



Drying Filter

Product Information Sheet

09/27/16 Rev. 1.1

The drying filter is provided to remove atmospheric moisture from the FX5K™ Tension FlexLink® system should any moisture have bypassed the water traps. This filter is necessary when water appears to have reached the internal components of the FlexLink® by way of the *FLEX IN* or *FLEX OUT* tubing. The drying filter should also be used on a regular basis to perform preventative maintenance on the FX5K™ Tension FlexLink®. For regular maintenance, Flexcell® recommends running the drying regimen after each experiment with a 24 hour or longer duration. The drying filter functions by pulling air through desiccant beads and subsequently through the FlexLink® valves and transducer tubing. The desiccant beads absorb the moisture out of the air, drying the tubing and valves. The drying filter consists of a small glass bulb in plastic housing with desiccant beads. The drying filter comes fully assembled with two fittings and lengths of tubing to connect to the *FLEX IN* and *FLEX OUT* ports of the FlexLink® unit. The fittings include red locking clips to keep the tubing connected.



Figure 1. Drying filter with fittings and tubing.



Figure 2. Setup of the drying filter in line with *FLEX IN* and *FLEX OUT* tubing and connected to the FX-5000™ Tension System

ASSEMBLY NOTES. To connect the drying filter to the FlexLink®, first remove the *FLEX IN* and *FLEX OUT* tubing from the back of the FlexLink®. Connect the blue polyethylene 1/4" OD tubing from the drying filter to the *FLEX IN* port on the back of the FlexLink® and connect the blue polyethylene 3/8" OD tubing from the drying filter to the *FLEX OUT* port on the back of the FlexLink® (Fig. 2). The drying filter is now ready for use with the FX-5000™ Tension System.

SPECIFICATIONS

<i>Fitting Size</i>	1/4" NPT female outlet with male inlet (fittings supplied)
<i>Max Pressure</i>	90 psi (0.62 MPa)
<i>Dimensions</i>	3 3/4" x 1 11/16" diameter (9.5 cm x 4.3 cm)
<i>Weight</i>	0.4 lb (0.18 kg)

RUNNING THE FX-5000™ TENSION SYSTEM WITH THE DRYING FILTER CONNECTED. With the drying filter connected, open the FX-5000™ software. In the **Regimen** menu of the main window display, select **Assign**. Choose the *BioFlex Plate, no Loading Stations* platform assignment, the *Shutdown* username, and the regimen entitled *Drying*. Once the regimen is assigned, press **Start**. Be sure that the vacuum source is turned ON. The sound of air cycling through the drying filter can be heard. Once the regimen is complete, the drying filter should be removed and replaced with the *FLEX IN* and *FLEX OUT* tubing from the BioFlex® baseplate. **NOTE:** If it is believed that a significant amount of water may have entered into the FlexLink®, a longer drying regimen may be programmed into the software. To do so, simply modify the time in the default regimen *Drying*. In many cases, if a large amount of water has entered into the FlexLink®, the unit will need to be shipped to Flexcell® for repair.

MAINTENANCE NOTES. After using the drying filter, the cobalt II –doped desiccant beads will change color from deep blue when dry to pink when wet, due to saturation from the moisture passing through. A pink color indicates that the drying filter efficiency has decreased, although its functionality is still intact. Once the beads are pink, the beads should be removed from the filter, placed in a drying oven before use in order to dehydrate the beads for greater drying efficiency, and then the beads should be returned to the filter. For information on regenerating the desiccant beads, see *Tech Report 200: Use of Water Traps and Drying Filter with the FX-5000™ Tension System*. A replacement filter can be purchased, if needed.

ORDERING INFORMATION. Drying filters (Cat. No. DRYFILTER) are sold individually. Flexcell® recommends that the drying filter be replaced if regular experience of water condensation problems with the FX-5000™ Tension System occurs. Regular maintenance of the FX-5000™ Tension System is important to maintain longevity.