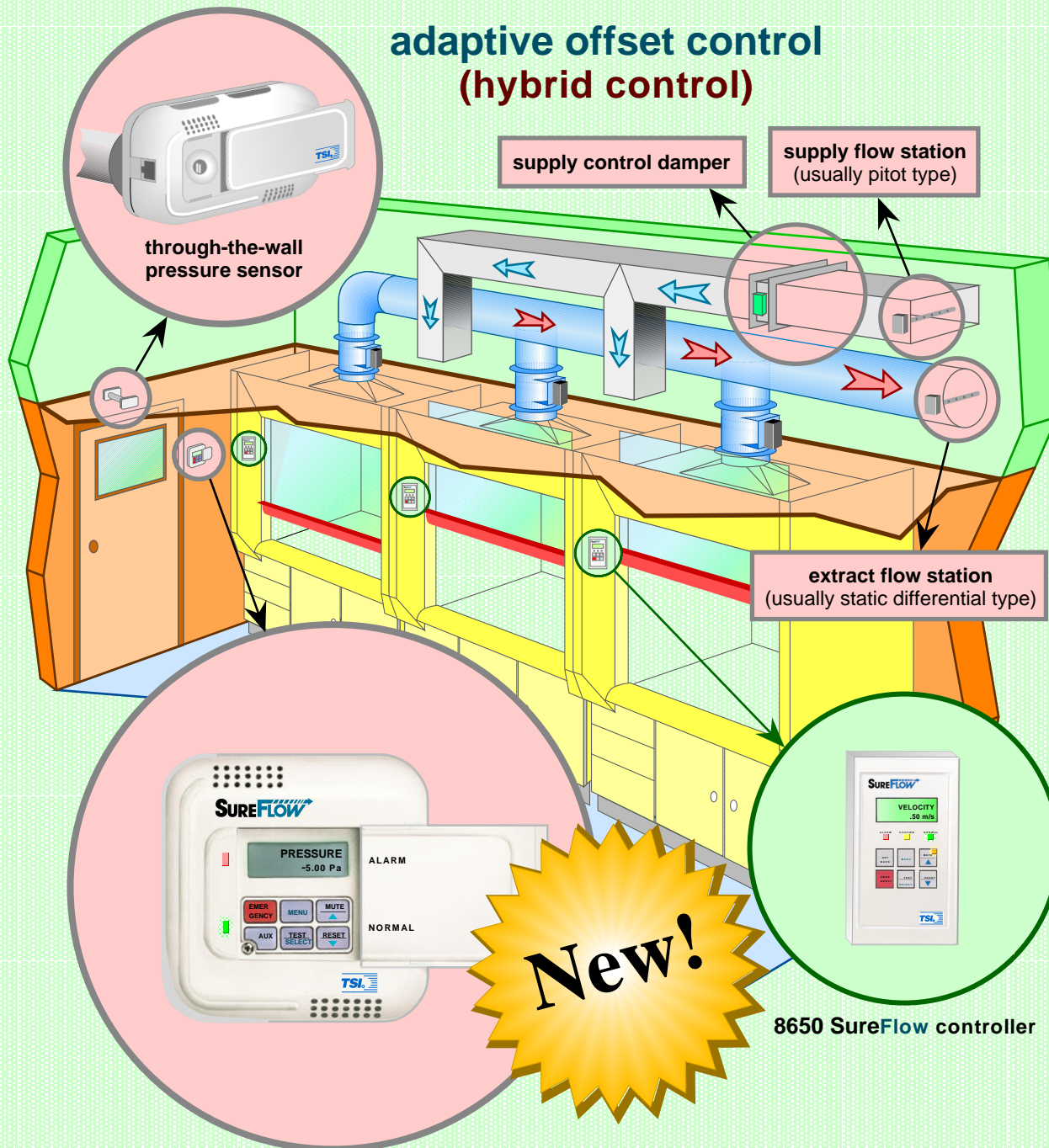


SUREFLOW[®]

laboratory control solutions

adaptive offset control (hybrid control)



Laboratory supply air flow and pressure is simultaneously controlled by the 8680 (or 8681 or 8682) SureFlow adaptive offset controller as shown in the figure. The control system consists of the following main components:

- (a) digital control panel with built-in display and alarms
- (b) through-the-wall pressure sensor
- (c) supply air flow station (in the supply duct)
- (d) supply control damper/actuator
- (e) extract air flow station (in the extract duct)

The extract air from the laboratory is measured by the flow station in the common extract duct and its output signal input to the 8680 controller. Based on the input value, the 8680 controller outputs a control signal to the actuator to adjust the supply damper so as to control the supply air flow, measured by the flow station in the supply duct, with an offset from the total extract air. The offset is a variable within a preset range and is varied by the pressure sensor to allow the laboratory pressure with respect to the reference space (usually the write-up or corridor) to be maintained within a tighter tolerance.

8680 or 8681 or 8682 SureFlow controller

8650 SureFlow controller