1 Disassembling The Scrollpump

The disassembly of the scrollpump is for the most part self explanatory. As you take the pump apart it is import that you pay attention to how the machine is built, this will be crucial for putting the pump back together since instruction manuals are not always as clear as they should be. 

*NOTE:* Be sure to keep track of the parts as you disassemble the pump.

1. Before disassembly the mainenance manual states: Open intake port to atmospheric pressure and operate for one minute a few times in order to exhaust dust, etc., from inside pump. Turn power off.

2. Place the pump with the motor end downwards and remove the **fan cover** by undoing the bolts with a 4mm allen wrench.

3. With the fan cover removed spin the **fan** with your hand and note the rotational resistance so you are familiar with how it should be when re-assembled.

4. Remove pump from motor by undoing **bolts** entering pump from motor side. Use 5 or 6 mm allen wrench.

5. Remove bolts that hold **fan 2** to pump, 5mm allen wrench, remove washer also. Remove fan 2 and **flat key**. The flat key can just be pulled off the **crank shaft**.

6. Separate **fixed scroll, FS, 1 from 2**. Use 5 or 6mm allen wrench and remove bolts. To separate pull FS 2, the one wit the bolts, pull it upwards. **Caution:** Carefully remove FS 2, there are bearing and seals that must not be damaged.
7. Remove Moving scroll, MS, by pulling it upwards and out of MS 1. 
   NOTE: The moving scroll and the insides of FS 1 and 2 have a special 
   coating that prevents the build up of molecules. It is extremely important 
   that these surface do not get scratched. Handle with much care.

8. Remove fan 1 from back of FS 1. (Same as step 5)

9. Pull crank shaft out of FS 1, this may require some force, be careful not 
   to harm the crank shaft surface of the inside surface of the FS.

10. Remove bearings from inside MS. The best ways to do this is to go to 
    ?room?. There is a press in the corner that can be used to force the 
    bearings out. The way to do this is to get a washer that can be laid over 
    the metal walls of the bearings, it should also be small enough to fill in the 
    hole of the MS. After placing the washer over the bearing use the press to 
    push the bearings out, this will protect the ? ? inside the bearings from 
    being smashed.

2 Cleaning the Scrollpump

There is often a hard build-up which develops on each of the tracks of the MS 
and FS. One must use caution in removing this build-up and in cleaning the 
scrolls for further use. The following procedure should be used for removing the 
build-up from the scrolls:

1. Make a pastey mixture of Comet or Ajax and water.

2. Using a Q-tip wipe the paste onto the areas of build-up and scrub the 
   area thoroughly until the build disappears. Unfortunately this is a very 
   tedious job and it must be done a few times in order to clean the walls. 
   NOTE: Contact Varian for additional help if the above procedure is un-
   successful.

3. Repeat above step if necessary.

4. When the build-up is removed, use Kim-Wipes, acetone, and ethyl al-
   chool to clean all scrolls.
   CAUTION: Use only gloves that protect against acetone. See MSDS.

3 Reassembling the Scrollpump