

**SOLIDTECH**  
ANIMAL HEALTH, INC.



## **Ballistic Delivery System**

**SolidTech Animal Health, Inc.**

**Delivery System  
OPERATOR'S MANUAL**

**Model No. BT-0199**

PLEASE READ THIS MANUAL BEFORE ASSEMBLING AND USING THE SYSTEM.

The SolidTech Delivery System is a veterinary device and should be used by a veterinarian or in conjunction with a health management program outlined by a veterinarian. Please remember, treat this device as you would any gun. Always use proper safety procedures. Never leave it where children can reach it.

The SolidTech Delivery System was designed to treat or vaccinate your animals using fewer people, less time and with less stress to the animal.

Although you will find the system easy to use, it is extremely important that you assemble and use the unit IN ACCORDANCE WITH THESE INSTRUCTIONS. Failure to do so could damage the system and create a potentially hazardous situation.

Use of this system for purposes other than its intended use is unauthorized. Failure to comply with the safety instructions in this operator's manual is done at the operator's risk.

## COMPONENTS OF THE DELIVERY SYSTEM

Please inspect the components of your SolidTech Delivery System. Should any of the listed items be missing, please contact your authorized dealer.  
(See back page)

### BASIC SYSTEM

- A. Model No. BT-0199 rifle
- B. Cleaning Kit
- C. Regulator with air hose attached
- D. Removable Wire Stock with two screws and one allen wrench
- E. Air Tank with Valve
- F. Canvas Backpack
- G. Canvas Gun Sleeve

### SPECIFICATIONS

1. The SolidTech Delivery System is a .25 caliber gun powered by compressed air.
2. The assembled system is joined to a standard air tank fitted with a CGA 326 air valve assembly or its equivalent. The tank is delivered empty and should be filled with clean, compressed air to 2015 pounds per square inch + 10% as indicated on the gauge label.
3. The regulator for the air tank is factory set and should not be changed. The hose is attached to the gun with a standard high-pressure snap coupling. The regulator and gun are identified with the same serial number. Any attempt to open the regulator will void all warranties.
4. The clip, containing ten (10) or fifteen (15) Biobullets, is designed to fit into the gun only one way - from right to left, tab-end first. After the gun has been fired and the forearm pumped, the clip will advance automatically.

## SAFETY PROCEDURES

1. Carefully read the Operator's Manual for additional safety procedures and warnings.
2. Follow the recommended guidelines for filling the air tank.
3. Always wear protective eyewear.
4. Do not leave the system where children can reach it.
5. Do not aim the delivery system at other people. This could be a lethal device. Treat this system as you would any other gun.
6. Use compressed air only.

## ASSEMBLING THE SYSTEM

CAUTION - DO NOT FIRE THE GUN UNLESS  
IT IS PRESSURIZED.

The air tank is delivered empty. The tank can be filled at any air supply or welding shop that fills compressed air bottles to 2015 psi + 10%. Follow the instructions on the label.

AIR INOCULATION SYSTEM FILL WITH CLEAN AIR ONLY MAXIMUM P.S.I. 2015 NOTE: THIS BOTTLE MUST BE STATIC TESTED 10 YRS FROM LAST DATE STAMPED ON TOP OF TANK
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WARNING - USE COMPRESSED AIR ONLY. USE OF OTHER GASES, SUCH AS OXYGEN, CAN RESULT IN INJURY TO THE OPERATOR AND VOID THE SYSTEM'S LIMITED WARRANTY.

WARNING - THIS SYSTEM IS OPERATED WITH HIGH PRESSURE AIR. FOR YOUR SAFETY, DO NOT OPEN THE AIR TANK VALVE UNTIL YOU HAVE READ ALL OPERATING INSTRUCTIONS.

## ATTACHING THE REGULATOR

Securely attach the regulator to the air tank, tightening with a suitable wrench (1-1/8" open or adjustable wrench).

## HOSE CONNECTION

Make sure the gun safety is on (orange dot is not visible). Connect the air supply to the gun. This connection is made by means of a standard high-pressure snap coupling on the hose and gun. The collar of the female coupling on the hose should be pulled back until it can be pushed onto the male coupling of the gun. Release the collar to complete the connection. When all assembly procedures have been completed, carefully turn the air on by rotating the valve counterclockwise. If the air tank has been properly filled, the gauge needle should register in the green area. Do not operate the system if the gauge needle is in the red area.

CAUTION: IF THE SYSTEM HAS AN AIR LEAK, TURN THE AIR OFF AND RECHECK ALL CONNECTIONS. LOOSE CONNECTIONS COULD COME APART DURING USE.

## THE PRESSURE GAUGE

The air pressure gauge is color-coded. Fire only when the gauge needle points within the green area. When the needle reaches the red area, there may not be enough air pressure to properly operate the system. Refill the tank before the gauge needle registers in the red. A properly filled tank will yield approximately 300 shots, depending upon frequency of use.

## SECURING THE AIR TANK

To prevent possible damage to the system, the air tank must be secured, laid flat on the ground, or strapped to a secure location.

## REMOVABLE STOCK

To attach the stock to the gun, slide the stock over the two slots on the back of the receiver. Secure the stock with the two allen head screws, using the allen wrench (screws & wrench provided).

## TRIGGER SAFETY

Locate the orange dot on the trigger safety. When the dot is visible, the safety is DIS-ENGAGED and the gun is ready to fire. To ENGAGE the safety (put the gun on Safe), push the trigger safety in so that the orange dot is no longer visible.



(Figure 1)

## OPERATING THE SYSTEM

### PRESSURIZING THE SYSTEM

After the system is properly assembled and the air supply turned on, you are ready to pressurize the air line and the gun.

This system operates on the same principle as a pump-action shotgun. Without a clip in the gun and the safety engaged, pull the forearm back to cock it, then return the forearm to its full forward position. Disengage the trigger safety and pull the trigger to pressurize the line.

### LOADING THE CLIP

With the gun again on "Safe", and with the forearm in its full forward position, push the clip in (tab end first) until it is stopped against the bolt.

With the clip in position as outlined above, pull the forearm all the way back and then return it to its full, forward position. This action will automatically index the clip and place one Biobullet into the barrel of the gun. This will only work if the trigger has not been pulled. You are now ready to begin inoculating.

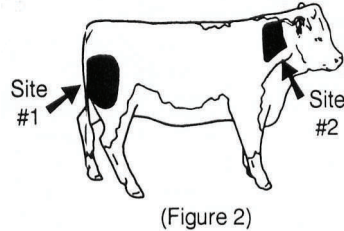
### INOCULATION PROCEDURES

If you are working in an enclosed area, it's a good idea to fire the gun 2 or 3 times, WITHOUT A CLIP, to allow your animals to become accustomed to the sound of the gun.

The effective range of the SolidTech Delivery System is 10 to 40 feet from the gun muzzle to the animal. The SolidTech Delivery System is NOT designed for chute-side operation.

Sites suitable for an IM (intra-muscular) injection are acceptable for ballistic inoculation (see Figure 2).

Make sure you are 45° behind and to the side of the animal when using Site 1 (see Figure 2) or perpendicular to the animal when using Site 2 (see Figure 2). Site 2 should only be used on animals weighing 700 lbs or more.



NOTE: Avoid parts of the animal such as the face, head, lungs, stomach and other vital organs. Vaccines, etc., delivered to areas other than muscle could be ineffective. Bullets delivered to these areas could also cause injury to the animal.

Due to the accuracy of the system and the speed of the Biobullet, you should aim at the exact location you wish to inoculate even if the animal is moving.

### **DISASSEMBLING THE SYSTEM**

#### **REMOVE THE BULLET CLIP**

With the gun on "Safe", pull the forearm back and pull the clip all the way out from the left side of the receiver. Partially used clips can be stored for use later. Follow the drug manufacturer's recommendations for storage.

#### **TURN THE AIR OFF**

Turn the valve on the air tank clockwise until tight.

#### **BLEED THE AIR LINE**

##### **GUNS WITHOUT PURGE VALVE**

With the air tank valve turned off and the bullet clip removed, pump and fire the gun, in a safe manner, 10-15 times to relieve excess air pressure from the line. The hose may now be safely detached from the gun and the system prepared for storage.

##### **GUNS WITH PURGE VALVE**

Turn purge valve counter-clockwise to relieve air.

**CAUTION - NO OILS OR CLEANING SOLVENTS SHOULD BE USED ON THIS SYSTEM. THERE ARE NO OILED PARTS!**

#### **CLEANING**

The inside of the barrel should be cleaned on a regular basis using the cleaning rod and brush located inside the forearm tube. Always engage the safety and detach the air supply before cleaning the gun. The barrel may be cleaned dry or decontaminated with isopropyl alcohol. All external parts may be cleaned with glass cleaner or a mild soap and water solution. Do not use oil-based cleaners or polishes. Barrel should be cleaned after every 50-100 shots.

#### **STORAGE**

When you want to store the delivery system for a short period, turn the air supply off, remove the clip, bleed the gun, make certain the safety is engaged, and store in a safe location.

If the delivery system won't be used for a long period of time, it should be disassembled as previously described, and returned to its original carton or another suitable container and placed in a safe location for storage.

### **TROUBLESHOOTING**

YOU COCK AND FIRE THE GUN BUT HEAR ONLY A CLICK AND YOUR GUN DOES NOT FIRE

1. Be sure the air tank is turned on and the gauge needle is in the green area.
2. Make sure the forearm is all the way forward.

YOU PUMP THE GUN BUT THE CLIP DOES NOT ADVANCE

The system is designed so that, under normal operating conditions, you cannot double-chamber bullets (2 bullets in the barrel at one time). Therefore, if the clip does not advance when the gun is cocked, **YOU SHOULD ASSUME THAT THERE IS A BULLET IN THE CHAMBER.** Safely discharge the gun and cock it again. The clip should now advance normally. If the clip does not advance after a shot has been fired, it may be due to a build-up of clip sealing film in the clip path. The clip advance will usually resume after a brisk cocking action of the forearm. However, if the problem continues, remove the clip (see "Disassembling the System"), put the gun on "safe", and make certain that the clip path is clear. Engaging the gun's safety insures the gun will not discharge as you clear the clip path.

YOUR BIOBULLETS ARE NOT REACHING THE TARGET ANIMAL

Check the air tank gauge. If the gauge needle is in the red area, there is not sufficient pressure for a successful inoculation. Also, remember that the maximum range of the system is approximately 40 feet from the gun muzzle to the target animal.

BIOBULLETS ARE BOUNCING OFF THE TARGET ANIMAL

Make sure you are at the correct angle to use gun. Check the air tank gauge. If the gauge needle is in the red area, there is not sufficient pressure for a successful inoculation. Check that you are within the effective range. Also, the Biobullet may have hit a boney area of the animal. Aim for a large muscle mass (see Figure 2, page 4).

THE GUN MAKES AN ABNORMAL OR MUFFLED SOUND

The barrel may be blocked. First, engage the safety and remove the bullet clip (see "Disassembling the System"). Remove the cleaning kit from the forearm tube and assemble it without the brush. Next, carefully pull the forearm back far enough to move the bolt out from the chamber end of the gun. Insert the assembled cleaning rod into the muzzle end of the barrel all the way to the bolt. This should dislodge the bullet or other material blocking the barrel.

NOTE: Be careful not to pull the forearm back so far as to cock the gun. This will keep the lodged bullet or other material from falling back inside the receiver.

Biobullets should be stored in a cool, dry location to keep them from swelling and/or becoming sticky. Barrel should be cleaned after every 50-100 shots.

## LIMITED WARRANTY

SolidTech Animal Health, Inc. ("Manufacturer") warrants to the Original Purchaser that the SolidTech Animal Health, Inc. Delivery System ("The System") and its component parts (not including accessories and Biobullets) are free from defects in materials and workmanship under normal use, in accordance with its instruction manual, for one (1) year from the date of delivery to Original Purchaser. THERE ARE NO OTHER WARRANTIES. Subject to the conditions of and upon compliance with this limited warranty, the Manufacturer will repair or replace at its option without charge (except for a minimal charge for shipping and handling) any SolidTech Animal Health, Inc. Delivery System (not including accessories) which is defective during the first 120 days after purchase, and to repair without charge (except for parts) The System for the remaining term of the one (1) year period.

The following conditions, procedures and limitations apply to the Manufacturer's obligation under this warranty:

- A. Parties Covered by this Warranty: This warranty extends only to the Original Purchaser of The System. This Warranty does not extend to subsequent purchasers. The Original Purchaser should retain the invoice or sales receipt as a record of the date of purchase.
- B. Warranty Performance Procedure: Notice of any defect must be made in writing or by telephone to SolidTech Animal Health, Inc., 812 N.E. 24th Street, Newcastle, OK 73065 Tele: (405) 387-3300.

Notice to the Manufacturer must include date of purchase, model and serial number, and a description of the defect in sufficient detail to facilitate repairs. Authorization must be obtained prior to returning The System or part thereof.

Any SolidTech Animal Health, Inc. Delivery System or part thereof, found to be defective, must be properly packaged and returned to SolidTech Animal Health, Inc., postage prepaid. Any loss or damage during shipment is at risk of the sender.

- C. Conditions of Warranty: The warranty is void if The System has been (1) repaired by someone other than the Manufacturer or its authorized agent; (2) altered; (3) used with Biobullets or other projectiles that have not been approved by SolidTech Animal Health, Inc.; (4) misused by negligence or accident; or (5) use of other than compressed air in the system. Misuse includes, but is not limited to, use or assembly without compliance to the instruction manual of The System or use with non-approved accessories. The regulators and gun are sealed units and the fact that the seal has broken will be considered conclusive evidence that the gun or regulator has been altered or misused. Removal or damage to the serial numbers will invalidate this warranty.
- D. LIMITATIONS AND EXCLUSIONS: Manufacturer's liability for a defect or malfunction of The System is limited to repair or replacement of The System or component part in accordance with this warranty. The following exclusions and limitations shall apply:

No agent, representative or employee of the Manufacturer has authority to bind the Manufacturer to any other warranty, expressed or implied. THERE IS NO WARRANTY OF FITNESS OF THE SOLIDTECH ANIMAL HEALTH, INC. DELIVERY SYSTEM FOR ANY PARTICULAR PURPOSE OR WARRANTY OF MERCHANTABILITY.

This limited warranty shall extend only for one year from the date of purchase.

No representation or warranty is made that failure of The System will not occur or that it is suitable for a particular treatment.

THE MANUFACTURER DISCLAIMS RESPONSIBILITY FOR THE SUITABILITY OF THE SOLIDTECH ANIMAL HEALTH, INC. DELIVERY SYSTEM FOR A PARTICULAR VETERINARY TREATMENT OR FOR ANY COMPLICATIONS RESULTING FROM THE USE OF THE SYSTEM. THE MANUFACTURER SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES TO PROPERTY, PERSONAL INJURY, OR DEATH, LOSS OF PROFITS OR LOSS OF USE CAUSED BY ANY DEFECT OR MALFUNCTION OF THE SYSTEM.

FACTORY RECONDITIONED SYSTEMS: This limited warranty is available on factory reconditioned systems sold by SolidTech Animal Health, Inc. for a period of 90 days only from date of purchase.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives the Original Purchaser specific legal rights and the Original Purchaser may have other legal rights which may vary from state to state.

**SOLIDTECH**  
**ANIMAL HEALTH, INC.**

For Deliveries:

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Remittances and Correspondence:

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