

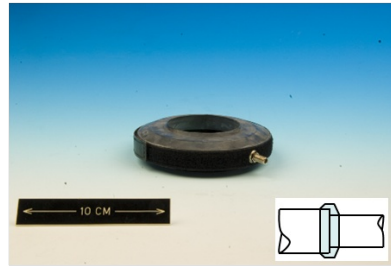
Description :

The hood clamshell tool is a very precise and non-destructive device to guarantee the leak tightness of a joint, junction, pipe or tube.

The technology was developed at CERN, the European Organization for Nuclear Research (www.cern.ch), for the detection and measurement of small leaks.



Tool for straight junction



Tool for reduction of diameter



Tool for opened tube

Capacities of hood clamshell tool :

- ⊗ Test leak tightness or porosity of welding, joint, junction, pipe or tube.
- ⊗ Mechanical integrity of a weld under vacuum.
- ⊗ External isolation of the area to test.
- ⊗ Leak test with helium or any other gas.
- ⊗ Test in open circuit, validation during installation.
- ⊗ Test from first weld bead.

Devices needed :

- ⊗ one hood clamshell tool dimensionned by 3S.
- ⊗ one leak detector + one primary pump.
- ⊗ one flexible connector to link the hood clamshell tool to leak detector and primary pump.
- ⊗ Vacuum grease.
- ⊗ one tank of tracing gas to improve time of measurement.

Usage conditions :

- ⊗ From Ø10 to Ø 600 for any request contact us.
- ⊗ Usable on straight junction, reduction of diameters, or as plug.
- ⊗ Leak detection sensivity : up to 10^{-9} mbar.l.s⁻¹.
- ⊗ Vacuum pressure : between 10^{-1} and 10^{-3} mbar.
- ⊗ Testing duration : less than 5 minutes.
- ⊗ Portability of the testing device permit to test in workshop and/or on site.

Applications :

Industries : vacuum, medical, oil, gas, nuclear, chemical, process, cryogenic, etc...

Working principle :

- 1- Place the clamshell around zone to test (ex : welding)
- 2- Connect the clamshell to the leak detector (fig. 1).
- 3- Start the test.
- 4- If a leak or porosity is detected, Helium molecules will be seen by leak detector (fig. 2).

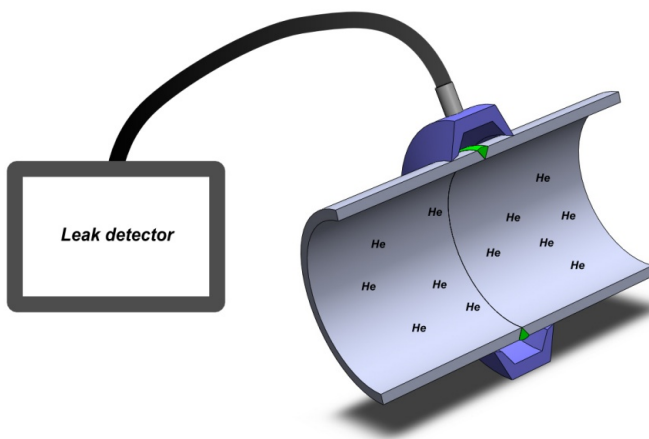


Fig. 1 : Principle of implementation

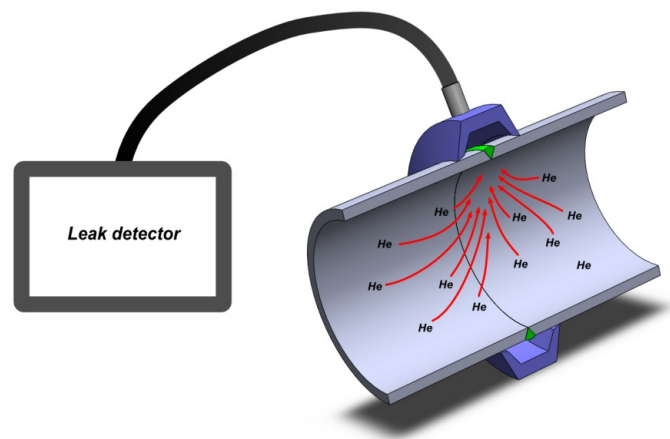


Fig. 2 : Helium molecules migrate if a leak is detected



Designs only for information. Any kind of application, contact us.

3S - Specialized Sealing Solutions
Espace entreprises ALDATU
Rue Léon Larregain
64240 Hasparren - FRANCE

Description :

Hood clamshell tool also permit to capture and/or canalize a leakage of gas or liquid.
The principle is too always keep a depression in the tool from ambient atmosphere.

Advantages :

- ⌚ Capture almost all type of gaz or liquid even the corrosive ones.
- ⌚ Avoid pollution.
- ⌚ Permit to keep process running until next scheduled maintenance.
- ⌚ Easy to set-up.



Working principle :

- 1- Leak is detected (see fig. 1).
- 2- Place the clamshell tool around the leak (see fig. 2).
- 3- Connect clamshell tool to the pump or secondary circuit (see fig. 2).
- 4- Maintain inside the clamshell a depression to keep a good sealing.

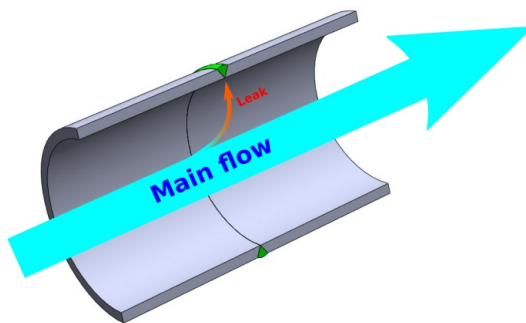


Fig. 1 : Leak principle on weld

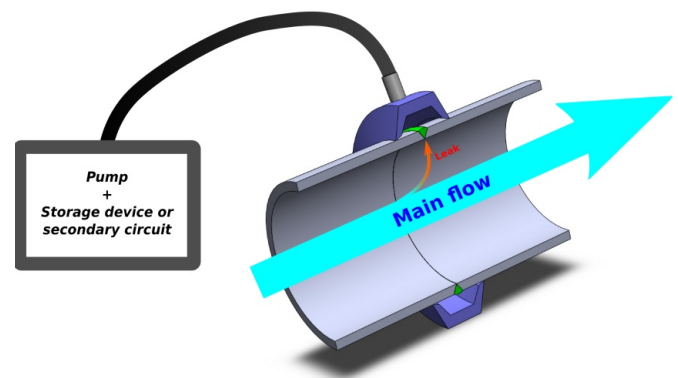


Fig. 2 : Set up of clamshell to capture leak.