

The Drass 2" Flow Fuses are a safety device intended to protect any PVHO (Pressure Vessel for Human Occupancy) from rapid unwanted decompression. They are to be installed internally to any PVHO on each hull passage bigger than 5 mm (ref. DNV-OS-E402 Chap.2 Sec.3 7.2.4).

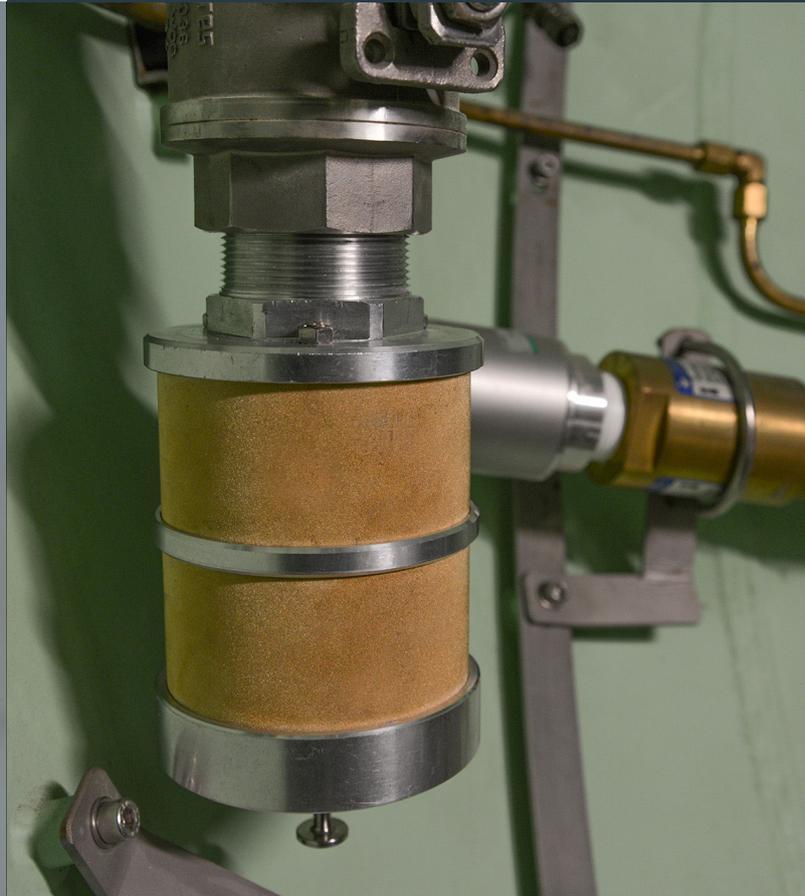
The main purpose of the flow fuse is to restore the pressure integrity of a PVHO in case of a failure on the pipeline external to the PVHO. Pressure is restored without the need of user intervention. In the event of a pressure failure the flow fuse will immediately close.

An additional and unique feature of the new Drass Flow Fuses is the integrated silencer and flow diffuser features which resolve the problem of unwanted noise on inlet and outlet lines, even in case of higher flow rates which is a common occurrence on ECU lines (Environmental Control Units), typically having very high flow rates and producing noise when passing through the standard flow fuses.

Drass R&D developed the new 2" Flow Fuse after a long and comprehensive testing campaign, checking both safety performances and noise reduction, all against different combinations of pressure and gas mix.

The working principle is the following: in normal working condition the flow fuse will permit the gas passage in both directions, and it will effectively reduce the noise produced by the hull passage by means of the integrated silencer feature; moreover the gas flow will be distributed circularly all around the flow fuse body.

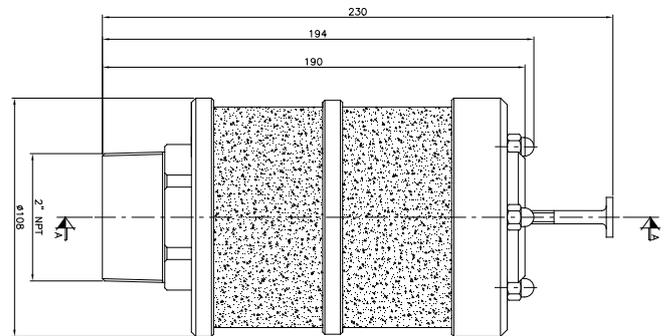
In case of a rupture of the external pipeline producing a massive leakage through the flow fuse, it will immediately close preserving the pressure integrity of the PVHO; once the rupture of the pipeline has been fixed, the flow fuse will automatically restore to normal working condition without the need for user intervention.



The flow fuse body is made of anodized aluminum, while the integrated silencer is made of sintered bronze. The product can be easily disassembled for cleaning purposes and the silencer can be easily replaced with a new one in case a dusty environment choked it. The upper knob is present for testing purposes, being able to operate manually the opening and closing of the flow fuse.

The flow fuse is installed on DNV approved diving systems, and is covered by an international patent (Patent Pending). Each flow fuse has its own serial number and is individually tested.

It is suitable to be installed to secure any PVHO, the connection is 2" NPTM and the dimensions are reduced, still assuring high flow rates with very low noise levels. Working pressure is 30 bar and the flow fuse can be installed in any position.



Side view of the Flow Fuse with dimensions (mm)

COMMERCIAL CODE	DESCRIPTION
97CE-04-01-01-00-00	2" NPT Flow Fuse, with 30 bar working pressure and anodized aluminum body