

MAXI-JECT

VETERINARY BLOWPIPE SYSTEM

INSTRUCTION MANUAL



**A HIGH QUALITY, LIGHTWEIGHT, FIELD READY, BLOWPIPE SYSTEM
DESIGNED FOR THE VETERINARIAN AND ANIMAL CONTROL
PROFESSIONAL AT AN AFFORDABLE PRICE.**

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WARNING

SAFETY MUST BE THE FIRST AND CONSTANT CONSIDERATION OF EVERY PERSON WHO HANDLES CAPTURE EQUIPMENT AND DRUGS!

It is your legal obligation to handle, load, unload, use, carry, transport, maintain, display and store your MAXI-JECT equipment in such a manner as to prevent an accident from being caused.

This Instruction Manual is included with all MAXI-JECT systems. Before you attempt to use the equipment in any way, PLEASE READ THIS COMPLETE MANUAL CAREFULLY! Only after reading the manual thoroughly, should you should handle the equipment. If a manual was not included with your MAXI-JECT system, please call 800-331-2530 to request an instruction manual at no charge or e-mail us at info@addisonlabs.com.

With this Manual at hand, practice the various steps relating to operation of the MAXI-JECT Systems. Practice these operation steps repeatedly until you can go through them with absolute confidence. During the practice sessions, DO NOT USE loaded Syringes. Simulate the loading and unloading phases of the syringes and blowpipe using sterile water.

If you have any doubts about your ability to safely handle or use a particular piece of MAXI-JECT equipment, then you should seek supervised instruction. Such personalized instruction is often available from Addison Biological Laboratory, Inc. in person or via telephone.

The person with capture equipment in his possession has a full-time job. He/She cannot guess or forget. HE/SHE MUST KNOW: How it works – The instructions and warnings in this manual – Whether it's loaded – Where it's pointing – Where the target is – What the target is – Where the syringe will go – Where the syringe will stop.

Great care should be exercised and not to contaminate the outside of the syringe or the mouthpiece of the blowpipe with any pharmaceutical, biological or other agent which may be harmful if it enters the mouth, is absorbable from the mucous membranes of the lips, mouth and eyes, or is harmful if swallowed or inhaled.

It is further recommended that the special cannules not be utilized to fill the medical, filler syringes to avoid accidental injection of the operator when the silicone sleeve is applied to the needle. SAFETY CAPS SHOULD ALWAYS BE APPLIED TO THE SYRINGE AS DIRECTED PRIOR TO CHARGING THE SYRINGE. Careful observations should be made to determine that no human or unintended animal target is present or in the vicinity of the operator and the intended target. This equipment has been developed for professional use only. Pharmaceuticals, biologicals or other agents used in the custom syringe should be used only by and/or under the supervision of a duly licensed, qualified veterinarian.

THE MAXI-JECT BLOWPIPE SYSTEM

The blowpipe system and methods of application of substances via remote injection of both domestic and non-domestic animals has proven very effective in Europe where it has been in use since 1973. THE VALUE OF THIS METHOD HAS BEEN PROVEN AND ACCEPTED AND WITHOUT A DOUBT AN INDISPENSABLE PART OF THE VETERINARIAN'S EQUIPMENT for immobilizing, tranquilizing, vaccinating and medicating small and large animals.

The MAXI-JECT system appears simple yet years of research have gone into its development. ABL, Inc. provides the ultimate achievable in safe, harmless and effective remote injection.

Most systems of remote injection propel a projectile along with a simultaneous noise resembling a GUN SHOT. This explosive sound causes animals to run when darted or prior to being darted; herds as well as individual animals become excited. The MAXI-JECT blowpipe system is virtually silent.

Versatility in the lightweight blowpipe syringe allows its use on birds and small animals which are often traumatized by either a heavier dart or a stressful muscular exertion at the time of impact which, in many cases, has been responsible for leg fractures in the smaller species of animals.

Significant reduction in the sensation of injection due to syringe impact, a characteristic of the lightweight syringe, allows vaccination of groups of herd animals without causing them to run. Your Maxi-Ject system allows easier, less traumatic retrieval of an immobilized or tranquilized animal; many animals are not stimulated to run and do not become excited following injection with the lightweight syringe.

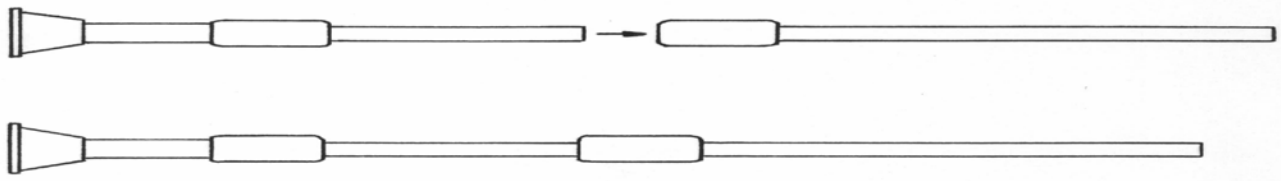
The number of sites for injection often becomes more numerous due to the lighter impact, less traumatic features of this superior syringe.

Since the MAXI-JECT blowpipe and lightweight syringe system can be used over a range of nearly point blank to 60 feet, remote injection of an animal has taken on a newer parameter in a most important consideration of the factors which affect the decision and feasibility of handling animals and/or employing a remote method of injection.

The fun of practicing and mastering the art of blowpipe usage is enjoyed by many throughout the world. It's fun to practice and "practice makes perfect". MAXI-JECT offers practice syringes and needles that allow the operator to take a natural course in learning the art through the use of various weights and types of practice projectiles.

ABL, Inc. hopes that the use of this equipment will afford a newer, more versatile, safe and successful (to man and animal) method of remote injection.

COMPONENT DESCRIPTION OF THE MAXI-JECT BLOWPIPE SYSTEM



Blowpipe – Figure 1

- 2 blowpipes in one
- 2.3 foot blowpipe for close range remote injection
- Fully assembled 4.5 foot blowpipe for maximum range of about 60 feet

3 Blowpipe Systems Sizes Available:

1. 2ml blowpipe – 11mm inside diameter
2. 3ml blowpipe – 11mm inside diameter
3. 5ml blowpipe – 14mm inside diameter

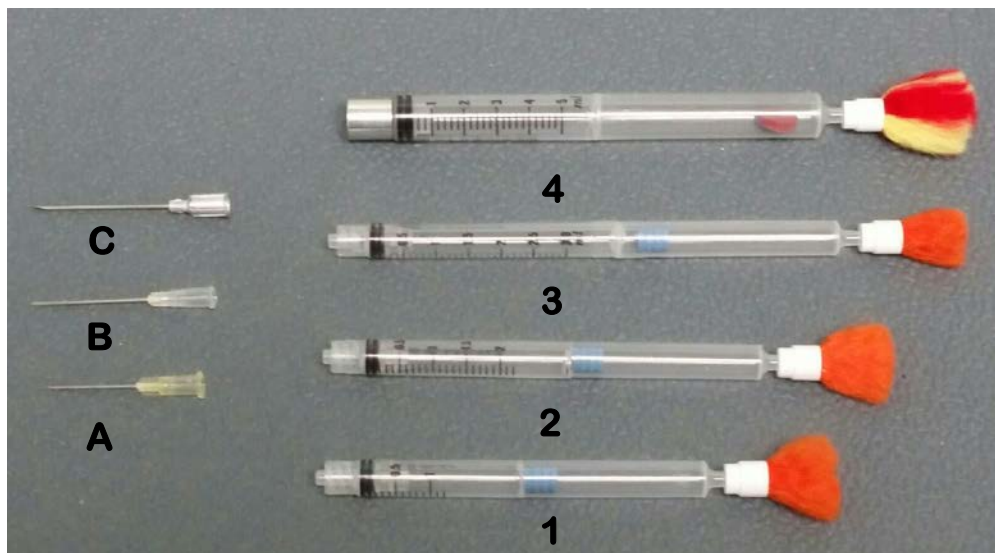
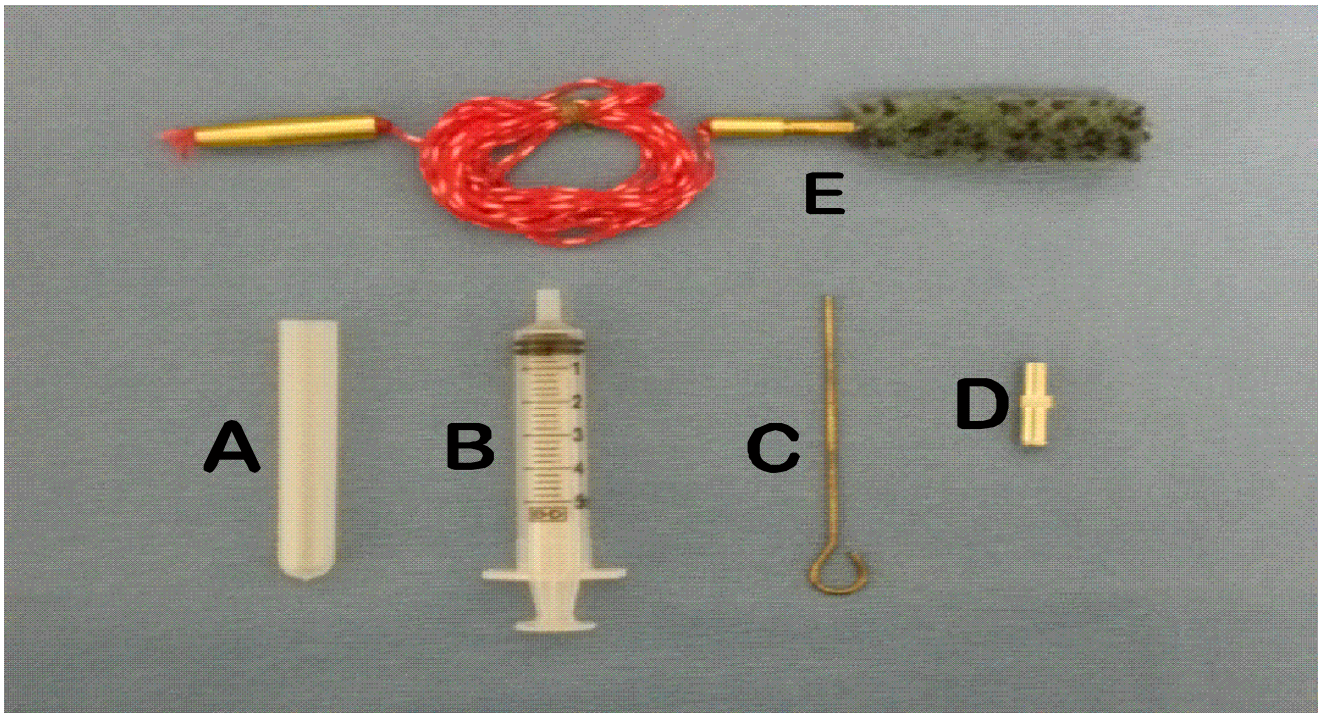


Figure 2

- Syringes and Stabilizers (tailpieces)
 1. 1ml utilizes orange tailpiece, Figure 2
 2. 2ml utilizes orange tailpiece, Figure 2
 3. 3ml utilizes orange tailpiece, Figure 2
 4. 5ml utilizes red/yellow tailpiece, Figure 2
- Needles – different sizes available
 - A. 0.9 x 25 mm (20 gauge), Hub color is yellow, Figure 2
 - B. 1.1 x 30 mm (19 gauge), Hub color is clear, Figure 2
 - C. 1.2 x 38 mm (18 gauge), Hub color is silver, Figure 2

Figure 3 – Safety Cap, Filler Syringe, Connector, Venting Pin and Cleaning Kit



A. Safety Cap

- Available in all sizes

B. Filler Syringe

- Standard disposable plastic hypodermic syringe

C. Venting Pin

- Used to relieve air pressure from the back, air containing chamber of the lightweight syringe. This procedure should be performed prior to filling the syringe and prior to cleaning the syringe with liquid cleansers. The pin is also a handy tool which can be used to properly seat the syringe into the blowpipe.

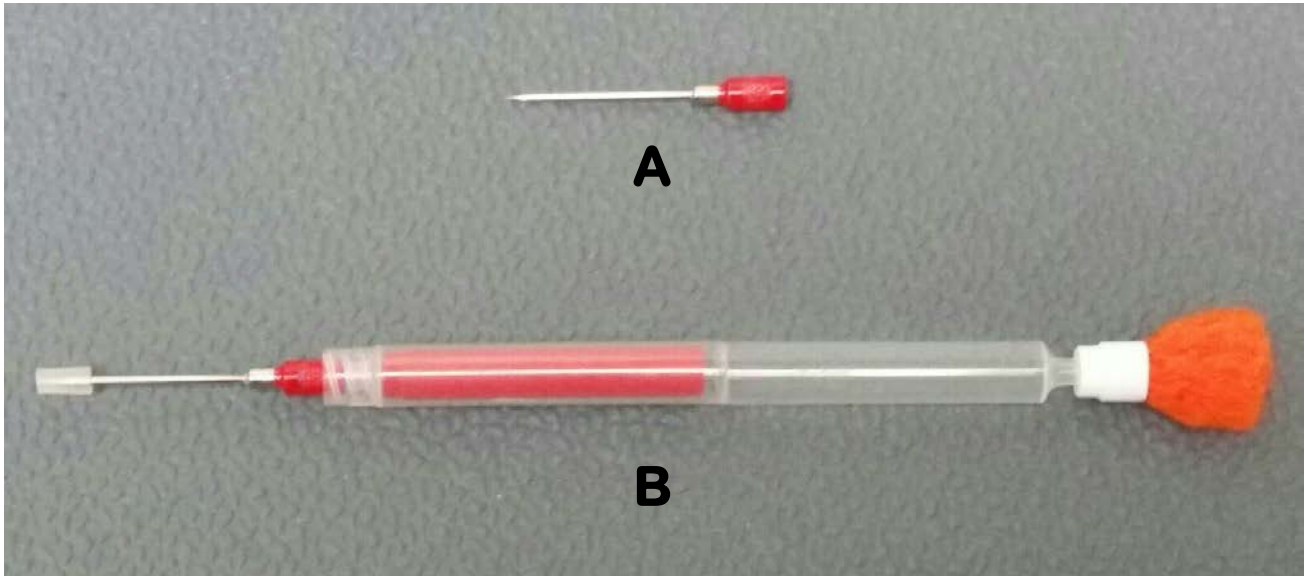
D. Syringe Connector

- Use to fill both the medicine chamber and air chamber of the syringes to instill the liquid of choice and air into their respective chambers within the blowpipe syringe.

E. Cleaning Kit

- The cleaning kit should be used BEFORE blowpipe usage to ensure that the blowpipe is dry, and AFTER blowpipe usage to clean and lubricate the blowpipe. To clean, dry and lubricate the blowpipe, see Figure 10.

Figure 4. - Practice Syringe and Practice Needle



Practicing

Immediately before practicing, determine the effects of wind, distance, etc. Styrofoam and cardboard boxes make good targets. Practice should be carried out routinely to assure accuracy under varying outdoor conditions.

A. Practice Needle

- Apply to the tip of any standard blowpipe syringe to convert the syringe to a practice syringe with a true needle.
- The syringe can then be filled with water and air to actuate the weight of a loaded blowpipe syringe.
- A Practice Needles comes with the 3 and 5 ml system.

B. Practice Syringe

- Comes with the 2ml system only
- Has similar projectile to a filled blowpipe syringe (i.e. weight)

MAXI-JECT BLOWPIPE

The MAXI-JECT Blowpipe is manufactured from high quality hard drawn and anodized aluminum.

The blowpipe is available in a 4½ foot take-down design. Two divisible blowpipes are assembled to obtain the 4½ foot length.

There are 3 different sizes of blowpipes: 2ml, 3ml and 5ml.

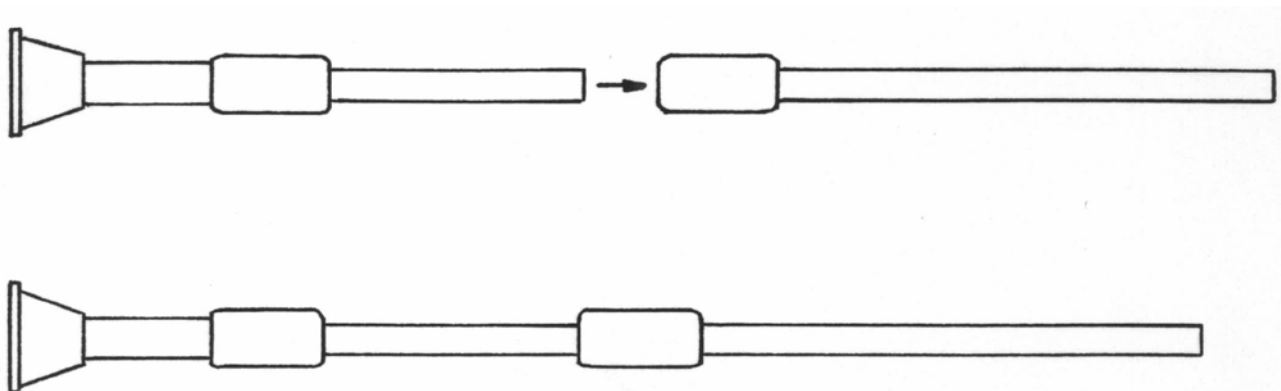
The 2.3 foot blowpipe is best utilized for very short range. The 4½ foot blowpipe is best utilized over a range of 10 to 60 feet.

As with any pistol or rifle, the pipe should be cleaned and lubricated with the cleaning kit provided to maintain system in good condition.

To clean the pipe (see Figure 10) drop the weighted end of the cleaning tool through it and use it to pull the cleaner down the length of the pipe. After cleaning, place a very small amount of lubricant around the inside of one end of the pipe and pull the cleaner through the pipe several times until the blowpipe is lubricated. It is most important that the blowpipe be thoroughly cleaned before being lubricated.

Figure 5 - Illustrates the manner in which the two component pieces of the 4½ foot blowpipe are connected.

Figure 5 – Assembling the Divisible Blowpipe

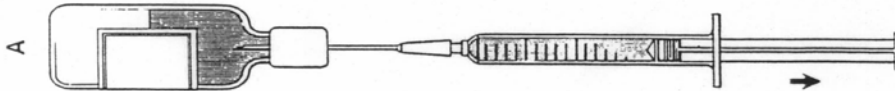


PROFESSIONAL BLOWPIPE LIGHTWEIGHT SYRINGE

This syringe is available in 1, 2, 3 and 5 ml sizes. It is very light in weight and delivers a highly successful and accurate injection when used with the MAXI-JECT blowpipe.

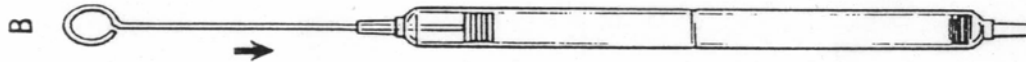
Figure 6 – How to Load the Syringe

- A.** The solution to be utilized is drawn into a normal syringe

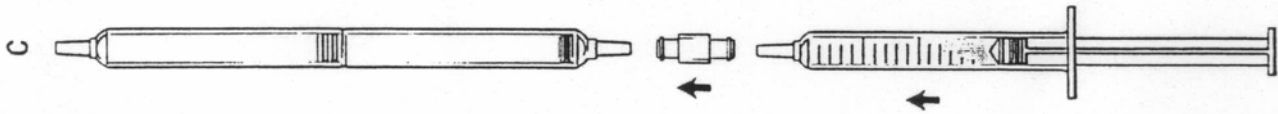


WARNING: An ordinary hypodermic needle should be utilized for this purpose to eliminate contamination of the custom cannula with substances which may be harmful to the operator if he/she should accidentally stick himself when he/she later places the silicone sleeve over the cannula. This practice also helps to maintain a sharp point on the custom cannula.

- B.** The venting pin should then be used to move the blue plunger valve within the air chamber to release any residual or built-up air pressure within the pressure chamber of the syringe dart. If this is not done, difficulty will be experienced in filling the medical chamber of the syringe dart.



- C.** When all pressure is released, the blue plunger will be located in the center of the syringe dart and will be freely moveable. The syringe connector is then applied to the syringe.



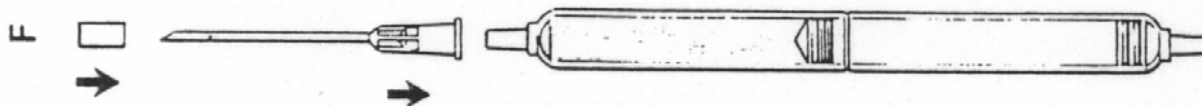
- D.** The medication (vaccine, tranquilizer, etc.) is pushed into the solution chamber causing the black plunger to move back in the chamber. An air bubble may occur at either the plunger or needle end of the solution chamber.



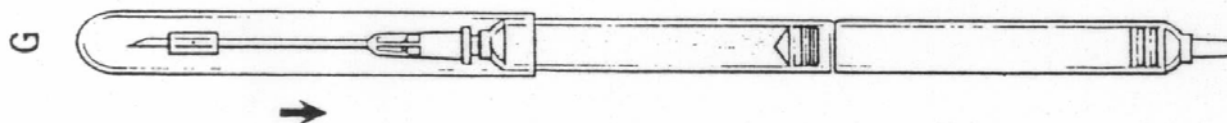
E. Invert the syringe. If an air bubble has accumulated at the tip of the syringe dart, gently aspirate with the syringe until the air is removed. If an air bubble has occurred in front of the black plunger, gently tap the syringe dart with a fingertip until the bubble moves to the tip of the syringe and then aspirate with the syringe to remove the air bubble.



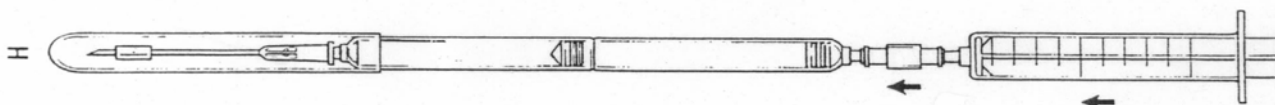
F. Remove the syringe and connector. Place the silicone sleeve over the needle so that it covers the needle hole located on the shaft of the special cannula. Note that the silicone sleeve has a hole down the center of the sleeve. The silicone sleeve is easiest applied by turning (screwing) the sleeve onto the needle. (An additional sleeve can be placed at the hub of the needle to limit depth penetration).



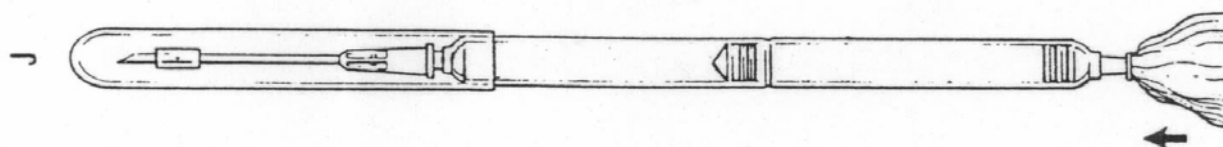
G. WARNING: PLACE A SAFETY CAP OVER THE NEEDLE AND FIRMLY SEAT IT ONTO THE SYRINGE DART.



H. Place a syringe connector on the air filler syringe and instill about 10ml of air into the air chamber (Figure 6H) if using a 2 ml syringe, and 6 to 8 ml of air into the air chamber of a 1 ml syringe.



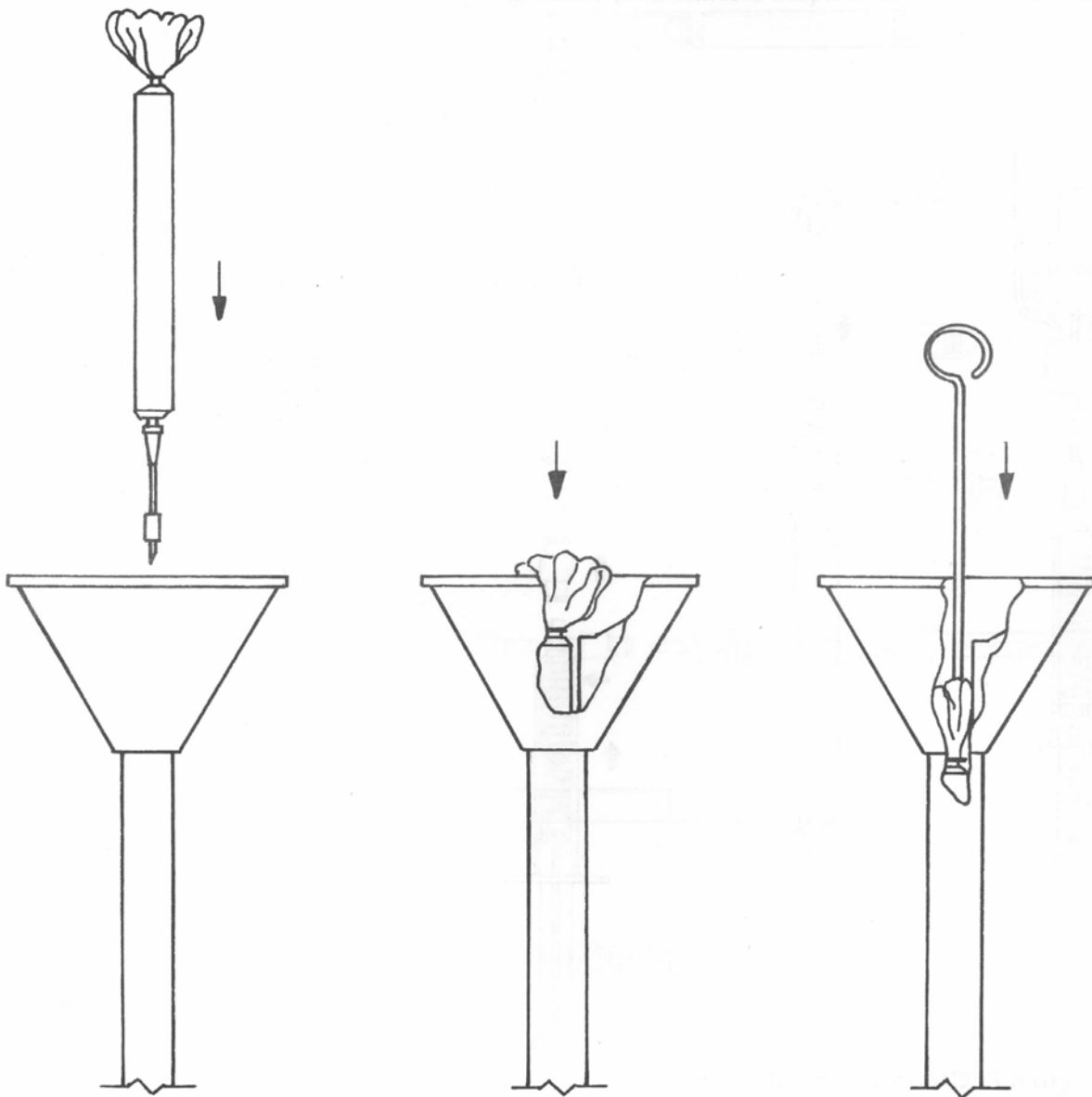
J. Disconnect the air filler syringe and apply the stabilizer (tailpiece).



USING THE BLOWPIPE

To load the blowpipe simply insert the syringe dart, needle first, then using the venting pin push the tail stabilizer completely into the pipe. The blowpipe should be thoroughly dry before use by utilizing the cleaning device and pulling it through the blowpipe several times. (See Figure 10) You are ready for usage after the mouthpiece has been cleaned and free of all drugs, chemicals, etc.

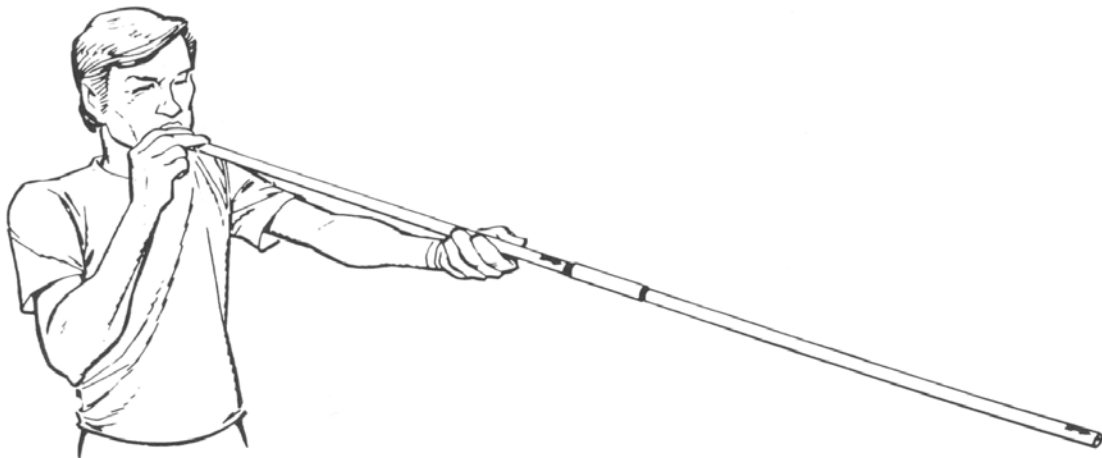
Figure 7 – How to Use the Blowpipe



Shooting the Blowpipe

To shoot the syringe dart, place the mouthpiece to the mouth against the lips and stand square to the target (not sideways as in rifle shooting). Both eyes are used in aiming to help ensure a high degree of accuracy. Immediately before shooting, take a deep breath and hold it. To shoot, quickly release a burst of air and blow the projectile from the tube with as strong of force as possible. The force exerted should be strong and even, but not sudden, and should be expelled into the blowpipe, avoiding any explosion of air (blow by) around the mouthpiece.

Figure 8 – How to Shoot the Blowpipe



CLEANING THE SYRINGE

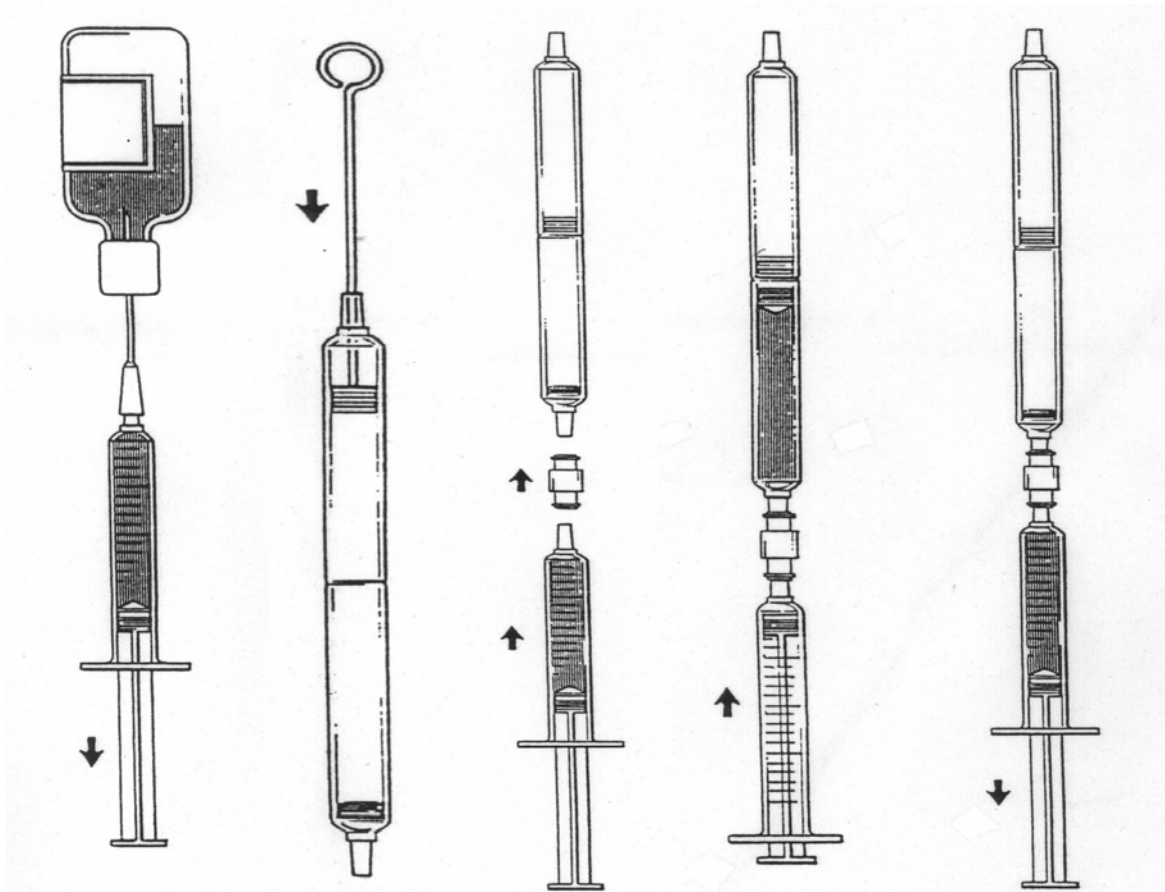
The lightweight custom syringe dart can be cleaned as shown in Figure 9. To clean the syringe dart, it is recommended that it be flushed several times with sterile distilled water. Draw the distilled water into a syringe, utilize a venting pin to relieve any pressure in the air chamber, and after a connector has been applied to the syringe, flush the syringe dart chamber several times. Repeat this step with the sterile distilled water several times. A suitable cold sterilization solution can then be used in a similar manner, followed by a sterile distilled water rinse. Stand the syringe dart up with the medicine chamber down to dry.

To clean the cannulas (needles), flush them with sterile distilled water after use. Cannulas may be sterilized using cold, liquid disinfecting or sterilizing solutions. The recommended method of sterilization, however, is via hot (boiling) water sterilization.

The syringe dart can be placed in any suitable sterilizer pouch or material and can then be sterilized via gas sterilization. However, for longer life, it is recommended that the syringes be sterilized via cold, liquid sterilization, utilizing products manufactured for this purpose.

The syringe and cannula life is prolonged if they are cleaned soon after each use.

Figure 9 – Cleaning the Syringe



CLEANING AND LUBRICATING THE BLOWPIPE

To clean the blowpipe after usage:

- A. Remove the mouthpiece from the blowpipe
- B. Drop the weighted end of the tool through the blowpipe and pull the cleaner portion through the blowpipe

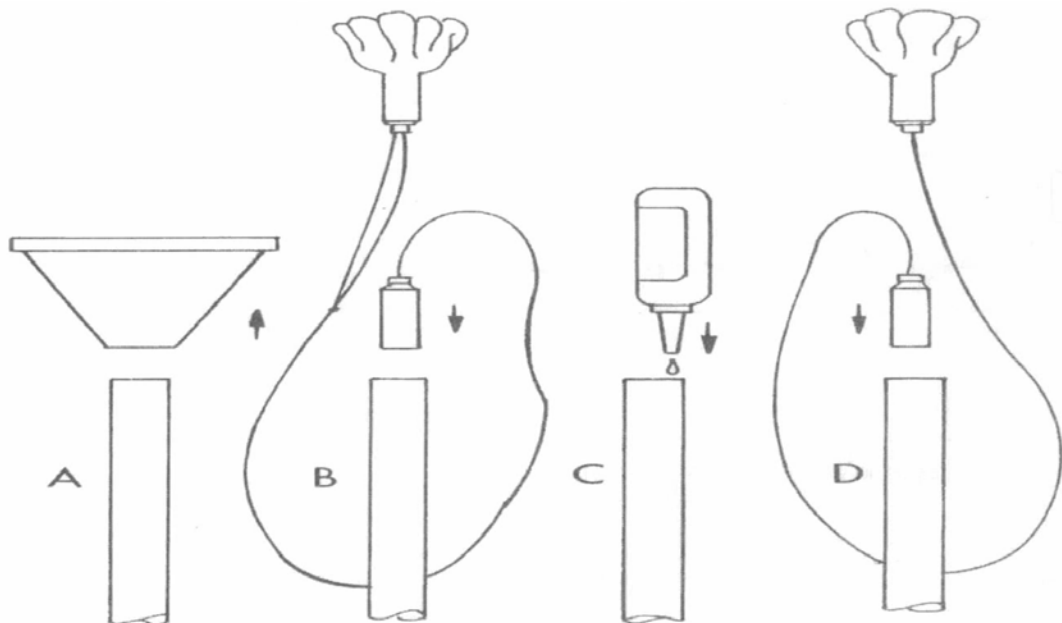
Repeat this process until blowpipe tube is clean as evidenced by holding the pipe up toward the light, rotating it and observing that there is no debris within the blowpipe.

To lubricate the blowpipe after usage:

- A. Remove the mouthpiece
- B. Pull the cleaning tool through the blowpipe several times until it is clean
- C. Ring the top of the blowpipe with a small amount of the lubricant (vegetable oil, etc.)
- D. Then pull the cleaner through the blowpipe

Repeat this step until the blowpipe is clean, bright and glistening as determined by visual inspection.

Figure 10 – Cleaning the Blowpipe



CAUTION

IT SHOULD BE NOTED THAT THERE ARE CERTAIN FACTORS TO CONSIDER RELATIVE TO THE INTERCHANGEABILITY OF VARIOUS COMPONENTS OF THE MAXIJECT blowpipe system which should be addressed bearing in mind that the entire system and its components have been technically designed to be used with each other only as directed in order to yield optimal results.

Utilizing one portion of the 4½ foot divisible blowpipe as a shorter blowpipe decreases accuracy. The two component portions of a 4½ foot pipe are parabolically corrected (each is curved) specifically and purposefully to overcome the natural "sag" or bend in a blowpipe which is 4½ feet in length and made of the metal allow used in the manufacture of the MAXI-JECT blowpipe.

WARRANTY LIMITATIONS

Addison Biological Laboratory, Inc. (A.B.L.) will replace any equipment damaged during shipping provided that the purchaser notifies both ABL, Inc. and the carrier immediately upon the receipt of a product damaged in shipping. ABL, Inc. reserves the option of replacing product or parts thereof which are said to be defective under circumstances other than shipping.