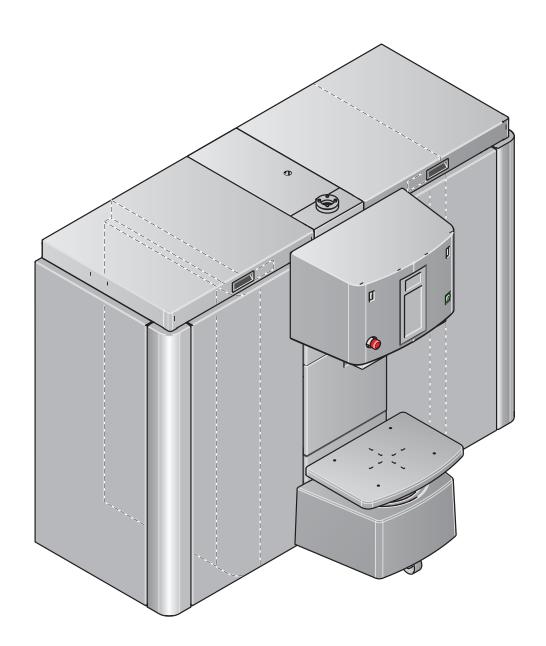




Manual HP500 / HP800



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1 About this manual

The manual shows the information necessary to:

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

The HP500, the HP800 and all their 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 § 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	ТВ	MB	12/2010	First edition
2.0	ТВ	MB	01/2012	Included: punch and heating sensor options and HP800
3.0	ET	MvDo	05/2012	Technical specifications: change of dimensions
4.0	RvS	ТВ	12/2014	Updated 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 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 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.
- Do not place objects on top of the machine.
- Do not use a damaged machine. When you have doubts, contact your supplier. See § 5.1.
- 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

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 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



Moving parts hazard



Pinch hazard foot



Grounding is necessary



Read the manual



Electrical hazard



Can table switch up/down



Instructions



2.6 Safety symbols in the manual



WARNINGCan cause personal injury.



WARNINGPinch hazard for your foot.



CAUTIONCan cause damage to the machine.



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. Dispose of the canisters as chemical waste, according to the local regulations.





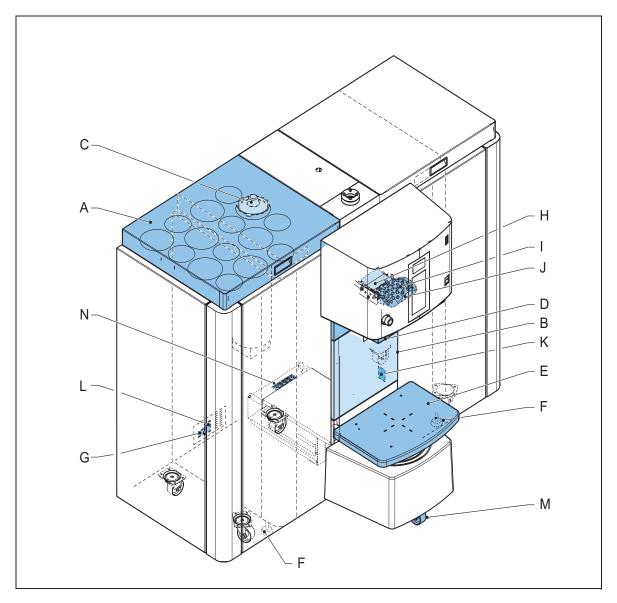




3 Operator manual

3.1 Description

3.1.1 Overview of the machine



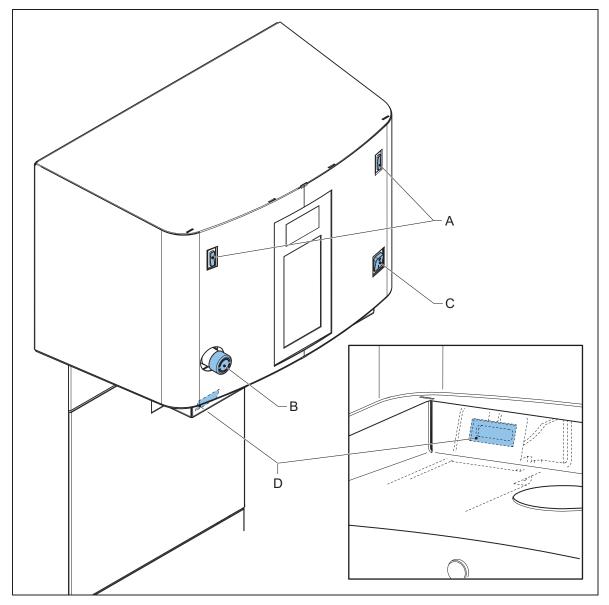
- A: Top cover
- B: Computer cover
- C: Canister
- D: Switch plate
- E: Can table
- F: Adjustable foot
- G: Net entry
- H: Brush container

- I: Nozzle
- J: Nozzle blade
- **K:** Type plate: serial number (at the inside of the computer compartment)
- L: Type plate: details
- M: Wheels
- N: 5-Way socket





3.1.2 Overview of the controls

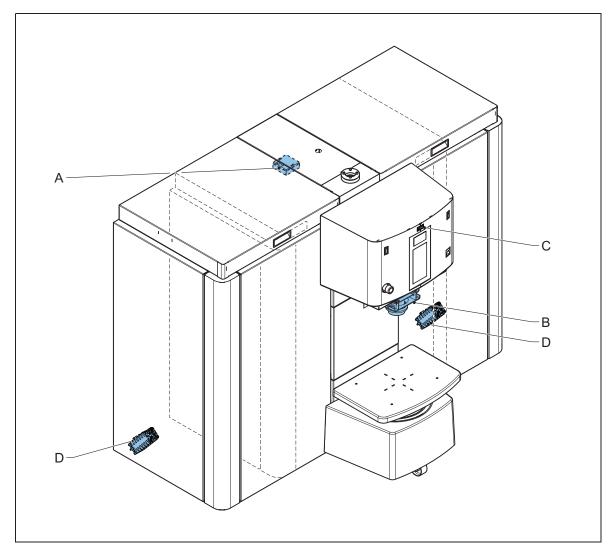


- A: Can table switch
- B: Emergency stop switch
- C: Computer switch
- D: Brush maintenance switch





3.1.3 Options

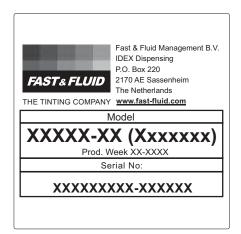


- A: Thermostat
- B: Punch
- C: Punch switch
- D: Heater





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.

When you reset the emergency stop switch, the machine restarts automatically. When the machine is operational, you hear a single 'beep'.







CAUTION

Do not remove the power from the machine. See § 4.4. The machine must stir the colorants periodically.



Note

The computer switch only turns the computer on and off

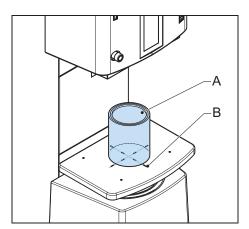
3.2.1 General dispensing procedure

For all the software instructions: see the software documentation.

- 1. Place the can. See § 3.2.2.
- 2. Move the can table up. See § 3.2.3.
- 3. Choose the recipe and dispense. See the software documentation.
- 4. Move the can table down. See § 3.2.4.
- 5. Remove the can.

3.2.2 Place the can

1. Place the can (A) at the centre of the mark (B) on the can table.

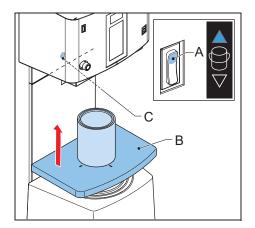






3.2.3 Move up the can table

- 1. Push and hold the upper part of the can table switch (A). The can table (B) moves up and stops when the can is in front of the can sensor (C).
- 2. After the can table stops, release the can table switch.



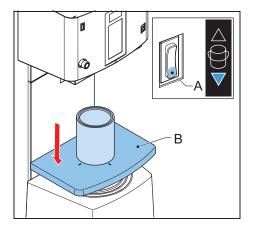
3.2.4 Move down the can table

- 1. Push and hold the lower part of the can table switch (A). The can table (B) moves down.
- 2. When you can remove the can, release the can table switch. If you hold the can table switch, the can table moves down to a halt.



WARNING

Do not put your foot below the can table.



3.3 Maintenance

3.3.1 General cleaning: after every dispensing operation

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



CAUTION

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

3.3.2 Cleaning of the nozzle and the brush container: daily



CAUTION

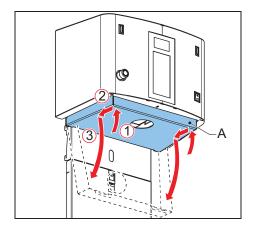
If you do not clean these items daily, severe pollution will occur.





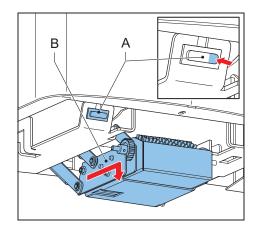
Open the switch plate

- 1. Move the front of the switch plate (A) upwards.
- 2. Push the switch plate backwards.
- 3. Turn the switch plate down.



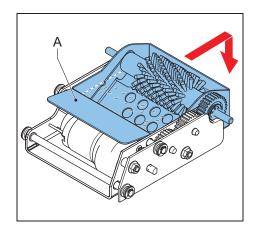
Move down the brush unit

- 1. Push and hold the right part of the brush maintenance switch (A). The brush unit (B) moves forward and then down.
- 2. After the brush unit stops, release the brush maintenance switch.



Remove the brush container

1. Remove the brush container (A) from the brush unit.



Clean the brush container

1. Remove the liquid from the brush container. For the disposal of the liquid, follow the local regulations.





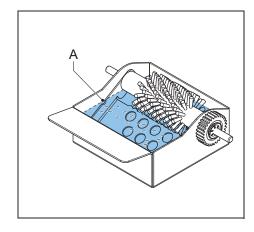
Fill the brush container

1. Fill the brush container to the mark (A). Use the liquid that your paint supplier indicates.



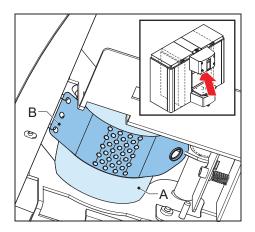
WARNING

Do not put flammable liquids in the brush container



Examine the nozzle and clean if necessary

- 1. Examine the nozzle for contamination.
- 2. If necessary, clean the surface of the nozzle (A) and the nozzle blade (B). *Use a cloth*.

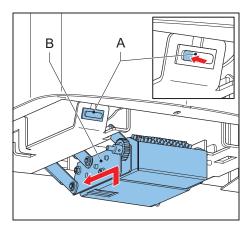


Put back the brush container

1. Put back the brush container in the brush unit.

Move up the brush unit

- 1. Put back the brush unit in the machine.
- 2. Push and hold the left part of the brush maintenance switch (A). The brush unit moves up and then back.
- After the brush unit stops, release the brush maintenance switch.





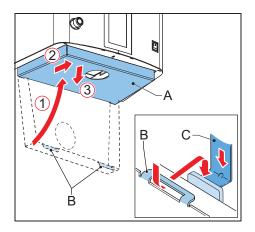


Clean the switch plate

1. Clean the switch plate. Use a cleaning cloth with a nonorganic cleaning liquid.

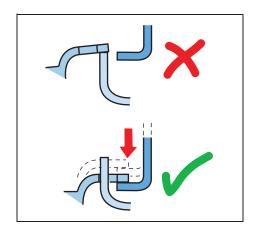
Close the switch plate

- 1. Turn the switch plate (A) upwards.
- 2. Move the switch plate forwards.
- 3. Put the brackets of the switch plate (B) on the switches of the switch plate (C). *The switch plate is deactivated.*



Examine the switches of the switch plate

 Make sure that the switch plate makes good contact with the switches of the switch plate. Otherwise the switch plate is activated.



3.3.3 Refilling of 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, this can cause an inaccurate dispensing and/or a recipe fault.



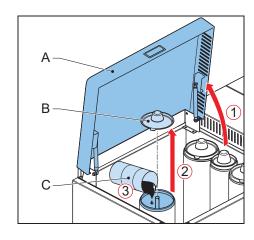




Note

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

- 1. In the software, activate the fill canister option.
- 2. Open the top cover (A).
- 3. Remove the lid of the canister (B).
- 4. Add the colorant (C). Do not spill.



3.3.4 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!



WARNING

The 5-way socket stays powered when the emergency stop switch is used.

2. Solve the problem as quickly as possible.



CAUTION

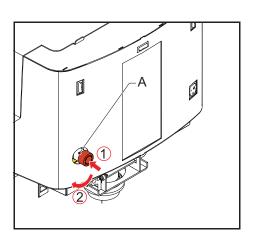
When the machine is shut down, the stirring mechanism, which is necessary to keep the colorant in optimal condition, is also shut down.

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 a single 'beep'.





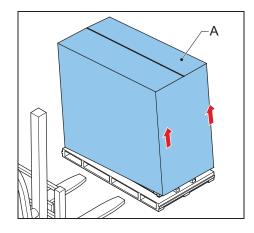


4 Installation

4.1 Unpack the machine

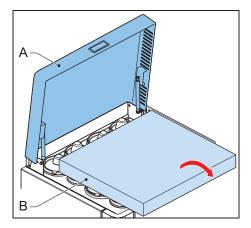
4.1.1 Remove the cardboard

1. Remove the cardboard and the plastic (A) from the outside of the machine.



4.1.2 Remove the plastic protection on the canisters

- 1. Open the top cover (A).
- 2. Remove the plastic protection (B).

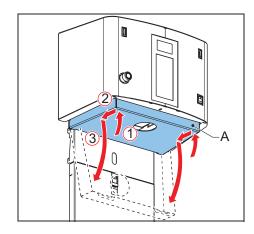






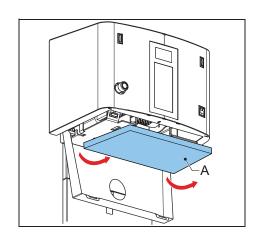
4.1.3 Open the switch plate

- 1. Move up the front of the switch plate (A).
- 2. Push backwards the switch plate.
- 3. Turn down the switch plate.



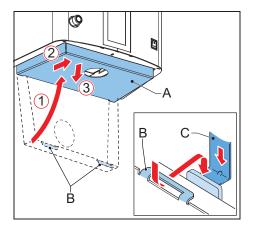
4.1.4 Remove the plastic protection on the switch plate

1. Remove the plastic protection (A).



4.1.5 Close the switch plate

- 1. Turn the switch plate (A) upwards.
- 2. Move the switch plate forwards.
- 3. Put the brackets of the switch plate (B) on the switches of the switch plate (C). *The switch plate is deactivated.*

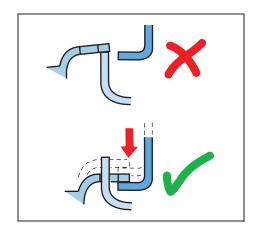






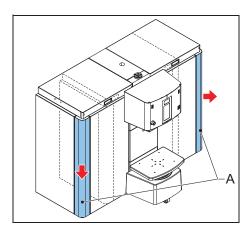
4.1.6 Examine the switches of the switch plate

1. Make sure that the switch plate makes good contact with the switches of the switch plate. Otherwise the switch plate is activated.



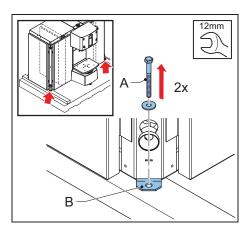
4.1.7 Remove the corner panels

1. Pull and remove the corner panels (A).



4.1.8 Remove the transport brackets at the front

- 1. Remove the screws (A).
- 2. Install the corner panels.

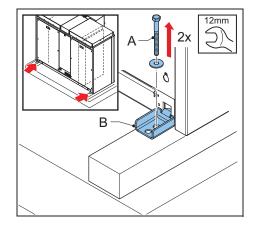






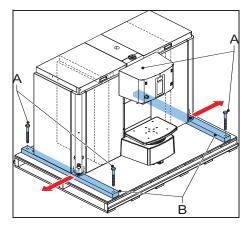
4.1.9 Remove the transport brackets at the rear

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



4.1.10 Remove the wooden beams

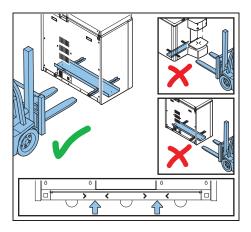
- 1. Remove the screws (A).
- 2. Remove the wooden beams (B).



4.2 Put the machine in position

4.2.1 Move the machine to the final location, with a fork-lift truck

- 1. Remove the machine from the pallet. Use a fork-lift truck.
- 2. Move the machine to the final location.
- 3. Connect the power cable to the net entry. Do not connect the power cable to the wall socket.
- 4. Put down the machine.

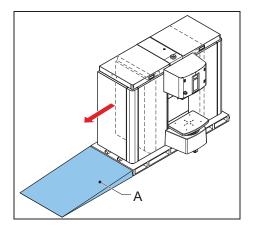






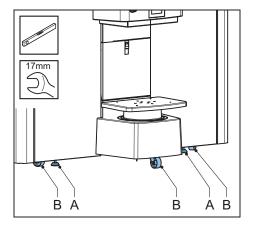
4.2.2 Move the machine to the final location, with a ramp (optional)

- 1. Place the ramp (A).
- 2. Move the machine from the pallet on to the ground.
- 3. Move the machine to the final location.
- 4. Connect the power cable to the net entry. Do not connect the power cable to the wall socket.



4.2.3 Level the machine

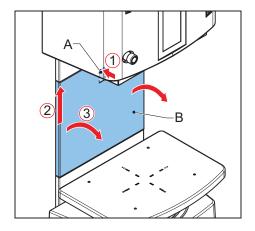
- 1. Move down the adjustable feet (A) until the wheels (B) are off the ground.
- 2. Adjust the height of the feet and make sure that the machine is level.
- 3. Tighten the nuts (C) to lock the feet.



4.3 Install the computer

4.3.1 Open the computer cover

- 1. Press and move the latch (A) down.
- 2. Move up the computer cover (B).
- 3. Open the computer cover.







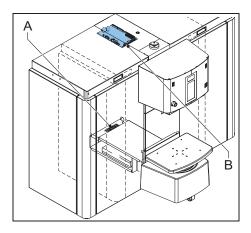
4.3.2 Install the computer



Note

Usually, the computer already has the correct software and drivers installed. If not, refer to the instructions in the installation manuals of your software provider.

- 1. Put the computer in the machine.
- 2. Connect the power cables of the computer and the screen to the 5-way socket (A).
- 3. Connect an USB cable between the computer and the power board (B).
- 4. Connect the keyboard, the mouse and the screen to the computer.



4.4 Turning on the machine

- 1. Connect the power cable to the wall socket. When the machine is operational, you hear a single 'beep'.
- 2. Make sure that the emergency stop switch is reset. See § 3.3.4.
- 3. Set the computer switch to 'ON'.

4.5 First use

- 1. Fill the brush container. See § 3.3.2.
- 2. Fill the canisters correctly. See § 3.3.3.
- 3. Dispense approximately 120 ml colorant into a can. See § 3.2.1.
- 4. Do step 3 again for all canisters.



Note

First the air will come out of the nozzle. When the output is continuous, the plastic tube is filled.





5 Troubleshooting

5.1 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.
- Contact your supplier or manufacturer. See <u>www.fast-fluid.com</u>.

5.2 Error messages and other faults



Note

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



Note

See the column *Possible solution* to solve the problem. When the problem persists, contact service. See § 5.1.

Problem	Possible cause	Possible solution	
	The switch plate is activated.	Deactivate the switch plate. See § 4.1.6.	
Main power supply is present but the machine	The emergency stop switch is active.	Reset the emergency stop switch. See § 3.3.4.	
does not work.	The can is mising.	Place the can. See § 3.2.2.	
	A fuse is broken.	Contact service. See § 5.1.	









6 Technical data

6.1 General specifications

Parameter	Specification		
	HP500	HP800	
Model	S, M or L	XL	
Maximum number of canisters	32	32	
Dispensing channels, simultaneously	4	8	
Pump type	Harbil pis	ton pump	
Cleaning system	Full automatic brush		
Materials used are suitable for	Water-, universal- and solvent colorants		
Canister sizes [L]	3, 6, 10	3, 6, 10, 20	
Flow rate, single pump [L/min]	0.3		
Flow rate, double pump [L/min]	0.6		
Resolution [ml/step]	+/- 0.005		
Minimal dispense [ml]	0.05		
Maximal can height [cm]	48		
Can table dimensions [cm]	44 x 31		
Can table loading height [cm]	36		

6.2 Dimensions and mass

Parameter	Specification				
Model	S	M	L	XL	
Dimensions, height x width x depth [cm]	120 x 94 x 94	120 x 125 x 94	120 x 155 x 94	120 x 209 x 94	
Packed dimensions, height x width x depth [cm]	148 x 126 x 192	148 x 126 x 192	170 x 126 x 175	215 x 120 x 175	
Mass incl. packaging [kg]	320	370	420	470	
Mass filled machine [kg]	460	590	720	930	
Minimum requirement of load capacity of the floor according to EN 61010-1:2010 [kg]	1840	2360	2880	3720	
Filling height [cm]	113				





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)]	<70	

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		
	HP500	HP800	
Power consumption, maximum [W]	500	650	
Maximum leakage current [mA]	3.5		
Country specific net cables	European		
Voltage [V]	230 (/115 optional)		
Frequenzy [Hz]	50 / 60		
Fuse specifications [A]	T10		





6.7 Electrical diagram

