TES-CLEAN AIR SYSTEMS

# The ideal way to measure the status of an EFEM/Tool clean zone is via differential pressure

The Following pages detail several stand alone solutions, installed after the FFU is already in place and the tool is functioning.

The mini-environment (EFEM )
FFU fills the space with unidirectional ULPA filtered while controlling the exit of the air such that a differential pressure is established. The differential pressure is regulated to not less than 0.005” WG (1.25PA) and typically not more than 0.04” WG (10 PA). The positive differential pressure ensures that air from adjacent, lower ISO class zones never leaks into the mini-environment, per accepted clean room best practices

Typically the fans in the FFU are monitored against failure. The shortcoming of only monitoring the fans is that the volume of air from the fans is only half of the differential pressure equation. In the event that a hatch or maintenance door is left ajar the differential pressure drops or even disappears.

The stand-alone Basic Pressure Monitoring System (BPMS) and Deluxe Pressure Monitoring System (DPMS)

In the following options the alarm box is not powered by the FFU, nor is the pressure level or alarm state reported through the FFU

This panel mounted Basic Pressuring Monitoring System (BPMS) allows programming of a pressure alarm level directly from the keypad. When an alarm level is reached a buzzer sounds.
All that is required is to mount it, run ¼” tubing to the EFEM, and power it with 24 Volts.

The panel mounted Deluxe Pressuring Monitoring System (DPMS) allows programming of a pressure alarm level directly from the keypad, plus features an optional TRH probe. When an alarm level is reached, a buzzer sounds, the screen turns red, and a set of SPDT contacts change state to alert your tool's computer.