HOOD CLAMSHELL TOOL

To guarantee the sealing of a joint, junction, pipe or tube, a very precise non-destructive technique with helium is used, which allows detection and measurement of small leaks. This technique provides a low cost option and is made possible through the use of the hood clamshell tool. In the form of a specially designed open ring, this simple tool adapts to each side of the junction permitting detection of leaks using helium. It can be applied to different pipes or joints that vary in diameter and are located in complex restricted places. Watch a video demonstration of this technology on the CERN Knowledge Transfer webpage.

AREA OF EXPERTISE

- Mechanics

IP STATUS

- Ready for licensing.
- Patented Technology. Granted in France, Europe, and USA. PCT. WO0144773.

CONTACT PERSON

amy.bilton@cern.ch

Find out more at:
kt.cern

FEATURES

- Equipped with a simple/innovative locking mechanism.
- On-site registration of the helium level measurements.
- Sealing lips that conform perfectly to the shape of the tube.
- Leak detector (helium sensor) is connected directly to the capsule.

APPLICATIONS

- Aeronautics and Space Industry.
- May also be modified for use with hydrogen systems.
- Vacuum systems leakage test.
- Oil and gas industries - inspection of piping systems.
- Cryogenic systems.

SPECIFICATIONS

- Tool can fit any kind of seal, from 15mm to 500mm in diameter.
- Leak detector sensitivity – 10-10mbar.

ADVANTAGES

- Tool can be used in complex or restricted places.
- Quickness of installation and measurement.
- Easy to use.
- Adaptability to different diameters of tubes.
- Single compact unit tool.
- Self-sealing system.

LIMITATIONS

- At present, low market impact.