

Setting the Peristaltic Pump Tension on an ICP

Note: This must be done with a self-aspirating nebulizer such as a glass concentric or ESI PFA-ST installed. If you are using a nebulizer other than a self-aspirating one, such as a V-groove, then follow the alternate procedure.

1. Make sure the pump tubing is installed on the peristaltic pump and the peristaltic pump is not moving and the platens are not clamped down.

Note: *If you are using an autosampler, disconnect the autosampler line from the sample pump tubing and in its place install a small piece of capillary tubing. There is not enough force during self-aspiration to overcome the friction caused by the long sample capillary of the autosampler probe.*

Note: *If you are using online internal standard dilution, you will need to connect only the sample line to the nebulizer and once finished setting up the tension on the sample line, complete steps 1-6 again with only the internal standard line connected to the nebulizer.*

2. Place the sipper probe in DI water. The nebulizer should start self-aspirating at this point.
3. Clamp the platen down on the pump tubing and turn the tensioner screw counter-clockwise until the nebulizer start to aspirate freely again.
4. Tighten the tensioner screw by turning it clockwise 1-2 turns
5. Turn the peristaltic pump on to your normal analysis speed.
6. The tension should now be set properly on the pump tubing. To further verify, insert air bubbles into the line by raising and lowering the sipper probe out of the DI water a few time. The air bubbles should move in a nice fluid motion without any hesitation or jerkiness.

Alternate Procedure for Nebulizers that don't Self-aspirate

1. Make sure the pump tubing is installed on the peristaltic pump and the platens are clamped down. Turn the peristaltic pump on to your normal analysis speed.
2. Place the sipper probe in DI water. If the liquid is flowing, reduce the tension on the platen by turning the tensioner screw counter-clockwise until the liquid stops flowing.
3. Now turn the tensioner screw counter-clockwise until the liquid starts flowing and give it one more turn clockwise from there.
4. Introduce several air bubble into the line by raising and lowering the sipper probe out of the DI water a few time. The air bubbles should move in a nice fluid motion without any hesitation or jerkiness.