



Application : Ballistic panels for bullet-resistant vests

Defects to be detected : Water ingress possibility (incorrect weld, micro-hole).

Specifications : Quick test, suitable for use in production, adaptable to all current panel dimensions and sizes. Traceable test results.

Solution : Body Armour Integrity Tester ASC BAIT

Operation : The operator places the panel in the test chamber and closes the lid.

The instrument locks the lid and the cycle starts.

Gradually, a vacuum is installed in the chamber, which causes the panel cover to inflate.

It makes contact with a sensor in the lid, which measures the pressure inside the panel.

This pressure gradually increases.

When the target pressure is reached, the vacuum is stabilised and after a short stabilisation time, the internal pressure decay (ΔP) is measured during a few seconds.

This ΔP is compared to a reject level, corresponding to the required level of tightness : a value **higher** than the reject level indicates an **insufficient** level of waterproofness.

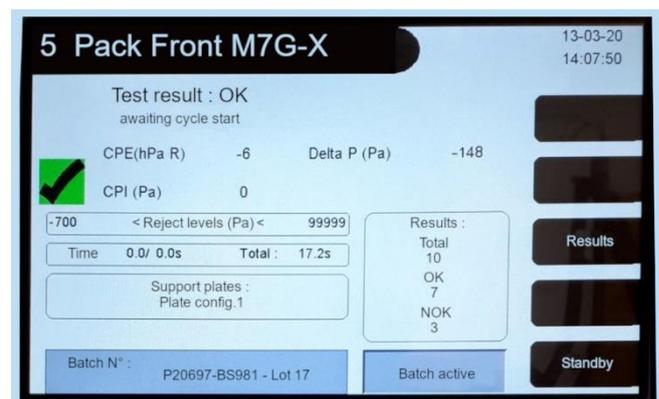
The red light comes on and the lid remains locked.

To unlock it, the operator must press an "Unlock process" button.

A ΔP **below** the reject limit means the waterproof level is conform to specifications : the green light comes on and the lid opens.



ASC BAIT – Leak tester for ballistic panels



Result screen of Pass result :
 $\Delta P = -148 Pa$ for a reject level at $-700 Pa$

Cycle time: approx. 20 - 30 s

Reject level : leaks between 0 -1 mm equivalent hole diameter

Video : <https://www.ascinstrument.com/asc-bait-body-armour-integrity-test>