

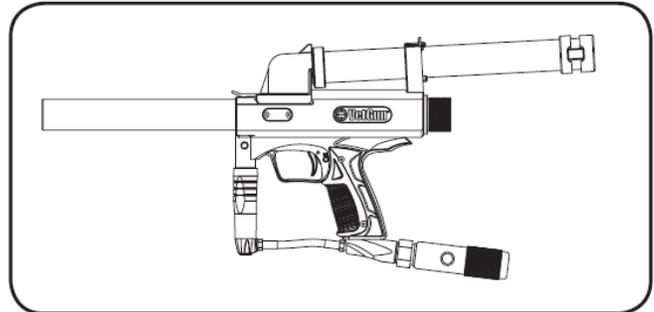
**F A C T S H E E T**

<b>Title:</b>	CO2 Gas Options & Safety	<b>Update:</b>	Nov 5, 2015
<b>FactSheet #:</b>	VG-0007	<b>Version:</b>	2.0

**'CO2 Gas Options & Safety'**

**Brief Overview:**

The VetGun Delivery System uses a precision-engineered CO<sub>2</sub>-powered VetGun to project a precise-dosage VetCap, an insecticide in a softgel capsule. The VetGun Insecticide Delivery System relies on a pressure regulated pneumatic design to launch Insecticide VetCaps in semi-automatic fashion.



**Pictures:**



25g Disposable CO2 Canisters  
with 25g Adaptor  
(Converter & Chamber)



90g Disposable CO2 Canisters  
with 90g Adaptor



14oz Refillable Cylinder  
(no adaptor required)

## Key Points:

- ⌚ **Projection Power:** VetGun is powered by **compressed carbon dioxide gas (CO<sub>2</sub>)**.
- ⌚ **Automatic:** The valve system is self-cocking and very simple to maintain.
- ⌚ **CO<sub>2</sub> size options and shot capacities:**

### A. 25g Disposable Cartridges (unthreaded)

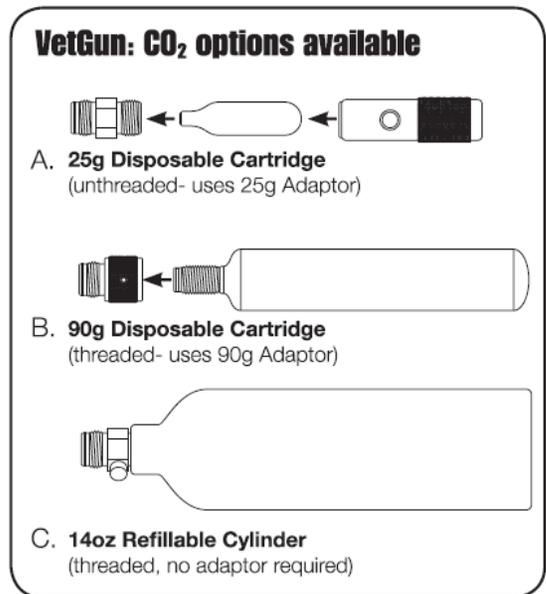
- requires 25g Adaptor supplied with VetGun\*
- approx 25+ shots

### B. 90g Disposable Canister (threaded)

- requires 90g Adaptor supplied with VetGun\*
- approx 80+ shots

### C. 14oz Refillable Cylinders (threaded)

- no adaptor required
- approx 380+ shots



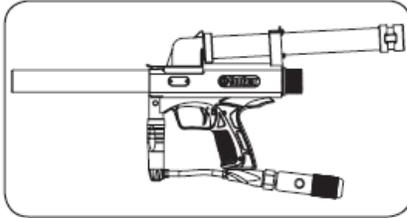
- **NOTE:**

- Shot capacities are indicative and may vary depending on conditions and handling.
- **\*2013 VetGun models** came with a **90g adaptor and 1x90g CO<sub>2</sub> cartridge**.  
*-if you purchased one of these models, a 25g Adaptor can be requested free of charge by contacting AgriLabs, details below. Please provide VetGun serial number.*
- **\*2014 VetGun** model comes with a **25g Adaptor only (no gas cartridges)** comprising of an ASA (Air System Adaptor) Converter and Chamber suitable for 25g disposable CO<sub>2</sub> cartridges  
*-if you purchased one of these models, a 25g Adaptor can be requested free of charge by contacting AgriLabs, details below. Please provide VetGun serial number.*
- **\*2015 VetGun** models onward come with **both a 25g and a 90g adaptor**, no gas cartridges.
- No Adaptor is required if you choose to use a 14oz refillable cylinder.

- ⌚ The CO<sub>2</sub> and cartridges or cylinders are similar to the type used in the sport of paintball.
- ⌚ **Disposable** CO<sub>2</sub> cartridges are designed for single-use operation and cannot be re-used once they're empty.
- ⌚ **Refillable** CO<sub>2</sub> cylinders are available a variety of sizes, with greater capacity than the disposable cartridges.
- ⌚ **Storage/re-use:** Additionally, integrated valves (90g & 14oz only) allow full or partially full cylinders to be removed from the VetGun for storage and re-attached later to make use of the remaining CO<sub>2</sub>. This does not apply to the 25g adaptor as 25g disposable canisters cannot be kept indefinitely once used, and will leak out with time; whether still attached to VetGun; or within its Adaptor Chamber; or once disconnected from either.
- ⌚ **Purchasing:** Disposable cartridges and adaptors can be purchased from your local VetGun dealer.
- ⌚ **Refilling:** Refillable cylinders may be refilled at your local sporting goods store; paintball supplier or welding/gas supplier
- ⌚ **Loading; Unloading; Degassing; Safety & Storage; Trouble-shooting:**  
Please refer extracts from Operation Manual below

## VetGun Operation Manual- selected extracts:

### OVERVIEW



The VetGun Insecticide Delivery System relies on a pressure regulated pneumatic design to launch Insecticide VetCaps in semi-automatic fashion. This valve system is self-cocking and very simple to maintain.

#### CO<sub>2</sub>:

The VetGun is powered by compressed carbon dioxide gas. CO<sub>2</sub> is available in small disposable cartridges or larger refillable cylinders of the type used in the sport of paintball.

**Disposable** CO<sub>2</sub> cartridges are designed for single-use operation and cannot be re-used once they have been emptied.

This VetGun comes with:

**A) 25g Adaptor** (2 pieces) suitable for 25g disposable CO<sub>2</sub> cartridges (25+ shots/cartridge), and

**B) 90g Adaptor** (1 piece) suitable for 90g disposable CO<sub>2</sub> cartridges (80+ shots/cartridge).

Note: cartridges sold separately.

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**Refillable** CO<sub>2</sub> cylinders are available in a variety of sizes, with a greater storage capacity than the disposable cartridges. Additionally, integrated valves allow full or partially full cylinders to be removed from the VetGun for storage and re-attached later to make use of the remaining CO<sub>2</sub>.

**C) 14oz refillable** CO<sub>2</sub> cylinders are also available for optional purchase, better suited for larger herd sizes (390+ shots/cylinder). The Cylinder is sold empty and requires filling\*. No adaptor is required, it screws directly onto the VetGun.

#### VetGun: CO<sub>2</sub> options available



A. **25g Disposable Cartridge**  
(unthreaded- uses 25g Adaptor)



B. **90g Disposable Cartridge**  
(threaded- uses 90g Adaptor)



C. **14oz Refillable Cylinder**  
(threaded, no adaptor required)

\*Due to transportation regulations, refillable CO<sub>2</sub> cylinders are always shipped empty and must be filled before use. Cylinders may be filled at many stores where paintball supplies are sold or by using a CO<sub>2</sub> fill station and bulk CO<sub>2</sub> cylinders from a welding gas supplier.

#### ! IMPORTANT:

The VetGun's pneumatic trigger does not function when the VetGun is not charged with gas. Pulling the trigger of a de-gassed VetGun too hard in an attempt get a feel for the trigger pull may result in damage to the pneumatic trigger.

#### VETCAPS:

The VetGun Insecticide Delivery System is designed to launch only AgriLabs' AIM compatible VetCap products. Before operating this VetGun, ensure you have read and familiarised yourself with the AIM VetCaps Label and Instructions in addition to the reading of this Operation Manual.

#### ! WARNING:

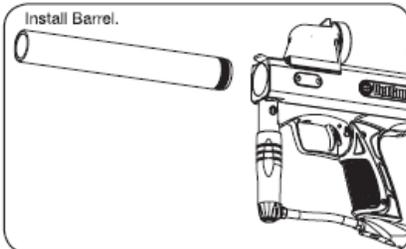
Launching any other projectiles not specifically approved by SmartVet may result in damage to the VetGun or injury to cattle or the operator.

### PREPARING VETGUN



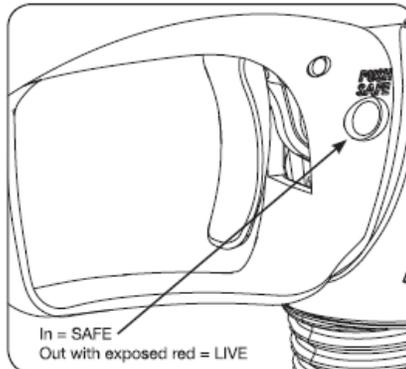
- Do not load the VetGun until in the field and preparing for use. The VetGun should always be de-gassed and unloaded for storage or transport.
- Always wear protective safety glasses and gloves when preparing; loading; using; unloading; degassing; cleaning or lubricating your VetGun.

Install Barrel.



Carefully thread the Barrel into the VetGun and turn it until it is snug. Do not over-tighten the barrel. The barrel o-ring will provide friction to keep the barrel from unscrewing.

Make sure the Safety Catch is engaged (fully pressed into the grip frame).



#### Installing CO<sub>2</sub> (sold separately):

Installation of CO<sub>2</sub> to your VetGun depends on what size and format of CO<sub>2</sub> you plan to use.

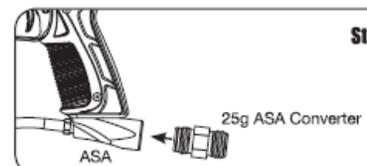
#### A. Using 25g disposable (unthreaded) prefilled cartridge (with 25g Adaptor Unit):

The 25g Adaptor Unit supplied with this VetGun has 2 parts -the ASA Converter; and the Chamber. Firmly thread the ASA Converter into the VetGun ASA located beneath handle until tight. Only tighten by hand. Slide 1x25g unthreaded cartridge into Chamber.

Thread Chamber containing 25g cartridge into the ASA Converter and turn it tight, until the

#### Using 25g Disposable Cartridge

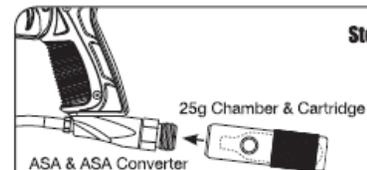
Step 1:



Step 2:



Step 3:



CO<sub>2</sub> can be heard rushing into the VetGun. Note: as the ASA Converter pierces the 25g cartridge, turning too slowly or not tightening sufficiently may cause excessive CO<sub>2</sub> to escape unnecessarily. Only tighten by hand. When unloading gas, please refer to UNLOADING/DEGASSING instructions on Page 8. To reload a new cartridge, repeat steps 2 & 3.

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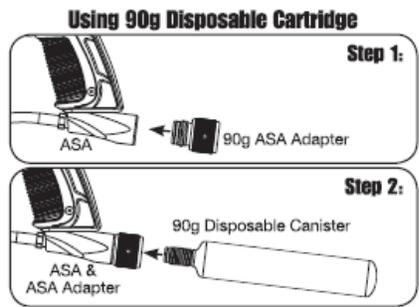
**B. Using 90g disposable (threaded) prefilled cartridges (with 90g Adaptor):**

If choosing to use this CO<sub>2</sub> format; select the 90g ASA Adaptor supplied in VetGun box.

Thread the 90g ASA Adaptor into the VetGun ASA located beneath handle until tight. Thread 90g (threaded) cartridge into the ASA Adaptor and turn it tight, until the CO<sub>2</sub> can be heard rushing into the VetGun. Note: as the ASA Adaptor Converter pierces the 90g cartridge, turning too slowly or not tightening sufficiently may cause excessive CO<sub>2</sub> to escape unnecessarily. Only tighten by hand.

When unloading gas, please refer to UNLOADING/DEGASSING instructions on Page 8.

To reload a brand new canister, repeat Step 2. To reload a partially used canister, refer to UNLOADING/DEGASSING instructions on Page 8.



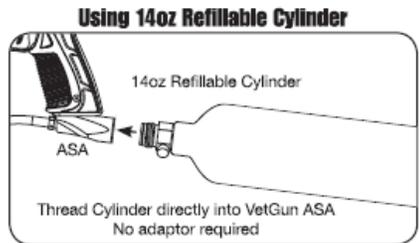
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**C. Using 14oz Refillable Cylinder (no adaptor required. CO<sub>2</sub> cylinder sold empty and must be filled before use):**

If selecting to use this CO<sub>2</sub> format; you will need to purchase this VetGun Cylinder. You will not need to purchase an ASA Adaptor as the VetGun Cylinder fits directly into the VetGun ASA located beneath handle. Thread the Cylinder into the ASA Adaptor and turn it tight, until the CO<sub>2</sub> can be heard rushing into the VetGun.

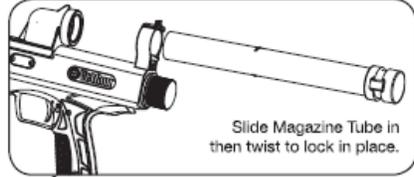
Note: turning too slowly or not tightening sufficiently may cause excessive CO<sub>2</sub> to escape unnecessarily. Only tighten by hand. When detaching gas, please refer to UNLOADING & DEGASSING instructions on Page 8.

Once detached, Cylinder will not discharge gas, and can be re-used and/or refilled.



**CAUTION:**  
The VetGun should not be considered "safe" when it is charged with gas but is not loaded with VetCaps. Bursts of CO<sub>2</sub> from the VetGun can propel dust and debris causing eye injury. Never look directly into barrel, even after gas canisters have been detached. Some gas may remain in VetGun if not dry-fired sufficiently, and cause eye or other injury.

If the Magazine Tube is not in place, it must be installed in the VetGun. Slide the Magazine Tube through the rear Tube Guide and into the Breech Cover. Lock the Magazine Tube in place with a clockwise quarter-twist.



**CAUTION:**  
**DO NOT LOAD VETCAPS YET.**  
Do not unseal your VetCaps or load them at this point. Refer to 'Using the VetGun' section first as dry-firing will be required before loading VetCaps. Premature unsealing of VetCaps may further affect performance of VetCaps.

**UNLOADING & DE-GASSING**

Always unload and de-gas the VetGun before transport or storage. While still wearing eye protection and gloves, unload any unused VetCaps from the VetGun by tilting it upward so that a VetCap in the Chamber will roll back out of the Magazine Tube. Store VetCaps in their original container, making sure it is sealed.

**A. USING 25G DISPOSABLE CARTRIDGE**

Once disengaged, a 25g cartridge will lose all remaining gas and not be reusable, even if disengaged with 25g Adaptor. Unthread 25g chamber & cartridge from ASA converter and dry-fire to release any excess gas or pressure. Discard cartridge safely.

**B. USING 90G DISPOSABLE CANISTER**

A back-check valve built into the 90g cartridge adaptor allows the CO<sub>2</sub> in a partially used 90g cartridge to be saved for later use. To remove a partially-used cartridge for later re-use, unthread adaptor from the VetGun with help of pliers - see sketch under Troubleshooting Section.

To remove an empty cartridge, simply unthread cartridge from ASA Adaptor.

**CAUTION:** Do not remove a full or partially full disposable CO<sub>2</sub> cartridge from its adaptor, as expanding gas may cause it to launch violently, resulting in injury. Only unscrew the adaptor from the VetGun. Only unscrew the cartridge from the adaptor when it is completely empty.

**C. USING REFILLABLE 14OZ CYLINDER**

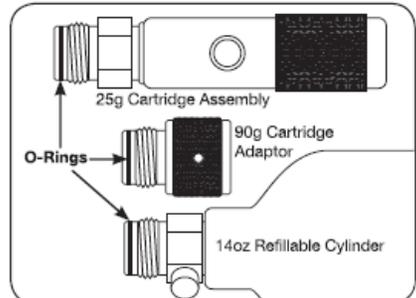
Unscrew cylinder from the VetGun while dry-firing to release pressure.

**IMPORTANT:** Be sure that the CO<sub>2</sub> cylinder's valve is unscrewing from the ASA, and that the cylinder is not unscrewing from its valve.

**IMPORTANT:** Even with no CO<sub>2</sub> cylinder attached, the VetGun may still contain enough pressurized CO<sub>2</sub> to fire 2 or more times. **Always dry-fire until the VetGun is completely de-pressurized.**

**CHECKING ADAPTOR O-RINGS**

Occasionally the o-ring on the adaptor can perish; break or split. Check the o-ring upon disengaging adaptor from the VetGun, and replace in need with correctly sized spare o-ring as supplied in VetGun box.



**STORAGE**

The Barrel may be unscrewed from the VetGun by turning it counter-clockwise, and the Magazine Tube may be twisted a quarter-turn counter-clockwise and removed.

The VetCap shells are made of soft gelatin and are affected by extreme temperature and humidity. Always follow these steps to preserve the VetCaps in optimum condition:

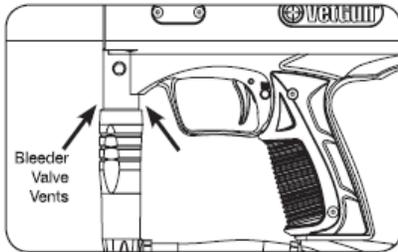
- Store in a cool, dry location in the original container with the lid sealed.
- Do not allow the capsules to become exposed to freezing temperatures or expose them to direct sunlight.
- After application, quickly return any unused VetCaps to their original container and reseal.
- Only load the VetGun when ready to dose.

**CAUTION:** The pressure level of compressed CO<sub>2</sub> rises with temperature. Always store CO<sub>2</sub> cartridges or cylinders in a cool location, away from heat sources or direct sunlight. Refillable CO<sub>2</sub> cylinders are equipped with a safety valve that may rupture at temperatures above 130°F (54°C), emptying the cylinder rapidly. If this occurs, stay clear of the cylinder while it vents, as the jets of released CO<sub>2</sub> are cold enough to cause injury, and the CO<sub>2</sub> may displace oxygen in an enclosed space. A ruptured safety disk must be replaced by the same pressure rating and type installed to the manufacturer's specified torque before the cylinder may be re-used.

## TROUBLESHOOTING

### 1. CO<sub>2</sub> is occasionally released from around the top of the VetGun's foregrip.

This is normal operation of the Bleeder Valve built into the VetGun's Regulator. **This is NOT a leak** - it is the Bleeder Valve protecting the VetGun's internal components from a pressure spike typically caused by a rise in temperature or operating while pointed towards the ground. Always hold VetGun level, tilting barrel towards ground causes excessive gas pressure.



### 2. Gas leaks from CO<sub>2</sub> Adaptor connection to VetGun ASA.

Ensure Adaptor is not loose, tighten by hand. Occasionally the o-ring on the adaptor can perish; break or split. Check the o-ring upon disengaging adaptor from the VetGun, and replace in need with correctly sized spare o-ring as supplied in VetGun box.

### 3. VetGun fails to discharge or shots do not go far:

- In weather below 70°F (21°C) the VetGun may experience pressure drops, especially after firing multiple shots in rapid sequence. If this occurs, wait a moment for the CO<sub>2</sub> cartridge to warm back up, then resume operation. Do not wrap the CO<sub>2</sub> cartridge in cloth or other material to "keep it warm" as this will have the opposite effect, preventing it from absorbing heat from the air.

- Make sure the Barrel, Breech and internal components of the VetGun have been thoroughly cleaned and properly lubricated and any damaged o-rings have been replaced.

- Use only VetCaps which have been properly stored and remain round and firm to the touch.

- If using a refillable CO<sub>2</sub> cylinder, be sure the cylinder has recently been filled.

- If using a disposable CO<sub>2</sub> cartridge, be sure a new cartridge is in use and that it has been inserted all the way into its adapter, piercing the seal at the end of the cartridge.

### 4. VetCaps arc in flight, rather than flying straight to the aim point:

This is normal, due to the relatively low velocity of the VetCaps used to prevent injury to the cattle. With a little practice, the small amount of drop in the VetCap's flight path is easily compensated for while aiming.

### 5. After many VetCap applications with no problems, the VetGun delivers VetCaps with less and less force and reduced range.

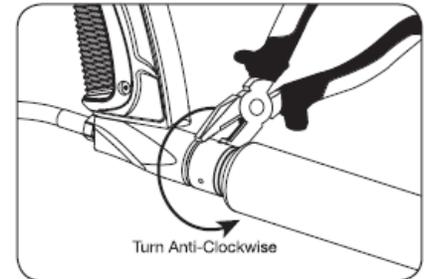
The supply of CO<sub>2</sub> is nearly exhausted. Unload and de-gas the VetGun, then re-load with a fresh disposable cartridge or refillable cylinder.

### 6. A partially used disposable CO<sub>2</sub> cartridge is empty after being stored for several days.

This is normal due to slow leakage around seals in regulator. Re-load with a fresh disposable cartridge.

### 7. CO<sub>2</sub> Adaptor is tight and cannot be unscrewed by hand.

To remove adaptor from VetGun, un-thread adaptor from the VetGun with help of pliers. Before doing so, ensure you have read and followed all instructions and cautionary statements under the Unloading/Degassing section of Operation Manual.



### 8. A VetCap has ruptured in the VetGun barrel

The VetGun kit includes a cleaning squeegee. Use it according to directions to clean out the barrel. If the squeegee is not readily available, remove all VetCaps and the Feeder Tube, then dry fire 3-4 shots to clear the barrel of any residue or pieces of the broken shell. Always point the VetGun in a safe direction, follow instructions in the VetGun Operation manual and **never look down the barrel!**

### 9. VetCaps bounce off animal or do not fragment upon impact

VetCaps may bounce off animal un-ruptured if they've become too humid and soft. Once the seal on a tube of VetCaps is broken, they become susceptible to the elements so cannot be stored indefinitely. If they've been removed from packaging and not used straight away, they can humidify quickly. Remove from packaging and load VetGun just before ready to use. If inadvertently exposed to high heat and humidity for any extended period of time over 1 hour, the capsules can normally be restored to ideal conditions by placing them (exposed) for 24 to 72 hours in cool & dry conditions where relative humidity is between 20% and 50% and temperatures do not exceed 70°F, before resealing back in tubes. Refer separate VetCaps label for full instructions.

## WARRANTY & REPAIRS

### Warranty : Limited 1 year Warranty (Original Purchase Receipt Required)

### Please complete and return separate Warranty Registration card supplied.

For one year from date of purchase, AgriLabs will repair or replace this VetGun free of charge if defective due to materials or workmanship. This warranty gives you specific legal rights. You may also have other rights which may vary from state to state.

Service is available by calling our distributors, **AgriLabs, Customer Service / Technical Support at 1-888-727-8125.**

If advised to return your VetGun, you will be given a return authorization number and shipping address. The return authorization number must be marked clearly on the outside of the shipping package to be accepted.

DO NOT return any products via non-trackable services such as regular mail or parcel post. Such products may become lost and neither SmartVet nor AgriLabs will be responsible for replacement.

### Out of Warranty, Repairs, Spares:

For spare parts and repair of out of warranty VetGuns, you should first call: **1-888-727-8125.**

**Resource & Reference Points:**

- 🕒 [www.smartvet.com](http://www.smartvet.com)
- 🕒 VetGun Operation Manual : version: SMA 0038-13-2014 VetGun Operation Manual (A)-V4

**Inquiries**

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