CLAIMS

1. An apparatus for detecting a leak in a unit under test, comprising:

a helium dispenser connectable to a helium gas source having a motion detector connected thereto, the helium dispenser configured to selectively dispense helium therefrom;

a vacuum source releasably connectable to the unit under test through a fitting;

a helium detector fluidly coupled to the vacuum source; and

a controller operatively coupled to the helium detector and the motion detector and configured to receive electrical signals indicative of a speed of motion of the helium dispenser as helium is dispensed from the helium dispenser,

the motion detector comprises a first accelerometer and a second accelerometer;

the helium dispenser including a nozzle having an opening therein for the dispensing of the helium therefrom; and

the first accelerometer and second accelerometer are disposed within the nozzle.

2. The apparatus of claim 1, wherein the controller is further configured to receive a signal from the helium detector indicative of a quantity of helium detected by the helium detector.

3. The apparatus of claim 1, further comprising a pressure sensor in fluid communication with an interior of the unit under test, the pressure sensor connected to the controller and configured to send a signal to the controller indicative of the pressure within the unit under test.

4. The apparatus of claim 1, wherein the helium dispenser further comprises a depressible trigger, which when depressed, allows a flow of helium from the helium dispenser.

5. The apparatus of claim 1, wherein the motion detector is a single accelerometer.

6. The apparatus of claim 1, wherein comprising a fluid tubing having a helium detector in fluid communication with an interior volume thereof.

7. The apparatus of claim 1, wherein:the nozzle has a centerline direction, and the first accelerometer is configured to detect motion along the centerline direction,

the nozzle has a centerline direction, and the second accelerometer is configured to detect motion circumferentially about the centerline direction.

8. The apparatus of claim 1, wherein the nozzle has a centerline direction, and the first accelerometer is configured to detect motion along the centerline direction.

9. The apparatus of claim 1, wherein the nozzle has a centerline direction, and the second accelerometer is configured to detect motion circumferentially about the centerline direction.

10. A method for sensing a leak in a unit under test, comprising:

scanning a SKU on a unit under test giving SKU information;

sending the SKU information to a computer;

connecting the unit under test to a testing apparatus

removing gas from an interior volume of the unit under test;

monitoring a vacuum pressure within the interior volume of the unit under test until the vacuum pressure reaches a test pressure;

initiating delivery of helium to an exterior of the unit under test through a helium gun by pulling a trigger on the helium gun to dispense helium therefrom;

providing the helium gun comprising a motion detector, the motion detector comprising a first accelerometer and a second accelerometer;

the helium gun including a nozzle having an opening therein for the dispensing of the helium therefrom; and

the first accelerometer and the second accelerometer are disposed within the nozzle;

positioning the helium gun so that helium is released over a weld of the unit under test;

detecting a movement speed of the helium gun during dispensing of helium therefrom; and

displaying a helium content internal to the unit under test on a graphical user interface.

11. The method of claim 10, wherein the first accelerometer and the second accelerometer internal to the helium gun transmit a signal to a computer monitoring a leak test.

12. The method of claim 11, further comprising designating a unit under test as not passing the leak test and notifying a failure notice through a notice on a user interface comprising a visual alert, an audio alert, or a visual alert and an audio alert.

13. The method of claim 12, wherein designating a unit under test as not passing the leak test and notifying a failure notice through a notice on the user interface occurs as a result of a movement of the helium gun at a speed faster than a preset maximum threshold value.

14. The method of claim 10 further comprising establishing a range of helium detected within a unit under test, which is acceptable for the unit under test.

15. The method of claim 14 further comprising failing the unit under test and notifying a failure notice through a notice on the user interface comprising a visual alert and an audio

alert and a graphical display of a helium amount out of a range of acceptable helium within the unit under test.

16. The method of claim 15 further comprising transmitting the SKU information and failure notice to a database.

17. The method of claim 16 further comprising analyzing the database to determine a failure time point for a manufacturing process.