



OPERATOR'S MANUAL



This operator's manual has been compiled in accordance with the NEN 5509 standard.



SERVICE TELEPHONE NUMBER: +31 (0)229 50 21 50

cutting edge solutions

Version 17.3



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OPERATOR'S MANUAL



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The information included in this manual is based on such general and up-to-date information as was available at the time of publication concerning construction, material properties and working methods; we therefore reserve the right to implement changes and improvements, if any.

This publication is valid for a machine with standard specifications. Consequently, the manufacturer cannot accept liability for any damage that might result from non-standard specifications in respect of the machine that has been supplied to you.

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Overview of Multifill

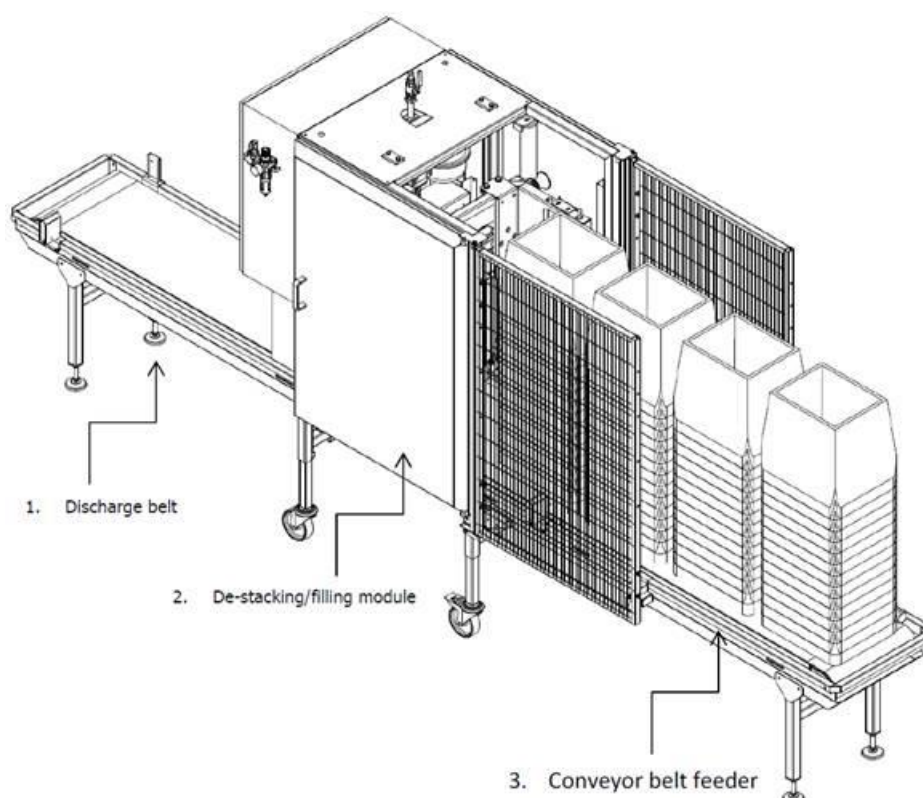


Diagram 0.1: Multifill

1 Conveyor belt feeder The stacks of containers are placed on this belt; the stacks can be juxtaposed on the conveyor belt feeder.

2 De-stacking/filling module

Filling conveyor belt This is the belt that conveys the de-stacked containers towards the filling head.

Clamping frame The clamping frame is the moving chassis that retains the container

Ejector The ejector is an air-operated wedge that separates a container from the rest of the stack of containers.

3 Discharge belt The containers are discharged on this belt.

Options

Measuring rod Generates an alarm when the dosing vessel is empty.

Roller conveyor Installed at the end of the filling conveyor belt to discharge the filled containers.

2nd dosing pump Extra dosing pump for an alternative additive.

Preface

This is the operator's manual for the Bercomex Multifill. This document comprises information that is essential to operating the machine in a safe and responsible manner.

**Attention!**

Make sure that all operators of the Multifill are familiar with the contents of this manual.

The structure of this manual is as follows: setting up and starting the machine, operating instructions, closing/cleaning/maintaining the machine.

This operator's manual includes three icons providing additional information that is essential to operating the Multifill:

**Tip**

Advice and suggestions to carry out certain tasks with more ease or efficiency

**Attention!**

Additional information to pinpoint potential issues.

**Warning!**

Take extra care when performing this procedure, and be aware of the risk of (serious) personal injury or damage to the machine.

Make sure you store this manual carefully with a view to repairs and/or maintenance. In case of doubt, do not hesitate to contact Bercomex on +31 (0) 229 50 21 50.

1. Introduction

This machine de-stacks and fills various kinds of containers. If required, the machine can also add a pre-set amount of nutrient additive to the water.

The stacked containers that need to be filled are supplied by means of a conveyor belt feeder. Within the processing module, the containers are de-stacked and filled with water plus, if applicable, a nutrient additive. Thereafter, the filled containers are discharged one by one, ready to be filled with flowers.

This machine ensures that there are always containers ready to be filled with flowers.

2. Technical specifications

2.1 Performance (in normal conditions)

Capacity: Approx. 600 containers/hr
(depending on container size and water quantity)

Types of container:

- Containers, types 533, 544, 555, 560, 566, 577, 580
- Containers, round, ranging from ø200mm to ø350mm
- Procona containers, 300 x 400mm

2.2 Environmental influences

Prior to installing a Multifill, attention should be paid to the following matters.

Ambient temperature: during operation: + 5 to + 40 °C
during transport/storage: + 1 to + 55 °C

Rel. air humidity (RH): 30 to 95%, non-condensing

Placement: Ensure a level machine position
Not intended for outdoor use
Not suitable in a hazardous environment

Height: Up to 1,000m above sea level as a maximum

Lighting: Normal ambient lighting (no lighting fitted on the machine)

2.3 Construction details

Dimensions

Main machine

Width: 950mm
Length: 4250mm
Height: 1900mm

Take-off section

Width: 540mm
Length: 1620mm
Height: 700mm
Weight: 450kg
Materials: S/S, aluminium and synthetic material
Noise level: < 70 dB(A)

Connections

Power supply: 400 V, 50 Hz, 16 A
Connection: 3 phases + zero + earth
Air: quick coupling, ½ " (minimal pressure: 4 bar)
Water: ¾ " ball valve
Control: PLC

3. Responsible use and safety

**Attention!**

The Multifill meets all legal requirements in terms of safety for equipment and machines. To ensure the safe use and maintenance of the Multifill it is of paramount importance that you read this manual carefully and that you follow the instructions provided in it.

It is the responsibility of the employer that these instructions are also known to your employees and that the co-workers duly meet them. As to any supplementary safety instructions that apply to your company, or to the country in which the machine is operated, Bercomex refers you to the authorities in charge or to the safety official.

There are several maintenance duties that users can take care of themselves; these are mentioned in the relevant chapters. The remaining maintenance tasks are only allowed to be carried out by qualified people. Please contact Bercomex: +31 (0) 229 50 21 50.

**Tip**

Do not keep keys, pin codes and the like near the machine but entrust expert persons with their storage.

**Warning!**

Bercomex BV is not liable for any damage caused by the use of non-original parts and accessories, unprofessional repairs or settings and incorrect operation of the machine.

*Be **consistent** in following the instructions provided in the operator's manual. If in doubt, do not fail to contact Bercomex on: +31 (0) 229 50 21 50.*

3.1 Safety instructions

<i>Unauthorized persons</i>	<ul style="list-style-type: none"> • Make sure that children and animals cannot access the machine. • The machine shall only be operated by authorized persons who have read and understood the operating instructions.
<i>Personal safety</i>	<ul style="list-style-type: none"> • Do not allow objects or body parts to get between guards or moving parts during the operation of the machine. • Do not reach into the machine while it is in operation, or has been switched on. • Do not reach into moving machine parts. • Keep a safe distance while the machine is in operation. • Do not remove dirt from the machine during operation. • Do not wear loose clothing or jewellery when working with the machine.
<i>Switching the machine on</i>	<ul style="list-style-type: none"> • Warn everybody in the working environment when starting the machine. • Do not use the machine if there is a malfunction or defect.
<i>Emergency stop</i>	<ul style="list-style-type: none"> • Use the emergency stop in case of an emergency, or imminent emergency, to bring the machine to a standstill immediately. • Do not restart the machine as long as it is not known why, or by whom the emergency stop was used.
<i>Safety precautions</i>	<ul style="list-style-type: none"> • Do not remove safety devices or put them out of operation. • Do not use the machine if its safety devices are damaged or inoperative. Make sure that the machine is repaired by Bercomex. • Check the safety devices before operating the machine.

3.2 Responsible use

<i>Environment</i>	<ul style="list-style-type: none"> • Check the correct installation of the machine. • Ensure adequate ambient lighting. • Do not expose the machine to extreme cold or heat. • Keep the workplace and its immediate surroundings clean and free from obstacles. • Ensure the machine is in a level position. Otherwise there is a risk - especially when processing containers - that the clamping brackets do not properly seize the containers, as a result of which the machine does not de-stack correctly.
<i>Switching the machine on</i>	<ul style="list-style-type: none"> • Check before starting the machine if the conveyor belt and the main transport line are clear. • Do not use the machine if there is any damage that might affect or hamper its functioning.
<i>Intermediate stop</i>	<ul style="list-style-type: none"> • If [Stop] is used, the machine is not safe; it can be put back into operation quickly. • So do not use [Stop] in emergency situations or for cleaning and maintenance.
<i>Switching the machine off</i>	<ul style="list-style-type: none"> • Always use the main switch to disengage the machine after operation. • Do not use the emergency stop switch as an on/off switch; always use the main switch. • Inspect the machine after switching it off.
<i>Cleaning</i>	<ul style="list-style-type: none"> • Always use the main switch to put the machine out of operation before cleaning. • Do not use abrasive cleaning agents.
<i>Maintenance</i>	<ul style="list-style-type: none"> • Always use the main switch to put the machine out of operation before maintenance. • Maintenance should only be performed by qualified persons. • Ensure that adequate maintenance is carried out; in course of time, safety mechanisms may be subject to wear and tear. • Make sure that the machine is checked by a Bercomex service engineer at least once a year. • Only use original parts for maintenance purposes. • Your right to warranty will lapse if you fail to use genuine Bercomex components.
<i>Storage</i>	<ul style="list-style-type: none"> • Store the machine in frost-free conditions. Residual water may freeze, which is a potential cause of serious machine damage.

4. Start-up – At the beginning of the working day

4.1 Control panel

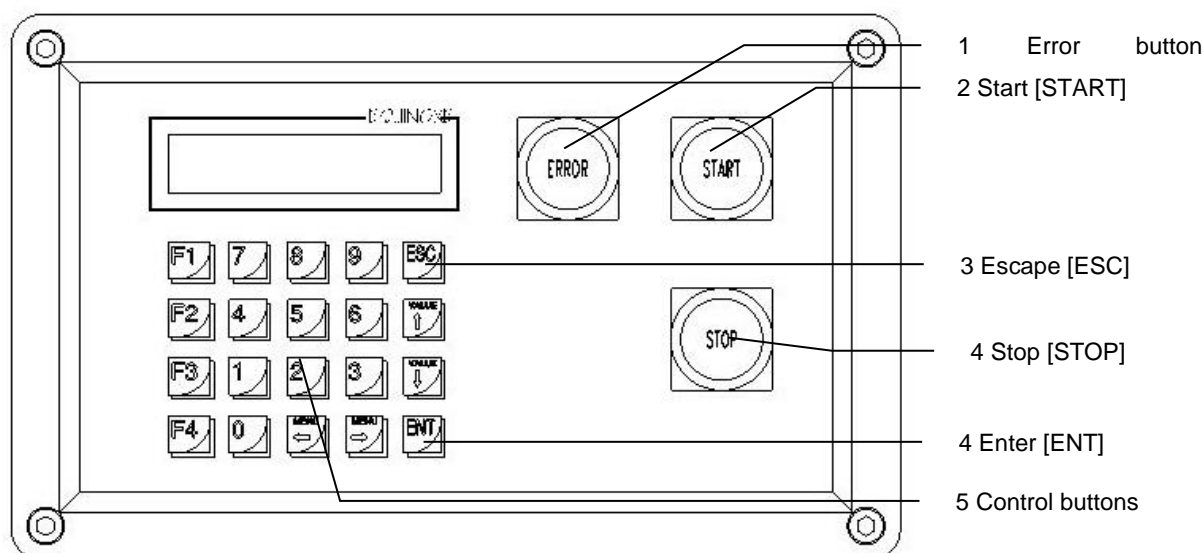


Diagram 4.1: Control panel

Using the control panel, you can set and control all elements of the machine. The ways to operate the control panel are explained in the following sections.

4.2 Installation and putting into service



Attention!

Always ensure the machine is level. Otherwise there is a risk - especially when processing containers - that the clamping brackets do not properly seize the containers, as a result of which the machine will not de-stack correctly.

- Connect the machine to the water supply system.
- Check the machine for any leakage.
- Place the suction hose for the additive in the vessel.
- Connect the machine to the main power supply.
- Connect the air supply system.



Attention!

- Check the safety devices before operating the machine.
- Check the correct installation of the machine.
- Ensure adequate ambient lighting.
- Do not expose the machine to extreme cold or heat.
- Keep the work place and its immediate surroundings clean and free from obstacles.

4.3 Visual inspection before start-up

Inspect your machine briefly every day before starting it up. A daily inspection may help detecting possible problems early on and prevent matters from getting worse.

Check before putting the machine into operation:

- That all parts and accessories have been installed.
- If moving parts are not blocked in any way.
- If there is any damage, especially to the external electric wiring.
- Proper functioning of all alert devices.

Check during the test run:

- The direction of rotation of all motors
- Tracking of the conveyor belt(s)
- Functioning of the photo cells
- Functioning of the options supplied

Check particularly the safety mechanisms:

- Alert devices
- Are all warning labels in place and legible?



Attention!

- *Check the correct installation of the machine.*
- *Check the safety devices before operating the machine.*
- *Do not use the machine if there is a malfunction or defect.*
- *Do not use the machine if there is any damage that might affect or hamper its functioning.*
- *Do not remove safety devices; do not put them out of operation.*
- *Do not use the machine if its safety devices are damaged or inoperative. Make sure that the machine is in good order.*
- *Keep the workplace and the surrounding area clean and free from obstacles.*

4.4 Starting the machine



Attention!

- *The machine shall only be operated by authorized persons who have read and understood the operating instructions.*
- *Make sure that children and animals cannot access the machine.*
- *Warn everybody in the workplace when starting the machine.*

Supply of containers

- Juxtapose the stacks of containers by width on the conveyor belt feeder.
- Maximal stack height is approx. 25 containers.

Exceptions:

- Stack height of container type 577: 20 containers high
- Stack direction of container type 566: place the containers on the belt length-wise.
- Set the main switch in the [ON] position.
- Check if the correct container type has been set (menu 23 or F3).

- Press RESET EMERGENCY STOP
- Press [START] on the control panel.
- The feed conveyor belt starts running. All containers present are filled.
- If no containers are detected within 10 seconds, the belt stops.
- Place the containers on the conveyor belt feeder.
- Press [START].

**Warning!**

- *Do not allow objects or body parts to get between guards or moving parts during machine operation.*
- *Do not reach into the machine while it is in operation, or has been switched on.*
- *Keep away from moving machine parts.*
- *Maintain sufficient distance while the machine is in operation.*
- *Do not remove dirt from the machine during operation.*
- *Do not wear loose clothing or jewellery when working with the machine.*

5. Operating instruction – During the working day

5.1 Operator

The operator is responsible for the machine before, during and after its operation. It is important that this person keeps full control of the machine to ensure optimal efficiency of the operations.

Prior to working day

- Performing a visual inspection
- Starting up the machine

During the working day

- Detecting issues during machine operation (unusual noise, non-processed products etc.)
- Detecting and following up (fault) messages and, if necessary, take action
- Restarting after (emergency) stop
- Entering and adjusting the settings

At the end of the working day

- Switching the machine off
- Performing a visual inspection
- Performing or supervising maintenance
- Performing or supervising cleaning

5.2 Emergency stop

The Multifill has several emergency stop switches; the switches have the text EMERGENCY STOP printed on them. In addition, opening the door in front of the de-stacking mechanism also functions as an immediate emergency stop. The emergency stop immediately interrupts the main power supply to the motors so that the machine comes to a standstill straightaway. The switch remains blocked mechanically and the machine cannot be re-started.



Attention!

Use the emergency stop in case of an emergency, or imminent emergency, to bring the machine to a standstill immediately.

The emergency stops should be used if a personal accident takes place, or is imminent, or if there is a sudden danger due to malfunctioning or material getting caught.



Warning!

Do not restart the machine as long as it is not known why, and by whom, the emergency stop was used.

Restart after an emergency stop

- Remedy the emergency situation
- Check all the emergency stop switches and, if necessary, set them in the neutral position
- Press RESET EMERGENCY STOP
- Press [START] to continue production


Tip

- *Make sure that new users practice the use of the emergency stop switch several times.*
- *Test the emergency stop switches frequently for proper functioning.*

5.3 Adjustment of settings

Only the most important settings are mentioned here. Please refer to the menu overview (supplement B) for the total range of settings.

5.3.1 Setting the container type

- Go to menu 31 or press [F1].
- Use the arrow buttons to select the required container type.
Or
- Enter the type number directly.
- Confirm with [ENT] or cancel with [ESC].
- After [ENT] you return to the main screen by pressing [ESC].

5.3.2 Setting the water quantity

- Go to menu 20 or press [F2].
- Set the required quantity of water.
- Confirm with [ENT] or cancel with [ESC].

5.3.3 Setting the quantity of dosing agent

- Go to menu 22 or press [F3].
- Set the required quantity of dosing agent.
- Confirm with [ENT] or cancel with [ESC].

5.3.4 Calibrating the dosing pump

- Go to menu 62.
- Keep a measuring jug under the dosing nozzle.
- Press [5] to switch the pump on.
- Hold the measuring jug under the dosing nozzle until the pump switches off automatically.
- Enter the measured amount of dosing agent times 10 in the menu (example: 20ml becomes 200).
- Confirm with [ENT].
- Go to menu 62 again.
- Empty the measuring jug.
- Hold the measuring jug under the dosing nozzle once again.
- Press button 1 to check the dosing.
- If a minor dosing amount per litre is required, you may want to press 1 ten times.
- Check after the 10th time if the required value from menu 22 (dosing agent per litre) matches the established average value of the measuring jug.
- If that is not the case, then repeat the process as described above.

5.3.5 Working with batches or ongoing

The Multifill can operate as per two working methods:

- Ongoing* the machine keeps de-stacking and filling containers as they are supplied in an ongoing flow.
- Batch* the machine fills the required number of containers and then stops.

Setting the working method

- Go to menu 10.
- Adjust the working method.
- Confirm with [ENT] or cancel with [ESC].

Setting the batch size

- Go to menu 11.
- Enter the number of containers using the numeric buttons.
- Confirm with [ENT] or cancel with [ESC].

Starting a new batch

- Press [START] to start up a new batch.

5.4 Pausing

Stopping

- Press [STOP].



Warning!

- *If [Stop] is used, the machine is not safe; it can be put back into operation quickly.*
- *So do not use [Stop] in emergency situations or for cleaning and maintenance.*
- *Do not use the emergency stop switch as an on/off switch; always use the main switch.*

Continuing production

- Press [START].

5.5 Relocation

The machine is fitted with castors so that it can be relocated to other parts of the premises. These castors are suitable for moving over short distances, on level and hard industrial floors. Other equipment must be used to move over longer distances, or on other types of flooring. The machine can be lifted by a forklift truck. Position the forks of the forklift truck on the long side, centrally underneath the frame. Always proceed carefully when relocating the machine.

5.6 Failures and repairs

If there is a failure, a beep tone is generated and the machine comes to a standstill. Please refer to the failure index to find out if you can remedy the failure yourself, and how. If this is not the case, then please contact Bercomex (+31 (0) 229 502 150).

Problem	Cause	Solution
Machine does not start	There is a power supply problem	Check if the plug is fitted in the socket
		Check if the automatic control current device is switched on
		Check if the POWER light on the electrical control box is on
		Check the box for presence of the 400 V power supply
	Overfill of the discharge belt	Remove a number of containers from the discharge belt.
The feed / discharge belts are immobile	One of the photocells has been operated.	Press [START] when the discharge belt is empty.
		Check if the photocells and reflectors are dirty and/or have been operated
The ejector does not extend or retract	Malfunction of the ejector.	Use menu 60 to check if the ejector extends or retracts; try this several times.
	Incorrect air pressure.	Check air pressure.
The amount of dosing agent does not match the required quantity.	There is air in the dosing hose.	Remove the air from the dosing hose.
	Blockage at the foot of the suction rod.	Remove debris from the suction rod
	Wear of the dosing hose in the pump head.	Replace the dosing hose
	There is a problem related to the pump	Carry out a calibration

Re-starting after a failure

- Re-start the machine if necessary (please refer to chapter 4).
- Press [START].

6. Shutting down – End of the working day

- Press [STOP]
- Wait until the machine has finished a production cycle. If a container is being filled at that moment, then wait until this has been completed.
- Set the main switch in the [OFF] position.

**Warning!**

- *Always use the main switch to disengage the machine after operation.*
- *Inspect the machine after switching it off.*

7. Maintenance and cleaning

7.1 Cleaning

To ensure proper functioning of the machine, it is essential that, in addition to daily inspection and cleaning, a number of other components are also cleaned periodically.



Warning!

- *Always use the main switch to put the machine out of operation before cleaning.*
- *Do not use abrasive cleaning agents.*

When?	What?
Daily	<ul style="list-style-type: none"> • Dust and debris should be removed from the machine every day. Special attention should be paid to the initiators and photocells. • Clean the processing segment of the machine thoroughly every day • Clean the conveyor belts every day; pay extra attention to the underside of the belts • Check if the lenses of the photocells are clean and, if necessary, clean them using a soft, clean cloth
Monthly	<ul style="list-style-type: none"> • Check the toothed belts of the lift. • Check the delivery rate of the dosing pump. Please refer to §5.3.4
Every 6 months 500 running hours	<ul style="list-style-type: none"> • Check the warning alarms (beep tones) for proper functioning. • Check the readability of warnings on the machine.
Every year	<ul style="list-style-type: none"> • Ensure a total check of the machine; kindly contact Bercomex (+31 (0) 229 502 150).

7.2 Maintenance



Warning!

- *Always use the main switch to put the machine out of operation before maintenance.*
- *Maintenance should only be performed by qualified persons.*
- *Only use original parts for maintenance purposes.*
- *Your right to warranty will lapse if you fail to use genuine Bercomex components (for example: elastic bands, wear parts).*

You yourself can carry out all maintenance work that is described in this manual. Please contact Bercomex (+31 (0) 229 502 150) for remaining maintenance operations.

Replacement of the tap aerator

- Remove the original tap aerator.
- Check the condition of all gaskets.
- Install the new tap aerator.

Replacement of the feed hose

- Remove the original feed hose.
- Install the new feed hose; check the hose for any kinks.

**Attention!**

- *Ensure that adequate maintenance is carried out. In course of time, safety mechanisms may be subject to wear and tear.*
- *Make sure that the machine is checked by a Bercomex service engineer once a year.*

8. Putting the machine out of operation

- Switch the machine off (refer to chapter 6).
- Make sure that the machine is clean (refer to chapter 7).
- Take special care to ensure that the Chrysal pump is clean and dry.
- Remove the plug from the socket.
- Disconnect the water pump.
- Transport the machine to the storage site.

**Warning!**

Store the machine in frost-free conditions. Residual water may freeze, which is a potential cause of serious damage to the machine.

- Proceed in the reverse order to put the machine into operation (also refer to chapter 4).

9. Disassembly if operation is discontinued

Contact Bercomex at +31 (0) 229 50 21 50 if you want to disassemble the machine after its operation is discontinued.

Supplements

Supplement A: spare parts



Attention!

Your right to warranty will lapse if you fail to use genuine Bercomex components.

	Item number	Description
	701-1-820712101	Dosing hose PU 6x1, transparent
	720-000-0000177	Expansion vessel FLAMCO Airfix 4/1
	720-000-0000303	Flow meter 3/4" hall sensor
	720-000-0000304	Water valve 3/4", pneumatic
	720-000-0000312	Valve 3/2x1/4 24V= 0-16 bar
	720-000-0000019	Tap aerator, M24x1 external thread
	901-I7203501	Adapter ring M24x1 Bx1/2 BU

Supplement B: Menu overview

MENU STRUCTURE MULTIFILLER (useable from software version 2.42)

- Choosing a menu item**
1. Key in the number of the wanted menu directly.
 2. You are in the menu now. Read-out or change the desired variables.
 3. Press ESC to return to the MAIN MENU level.

Legend:

- * If mounted on the machine
- Sx Accessible via mentioned password
- F1...F4 Accessible via mentioned function-key

Return to the main menu from any (sub)menu by pressing ESC twice.

GROUP 0 STANDARD ITEMS	Menu 00 Password	Menu 01 Standard Values	Menu 02 Program version	Menu 03 Reset	Menu 04 Select language
GROUP 1 WORKING METHODS	Menu 10 continuous / batch	Menu 11 Batch size	Menu 12 Bunch detection on / off	Menu 13 Work methode float	Menu 14 Work method filling belt pusher
GROUP 2 SELECTIONS	Menu 20 Water amount	Menu 21 Dripping time	Menu 22 Supplement amount	Menu 23 Destacking air pulse	Menu 24 Select tube type pump1
GROUP 3 BARREL SELECTION		Menu 31 F1 Select Barrel type			
GROUP 4 COUNTER	Menu 40 Day total counter	Menu 41 Total counter	Menu 42 online hour counter	Menu 43 Day counter from barrel type	Menu 44 Total counter from barrel type
GROUP 5 SERVICE				Menu 53 S9 Time to tap per container	Menu 54 S9 Container feeding position
GROUP 6 SERVICE	Menu 60 Test press out cylinder	Menu 61 Test grip frame	Menu 62 Test Supplement pump	Menu 63 Supplement pump1 calibration	Menu 64 S6 Water calibration
GROUP 7 FINE TUNING	Menu 70 Initiator height	Menu 71 S6 Offset detection pulse last barrel	Menu 72 S6 Offset grip height	Menu 73 S6 Offset lift height	Menu 74 S6 Offset place height
GROUP 8 SERVICE	Menu 80 S9	Menu 81 S9	Menu 82 S9 Read out holst, clamp and place height	Menu 83 S9 Read out clamp pulse	Menu 84 S9 Test stack feeding time
GROUP 9 FREQ's	Menu 90 Download parameters in freq controller			Menu 85 S9 Test belts	Menu 86 S9 Lift delay
				Menu 87 S9 Lift acceleration	Menu 88 S9 Max. pulse clamp encoder
				Menu 89 S9 Push delay per container	Menu 90 S9 Reset offsets
				Menu 65 Positions lift	Menu 66 Test lift
				Menu 67 Normal pressure low pressure	Menu 68 Filling belt output speed
				Menu 69 S9 Waiting time test lift	Menu 70 S9 Waiting time roller conveyor full
				Menu 71 S9 Waiting time test lift	Menu 72 S9 Max. pulse clamp encoder
				Menu 73 S9 Waiting time test lift	Menu 74 S9 Push delay per container
				Menu 75 S9 Waiting time test lift	Menu 76 S9 Reset offsets
				Menu 77 S9 Waiting time test lift	Menu 78 S9 Reset offsets
				Menu 79 S9 Waiting time test lift	Menu 80 S9 Reset offsets
				Menu 81 S9 Waiting time test lift	Menu 82 S9 Reset offsets
				Menu 83 S9 Waiting time test lift	Menu 84 S9 Reset offsets
				Menu 85 S9 Waiting time test lift	Menu 86 S9 Reset offsets
				Menu 87 S9 Waiting time test lift	Menu 88 S9 Reset offsets
				Menu 89 S9 Waiting time test lift	Menu 90 S9 Reset offsets
				Menu 91 S9 Waiting time test lift	Menu 92 S9 Reset offsets
				Menu 93 S9 Waiting time test lift	Menu 94 S9 Reset offsets
				Menu 95 S9 Waiting time test lift	Menu 96 S9 Reset offsets
				Menu 97 S9 Waiting time test lift	Menu 98 S9 Reset offsets
				Menu 99 S9 Waiting time test lift	Menu 100 S9 Reset offsets
				Menu 101 S9 Waiting time test lift	Menu 102 S9 Reset offsets
				Menu 103 S9 Waiting time test lift	Menu 104 S9 Reset offsets
				Menu 105 S9 Waiting time test lift	Menu 106 S9 Reset offsets
				Menu 107 S9 Waiting time test lift	Menu 108 S9 Reset offsets
				Menu 109 S9 Waiting time test lift	Menu 110 S9 Reset offsets
				Menu 111 S9 Waiting time test lift	Menu 112 S9 Reset offsets
				Menu 113 S9 Waiting time test lift	Menu 114 S9 Reset offsets
				Menu 115 S9 Waiting time test lift	Menu 116 S9 Reset offsets
				Menu 117 S9 Waiting time test lift	Menu 118 S9 Reset offsets
				Menu 119 S9 Waiting time test lift	Menu 120 S9 Reset offsets
				Menu 121 S9 Waiting time test lift	Menu 122 S9 Reset offsets
				Menu 123 S9 Waiting time test lift	Menu 124 S9 Reset offsets
				Menu 125 S9 Waiting time test lift	Menu 126 S9 Reset offsets
				Menu 127 S9 Waiting time test lift	Menu 128 S9 Reset offsets
				Menu 129 S9 Waiting time test lift	Menu 130 S9 Reset offsets
				Menu 131 S9 Waiting time test lift	Menu 132 S9 Reset offsets
				Menu 133 S9 Waiting time test lift	Menu 134 S9 Reset offsets
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				Menu 427 S9 Waiting time test lift	Menu 428 S9

Standard settings (group 0)	
Nr.	Contents
00	Entering the password. After entry, the access level that goes with this password is displayed on the screen.
01	Restoring the factory settings.
02	Reading out the programme version and date. After a few seconds, or after one of the buttons has been pressed, the programme returns to the main menu.

Working method (group 1)	
Nr.	Contents
10	Using this menu, you can select either the ongoing mode or batch mode of the machine. Select the required mode by pressing the [↑] and/or [↓] button.
11	Using this menu, you can set the batch size if the machine was set in batch mode.
12	This menu monitors the functioning of the end photocell, limit switch, or the alarm 'roller conveyor full' (if applicable).
13	Using this menu, you can select your preference; stopping the system or only generating an alarm if the dosing vessel is empty or almost empty (option).

Settings (group 2)	
Nr.	Contents
20	Amount of water per container.
21	Post-dripping time.
22	Amount of nutrient additive
23	Using this menu, you select the type of container; by pressing [↓] and [↑] you can select the type of container or you can immediately enter the number of the required type of container. Confirm with [ENT] and close with [ESC].
24	Setting the inner diameter of the dosing hose (4.8mm or 1.2mm).

Counter (group 4)	
Nr.	Contents
40	Reading out and resetting the day counter. Reset: press [0].
41	Reading out the total counter. This counter cannot be reset.
42	Reading out the running hours counter. This counter cannot be reset.
43	Reading out the total counter of a specific type of container. This counter cannot be reset.
44	Reading out and resetting the day counter of a specific type of container. Reset: press [0].

Speeds and time (group 5)	
Nr.	Contents
59	Setting the waiting time of the filler conveyor belt before it proceeds to a next step.

Service/settings (group 6)	
Nr.	Contents
60	Testing the ejector.
61	Testing the clamping frame.
62	Testing the dosing pump.
63	Setting a correction figure to reconcile the actual amount of additive.

Dedicated/extra menus

If the machine was fitted with certain options, dedicated/extra menus may be required for the use of such options; please refer to the information below.

Machine fitted with two conveyor belt feeders	
Nr.	Contents
23	Selection of container for conveyor belt feeder.
30	Selection of conveyor belt feeder.
32	Setting the stacking height.
33	Setting the moment of re-loading (number of containers filled).
34	Setting the running time of the pusher.
35	Throughput time of conveyor belt feeder 2.

Machine fitted with 2nd dosing pump	
Nr.	Contents
25	Using this menu, you select the dosing pump to be used.
26	Setting the inner diameter of the dosing hose of the 2 nd dosing pump (4.8mm or 1.2mm).
63	Correction figure to reconcile the dosing rate with the actual rate of the 2 nd dosing pump.

Supplement B: EC Declaration of Conformity

EC Declaration of Conformity for Machines
(in accordance with supplement II A of the Machine Directive)

The manufacturer,

Bercomex BV
Verlengde Lageweg 10
1628 PM Hoorn, the Netherlands

hereby declares, entirely within its own responsibility, that the machine:

Bucket Filler, type MTV

to which this declaration pertains, is in keeping with the provisions of the following directives:

Machine Directive	(2006/42/EC)
EMC Directive	(2004/108/EC)
Low Voltage Directive	(2006/95/EC)

and with national legislation associated with implementing these Directives.

Made up in Hoorn, February 2014



W. Miedema
Head of the Engineering Department