Instructions for using the Chant SF25 Flushing Valve

The Chant SF25 Flushing Valve is a 3000 psi, rotary action, tandem center 4-port directional valve. In its mid-position, ports P and R are connected together while C1 and C2 are both blocked. Moving the handle to one side will connect P to C1 and C2 to R, with the opposite connections for the opposite handle motion. Some degree of metering will be obtained at intermediate positions.

A fifth port is supplied to flush the pilot pressure line of 5-port servo valves. Its location matches the 5-port Moog 760 series valves. This port is supplied with a sealing screw installed, which should be left in place unless fifth port flushing is to be done.

The SF25 flushing valve is directly interchangeable with many Moog, Pegasus, Atchley and other servo valves. Contact Chant Engineering Co. for adapters that can be supplied for other port patterns.

Flushing

If you have a new hydraulic installation or an old one which has been taken apart for repairs, it should be flushed out to remove dirt **BEFORE A SERVOVALVE IS INSTALLED**.

Mount the Chant SF25 Flushing Valve in place of the servo valve. If the handle interferes with any adjacent machine parts it can be repositioned to any of the four sides of the valve. To do this unscrew the handle from the rotor cap. Remove the set screw that is in the rotor cap (3/16 hex key) and rotate to the desired position. Retighten the set screw and replace the handle. The hydraulic system filter elements should be replaced at this time prior to flushing.

Set the valve handle in its middle position and start the hydraulic pump. Oil will flow through the supply line to the valve, directly through the valve and back to tank through the return line. Depending on the size of the pump, only a low pressure will be reached due to the open valve. In this condition, supply and return lines are being flushed; the ports connecting to the servomotor or cylinder are closed. If you are using the fifth port and the pilot supply is also turned on, the pilot line will be flushed in the same way by oil running through the supply line and back through the return line.
The system should run this way for at least half an hour, longer if possible. Remember, dirt in the lines is being flushed out; the oil is being cleaned by the normal system filters.

When the supply and return lines are adequately flushed, the valve handle may be moved slowly off center. As this is done, the open center of the valve closes. Oil is ported to the servomotor or cylinder and motion will occur. System pressure will rise to its normal setting. Moving the handle from side to side will reverse the motion and in this way the motor or cylinder and interconnecting lines can be flushed. When enough flushing has been done, shut off the pump, replace the servo valve and it’s electrical connections and the system is operational. It is recommended that the system filters be replaced again at this time.

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