



**MESTRA®**

Dispensers: Boomerang *evolution* and Boomerang *precision*



**BOOMERANG**

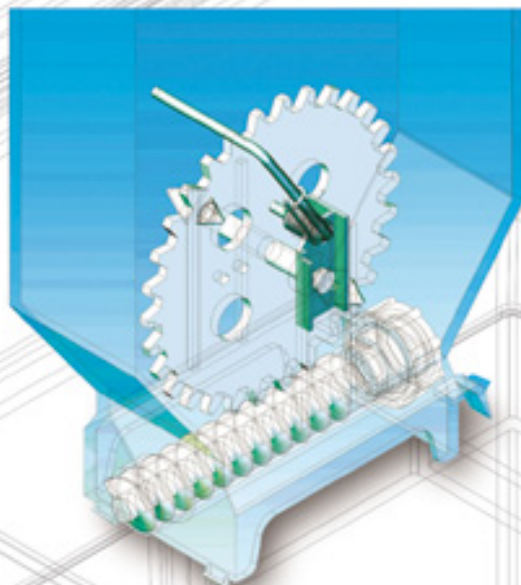
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In the spring of 2008 our General Manager, Iñaki Mestraitua, received a letter from our dealer in Australia, Lawrence Pope. In that letter, Lawrence showed his interest for Mestra to manufacture a plaster and water dispenser. In his opinion, there was an interesting potential market for that product, but the scarce options in the market at that time did not meet the real needs of a Dental Lab. Line after line Lawrence went on drawing his own concept for that machine: simplicity..., practicality..., accuracy..., savings..., economy..., were the key concepts mentioned in his letter. Our General Manager was so worried by the letter that he commissioned the MESTRA Technical Team to develop a product that should be -in his own words- "...an example of the MESTRA' brilliance and good practice...". During the 2010 Expodental Fair in Madrid, the Boomerang Plaster Dispenser was launched to the market, after two years of hard work.

## *Simplicity*

The story of the development of the **Boomerang** dispenser is really thrilling and it was a challenge to our design team. We have to admit that several failures and attempts were needed before reaching a valid concept, but in the end a brilliant idea lead us to the final approach: the **Smartank** system. Basically, it consists of an easily accessible tank, which contains all the elements needed to measure out the powder, except the drive motor. The advantages of this system over some other approaches of our competitors are quite obvious:



1) The access to the tank is immediate, and you can dismount it in a few seconds. You can load the tank from any comfortable position, without having to lift heavy bags over the machine. Besides, it prevents the powder generated during the operation to settle on the machine. Another advantage is the easy cleaning of the dosage system.

2) In case of a failure or obstruction in the dosage spindle, you can dismount and mount it again in less than two minutes, and no training in mechanics or special tools are required. Your hands are enough. In the worst case, the whole tank unit is an economical element and easily replaced by the user himself. What in other machines are expensive works (maintenance, failures...) become routine works in our machine.



**R-080590-43**



# MESTRA®



3) It is possible to work with different types of plaster in only one machine. In a matter of seconds you can replace a tank with a type of plaster for a different tank. Versatility is one of the greatest advantages of our **Boomerang**.

4) The tank is transparent, so you can easily check the amount of powder left, the correct operation of the measuring systems, the cleanness, etc. without having to open any lid or door.



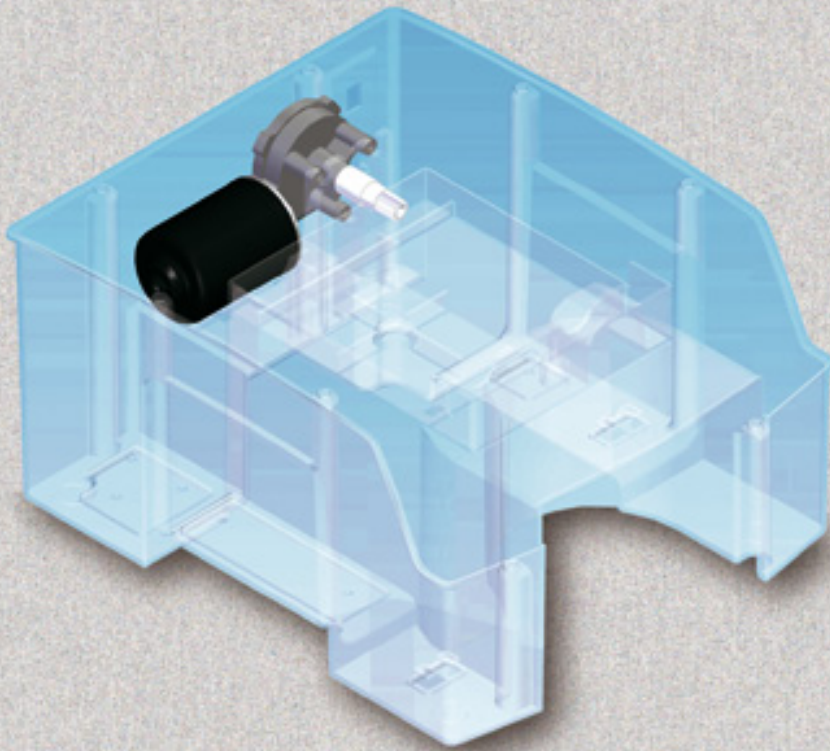
5) The mechanical components and the controls have been simplified to a great extent, so the risk of failure, the maintenance costs and, of course, the price have been substantially reduced.

In short, we can say that the ingenious **Smartank** system is one of the chief strengths of the **Boomerang** plaster dispenser



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## Accuracy

Simplicity is not of much value if it does not come along with measuring accuracy. This is why one of the main challenges of the **MESTRA**, design team was to combine simplicity with a rigorous accuracy when measuring. The first **Boomerang** prototypes featured a load cell that continuously informed the machine controls about the measured weight. Based on those prototypes, the machine was thoroughly studied.



As the trials went ahead and the **Smartank** system was improved, our technicians noticed that, with a strict control of time, they could easily achieve an accuracy of less than 2% of the weight of the plaster. That value, for practical purposes, was fully compatible with the values recommended for Type II and III plasters, and it meant certain cost savings in the price of the machine. The requirements of the Type IV plaster made advisable to improve the accuracy by using scales.



Those trials were the beginning of the two versions of dispenser currently available in the **Boomerang** model: the **Evolution**, specially recommended to work with Type II and III plasters; and the **Precision** model, fitted with scales and hence appropriate for Type IV plasters. So the whole range of plasters in the dental market was covered.

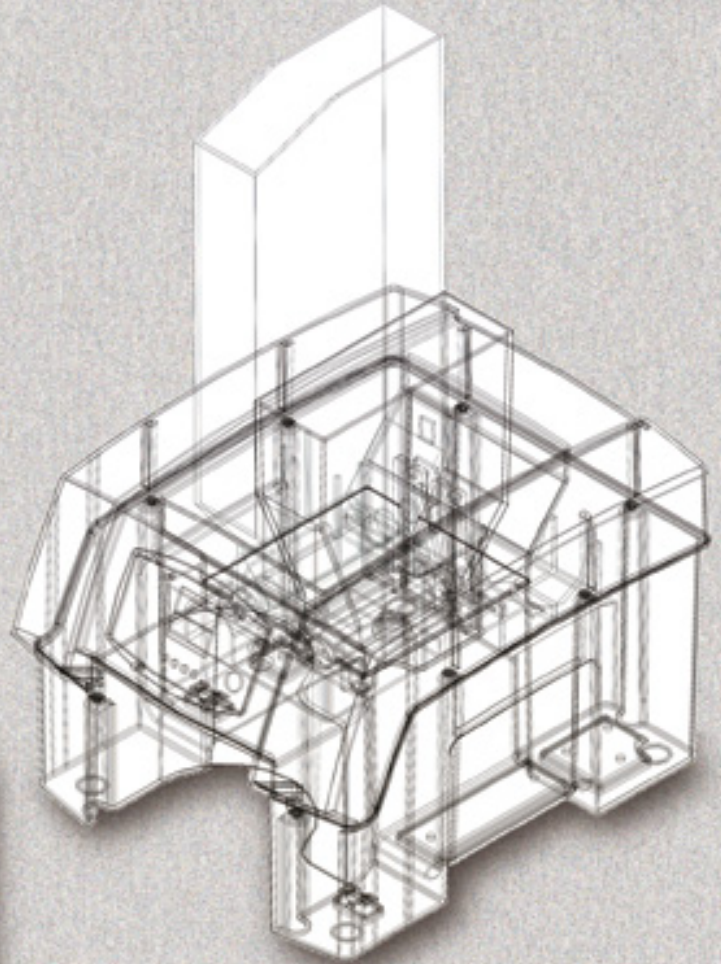




## Practicality

One of the main concerns of the **MESTRA** design team has been, for years, the ergonomics and the practicality of our products. As it could be expected, these key points were thoroughly worked out in the Boomerang project as well. To do that, we had the invaluable collaboration of several local Dental Labs, who patiently tried out all the prototypes we gave them.

Thanks to their comments and their advice, we became aware of the actual needs of a dental technician in everyday life, and it helped us incorporate important innovations.



1) The basic operation of the **Boomerang** dispenser is carried out with a single button, by means of which we can select three different ways of measuring:

- With a short keystroke, the machine measures the programmed amount of water and plaster.
- If you press the button several times, the machine will measure the programmed amount multiplied by the number of keystrokes made.
- If you press the button continuously, the machine dispenses powder as long as the button is pressed; upon finishing, the machine adds water in the right proportion.

2) This operating mode offers endless options: you can calculate the minimum amount for -say- a cast; then, with successive keystrokes, adapt the amount to the number of casts you want to make. Besides, you can program up to four independent memories, so you can fix beforehand different proportions according to the type of material or any other parameter, and perform them later.

3) The machine can be calibrated in grams and in millilitres, which is practical and convenient. The calibration of the **Precision** model is extremely simple, since the built-in scales adjust the values automatically.

4) Both machines can program up to four different materials, which remain stored in the memory. If you want to work with a different type of plaster, just replace the tank and press a button. Replacing the tank only takes a few seconds.

5) Another advantage of the **Boomerang** dispenser is the "Set Proportion" option: in this option we store a value for the water-plaster proportion in the memory; from then on, we only need to select the amount of plaster we want to prepare. The water is measured out automatically.

6) Finally, there is the alarm: Dental Technicians know perfectly that it is easier to stir the plaster after leaving it to rest for a few minutes in water. With the **Boomerang** dispenser you can program a rest period after the dispensing; at the end of the period you will be warned by an acoustic alarm.





# MESTRA®

## *Saving*

We have to admit that the initial aim of the **Boomerang** dispenser was to offer a machine that could make the boring work of measuring out plasters in the Dental Lab easier and more accurate. However, while developing the project, an odd event changed the initial aim forever: one of the labs working with us was reluctant to return one of the prototypes, despite our promise to give it back to them after a few days and with several innovations. We asked them the reason, and their answer was quite shocking to us: "... I work in my lab with six employees. I have noticed that during these weeks of trial of the prototype, the plaster consumption has decreased a 30 or maybe a 40%. Taking into account the amount of plaster we use and the price of the Type III and IV plasters, I cannot do without the machine..."

The answer gave us a hint of the real value of the **Boomerang** dispenser. When measuring out plasters, it is common practice to increase the dose of plaster, due to different reasons, such as the typical "just in case", the difficulty to weigh an exact amount, or simply because we have not checked the exact amount required for the work we intend to do. However, when we ask the **Boomerang** dispenser for an exact amount, be sure that the machine will give you the exact amount, no more no less.

Time has shown us that initially the average buyer purchases the machine for comfort reasons, but in the long term one of the most appreciated features among the customers of the **Boomerang** dispenser is the savings in plaster, especially in Type III and IV plasters. Depending on the size of the lab, the savings would be enough to pay off the machine within a few months.



## *Cost*

In his initial letter, our Australian dealer Lawrence Pope made it quite clear that, for the dispenser to succeed, one of the key points should be its competitive price. In his opinion, the models in the market had a very high price, and it should be substantially reduced.

The initial aim was fully achieved thanks to ingenious solutions such as the **Smartank**, the chance to measure out accurately without scales, the use of technical composites in its frame or the simplicity of the electronic controls. As far as we know in **MESTRA**, the **Boomerang** dispenser is the most economical option currently in the Dental Market.

Its reduced price does not affect at all the quality, the reliability and the technical service of the **MESTRA** brand. We hope that after reading this text you will understand perfectly the objective reasons of the competitive price of our dispenser.

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# dispenser

## Advice to choose a

You may be currently interested find many models and manufacturers. We would like to give you several

tips in buying a new dispenser. In this case, you are lucky, because you will find many manufacturers of excellent products in the market. We would like to give you several useful tips for you to choose the most suitable model.

- First of all, be objective. Do not let names, nationality or any other information from the dealer influence you. Do not pay attention to set phrases such as "there must be something wrong if it is so cheap", "cheap products often prove to be expensive", "in XX (country) they have never been good at manufacturing machines" and so on. Take into account just reasons, facts and arguments. Never accept disparaging remarks from dealers. Compare at least three models (four, better) before choosing one.

- Check out that the machine is easy to load. Remember that loading is an everyday operation and that it should be simple. In this respect, detachable tanks make this operation much easier.

- Check out with how many types of plaster the machine can operate. A dispenser that allows replacing the tank in a few seconds is a great advantage. Do not accept arguments like "...you can always have two machines for two different types of plaster...". This option takes up a lot of space and means a very high cost.

- Be sure that the machine is easily repaired in case of failure. You have the right to ask the dealer about the cost of repairing a failure in the spindle or the dosage system. Ask the dealer about other maintenance works as well. We strongly recommend you to distrust the "our machine never fails" argument.

- Check out the accuracy of the dispenser **ALWAYS WITH OBJECTIVE EVIDENCE**. Do not trust arguments like "our system is the most reliable in the market", "our machine features the X component, without which an exact dosage is impossible", "the X brand product does not work properly".

- If the Boomerang dispenser is one of your options, do not hesitate to ask for a trial to check the accuracy of the machine without obligation (consult your **MESTRA** dealer). Field trials are the only way to be objectively sure. Ask for free trials for your other options.

- Ask about the different dosage systems of a given model. They should be simple and practical methods, easily adaptable to all kinds of needs.

- Keep away from complicated controls. A few buttons are enough for this purpose.

After analyzing the aspects above, consider the price, the technical support and all the other services offered by the manufacturer. Think over all this information, and make your choice. If you take into account all these tips, be sure you will always make the right choice, whatever you decide.



# Specifications

Boomerang:                      *evolution*                      *precision*  
                                         R-080591                      R-080592

Power	90 W	90 W
Voltage	230 V, 50/60 Hz	230 V, 50/60 Hz
Big tank capacity	5 l	5 l
Small tank capacity	2 l	2 l
Height	650 mm	700 mm
Width	350 mm	350 mm
Depth	430 mm	430 mm
Weight	7 kg	7.5 kg

\*The manufacturer reserves the right to modify these specifications without notice.



**MESTRA®**  
*Your trusted brand*



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Distributor: