Recovering Mueller® Steel Wedge Stoppers

WARNING: PLEASE READ CAREFULLY! When using 581265 Primer:

VAPOR HARMFUL – Positive fresh air ventilation is necessary. Avoid prolonged or repeated breathing of spray mists or vapors. Close container after use.

COMBUSTIBLE – Keep away from heat, sparks and open flame. HARMFUL OR FATAL IF SWALLOWED – If swallowed, DO NOT induce vomiting – CALL PHYSICIAN IMMEDIATELY!

AVOID CONTACT WITH SKIN OR EYES – In case of contact with skin, wash thoroughly with soap and water. In case of contact with eyes, flood repeatedly with water. Always wash thoroughly after using and before eating and smoking. KEEP OUT OF REACH OF CHILDREN!

WARNING: PLEASE READ CAREFULLY AND AVOID CONTACT WITH SKIN When using Adhesive Part No. 89758 or 89759: Adhesive (Part No. 89758 or 89759) can cause irritation and may cause skin sensitization. Wear rubber gloves or use protective hand cream. In case of contact, wash thoroughly with waterless cleaner or soap and water. Wash thoroughly before eating or smoking. Positive fresh air ventilation is necessary. Avoid exposure to vapor.

STEEL WEDGE STOPPER RECOVERY INSTRUCTIONS

1. Remove old cover from Stopper Cylinder by placing stopper in a vise-like fixture and pulling cover off with a pair of pliers or vise-grips.

NOTE: Covers attached with green or clear colored adhesive will be difficult to remove and may come off in pieces.

2. Use scraper and solvent (see types listed below) to remove old adhesive from Stopper Cylinder.

If old adhesive is brown, use M.E.K., Acetone or Naptha to remove. If old adhesive is green or clear, soak with commercial paint remover to remove.

NOTE: If surface is shiny or smooth after old adhesive has been removed, it should be roughened by sand blasting.

3. Thoroughly clean the Stopper Cylinder.

It is very important that the surface of the stopper cylinder be absolutely clean! The following procedure for cleaning is recommended.

a) Suspend stopper cylinder over a drain pan.

Apply solvent to surface of cylinder and wash down. DO NOT set cylinder in drain pan or reuse solvent which has drained into pan. NOTE: Mueller recommends using I, I, I Trichloroethane,Inhibited solvent (marketed under the trade names Inhibisol and Chlorothene NU, non-toxic and non-flammable substitutes for Carbontetra chloride to clean the stopper cylinder. The use of Carbontetrachloride is NOT recommended.

- b) After surface of cylinder has been washed down, it is ready for final cleaning. Pour clean, unused solvent onto the surface of the stopper cylinder and brush off with a clean brush. Let dry completely (approximately 30 minutes) in a well ventilated area.
- c) Use masking tape to cover the raised surfaces at the top and bottom edge of the cylinder.
 (This will aid in removing excess adhesive that might exude from under the cover when it is placed on the cylinder.)
- **4.** Thoroughly clean new cover material
- a) Lay the new cover on a smooth, flat surface with the side lettered "This Side Out" face down. Thoroughly clean the roughened side of the new cover (side without lettering) with I, I, I Trichloroethane, Inhibited.

Pour **clean**, **unused** solvent onto cover and brush toward cover ends to remove excess.

NOTE: Use a clean brush.

- b) On Steel Wedge Positive Control Line Stopper Covers ONLY, brush the primer (Part No. 581265) onto the cover (see warning). This primer is furnished with Positive Control Cover Kits only (see chart on page 1.) DO NOT use the primer on Neoprene Covers. Let dry completely for approximately 30 minutes in a well ventilated area.
- **5.** Prepare piece of aluminum foil about 2" longer than cover, and have baking powder available. These will be used to protect cover once it has been glued to cylinder.

Adhesive Coverage

Cartridge Size	Stopper Size	Approx. Amount of Adhesive Required
1 ¹ / ₂ oz	4"	1/2 oz (1/3 cartridge)
	6" (all)	1 oz (2/3 cartridge)
	8" (all)	1 ¹ / ₂ oz (entire cartridge)
3 ¹ / ₂ oz	10"	3 ¹ / ₂ oz (entire cartridge)
	12"	3 ¹ / ₂ oz (entire cartridge)



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6. Mix adhesive.

Part No. 89758 for 4", 6" and 8" sizes. Part No. 89759 for 10" and 12" sizes.

- a) Pull the plunger rod up towards the neck of the cartridge.
- b) Remove the band of tape from the cartridge. Squeeze the cartridge in the area the tape was removed from to deform the aluminum foil barrier within the cartridge.
- c) Begin mixing the adhesive by pushing and pulling the plunger rod back and forth in the cartridge. Rotate the plunger rod clockwise with each back and forth movement. At least 40 complete cycles back and forth with clockwise rotation of the plunger will be necessary to thoroughly mix the adhesive.
- d) After the adhesive is mixed, remove the red cap from the bottom of the cartridge and pull the plunger rod up towards the neck of the cartridge. Squeeze the cartridge to hold the plunger and remove the plunger rod by twisting it approximately three turns counter-clockwise.
- e) Force the plunger into the bottom of the cartridge. Continue forcing the plunger to discharge adhesive through the plunger rod hole.

 ONCE MIXED, ADHESIVE HAS 30 MINUTE POT LIFE.

- 7. Apply adhesive to the "roughened" side of the new cover near both ends and spread to the center. Use a putty knife to spread the adhesive over the surface of the cover with a complete and even coating, not heavy. Work quickly, adhesive has 30 minute pot life.
- 8. Place coated cover on cylinder so that the one end aligns with the edge of the cylinder by-pass slot. Use a damp rag to work out any air bubbles which may be trapped under the cover. Rub cover with damp rag until all air bubbles are removed. Place tape (masking tape, electrical tape, etc.) across the bypass slot to hold the cover ends together.

NOTE: In some cases, the cover may be too long to align perfectly with the other edge of the bypass slot after it has been wrapped around the cylinder. If so, excess cover can be trimmed off after the adhesive has cured.

- 9. Dust cover with baking powder.
- **10.** Wrap the Stopper with aluminum foil and expand Stopper within the Stopper Sleeve as tightly as possible.

Tuck ends in slot and fold down sides. Excess foil should be folded away from the surface of the cover. The foil and powder will prevent the stopper from sticking on the sleeve.

NOTE: For best results, we recommend using the stopping machine or stopper holding tool (Part No. 581604) to expand the steel wedge stopper in the sleeve.

- **11.** After 5 minutes, retighten stopper in sleeve.
- **12.** Cure at room temperature (above 75°F) for 24 hours or cure one hour at 300°F. Experience generally shows that the 300°F cure produces a slightly stronger bond.

13. After curing, remove the stopper

- from the sleeve and inspect.
 Remove tape from the edges of the cylinder along with any excess adhesive that might have exuded from under the new cover. Remove the tape holding the ends of the cover and, if necessary, trim excess cover material from the bypass slot.
- 14. Re-lubricate stopper threads.
- **15.** Return stopper to the sleeve until ready to use.

