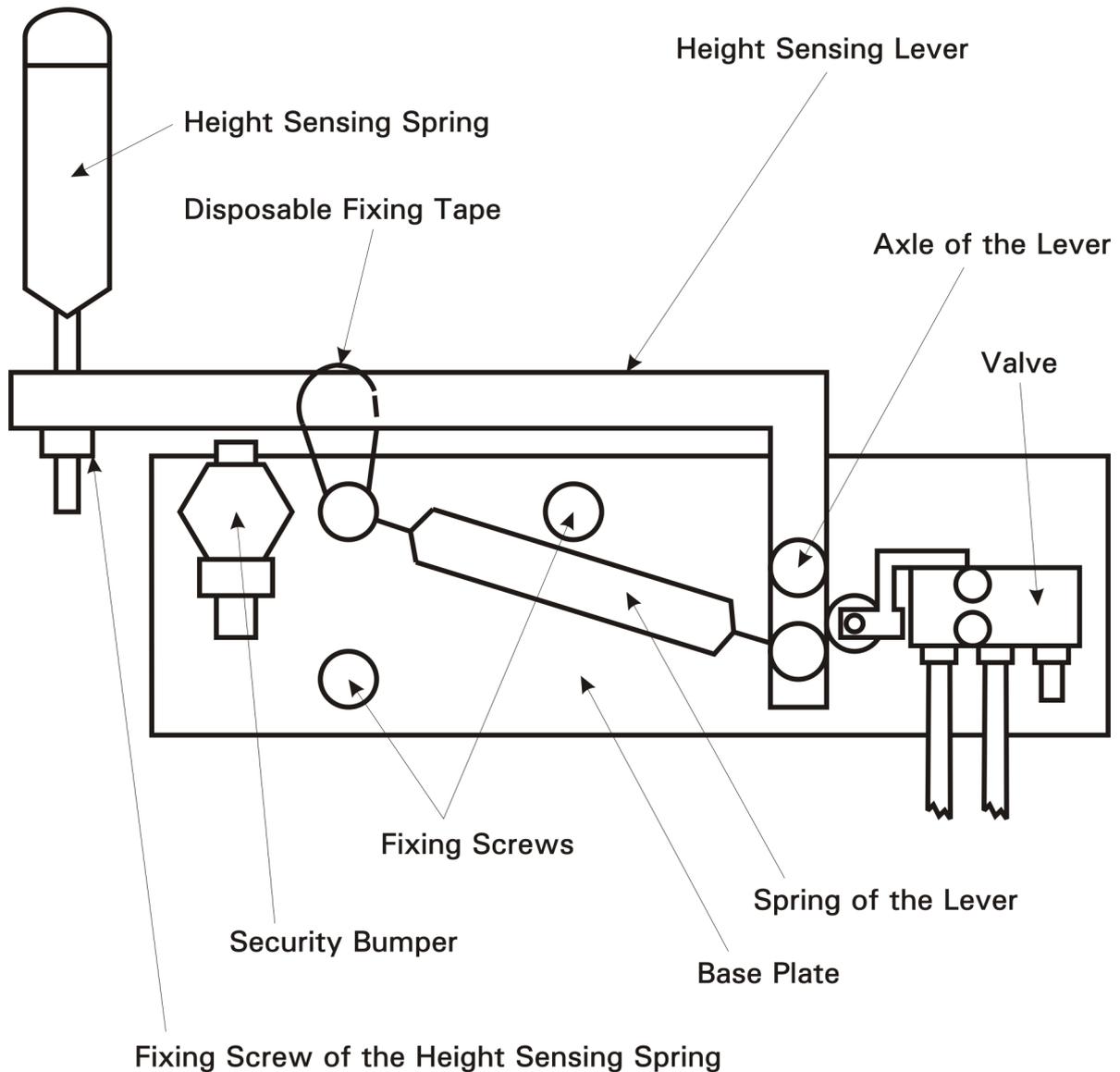


# Changing of the Valve Assembly on the STable (©) Active Pneumatic Vibration Isolation Tables

The following drawing shows the parts of the valve assembly.



If there is any adjustment seems to be necessary, only the fixing screw (lock nut) of the height sensing spring should be opened, and the height sensing spring should be turned into another position. After making the modification the fixing screw of the height sensing spring should be locked (tightened) again.

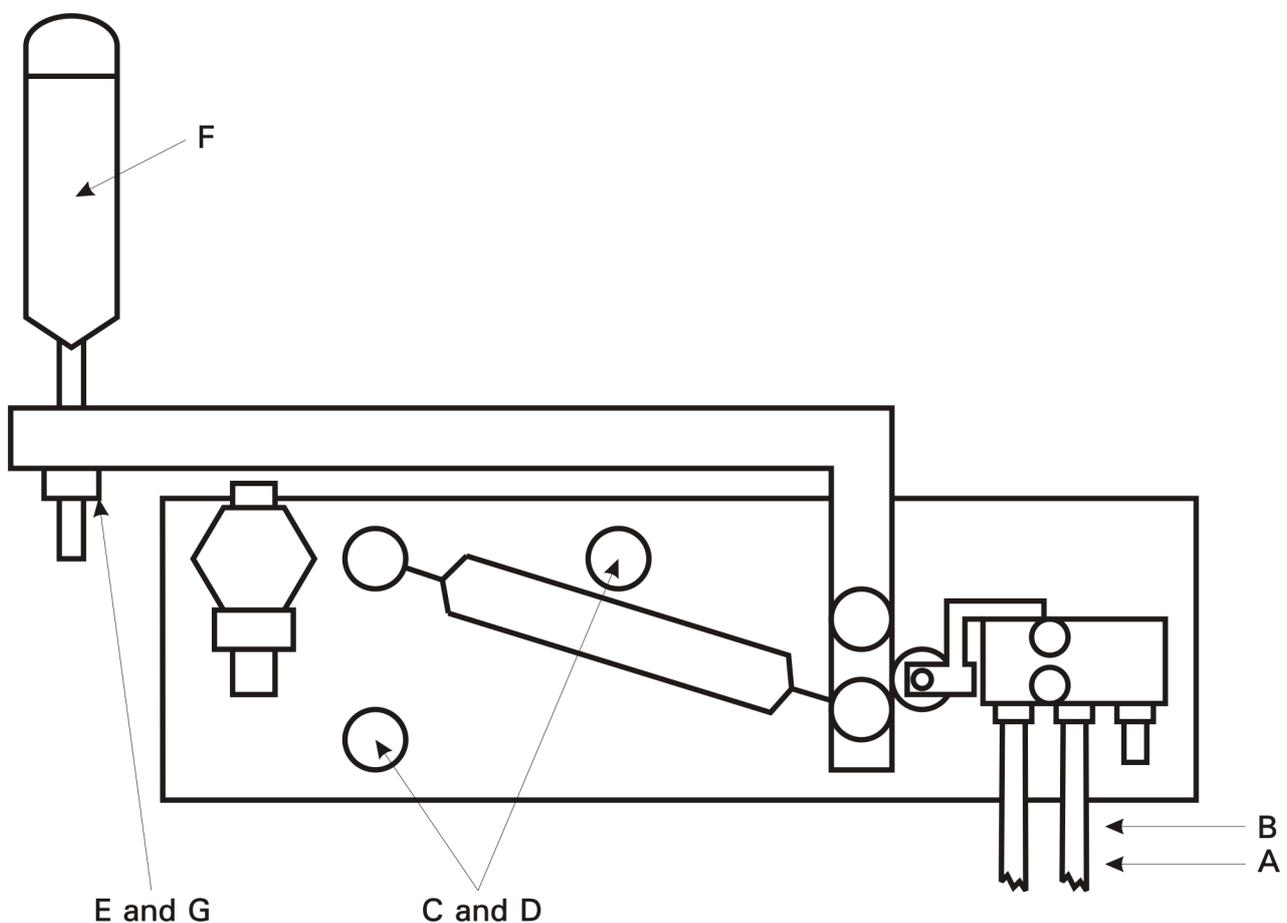
Modification or adjustment of any other parts of this valve assembly is prohibited, because serious damage of the silicone rubber membrane and/or the valve can happen.

As a result of the improper adjustment, the silicone membrane of the cylinder will blow up!

During normal working of the vibration isolation table the lower edge of the height sensing lever and the top edge of the steel base plate of the valve assembly are parallel (within  $\pm 0.3$  degrees). In this position there is approximately 4 mm of dead zone can be measured at the top of the height sensing spring. In the dead zone the valve assembly keeps the optimal working position of the cylinder with no air consumption of the table. The valve assembly is adjusted and calibrated on this way by the factory.

Switch off the Quiet Air Compressor before starting the changing procedure of the valve assembly.

The steps are shown in the following drawing with arrows starting by A.



Mark the blue tubes with a water resistant marking pen or with sticker labels. The optimal place of marking is approximately 30 mm from the end of the tubes. **Arrow A.** The aim of marking the tubes is to ensure, that they will be pushed back to their appropriate place (on the same tube connectors where they were originally) on the new valve assembly.

Be careful! If you change the tubes on the new valve assembly, or you push them back to another tube connector, not onto their original place, the silicone rubber membrane

of the cylinder will be overloaded with the air pressure. As a result the silicone membrane will blow up!

Cut the blue tubes with a sharp-edged knife in 10 mm of distance from the end of the tube connector of the valve. **Arrow B**. While you cut the first tube, take care not to hurt the other tube. Small injury on the tube will result an air leakage in the future.

Be careful! After cutting the blue tubes hold them carefully with your fingers. Just after cutting fix the blue tubes not to allow them going back to the leg. You should glue them to the outer blue painted steel surface of the leg with an adhesive tape for example. If the end of the cut tube would go into the leg through the hole (where it goes out), you would not be able to reach that tube any more without removing the top plate and disassembling the table!

Release and unscrew the fixing screws with a 4 mm hex-key wrench. **Arrow C**.

Put the faulty valve assembly away.

Put and hold the new valve assembly on its place.

Screw back and tighten the fixing screws with a 4 mm hex-key wrench. **Arrow D**.

Push the blue tubes back onto the new valve on the appropriate tube connectors.

Be careful! The valve is very sensitive. You can break it easily. Push the tubes back completely, but do not apply too big force to the valve or to the tube connectors.

Be careful! Push back the blue tubes onto their appropriate tube connectors, according to the marks you made earlier (**Arrow A**). If you change the tubes, or you push them back to another tube connector, not onto their original place, the silicone rubber membrane of the cylinder will be overloaded with the air pressure. As a result the silicone membrane will blow up!

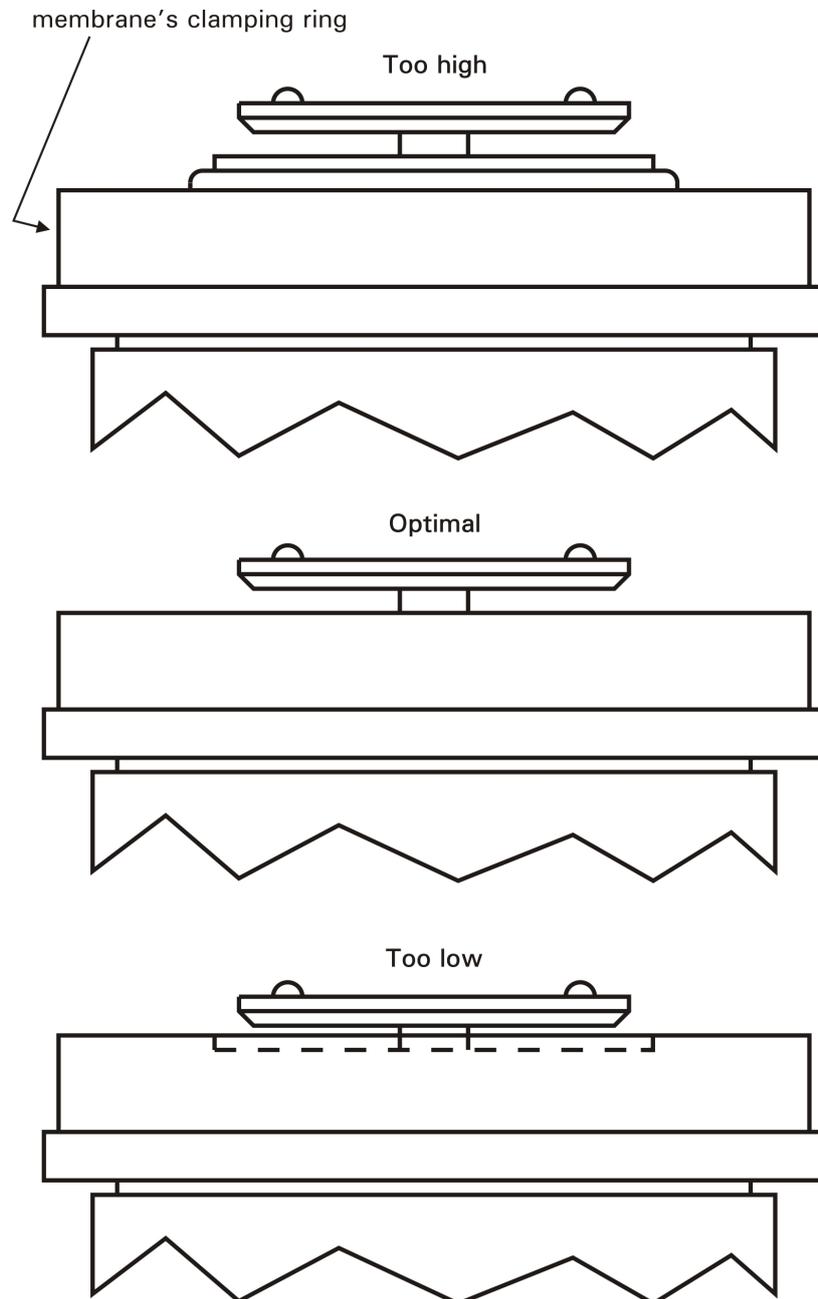
Release the fixing screw (lock nut) of the height sensing spring with an 8 mm wrench. **Arrow E**.

Crouch in front of the table in order to be able to see all cylinders at the same time. Switch on the air supply for short periods. Meanwhile, PAY ATTENTION that every cylinder moves; but they don't rise too high. It is advised to make this observation while somebody's taking care of the switch of the source of the air supply. In case a cylinder "stays upwards" the pressure supply must be switched off WITHOUT DELAY, and the height sensing lever of the actual valve have to be pushed high to release the air from that cylinder. Leaving the pressure overload in the "stayed upwards" cylinder will result the silicone rubber membrane blowing up!

If neither of the cylinders was "stayed upwards", switch on the Quiet Air Compressor permanently.

Adjust the height of the piston in the cylinder on that leg, where the new valve assembly was installed. You can adjust the height of the piston with turning the height sensing spring. **Arrow F**.

The optimal setting is shown in the following drawing. Make sure that the upper plane of the cylinder's piston is not only at the same height but also in the same plane as the upper plane of the rubber membrane's clamping ring. This assures the table's "self-adjusting" mechanism during use.



After adjusting the optimal height of the piston, fasten the fixing screw (lock nut) of the height sensing spring with an 8 mm wrench. **Arrow G**.

If a task described in the current step cannot be carried out properly, the process has to be stopped. In such a case ask for help by phone: +36 20 9234 386, or by email: [office@superte.ch](mailto:office@superte.ch) or [office@supertechinstruments.co.uk](mailto:office@supertechinstruments.co.uk)

Please send back the faulty valve assembly to the factory. We will examine it in detail, because we have to find the reason of the fault. We make huge efforts to improve the quality and reliability of our vibration isolation tables. This feedback of faults is a very important point in this process.