

INSTRUCTIONS FOR WAX CAPSULE GUN

OVERVIEW and IMPORTANT INFORMATION: READ THIS NOW

This may seem like a lot of instruction, but once you have read this and have practiced making the capsules and shooting, the on-set action goes quickly.

This "gun" is specialized equipment designed to be used by qualified, expert special effects persons to place simulated blood bullet hits on stunt people and actors' skin and wardrobe by the impact of a low speed fragile wax blood capsule. Use of this equipment is an art, a science, and a skill. Always practice making capsules and shooting the day before. Take test shots the day before and on the day. Adjust the red dot scope if necessary. The capsule may be traveling slowly, but the impact is not pleasant; about as hard as a finger snap. You must spend some time before the shot with the person you are going to do the effect on to make them comfortable with what you are going to do. You may want to let them shoot you in the palm of your hand and perhaps you may want to shoot their palm to demonstrate the feeling of the shot.

There are production benefits to this gun compared to other methods. VFX can do a CG hit, but a wax blood hit is right now, the actor can feel it for timing, and Makeup can redress in exact location for continuity. Not only that, but the wax capsule is much less expensive than CG. The squib/appliance method is a big pain in the ass for everyone involved, although it is great for a front/rear hit combination.

Information for Customs and Law Enforcement

Please read these instructions. This equipment might look like a gun, but that is for handling and aiming purposes only. This equipment has no threat to public safety whatsoever. We (Matt Sweeney Special Effects, Inc.) only sell this equipment to qualified, expert Motion Picture and Television Special Effects people. The equipment takes a heavy compressed air bottle to operate and shoots a soft wax capsule slower than a child can throw a ball. The expense and rarity of this equipment ensures that the owner will keep it safe from casual use or theft. If you have any questions, please call, FAX, or e-mail us, in English please and we will answer any questions that you might have.

Phone: (818)902-9354 FAX: (818)902-1513 E-Mail: orderdesk@sweeney-special-effects.com

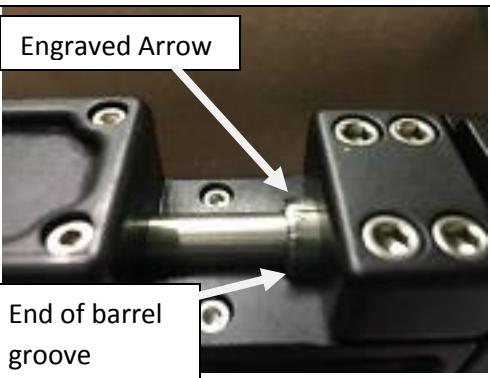
Safety

This gun is intended to be shot at 6-7-1/2 PSI (41Kpa) at 6 feet (1.83m) for maximum accuracy. At this distance the trajectory is an arc. The group at 6 feet is about 2 inches (51mm) with occasional fliers outside. The gun is sighted in at exactly 6 feet. You must make sure that this is the shooting distance. Use a tape measure.

You must set up your shot to avoid any possibility of hitting anybody in the eye. It is always better to miss the shot than to risk hitting anybody in the eye.

If you have any doubt whatsoever, don't take the shot.

Assembly of the barrel into the gun

	<p>To remove the barrel from the gun, loosen the 4- 8-32 screws on the rear barrel clamp and the 2- 8-32 on the front clamp. Gently twist and pull the barrel out.</p> <p>To install the barrel into the gun, insert the end of the barrel with the engraved arrow into the front of the gun through the front barrel clamp opening. Gently twist and insert the barrel under the scope mount into the rear barrel clamp until it stops at the end of the barrel groove. Twist the barrel until the engraved arrow is on the top of the barrel. Always install the barrel with the arrow up. Tighten the 4 rear barrel clamp screws alternating sides. Tighten the front barrel clamp screws.</p>
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Making Wax Capsules

Making good capsules is an art and is not easy. It is important for you to practice making the capsules until you can make good capsules that are the right thickness, but don't leak. Practice, practice, practice. Read the instructions. You should make the capsules within a couple of hours prior to the shot. This is because the capsules are fragile and heat sensitive, and will leak or disintegrate within a relatively short time.

- 1) Heat the wax in the stainless cup on a hot plate. Adjust the heat so the wax will fully melt, but not so hot as to boil or smoke. Be careful, this will be hot enough to burn you.
- 2) Set the bottom plunger on the mold to the desired capsule length, lightly tighten the thumbscrew to hold the plunger in place and wipe some vegetable oil inside and around the top of the mold cavity. To adjust for a $\frac{1}{2}$ " (12mm) long capsule, set the mold upright on a flat surface and extend the plunger until it is on the flat surface.
- 3) Stir the melted wax with the ladle, and holding the mould by thumb and forefinger, ladle enough wax to fill the mold cavity completely. Return the ladle to the cup and pour out the wax from the mold. You should now have a thin layer of wax in the mold cavity and on the top of the mold around the cavity. You may need to bring the mold up to temperature to get a good capsule.
- 4) Using a razor blade, slice off the wax on the top of the mold, leaving the cavity with a thin wax lining.
- 5) Take the plastic syringe and fill the wax lined mold cavity with Reel blood to $1/16$ " (1,6mm) below the cut off edge. If the blood touches the edge or there are air bubbles in the blood, you will probably have a leaker, so start again. If the blood is too far down, the cap will be too thick, so add a little more.
- 6) Using an almost empty ladle, drip a little wax on the end of the capsule to seal it. Use the hot ladle to help the sealing.
- 7) Using the razor blade, trim off the sides of the wax seal that overlaps the mold cavity. Inspect closely for any signs of blood, as this means that the capsule is a leaker.
- 8) Loosen the thumbscrew and push the capsule out with the plunger. Inspect for blood leaking and make sure that the wax seal does not overhang beyond the sides of the capsule. It is OK that the capsule is wet with vegetable oil.

The temperature range for making and shooting wax capsules is 50 – 100 degrees fahrenheit (10-38 celsius). Too cold may cause the capsules to stick in the barrel or be too hard. Too hot may cause the capsules to melt or break in the barrel.

Check your zeroing of the sight if: 1) The scope has been moved. 2) The temperature is different than when the gun has been sighted in. 3) Any disassembly or reassembly of the gun, including barrel installation.

Clean the barrel. Apply silicone on the inside of the barrel: Place a patch in the loop end of the cleaning rod assembly. Thoroughly wet the patch with silicone spray and run the patch back and forth through the barrel to completely coat the inside. Repeat this procedure every few shots.

Shooting freehand

Once everyone is ready, turn on the red dot scope, hold the gun so that your finger is away from the trigger and the barrel is pointed up and away from every person, and connect the air hose to the back of the handle. You may want to put a small piece of gaffer's tape onto the air connection to prevent accidental disconnection. Lift and pull the bolt handle to the rear to open the breech. Gently place the wax capsule into the breech, then carefully push the bolt handle forward to insert the capsule into the barrel opening. There is a spring plunger that you must push the handle past, then down to latch the bolt. If there is an overhanging edge on the capsule that is not fully trimmed off, then you will feel the capsule breaking as you push the bolt in.

Wait until the camera is rolling, then lower the gun into position and take the shot at the proper time. Use a rest for the gun if you can.

To shoot, pull the trigger and hold it back for 1 second.

Do not take the shot if there is any chance of injury, especially hitting someone in the eye. Do not take the shot if your target is too far or too close.