



SVaC SMALL VACUUM CHAMBER

The affordable choice for your vacuum experiments

SVaC is the customizable and most affordable solution for a wide range of vacuum experiments that are so often necessary in the development of scientific, engineering systems and instruments.

Active Space Technologies is able to provide you a complete vacuum system, including the chamber, ports, accessories (adapters, optical benches, windows), vacuum pumps, cooling machinery and, anything else your specific configuration may need.

We offer two systems at a very competitive price:

The low cost *Medium Vacuum System* based on an 80l casted aluminum chamber is ideal for internal development activities reaching 10^{-2} mbar.

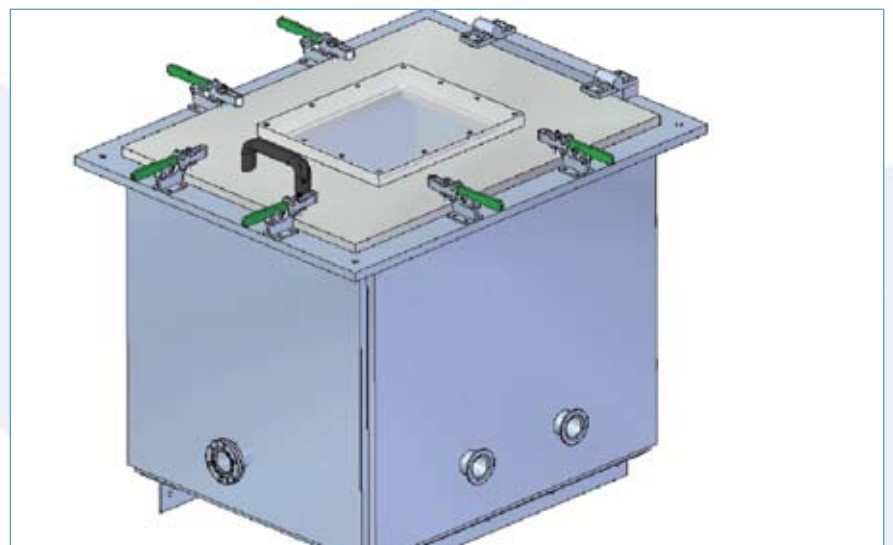
The weight and dimension do not require a costly support structure and allow a fast installation making this system the most convenient choice for your vacuum experiments.

The *High Vacuum System*, based on a 150l welded steel chamber is more flexible in terms of dimensions; it can reach lower pressures (10^{-5} mbar) and can be used for simulation of space environment and qualification of equipment for space or similar activities.

Every SVaC will be delivered ready for the utilization, just plug and play.



Medium Vacuum System with thermal module at AST premises in Berlin



High Vacuum Chamber

SVaC has been and can be used for the following purposes:

- Scientific and engineering testing of
 - | nano-satellites
 - | systems and subsystems (e.g. electronic boxes)
 - | instruments
- technology development
- materials research
- thermal investigations
- training and education

Performance

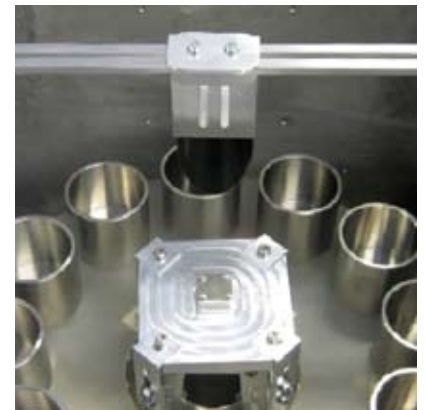
Leak Rate	< 0.01 mbar/hr
Vacuum level	$1 \cdot 10^{-3} / 1 \cdot 10^{-1}$ mbar (a)
Working temperature	-80/+100 (b)

(a) pump dependent

(b) cooling machine dependent



Inside SVaC



Carousel

Options

- Variable number of ports: from 1 to TBD (max ca. 4 ports per side for small ports)
- Type of ports
 - | simple
 - | fluid feedthroughs
 - | see-through windows
 - | quick removal covers
 - | electrical feedthroughs
 - | custom designs (circular or rectangular, screws or latches, special fittings)
- Size of ports (standard): DN40 to DN160
- Electrical connections from 9 to 200 pins in 1 to 4 D-Sub connectors
- Internal Optical Bench: Standard (1x1" grid, M6) or custom made (e.g. rails or slots for continuous positioning accuracy)

- Overhead Rail System: up to 2 kg on each rail. Number of rails limited only by number and size of equipment fixed onto them.
- Fixation of the chamber: adjustable Feet Adapters allow a precise positioning of the entire chamber in 3 axes on the desired support (e.g. table, optical bench, trolley).
- Thermal Instrumentation
 - | Thermometers
 - | Data logger and Pressure gauge
- Electropneumatic gate valve: activated externally for SVaC quick access
- Rotating plate - Carousel
- Rack equipment

Custom designs available.