

Manual GA350



Fluid Management®

www.fluidman.com

V. 2.0



THE TINTING COMPANY

www.fast-fluid.com

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1 About this manual

The manual shows the information necessary to:

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

The GA350 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	MP	MB/TB	05/2014	First edition
2.0	EvT	TB	12/2016	Updates, new installation instructions

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 mix paint 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.
- 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.
- Do not use a damaged machine. When you have doubts, contact your supplier. See § 5.2.
- Keep the machine in good condition. Make sure that defective parts are immediately replaced.
- 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 if you have written permission from the supplier of the machine.

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



Read the manual.



Electrical hazard. Read the manual.



Central earthing point.



Pinch hazard.



Electrical hazard.



Rotating parts.



On-Off

2.6 Safety symbols in the manual



WARNING
Can cause personal injury.



WARNING
Pinch hazard.



CAUTION
Can cause damage to the machine.



Note
Shows further information.

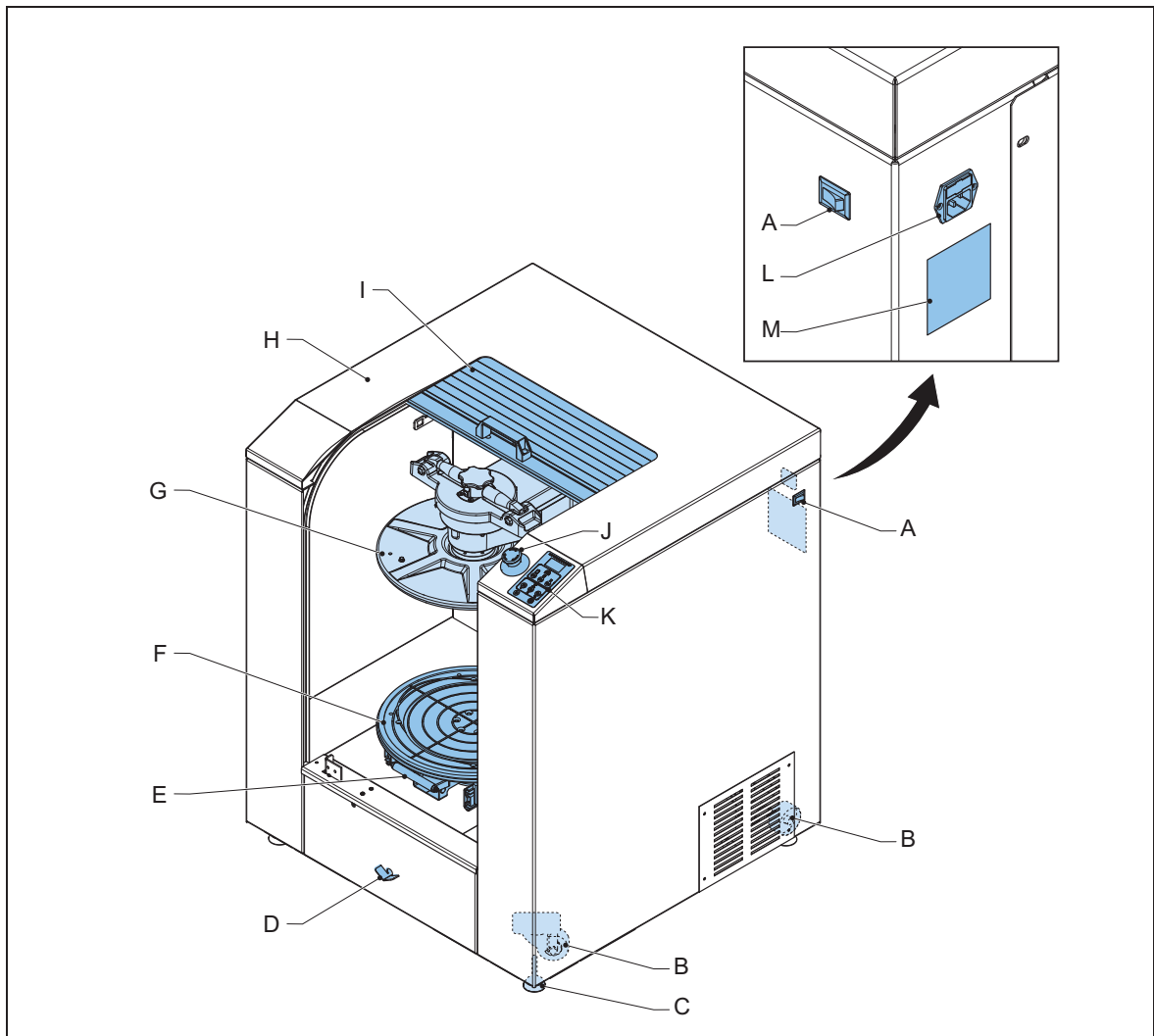
2.7 Disposal of the machine

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: Main switch
B: Wheel
C: Adjustable foot
D: Drain orifice
E: Can table
F: Can plate (bottom)
G: Can plate (top)

H: Casing
I: Door
J: Emergency stop switch
K: Control panel. See also § 3.1.2.
L: Net entry
M: Type plate. See also § 3.1.4.

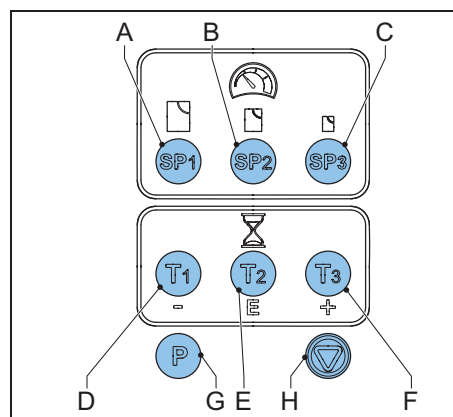
3.1.2 Overview of the control panel

- A: SP1 key (mix speed 1)
- B: SP2 key (mix speed 2)
- C: SP3 key (mix speed 3)
- D: T1 key (mix time 1)
- E: T2 key (mix time 2)
- F: T3 key (mix time 3)
- G: Program key
- H: Stop key




Note





The function of the T1 to T3 keys changes when you adjust the default values of the machine.
See also § 3.2.9 and § 3.2.10.



3.1.3 Type plate: serial number

 Fast & Fluid Management B.V. IDEX Dispensing P.O. Box 220 2170 AE Sassenheim The Netherlands THE TINTING COMPANY www.fast-fluid.com	
Model	XXXXXX-XX XXXXXXXXX XXXXX
Brand	XXXXXXXXXX
Serial Number	XXXXXXXXXX-XXXXXX
Production week	XX-XXXX

3.1.4 Type plate: details

 Fast & Fluid Management B.V. IDEX Dispensing P.O. Box 220 2170 AE Sassenheim The Netherlands THE TINTING COMPANY www.fast-fluid.com	
XXX V~ XX/XX Hz XXX W Model XXX XX-XXX Brand XXXXXXXXXXXX Serial no. XXXXXXXXXXX-XXXXXX Prod.week XX-XXXX Mass XXXkg Fuse X AT	
Patented families © Design © XXXXXXXX XXXXXXXX XXXXXXXX	
   Made in XXXXXX	

3.2 Operation

**WARNING**

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

**CAUTION**

Make sure that the machine is empty or that a can is clamped.

3.2.1 Turning on the machine - if cradle is in correct position

1. Connect the power cable to the grounded wall socket.
2. Make sure that the emergency stop switch is released.
3. Set the Main switch to 'ON'. *When the machine is on, you hear two 'beeps' and the display shows 'rdY'.*
4. Press any key. *The machine is operational, the display shows 'rdY'.*

3.2.2 Turning on the machine - if cradle is not in correct position

1. Connect the power cable to the grounded wall socket.
2. Make sure that the emergency stop switch is released.
3. Set the Main switch to 'ON'. *When the machine is on, you hear two 'beeps' and the display shows '...'.*
4. Press any key. *When the machine is operational, the display shows 'rdY'.*

3.2.3 Turning on the machine when the machine is in hibernation

When the machine is in hibernation, the display shows '.'

1. Push the Stop key. *When the machine is operational, the display shows 'rdY'.*
2. Or immediately choose the correct speed and time key to start the machine.

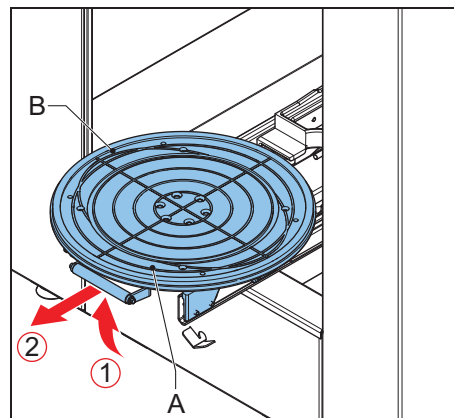
3.2.4 General mixing procedure

1. Place the can. See § 3.2.5.
2. Clamp the can.
3. Choose the requested mix speed and time. See § 3.2.9 and § 3.2.10.
4. Start the machine, See § 3.2.6.
5. Wait till you hear "beep".
6. Remove the can. See § 3.2.7.

3.2.5 Placing the can

Pull out the can table

1. Open the door.
2. Pull up the handle (A) to unlock the can table (B).
3. Pull out the can table until you hear a 'click'. *The can table is locked.*



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

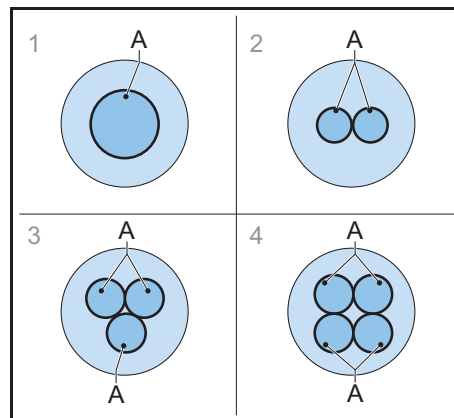
Make sure that all cans have the same height. Do not stack cans upon each other.



Note

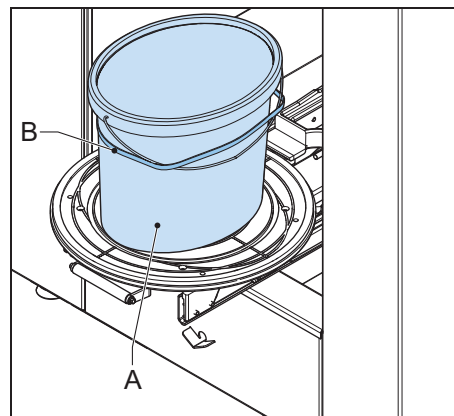
For a multiple can mode, we recommend the default clamping pressure of 300 kg and a speed of 170 rpm.

2. If the can plates are too close to each other, use the handles to turn the upper can plate upwards until you can place the can.



Retain the can handle

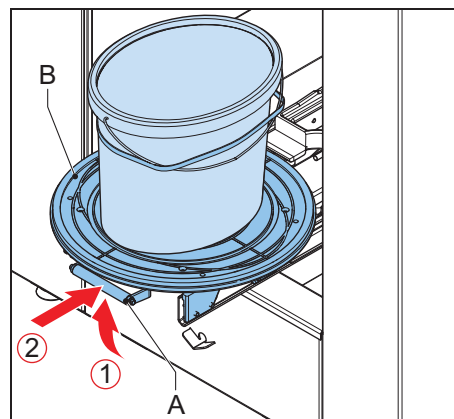
1. If you place one can, make sure that the can handle (A) cannot move. Use the can handle retainer (B).
2. If you place more than one can at the same time, make sure that the can handles cannot move. *Use a can handle retainer, for example self-adhesive tape.*

**Put back the can table**

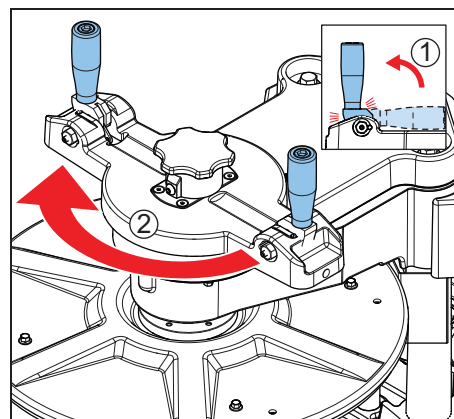
1. Pull up the handle (A) to unlock the can table.
2. Push the can table (B) inwards until you hear a 'click'. *The can table is locked.*

**CAUTION**

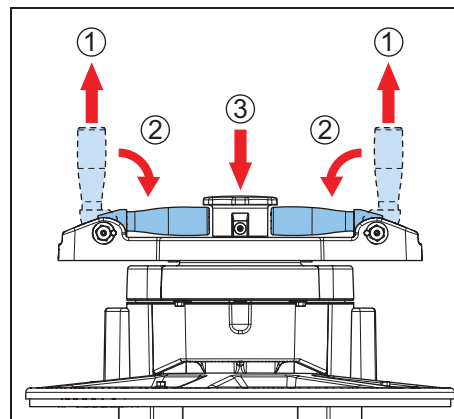
Make sure that you hear the click. Otherwise the can table is not locked, which can cause damage to the can.

**Clamp can**

1. Use the handles to move the can plates towards each other.
2. If you feel resistance, turn the upper can plate another quarter turn.



3. Lift the handles and move the handles inwards.
4. Push the lock button to secure the handles.
5. Close the door.



3.2.6

Start the machine

1. Select the speed by pushing the SP1, SP2 or SP3 key.
See § 3.2.9.
2. Select the mix time by pushing the T1, T2 or T3 key.
See § 3.2.10.

**Note**

The display shows the time in seconds that remain before you can open the door.

**Note**

While the machine operates, you can adjust the mix speed with the SP1, SP2 and SP3 keys. The machine shows the chosen speed every several seconds.

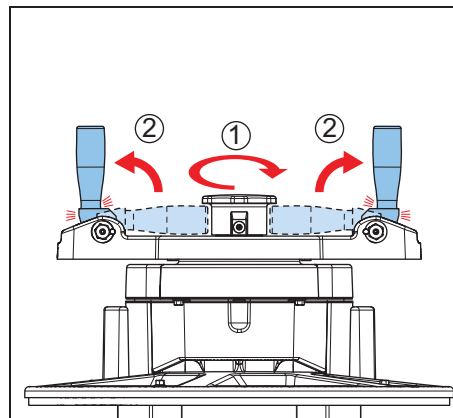
**Note**

While the machine operates, you can adjust the mix time with the + and - keys.

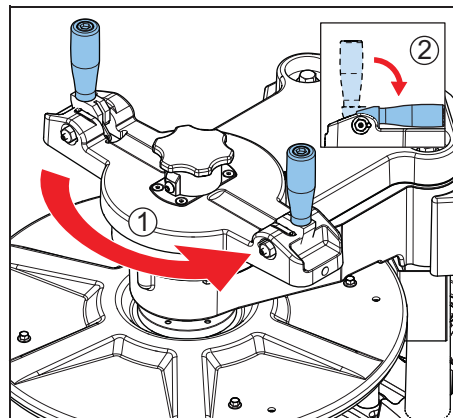
3. The machine starts automatically.

3.2.7 Remove the can

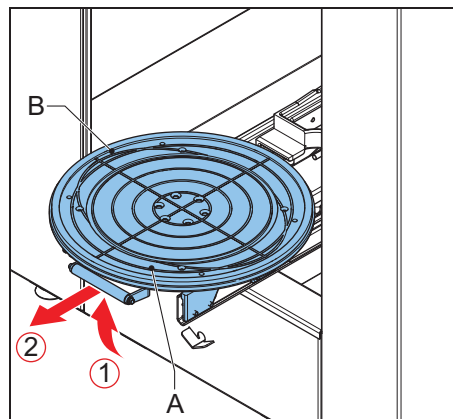
1. Open the door.
2. Turn the lock button counter clockwise to loosen the handles.
3. Move the handles upwards.



4. Use the handles to unclamp the can.



5. Pull up the handle (A) to unlock the can table (B).
6. Pull out the can table until you hear a 'click'. *The can table is locked.*
7. Remove the can handle retainer.
8. Remove the can.



3.2.8 Stop the operation manually

1. Push the Stop key.
2. Wait until the door is unlocked. The display shows 'rdY'.
3. If necessary, remove the can. See § 3.2.7.

3.2.9 Choose the mix speed


Note

While the machine operates, you can adjust the mix speed with the SP1, SP2 and SP3 keys. The machine shows the chosen speed every several seconds.

Key	Mix speed (Rpm)	Recommended weight (Kg)
SP1	110	20 - 35
SP2	140	8 - 19
SP3	230	0 - 7

1. When the display shows 'rdY', push an SP key to select the required speed. *During the mixing, the machine will try to reach the chosen speed.*


Note

When the chosen speed cannot be reached due to the power limit of the inverter / motor, it will show SL1 or SL2 (firmware version 305 or older) or SC1 or SC2 (firmware version 306).

When you choose a wrong value, the machine will only adjust the speed to a lower speed when the power limit is reached. The display keeps showing the chosen number, because it cannot show the new speed as it can have any mix speed value (rpm).

2. While the machine operates, push an SP key to change the mix speed, when necessary.

3.2.10 Choose the mix time

Key pushed	Mix time [s]
T1	30
T2	120
T3	240
T1 + T2 at the same time	$30 + 120 = 150$
T1 + T3 at the same time	$30 + 240 = 270$
T2 + T3 at the same time	$120 + 240 = 360$

**Note**

The table shows the default values.

1. Push a T-key or combination to choose the mix time.

3.2.11**Adjust default mix time****Note**

You can adjust the default mix time when the display shows 'rdY'.

1. At the same time, push the Program key and the T1, T2 or T3 key. Hold for 2 seconds.
2. Push the + or - key to adjust the mix time for T1, T2 or T3.
3. To save the new mix time, push the E-key.
4. If you do not want to save the new mix time, push the Stop key.

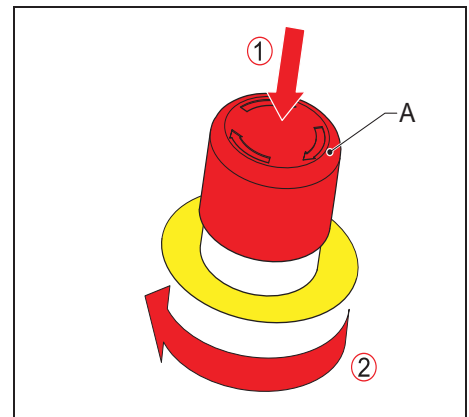
3.2.12**Using the emergency stop switch**

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. Release the emergency stop switch by turning the emergency stop switch.
4. Turn on the machine. See § 3.2.3.

**3.2.13****Restart the machine**

1. Set the main switch to 'OFF'.
2. Wait 30 seconds.
3. Turn on the machine. See § 3.2.2.

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. Refer to § 3.4.
2. Grease the spindles.

3.3.4 Periodic maintenance: monthly

1. Remove all spilled paint from the machine. Refer to § 3.4.
2. Remove all dirty grease from the machine.
3. Add new grease.
4. Grease the axle and other sliding parts.

3.4 Remove spilled paint

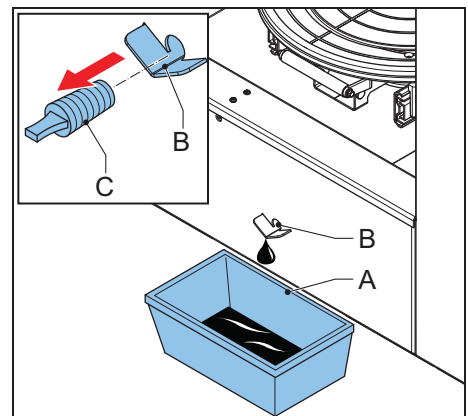
Do this procedure when paint is spilled inside the machine.

1. Make sure that the machine is stopped. See § 3.2.6 or § 3.2.8.
2. Put a reservoir (A) below the drain orifice (B).

**CAUTION**

Make sure that the reservoir is big enough to hold all the spilled paint.

3. Remove the cap (C) from the drain orifice. The spilled paint comes out of the machine.
4. Dispose of the spilled paint according to local regulations.
5. Install the cap to the drain orifice.
6. Clean the machine. See § 3.3.2.

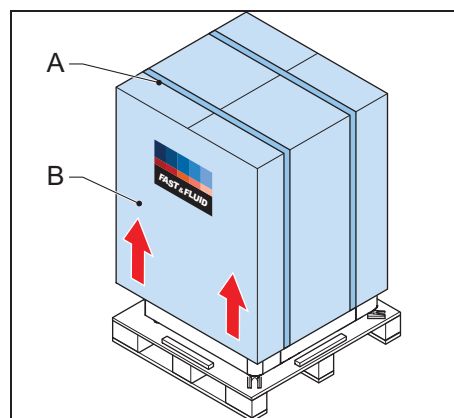


4 Installation

4.1 Unpack the machine

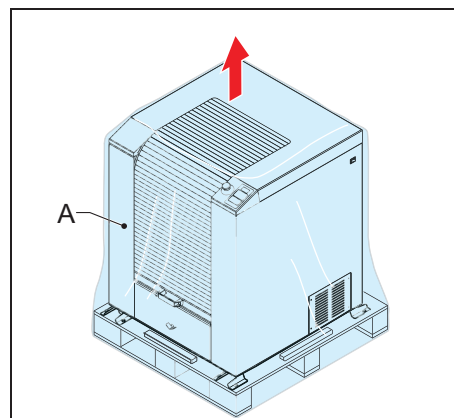
4.1.1 Remove the cardboard

1. Remove the tensioning straps (A).
2. Remove the cardboard (B).



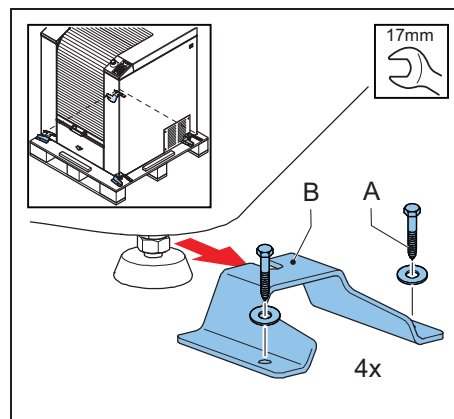
4.1.2 Remove the plastic protection and foil

1. Remove the plastic foil (A).



4.1.3 Remove the transport brackets

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



4.1.4 Dispose of the packaging material

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

4.2 Put the machine in position

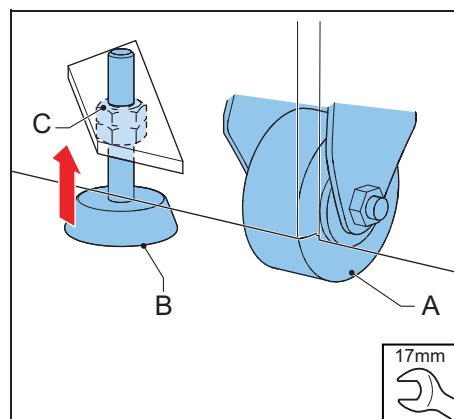


CAUTION

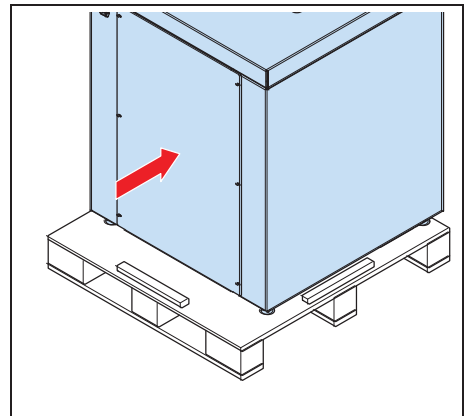
Do not use a fork-lift truck.

4.2.1 Put the machine in position

1. Loosen the nuts (C) of the adjustable feet (B).
2. Move up the adjustable feet until the wheels (A) are on the ground.
3. Tighten the nuts to lock the feet.

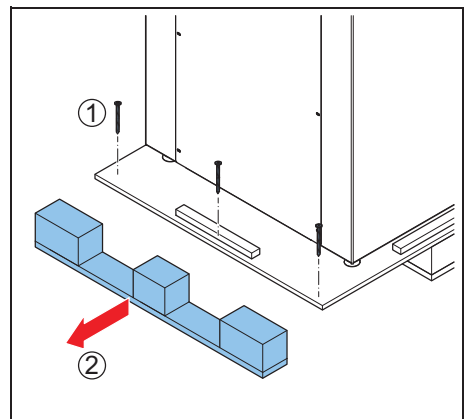


4. Move the machine to the end stop beam.



4.2.2 Make a ramp of the pallet

1. Remove the screws.
2. Remove the pallet beam.



4.2.3 Move the machine from the pallet

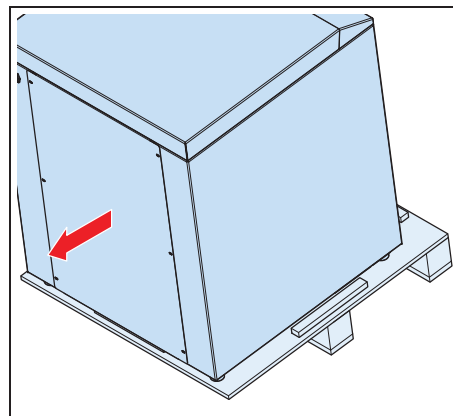


WARNING

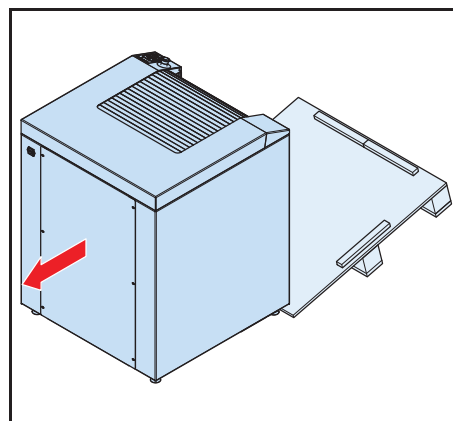
Crushing hazard

Use safety shoes. Take enough distance from the machine.

1. Move the machine.



2. Roll the machine on the floor.



4.2.4

Move the machine to the final location

**WARNING**

Mind the minimal requirement of the load capacity of the floor. Refer to § 6.2.

**CAUTION**

Do not use a fork-lift truck.

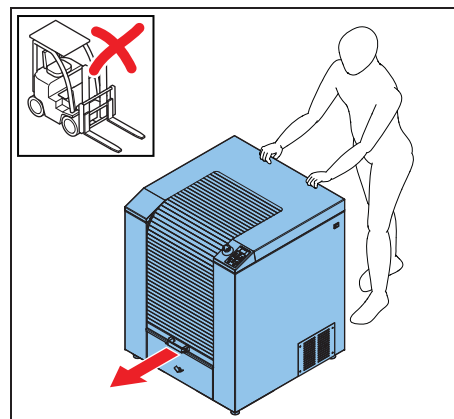
**Note**

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

**Note**

Make sure that the power cable and main switch are freely accessible.

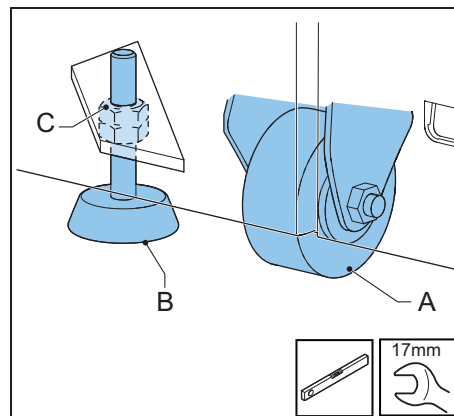
1. Push the machine to the final location.
2. Connect the power cable to the net entry.
3. Connect the power cable to the wall socket.



4.2.5

Level the machine

1. Move down the adjustable feet (B) until the wheels (A) 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 § 3.2.2.

5 Troubleshooting

5.1 General troubleshooting procedure

1. Try to solve the problem with the information in this manual.
See § 5.3.1.
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 § 3.1.4.
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.

5.3.1 Easy-to-solve errors

Problem	Possible cause	Possible solution
The display shows 'E01'	The door is open.	Close the door.
The display shows 'E08'	Emergency stop switch is pressed during running state.	Release the emergency stop switch. See § 3.2.12.
The display shows 'E40'	Cradle not in home position.	Release the emergency stop switch. See § 3.2.13. Press any key to put cradle in home position.
The display shows 'E50' to 'E99'	Inverter is in error mode.	Reset the machine. See § 3.2.12.

6 Technical data

6.1 General specifications

Parameter	Specification
Materials used are suitable for	Water, universal and solvent colorants
Maximum load weight [kg]	40
Can plate diameter [cm]	38
Can plate bottom seating diameter [cm]	36
Maximum can height [cm]	40
Minimum can height [cm]	8
Mix ratio [horizontal:vertical]	1:2

6.2 Dimensions and mass

Parameter	Specification
Dimensions, height x width x depth [cm]	101 x 82 x 83
Dimensions for installation, height x width x depth [cm]	101 x 82 x 82
Packed dimensions, height x width x depth [cm]	116 x 97 x 90
Mass incl. Packaging [kg]	234
Mass filled machine [kg]	258
Minimum requirement of load capacity of the floor according to EN 61010-1:2010 [kg]	1032

6.3 Ambient conditions

Parameter	Specification
Temperature [°C], operational	+15 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)]	< 65

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]	1000
Maximum leakage current [mA]	3.5
Country specific net cables	European (others on request)
Voltage [V]	230 (/115 optional)
Speed [rpm]	110 - 140 - 230
Maximum mix time [s]	999
Frequency [Hz]	50/60
Fuse specifications [A]	10

6.7 Electrical diagram

