**SYRINGE CARE AND INSTRUCTIONS**

**BOTTLE-MOUNT SYRINGES** – HSW Ferro-Matic®, BMVs, or any syringe with bottle-mount attachment

**HOW TO PREVENT NEEDLE BLOCKAGE**
On weak or used rubber (diaphragm) caps on injectables, it is sometimes possible to get a piece of the rubber or cork stuck in one of the needles on the valve head when you insert the bottle straight into the cap. To prevent blockage, simply touch the tip (A) of the long needle to the center of the rubber, twist 1/2 turn clockwise while pushing it down to the tip of the short needle (B), then turn the bottle 1/2 turn counter-clockwise while pushing the bottle the rest of the way on.

**TO ENSURE PROPER SEAL ON GLASS BARREL**
With set screw on front handle tight, rotate front handle clockwise until tight. Loosen set screw and position front handle at 11:00 (looking at it from the rear handle). Tighten set screw, rotate front handle to 12:00 (vertical) to prevent leakage in front of barrel.

**REPLACING BROKEN GLASS BARRELS**
After replacing broken glass barrel, it is recommended to replace piston o-ring to avoid leakage behind the piston due to a faulty o-ring. To reinsert piston into glass barrels, it is recommended to lubricate new o-ring with castor oil, glycerine or corn oil.

**TO CLEAN SYRINGE**
After each use, remove bottle from valve head and submerge entire syringe in a hot, soapy solution. Pump the syringe 6-10 times making sure you see solution squirting out the front luerlock. Remove syringe from soapy solution and repeat above steps in clear water. Allow syringe to dry and lubricate piston or o-ring as needed with vegetable oil; do not use petroleum-based products.

**ROUX or PISTOL-GRIP SYRINGES**

**BASIC OPERATION**
- Tighten piston plunger by squeezing trigger and holding down.
- With opposite hand tighten down knurled knob clockwise. The plunger will tighten against the glass barrel.
- Reverse these steps when taking apart.

**TO PREPARE FOR ADMINISTRATION OF MEDICATION**
- Set the dose desired by turning the dosage dial to the required setting.
- Fit the needle into luerlock by turning luerlock clockwise until tight.
- Draw medication into syringe by inserting needle into bottle and pulling knurled knob and rod outwards.
- Administer medication to the animal. It is recommended you obtain proper instruction from your veterinarian or have a veterinarian present.

**CLEANING INSTRUCTIONS**
- After each use or before switching medications, draw hot soapy water into syringe, set on maximum dose & flush system by pumping 6-10 times.
- For tougher dirt and medication, let soak.
- Rinse well with clear water.
- Lubricate piston plunger.

**EXTEND THE LIFE OF YOUR SYRINGE**
- Lubricate syringe using household cooking oil or other non petroleum-based lubricants.
- To lubricate, unscrew barrel housing from rear handle and put several drops into barrel.

**AUTOMATIC TUBING SYRINGES** – HSW Vet-Matic®, Optimiser™, Vaximate™

**BASIC OPERATION**
- Connect draw off to syringe.
- Put draw off on bottle.
- Set syringe to maximum dose to
- It will take several squeezes to fill tubing and syringe.
- Select desired dose by turning dosage device or dial.

**CLEANING INSTRUCTIONS**
- After each use or before switching medications, fill sink or bucket with hot soapy water. Avoid anti-bacterial soap when using live virus vaccine.
- Dip feeding tube in water, set syringe on maximum dose and flush several times.
- Rinse well by flushing with water only.

**EXTEND THE LIFE OF YOUR SYRINGE**
- Lubricate syringe using household cooking oil or other non petroleum-based lubricants.
- To lubricate, unscrew barrel housing from rear handle and put several drops into barrel.