Installation of neck liners in slip-on and threaded nozzle swannecks

**If replacing an existing neck liner:**

1. Remove the swanneck.
2. Remove the old neck liner and measure its length.
3. Carefully cut the new neck liner to the same length as the old liner with a pair of sharp cutters.
4. Check to ensure that there are no burrs or obstructions to the inner diameter of the Liner.
5. Insert the cut liner into the swanneck. When cut and installed correctly, the neck liner should stick out approximately 1mm without being held in. When pushed in, the neck liner should be flush with the end of the neck.
6. Replace the swanneck on the gun body in the preferred position and tighten the swanneck locking screw, which is located under a plastic plug on the right handle halve.

**If installing a neck liner into a new swanneck or swanneck without old neck liner for measuring length:**

1. Fit the consumables (diffuser/insulator, tip-holder, contact tip, nozzle) onto the swanneck.
2. Insert the neck liner into the swanneck as far as it will go.
3. Measure the length of liner sticking out from the back of the swanneck and subtract 1mm. (When cut and installed correctly, the neck liner should stick out approximately 1mm without tension).
4. Remove the liner and measure the length from step 3 back from the inserted end and mark carefully. With a pair of sharp cutters cut off excess liner.
5. Check to ensure that there are no burrs or obstructions to the inner diameter of the liner.
6. Insert the liner into the swanneck, fit the swanneck on the gun body in the desired position and tighten the swanneck locking screw.

Installation of insulated steel liners in Euro or direct mount guns:

1. Lay the torch out straight and remove the swanneck.
2. Remove the liner retaining nut at the wire feed end of the torch and remove the old liner if fitted.
3. Check that the new liner has no kinks in it.
4. Gently feed the liner through the cable assembly from the machine end of the torch, taking care not to kink it in the process.
5. With the liner collect fully seated in the rear connection, replace the liner retaining nut, but hand tighten only.
6. At the front end of the torch, the liner will now protrude from the handle.
7. Cut the liner flush with the handle (see diagram above).
8. Remove the liner retaining nut and pull the liner back out of the torch.
9. At the front end of the liner, cut off an additional 38mm (1.5”)
10. Check to ensure there are no burrs or obstructions in the inner diameter of the liner. Reinsert the liner into the rear of the torch and tighten the liner retaining nut with a wrench
11. Reseat the swanneck into the torch body, adjust to the preferred position and tighten the locking screw, in the side of the handle.
12. The torch is now ready to be fitted to the wire feeder.

* Note: If using a pass through style liner you will need to trim the rear liner as close to the drive rollers as possible.
Installation of Combi liners for aluminum/ stainless steel in direct mount guns:

1. Lay the torch out straight and remove the liner retaining nut at the wire feed end of the torch cable. Remove the existing gun and swan neck liner if fitted.
2. With the neck installed gently feed the Combi liner through the cable assembly until the liner bottoms out at the contact tip.
3. At the machine end of the torch, slide the brass collet and O-ring over the liner until they are seated in the rear connection.
4. Install the proper liner nut, which is supplied in the connector kit. This is the nut with the large hole for the liner to exit through. Do not over tighten the nut as this can result in wire feed problems. Do not cut excess liner yet!
5. With the plastic liner still protruding from the rear of the torch; feed the torch into the feeder mounting block. Using a sharp tool, cut the liner so that it butts up to the feed rollers. This will provide the needed wire support to the wire immediately after it exits the drive rolls. If the liner is trimmed correctly, and the wire hub tension is set properly, “bird-nesting” in the event of a wire jam will be eliminated.
6. Secure torch rear end into the feeders mounting block by the method used by the feeder manufacturer (normally a set screw).
7. After confirming that the feed rolls are the correct size and type for the wire being used, and that the wire is fed into the liner correctly, back off the wire feed roll pressure until the feed rolls no longer feed the wire, then retighten slightly. Be cautious, as too much pressure will deform soft wire such as aluminum and cause the wire to jam in the contact tip. To help prevent wire deformation, a U-groove feed roll is better than a V-groove feed roll for soft wires.
8. Aluminum wire requires a contact tip with greater clearance than that used for steel. Binzel tips designed for aluminum wire start with 141.xxx.

Installation of Combi liners for aluminum/ stainless steel in Euro Quick-Connect guns:

1. Lay the torch out straight and remove the liner retaining nut at the wire feed end of the torch cable. Remove the existing gun and neck liner if fitted.
2. With the neck installed gently feed the liner through the cable assembly until the liner bottoms out at the contact tip.
3. Refer to the diagram above: At the adapter block end of the torch cable, slide the brass collet and O-Ring over the liner until they are located in the recess in the adapter block; replace the liner retaining nut.
   DO NOT CUT THE LINER YET!
4. If the wire feeder was previously set up for steel wire, it may be necessary to take a pair of long-nosed pliers and remove the steel inlet guide from the central adapter installed in the front face of the wire feed unit.
5. With plastic liner still protruding from the Euro adapter, feed the liner through the inlet of the central adapter kit until the adapter block on the torch is butted against the central adapter kit. Fasten into position with the plastic adapter nut. Cut the liner, using a sharp knife, so that it butts up to the feed rollers, thereby supplying support to the soft wire immediately after it exits the drive rolls. If this is done correctly, “bird-nesting” in the event of a wire jam will be prevented.
6. Remove the welding gun from the machine and ensure that the brass guide tube is 3mm shorter then the protruding plastic liner (if no cut accordingly). Slide the guide tube over the liner and feed the liner (with the guide tube fitted) into the inlet in the central adapter, continue to feed through until the adapter plug is butted against the central adapter, then tighten the plastic adapter nut.
   Note: Liners with a diameter of 4.7mm or larger do not require a guide tube. (See diagram below for correct location of parts).
7. After confirming that the feed rolls are the correct size and type for the wire being used, and that the wire is fed into the liner correctly, back off the wire feed roll pressure until the feed rolls no longer feed the wire, then retighten slightly. Be cautious, as too much pressure will deform soft wire such as aluminum and cause the wire to jam in the contact tip.

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