CHEMcell™ Rocker

CLS-1200-100

OPERATIONS MANUAL

3800 North Mill Road • Vineland, NJ 08360 • USA

Tel: 1-800-843-1794 • Fax: 1-800-922-4361

Web: www.cglifesciences.com

Rev. E

Table of Contents:

General Description

The CG Life Sciences CHEMcell Rocker provides a smooth back and forth rocking action to gently mix cell culture media.

Specifications:

- Speed Range: 2 – 40 rocks/min (rock = one full cycle front to back)
- Rock Angle: 2 – 12 degrees
- Dimensions CLS-1200-100 with trays (*see Fig. 1 Overview drawing*)
- Weight without tray: 42 lbs (19 kg)
- Operating Temperature: 0° – 50°C
- Voltage Rating: 100VAC - 240VAC 50/60Hz

Features:

- ✓ Brushed Stainless Steel Housing
- ✓ Unit retains last speed and angle set values when powered on
- ✓ Brushless "maintenance free" Motor
- ✓ CHEMcell platform accommodates 20L or 50L Trays

Accessories (Purchased Separately):

- ➢ CLS-1200-250, 20 liter Tray
- ➢ CLS-1200-300, 50 liter Tray
- ➢ CLS-1200-2CH, Temperature Controller
- ➢ CLS-1200-FH, Vent Filter Heater
- ➢ CLS-1200-RTD, Chemcell RTD Pt100 (*One is included with each unit, CLS-1200-100*)

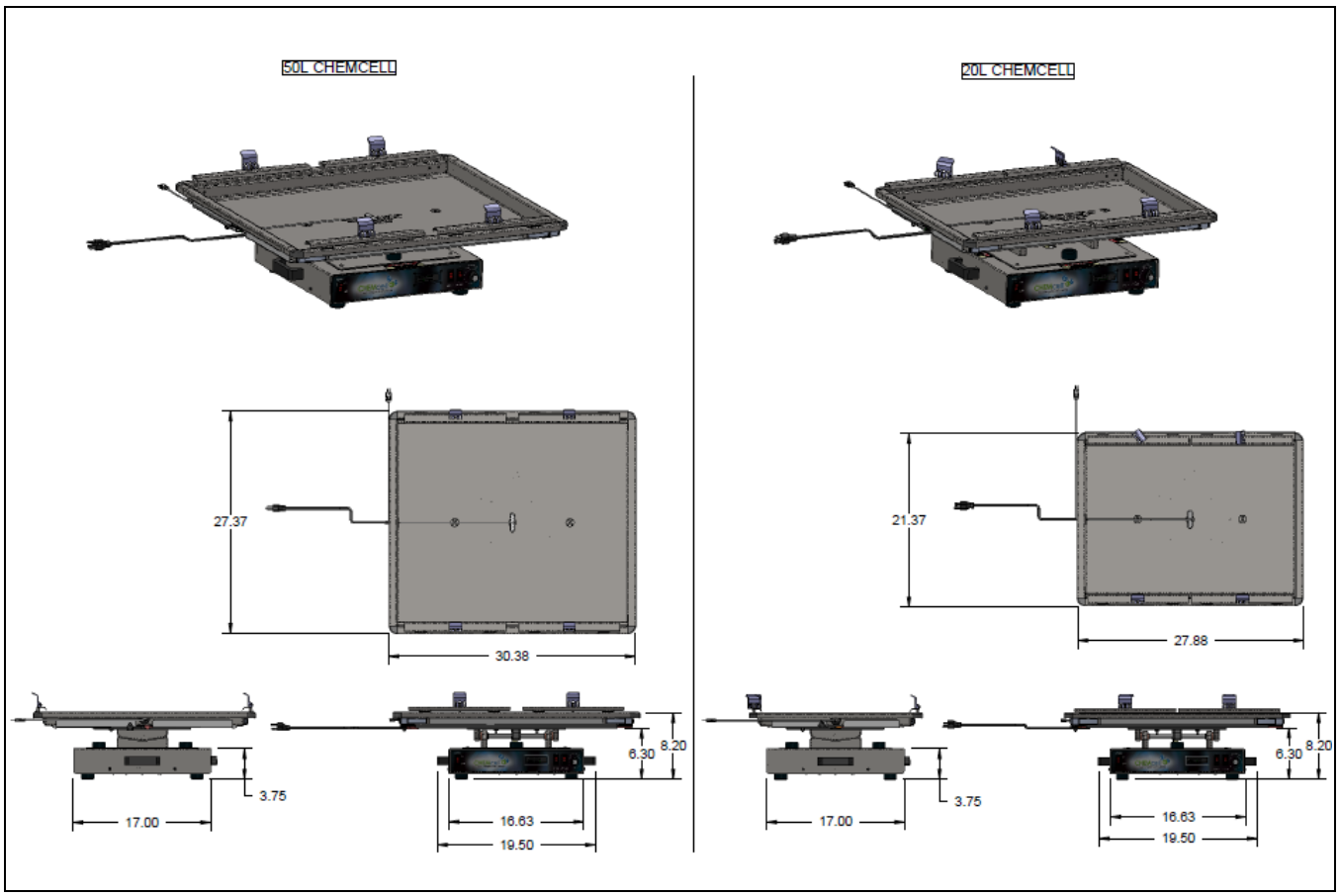
Unpacking Instructions

Unpack the CHEMcell Rocker unit carefully. Read all Instructions before any assembly. Be certain to retain any warranty information, all packing material and operations manual(s). Record the serial number, located on the rear of the unit for future reference.

Example: Serial Number

Any damage claims must be initiated with the delivering carrier within five (5) days of receipt of the product.

Figure 1: Dimensional Overview Drawing



CAUTION

This unit must only be connected to the correct voltage supply source (Grounded 100VAC - 240VAC @50/60Hz.)

Operating Instructions (refer to Fig. 2)

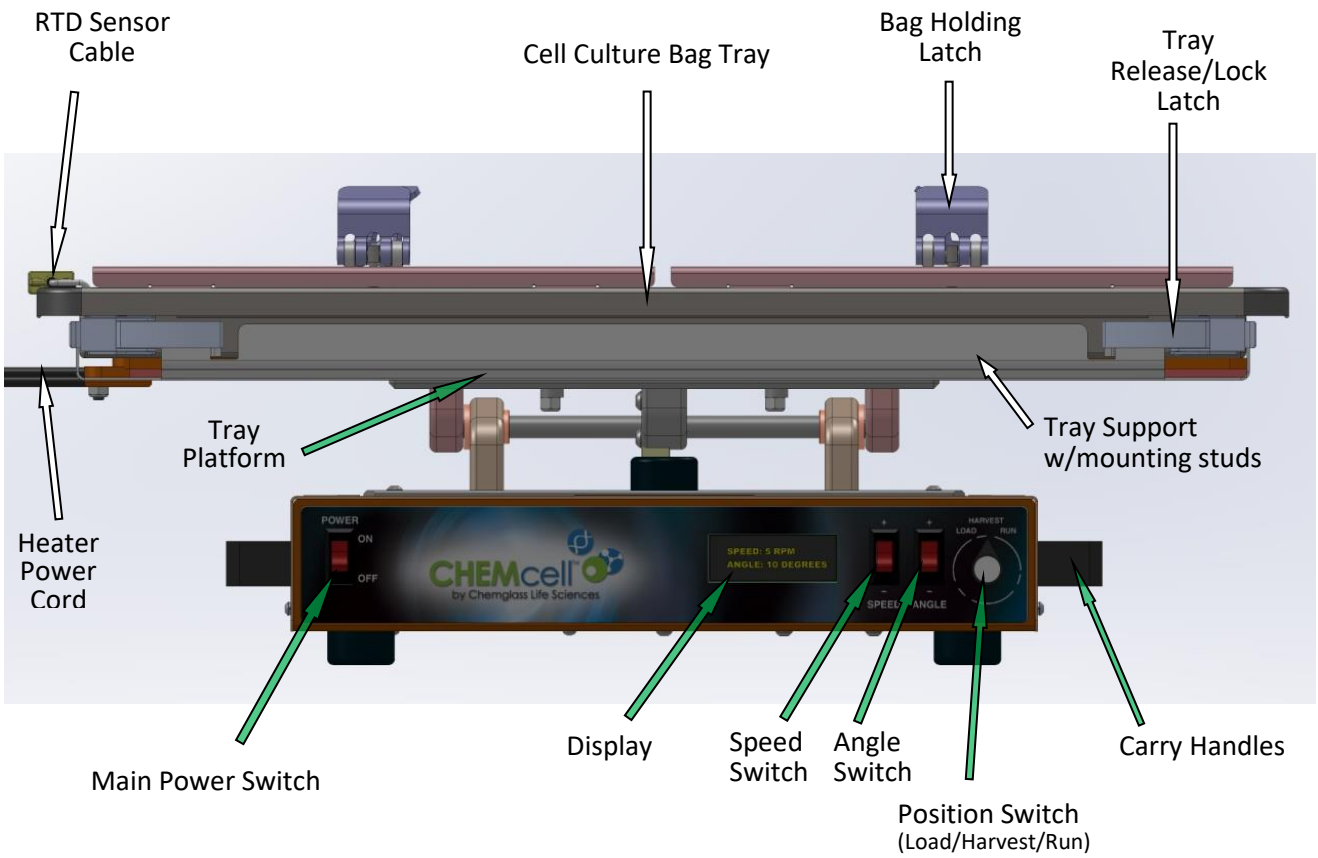


Figure 2 – CHEMcell components

CAUTION

CAUTION: Notice DANGER labels along top perimeter of unit

1. Unit must be placed on a stable, level surface. Connect the supplied power cord to the input power receptacle on the rear of the unit and plug cord into a grounded power outlet. To begin using the Rocker, rotate the position switch to “LOAD” and then turn the main power switch located on front of the unit to the “On” position.
2. With the Position Switch set to “LOAD”, when the unit is turned on it will begin to cycle through a home routine in order to establish proper position whereby the tray will tilt forward 12

degrees then return to the horizontal position and stop. You are now ready to load the unit with a tray and cell culture bag.

3. Install the tray support to the unit platform by aligning the four welded and threaded studs of the tray support through the Rocker tray platform (See Figure 3). Once tray support is in place, install and tighten nuts to threaded studs of tray.
   If not previously installed, install the tray by placing tray into the tray support and moving into position so that the rear tabs of the tray support align with the tray. Lock tray in place by securing the two tray release/lock latches on the front of the tray. (See Figure 3)

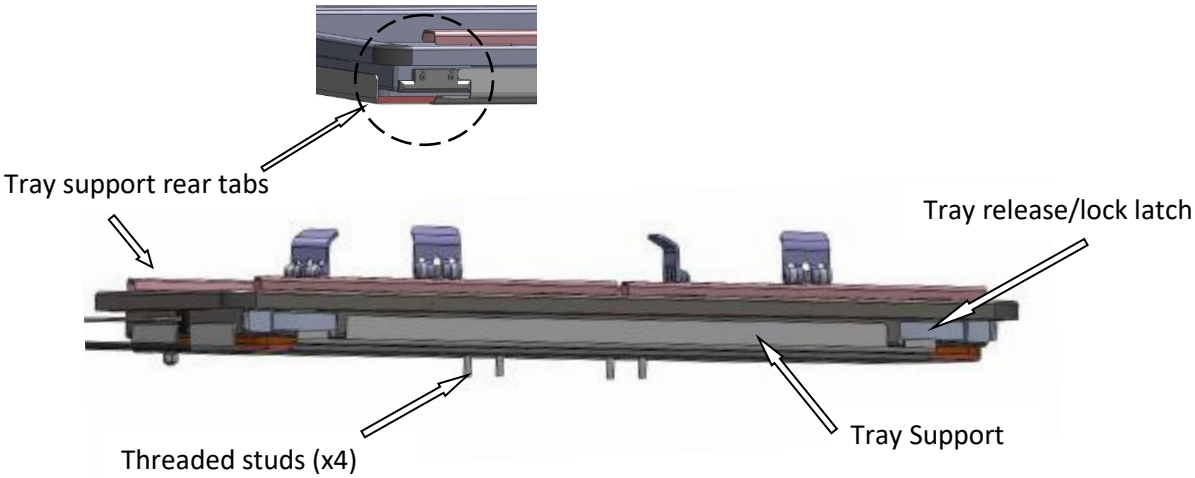


Figure 3 – Assembled Cell Culture Tray

4. Place the appropriate cell culture bag onto the tray, and then lock the cell culture bag Support Rods located at each end of the bag to the tray clamps. If purchased, place the Chemglass Vent Filter heater on the cell culture bag vent filter if required, and plug it into the controller (See Figure 4).

Figure 4 – Cell Culture Bag /Vent Heater

5. Use the Angle and Speed Rocker Switches to set your desired rotation angle and rotation speed. Press the Angle switch up to increase angle up to a max of 12 degrees forward and back. Press

the Angle switch down to decrease angle to a minimum of 2 degrees forward and back. Press the Speed switch up to increase speed up to a max speed of 40 rocks per minute. Press the Speed switch down to decrease speed to a min speed of 2 rocks per minute. The Display will indicate the Angle and Speed settings.

6. The unit is now ready to run according to the established settings. When ready, rotate the Position Switch to RUN.
7. At any time during the run cycle, you may rotate the Position Switch to HARVEST which will then rotate the tray forward 12 degrees allowing you take a sample from the culture bag. Once complete, you can rotate the Position Switch to RUN again or to LOAD if your run is complete.
8. Once the run is complete, the Position Switch should be in the LOAD position to remove the culture bag.
9. At any time during tray motion, you can rotate the Position Switch to "LOAD" to return the tray to the horizontal position and stop motion. Keep in mind that the most recent speed and angle settings are always stored in memory so when you press the Position Switch to "RUN", motion will resume at your last input settings.
10. Whenever the main power switch is turned off or if there is a loss of power, motion will stop immediately and then the tray will either tilt forward or backward depending on where it was in the cycle when the power went out. Once power is restored, the tray will resume motion according to these previously used settings.

WARNING: The rotating tray is a potential pinch point! Keep your fingers and hands safe! In order to avoid serious bodily injury or damage to the unit, make sure you don't place fingers, hands or any foreign objects near the underside of the tray once cycling begins.

Helpful Hints:

- Make sure the cell culture bag is not filled more than 75% of its total volume. For example, a 20 Liter bag should not be filled beyond 15 liters. A larger fill volume will dampen the desirable motion of the bag contents reducing mixing efficiency.
- Typically 25 to 30 rocks/minute is sufficient to keep the culture medium in suspension and will satisfy most mixing requirements. Using a higher rock rate of 30 to 40 rocks per minute is preferable if dissolution is required.
- The optimum rock angle is typically 10 degrees.
- The characteristics of the materials to be mixed will require some optimization of operating conditions. The rock rate should be set at the minimum rate that provides mixing without excessive foaming. In general, any rocking rate higher than 15 rocks per minute will be sufficient for particle suspension and bulk mixing. It is critical that the rocking speed be sufficient to generate a visible surface wave.

Troubleshooting and Service

In the event that a problem develops with your CGLS product, **DO NOT** attempt to perform any service on the unit without first contacting the CGLS Customer Service Department at 1-800-843-1794. **Unauthorized servicing may void the warranty.** CGLS will supply information on minor repairs upon request. In any correspondence to CGLS concerning this unit, please include the catalog number (CLS-1200-100) and the serial number, which may be found on the rear of the unit.

<u>WARNING:</u> POTENTIAL SHOCK HAZARD EXISTS WHEN TOP COVER IS REMOVED.
DISCONNECT POWER CORD BEFORE SERVICING.

Common Troubleshooting Tips

1. *Unit does not turn on:*
    a. *Ensure power cord is fully inserted in unit's input power inlet.*
    b. *Check condition of Main Fuse. 4 amp (5x20mm)*
    c. *Verify power at outlet.*
2. *Unit turns on but there's no motion: - Check for any obstructions under platform*
3. *Bag moves around in tray: - Ensure bag latches are properly secured*
4. *Contact CGLS for additional troubleshooting assistance.*

Preventive Maintenance Suggestions

1. *Periodically check tightness of nuts used to attach support tray to CHEMcell platform.*
2. *Cleaning - keep the instrument dry and clean. The unit must powered off and unplugged before cleaning. Do not use abrasive cleaning agents. The exterior should be wiped with a damp cloth with water and 70% alcohol if needed. Ensure unit is completely dry before plugging in and turning on.*

CGLS WARRANTY AND LIMITATION OF LIABILITY

Chemglass, Chemglass Life Sciences, Warranty and Limitation of Liability

Warranty:

Chemglass, Inc. guarantees this unit against defects in material and workmanship for a period of two years from the date of purchase. If the unit should malfunction, it must be returned for evaluation. If the unit is determined to have a defect in materials or workmanship, then it will be repaired or replaced at no charge. Tampering with the unit or damage resulting from excessive current, heat, moisture, vibration, corrosive materials, or misuse will void this warranty. Programming changes or reconfigurations are not covered under warranty. CGLS shall not be responsible to the original purchaser or any other party or parties for bodily or property loss, damages, or injuries of any kind or nature through either direct or indirect use of the product.

Return Authorization:

CGLS must authorize any return of product. Please contact a customer service representative via the correspondence listed below to obtain a Return Merchandise Authorization (RMA) number. The purchaser is responsible for all packing and shipping to CGLS. If the equipment or material came in contact or was proximate to any biological organism, toxic or corrosive material, or any agent reasonably deemed to be potentially harmful, it must be cleaned and decontaminated prior to receipt by CGLS. The purchaser is obligated to disclose fully in writing, the cleaning and decontamination method. We reserve the right not to accept any unauthorized or potentially harmful shipment.

Correspondence:

Chemglass Life Sciences
3800 North Mill Rd.
Vineland, NJ 08360
USA

Phone: 800-843-1794
Email: customer-service@cglifesciences.com
Web: www.cglifesciences.com