



SETTING PRESSURE SWITCHES

The procedure for testing and setting pressure switches is basically the same regardless of the brand or type of switch used. There are points to consider before touching the switch:

- 1) An accurate gauge should be used rather than using the scale on the switch itself.
- 2) All of the air should be purged from the sensing lines.
- 3) The switches should be identified and their function fully understood.

CAUTION: Before proceeding, turn off power (if possible) or use extreme care when working with energized circuits. Remember that dangerous voltages and pressure exist on all pumping systems.

PROCEDURE

Before adjusting switches to their required set points, any high switches (i.e., high system, high suction), should be adjusted high "out of the way"; any low switches (i.e., low system, low interstage, low suction), should be adjusted low "out of the way".

Whichever sensing line is being used (suction pressure, system pressure, interstage pressure, or HydroCumulator feedline pressure), it should be isolated using the supplied ball valve to create a "pressure trap" in the sensing line.

Low pressure switches should be set and verified with pressure falling. Therefore, the "pressure trap" should be higher pressure than the required set point. The pressure trap is then lowered to the required value by loosening a compression nut on a sensing line fitting and slowly bleeding the pressure down. Tighten the compression nut when the pressure is at the set point. Now adjust the switch until it trips. This procedure should be repeated several times until the accuracy and repeatability of the switch have been verified.

High pressure switches are set with the pressure rising. This may require that system pressure be raised until the required set point is attained. The switch adjustment can now be lowered until the switch trips. If raising the pressure is not practical, the higher pressure developed by the pump upstream of the PRV or control valve can be used by switching the sensing lines. Remember to switch the lines back to their original position when finished. Regardless of which procedure is used, as with low pressure switches, the high switches must also be verified for accuracy and repeatability by raising the sensing pressure to the set point several times.

Some switches cause a change in the trapped pressure as they are adjusted. Adjustments should be made slowly and the set point pressure checked as the procedure is carried out.

The switch set points can be found on the electrical (control panel) data sheet in the Installation, Operation, and Maintenance (IOM) manual. As always, the SyncroFlo Technical Support Department will be available to assist in properly completing any switch adjustment you may need to make.