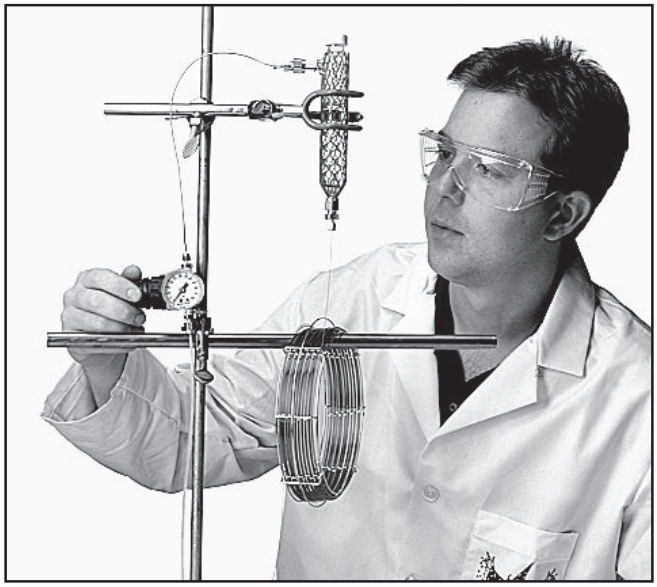
Restek Rinsing and Coating Reservoir

(cat.# 20612)

Installation Instructions

Caution: *The maximum operating pressure of the glass reservoir is 60psig. Always use safety glasses and protective plastic body shields when pressurizing the glass reservoir to prevent injuries in case of an explosion.*

Set up the reservoir kit according to the photograph. Use a ring stand in conjunction with a three finger clamp to hold the glass reservoir and a horizontal rod to support the column. Attach the 1/4-inch by 1/16-inch Swagelok® reducing unions to both arms of the glass reservoir using a Supeltex® ferrule (included). Do not overtighten as the glass arms can be easily broken. Attach the side arm of the reservoir to the inlet of the regulator via the 1/16-inch stainless steel tubing provided. Connect the inlet to a compressed gas source (nitrogen, helium or air) of no greater than 60psig. ***Note:*** *helium is recommended when coating columns because it reduces the amount of dissolved gas in the coating solution and reduces solvent breakthrough when static coating.*



Rinsing Columns

When a test mix shows signs of column degradation, cut one loop (approximately one meter) from each end of the column. If this does not restore the column's performance, try solvent rinsing. ***Note:*** *rinsing a bonded phase only removes solvent soluble residue.*

1. Connect the column to the reservoir using the silicone ferrules provided (fits all column ODs) or an appropriately-sized graphite or Vespel® ferrule.
2. Choose volatile solvents that will solubilize your suspected contamination. Rinse Restek columns using only the solvents shown in the table (on back). Contact Restek before rinsing with a solvent not listed in the table to prevent permanent damage to your capillary column.

   Do not rinse Rtx®-2330 columns. They are approximately 60% Crossbond® bonded and are not capable of being solvent rinsed.
3. Fill the reservoir with the appropriate amount of solvent (use 5mL with 0.25 and 0.32mm ID columns, and 10mL with 0.53mm ID columns) and tighten the cap on the top of the reservoir. Push the solvents through under pressure (40psig for 0.25 and 0.32mm ID or 20psig for 0.53mm ID columns) rinsing from the back to the front of the column to prevent inlet contaminants from being carried further into the column bore.*
4. Allow the column to purge with a dry carrier gas for 4–6 hours after rinsing before installing it in the GC or phase damage will occur. A dry carrier gas purge is necessary to decrease the polymer swelling after exposure to solvents.

Coating Columns

Caution: *The maximum operating pressure of the glass reservoir is 60psig. Always use safety glasses and protective plastic body shields when pressurizing the glass reservoir to prevent injuries in case of an explosion.*

1. Connect the column to the reservoir using the silicone ferrules provided (fits all column ODs) or an appropriately-sized graphite or Vespel® ferrule.
2. Fill the reservoir with the appropriate coating solution and tighten the cap on the top of the reservoir.
3. Set the reservoir to the appropriate pressure for your column ID. We recommend 40psig for 0.25 and 0.32mm ID columns, or 20psig for 0.53mm ID columns.
4. Once coating is completed, turn off the gas supply and bleed off the pressure in the reservoir by slowly loosening the screw cap on the top of the reservoir. Then remove the column from the reservoir outlet.

**Solvents such as methylene chloride or pentane may cause thick films (1µm) to swell and plug during rinsing. If your column plugs because of phase swelling, attach both column ends to a vacuum source to evaporate the trapped solvent. The evaporation procedure may take several days and will eventually reopen the column bore. Do not use high pressures (100psig) to force the solvent through or damage to the phase will occur. Purge the column with dry carrier gas after the solvent has been evacuated and the column bore has reopened.*

See back for recommended rinsing solvents.

Recommended solvents for rinsing Restek Crossbond® capillary columns

Phase	Water	Methanol	CH_2CL_2	$CHCL_3$	Acetone	Toluene	Pentane
Rtx-1	OK	OK	OK	OK	OK	OK	OK
Rtx-5	OK	OK	OK	OK	OK	OK	OK
Rtx-20	OK	OK	OK	OK	OK	OK	OK
Rtx-35	OK	OK	OK	OK	OK	OK	OK
Rtx-1701	Avoid	Avoid	OK	OK	OK	OK	OK
Rtx-50	Avoid	Avoid	OK	OK	OK	OK	OK
Rtx-225	Avoid	Avoid	OK	OK	OK	OK	OK
Stabilwax	Avoid	Avoid	OK	OK	OK	OK	OK
Stabilwax-DB	Avoid	Avoid	OK	OK	Avoid	OK	OK
Stabilwax-DA	Avoid	Avoid	OK	OK	Avoid	OK	OK
Rtx-Volatiles	OK	OK	OK	OK	OK	OK	OK

Call Technical Service at 800-356-1688 or 814-353-1300, ext. 4 (or your local Restek representative) if you have any questions about this product or any other Restek product.

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