

User Manual



SturFill 100





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1 Introduction

Sturfill 100 is a rotary machine for filling vials, bottles, etc.

Vials are arranged in the machine using an **input tray (A)** and are pushed toward the **central rotary table (B)**, which also acts as a buffer and dispenser to the vial guide channel, waiting for them to be filled.

At the end of the circuit, an electric pusher positions each vial individually for filling.

The same positioning cycle pushes the filled vial toward the outlet channel, ending the production cycle in the **output tray (E)**.

Machine supplied with raised holder to place the **dosing pump (D)**, not supplied with the Sturfill100.

2 Machine parts

The figure below shows a graphic representation of the main parts that characterise the machine and are explained in detail in this user manual:



Machine parts

A	Vial input
B	Feeder table
C	Control panel
D	Dosing pump
E	Vial output



3 Sockets/External connection



Sockets/External connection

F	Pump start/stop switch
G	Single-phase 220VAC 50HZ power input

4 Installation and commissioning

For proper installation, the machine must be placed on a firm, stable surface.

Once in its final location, attach the **vial input tray (A)** to the machine using the screws provided, placed in the correct holes on the front side of the machine.

Next, place the black plastic rails on the sides of the tray. The length and number of holes determine the position and identification of each rail. Gently push so each rail fits in its final position.

Level the machine with a conventional level and adjust the height of the four anti-vibration feet on the bottom.

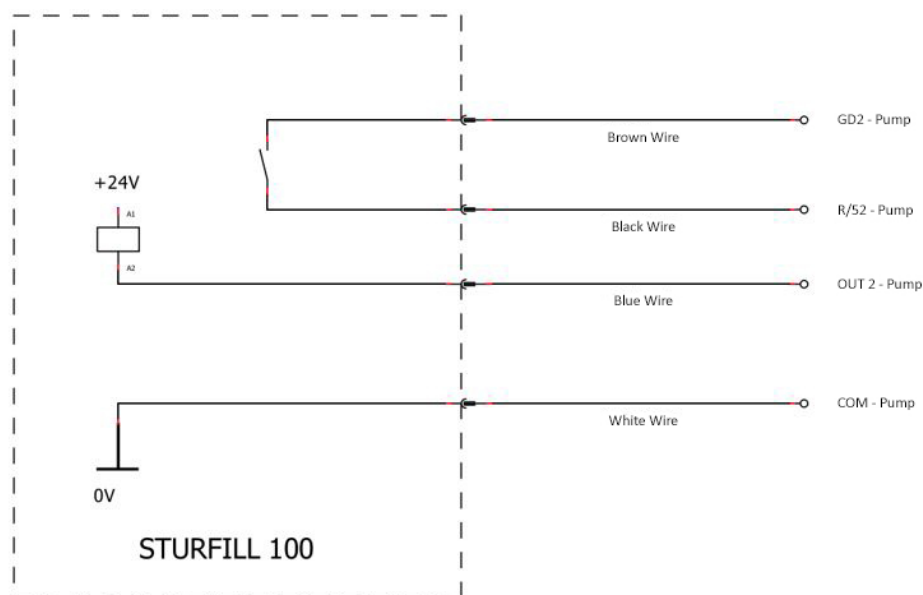
Place the pump in the **holder (D)**, ensuring that all support points are in contact with the flat upper surface of the holder.

Connect the pump outlet to the dispensing needle inlet using the flexible tube.

Connect the dispensing needle manually with the two elements: needle and flexible tube. Follow the manufacturer's recommendations when choosing the flexible tube to ensure both elements are watertight and to connect the pump correctly.

Connect the power socket connector to a stable single-phase 220VAC connection and attach the pump connector.

Pump cables must be connected correctly:



5 Explication of operation

The **control panel (C)** has **3 buttons** as shown in the photo below:





The main functions of the buttons are as follows:

- **Red button:** used to stop the machine
- **Green button:** used to start the machine
- **Emergency button:** used only in case of emergency. This button is to protect the machine user from any incidents by shutting off power to moving elements. Never use to stop filling instead of the red button.

The machine starts operating by activating the green button, turning the feed table. When a bottle/vial reaches the pre-load area, a sensor detects its presence and the electric cylinder is activated, moving the vial toward the right to the filling position, where liquid is injected by activating the peristaltic pump.

Making the most of the electric cylinder movement, the vials push each other until they reach the vial collection tray.

6 Button colour code | operating status identification

The codes used by the machine to facilitate the operating environment are described below. By identifying them, the operator can easily see the machine status at all times:

Operating status identification			
Button colours	In preparation	Prepared/Stop	On
RED LED	Fixed light	Fixed light	Flashing
GREEN LED	Off	Flashing	Fixed light

7 Changing vial, bottle format

If the user has to operate with different types of vials, with different diameter and height dimensions, they must follow these steps:

1. Turn the **control panel wheel** to place the guides so that the distance between them is the diameter of the vial. Adjust so that the vial flows smoothly along the circuit. Do not tighten the vial against the guides.



2. Adjust the opening of the bottle input area with **four no. 4 Allen screws**, at the centre of the rotary table. Adjust the length to facilitate the vials passing to the side of the rotary table.



3. Adjust the dispensing needle to the centre of the bottle. The needle holder has two handles to adjust the needle vertically (according to vial height), as well as the angle and depth with respect to the centre of the holder (according to vial diameter).



There is a third handle to change the dispensing needle due to maintenance or because the process requires a different size.



4. Adjust the required pump volume. According to the instructions of the dosing equipment the operator is using.

8 Cleaning

To clean the machine, remove all black plastic parts. No tools are required, simply pull them upwards, leaving an easy-to-clean surface with no elements to hinder cleaning.

After cleaning, replace all plastic elements by gently pushing them into the relevant holes.

The central input area can also be removed. In this case, remove the nut and turn the top counter-clockwise, pulling up to remove the part.


To replace the central part, remember that it has a position and must allow vial circulation. Twist the upper cap clockwise until you feel light pressure. Check that the centring arm is fixed in its position and cannot turn freely. If it turns, twist the upper cap on fully.



9 Requirements

Single-phase 220VAC 50Hz power socket with 900W maximum consumption



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