

# Ergonomic Design

## BRAND<sup>®</sup> macro<sup>™</sup> Pipette Controller

The macro pipette controller by BRAND is a modern, ergonomic alternative to old-fashioned pipette bulbs and other cumbersome pipette fillers. The macro is quite light (4.3 oz.), and minimizes the strain on the muscles, ligaments and tendons of the shoulder, forearm, wrist and hand caused by clenching and operating traditional rubber-bulb pipette fillers.

Operation is simple and intuitive. Hold the macro in your relaxed hand with your thumb resting on the control lever. A single, gentle squeeze of the suction bellows powers aspiration. To fill the pipette, deflect the lever upward. The aspiration rate is easily controlled by the amount of deflection. Deflect the lever fully to quickly fill the pipette; deflect slightly to approach the desired volume carefully. Dispense in the same way: full deflection for a steady stream; deflect just a little for droplets. It's that easy and your hand remains relaxed. Operation is so simple and natural that new users are often surprised how easily they can use the macro from the very first time. And users performing prolonged pipetting operations often experience immediate strain relief.

The macro firmly holds any volume pipette from 0.1 to 200 mL. It contains a hydrophobic filter that helps protect the unit from over-aspiration and cross-contamination, while still affording air-flow consistent with Class A pipetting. And it's the only pipette filler that is fully and repeatedly autoclavable for use in sterile operations. Available in 4 colors to identify users, labs or projects.



Using a traditional rubber pipette bulb can result in hours of static stress on the forearm, wrist and elbow; the macro affords users a relaxed grip during operation, reducing static stress



Control aspiration and dispensing simply by deflecting the thumb lever.

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## Blow-out bulb

Simply press the convenient blow-out bulb to empty the last drop from blow-out pipettes.

## Unique valve system (inside)

Wide air channels allow fast filling of large pipettes. Sensitive valves give precise control of low-volume pipettes. The replaceable valve system is designed to ensure appropriate drain times for accurate measurement.

## Pressure release valve (inside)

Facilitates easy compression of the suction bellows.

## Suction bellows

Just a simple squeeze of the suction bellows powers the aspiration of up to 50mL. Need to fill a 100 mL pipette? Just squeeze the bellows again and continue! The bellows are replaceable, if necessary, after years of use.

## Pipetting lever

A single lever controls filling, meniscus setting, and delivery speed. Aspirate quickly for productivity, or slowly for meniscus control. Press down gently on the lever to dispense drops; press firmly for a steady stream.

## Pipette adapter with filter (inside)

Detachable, autoclavable silicone adapter fits 0.1–200mL pipettes. Hydrophobic filter limits overaspiration into unit.

## Ergonomic Design Features of the macro pipette controller

The BRAND macro pipette controller employs a bellows and an intuitive valve system to provide precise aspiration and dispensing with volumetric and serological pipettes. It is specifically designed to serve as an ergonomic alternative to rubber pipette bulbs. The rubber suction bellows and large contoured

body of the macro pipette controller permit a relaxed grip during use. This relaxed grip reduces the static muscle activity required by the “clenched grip” of rubber pipette bulbs. The reduction in static activity, in turn, leads to improved blood flow throughout the arm and hand and decreased strain on muscles,

tendons, and nerves of the forearm, hand and wrist. The deflected-lever control of the macro is also a vastly more ergonomic alternative to the repetitive thumb motion required to operate the thumb-cranked, geared plunger pipette fillers.