



ALLIANCE  
BIO EXPERTISE  
microbiologie

# A.B.E. BLENDERS

## MIXWEL / MIXWEL +



## User Manual

*Revision 7*

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## General Information

You chose the Mixwel – Mixwel +, its compacity and ergonomy for your laboratory. Congratulations, you are about to save space, and get more efficiency !

Read this document to find out the functions and features of your device.

## Technical Specifications

| Benefits  | MIXWEL      |         | MIXWEL +   |              |         |
|---|-------------|---------|------------|--------------|---------|
| Noise level                                     | < 48 dBA    |         | < 48 dBA   |              |         |
| Speed   | 460 hits/mn | 230 rpm | 1 :        | 320 hits/mn  | 160 rpm |
|   |             |         | 2 :        | 390 hits/mn  | 195 rpm |
|   |             |         | 3 :        | 460 hits/min | 230 rpm |
| Power per paddle                                | Up to 70kg  |         | Up to 70kg |              |         |
| Power supply                                    | 120 W       |         | 120 W      |              |         |
| Use temperature                                 | 5 to 45°C   |         | 5 to 45°C  |              |         |
| A.B.E. Crush<br>Pendular Movement<br>(patented) | ✓           |         | ✓          |              |         |
| Bags from 80ml to 400ml                         | ✓           |         | ✓          |              |         |
| Light signals                                   | ✓           |         | ✓          |              |         |
| Pales auto-adjustment to<br>the matrix          | X           |         | ✓          |              |         |



**Standard accessories**

|  |  |  |   |
|--|--|--|---|
|  <p>Blender</p>                     |  <p>Power supply<br/>120W</p> |  <p>Cable</p>          |  <p>50 Mixbags Filtre<br/>Latéral<br/>MIXW3003</p> |
|  <p>Conformity tests<br/>report</p> |  <p>User manual (USB)</p>     |  <p>CE certificate</p> |   |

**Overview**

**Compacity** : W x D x H: 220 x 410 x 340 mm



**Weight** : 14,6 kg

Our technical team remains at your disposal to install, train, validate, or answer any of your questions :

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## **Installation**

### **Installation and operating environment**

|   |   |
|---|---|
| <b>Environmental Conditions:</b>                        | - Temperature: 5 °C to 45 °C (41 °F to 113 °F)<br>- Maximum relative humidity 80%<br>- Indoor use   |
| <b>Electrical environment:</b>                          | According to EN61010-1 ED. 2011, international standard about the safety requirements for electrical equipment for measurement, control, and laboratory use standard.   |
| <b>Installation Category II</b>                         | Pollution category : 2.   |
| <b>Electromagnetic compatibility (EMC) Performance:</b> | According to EN61010-1 ED. 2011, international standard about the safety requirements for electrical equipment for measurement, control, and laboratory use standard. Requirements about the CEM (emission and immunity). |

### **Unpacking**

- Unpack your device in a clean and accessible room.
- Remove the accessories from the box.
- Remove the Mixwel/Mixwel + from the box, lifting it by its lower part.
- Install the blender on a stable and horizontal support (as a bench), without any measuring equipment already installed on it (as a dilutor).
- Make sure that there is no remaining element in the box, before stocking it. The box can be needed to send back the unit to the manufacturer.

## **Power supply**

The manufacturer declines any responsibility in case of electric problem if the below requirements are not respected before powering it up.

### **Power supply**

- ⚠ The equipment must be connected to an electrical installation that complies with the applicable standards in the country (NFC 15-100 for France). The installation must be equipped against over-currents, over-voltages and earth faults.
- ⚠ Do not install the equipment next to a heat/humidity source.
- ⚠ For your own safety, the equipment must be switched off and disconnected from the power before any technical intervention.
- ⚠ Connecting any other type of power supply may disrupt the machine's operation or the surrounding machines.
- ⚠ Make sure the electric supply matches the manufacturer's specifications :
  - Power supply of the unit must be assured by a grounded outlet, and a safety device must guarantee automatic power-off in case of faulty insulation. A power supply equipped with a differential circuit breaker, powerful enough, meet this requirement.
  - The outlet must be immediately identifiable and easily reachable by the operator.
  - Connect the power supply to the Mixwel's back in the location indicated by:

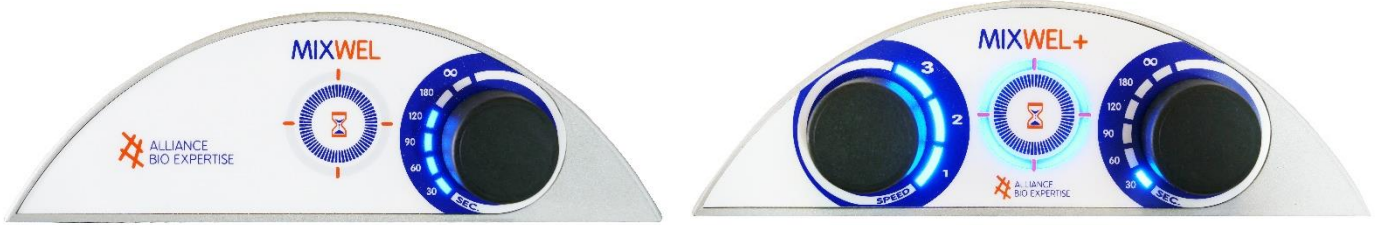










**Getting started**

**Control panel**



| Button  | General Features                                     | Modality   |
|---|--|--|
|    | <b>Powering</b><br>Turn on ( I ).<br>Turn off ( 0 ). | Turn on the switch on position (I).<br>Turn off the switch on the position (o)                                 |
|   | <b>Cycle countdown</b>                               | The led flashes when closing the door. The cycle progress is displayed by the backlight of the central symbol. |
|  | <b>Blending time</b>                                 | Scroll the knob to select one of the six available possibilities.  |
|  | <b>Blending speed</b>                                | Scroll the knob to select one of the three settings.   |

**Door opening and bag insertion**

- Lift the handle and pull the door to open it.
- Slide into the blender chamber the blending bag containing the sample and the diluent (max. 400 mL). The bag is positioned automatically in the tank, bottom of the door.



- Make sure to remove the air from the bag by smoothing the bag on the door during insertion.

## Parameters selection

- **Speed (Mixwel +)** :
  - Select the bleeding speed using the left knob : .
    1. **Slow** : 320 coups/mn, 160 rpm
    2. **Medium** : 390 coups/mn, 195 rpm
    3. **Fast** :460 coups/mn, 230 rpm
- **Time:**
  - You can set the duration from 30 seconds to 180 or select continuous mode by scrolling the right knob.

## Chamber closing and auto-start function

- Gently push the door toward the device and lower the handle. The cycle starts automatically once the door is closed.
- Progress is displayed through the knob backlights of the central pictogram.

**Note:** in case of emergency, open the door, the device stops automatically.



### **End of cycle**

- Once the selected duration is over, the blender stops.
- The central pictogram flashes: the operator is aware that the cycle is done.
- The paddles move back slightly to facilitate bag removal.
- Lift the handle to open the door.
- Once the door opened, the bag can be removed.

### **Pales auto-adjustment (Mixwel +)**

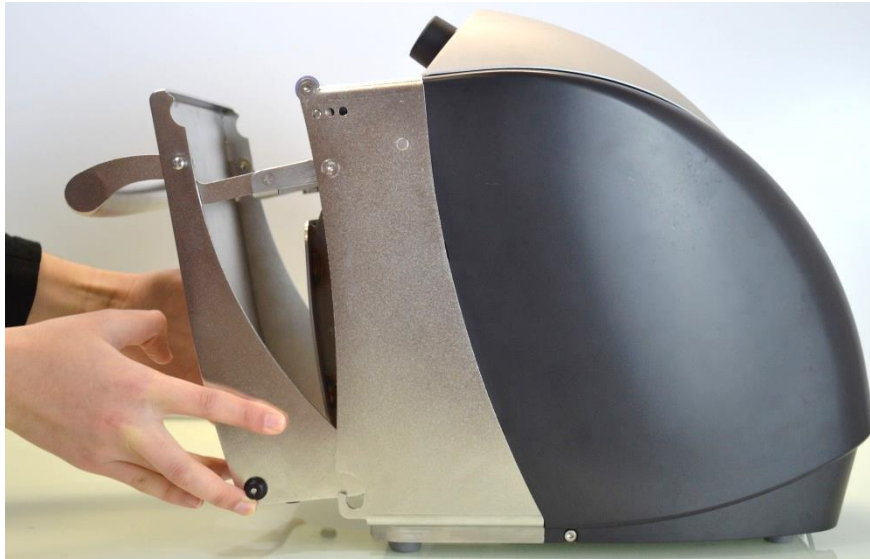
Auto-adjustment is automatically done during each blending. On large and/or hard matrix, it allows to adapt the pressure to the shape of the sample, and to reduce the noise. During the first hits, the paddles come gently to reduce the sample in smaller parts, and then sharpen the blending. The paddles move back slightly to facilitate bag removal at the end of the cycle.



## **Door and pales removal**

### **The door**

- Lift the handle and pull the door to open it.
- Slightly lift the door upward to disengage the black locking parts at the bottom of the door.



- Successively disengage the joints from the articulated rods holding the door.



*Note : it is possible to disengage first the rods and then the black locking parts.*



## The paddles

- Disengage the first paddle from its lower attachment by gently pulling it on the lower section. Do the same with the second.



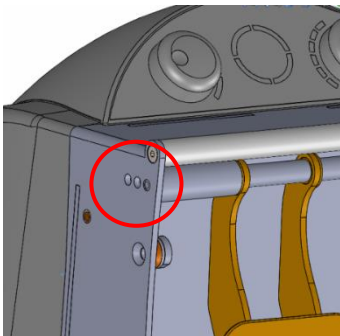
- Press the central spring (1), holding together the 2 paddles as explained below, to disengage the upward fixations (2) from their holes :



## **Reassembly of the door and the paddles**

### **Paddles**

- Engage the axis of rotation of the paddles on the left in one of the three positioning holes.



### **How to choose your paddle position ?**

| <b>Position (from the door)</b> | <b>Matrix</b>        |
|---------------------------------|----------------------|
| 1                               | Small, thin, elastic |
| 2                               | Medium               |
| 3                               | Large, hard          |

- Press the central spring, holding together the 2 paddles, to engage the second fixation in its holes.
- Engage the paddles in their bottom fixation.

**Warning : if the first blending is extremely noisy, the paddles are not correctly fixed ! Stop immediately the cycle, remove the bag and check the paddles.**



## Reassembling the door

- Engage the black locking parts at the bottom.
- Engage the legs of the left and right upper articulations.

## **Upkeep and maintenance**

### Upkeep and daily cleaning

#### External body

- Clean the external body with a soaked wipe (soft solution, like hydro-alcoholic or quaternary ammonium solution).

#### Blending chamber

- Maintain the blending chamber clean and dry.
- NEVER USE CHLORINATED PRODUCTS (bleach, quaternary ammonium chloride).



- It is recommended to perform a functional and safety check at least once a year.
- Make sure that the grounding of the unit is always properly ensured by its power supply cord and wall outlet to which it is connected.
- The user access to the interior of the device is not authorized. The maintenance is exclusively carried out by an authorized technician A.B.E.

### **Accessoires**

| <b>Reference</b> | <b>Designation</b>                         |
|------------------|--|
| <b>Your bags</b> |  |
| MIXW3001         | Mixbags without filter 400ml (2500pcs)     |
| MIXW3002         | Mixbags side filter 400ml (2500pcs)        |
| MIXW3003         | Mixbags filtre full filter 400ml (2500pcs) |
| MIXW2002         | Mixrack Stainless Steel bag holder 14 bags |
| On request       | Mixclips                                   |