

Manual SK300 CE



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1 About this manual

The manual shows the information necessary to:

- install
- operate
- perform basic maintenance
- correct small problems

The SK300 and all its versions are referred to in the manual as the 'machine'.

This manual contains the original instructions. The original language of the manual is English. All other language versions are translations of the original instructions.

1.1 How to work with the manual

For the safe use of the machine, it is important:

- 1 To familiarize yourself with the structure and content.
- 2 To read the safety chapter in detail and make sure you understand all the instructions. See chapter 2.
- 3 To carry out the actions completely and in the given sequence.

1.2 Record of changes

| Edition | Editor | Check | Date | Description |
|---------|--------|-------|---------|---------------|
| 1.0 | | | 12/2020 | First edition |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2 Safety



WARNING

Read the manual before you install or use the machine. Failure to do so can result in personal injury, death or property damage.

2.1 Intended use

The machine is designed to shake colorants in a can. Any other use of the machine is strictly forbidden.

2.2 Liability

2.2.1 General liability

Our machines and accessories are fully compliant with the CE regulations. Any modification can result in not fulfilling the CE safety requirements and is therefore not allowed. Fast & Fluid Management B.V. will not accept any responsibility in case of modifications to machines and/or accessories.

Fast & Fluid Management B.V. is not liable if you do not follow the rules below:

- The machine is for indoors use only.
- This machine may only be used for commercial settings. The machine is not a household appliance.
- Observe all local safety regulations.
- Strictly obey the safety instructions in this manual.
- Mind the minimal requirement of the building structure of the load capacity of the floor.
- Place machine in a well-lit and well-ventilated room.
- Install and connect the machine according to the instructions in this manual.
- Connect the machine to a grounded wall socket.
- Do not use extension cords or inadequately rated power cables.
- Make sure that the power cable is freely accessible.
- Do not place objects on top of the machine.
- Keep lids, panels, and covers closed and in place whenever possible.
- Do not use a damaged machine. When you have doubts, contact your supplier.
- Keep the machine in good condition.
 - Clean the machine at the intervals and when dirty.
 - Make sure that defective parts are immediately replaced.
- Remove spilled liquids immediately, and unplug the machine in case of large spillages (> 500mL).
- Replace parts only with original Fast & Fluid Management B.V. spare parts.

All maintenance beyond the scope of this manual must be carried out by a qualified service technician that Fast & Fluid Management B.V. has trained and certified.

2.2.2 Machine-specific liability

The machine cannot be used in an environment where explosive vapours may occur (ATEX zone). Colorants that contain flammable solvents can be mixed, as long as they are packed in a suitable UN approved container.

Please consult the health & safety officer of your paint supplier and/or colorant supplier on how to avoid the emergence of hazardous situations like personal harm or the risk for fire and explosion.

- Personal harm should be avoided by strictly following the materials safety data sheets (MSDS) for colorants and (base) paint.
- The use of flammable colorants or colorants that diffuse potential explosive vapors may present fire and explosion risks.

2.3 User qualification for installation

Only install the machine when you are a qualified service technician who is trained and certified by Fast & Fluid Management B.V.

2.4 CE certification

The machine is CE certified. This means that the machine complies with the essential requirements concerning safety. The directives that have been taken into consideration in the design are available on www.fast-fluid.com.

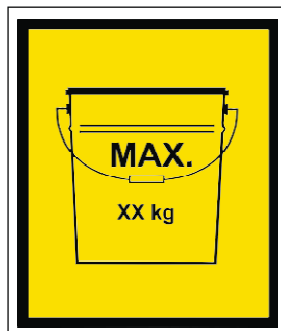
2.5 Safety symbols on the machine



CAUTION
Disconnect powersupply
before servicing



Read the manual



Maximum load weight.
See § 6.1



Central earthing point

2.6 Safety symbols in the manual



WARNING
Can cause personal injury.



Note
Shows further information.



CAUTION
Can cause damage to the machine.

2.7 Disposal of the machine

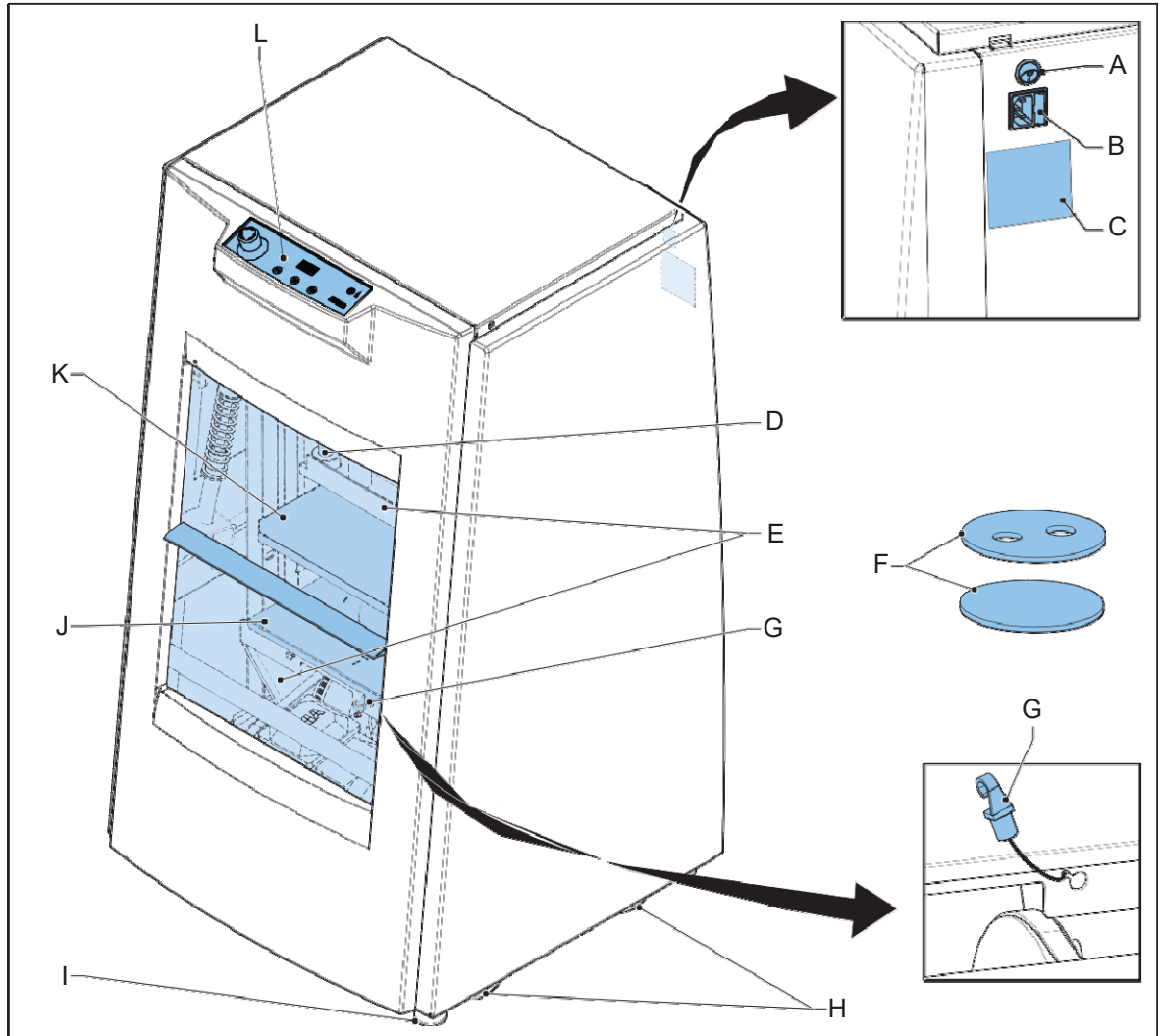
1. Sort the machine, the accessories and the packaging for environmentally friendly recycling.
2. Do not dispose of the machine into domestic waste. Dispose of the machine according to local regulations.



3 Operator manual

3.1 Description

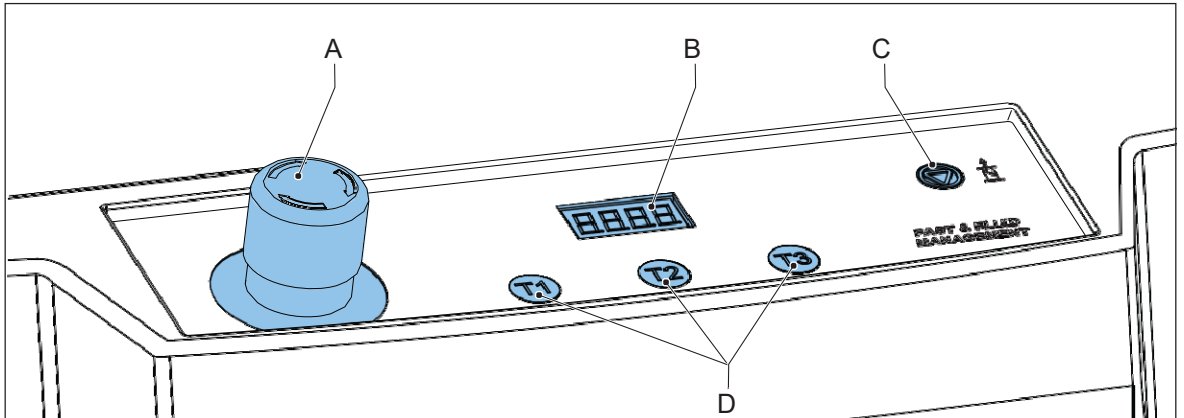
3.1.1 Overview of the machine



- A: On/off switch
- B: Net entry
- C: Type plate. See also § 3.1.5.
- D: Spindle
- E: Door
- F: Lid padding

- G: Can handle retainer
- H: Wheels
- I: Adjustable feet
- J: Can table
- K: Can plate
- L: Control panel. See also § 3.1.2.

3.1.2 Overview of the control panel



- A: Emergency stop switch
- B: Display
- C: Stop/up key
- D: Start keys

3.1.3 Factory default shake times

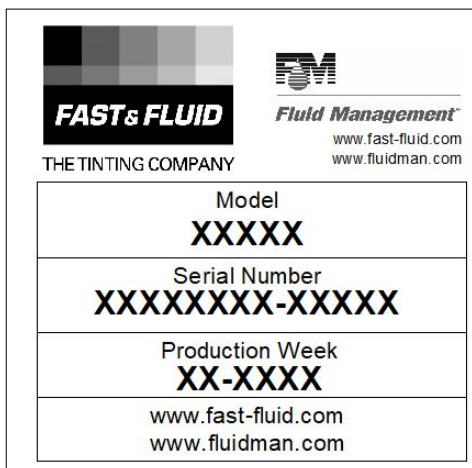


Note

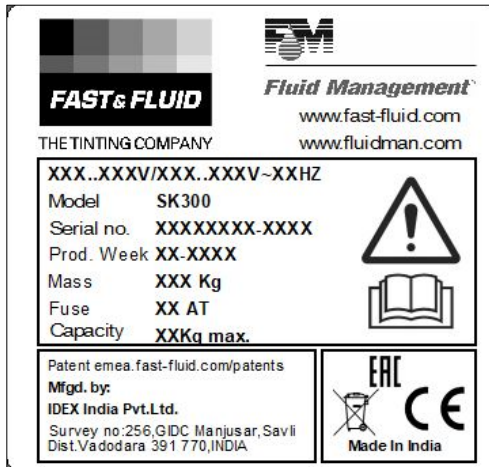
The display shows the factory default shake times. Each start key has a default time. You can combine the different shake times by selecting multiple start keys.

| Start key (combination) | Shake time [sec] |
|-------------------------|------------------|
| T1 | 30 |
| T2 | 60 |
| T3 | 150 |

3.1.4 Type plate: serial number



3.1.5 Type plate: details



3.2 Operation



WARNING

Only push the emergency stop switch in the case of a safety emergency.

Make sure that the problem is solved before you reset the emergency stop switch.

3.2.1 Turning on the machine

1. Connect the power cable to the grounded wall socket.
2. Make sure that the emergency stop switch is released.
3. Set the on/off switch to 'ON'. *When the machine is on, the display shows '---*.

3.2.2 Turning on the machine when the machine is in hibernation

When the machine is in hibernation, the illumination of the display is off and the display shows '!'.
 !.

1. Push any key. *When the machine is on, the display shows '---*.

3.2.3 General shaking procedure



WARNING

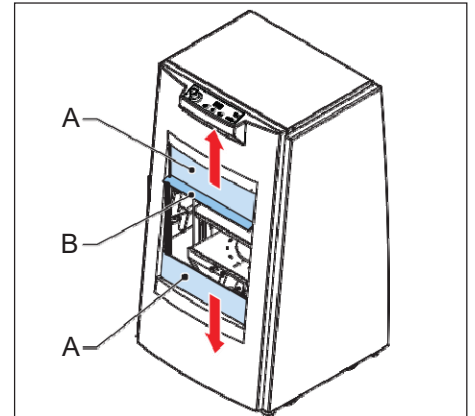
If you use the machine continuously, it is advised to use hearing protection. Prolonged exposure to the noise level of the machine can damage your hearing.

1. Place the can. See § 3.2.4.
2. Start the machine, See § 3.2.5.
3. Remove the can. See § 3.2.6.

3.2.4 Placing the can

Open the doors

1. Open the doors (A). Use the handle (B).



Place the can

1. Put one or more cans (A) in the centre of the can table, or in a pattern that has its gravitational centre in the middle of the can table.



WARNING

It is possible that the can is heavy. Use the correct lifting tool when appropriate. Obey the local regulations.



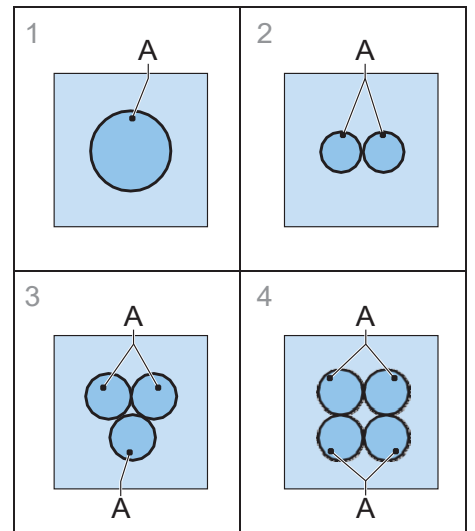
CAUTION

Make sure that all cans have the same height. Do not stack cans upon each other.



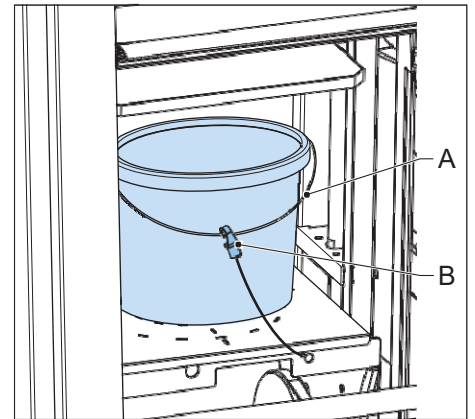
Note

If the can plate and the can table are too close to each other, use the stop/up key to move the can plate upwards, see § 3.1.2.



Retain the can handle

1. If you place one can, make sure that the can handle (A) cannot move. Use the can handle retainer (B).
2. If you place more than one can at the same time, make sure that the can handles cannot move. *Use a can handle retainer, for example self-adhesive tape.*

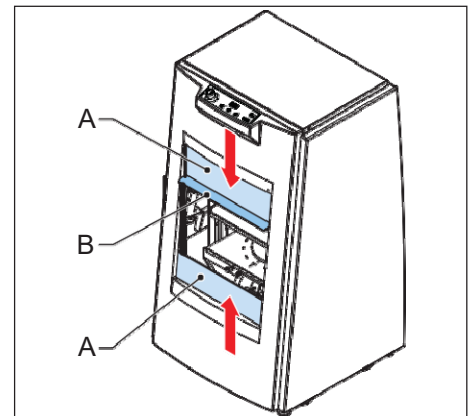
**Retain the can (optional)****Note**

Sometimes the space between the lid of the can and the can plate causes the can to move during operation. Use the lid padding to prevent the displacement of the can.

1. Put the lid padding on the can.

Close the doors

1. Close the doors (A). *Use the handle (B).*

**3.2.5 Start the machine****WARNING**

If you use the machine continuously, it is advised to use hearing protection. Prolonged exposure to the noise level of the machine can damage your hearing.

1. Select the shake time by pushing one or multiple start keys. *The doors are locked and the machine starts.*

**Note**

The display shows the selected shake time.

3.2.6 Remove the can

1. Make sure that the machine is ready.

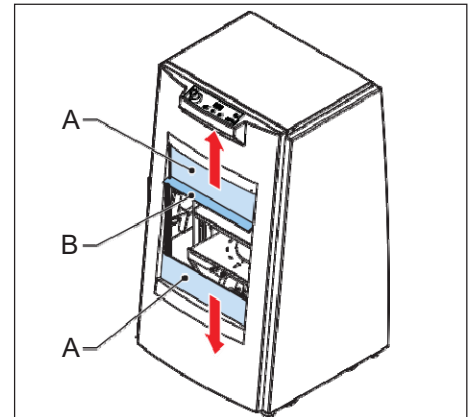
**Note**

The door will unlock after shaking when the display shows 'rdY'.

2. Open the doors (A). *Use the handle (B).*
3. Remove the can handle retainer from the can handle.
4. Remove the can.

**Note**

If the can plate and the can table are too close to each other, use the stop/up key to move up the can plate, see § 3.1.2.

**3.2.7 Stop the operation manually**

1. Push the stop/up key.
2. Wait until the display shows "rdY". *The doors are unlocked.*
3. If necessary, remove the can. See § 3.2.6.

3.2.8 Using the emergency stop switch

1. Push the emergency stop switch (A). The machine stops immediately.

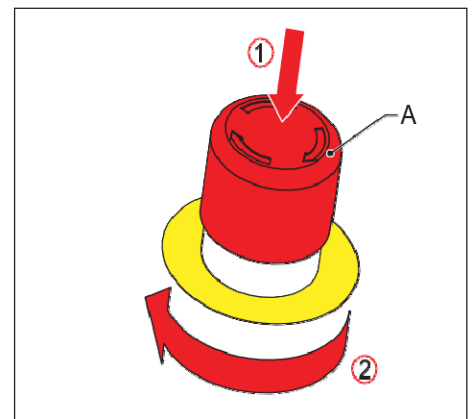
**CAUTION**

Only push the emergency stop switch in case of a safety emergency. Do not use the emergency stop switch as an on/off function!

2. Solve the problem as quickly as possible.
3. Reset the emergency stop switch by turning the emergency stop switch.
4. Press one of the keys to start the machine.

**Note**

After the reset, the machine is on and initiated when the display shows '---'.



3.2.9 Restart the machine

1. Set the on/off switch to the off position.
2. Wait 30 seconds.
3. Turn on the machine. See § 3.2.1.

3.3 Maintenance

3.3.1 General safety instructions for maintenance

**WARNING**

Check the MSDS of the colorants about personal protection measures required for handling the colorant.

**CAUTION**

Do not use cleaning agents based on organic solvents to clean the machine.

3.3.2 General cleaning: after every operation

1. Clean the machine with a cloth and remove all spilled paint or other liquid.

3.3.3 Periodic maintenance: weekly

1. Remove all spilled paint from the machine.
2. Grease the spindles.

3.3.4 Periodic maintenance: monthly

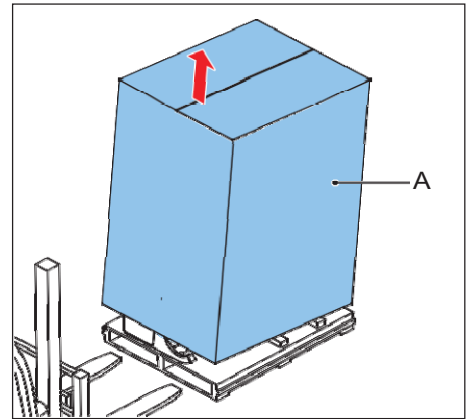
1. Remove all spilled paint and dirty grease from the machine.
2. Add new grease.
3. Grease the sliding parts.

4 Installation

4.1 Unpack the machine

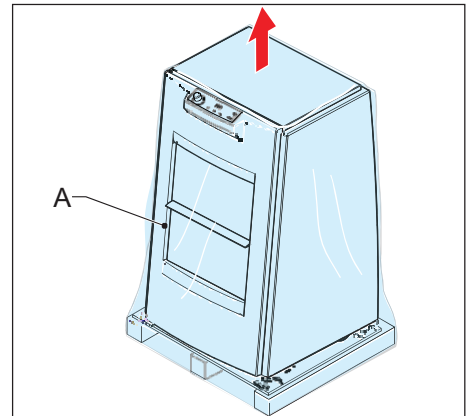
4.1.1 Remove the cardboard

1. Remove the cardboard (A).



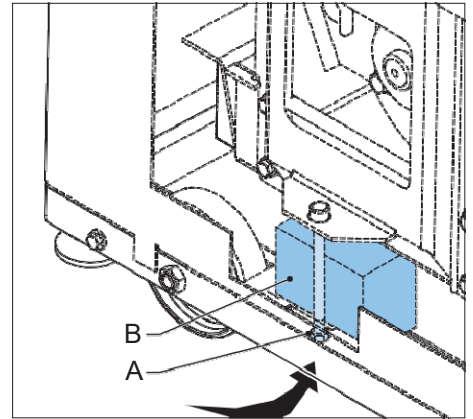
4.1.2 Remove the plastic foil

1. Remove the plastic foil (A).



4.1.3 Unlock the machine

1. Remove the bolts (A) at both sides of the machine. *The wooden blocks (B) are now free to move.*



4.1.4 Remove the wooden blocks



CAUTION

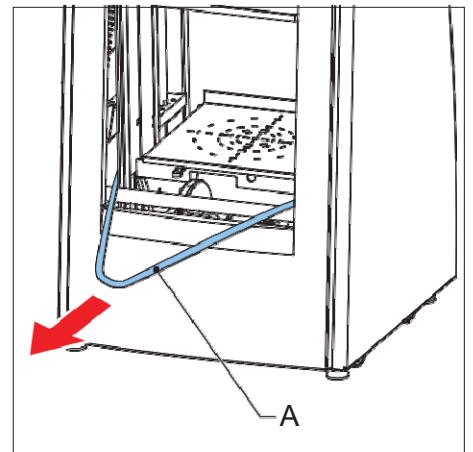
If you do not remove all loose parts, this can cause severe damage to the machine when it is in operation.

1. Remove the wooden blocks from the machine. *Use the cord (A).*
2. Make sure that all loose parts are removed from the machine:



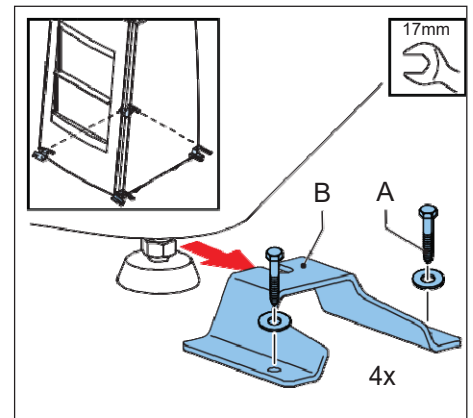
Note

Store the removed parts for later use. They are needed for future transportation.



4.1.5 Remove the transport brackets

1. Remove the screws (A).
2. Remove the transport brackets (B).



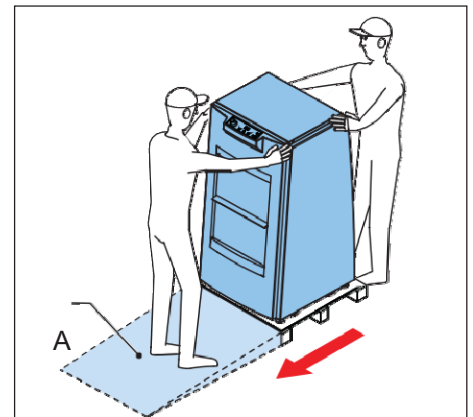
4.1.6 Dispose of the packaging material

1. Dispose of the packaging material in an environmentally friendly way, according to local regulations, see § 2.7.

4.2 Put the machine in position

4.2.1 Move the machine from the pallet

1. Optionally, place a ramp (A).
2. Push the machine from the pallet on to the ground.



4.2.2 Move the machine to the final location



WARNING
Do not use a forklift.

**WARNING**

Mind the minimum requirement of the load capacity of the floor. See § 6.2.

**Note**

Make sure the final location is well-lit and well-ventilated.

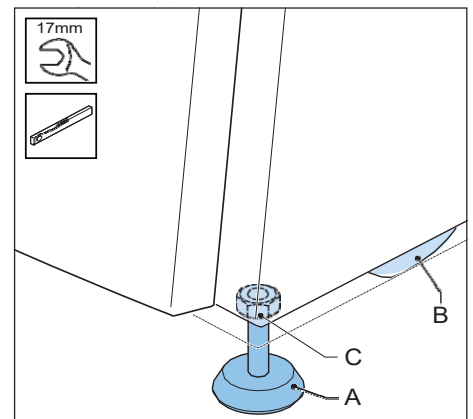
1. Push the machine to the final location.
2. Connect the power cable to the net entry.
3. Connect the power cable to the wall socket.

**Note**

Make sure that the on/of key and power cable are freely accessible.

4.2.3**Level the machine**

1. Move down the adjustable feet (A) until the wheels (B) are off the ground.
2. Adjust the height of the feet and make sure that the machine is leveled.
3. Tighten the nuts (C) to lock the feet.

**4.3****Finish the installation**

1. Turn on the machine. See § 3.2.1.

5 Troubleshooting

5.1 General troubleshooting procedure

1. Try to solve the problem with the information in this manual. See § 5.3.
2. If it is not possible to solve the problem with the information in this manual, contact service. See § 5.2.

5.2 Contact service

1. Find the type plate on the rear of the machine. See § 3.1.5.
2. Take a note of the model number and the serial number of the machine.
3. Contact your supplier or manufacturer.
See www.fast-fluid.com.

5.3 Error messages and other faults



Note

See the column *Possible solution* to solve the problem. When the problem persists, contact service. See § 5.2.

| Problem | Possible cause | Possible solution |
|-------------------------|-----------------------------------|--|
| The display shows 'E01' | No clamp current. | Contact service. See § 5.2. |
| The display shows 'E02' | Pressure not reached. | Contact service. See § 5.2. |
| The display shows 'E03' | The door is open. | Close the door. See § 3.2.4. |
| The display shows 'E07' | No can detected during clamping. | Place the can. See § 3.2.4. |
| The display shows 'E08' | Emergency stop switch is pressed. | Release the emergency stop switch. See § 3.2.8 |
| All other codes | - | Contact service. See § 5.2. |

6 Technical data

6.1 General specifications

| Parameter | Specification |
|---------------------------------|--|
| Materials used are suitable for | Water, universal and solvent colorants |
| Maximum load weight [kg] | 35 |
| Can table dimensions [cm] | 36 x 35 |
| Maximum can height [cm] | 45 |
| Minimum can height [cm] | 6 |
| Maximum shake speed [rpm] | 680 |
| Maximum shake time [sec] | 9999 |

6.2 Dimensions and mass

| Parameter | Specification |
|---|---------------|
| Dimensions, height x width x depth [cm] | 116 x 72 x 61 |
| Packed dimensions, height x width x depth [cm] | 160 x 78 x 78 |
| Mass incl. packaging [kg] | 201 |
| Minimum requirement of the load capacity of the floor according to EN 61010-1:2010 [kg] | 892 |

6.3 Ambient conditions

| Parameter | Specification |
|--|---------------|
| Temperature [°C], operational | +10 to +40 |
| Temperature [°C], out of operation | -25 to +55 |
| Altitude above sea level [m], operational | -10 to 2000 |
| Altitude above sea level [m], out of operation | -10 to 12000 |
| Maximum relative humidity [RH], without condensation [%] | 90 |

6.4 Noise level

| Parameter | Specification |
|-----------------------------|---------------|
| Maximum noise level [dB(A)] | < 78 |

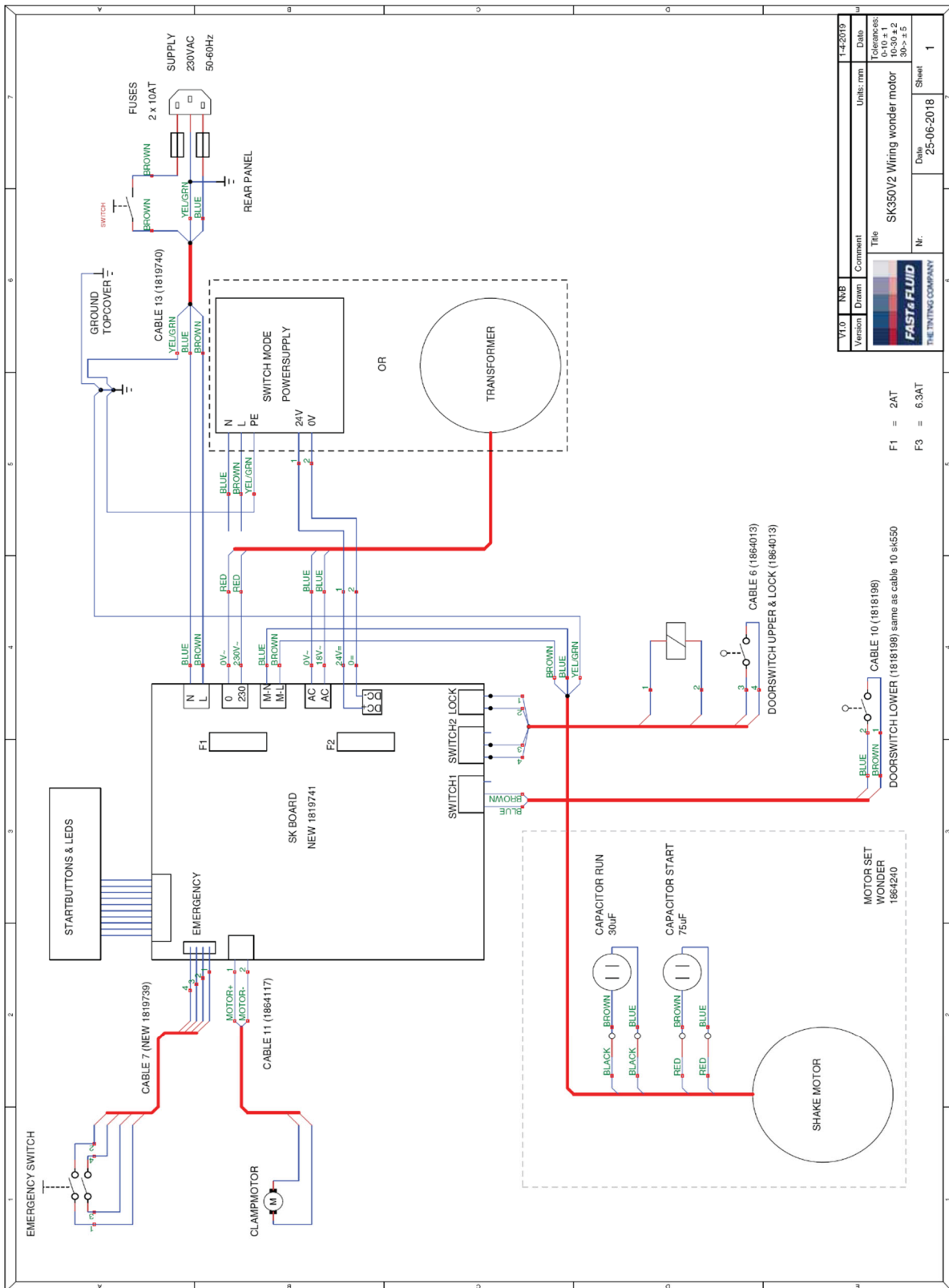
6.5 Safety classifications

| Parameter | Specification |
|---|---------------|
| IP (Ingress Protection) classification | 32 |
| EMC (ElectroMagnetic Compliancy) classification | Class B |
| Overvoltage category | Class II |

6.6 Electrical specifications

| Parameter | Specification |
|--------------------------------|---------------|
| Power consumption, maximum [W] | 750 |
| Maximum leakage current [mA] | 3.5 |
| Country specific net cables | European |
| Voltage [V] | 230 |
| Frequency [Hz] | 50/60 |
| Fuse specifications [A] | 10 |

6.7 Electrical diagram



| | | | | | |
|------------|-------|---------|-----------------------------|----------|------------|
| Version | Drawn | Comment | Title | Units:mm | Date |
| 1-4-2019 | | | SK350V2 Wiring wonder motor | | 25-06-2018 |
| Tolerances | | | Sheet | | |
| 10-50 ± 2 | | | 1 | | |
| 30- > ± 5 | | | Nr. | | |
| | | | Date | | |
| | | | 25-06-2018 | | |

F1 = 2AT
F3 = 6.3AT