



**R-080592**  
**BOOMERANG PRECISION**



**MESTRA<sup>®</sup>**

TALLERES MESTRAITUA S.L.

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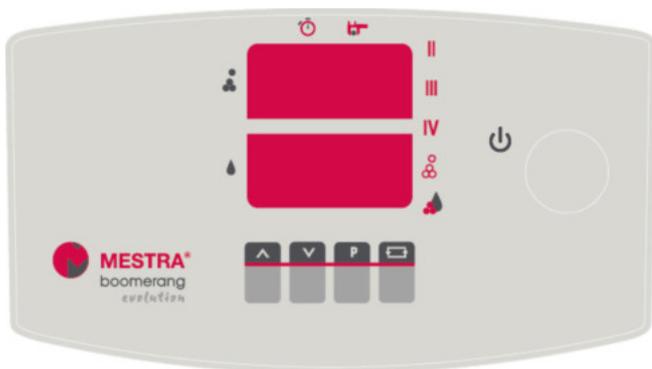
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<https://stomshop.pro>

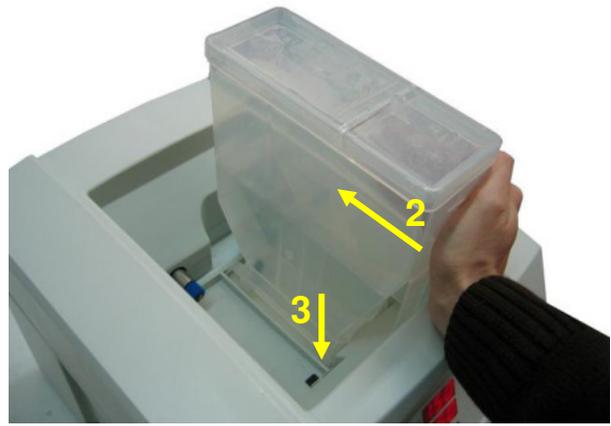
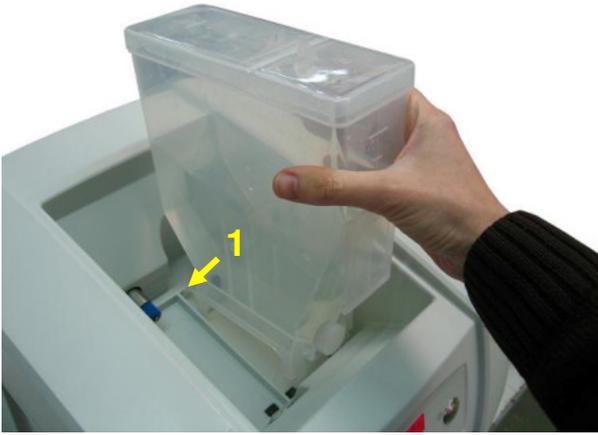


- A Depósito grande para polvo / **Big tank for powder** / *Réservoir grand format pour le plâtre* / Großer Behälter für Gipspulver
- B Depósito pequeño para líquido / **Small tank for water** / *Réservoir pour l'eau* / Kleiner Behälter für Flüssigkeit
- C Botón start-stop / **Start-stop key** / *Bouton start-stop* / Start-Stopp-Taste
- D Display polvo / **Powder display** / *Display poudre* / Display Gipspulver
- E Display líquido / **Water display** / *Display liquide* / Display Flüssigkeit
- F Teclado / **Keyboard** / *Clavier* / Tastatur
- G Balanza / **Scale** / *Balance* / Waage

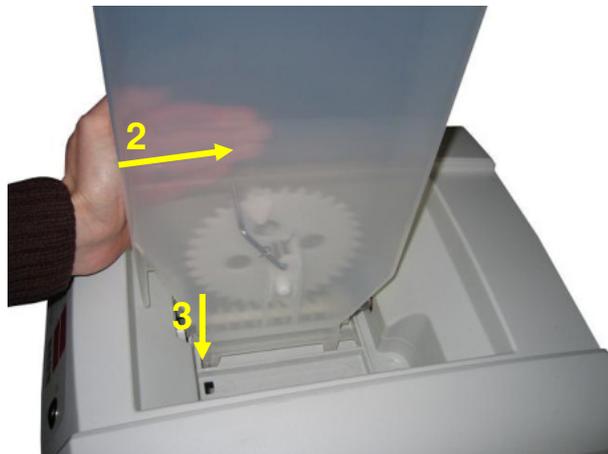


	Alarma <b>Alarm</b> <i>Alarme</i> Alarm		Display polvo <b>Powder display</b> <i>Display poudre</i> Display Gipspulver
	Calibración <b>Calibration</b> <i>Calibration</i> Kalibrieren		Display líquido <b>Liquid display</b> <i>Display liquide</i> Display Flüssigkeit
	Escayola tipo II <b>Type II plaster</b> <i>Plâtre type II</i> Gips Typ II		Subir <b>Up</b> + Erhöhen
	Escayola tipo III <b>Type III plaster</b> <i>Plâtre type III</i> Gips Typ III		Bajar <b>Down</b> - Reduzieren
	Escayola tipo IV <b>Type IV plaster</b> <i>Plâtre type IV</i> Gips Typ IV		Memoria <b>Memory</b> <i>Mémoire</i> Speicher
	Material libre <b>Free material</b> <i>Matériau libre</i> Freies Material		Cambio de display <b>Display change</b> <i>Changement de display</i> Wechsel des Bildschirms
	Proporción fija <b>Fixed proportion</b> <i>Proportion fixe</i> Fixe Proportion		Marcha-paro <b>Start-stop</b> <i>Marche-Arrêt</i> Start-Stopp

**COLOCACIÓN DEL DEPÓSITO DE AGUA / PLACING THE WATER TANK**  
**/ MISE EN PLACE DU RÉSERVOIR D'EAU / EINSETZEN DES WASSERBEHÄLTERS**



**COLOCACIÓN DEL DEPÓSITO DE ESCAYOLA / PLACING THE PLASTER TANK**  
**/ MISE EN PLACE DU RESERVOIR A PLATRE / EINSETZEN DES GIPSBEHÄLTERS**

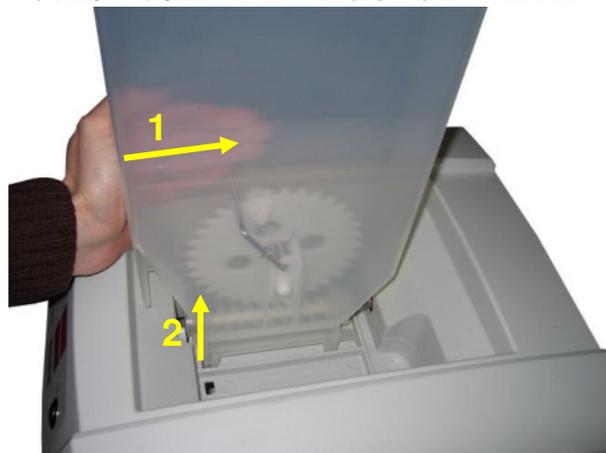


**EXTRACCIÓN DE LOS DEPÓSITOS / REMOVING THE TANKS / EXTRACTION DES RÉSERVOIRS /**  
**ENTNEHMEN DER BEHÄLTER**

**DEPÓSITO DE AGUA / WATER TANK**  
**/ RÉSERVOIR À EAU / WASSERBEHÄLTER**



**DEPÓSITO DE ESCAYOLA / PLASTER TANK**  
**/ RÉSERVOIR À PLÂTRE / GIPSBEHÄLTER**





The R-080592 dispenser has been specially designed for the field of dental prosthesis, and it measures the required amount of plaster and water thoroughly and automatically. Besides it allows you to switch easily from a type of plaster or other material to another type.

**NOTE:** Carefully read this manual. It contains important safety information in the installation, use and maintenance. If the equipment is used in a manner not specified by the manufacturer, the security provided by the equipment may be compromised.

## MEANING OF THE SYMBOLS ON THE UNIT



Danger. Risk of injury.



Read completely these instructions before operating the unit.



Electric shock risk.

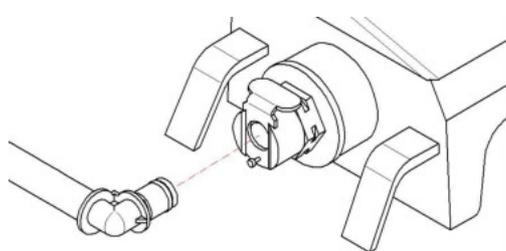


Fig. 1

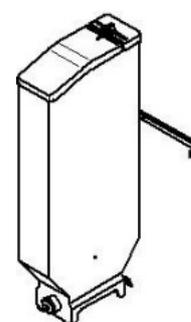
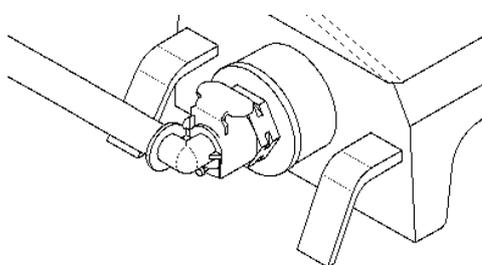


Fig. 2

## INSTALLATION

Environmental conditions:

- Use indoors only.
- Environmental temperature: 5-40 °C [41-104 °F]
- Max. relative humidity: 0-95 %
- Degrees of protection: IP20

1. Carefully unpack the unit. Make sure it has not suffered any damage during its delivery. Together with the unit you will find: 2 plaster tanks, 1 water tank, 1 bowl, 1 spatula, 1 power cord, 1 supporting bar to hang the tanks on the wall.
2. Place the unit in a horizontal, flat and firm surface, away from heat or vibration sources.
3. Place the device so that it is easy to use the disconnecting device (main switch).
4. Mount the two tanks in place on the casing. To do this press the flexible pins against the stop and insert the forward rims into the holes on the casing.
5. The engine pinion and the spindle in the powder tank must fit together. If the tank does not fit easily, insert your forefinger in the spindle opening and turn the spindle slightly.

Do not forget to **connect the water pipe** by pressing it until you hear a “click” (Fig. 1).

6. You can screw the supporting bar to the wall to hang plaster tanks, and have them at hand filled with different types of plaster (Fig. 2).
7. Connect the unit to a grounded 230 V, 50/60 Hz power source.

## BLEEDING THE LIQUID PUMP AND CALIBRATION

When using the unit for the first time or when connecting the liquid tank, the liquid circuit usually takes some air and you need to bleed it.

- To bleed the circuit, do not mount the plaster tank yet. Mount the small tank filled with water and make sure you have connected the water pipe by pressing until you hear the “click” (Fig. 1).
- Place a container to collect the liquid.
- Simultaneously press the  keys until you see the message “liq”.
- Press the **START/STOP**  key.
- The pump will work for 10 seconds and the calibration will take some seconds longer. Do not remove the container until pilot  turns off.
- Repeat the process to make sure water expelled is bubble-free or when you think the unit is not accurately dispensing the liquid.

**IMPORTANT NOTE:** You must separately calibrate it for the 4 different types of plaster (II, III, IV and Ⓐ (free material)).

## BASIC OPERATION

The Boomerang Precision dispenser is factory set to dispense 100 gr of plaster and 20 ml of water.

- Turn on the main switch (green light) at the rear of the unit.
- The upper display will show the **grammes** of powder to be dispensed and the lower display will show the **millilitres** of water.
- Place a bowl to collect the mixture.
- Press the **START/STOP**  key once for the unit to dispense the dose selected.

## OTHER FUNCTIONS

- To stop the operation of the unit at any moment keep the **START/STOP**  key pressed
- If you press the **START/STOP**  key several times, the unit will dispense several doses in the same proportion
- When the unit finishes the dispensing, the display will read “0”. If the alarm is on (🔴 pilot light on), an acoustic signal will go off after 2 minutes, which will indicate that the plaster is already damp (see *Alarm* section). To stop the alarm, just press any key, and the unit will be ready to dispense again.
- If you keep the **START/STOP**  key pressed for a few seconds when the unit is stopped, the unit will start to dispense powder until you release the key. Then, it will dispense the amount of water in the proportion previously selected.

## ERROR MESSAGES

Err1: No plaster.

Err2: No bowl.

## SWITCHING BETWEEN MATERIALS

The Boomerang Precision dispenser allows you to switch easily between different types of plaster or another material. To do this:

- Press the  key for a few seconds.
- The pilot light for selecting the material will start flickering.
- Select the material you want to work with (type II, III or IV plaster or free Ⓐ) by pressing the  key in short strokes.

- Once the pilot light for the material you want to work with is flickering, press the  key for a few seconds.
- You will see that the 🔴 pilot light is flickering. Press the  key again for several seconds to confirm it.
- The parameters for the selected material will be loaded, and the dispenser will be ready for operation.

## TYPES OF PLASTER AND WATER PROPORTION

**Type II:** 35-45 ml of water per 100 g of plaster.

**Type III:** 25-35 ml of water per 100g of plaster.

**Type IV:** 20-25 ml of water per 100g of plaster.

For a more detailed description, follow the instructions of the plaster manufacturer.

## CHANGING THE DOSAGE

- The upper display shows the amount of powder (in grammes) to be dispensed.
- The lower display shows the amount of water (in millilitres) to be dispensed.
- To change the amount of material to be dispensed press the  keys.
- If the 🔴 pilot light is on (fixed proportion), you will notice that as you change the amount of plaster (g), the amount of water (ml) will change proportionally (see Changing the fixed plaster/water proportion section).
- If the 🔴 pilot light is off (variable proportion), you will be able to change the amount of plaster (g) and the amount of water (ml) independently. To shift from a display to the other, press the  key.
- To change the plaster/water proportion, see the next section.

## CHANGING THE PROPORTION

The Boomerang Precision dispenser is factory set according to the following proportions of plaster/water:

Type of plaster	ml of water / 100 g of plaster
II	35
III	25
IV	20
Ⓐ (free)	- - -

To change the water proportion of a material proceed as follows:

- Select the material you want to change, as explained in the Switching Materials section.
- Press the  key for a few seconds.

- You will notice that the upper display reads “100”.
- To change the proportion of water for each 100 grammes of powder, press the  keys.
- To confirm it, press the  key for a few seconds.
- You will notice that the  pilot is on, which means that it is working in a fixed plaster/water proportion (as you change the grammes of plaster, the millilitres of water will change proportionally).

## OPERATION IN A VARIABLE PROPORTION

The Boomerang Precision dispenser is factory set to operate in a fixed plaster/water proportion, which is shown by the  pilot light turned on. If the unit is set to operate this way, when you change the grammes of plaster by pressing the  keys, the millilitres of water will change proportionally.

If you want to change the amount of plaster and the amount of water independently, proceed as follows:

- Select the material you want to change, as explained in the *Switching Materials* section.
- Press the  key for a few seconds.
- You will notice that the upper display reads “100”.
- Press the  key, and make the reading on the lower display go down below 5. The display will show the message “- - -”.
- To confirm it, press the  key for a few seconds.
- You will notice that now the  pilot is off. It means that the unit is operating in a variable plaster/water proportion.
- Now you can modify the amount of plaster and the amount of water independently. To shift between the upper and the lower displays, press shortly the  key. A dot on the right side will show you which display is active.

**NOTE:** When working in a variable proportion, if you want to obtain powder or liquid only, bring down the reading on the display of the product you don't want to obtain until it shows the message “- - -”.

## STORING DOSAGES IN THE MEMORY

The electronic controls of the Boomerang Precision dispenser allow you to store up to 4 different dosages for each type of material. To store a dosage, proceed as follows:

- First of all, select the dosage you want to store, as explained in previous sections.
- Once you have selected the values you want to store, select the program (P1, P2, P3 or P4) in which you want to store the dosage by pressing the **P** key as many times as required.
- Finally, keep the **P** key pressed for a few seconds. The display will flicker once to indicate that the values have been stored in the memory.

## USING THE DOSAGES STORED IN THE MEMORY

- To use a dosage stored in the memory, press the **P** key as many times as required to select the program you want (P1, P2, P3 or P4).
- Press the key  to display the values stored.
- Press the **START/STOP**  key and start dispensing.

## ALARM

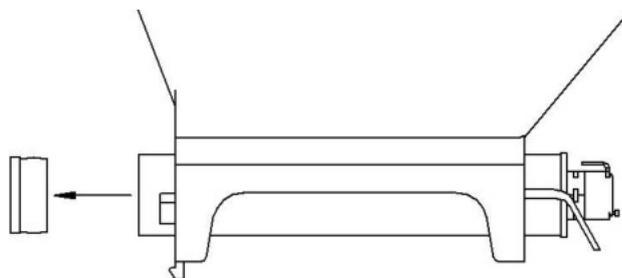
The Boomerang Precision dispenser allows you to activate an acoustic alarm to warn when the mixture is ready. When the unit finishes the dispensing, the display will read “0”. If the alarm is on ( pilot light on), an acoustic signal will go off after 2 minutes, which will indicate that the plaster is already damp.

To activate or deactivate the alarm, proceed as follows:

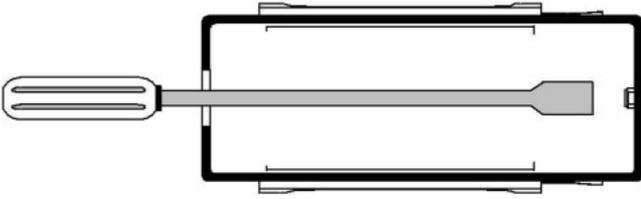
- Press the  key for a few seconds.
- The pilot light for selecting the material will start flickering.
- Select the material you want to work with (Type II, III or IV plaster or free ) by pressing the  key in short strokes.
- Once the pilot light for the material you want to work with is flickering, press the  key for a few seconds.
- You will see that the  pilot light is flickering.
- Select “YES” or “NO” on the upper display in order to activate or deactivate the alarm by pressing the  keys.
- Press shortly the  key to shift to the lower display.
- Select the type of alarm (1 or 2) by pressing the  keys.
  - 1 The alarm will go on only once.
  - 2 The alarm will go on every 2 minutes.
- To confirm it, press the  key for a few seconds.

## REPLACING THE FILTER

The water tank has a filter to prevent particles entering the tank. If it needs to be replaced, proceed as follows:



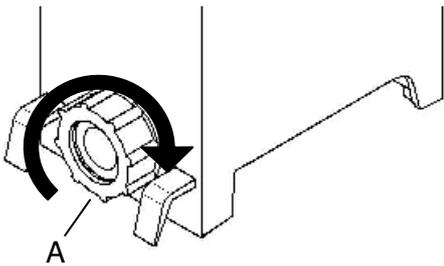
1. Remove the cap by pushing it with your finger from inside the tank.



2. Unscrew the filter with a 13 mm tube spanner.

## REPLACING THE SPINDLE

The spindle is a perishable element. Its duration depends on the use of the machine. A spare spindle is included with the machine. To replace it, proceed as following:



1. Loosen nut (A) rotating in the direction of the arrow.
2. Remove the damaged spindle (B).
3. Place the new spindle and tighten the nut again.

## MAINTENANCE AND CLEANING

To ensure an ideal reliability and a long working life of the unit, we strongly recommend:

- Keep the unit and the surroundings clean.
- Be careful when filling the powder tank; do not let particles enter the water tank, since the pump could be damaged.
- Keep the powder and water nozzles clean. It will prevent dirt gathering and the spindle from seizing up.
- Clean the unit thoroughly when changing the type of powder, to prevent the pollution from the dirt that can gather in the unit.
- The outer casing of the unit should be always cleaned with a damp cloth. Do not use solvents.
- Watch the filling level of the tanks. Do not let the unit work when the tanks are empty.
- Check the filter and the tanks periodically, as well as the possible wear of the interior pieces and the watertightness of the water tank.
- Use only original spare parts supplied by the manufacturer.

## PRECAUTIONS

- Before connecting the unit to the power source, make sure the voltage is correct (grounded 230 V, 50/60 Hz).
- The cable may only be replaced by one with the same characteristics as supplied by the manufacturer.
- Read these instructions carefully before operating the unit. They contain very important information about safety during the installation, operation and maintenance of the unit.
- Keep these instructions for further consultation.
- Check out the state of the unit upon unpacking it.
- Before connecting the device, make sure the voltage in the identification plate matches the power source to be used. During the installation all the safety requirements must be observed and the instructions of the manufacturer followed.
- The manufacturer will not be liable for the damage caused by an inappropriate grounding system.
- Damage caused by a faulty installation or a wrong use of the unit is not covered by the warranty.
- When in doubt, do not start the unit. Contact the supplier for questions or detailed information about problems with the unit.
- Do not touch the unit or the power cord with wet hands.
- Unplug the unit in case of storm and when you are not going to use it for a long time.
- Place the unit in a dry place, away from dust and water splashes.
- Do not pull, twist or fold the power cord excessively.
- Do not wet the unit; do not use chemical products to clean it.
- Do not allow children or non-qualified personnel handling the unit.
- Do not dismount, repair or modify the unit.
- Do not ever place or remove the tanks while the unit is in operation
- Contact the supplier for questions or detailed information about problems with the unit.

## SPECIFICATIONS

Height:	650 mm
Width:	350 mm
Depth:	430 mm
Weight:	7 kg
Big tank capacity:	5 L
Small tank capacity:	2 L
Voltage:	230 V, 50/60 Hz
Power:	70 W
Fuse:	Glass 2 A, 110-240 V
Sound power:	<60 dBA