

**New Water
Cooling Kits:
Improved
Reliability**

In line with the continuous efforts that Varian is making to improve the quality of its products, we offer the latest generation of water cooling kits for turbopumps. The kits are based on an innovative design to prevent problems in the field related to the use of tap water to cool our turbopumps (water leaks, corrosion and deposition).

Special care has been taken in the selection of the kit materials in order to have good corrosion resistance, low galvanic coupling between different materials, and an adequate mechanical strength.

The kits are composed of a SST screw, a rotatable "banjo" and, according to the kit model, some buna washers. The SST screws have intentionally been lined

with a solid layer of Teflon® in order to allow smooth screw mounting and to avoid any salt deposition into the threads. According to the kit model, the "banjos" can be connected to either metric flexible tubes or fractional American flexible tubes. The "banjos" for the metric tubes are made of inert

plastic, while those for fractional tubes are made of SST with barb fittings.

A wide range of tube connections is now available for both fractional and metric standards. In particular, we have selected two main tube sizes for each standard: 4 x 6 mm (ID x OD) and 6 x 8 mm for the metric standard; and 1/4 in. ID and 3/8 in. ID for the fractional standard.



Photo 1 - 9699347 - Water Cooling Kit for 4 x 6 mm (ID x OD) tube, with Plastic Banjo

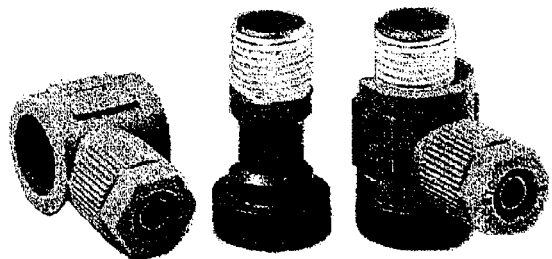


Photo 2 - 969948 - Water Cooling Kit for 6 x 8 mm (ID x OD) tube, with Plastic Banjo

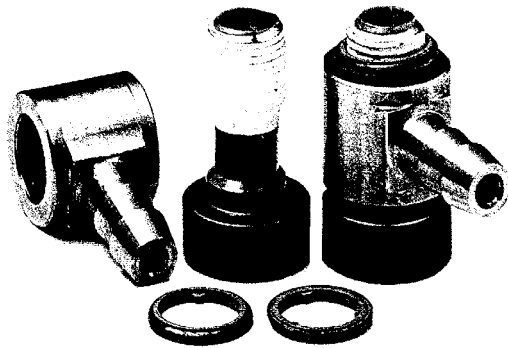


Photo 3 - 9699337 - Water Cooling Kit for 6 x 8 mm (ID x OD) or 1/4 in. ID tubes, with SST Banjo

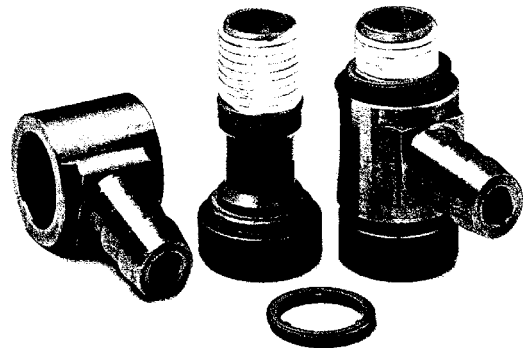


Photo 4 - 9699338 - Water Cooling Kit for 3/8 in. ID tube, with SST Banjo

The following table lists all water cooling kits available, the type and size of flexible tube required,

the materials used, the type of screw thread, and when the kit is provided with washers:

ID	Part Number	Tube Size (ID x OD)	Banjo	Washer	Screw Thread
1	969-9347	4 mm x 6 mm	Plastic	Not Required	1/8 BSP
2	969-9348	6 mm x 8 mm	Plastic	Not Required	1/4 BSP
3	969-9337	6 mm x 8 mm	SST	Required	1/8 BSP
4	969-9337	1/4 inches ID	SST	Required	1/8 BSP
5	969-9338	3/8 inches ID	SST	Required	1/4 BSP

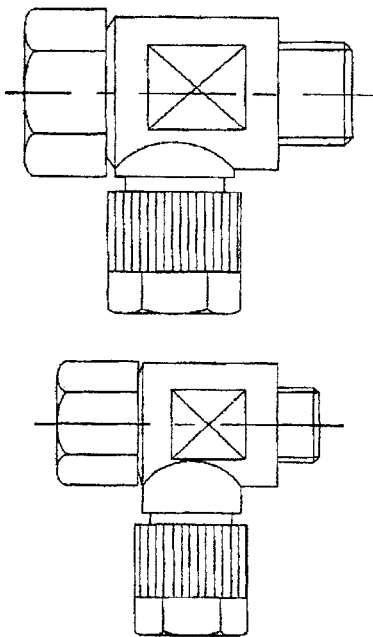
Kit 969-9337 can work with either metric or fractional tubes. This kit is intended to replace the older brass nickel-plated water kit (969-9318) that is

obsolete. The complete line of water kits is shown in photos 1 through 4.

Notes:

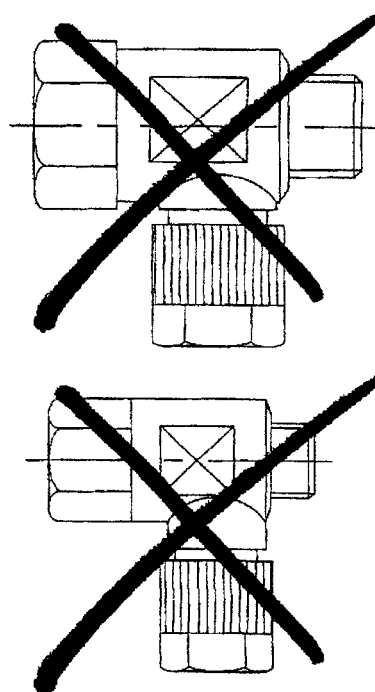
1. Plastic banjos mounting procedure

The plastic banjos provided with kits 969-9347 and 969-9348 (photos 1 and 2) are not symmetric. The SST screw must be fitted as shown in the following figure. When assembled, the plastic banjo shorter side must be closer to the screw head.



2. Screw mounting procedure

Even if the SST screw provided with the kit already has a Teflon lining, it is always advisable to wrap the screw threads with two turns of Teflon white band in order to insure easy screw mounting and unmounting .



Fitting info: 1/8-28 BSPP, HSG, 55 degrees, MOD, WHIT

The BSPP designates straight (or parallel) threads