



CYGNUS CF VI

BLOOD CENTRIFUGE



OPERATORS MANUAL

Revised December 2011



Introduction

Equipment Ratings, Speed & Items Included

Installing Centrifuge

Before Starting Centrifuge

Safety Precautions

Operation

- **Opening**
- **Balancing**
- **Loading**
- **Starting**

Verifying Speed

Cleaning Centrifuge, Rotor & Carrier

Maintenance & Inspection

Contact Information for Questions, Assistance & Centrifuge Replacement

**Before starting this centrifuge for the first time,
please read this short manual.**



Introduction

This is a bench top personal centrifuge with a space saving design and intuitive controls.

The unit has provision for six tubes in the rotor, cycle timer, automatic lid lock and release.

It automatically shuts off after the 20 minute cycle is complete, and the lid automatically opens after the centrifuge has come to a complete stop.

Equipment Ratings, Speed & Items Included

- This centrifuge is for indoor use only
- Maximum altitude of operation: 9,000 feet
- Maximum relative humidity of 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C
- Transient over voltages on the main power supply. The normal level of transient over voltage is Category II.
- Rotating speed: 3450±100 RPM

Items included

- Operators Manual
- Centrifuge
- Power Cord
- Safety Shields (polycarbonate carrier)
- Each centrifuge comes with six empty polycarbonate carriers.

Installing Centrifuge

- Place the centrifuge on a level, horizontal surface.
- Make sure that the ventilation slots on the bottom are not blocked in accordance with safety regulations of IEC 1010-2-020 (equivalent to EN 61010-2-020).
- A safety distance of 12 inches is needed around the centrifuge during operation.
- No objects which could cause additional damage, or could themselves be damaged in the event of a centrifuge crash should be positioned in this space.
- Before plugging in the centrifuge compare your main supply with the electrical requirements listed on the identification plate on the lower portion of the unit.



Before Starting Centrifuge

- The main switch is located on the lower right side of the centrifuge.
- Before starting up the centrifuge for the first time, make sure that the rotor locking knob is securely fastened.

Safety Precautions

Always

- The rotor and lid must **always** be securely fastened.
- **If the centrifuge makes unusual noises** when started, or exhibits excessive vibration, switch the unit off **immediately** by turning the power switch OFF.
- The centrifuge **must be loaded symmetrically**.
- Do not use centrifuge with wet hands.
- Take all precautions when using the centrifuge for toxic, radioactive, or material with pathogenic micro-organisms, with respect to your safety and the safety of others.
- **Do not place any sample containers or test tubes directly into the rotor.**

The Centrifuge Itself

- Do not use a centrifuge that was not correctly installed or repaired.
- This centrifuge may be used only for the specified application. It must not be operated in a hazardous or flammable environment and must not be used to centrifuge flammable, explosive, or highly reactive substances.
- When moving a centrifuge from a cold room to one of normal temperature, run the centrifuge for 30 minutes in the cold room so that it does not get covered in condensation. Alternatively allow it to warm up for at least three hours, unplugged, in order to prevent condensation.
- The rotor and polycarbonate carrier are high-grade components which are subject to extreme mechanical stress. Slight scratches, tears, dents, or other damage can lead to failure of the centrifuge.
- All material associated with the centrifuge should be protected from excessive ultra-violet radiation.

Reminders

- If any function of the centrifuge does not operate correctly do not use the centrifuge.
- Do not use a damaged centrifuge.
- Do not move the centrifuge during the run.
- After prolonged use, or if the motor was stalled, the bottom of the centrifuge may become very hot. Handle the centrifuge by the sides only.



Operation

Opening

- To open the lid on the centrifuge, plug unit into outlet, switch power to “ON” position and press “STOP/OPEN” button.
- Self-locking lid will automatically open when spin cycle comes to a complete stop.

Balancing

- Centrifuge has an out-of-balance switch.
- When operating the centrifuge with an improperly balanced load the resulting vibration will cause this switch to apply the brake and stop the cycle.
- When this happens, remove all the tubes then replace the tubes to properly balance the load.

Loading

- Load an evacuated blood collection tube into empty polycarbonate carrier (plastic carrier) provided with centrifuge.
- Load polycarbonate carriers with blood collection tubes into rotor.
- Load must be balanced at all times by placing carriers in the rotor in a balanced configuration. There must be at least two (2) carriers, placed opposite each other. Three (3) or four (4) carriers must be evenly spaced. Five (5) carriers cannot be balanced. Each carrier must contain equal weight.
- Improper balancing usually causes excessive vibration and will shut down the cycle. In this case, unit must be turned off immediately. Wait until it comes to a complete stop and correct imbalance.

Starting

- Close lid and press the START button to initiate spin cycle.
- One cycle is programmed to run for 20 minutes.
- At completion, unit will come to a complete stop and lid will automatically open.
- Pressing STOP/OPEN while the program is running will interrupt the cycle, brake the rotor to a complete stop, and open the lid.



Verifying Speed

- To verify centrifuge is running at the correct speed, place a white dot on the cap of a carrier, insert the carrier in the centrifuge and turn it on.
- Point an optical tachometer at the spinning cap and check the reading against the rotating speed of 3450 ± 100 RPM.

Cleaning Centrifuge, Rotor & Carrier

- The user is responsible for maintaining the cleanliness of the centrifuge.
- Unplug unit before cleaning or moving.
- Any spills must be immediately cleaned up.
- If any liquids or debris are spilled on and/or in the rotor the entire centrifuge must be replaced. Call Ascend Clinical Client Services for a replacement centrifuge: 800.800.5655, Option 1.

Cleaning Centrifuge

- Clean the centrifuge weekly using a mild detergent. Spills should be wiped up immediately.
- Clean both the exterior and the interior.
- Interior cleaning includes the interior bucket, specimen holder and rubber cushion.
- Disinfect using a 10% bleach solution (one part bleach to nine parts water).
- Exterior of the centrifuge should be disinfected weekly.
- Interior should be disinfected monthly.
- Prepare a fresh 10% bleach solution each time. Once mixed with water, bleach loses effectiveness after 24 hours. The solution should not be stored for future use.

Cleaning Rotor

- Since all samples are placed into the polycarbonate carrier there is no need to clean the rotor.
- If cleaning the rotor is required please call Ascend Clinical Client Services at 800.800.5655, Option 1 and we will provide a new centrifuge.

Cleaning Carrier

- Polycarbonate carrier must be cleaned as needed.
- The carrier should be disinfected by autoclave or by soaking in a bleach containing solution as needed.



Maintenance & Inspection

- Routinely inspect with the unit unplugged
- The lid, top of the rotor, and the outside of housing should be routinely inspected for any sign of damage. Rotor and the centrifuge lid showing signs of mechanical damage should not be used.
- The polycarbonate carrier must be inspected before each use.
- Inspect power cord for cracked insulation, broken pins, any damage.
- Notes:
 - Since carriers are used there are no bioshields or biosafety components.
 - The carrier may be autoclaved.
 - There are no user serviceable parts in the centrifuge. This centrifuge uses a non-replaceable rotor. Repairs must be done by an authorized service agency.

Contact Information for Questions, Assistance & Centrifuge Replacement

- Ascend Clinical Client Services is available to assist you with all issues regarding centrifuges.
- Please do not hesitate to call us at **800.800.5655, Option 1** with any questions