



## Leak detection

*Process description*



### **Leak detection with VSP leak testers and vacuum bells according to DIN EN 1593**

#### **Procedure:**

In the test method used with VSP devices, the area of the weld seam or casting surface to be tested for leaks is wetted with a foaming test agent. Aqueous solutions are suitable for this purpose, such as those used for testing compressed air / and gas systems, e.g. MR® 99 Safety Leak Detector; soapy water, on the other hand, should not be used for leak detection.

After applying the test liquid, the test area is covered with a vacuum bell adapted to the construction geometry. The vacuum bell is connected to the leak tester via a vacuum hose and is evacuated within seconds when the valve is pressed.

A foam fungus quickly forms under the viewing pane of the vented vacuum bell jar in the event of a continuous fault. In this way, any leaks can be easily localised and then repaired.

The leak detection limit that can be realised under practical test conditions is about  $10^{-5}$  to  $10^{-4}$  Pa\*m<sup>3</sup>/s ( $10^{-4}$  to  $10^{-3}$  mbar\*l/s) due to the procedure. To ensure that even small leaks can be reliably detected, the vacuum under the bell must be maintained for at least 30 seconds.