and compressed air. Compressed air and material fine-tuning are possible on the fondant gun. Spray some material in the feed until heated material emerges.

 Attention:

The water level of the instantaneous water heaters must be checked once a year!

9.9 Operate (processing)

Place the baking trays on a flat surface and hold the spray gun at a right angle of approx. 10 cm above the pastry and work quickly in circular movements, piece by piece. With sufficient practice, can also work directly on the rack trolley. To do thispull out a tray almost to the end, hold it at an angle with one hand and spray as described above.

Important:
The warmer the pastry, the better the adhesion and shine of the apricot glaze.

Tip:
Before spraying fondant, close the compressed air supply on the fondant gun. Press the operating lever and open the compressed air supply until you reach the desired jet. This also makes it easy to cover puff pastry.

9.10. End of work

If you notice that only a small amount (approx. 1 sheet) remains to be processed, set the operating lever to >CLEANING< and spray out the material that is still in the lines. Spray until only air comes out! As there is now no material left in the hoses, nothing can stick together. Of course, instead of spraying out the remaining material, you can also collect it in a container and reuse it. (For details see chapter "Cleaning")

9.11 Emptying the material container

The side operating levers are set to >Cleaning<. Apply a little pressure to the bowl. As the material container is under slight pressure, the material is pressed out at the side material outlet. (Caution, place bucket under the material outlet)

9. Operation (Solo Jet)

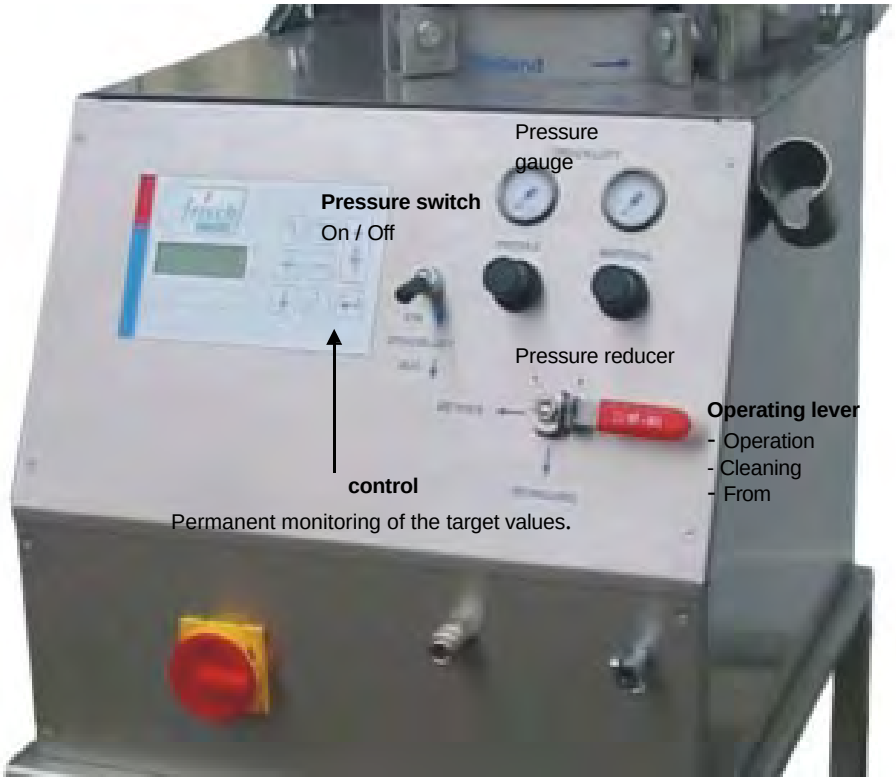
9.1 Security

Safety marking on the machine

Warning of dangerous electrical voltage. Sticker on the electrical box inside the machine.

.

9.2 Control elements



9.3 Displays

see chapter "Control

9.4 Operating modes

The Midi-Jet can be operated with one material boiler or with both at the same time. To do this, press "Heating1", "Heating2" or both options in the control unit.

9.5 Materials

You do not need any special materials or equipment to operate the Midi Jet.

9.6 Commissioning

1. Connect the three-phase cable (400 V) to the power cable correctly.
2. Connect the appliance to the compressed air line or compressor (oil-free).
3. Connect the material hoses and material guns. For the fondant gun, also connect the compressed air hose.

The machine is set to the usual values at the factory. This should not be deviated from without good reason.

Apricotur:	Pressure regulator for gun and material (A2, A3)> 3-4 bar. Temperature: 95° C.
Fondant:	Pressure regulator for gun and material (B2, B3)> 5-6 bar. Temperature: 45° C.

9.6.1 Recommissioning after an emergency shutdown

⚠WARNUNG

If an emergency stop has been at the main switch due to a machine-related condition, ensure that the cause has been eliminated.

9.6.2 Recommissioning after a longer standstill

⚠WARNUNG

All safety-relevant components (safety valves, brackets, etc.) must be checked to ensure that they are in proper condition, i.e. fully functional.

9.7 Set-up, Material loading

Open the lid screws and fill the ready-to-spray material (observe any formulations) into the storage containers.

Important:

Close the cover and attach the screw bracket. Turn until the tips of the screws make contact with the cover. Tighten all four screws with one turn (do not bang!). Excessive tightening may damage the rubber seal and, as a result, possibly also the bracket and boiler.

9.8 Starting the machine

The machine is ready for use in 10 minutes.

1. Switch on the main electrical switch.
2. Switch on the heating by pressing the F3 and F4 buttons on the membrane switch when starting work.
3. Switch on compressed air main switch (A1, B1)
4. Set the operating lever to >OPERATION<.
5. Press the spray gun handle until the material to be sprayed emerges.

The spray pattern on the gun can be influenced using material and compressed air. Compressed air and material fine-tuning are possible on the fondant gun. Spray some material in the feed until heated material emerges.

Attention:
l level of the instantaneous water heaters must be checked once a year!

9.9 Operate (processing)

Place the baking trays on a flat surface and hold the spray gun approx. 10 cm at a right angle above the pastry and work quickly in circular movements, piece by piece. With sufficient practice, can also work directly on the rack trolley. To do thispull out a tray almost to the end, hold it at an angle with one hand and spray as described above.

Important:
The warmer the pastry, the better the adhesion and gloss of the apricot glaze / fondant.

Tip:
Before spraying fondant, close the compressed air supply on the fondant gun. Press the operating lever and open the compressed air supply until you reach the desired jet. You can also easily cover puff pastry in this way.

9.10. End of work

If you notice that only a small amount (approx. 1 sheet) remains to be processed, set the operating lever to >CLEANING< and spray out the material that is still in the lines. Spray until only air comes out! As there is now no material left in the hoses, nothing can stick together. Of course, instead of spraying out the remaining material, you can also collect it in a container and reuse it. (For details see chapter "Cleaning")

9.11 Emptying the material container

The material is emptied from the material container via the guns.

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10. Cleaning (see also care and maintenance plan)

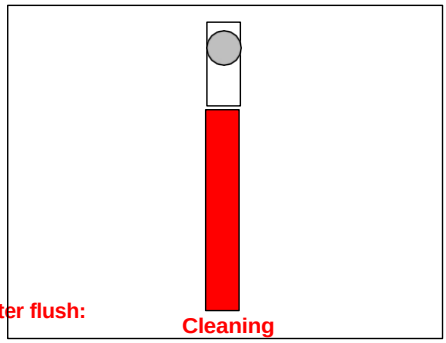
If you notice that only a small amount (approx. 1 sheet) remains to be processed, set the operating lever to >CLEANING< and spray out the material that is still in the lines. Spray until only air comes out! As there is now no material left in the hoses, nothing can stick together. Of course, instead of spraying the remaining material, you can also collect it in a container and reuse it.

Operating lever to **OFF**

Switch to OFF at the end of work or if work is interrupted for more than 1 hour. Clean the hose beforehand - see below. CLEANING.

Operating lever to **OPERATION**

Working position for spraying



Operating lever to **CLEANING** **IMPORTANT!**
Before the compressed air switches A1 and B1 are switched off, the material hoses must be sprayed empty. To do this, the operating lever must be set to **>CLEANING<**.

Otherwise there is a risk of **the non-return valve sticking.**

Attention: Failure to observe this will invalidate the warranty for a free repair.

Automatic water flush:

1. Spray the hose empty until only air comes out.
2. Switch off heating 1+2.
3. Press >Water tap symbol< on the control unit >Button 9<
4. Keep the gun pressed until only clean water comes out (approx. 0.5 l)
5. Press the tap symbol again >key9<
6. Press and hold the gun until air comes out (cleaning process completed)
7. The nozzle must be absolutely free of fondant (carry out a finger test)
8. **Important:** Close the water supply after flushing. The machine must not be permanently connected to an open water supply.

10.1 External cleaning of hose and gun: (daily)

For quick and easy cleaning, the material hoses are connected to the machine with a claw coupling. This can be released with a flick of the wrist. Before doing so, however, it is essential to ensure that both the compressed air main switches (A1 and B1) are switched off and that both operating switches are set to >OFF<.

Release the remaining pressure from the hose by pressing the gun again.

Afterwards, the gun and hose can be placed in a commissioning basket and transferred to a rinsing machine. (The guns must not be left in the water for any length of time).

10.2 Cleaning the containers: (weekly)

Set both operating levers to> Operation< .
Fill both tanks with water. (Clean boiler weekly with disinfectant) Switch on heating system
Connect spray guns to the housing and spray water out of the tank. (see also emptying the tank)

10.3 Cleaning the fondant gun: (monthly)

Keep all moving parts lubricated with food-grade oil. (material screw, nozzle screw, lever axle screw). If water comes out of the nut in front of the spray lever during cleaning, it should be tightened slightly.

10.4 Maintenance of the pneumatics:

To maintain the pneumatic system, drizzle food-grade oil into the compressed air hose every 3-4 months. This extends the service life.

We recommend P&R cleaning concentrate for cleaning material-carrying parts. Leave to act and rinse with clear water.

Remarks: 

For safety reasons, replace the material hose of the apricot gun once a year!

11. Safety regulations

11.1 Machines

⚠WARNUNG

Read the manual carefully before the machine. Observe all safety instructions.

- The machine must not be used for purposes other than those for which it is intended.
- Minors may only operate the appliance under the supervision of an adult.
- The ball valve (depending on the model) must be checked for air permeability before each start-up. If no air can escape, it must be cleaned or replaced.
- Connect compressed air only via quick coupling.
- The working pressure must be applied via a pressure gauge.
- Do not use oxygen or flammable gases as an energy source.
- Do not use flammable materials.
- Always wear the required protective clothing when working with the machine.
- The maximum permissible temperature must not be exceeded (depending on the model, max. 95° C).
- The maximum pressure must not be exceeded.
- Never reach into running machine parts.
- Take care with machine parts where heat or heating can occur - risk of burns!
- Pneumatic tools may only be operated and maintained by trained personnel. Secure from children!
- Repairs may only be carried out by authorized specialists.
- Disconnect the appliance from the compressed air and the power supply before rectifying the fault.
- Never open the control box or parts of the machine's electrical equipment. Always inform a trained electrician if you are concerned about faults in the machine's electrical equipment.
- Only use original spare parts. Only these have been tested for sufficient compressive strength.

⚠WARNUNG

Hot air/water can escape when the heat exchanger is opened.
The machines may only operated on RCD-fused power sources (tripping current 30 mA).

11.2 Spray guns

⚠WARNUNG

- Spray guns may only be used for their intended purpose.
- Intended use also includes observing the important instructions in this manual and complying with all trade association regulations.
- Spray guns may only be used by persons who are familiar with their use and handling.
- Keep spray guns away from children.
- Check that all connections are secure before use.
- Never point the liquid jet at people - chemical liquid additives and/or high liquid pressures can cause serious injuries.
- Always wear suitable protective work clothing.
- The smooth running of all moving parts must be checked and ensured on an ongoing basis - maintenance instead of force.
- The valve lever must not be tightened during operation.
- Make sure that the device is working properly before each use.
- High spraying pressure creates recoil forces - hold the appliance firmly - ensure a secure footing.
- Always relieve the pressure from the spray gun and supply line after use.
- If the ambient temperature is below 0 degrees and / or hot media used, check whether the spray gun is suitable before use.
- When using hot media, the spray gun naturally heats up.

12.3 Causes of danger

Pressure - max. permissible overpressure PS 6 bar

temperature
- Wall / ambient temperature min. TS 5° C
- Wall / ambient temperature max.TS 50° C

Operating mode - No alternating load

Corrosion / erosion Corrosion and erosion protection
- Corrosion-resistant material: 1.4301 / 1.4404

External fire Fire protection
- Fire protection insulation

Under the responsibility of the manufacturer of the module. Protection against external fire is provided by the manufacturer of the module

Protective measures against mechanical failure due to pressure, temperature, operating mode, external loads **by testing**

- For appropriate equipment of the permissible operating data by the operator.
- Non-destructive testing For weld seam factor 0.7: Each object.
- Carrying out the acceptance

Construction and pressure test according to SVTI of each container

Protective measures against mechanical failure due to pressure, temperature, operating mode, external loads **by using suitable materials**

- Use of suitable materials 1.4301 / 1.4404 EN 10028-7
- Use of suitable welding consumables According to tested WPS

Protective measures against mechanical failure due to pressure, temperature, operating mode, external loads **through design and construction**

- Formulas according to SVTI regulations

The operating and safety instructions for the entire system also apply.

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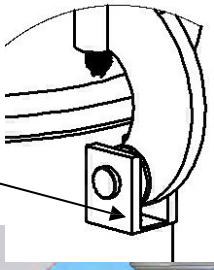
12.4 Instructions for use Pressure vessel

1. The pressure vessel must be handled with care.

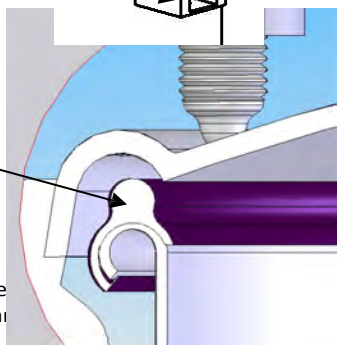


2. There are 4 holes ø 5.5 mm in the clamping screws. They are used to fasten the pressure tank. It may only be attached to these 4 lugs.

3. Only the specially shaped silicone seal ensures optimum sealing.

4. A specially made flange is attached to the top of the pressure container, over which the seal is pulled. (You can make the process easier by moistening the seal with water first). This ensures that the seal is fitted correctly:

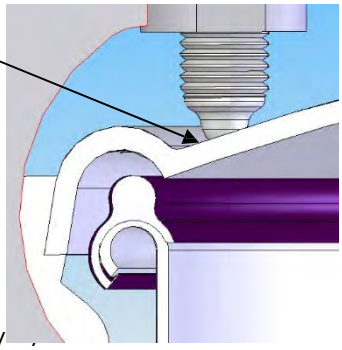
   - The rubber fold must be placed under the outer edge of the pressure container.
   - Do not place any heavy or sharp-edged objects on the rubber seal.



5. The pressure relief valve, calibrated at 6.5 bar, must be screwed into the top of the must not be put into operation without the pressure relief valve calibrated at 6.5 ba

6. There is a ½ " thread at the bottom of the cone, which can be passed on with a pressure hose or fixed connection if required. The connection must be made by a specialist.

7. Only tighten the four screw caps until there is contact with the lid. If the lower end of the screw is in contact with the lid, a maximum of one turn of each screw, preferably crosswise, is sufficient to seal the container securely. Tightening more than this only damages the seal and significantly reduces its service life, but can also cause consequential damage that can affect the lid, container and aluminum bracket. Improper handling can, for example, lead to material fatigue and ultimately to a risk of accidents. These dangers can be ruled out if these instructions are observed.



8. Clean the pressure container after use. (No chemicals)

9. For your safety, the safety brackets of the pressure vessels should be replaced every

13. Troubleshooting

13.1 Security

⚠WARNUNG

The manual spraying machines in the Jet series are extremely powerful machines for daily production. Like all machines in this range, all safety-relevant parts must be checked regularly. This ensures the safety of your employees.

13.2 Service address

Frisch-Spritzmatic GmbH
Ramminger Street 4
89129 Öllingen

Phone: 0 73 45 - 75 04
Fax: : 0 73 45 - 2 18 19
Emergency number: 0172 - 85 37 504

13.3 Location and labeling of fuses

The electrical fuses are located in a closed electrical cabinet inside the machine (1). The thermostat fuses are also located inside the machine
(2). In the event of overheating, this is shown on the machine display.

(1)

(2)

13.4 Error state detection

Electrical fuses:

In the event of a fault, the toggle lever of the fuse jumps to the OFF position. Check the cause of the fault. This must be rectified **immediately**!

⚠WARNUNG Never open the switch cabinet or parts of the machine's electrical equipment. Always inform a qualified electrician if you are concerned about faults in the machine's electrical equipment.

Thermostat fuses:

The limiters are set to the correct trigger temperature at the factory. If this value is exceeded, the heating system switches off or does not heat up at all when work starts.
Instead, you will receive an error message on the display stating that there is an error in heating circuit 1 or 2.

When you are sure that the cause of the triggering been eliminated, press the green pin in again.

13.5 Initial measures for troubleshooting

Fault/error message	Possible cause(s)	Remedy
No pressure build-up	Too many consumers	Reduce consumers
Compressed air escapes	Porous seals	Replacing seals
No power	Supply line de-energized	Check fuse
Medium does not get really hot	Little water in the instantaneous water heater	Check and fill up
Safety valve does not open / close	glued	clean, better: replace

13.6 Further measures for troubleshooting

Fault/error message	Possible cause(s)	Remedy
3 Leaking directional control valve	Screw loose	Tighten the screw
Display "Error in the heating system"	Temperature limiter jumped out	Push in the pin
Crusty and black apricot	No water in the instantaneous water heater	Fill up with water
		Have the instantaneous water heater cleaned at the factory.

Test instantaneous water heater (water level):

1. Unscrew the lock
2. Check water level
3. Fill up with water if necessary
4. Unscrew the cap
5. Heat up the machine so that excess water can escape (to be on the safe side, place a cloth around the cap).

14. Maintenance

14.1 Security

The manual sprayers in the Jet series are operated with three-phase current and compressed air and are virtually fail-safe if regularly maintained. As certain components, such as hoses and seals, are subject to natural wear and tear, you should carry out regular visual and functional checks for your own safety.

Further details are also regulated by the Pressure Vessel Ordinance, the application provisions of which must be observed by the operator of the machine.

⚠WARNUNG Switch off the main switch and secure it with a padlock to prevent it from being switched on again before starting maintenance work.

⚠WARNUNG Danger from hot surfaces

Never touch heat exchanger components or product lines (hot surfaces) during operation. Switch off the machine and allow it to cool down before starting work on or near the heat exchanger.

14.1.1 Safety-relevant components

⚠WARNUNG

The machines in the Jet series are designed for professional use in production operations. Listed below are safety-relevant components that require regular replacement for your safety and that of your employees. We recommend documenting these replacements on a maintenance schedule. **Regular visual inspections and functional checks must be carried out.**

Safety-relevant components		Replacement interval
Heat exchanger	Overpressure safety valve	2500 h / 2 years
Material boiler	Hoses and fittings	Annually
Hanger	Temperature limiter	
	Main switch	

14.1.2 Wear parts

Wear parts Safety valve Hoses Guns Pneumatic parts

14.2 Service address

Frisch-Spritzmatic GmbH
Ramminger Straße 4
D - 89129 Öllingen

Phone: +49 (0) 73 45 - 75 04
Fax: +49 (0) 73 45 - 2 18 19
eMail: info@frisch-spritzmatic.de

14.3 Proof of maintenance

It is advisable to keep a continuous and traceable maintenance record and to attach it to the manual. This enables our service technicians to rule out possible faults (e.g. too little water in the instantaneous water heater) over the phone.

14.4 Control procedures and test devices

Please subject hoses, seals, pressure vessels etc. to a thorough visual inspection. We recommend checking the hoses at 6 bar with the heating switched off. Please also observe the instructions in the inspection and maintenance schedule.

14.5 Special tools, operating equipment, Materials

The seals and hoses are optimally designed for Frisch-Spritzmatic spray systems. Replacement or modification without written consent jeopardizes operational safety

Only use original spare parts. Only these have been tested and approved for use in the food industry.

14.6 Inspection and maintenance plan

t= daily, w= weekly, m= monthly, j= annually

Work to be carried out	t	w	m	j
Visual inspection of the material and compressed air hoses		x		
Changing the apricot/cast hose (for gun operation)				x
Container cleaning with disinfectant		x		
Visual inspection for cracks		x		
Check heat exchanger for water level				x
Testing the compressed air system for leaks (in accordance with pressure guidelines)			x	
Maintenance of material guns (for gun operation)			x	
Air purification and water flushing of the entire hose system	x			
			x	
Maintain the compressed air supply line (drizzle in a few drops of life-safe oil every 3 months)			3 Mon.	

14.7 Lubrication plan

The mechanics of the guns should cleaned regularly with food-safe oil. The threads of the U-bolts must be kept clean and smooth.

14.8 Description of the inspection and maintenance work

Every crack, whether in a seal or a metal, is a major source of danger. Accordingly, visual and tactile tests as well as tests with media that make a leak visible must be carried out.

14.9 Description of the repair work

Repair work must only be carried out by trained specialist personnel. Work on pressure vessels in particular must be carried out with the utmost care.

15. Disassembly and disposal

15.1 Dismantling

15.1.1 Security

Before dismantling, make sure that the machine is not connected to the power supply or compressed air. When working with guns, these must be depressed once again to release any residual pressure. Only then may the hoses be removed.

15.1.2 Description of the dismantling work

Remove the hoses and material guns.

15.2 Waste disposal

The machine can be returned to Frisch-Spritzmatic cleaned and emptied.

16. Recipes

The quality of the end product depends crucially on the raw materials used. A whole range of first-class options are . It goes without saying that all products previously used can still be used. However, the information given here are recommendations that may be helpful.

16.1 Recipe recommendations for manual spraying machines:

Apricot jam:	12.5 kg apricot jam approx. 1000 - 1600 g water, Mix in the mixer until smooth. First stir until smooth, then add water
Fondant:	15 kg solid block fondant approx. 1.7 liters of water 200 g glucose
Fondant:	15 kg liquid fondant, spreadable, ready glaze approx. 0.4 - 0.5 l water 200 g glucose
Fondant:	15 kg S 40 Frankenfondant 1.7 l water

in a mixer until smooth. Can be made in advance.

16.2 Preparation of cake glaze or jelly

Mix the powder and sugar according to the manufacturer's instructions and stir in hot water (tap water) until completely dissolved. Pour into pressurized container.

Machine setting:

- Material pressure approx. 0.5 - 2 bar (depending on the strength of the mass / solid material= higher pressure).
- Set the temperature to 85 - 110° C (recommended value 95° C)

Material regulation:

- Press the gun lightly
- Slowly increase the material pressure until the desired amount of material emerges.

Use spray nozzle for glossy surface; use flood nozzle for cut casting.

Application procedure:

Start at the bottom edge of the sheet and work in a serpentine pattern from left to right. The casting compound should flow slowly and smoothly in front of the gun. Repeat the process depending on the thickness of the layer.

16.3. Possible causes for unexpected results

Optics	**Possible cause(s)**	**Remedy**
Apricoturus dries poorly	too little! Water added	Increase water addition
Fondant layer is dotted	Fondant is too firm	Add water
Fondant does not shine	too little apricot	Apply more apricot paste
Fondant dies off	too little apricot	Apply more apricot paste
Fondant runs	Fondant too thin	Add less water
For processing with a gun:		
Fondant dies off	too little apricot	Apply an even and enveloping layer of apricot paste
Fondant layer is dotted	The distance between the gun and the bakery is too large (target = 10 cm)	Reduce distance
Fondant layer is dotted	Fondant is too firm	Add water

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

17. EU Declaration of Conformity

(original EC Declaration of Conformity) in accordance with the **EU Directive for electrical equipment Low Voltage Directive 2014/35/EU,** EU-Abl. L 96/357 of 29.03.2014 and the **EU Directive Electromagnetic compatibility "EMC" 2014/30/EU,** EU Official Journal L 96/79 of 26.02.2014.

We hereby declare, as manufacturer and under our sole responsibility, that the design and construction of the appliance specified below and the version placed on the market by us comply with the relevant provisions and harmonization legislation of the above-mentioned directives.

Furthermore, we declare the conformity of the optional pressure equipment used **in the product** with the requirements of EU Directive **2014/68/EU for pressure equipment,** EU Official Journal L 189/164 of 27.06.2014
All parts of the product that come into contact with food also meet the requirements of the **EU** regulations **on food materials and plastics**
REGULATION (EC) No 1935/2004, EU OJ L 338/4 of 13.11.2004,
REGULATION (EU) No 10/2011, EU OJ L 12/1 of 15.01.2011 and its amending Regulations and on good manufacturing practice for food materials and articles **REGULATION (EC) No 2023/2006,** EU Official Journal L 384/75 of 29.12.2006

Product designation	**Professional jet Solo-Jet Functional description**		**Midi Jet**	**Uno-Jet** Heating and conveying of various materials
Model designation	0600	0700	1000	3000
Type designation	0600	0700	1000	3000
Machine number				
Production date	2025	2025	2025	2025

Manufacturer and address **Frisch Spritzmatic GmbH**
Ramminger Straße 4 D-
89129 Öllingen

Authorized representative for documentation Jürgen Frisch

Applied harmonized standards, in particular

Safety of machines and systems
EN ISO 12100:2010 - Risk assessment and risk reduction EN 60204-1:2018 - Electrical equipment of machines

EN 1672-2: 2005+A1:2009 - Food processing machinery - General principles for design - Part 2: Hygiene requirements

Electromagnetic compatibility - Industry
EN 61000-6-4:2020-09 Generic standard - Emission in industrial environments
EN 55011:2018-05 Limits and methods of measurement of radio disturbance characteristics of ISM equipment

Öllingen, ...
Location Date Jürgen Frisch - Managing Director

18. Supplementary documents

18.1 Pneumatic plan

18.2 Electrical documentation

18.3 Acceptance protocol