



JAVO, bare root potting machine

“Unimax”

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CE Marking.

The JAVO Soil Distributing/filling Unit, "Unimax" is equipped with the CE marking, named Unimax during the rest of the manual.

This represents that the Unimax meets the demands applicable to the European guidelines. In the enclosed "Statement of Agreement" it shows which guidelines these are.



Only use the unit according to the directions and instructions in this manual. Consult JAVO b.v. when in doubt about the use.

Disclaimer:

JAVO b.v. will not be responsible if the unit is used in unsafe environments, or for accidents and damage which are the result of:

- Ignoring the warnings or directions as represented on the Unimax or in this manual.
- Usage for purposes or conditions other than shown in this manual.
- Alterations on the Unimax. This includes the adapting of other than original replacement parts.
- Insufficient maintenance.
- The unauthorized removal of safety panels and/or security precautions.
- The unprofessional use of the machine.

JAVO b.v. is not responsible for the resulting damage of a defective Unimax. (For example, damage to products or production interruption)

Warranty.

This machine has a 6-month warranty period after invoicing.

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Nothing from this manual may be copied or reproduced in any way without the consent of JAVO b.v.

Statement of Agreement

(According to enclosure 2a of the European machine guidelines)

Concerning the machine guidelines:

We, JAVO b.v.

P.O. Box 21

2210 AA Noordwijkerhout

The Netherlands

Declare under our own responsibility that we
are the manufacturer of the product:

The Unimax : see order conformation

Project number: : see order conformation

This statement is in reference to:

1. The Unimax is designed and built in agreement with the demands of the machine guidelines 98/37/CE

The following harmonized codes have been employed:

- NEN-EN 292-1
- NEN-EN 292-2
- NEN-EN 294
- NEN-EN 349
- NEN-EN 60204-1

Place: Noordwijkerhout

Date: 12-12-2000

Name: JAVO b.v.

Director: J.M. Bakker

Use of this manual

This manual is designed for use by operators of the Unimax.

Operator(s) should read the entire manual.

The personnel who have other duties should read the following chapters:

- Chapter 3: Specifications
- Chapter 5: Other Duties



Chapter 2: Safety is meant for everyone who works with and around the Unimax.

JAVO b.v has a technical construction file on the Unimax. This file contains the following sections:

- A risk analysis of the Unimax with a description of the necessary precautions.
- The technical documentation of the machine that is part of the Unimax.

Important tips or references are printed in bold type and accompanied by a picture such as the one next to this text.

1 Introduction

Remark: The photos used in this manual can differ slightly from your machine.

1.1 Description Unimax and application.

Photo

Photo 1: General view Unimax

The functional description of the Unimax is divided into 4 parts.
These are indicated in the Legend of Photo 1.

Legend Photo 1.

- 1.
- 2.
- 3.
- 4.

2 Safety.

2.1 Introduction

The Unimax is designed and constructed so that it can be safely used and maintained. This applies to the use, circumstances and rules as described in this manual. Reading this manual and following its instructions is required for those who are authorized to work on the Unimax.

In this manual there is a difference between normal use (see operating regulation) and other work on the machine. The reason for this is the different safety requirements for the service personnel and the operators.

The operator can perform the tasks shown under the operating regulations. Supporting personnel can only perform tasks that are not named under the operating regulations.

Wrenches or special tools, which are added to allow access to certain parts or functions, should not be left on the machine. Only personnel who have the required knowledge or instructions should be able to access these.

2.2 General safety rules

- Keep children, unauthorized personnel, and animals away from the Unimax.
- Its not allowed to wear jewelry (like chains, rings and bracelets) while working on the Unimax.
- The operator must wear appropriate work clothes.
- Do not reach into the Unimax while it is functioning or on. Remember the machine can be on while not in use.
- Safety precautions may not be removed or disengaged.
- Make sure that there is sufficient lighting.
- Do not reset the emergency switch if it is unknown why and by whom it has been activated.

2.3 Emergency Stop

The Unimax is equipped with an emergency switch to stop the machine immediately. This emergency switch should meet these demands:

1. Clear visibility by its bright red colour and easy accessibility.
2. If an emergency switch is pressed, the machine will stop immediately. The emergency switch is mechanically blocked and the machine can not be restarted.

Photo

Photo 8: Emergency switch

In case of an accident, the emergency switch can be engaged, allowing immediate help to be rendered.

Afterwards, the emergency switch can be deactivated. The machine will not start automatically but can be engaged in the regular way.

The emergency switch can also be engaged if necessary for other occurrences like the blockage of foreign matter.

Recommendations:

- Have new operators practice with the emergency switch.
- Do not use the emergency switch for normal cut off.
- Test proper functioning of the emergency switch regularly.
- Do not reset the emergency switch if it is unknown why and by whom it has been activated.

2.4 Warnings on the Unimax.

On the Unimax there are certain warning labels added to the machine. The following rules apply to these markings:

- These labels may not be damaged or removed. The operator must check this regularly.
- The operator is responsible that the labels always are and remain visible.

Photo

Photo 9: Warning label on the side of the disposal chute.

The sides (2x) of the disposal chute must have the warning labels attached (Fig. 1). (see Photo 9)

Photo

Photo 10: Front view of the disposal chute

The front side of the disposal chute must be equipped with the warning label (Fig. 1). (see Photo10)



Fig. 1: PD334 Watch your hands

Photo

Photo 11: Warning label to read the manual first

The warning label as seen in Photo 11 must be placed near the operating panel.

3 Specifications.

3.1 Power requirements

The Unimax requires a 3- phase power source. See the electrical schematic in the technical enclosure.

3.2 Environment specifications

The following apply:

During Transport/Storage	: +0° till +55°C/32° till 130°F
Operating temperature	: +0° till +40°C/32° till 105°F
Relative air humidity	: 30% to 100%
Lighting	: normal lighting
Altitude	: air pressure up to 1000m (3000 ft.) above sea level



If used outdoors the Unimax must be properly electrically safety protected and covered when not in use.

The Unimax is not meant for use in an environment with a large explosion risk.

4 Operating rules.

4.1 General.

Refer to Chapter 2: Safety

4.1.1 Operator

An adult who has read operating and safety rules in this manual can operate the machine. A training period is required.

4.1.2 Personal safety

While operating the Unimax the operator must wear appropriate work clothing. Jewelry (like rings, bracelets and necklaces) is forbidden.

4.2 Operation and use of the Unimax.

4.2.1 Operating the Unimax

When operating the Unimax, the operator must use the following procedures to ensure safety:

- Wear protective work gloves.
- Insert the power plug into the electrical socket.

**CAUTION!**

A malfunction occurs at an undesirable time. Rectifying malfunctions should only be done with safety first.

See technical enclosure.

- Only personnel who are aware of the contents of this manual should work on the machine. These people should be fully knowledgeable in the safe use of the machine and be able to handle all aspects.
- Always follow the local work safety laws.
- In the event of a malfunction, unplug the machine totally. Make sure the machine can not be reactivated by anybody else.
- Do not remove safety features while the machine is in operation. Non-compliance can cause dangerous situations and/or bodily harm.
- Only replace parts from the manufacturer. Javo has the most common parts in stock.
- For ordering spare parts see Chapter 7.

4.3.1 Troubleshooting malfunctions in the electric motor

MOTOR OVERHEATS

	PROBLEM	SOLUTION
3.1.1	The power supply differs more than 10% from the motor plate readings.	Supply proper power.
3.1.2	Cooling temperature is too high.	Supply cool air.
3.1.3	Bad cable connection.	Check and, if necessary, repair cable connections
3.1.4	Burned out fuse.	Replace fuse.
3.1.5	Too little cool air because of blockage of air passage.	Take care of proper ventilation.

MOTOR HUMS AND CONSUMES TOO MUCH ELECTRICITY

	PROBLEM	SOLUTION
3.2.1	Defective winding.	Repair or replace the motor.

REPEATED BURNOUT OF FUSES

	PROBLEM	SOLUTION
3.3.1	Short circuit in the cables or in the motor.	Have a qualified electrician trace the short and repair it.
3.3.2	Motor creates a short in the housing or a short in the winding.	Have a qualified electrician trace the short and repair it.
3.3.3	Motor is hooked up wrong.	Have a qualified electrician make proper connections to the motor.

4.4 Cleaning.

The Unimax must be disengaged while cleaning.

- Wear protective work gloves.
- Unplug the Unimax unit.
- Activate the emergency switch. This blocks all movement until resetting the switch.

Make a clear sign that reads 'DO NOT ACTIVATE" and place it in a prominent position so that it is clearly visible to everyone.

After cleaning, check all moving parts for damages or defects. When in doubt, consult Javo.



Never hose the Unimax with water.

5 Other duties.

5.1 **Operating.**

Before operating the Unimax, extra attention needs to be given to the following points:

- Check if the Unimax is level and on a stable surface.
- Emergency stops are working properly.
- Mechanical components must be properly adjusted. See technical enclosure.

5.2 **General maintenance.**

During the maintenance you must do the following:

- Wear protective work gloves.
- Unplug the Unimax unit.
- Activate the emergency switch. This blocks all movement until resetting the switch.

Make a clear sign that reads 'DO NOT ACTIVATE" and place it in a prominent position so that it is clearly visible to everyone.

Preventive maintenance must be done every month.

During maintenance, use the proper tools.



All parts that are worn or damaged need to be replaced to ensure safe working conditions.

5.3 **Disposal.**

When the Unimax needs to be disposed of, local regulations need to be observed. Only commonly known materials are used in the fabrication of the machine. During construction, there was no knowledge of hidden risks regarding the disposal.

6 Markings on the machine.

6.1 Type plate.

On the Unimax nameplate the following data is found:

EG-marking	:CE
Name	:Javo b.v
Address	:Westeinde 4, 4410AA Noordwijkerhout, The Netherlands
Project	: See Technical specifications
Date	: See Technical specifications

6.2 Warnings.

See Chapter 2: Safety

7 Spare parts.

Replacing parts must be done with great care and skill with original spare parts. In the Javo technical enclosure the specifications of your machine are listed. For fast and accurate delivery we recommend the following:

Order by fax or E-mail and
State the following data:

- Project Number
- Which part (Position number)
- Location of the part
- Recommended: cause of the malfunction
- The contact at your company

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