

Original

# Manual X-Smart®



---

**Fluid Management®**  
[www.fluidman.com](http://www.fluidman.com)

V 1.4

  
**FAST & FLUID**  
THE TINTING COMPANY  
[www.fast-fluid.com](http://www.fast-fluid.com)

---

## © Fast & Fluid Management B.V.

This manual or parts thereof may not be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, nor otherwise, without the prior written permission of Fast & Fluid Management B.V.

This manual could contain technical inaccuracies or typographical errors.

Fast & Fluid Management B.V. reserves the right to revise this manual from time to time in the contents thereof without the obligation of Fast & Fluid Management B.V. to notify any person of such revision or change.

Details and values given in this manual are average values and have been compiled with care. They are not binding, however, and Fast & Fluid Management B.V. disclaims any liability for damage or detriments suffered as a result of reliance on the information given herein or the use of products, processes or equipment to which this manual refers. No warranty is made that the use of the information or of the products, processes or equipment to which this manual refers will not infringe any third party's patents or rights. The information given does not release the user from making their own experiments and tests.

# Table of Contents

<b>1</b>	<b>About this manual</b>	<b>5</b>
1.1	How to work with the manual	5
1.2	Record of changes	5
<b>2</b>	<b>Safety</b>	<b>6</b>
2.1	Intended use	6
2.2	Liability	6
2.2.1	General liability	6
2.2.2	Machine-specific liability	6
2.3	User qualification for installation	7
2.4	Certifications	7
2.5	Safety symbols on the machine	8
2.6	Safety symbols in the manual	8
2.7	Disposal of the machine	8
<b>3</b>	<b>Operator manual</b>	<b>9</b>
3.1	Description	9
3.1.1	Overview of the machine	9
3.1.2	Overview of the available optional parts	10
3.1.3	Type plate: serial number	11
3.1.4	Type plate: details	11
3.2	Operation	11
3.2.1	General dispensing procedure	11
3.2.2	Placing a can	12
3.2.3	Using the emergency stop switch	12
3.3	Maintenance	13
3.3.1	X-Smart Maintenance Kit	13
3.3.2	General cleaning: daily	13
3.3.3	Cleaning the brush unit: daily	14
3.3.4	Cleaning the nozzles: daily	15
3.3.5	Refilling a canister	16
<b>4</b>	<b>Installation</b>	<b>17</b>
4.1	Turning on the machine	17
4.2	First use	17
4.3	Flushing the air out of the pump	17

---

<b>5</b>	<b>Troubleshooting.....</b>	<b>18</b>
5.1	General troubleshooting procedure .....	18
5.2	Contact service .....	18
5.3	Troubleshooting guide .....	18
<b>6</b>	<b>Technical data .....</b>	<b>19</b>
6.1	General specifications .....	19
6.2	Dimensions and mass .....	19
6.3	Ambient conditions .....	20
6.4	Noise level .....	20
6.5	Safety classifications .....	20
6.6	Electrical specifications.....	20
6.6.1	Power supply .....	20
6.6.2	Dispenser.....	20
6.7	Electrical diagram .....	21

# 1 About this manual

The manual shows the information necessary to:

- install the machine
- operate the machine
- perform basic maintenance
- correct small problems.

The X-Smart 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.



## Note

For the unpacking and installation procedures, refer to the separate installation instruction sheets.

## 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	ET	TB	02/2013	First edition
1.1	ET	TB	06/2013	X-Smart Maintenance Kit added
1.2	ET	TB	06/2014	Certification and other changes
1.3	MBL	TB	12/2017	Liability and technical data changes
1.4	PHS	SG	03/2021	Maintenance kit purchase note is added on pg. 15 & 16

## 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 dispense colorants into a can. Any other use of the machine is strictly forbidden.

### 2.2 Liability

#### 2.2.1 General liability

Our machines and accessories are compliant with their market specific safety requirements. For some markets machines need a certification to prove the machine complies with the essential requirements concerning safety. Any modification can result in not fulfilling the market-specific machine 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

This machine is designed to dispense colorants into a can in non-hazardous conditions.

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, (base) paint and brush liquid.
- Do not use flammable liquids in the brush container.
- 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 Certifications

For some markets machines need a certification to prove the machine complies with the essential requirements concerning safety. The directives that have been taken into consideration in the design are available on the website.

If applicable to your market, the machine contains the logo of the certification either as a separate sticker or on the type plate.

Logo	Certification	Website
	CE	<a href="http://www.fast-fluid.com">www.fast-fluid.com</a>
	ETL (includes specific UL and CSA directives)	<a href="http://www.fluidman.com">www.fluidman.com</a>

## 2.5 Safety symbols on the machine



Moving parts hazard



Pinch hazard



Warning



Read the manual



Safety instructions

## 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

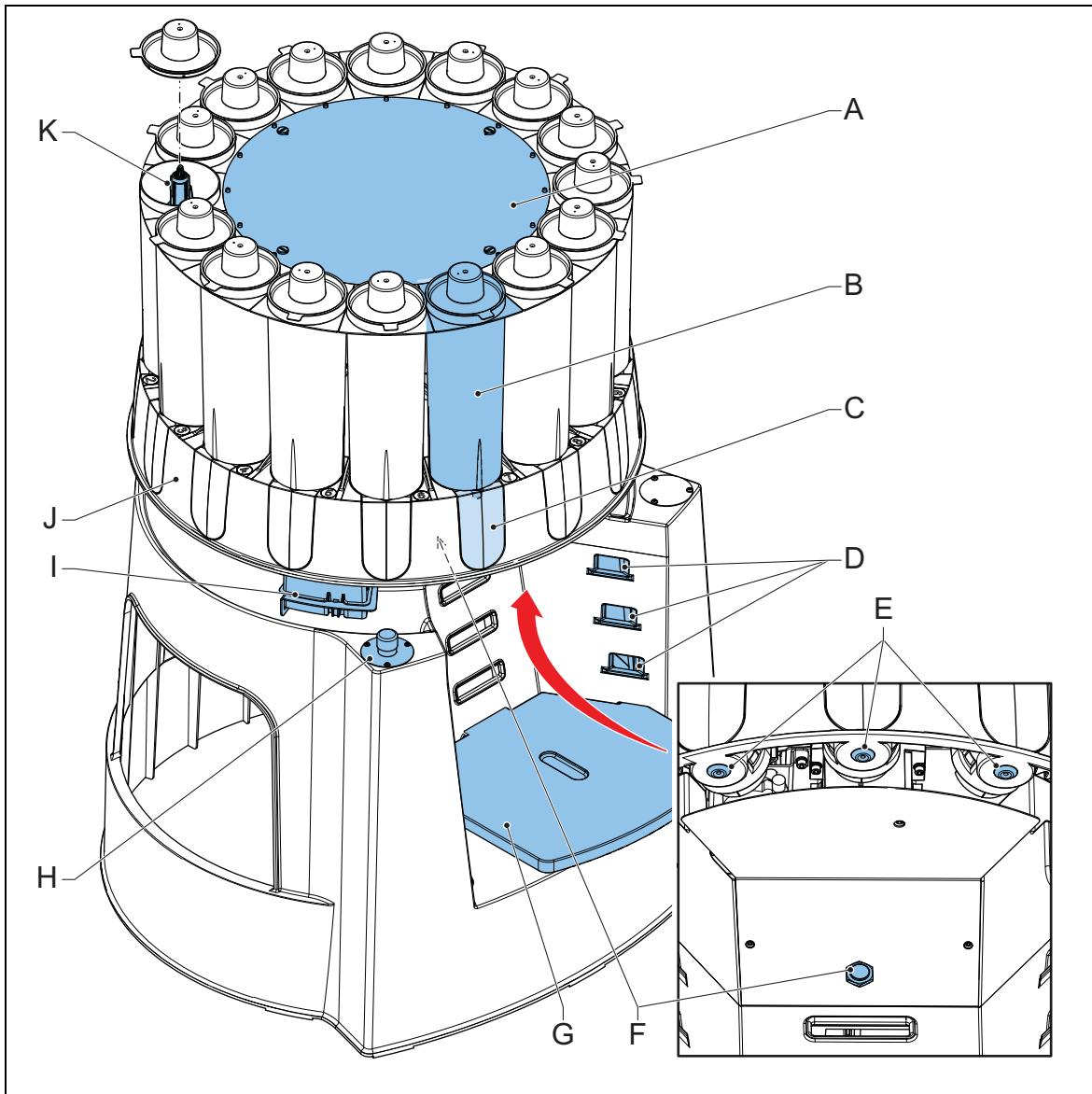
1. Sort the machine, the accessories and the packaging for environmentally friendly recycling.
2. Do not dispose of the machine into domestic waste. Dispose of the machine according to local regulations.
3. Dispose of the canisters as chemical waste, according to the local regulations.



### 3 Operator manual

#### 3.1 Description

##### 3.1.1 Overview of the machine



**A:** Top cover

**B:** Canister

**C:** Pump

**D:** Slot (for the can table)

**E:** Nozzle

**F:** Can sensor

**G:** Can table

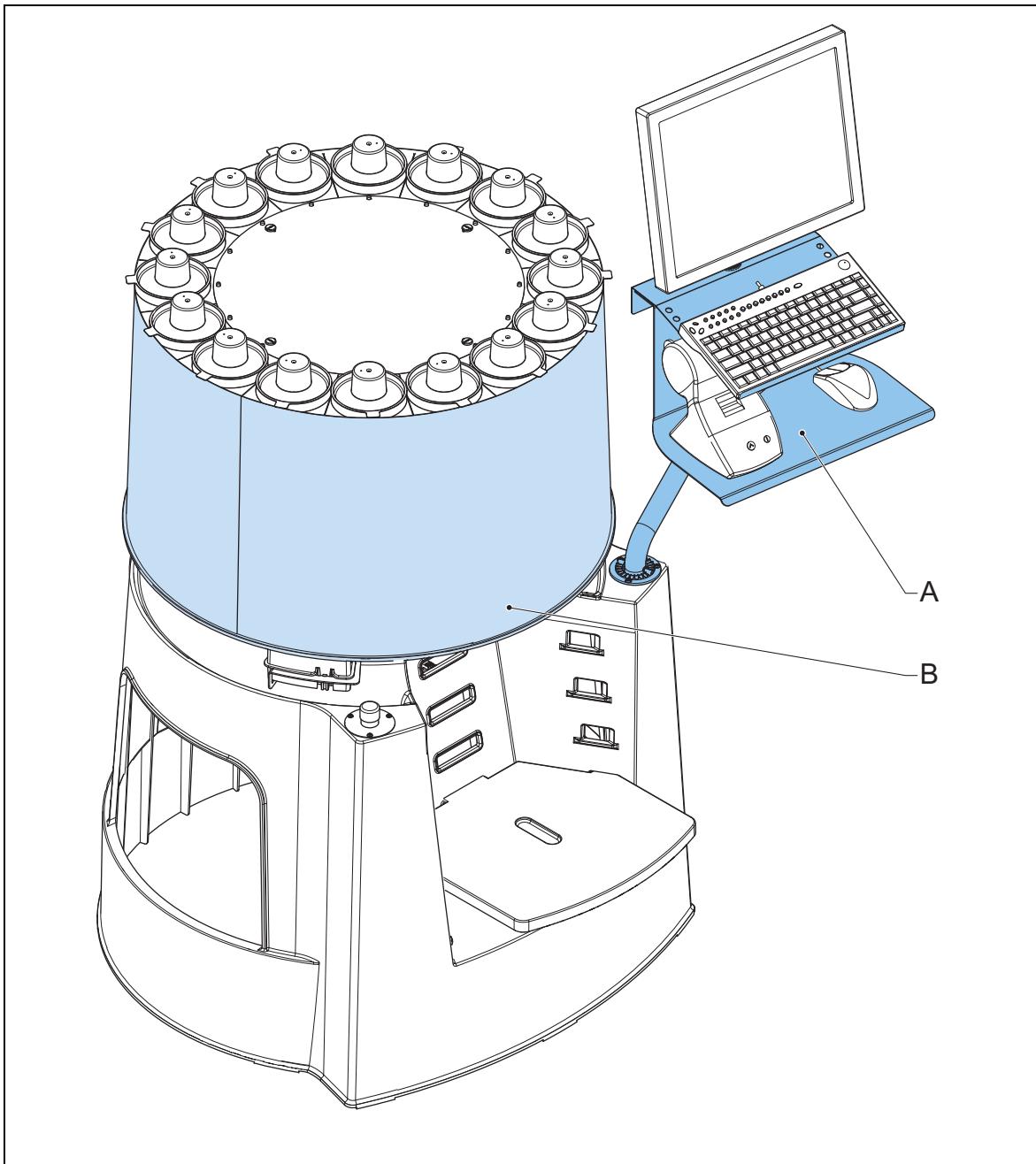
**H:** Emergency stop switch

**I:** Brush unit

**J:** Turntable

**K:** Agitator (part of the stirring mechanism)

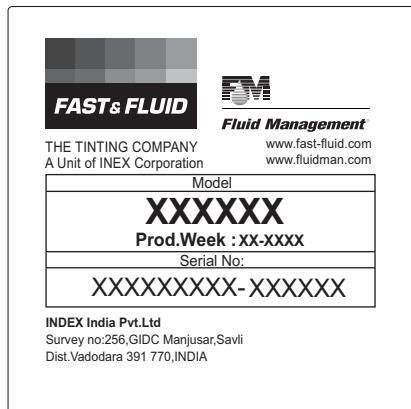
## 3.1.2 Overview of the available optional parts



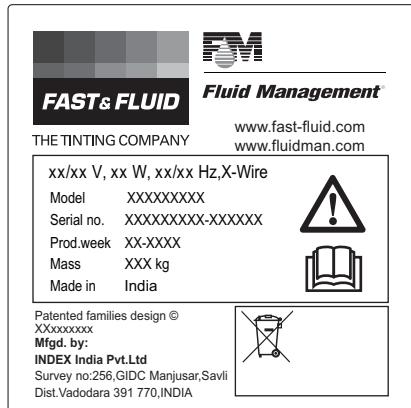
**A:** Monitor Keyboard arm

**B:** Wrap

### 3.1.3 Type plate: serial number



### 3.1.4 Type plate: details



## 3.2 Operation



### WARNING

Do not place objects on top of the machine.



### CAUTION

Do not remove the power from the machine. See § 4.1. The machine must stir the colorants periodically.

### 3.2.1 General dispensing procedure

For all the dispense software instructions: see the dispense software documentation.

1. Place the can table in the correct slots for the correct height. See § 3.2.2.
2. Place the can. See § 3.2.2.
3. Choose the recipe and dispense. See the dispense software documentation.
4. Remove the can.

### 3.2.2 Placing a can

1. Check the height of the can.



**Note**

The correct height of the can table depends on the height of the can.

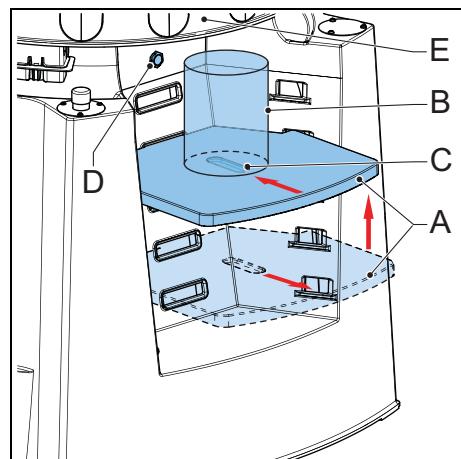
2. Place the can table (A) in the correct slots for the correct height.



**CAUTION**

Make sure that the can table is secure.

3. Place the can (B) at the center of the mark (C) on the can table.



**CAUTION**

Make sure that the can does not touch the turntable (E). Keep enough free space.



**Note**

Make sure that the can sensor (D) is able to detect the can.

### 3.2.3 Using the emergency stop switch

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



**CAUTION**

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

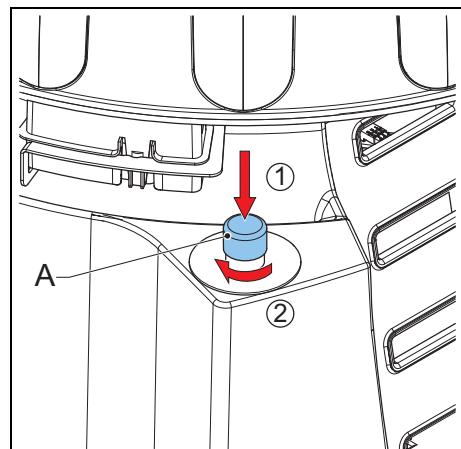
2. Solve the problem as quickly as possible.



**CAUTION**

When the machine is shut down, the stirring mechanism, which is necessary to keep the colorant in optimal condition, is also shut down.

3. Reset the emergency stop switch by turning the emergency stop switch. The machine restarts automatically.



**Note**

After the reset, the machine is operational when you hear two 'beeps'.

### 3.3 Maintenance

#### 3.3.1 X-Smart Maintenance Kit

To keep your X-Smart in optimal condition, we highly recommend you to use the X-Smart Maintenance Kit. The X-Smart Maintenance Kit contains everything you need to keep your machine in optimal condition for the period of 1 year.

**A:** Replacement canister with pump (1x)

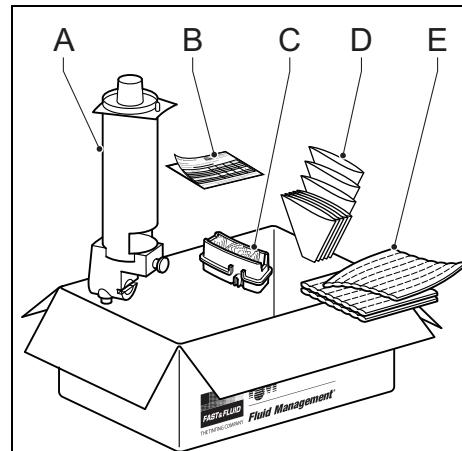
**B:** X-Smart schedule sticker (1x)

**C:** Replacement brush unit (3x)

**D:** Paper funnel (200x)

**E:** X-Smart cleaning cloth (3x)

- The replacement canister with pump (A) should be used as a spare part and can be used whenever one of the canisters needs to be replaced.
- The X-Smart schedule sticker (B) gives you a clear overview of the maintenance tasks and a reminder to keep your machine in optimal condition.
- Replace the brush unit (C) every 4 months for optimal performance.
- Use the X-Smart paper funnels (D) for the clean filling and refilling of the canisters.
- Use the X-Smart cleaning cloth (E) with a non-organic cleaning liquid to clean the machine and the nozzles.



##### Note

The X-Smart Maintenance Kit is available through your machine supplier.

#### 3.3.2 General cleaning: daily

1. Clean the machine with a damp X-Smart cleaning cloth and remove all spilled colorant or other fluids.



##### CAUTION

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



##### Note

Remove spilled colorant and other fluids as soon as possible.



##### Note

Do not drain spilled colorant or other fluids in the sink. Observe the local regulations.

2. When the brush is too dirty and does not clean the nozzle of the canister, rinse and clean the brush. See § 3.3.3.
3. When the nozzles are too dirty, clean the nozzles individually with a damp cloth. See § 3.3.4.

### 3.3.3 Cleaning the brush unit: daily

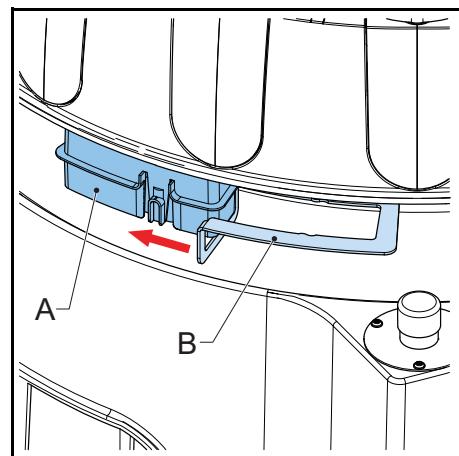
The brush unit removes the excess colorant from the nozzles. The brush unit consists of a brush container and a removable brush that rotates. The brush unit is installed in a bracket with a click connection.

It is advised to replace the brush unit every 4 months to ensure optimal performance. Replacement brush units are provided in the X-Smart Maintenance Kit.

**Note**

If you do not clean these items daily, mistinting might occur.

1. Slide the brush unit (A) out of the bracket (B).

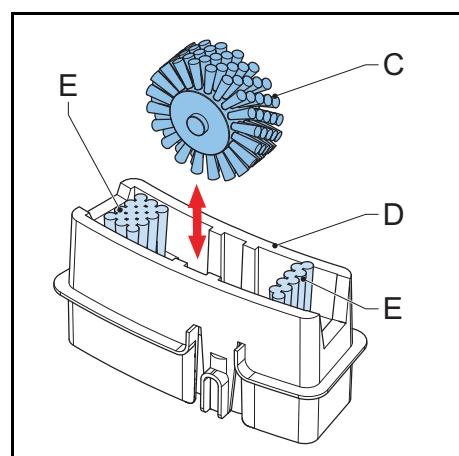


2. Remove the rotary brush (C) from the brush container (D).
3. Remove the fluids from the brush container.

**Note**

For the disposal of the fluids, follow the local regulations.

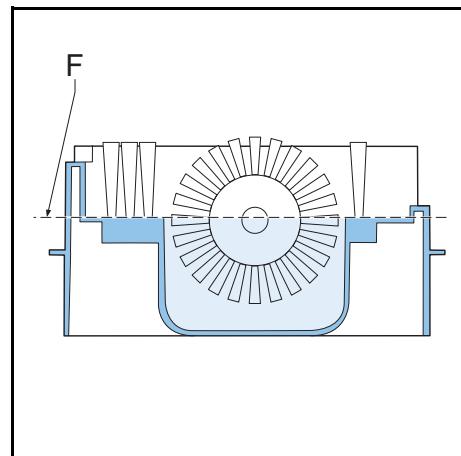
4. Rinse and clean the static brushes (E).
5. Rinse and clean the rotary brush.
6. Place the rotary brush back in the brush container.



- Fill the brush container with fluid. This fluid must be a water-based cleaning agent.

**WARNING**

Do not put flammable liquids in the brush container.

**Note**

Do not exceed the maximum filling height (F).

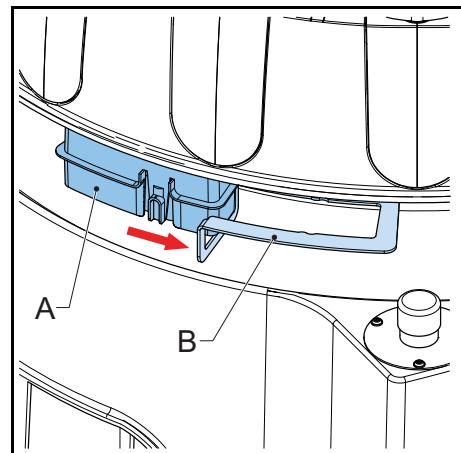
**Note**

The optimum fluid level depends on the type of colorant that is used.

- Slide the brush unit (A) back in the bracket (B).

**Note**

The brush unit is properly connected to the bracket when you feel a snap-fit. Make sure you hear the click sound.

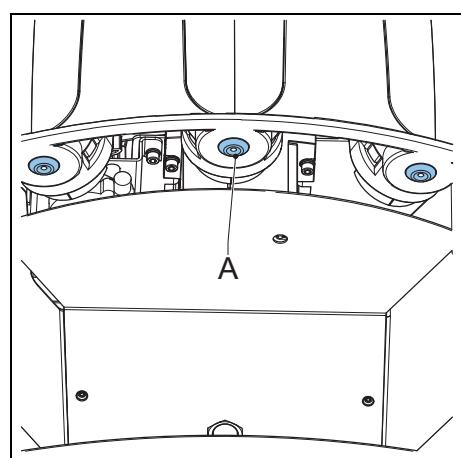


### 3.3.4 Cleaning the nozzles: daily

- Examine the nozzle (A) for contamination.
- If necessary, clean the nozzle. Use the X-Smart cleaning cloth, as provided in the X-Smart Maintenance Kit, with a non-organic cleaning liquid.

**WARNING**

Do not clean the nozzles when the turntable moves.



\* X-SMART Maintenance Kit to be purchased separately.

## 3.3.5 Refilling a canister

**WARNING**

Check the material safety data sheet (MSDS) of the colorants for the personal protection measures that are required for handling the colorant.

**CAUTION**

Make sure that the colorant level in the canister is correct. If a canister is empty, it can cause an inaccurate dispensing and/or a recipe fault.

**Note**

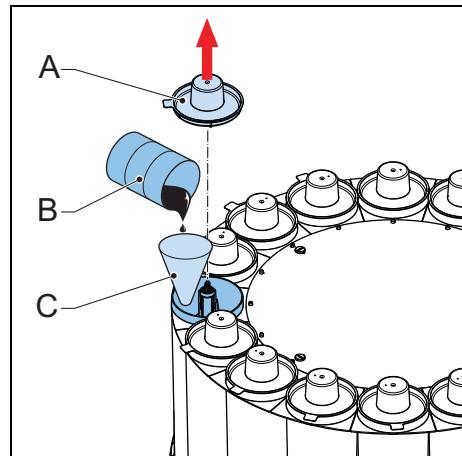
The dispense software checks the level of colorant in each canister. The dispense software shows when you need to refill a canister.

1. In the dispense software, start the fill canister command.

**Note**

The fill canister command of the dispense software controls the motor of the turntable. The turntable turns the empty canister to the front.

2. Remove the lid (A) from the canister.
3. Follow the instructions on the display.
4. Add the correct colorant (B). Do not spill. *Use an X-Smart paper funnel (C), which is provided in the X-Smart Maintenance Kit.*

**CAUTION**

Do not fill the canister to the brim. Leave at least 2.5 cm (1 inch) unfilled.

**CAUTION**

Do not pour the colorant on the agitator.

5. Place the lid back on the canister.

\* X-SMART Maintenance Kit to be purchased separately.

## 4 Installation

**Note**

For the unpacking and installation procedures, refer to the separate installation instruction sheets.

### 4.1 Turning on the machine

1. Connect the power cable to the wall socket. When the machine is operational, you hear two 'beeps'.
2. Make sure that the emergency stop switch is released.
3. Set the computer switch to 'ON'.
4. Run the dispense software.

### 4.2 First use

1. Fill and place the brush unit. See § 3.3.3.
2. Fill the canisters correctly. See § 3.3.5.
3. Flush all air out of the pumps. See § 4.3.

### 4.3 Flushing the air out of the pump

**Note**

Before the first use it is important that all air is removed from all individual pumps.

1. Flush the air out of the pump:
  - Use the air flushing command in the dispense software.
  - If the dispense software does have an air flushing command option or is not able to flush the air out of the pump automatically, dispense 120 ml / 3 oz. Repeat the action until all air is out of the pump.

## 5 Troubleshooting

**Note**

For all error messages on the computer: see the help topic in the dispense software.

### 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 plate next to the emergency stop switch. 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](http://www.fast-fluid.com) (Fast & Fluid Management Europe and Asia) or [www.fluidman.com](http://www.fluidman.com) (Fluid management, U.S.A.).

### 5.3 Troubleshooting guide

Problem	Possible cause	Possible solution
Main power supply is present but the machine does not work.	The emergency stop switch is active.	Reset the emergency stop switch. See § 3.2.3.
The machine has a failure and does not respond correctly to the request from the dispense software.	The failure could be mechanically or electronically.	Push the emergency stop switch to reset the machine. Reset the emergency stop switch. See § 3.2.3. If the machine still has a failure, contact service. See § 5.2.

## 6 Technical data

### 6.1 General specifications

Parameter	Specification	
	Metric standard	Imperial standard
Model	X-Smart	
Number of canisters	16	
Dispensing	Sequential	
Pump type	Piston pump	
Cleaning system	Rotary brush	
Suitable for	Water and universal colorants	
Canister size [L - USgal]	2.25	0.594
Resolution [mL/step - fl oz/step]	± 0.005	± 0.000169
Maximum flow rate [L/min. - USgal/min.]	0.25	0.066
Minimum dispensing [mL - fl oz]	0.077	0.0026
Nozzle diameter [mm - in]	4	0.517

### 6.2 Dimensions and mass

Parameter	Specification	
	Metric standard	Imperial standard
Dimensions, height x width x depth [cm - in]	125 x 83 x 95	49.2 x 32.7 x 37.4
Packed dimensions, height x width x depth [cm - in]	113 x 88 x 88	44.5 x 34.6 x 34.6
Mass incl. packaging [kg - lbs]	65	143.3
Mass filled machine (max.) [kg - lbs]	140	308.6
Minimum requirement of load capacity of the floor according to EN 61010-1:2010 [kg - lbs]	560	1234.6
Filling height of the canister [cm - in]	120	47.2
Maximum can height [cm - in]	48	18.9
Minimum can height [cm - in]	7	2.8
Can table dimensions, width x depth [cm - in]	38 x 27	15.0 x 10.6

## 6.3 Ambient conditions

Parameter	Specification	
	Metric standard	Imperial standard
Temperature [°C - °F]	+10 to +40	+50 to +104
Altitude above sea level, operational [m - ft]	-10 to 2000	-33 to 6562
Altitude above sea level, out of operation [m - ft]	-10 to 12000	-33 to 39370
Maximum Relative Humidity, without condensation [RH]	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 Compatibility) classification	Class B

## 6.6 Electrical specifications

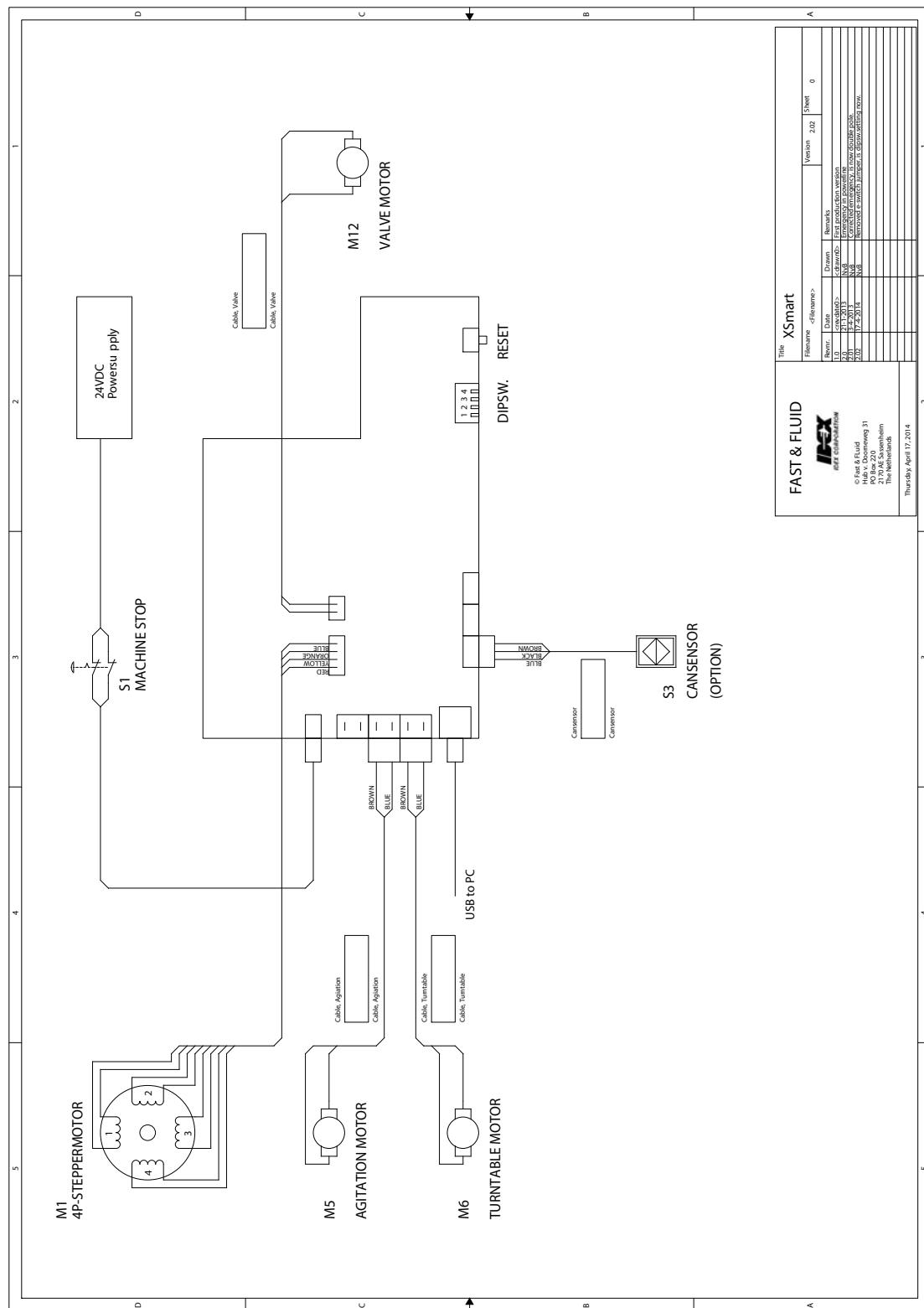
### 6.6.1 Power supply

Parameter	Specification
Maximum power consumption [W]	85
Voltage [V AC]	90~264
Voltage [Hz]	50 / 60
Maximum leakage current [mA]	3.5
AC inlet	IEC320/C14

### 6.6.2 Dispenser

Parameter	Specification
Maximum power consumption [W]	75
Voltage [V DC]	24

## 6.7 Electrical diagram



Manufactured by:

INDEX India Pvt. Ltd.,  
Survey no: 256, GIDC Manjusar, Savli,  
Dist.: Vadodara 391 770, India