



Isaac HD

Multi-lumen Catheters



FEATURES

- + Checks passages for leaks and occlusion
- + Test 1, 2, 3, or 4 parts in sequence
- + Fully calibrated and simple to maintain
- + Outstanding pressure and flow resolution
- + Small footprint of 8 ½ by 14 inches
- + User-selectable engineering units
- + Interface for statistical process control
- + Large back-lighted LCD display
- + Full setup menus on one screen

CATHETER LEAK TEST

Leak testing multi-lumen catheters can be quite expensive. Zaxis minimizes this ex-pense by providing you with the Isaac-HD. The Isaac-HD is a four channel sequential and/or concurrent leak tester designed for multi-lumen catheter manufacturers.

The Zaxis Isaac-HD, 4-channel sequential tester enables you to test multiple ports sequentially thereby negating the need for multiple leak testers bringing you significant cost savings!

APPLICATIONS

The Isaac 4-channel sequential tester is ideal for evaluating multi-lumen catheters. The tester can also check any product that has multiple parts or multiple passages (up to four) that can be tested in sequence.

If a catheter with fewer lumens needs to be tested, Isaac models are available in two and three channels enabling you to maximize your resources more effectively.

For more information about the Isaac-HD and other Isaac models please call us at 801-264-1000.

HOW THE ISAAC WORKS

1. Product is attached to each test port (Figure 1). Isaac's test program is started.
2. The distal end of the catheter is sealed to block skives and other openings.
3. Air is supplied at test pressure to Isaac's output port through valve V1. Valves V2, V3 and V4 are opened to atmosphere.
4. The first lumen, L1, is leak tested. If the lumen leaks to ATM or to any other lumen (shown in the example to lumen 4), the Isaac-HD detects the leak.
5. Each additional lumen (L2 through L4) is leak test in sequence.
6. After leak testing, the sealing clamp can be removed from the catheter and the Isaac can check each lumen for occlusion.

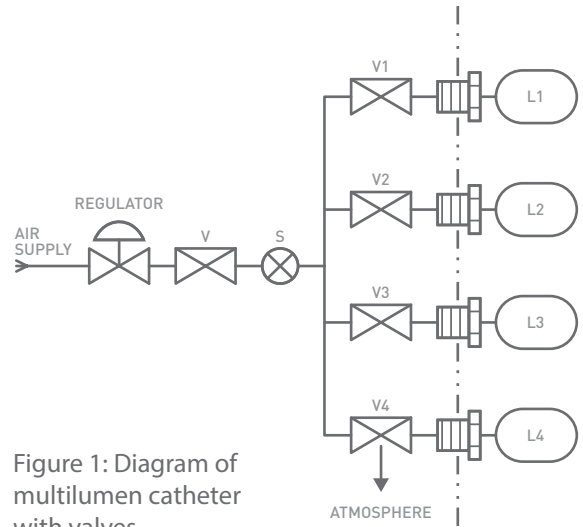


Figure 1: Diagram of multilumen catheter with valves.

CLAMPING

To leak test a finished catheter, the opening in the distal end is typically closed off with an external sealing fixture. The catheter can then be checked for interlumen leaks. Please see Figure 1.

OCCLUSSION TEST

Occlusion can be performed individually after each lumen is leak tested, or all once after all lumens have been leak tested.

When testing for occlusion, the sealing device is removed from the catheter to allow the lumen to flow to atmosphere. During an occlusion test, the Isaac-HD detects a pressure drop below a specific threshold to verify that the passage is not blocked. Please see the Zaxis Application Note titled "Occlusion Testing" for more information.

The Isaac-HD can be set up to test in any sequence by linking individual pressure decay and occlusion programs.

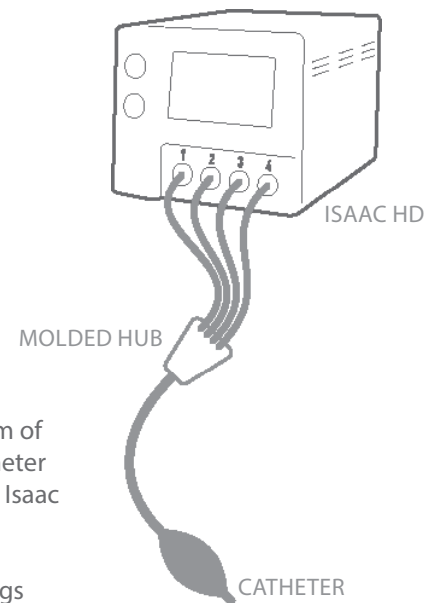


Figure 2: Diagram of multilumen catheter connected to an Isaac HD.

Catheter openings sealed during leak test and open during occlusion test.