

Manual GA480



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1 About this manual

The manual shows the information necessary to:

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

The GA480 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	EvT	TB	06/2015	First edition
1.1	RvS	TB	10/2015	Updated edition
2.0	EvT	TB	12/2016	Updates, new installation instructions
3.0	EvT	TB	12/2018	Minor updates and extra note of caution for multiple can mixing

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.
- 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. See § 5.2.
- 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



Read the manual.



Electrical hazard. Read the manual.



Central earthing point.



Pinch hazard.



Electrical hazard.



Rotating parts.



On-Off

2.6 Labels on the machine

When can diameter > Ø39 cm : remove shield

Upper shield instruction.

2.7 Safety symbols in the manual

**WARNING**

Can cause personal injury.

**WARNING**

Pinch hazard.

**CAUTION**

Can cause damage to the machine.

**Note**

Shows further information.

2.8 Disposal of the machine

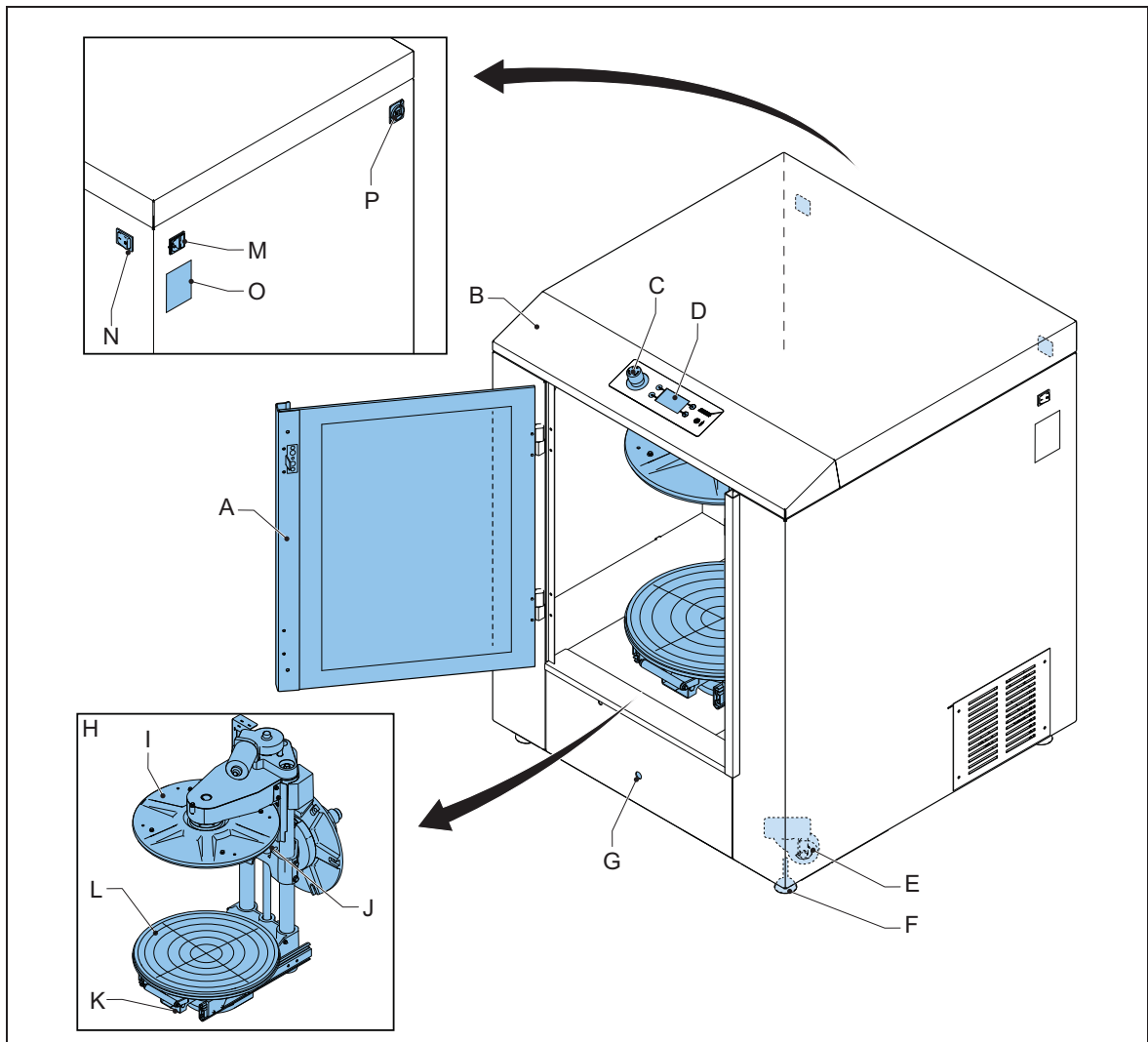
1. Sort the machine, the accessories and the packaging for environmentally friendly recycling.
2. Do not dispose of the machine into domestic waste. Dispose of the machine according to local regulations.



3 Operator manual

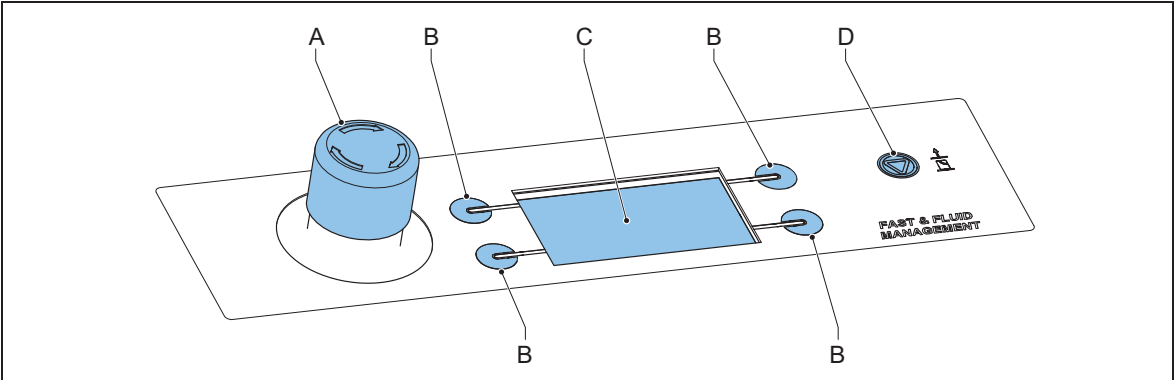
3.1 Description

3.1.1 Overview of the machine



- | | |
|--|---|
| A: Door | I: Can plate (top) |
| B: Casing | J: Shield |
| C: Emergency stop switch | K: Can table |
| D: Control panel. See also § 3.1.2. | L: Can plate (bottom) |
| E: Wheel (4x) | M: Net entry |
| F: Adjustable foot (4x) | N: Main switch |
| G: Drain orifice | O: Type plate. See also § 3.1.5. |
| H: Cradle | P: USB port |

3.1.2 Overview of the control panel



- A:** Emergency stop switch
B: Program keys. See also § 3.1.3.
C: Display
D: Stop/Up key

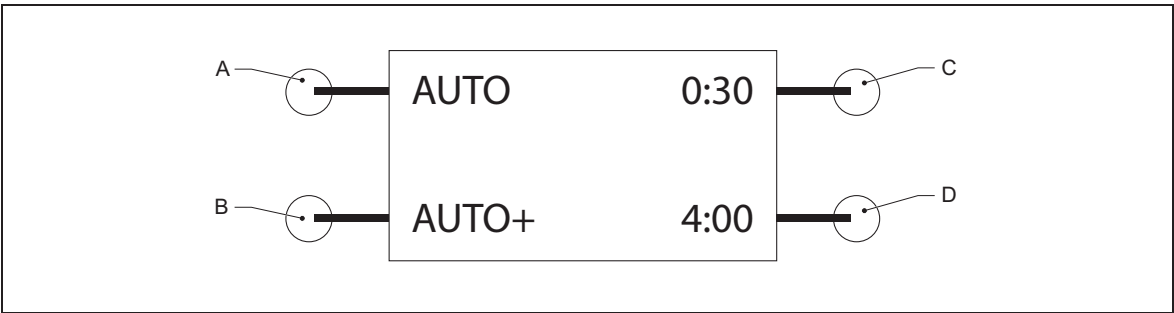


Note
The display shows the program menu with the multiple functions of the program keys.

3.1.3 Overview of the program keys

Ready for use

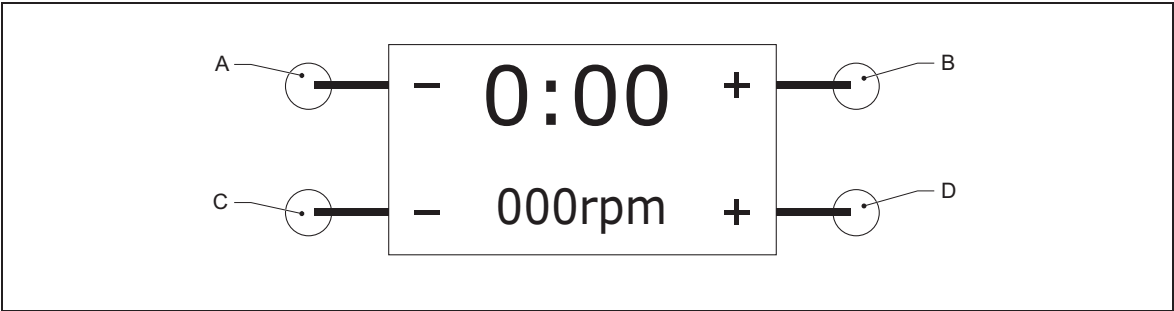
When the machine is ready for use, the display shows the available programs.



Pos.	Program key	Description
A	AUTO	Automatic program
B	AUTO+	Automatic program for heavy use
C	0:30	30 seconds pre-mix time
D	4:00	4 minutes standard mixing time


During operation

During operation, the display shows the remaining mixing time and the mixing speed.



Pos.	Program key	Description
A	-	Decrease the mixing time
B	+	Increase the mixing time
C	-	Decrease the mixing speed
D	+	Increase the mixing speed

3.1.4 Type plate: serial number




Fast & Fluid Management B.V.
IDEX Dispensing
P.O. Box 220
2170 AE Sassenheim
The Netherlands
www.fast-fluid.com

THE TINTING COMPANY



Model
XXXXX-XX XXXXXXXX XXXXX
Brand
XXXXXXXX
Serial Number
XXXXXXXXXX-XXXXXX
Production week
XX-XXXX

3.1.5 Type plate: details





Fast & Fluid Management B.V.
IDEX Dispensing
P.O. Box 220
2170 AE Sassenheim
The Netherlands
www.fast-fluid.com

THE TINTING COMPANY

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	

Patent
emea.fast-fluid.com/patents



Made in XXXXXX

3.2 Operation



WARNING

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

3.2.1 Turning on the machine - if the cradle is in the 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'. When the machine is operational the display shows 'AUTO'.*

3.2.2 Turning on the machine - if the cradle is not in the 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 'remove can and press any key to resume'.*
4. Remove the can. See § 3.2.7.
5. Push any key. *When the machine is operational, the display shows 'AUTO'.*

3.2.3 Turning on the machine when the machine is in hibernation

When the machine is in hibernation, the door is locked and the display shows a logo.

1. Push any key to unlock the door. *When the machine is operational, the display shows 'AUTO'.*

3.2.4 General mixing procedure

1. Place the can. See § 3.2.5.
2. Start the machine. See § 3.2.6.



Note

The machine starts automatically when you push the program key 'AUTO'.



Note

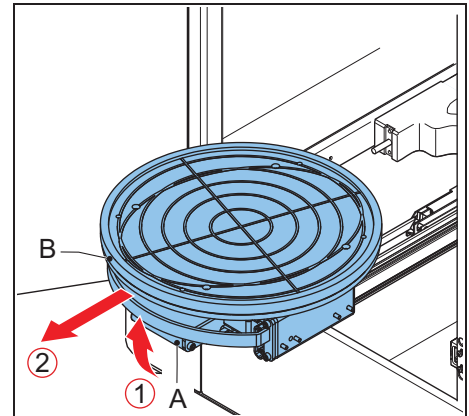
The door is unlocked after you hear a 'beep' and the display shows 'READY!'.

3. 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

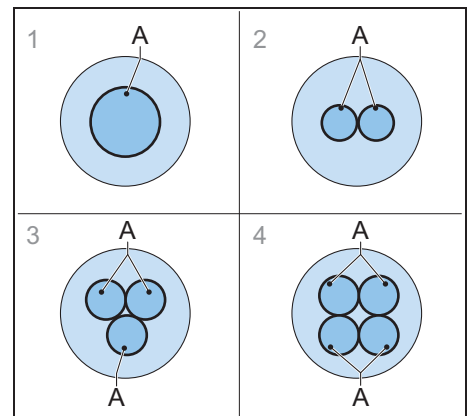
It is possible that the can is heavy. Use the correct lifting tool when appropriate. Obey the local regulations.



CAUTION

For multiple can mixing:

- Make sure that all cans have the same height.
- Do not stack cans upon each other.
- We recommend the default clamping pressure of 300kg and a speed of 170RPM for a multiple can mode with a maximum of three can's simultaneously, this should deliver safety and improved results over traditional 230RPM centered mixing.
- When more than 3 cans are mixed we advise to use an original Fast & Fluid Management B.V. adaptor to hold the cans in place.



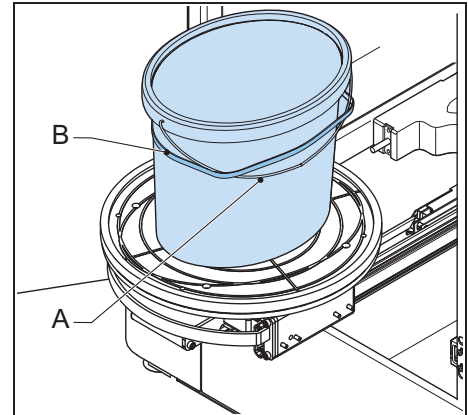
**Note**

When the diameter of the can is $> \varnothing 39$ cm, remove the upper shield.

2. If the can plates are too close to each other, move the can plates manually. See § 3.2.8.

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.*

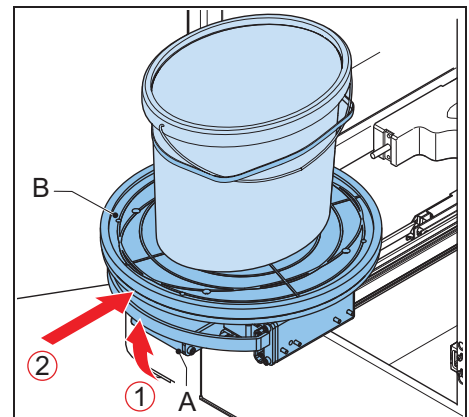
**Put back the can table**

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.

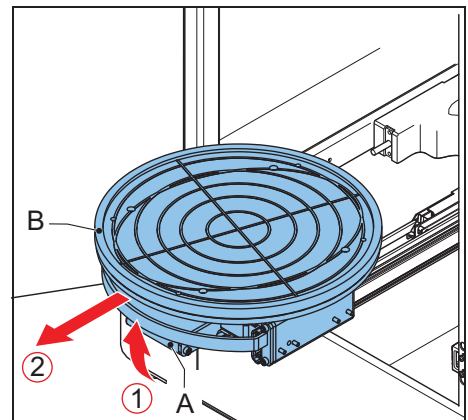
3. Close the door.

**3.2.6****Start the machine**

1. Push the program key 'AUTO'. *The machine starts automatically.*
2. If necessary, adjust the mixing time, see § 3.2.9.
3. If necessary, adjust the mixing speed, see § 3.2.10.

3.2.7 Remove the can

1. Wait until you hear a 'beep' and the display shows 'READY !'
The door is unlocked.
2. Open the door.
3. Pull up the handle (A) to unlock the can table (B).
4. Pull out the can table until you hear a 'click'. *The can table is locked.*
5. Remove the can handle retainer.
6. Remove the can.



3.2.8 Move the can plates manually

Move the can plates manually when the door is closed

1. Examine how much space is needed between the can plates.
2. If 0-4 cm extra space is needed:
 - a. Push the stop/up key. *The can plates move 4 cm.*
3. If more than 4 cm is needed:
 - a. Push the stop/up key twice. *The can plates move to the initial position.*
 - b. Push the stop/up key during the movement to the initial position. *The movement of the can plates stops.*

Move the can plates manually when the door is open

1. Examine how much space is needed between the can plates.
2. Push and hold the stop/up key. *The can plates move.*
3. Release the stop/up key. *The movement of the can plates stops.*

3.2.9 Adjust the mixing time during operation



Note

During operation:

- The display shows the remaining mixing time.
- You can adjust the mixing time.

1. Use the program keys to increase (+) or decrease (-) the mixing time.

3.2.10 Adjust the mixing speed during operation

**Note**

During operation:

- The display shows the mixing speed.
- You can adjust the mixing speed.

1. Use the program keys to increase (+) or decrease (-) the mixing speed.

**Note**

The machine checks the power used and reduces the mixing speed if necessary.

3.2.11 Stop the operation manually

1. Push the Stop/Up key.
2. Wait until you hear a 'beep' and the display shows 'READY !'
The door is unlocked.
3. If necessary, remove the can. See § 3.2.7.

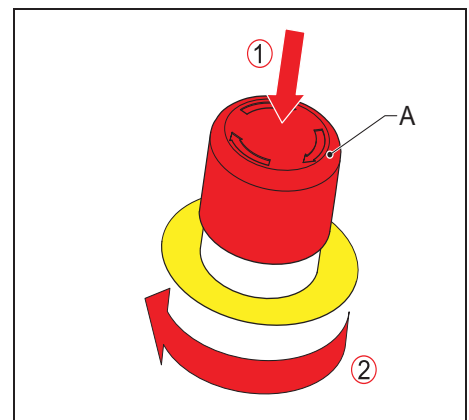
3.2.12 Using the emergency stop switch

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 § 3.2.3.

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

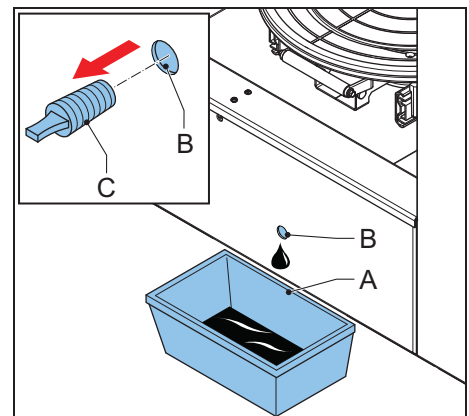
Do this procedure when paint is spilled inside the machine.

1. Make sure that the machine is stopped. See § 3.2.11.
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.

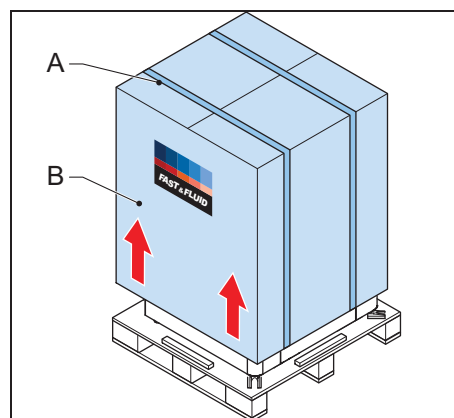


4 Installation

4.1 Unpack the machine

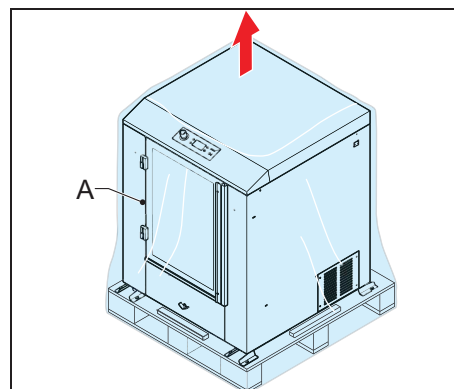
4.1.1 Remove the cardboard

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



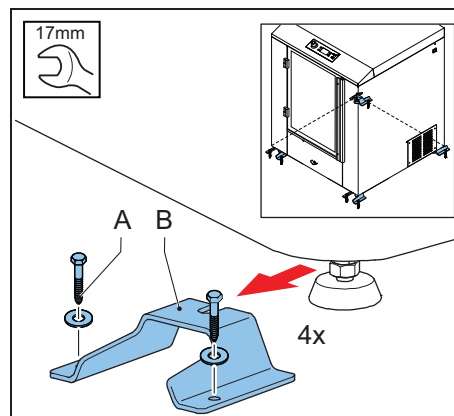
4.1.2 Remove the protection and foil

1. Remove the plastic foil (A).



4.1.3 Remove the transport brackets

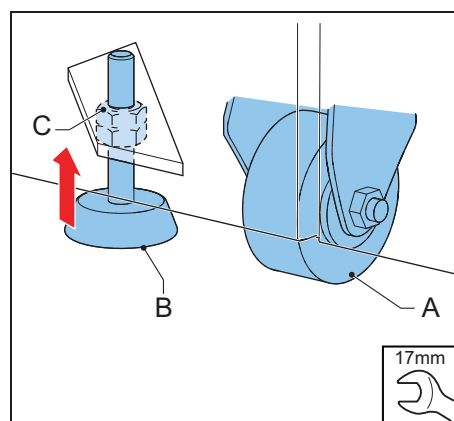
1. Remove the screws (A).
2. Remove the transport brackets (B).

**4.2 Put the machine in position**

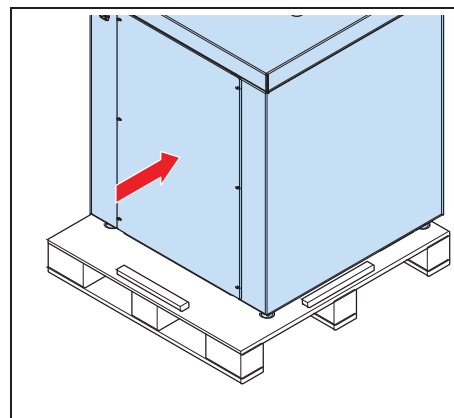
CAUTION
Do not use a fork-lift truck.

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.

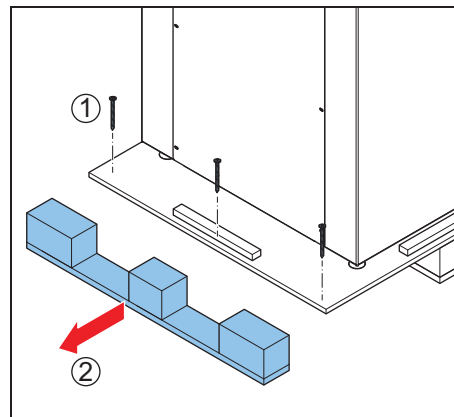


4. Move the machine to the end stop beam.



4.2.2 Make a ramp of the pallet

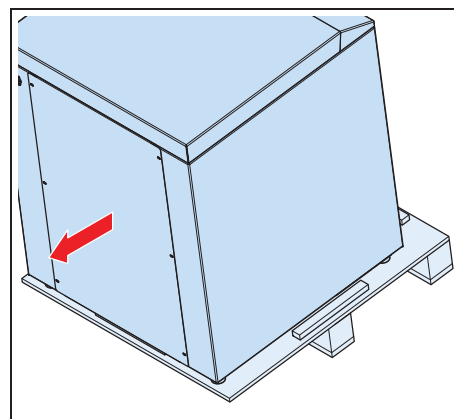
1. Remove the screws.
2. Remove the pallet beam.

**4.2.3 Move the machine from the pallet****WARNING**

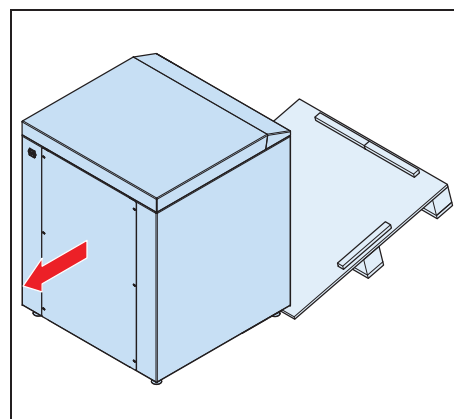
Crushing hazard

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

**CAUTION**

Do not use a fork-lift truck.

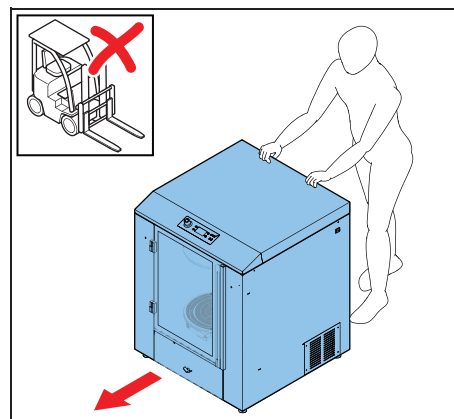
**Note**

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

**Note**

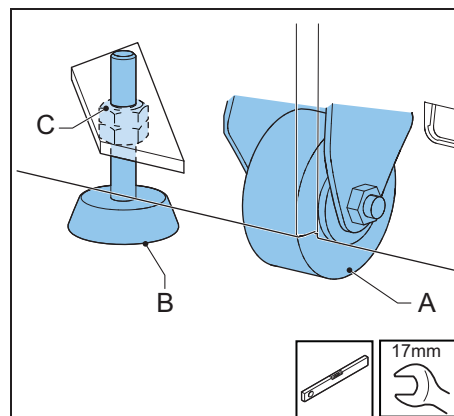
Make sure that the power cable and main switch are freely accessible.

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 § 3.2.1.

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 § 3.1.5.
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.

5.3.1 Easy-to-solve errors

Problem	Possible cause	Possible solution
The display shows 'E00'	Emergency stop switch is pushed during idle state.	Release the emergency stop switch. See § 3.2.12.
The display shows 'E01'	The door is open.	Close the door.
The display shows 'E05'	The cradle lock failed to release the cradle.	Restart the machine. See § 3.2.13.
The display shows 'E08'	Emergency stop switch is pushed during running state.	Release the emergency stop switch. See § 3.2.12.
The display shows 'E11'	No can found during clamping or the can is too small.	Place a can. See § 3.2.5.
The display shows 'E48'	The mixer motor is blocked.	Push the Stop/Up key.

5.3.2 Clamp plate errors

Problem	Possible cause	Possible solution
The display shows 'E40'	Home sensor not found.	Restart the machine. See § 3.2.13.
The display shows 'E41'	Top of clamp plates is not reached in time.	Restart the machine. See § 3.2.13.
The display shows 'E42'	Clamp plate is sticking on can. Cradle lock is stuck.	Restart the machine. See § 3.2.13.
The display shows 'E43'	Clamp plate is stuck in up position. Cradle lock is stuck.	Restart the machine. See § 3.2.13.

5.3.3 Inverter errors

Problem	Possible cause	Possible solution
The display shows 'E50'	Inverter is in error mode.	Restart the machine. See § 3.2.13.
The display shows 'E51'	Failed to initialize inverter.	Restart the machine. See § 3.2.13.
The display shows 'E54'	Failed to run the mixer motor forward.	Restart the machine. See § 3.2.13.
The display shows 'E55'	Failed to run the mixer motor backward.	Restart the machine. See § 3.2.13.
The display shows 'E56'	Failed to stop the mixer motor.	Restart the machine. See § 3.2.13.
The display shows 'E57'	Failed to brake the mixer motor.	Restart the machine. See § 3.2.13.
The display shows 'E58'	Failed to stop braking the mixer motor.	Restart the machine. See § 3.2.13.
The display shows 'E60'	Failed to send parameter to inverter.	Restart the machine. See § 3.2.13.
The display shows 'E61'	Failed to send home command to inverter.	Restart the machine. See § 3.2.13.

5.3.4 Software errors

Problem	Possible cause	Possible solution
The display shows 'F00'	Parameter is not available.	Contact service. See § 5.2.
The display shows 'F54'	Invalid state value.	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]	40
Can plate dimensions [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
Speed [rpm]	95 - 230

6.2 Dimensions and mass

Parameter	Specification
Dimensions, height x width x depth [cm]	101 x 82 x 81
Dimensions for installation, height x width x depth [cm]	101 x 82 x 79
Packed dimensions, height x width x depth [cm]	116 x 97 x 90
Mass incl. packaging [kg]	256
Minimum requirement of the load capacity of the floor according to EN 61010-1:2010 [kg]	1120

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)]	< 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]	90 - 230
Maximum mix time [s]	999
Frequency [Hz]	50/60
Fuse specifications [A]	10

