

## **Fill / Flow Sub with Integrated No-Go Running Procedures**

### **Running Procedure:**

The LRI Fill Flow With Integrated No-Go sub is used to prevent debris from falling on the firing head and interfering with the operation of the firing pin. The ports in the body of the tool allow the tubing to fill with fluid as it is tripped down the well. The restriction or the ID at the ports prevents logging tools from contacting a mechanical firing head. The glass disk is broken by the drop bar on its way to the firing head.

The Fill Flow With Integrated No-Go sub should be the first tool above the firing head. The pup joint in between should be short enough so that when the drop bar being used is resting on the firing head, the fish neck is protruding above the no-go. This allows easy fishing of the drop bar if necessary.

The Fill Flow With Integrated No-Go sub must be made up independently from the string and tightened only with the pipe wrenches ensuring the wrenches are placed on the knurl and the tubing upset. (Power tongs should not be used)

**Note:** Do not drift/rabbit the Fill Flow With Integrated No-Go sub.

**Note:** Do not apply torque through the Fill Flow With Integrated No-Go sub when making up tubing onto the tool.

Make up the next pup joint in the assembly. Placing the back up wrench on the knurl on the Fill Flow With Integrated No-Go sub, tighten the pup joint in with pipe wrenches only. (Again Power tongs should not be used)

Remove slips and continue running assembly in the hole.

### **Precautions:**

When tripping the tubing string into the well, take care not to allow anything to drop into the tubing bore. When operations are delayed, cover the tubing bore with a cap. Falling debris may break the glass disk prematurely.

If it is suspected that a large amount of debris is resting on the glass disk, the operator should circulate well fluid through the ports for a few minutes in order to clean away as much debris as possible.

### **Breaking the Glass Disk:**

When the guns are in position, the appropriate drop bar can be dropped through the tubing. The glass disk requires a very small amount of energy to break (about 20 ftlb) and the debris is very brittle. If the glass is broken prematurely, the glass debris will not interfere with the operation of the firing head.

### **Redress Procedure:**

1. Inspect and clean all of the components carefully. Look for damage or unacceptable surface condition (rust, rough finish etc.). Pay special attention to threads.
2. Place the Glass Disk onto its shoulder in the firing head body from the pin thread side.
3. Install the Snap Ring on top (pin thread side) of the Glass Disk.

