



Coastal Plains Agri-Systems, LLC

## INSTRUCTIONS MANUAL

### CAS3



**BEFORE USE, PLEASE READ AND FOLLOW ALL SAFETY RULES AND OPERATING INSTRUCTONS.**

Coastal Plains Agri-Systems, LLC has a policy of continuous improvement on its products and reserves the right to change materials and specifications without notice.

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# WARNING

IMPROPER USE OF THE CAS3 CAN LEAD TO PROPERTY DAMAGE,  
PERSONAL INJURY OR DEATH

## Instructions for Operation

Carefully read and follow label directions and operating instructions of the CAS-3 stunning device before each use.

### Directions for Use:

1. Before using the CAS-3, check the following:
  - a. All connections are tight, which includes: cylinder and regulator attachment, coil line attachments and fittings and the manual release valve. (From tank on/off to the hood.)
  - b. Inspect for any abnormal defects to the hood and seal cap and clamp.
  - c. Seal should not show abnormal tearing in the material. The seals are designed to allow for some atmospheric air leakage around the neck of the bird as the hood fills with CO<sup>2</sup>.  
Use the correct seal hole size per the species, age and size of the birds being euthanized. The seal should never fit tight around the neck of the birds. The goal is to allow for slight air passage and release during CO<sup>2</sup> application process. A small 1/16"-1/8" opening around the neck of the animal will be sufficient for proper air passage. CO<sup>2</sup> leakage will be minimal during the process.
  - d. Check that the CO<sup>2</sup> tank has sufficient pressure by turning the on/ off tank valve to on position. If operating properly the tank pressure gauge will display the tank pressure.
2. The CAS-3 Holster Model (CAS-3h):
  - a. Using the holster model, place the CAS-3 belt through the holster and around the operator's waist. Adjust the belt cinch and leg strap accordingly for operator comfort.-

- b. Take note that the CO<sup>2</sup> tank is properly secured inside the holster. Be sure the top of the tank is properly secured with loop strap provided.
  - c. With the hood pulled to the opposite side of the operator and opposite the tank and attachments, the hood can be secured on the provided carabiner snap hook on the belt for easy carry while not being used.
3. The CAS-3 Backpack Model (CAS-3b):
- a. Using the backpack model, place the backpack equipped with the 5-pound aluminum cylinder and attachments over the back and shoulders of the operator. Adjust the shoulder straps for tightness and comfort. Adjust the girth strap around the mid-section of the operator for proper tightness and comfort. This might require an additional person to assist with the proper strap adjustments.
  - b. Ensure that the tank is properly positioned and the strap tightened to avoid tank slippage.
  - c. With the hood pulled to the opposite side of the operator, opposite the tank and attachments, the hood can be secured on the provided carabiner snap hook on the belt for easy carry while not being used.
4. Pressure Setting:
- a. Full CO<sup>2</sup> tank pressure will be 750-850 psi, depending on the external or room temperature. Tank pressures below 50-75 psi will not allow device to operate efficiently. Tank pressure should be checked before beginning the euthanasia process by turning the tank on/off valve to on position and reading the tank pressure gauge.
  - b. For proper gas application during the euthanasia process, the pressure must hold at 35-40 psi during the manual release of CO<sup>2</sup> gas. With properly pressurized tanks, the outlet pressure will hold in the 35-40 psi range with a target setting of 40 psi. As the tank pressure begins to fall to 50-75 psi, the targeted 35-40 psi will become difficult to obtain and the empty tank will need to be replaced with a full tank.
  - c. Check the tank pressure first, then followed by setting the gas output pressure before beginning use.
  - d. With heavy use and higher outlet pressure, CO<sup>2</sup> regulators can freeze internally and externally, resulting in regulator failure and frostbite to the user. Never exceed an outlet pressure of 45 psi as frosting could result.
5. Stunning and Euthanasia Process:
- a. Place the hood over the head of the cull animal and press and hold the gas release valve on the hood for about 20 seconds to allow for approximately 35% CO<sup>2</sup> gas fill as the first step.

- b. Release the valve for 10 seconds. Then follow up with another 20 seconds of CO<sup>2</sup> gas flow, which will allow for an elevated CO<sup>2</sup> level of 75%.
- c. During the process, operator will notice sudden reflexes of the animal and tightening of the muscle which indicates shock. At this point, the operator should continuously administer CO<sup>2</sup> gas until the bird is completely still and appears to be lifeless and has stopped breathing.

**The CAS-3 Stunning Device operates by replacing atmospheric oxygen with Carbon Dioxide. Carbon Dioxide is an odorless and tasteless gas that can cause physical harm if used improperly. Carefully read and follow all safety guidelines and warnings of this product below.**

- d. Once the bird appears lifeless, remove the hood and perform the eye-touch test of the bird. If there is no reaction from the eye-touch, the bird will be considered as lifeless. Continue to monitor the bird for a few more seconds for reassurance of death.
  - e. In most cases, the time to death is 1 to 2 minutes, depending on the condition and age of the bird and the experience of the operator.
7. Cleaning and disinfection of your CAS-3:
- a. First, remove the seal by releasing the key drive clamp and removing the seal. Remove all organic material by hand washing before sanitizing.
  - b. Most of the parts of the CAS-3 may be power washed, or submerged in solutions except the pressure gauges and regulator.
  - c. Pressure regulators and gauges will need to be blown off with pressurized air and wiped clean by hand. Never submerge in a liquid solution.
  - d. Cleanup: First, normal ag detergents should be used for removal of organic material. Mild disinfectants such as quaternary ammonia products, iodine, and proper levels chlorine solution should be considered.
8. CO<sup>2</sup> first aid (CDC recommended first aid for CO<sup>2</sup> inhalation)
- a. If a person breathes large amounts of CO<sup>2</sup>, move the exposed person to fresh air at once.
  - b. When breathing is difficult, properly trained personnel may assist the affected person by administering 100% oxygen.
  - c. If a person inhales large amounts of CO<sup>2</sup> and breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Call 911 for medical assistance immediately.

### Safety Precautions:

- Read and follow all label directions and operating instructions prior to the use of the CAS-3 euthanasia device.
- Do not operate the CAS-3 device in a non-ventilated structure. (OSHA 1910.146 (B)).
- The CO<sub>2</sub> tank must be in off position when not in use.
- Prior to each use, audible and visual testing on all CO<sub>2</sub> tank fittings and hose fittings must be performed. This is a simple and quick test that can be achieved by pressurizing the system from the CO<sub>2</sub> tank on/off valve to the manual gas release valve on the hood.
  - a. Pressurize the system from the CO<sub>2</sub> tank's on/off valve to the manual gas release valve. Shut the tank valve off. Let stand for 1-2 minutes and observe the outlet pressure gauge. If the outlet pressure gauge pressure begins to drop, this indicates pressure loss.
  - b. The second step, mainly to conduct another type visual test would be to spray all fittings with a soap/water solution.
- After each cylinder exchange from empty to full, reset outlet pressure, as higher gas outlet pressure than 40 psi will result with a fully charged tank.
- Never place the CAS-3 hood over human orifices such as the nose or mouth.
- CO<sub>2</sub> can cause respiratory distress if misused. (See first aid in Section 8, Operating Instructions.)
- During heavy use and higher outlet pressure of 45 psi and above, operators should be aware of potential freezing of the regulators and CO<sub>2</sub> tanks. If frosting occurs, frostbite to the operator could result if touched. If frosting occurs, temporarily discontinue use of the CAS-3 until frosting has disappeared. Re-check the outlet pressure. Adjust outlet pressure if necessary to 40 psi or lower.
- Never store or transport CO<sub>2</sub> tanks inside vehicles or store in non-ventilated structures.
- CO<sub>2</sub> tanks must be properly secured to vehicle bed frames before attempting to transport.
- CO<sub>2</sub> tanks should be stored at temperatures below 125 degrees F / 51.7C.
- CO<sub>2</sub> first aid (CDC Recommended First Aid for CO<sub>2</sub> Inhalation)
  - a. If a person breathes large amounts of this chemical, moved the exposed person to fresh air at once. Other measures are usually unnecessary.
  - b. If breathing becomes difficult, move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist the affected person by administering 100 % oxygen. Keep the affected person warm and at rest.
  - c. If breathing has stopped, perform artificial respiration immediately. Keep the affected person warm and at rest. Get medical attention immediately by calling 911 for medical assistance.