



Royal Netherlands Institute for Sea Research

# “Hands Free” CTD water sampling

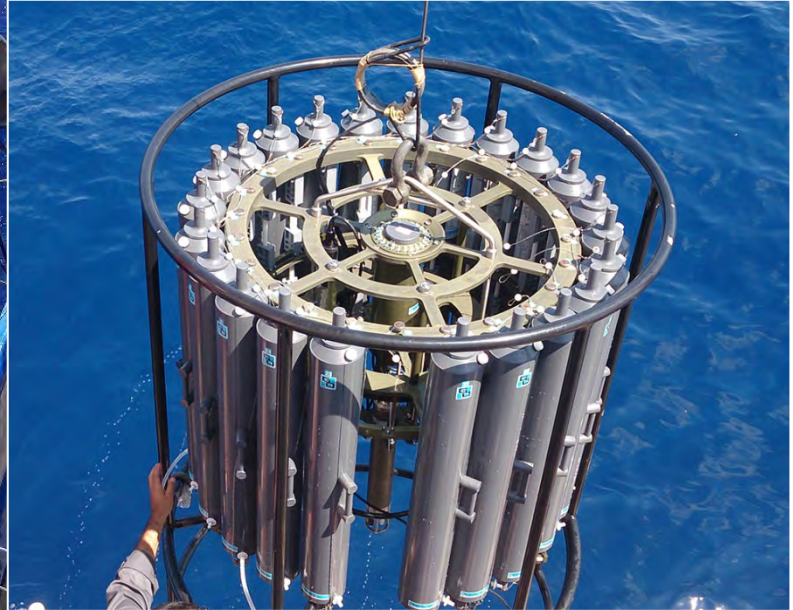
Edwin Keijzer



**“Hands Free”**



# Rosette samplers (niskin)











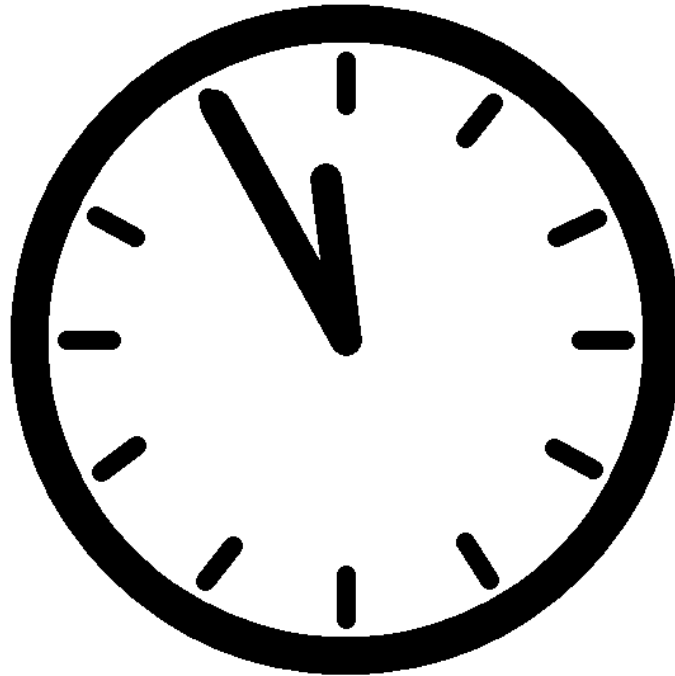
it is not  
“Hands Free”  
at all



it is more like  
“All hands on deck”



Lets go back in time







# INMARTECH 2006

International Marine Technician Symposium

## Proceedings



October 17 - 19, 2006

Woods Hole Oceanographic Institution  
Woods Hole, Massachusetts USA





All titanium frame

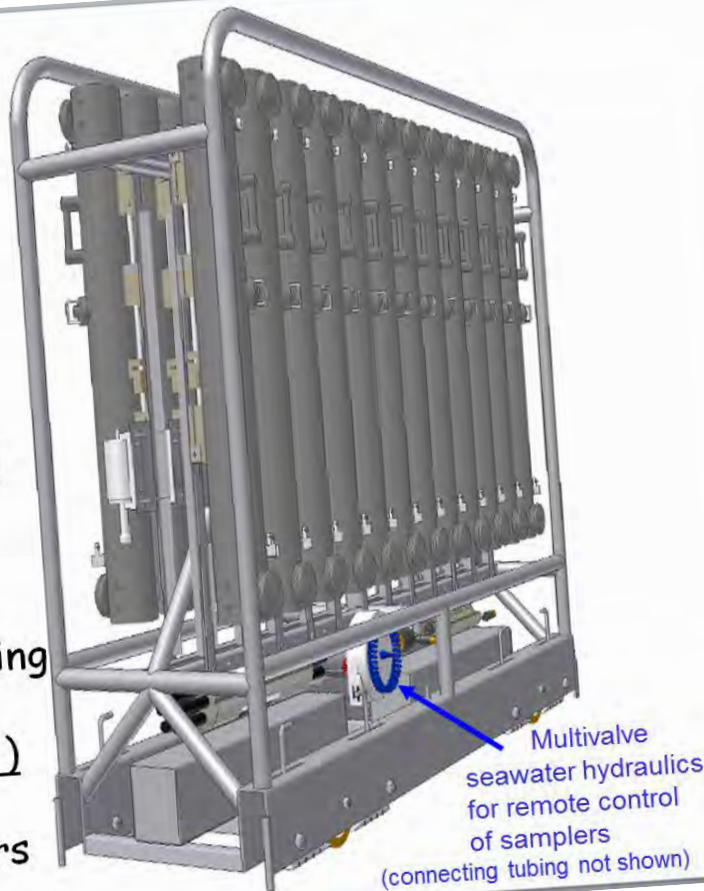
Holding 24 samplers  
in two rows of 12  
water samplers  
(controlled with  
hydraulics)

Phase 1 (2005-2009)

Conventional PVC  
samplers with clean  
teflon-sprayed coating

Phase 2 (from 2010)

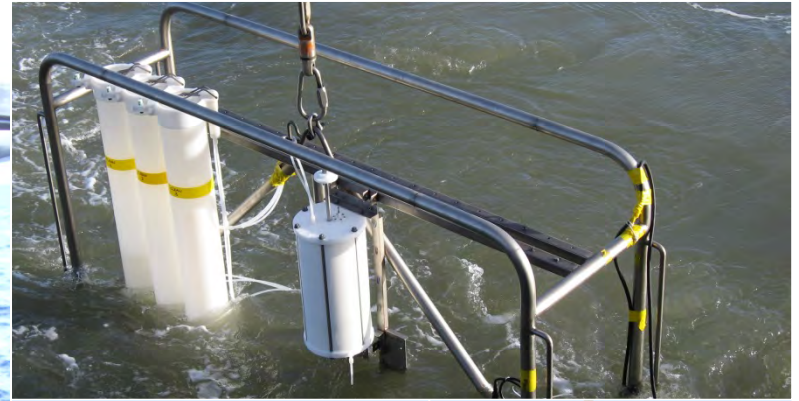
Novel PVDF samplers



















**Date:** October 16th, 2018 to October 18th, 2018

**Category:** Meeting

**Location:** Woods Hole, MA, USA

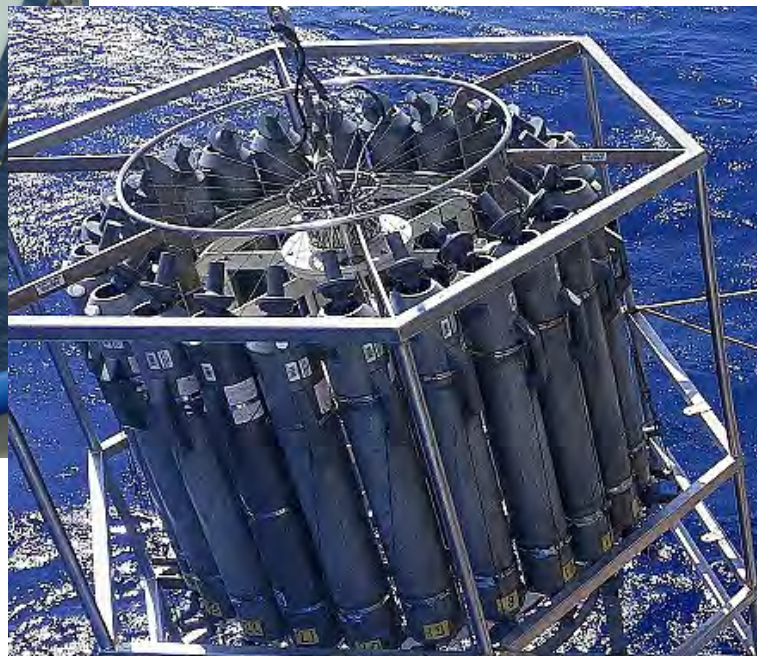
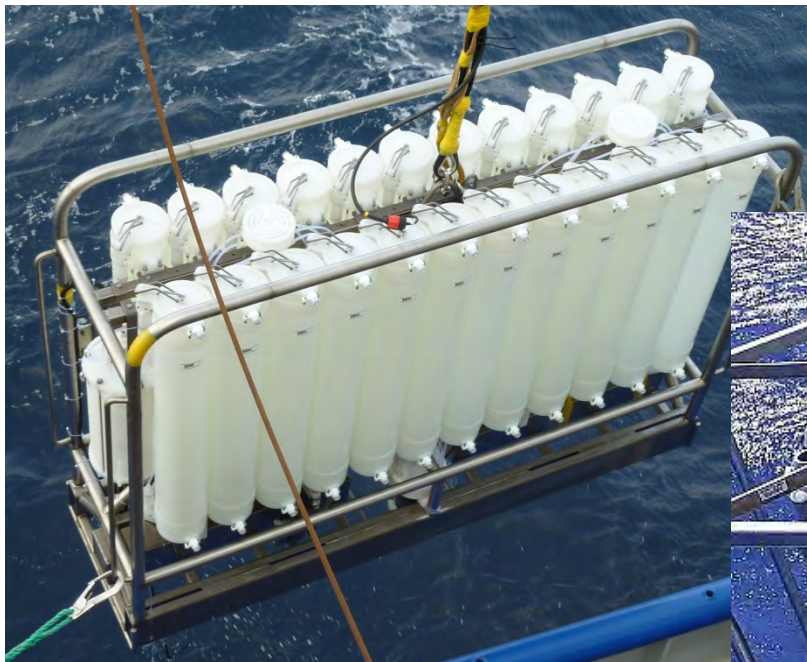
**Description:**

## **2018 INMARTECH**

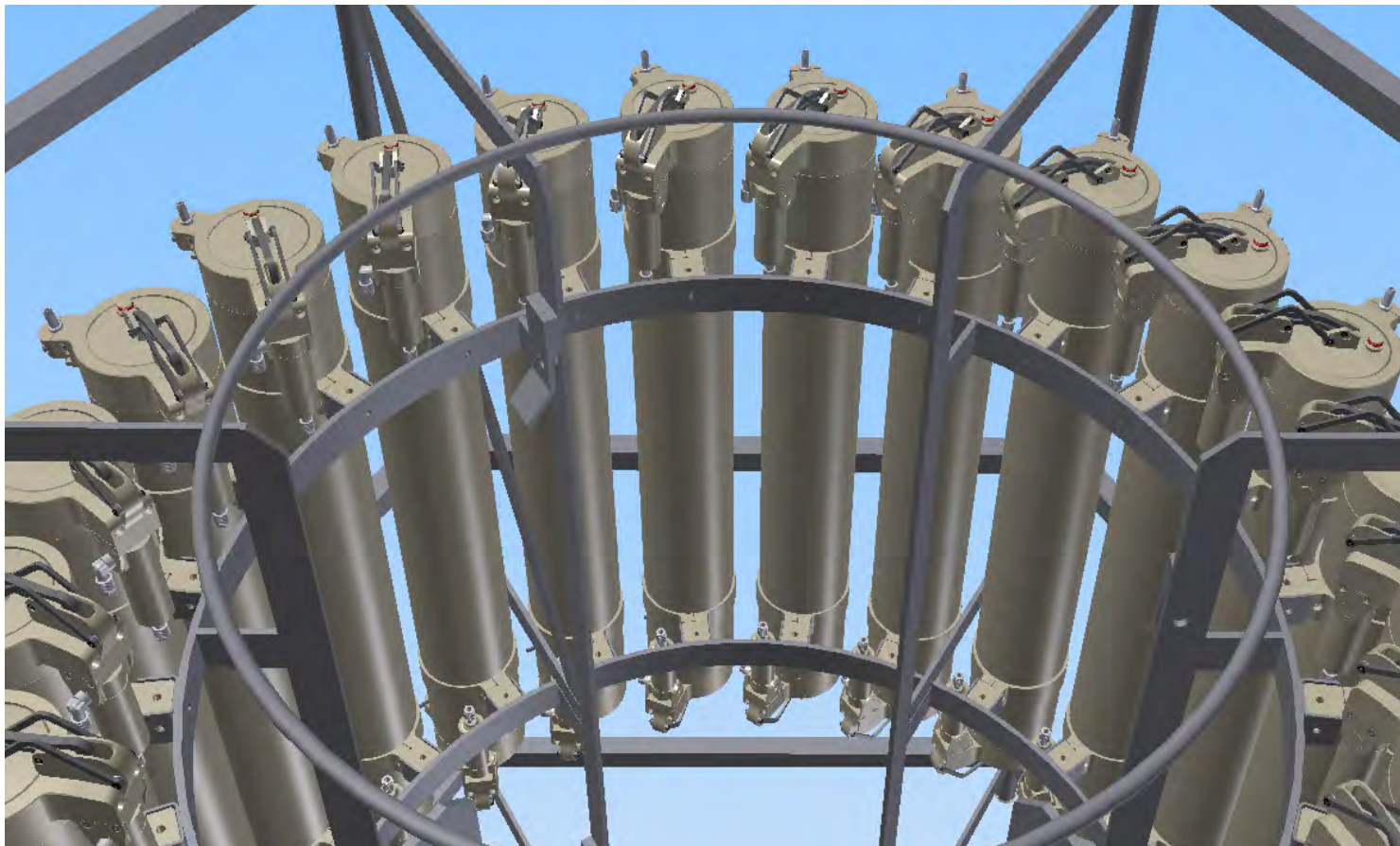
### **Meeting Location and Accomodations:**

Sea Crest Beach Hotel

350 Quaker Road, North Falmouth, MA







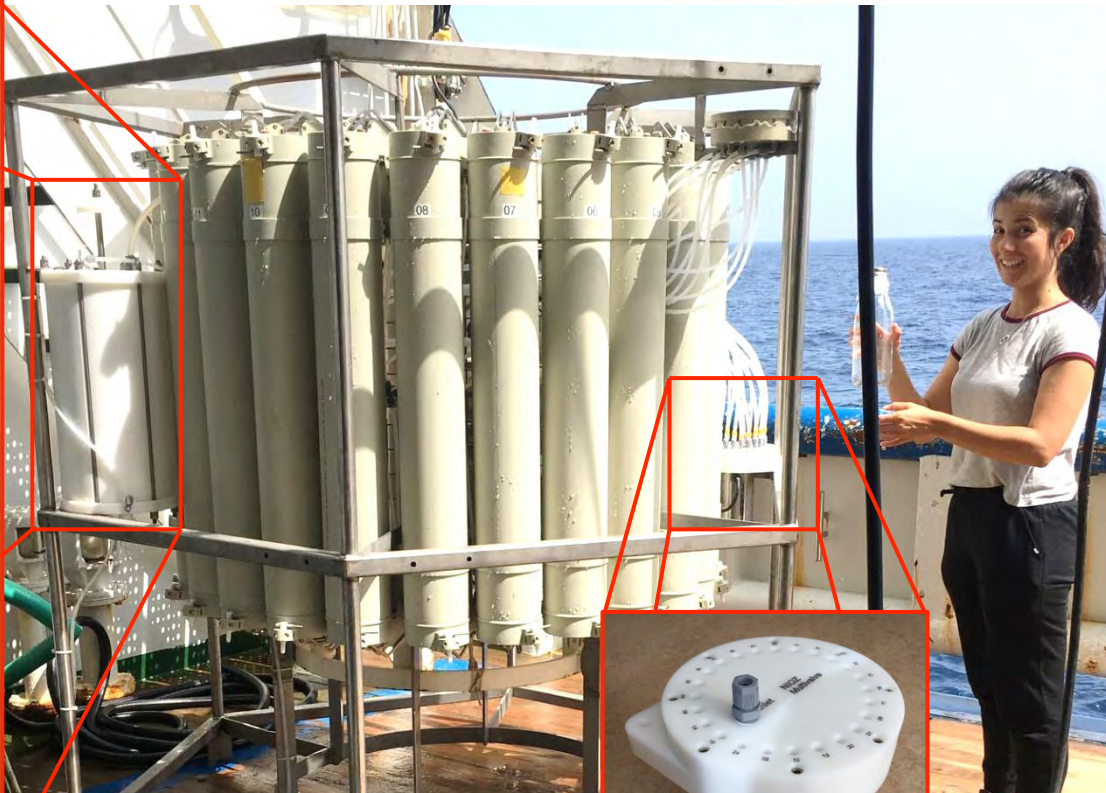






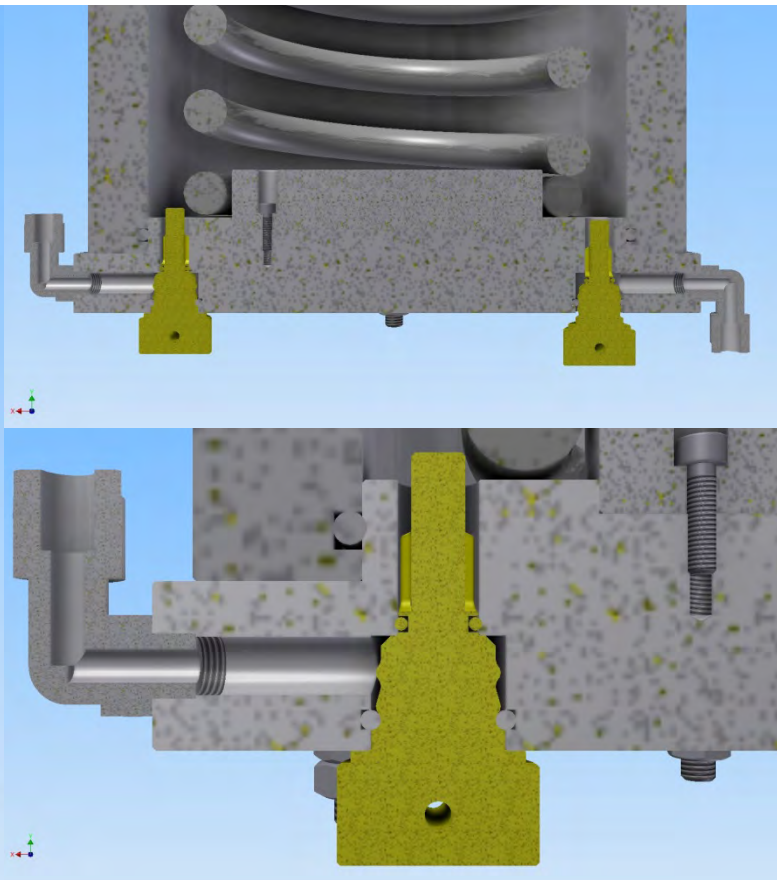
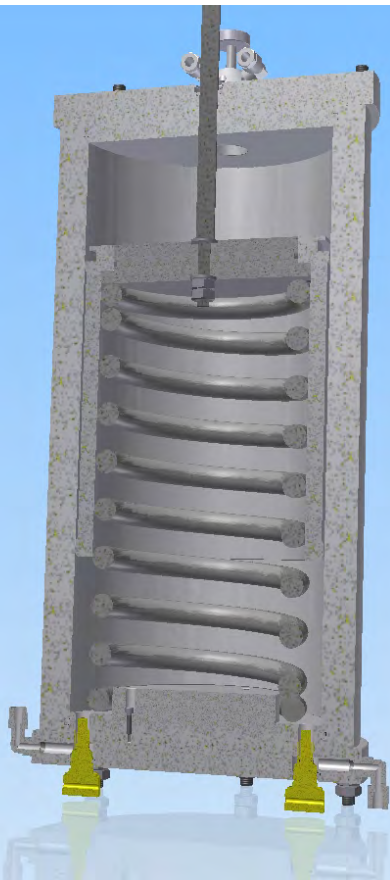


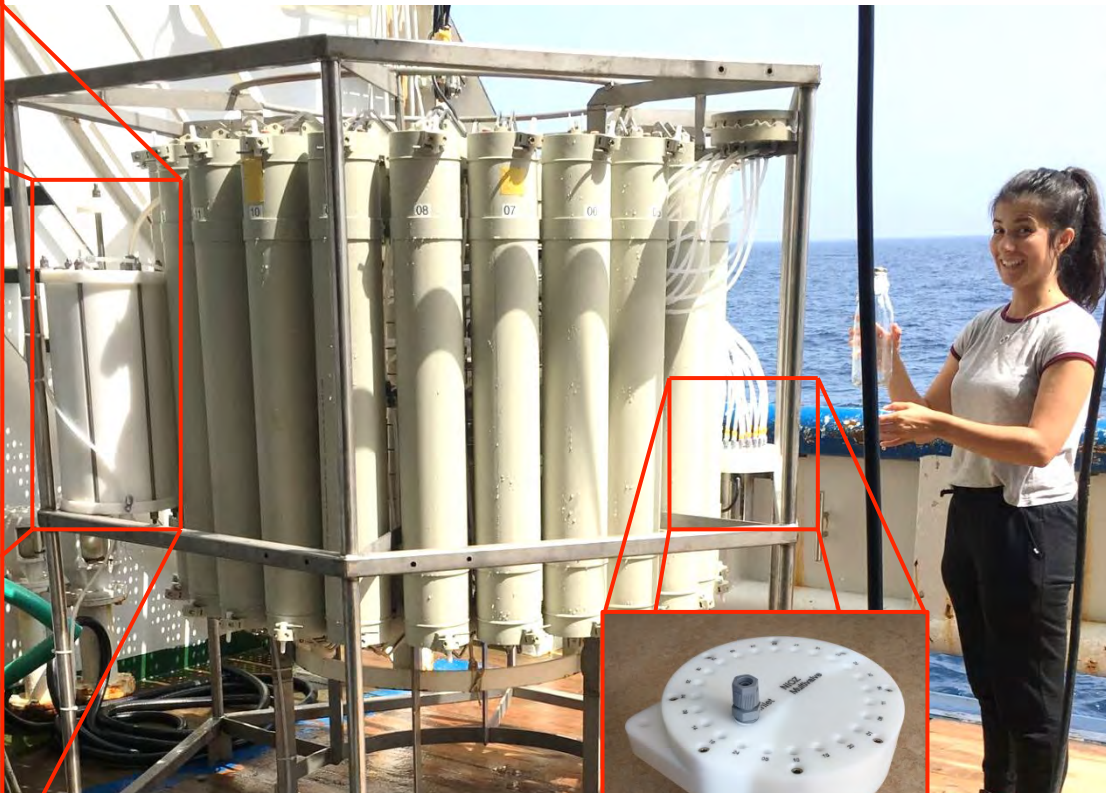






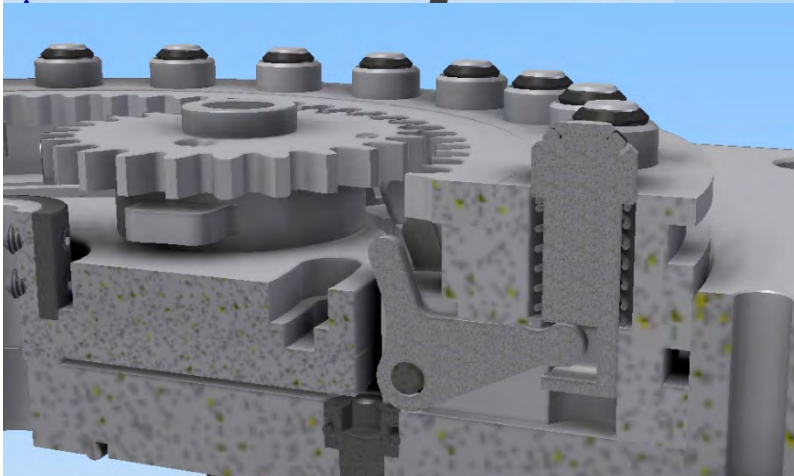
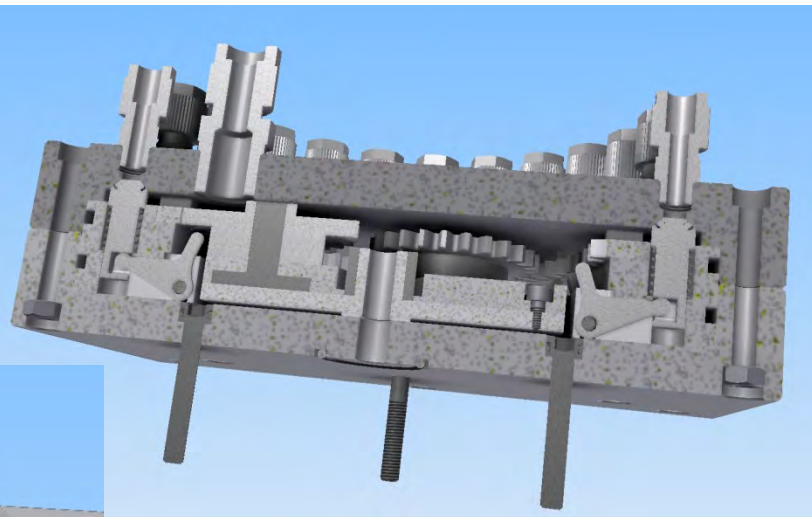
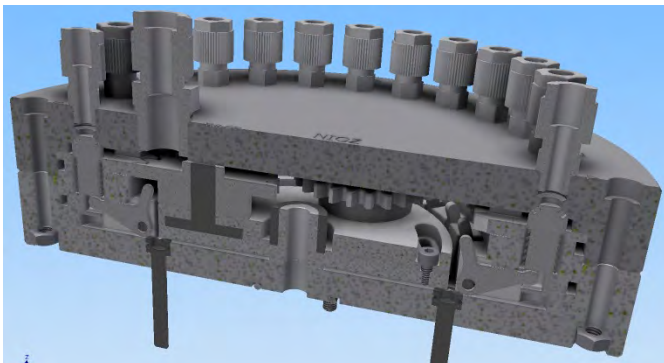






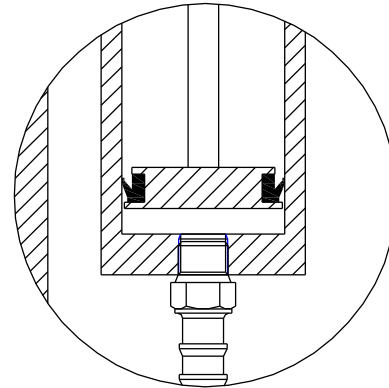
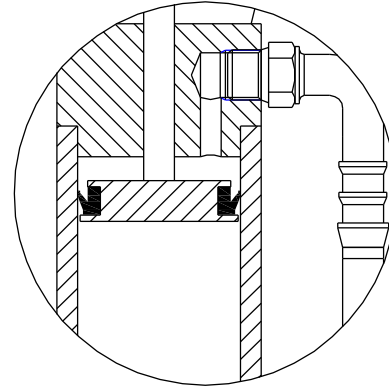






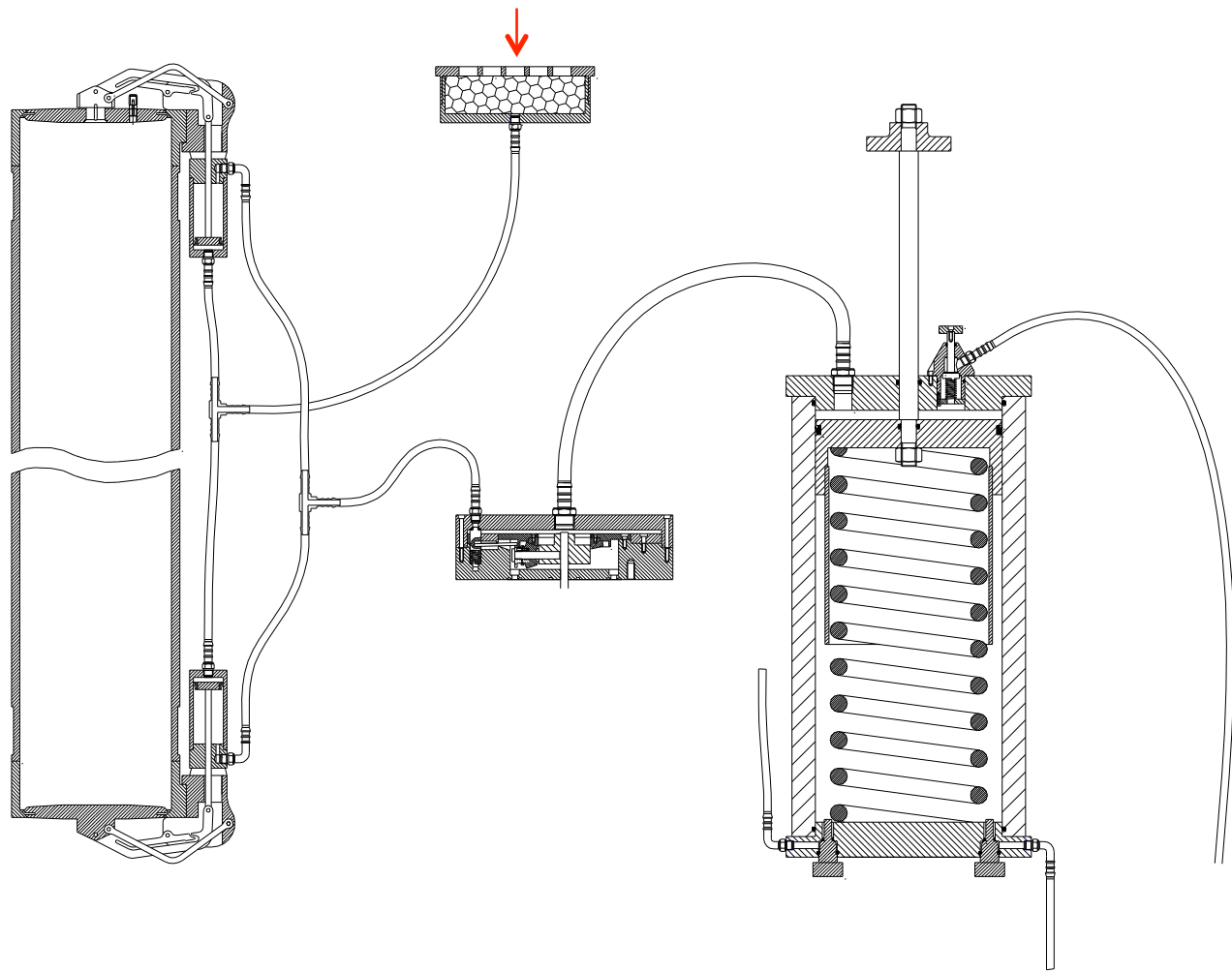


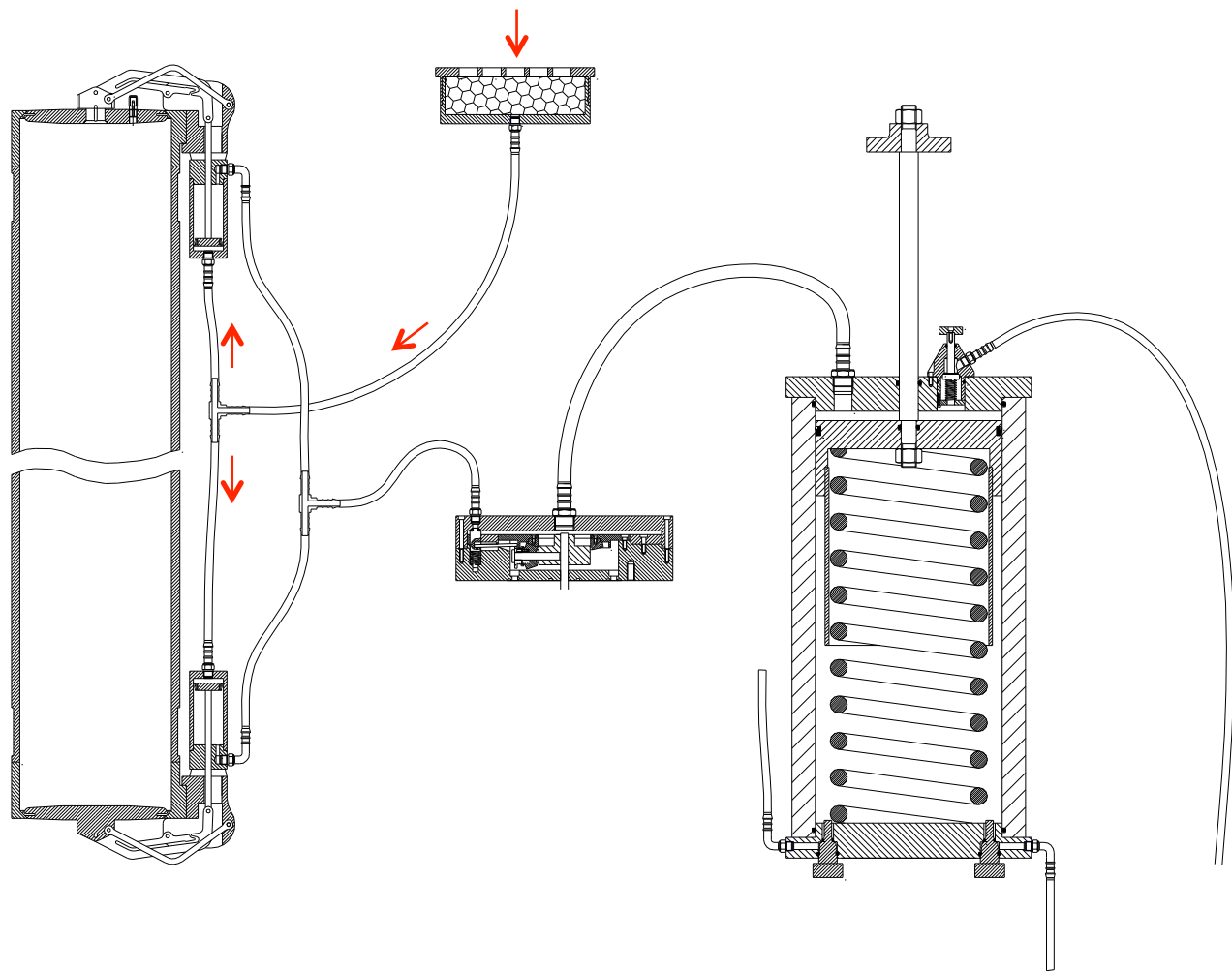


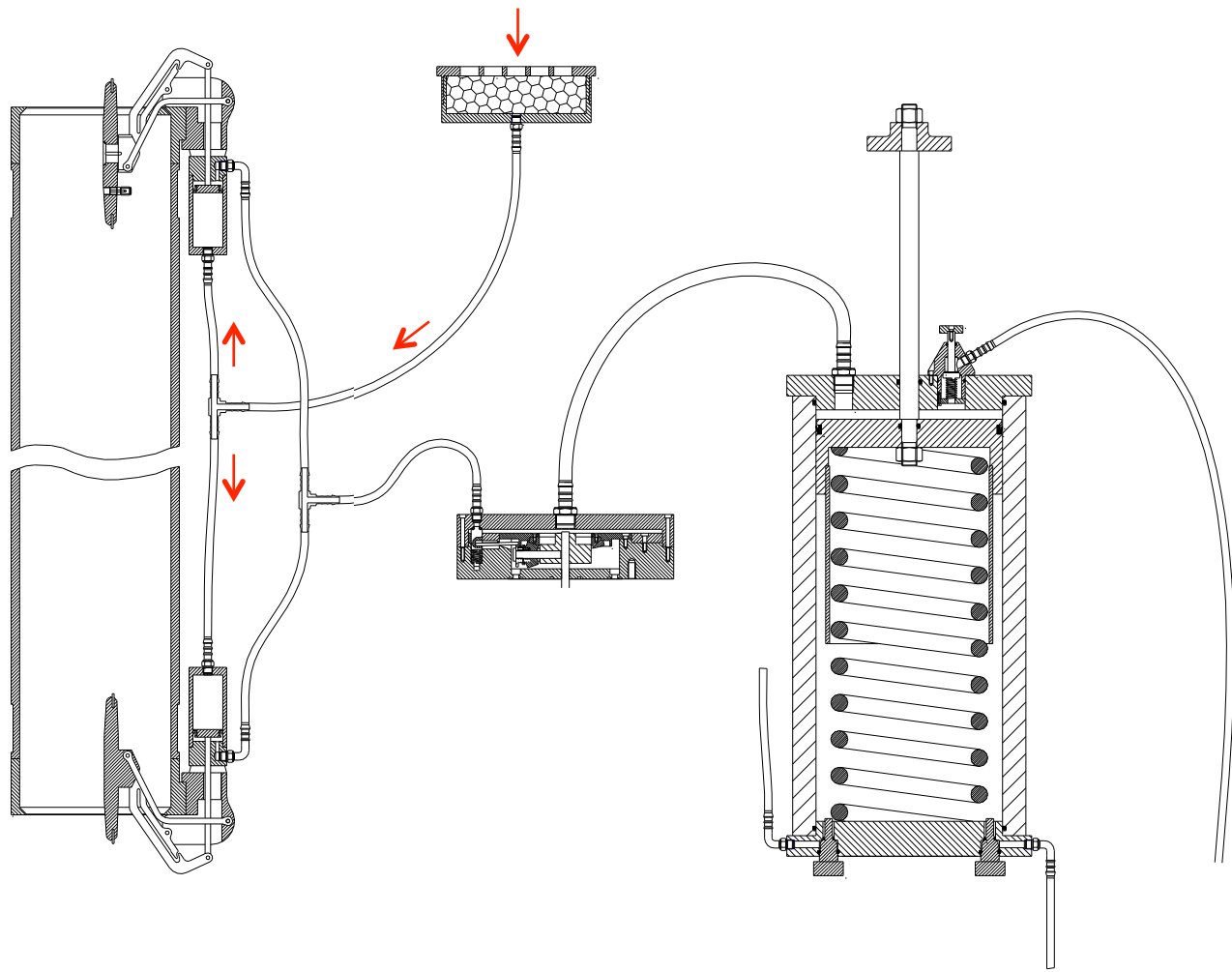
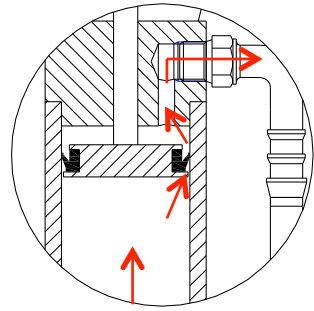




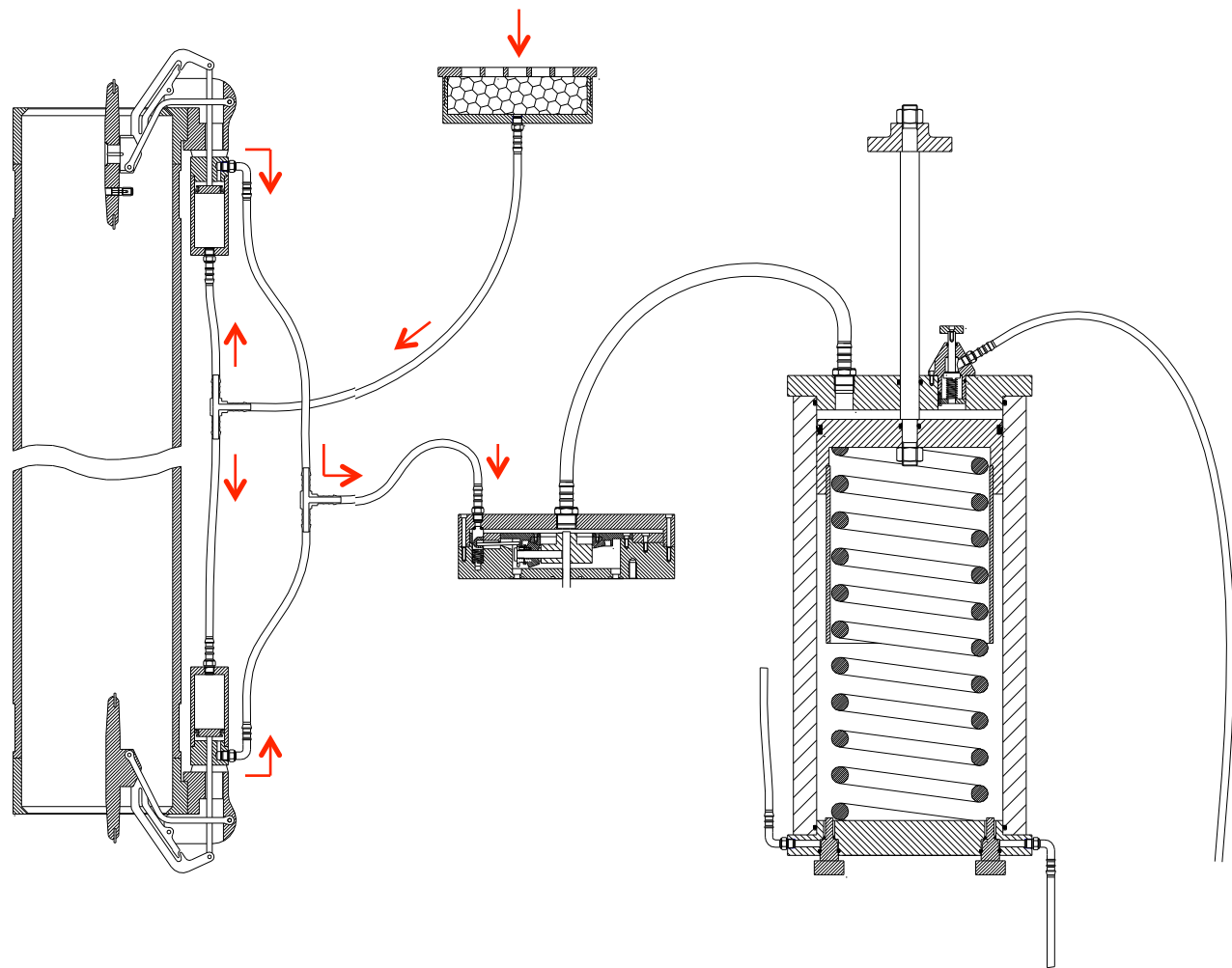


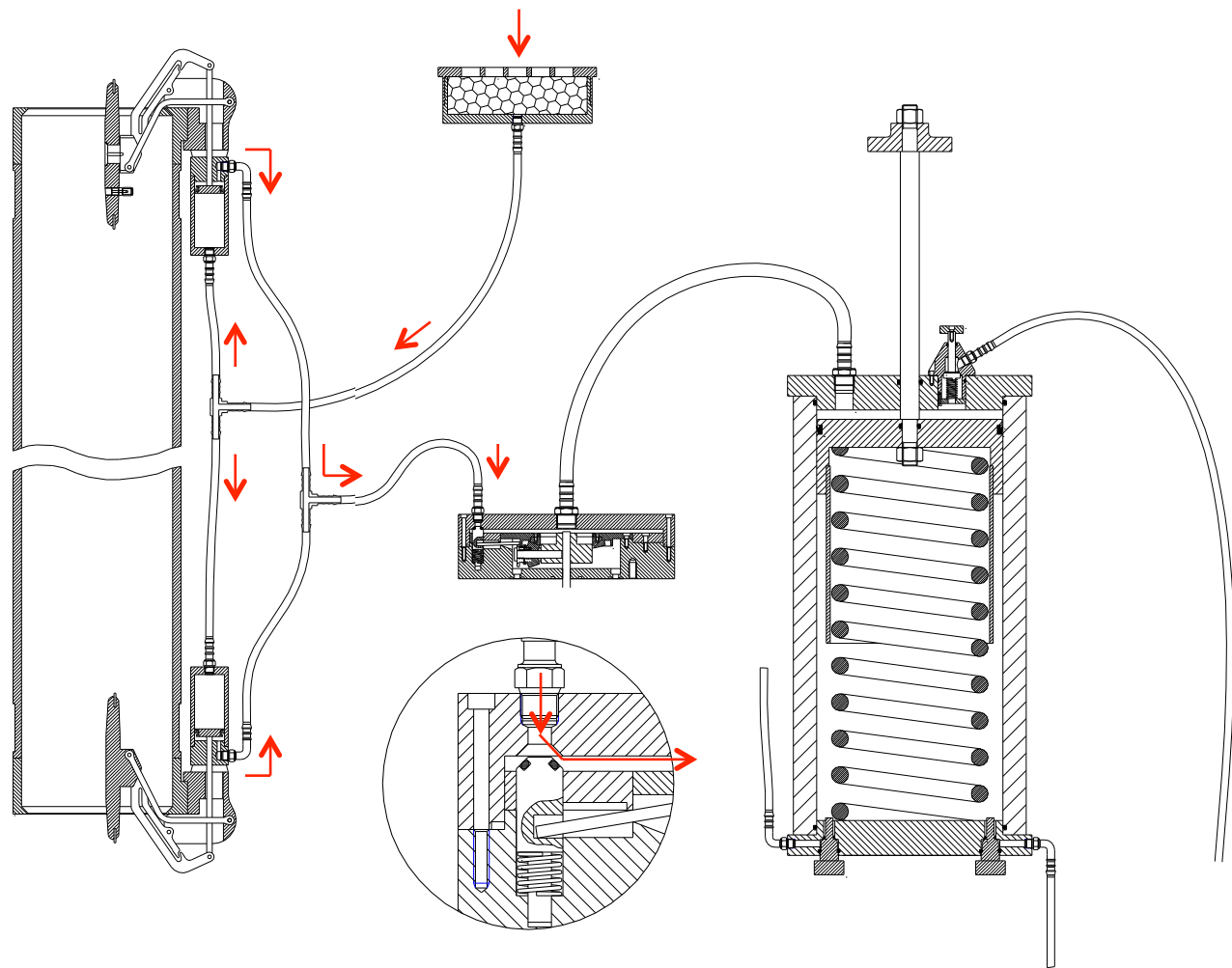


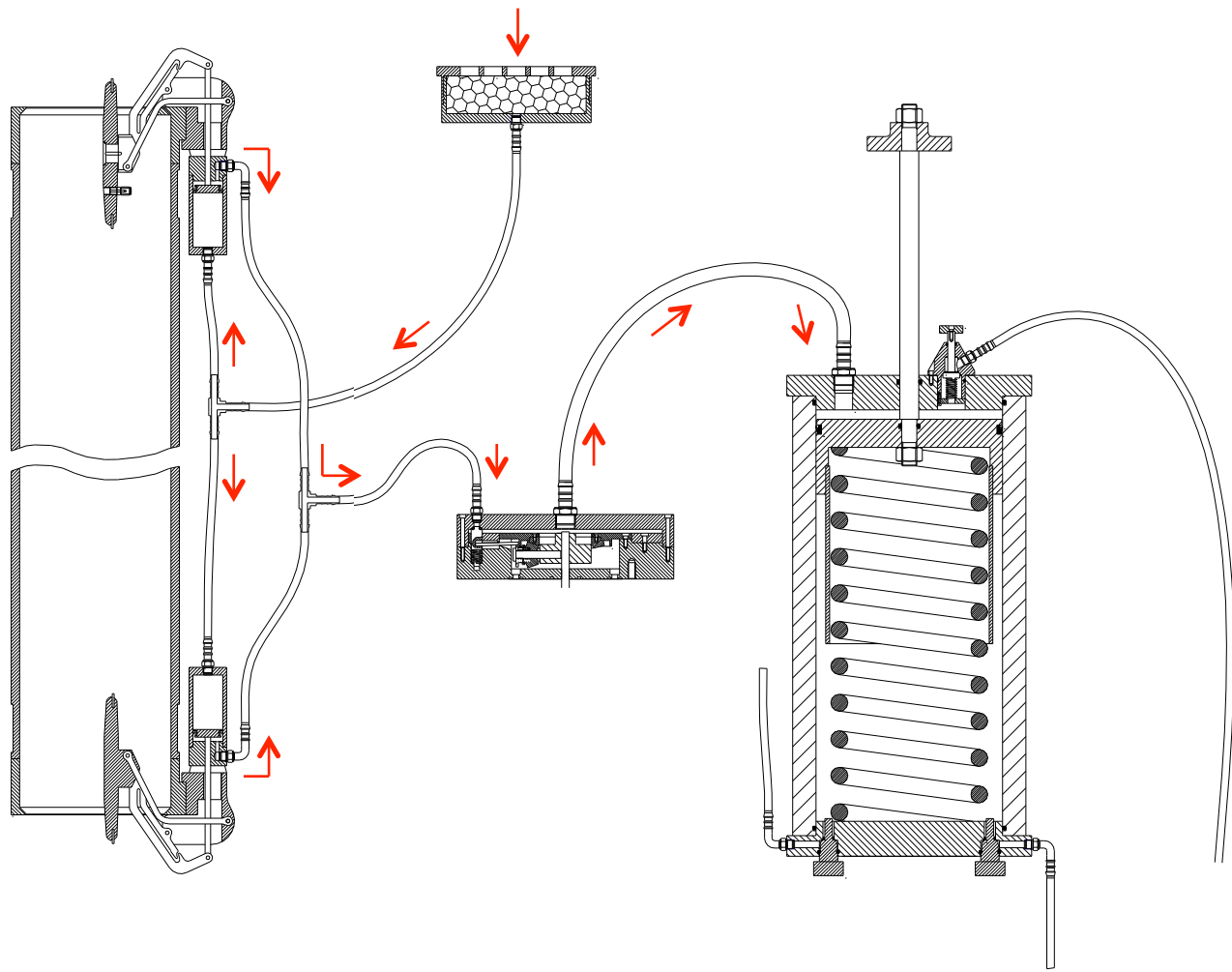


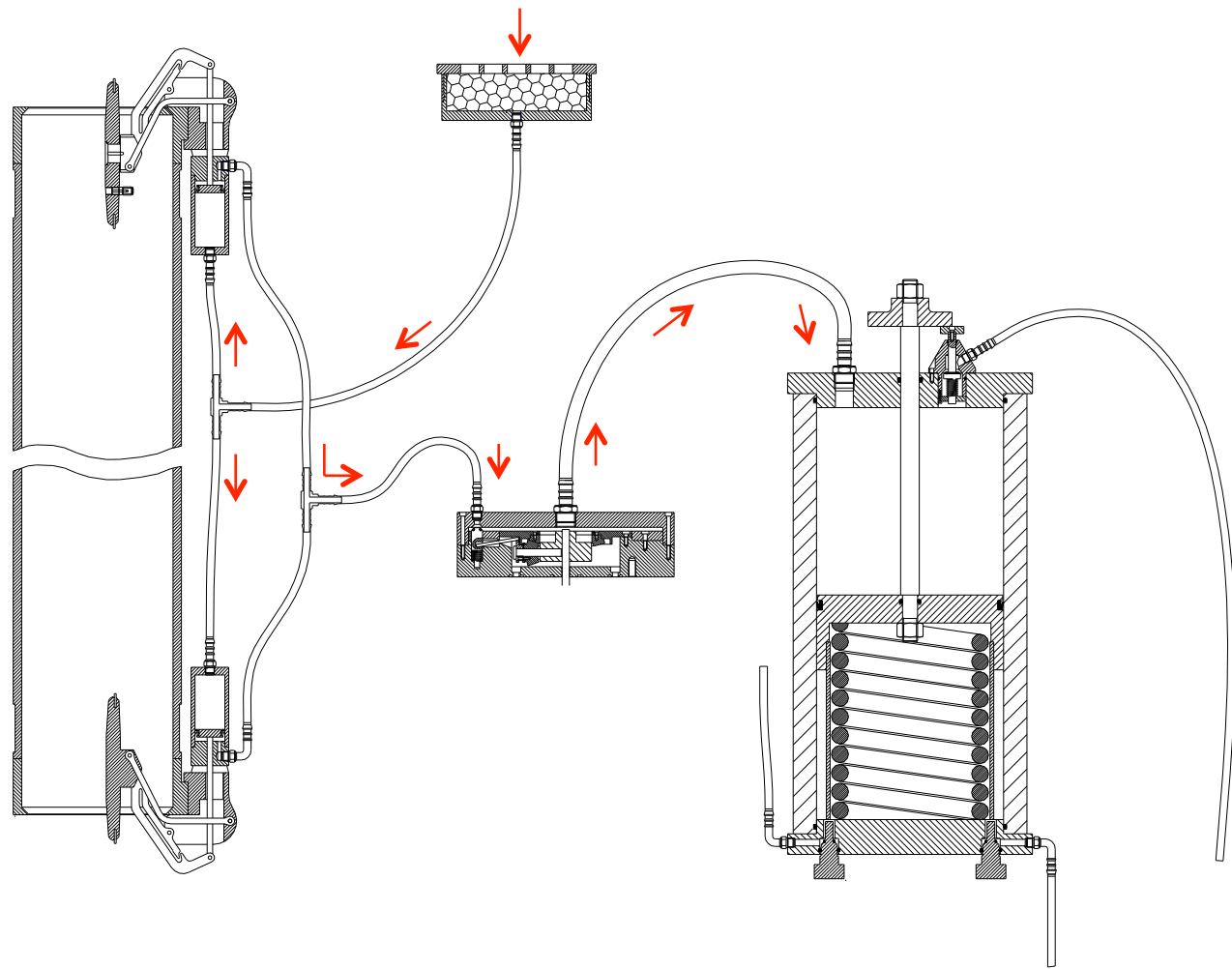




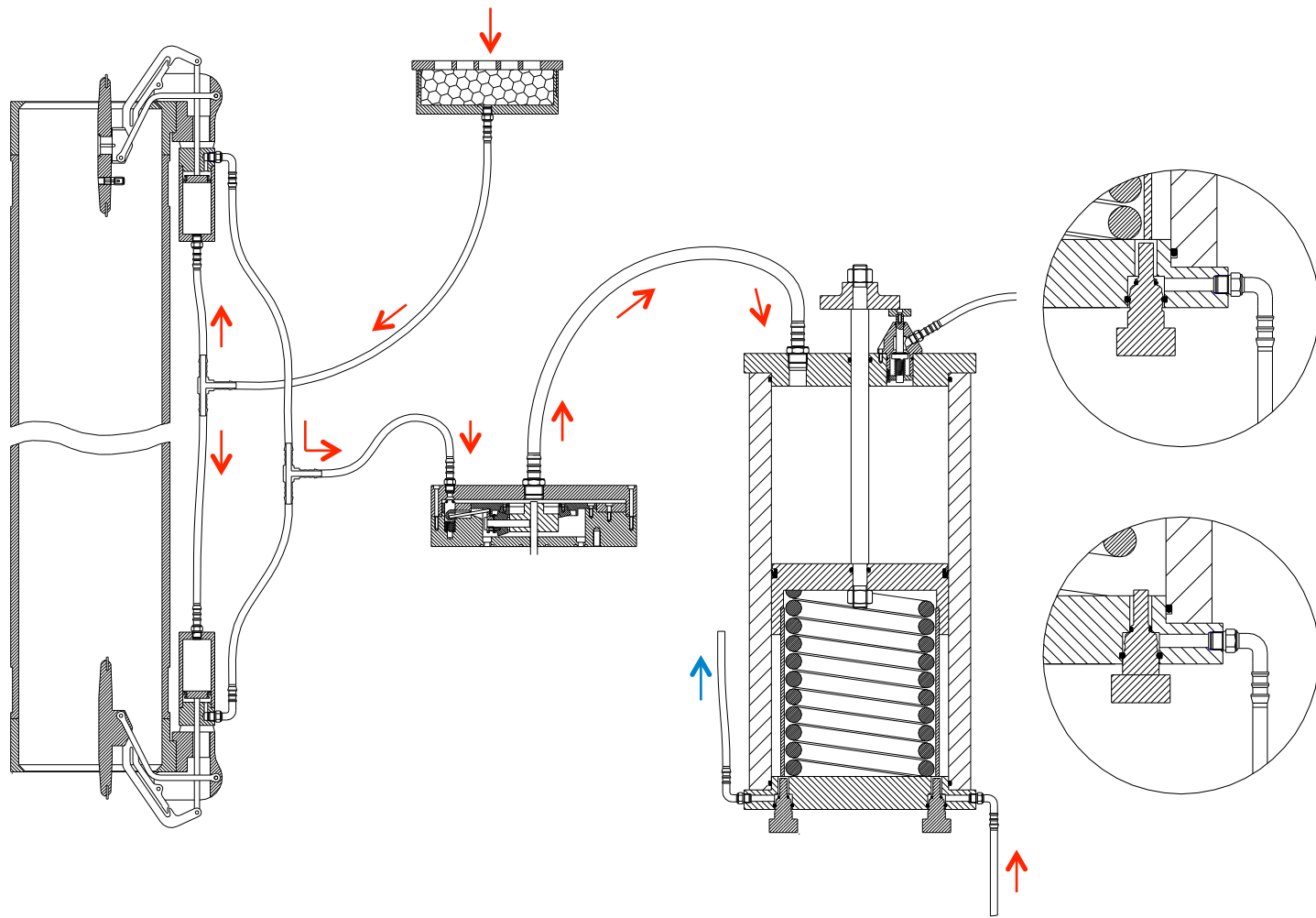


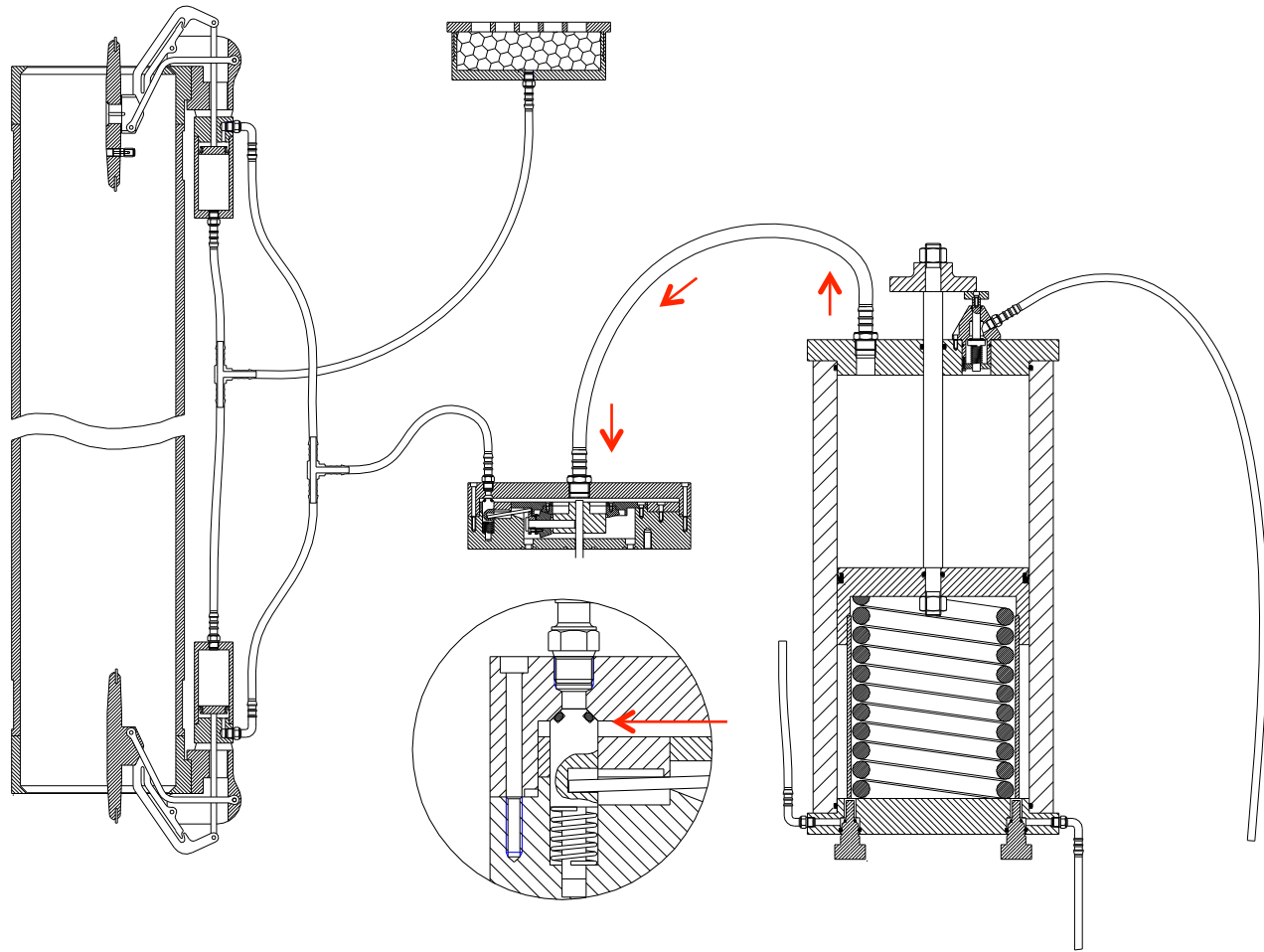


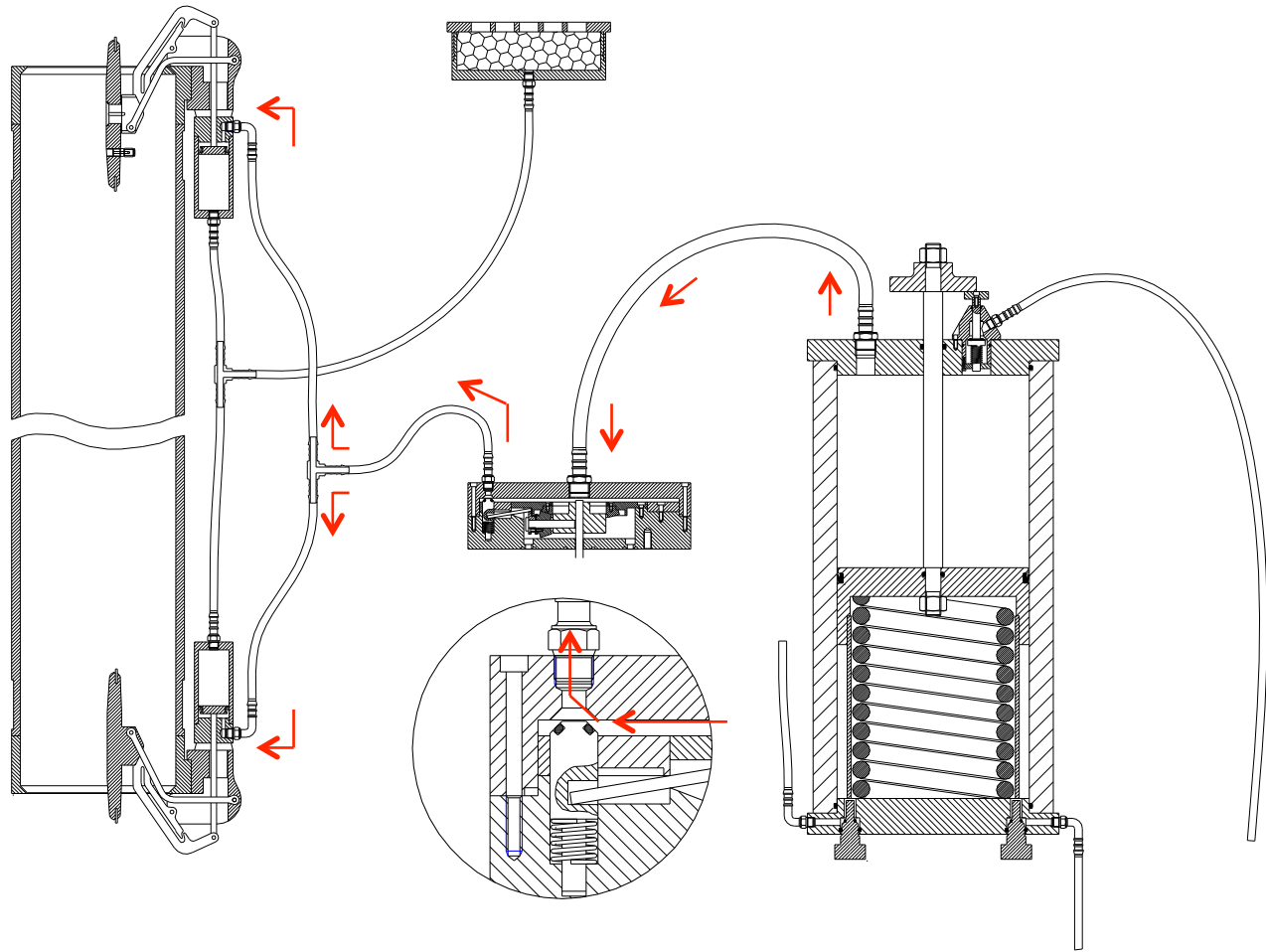


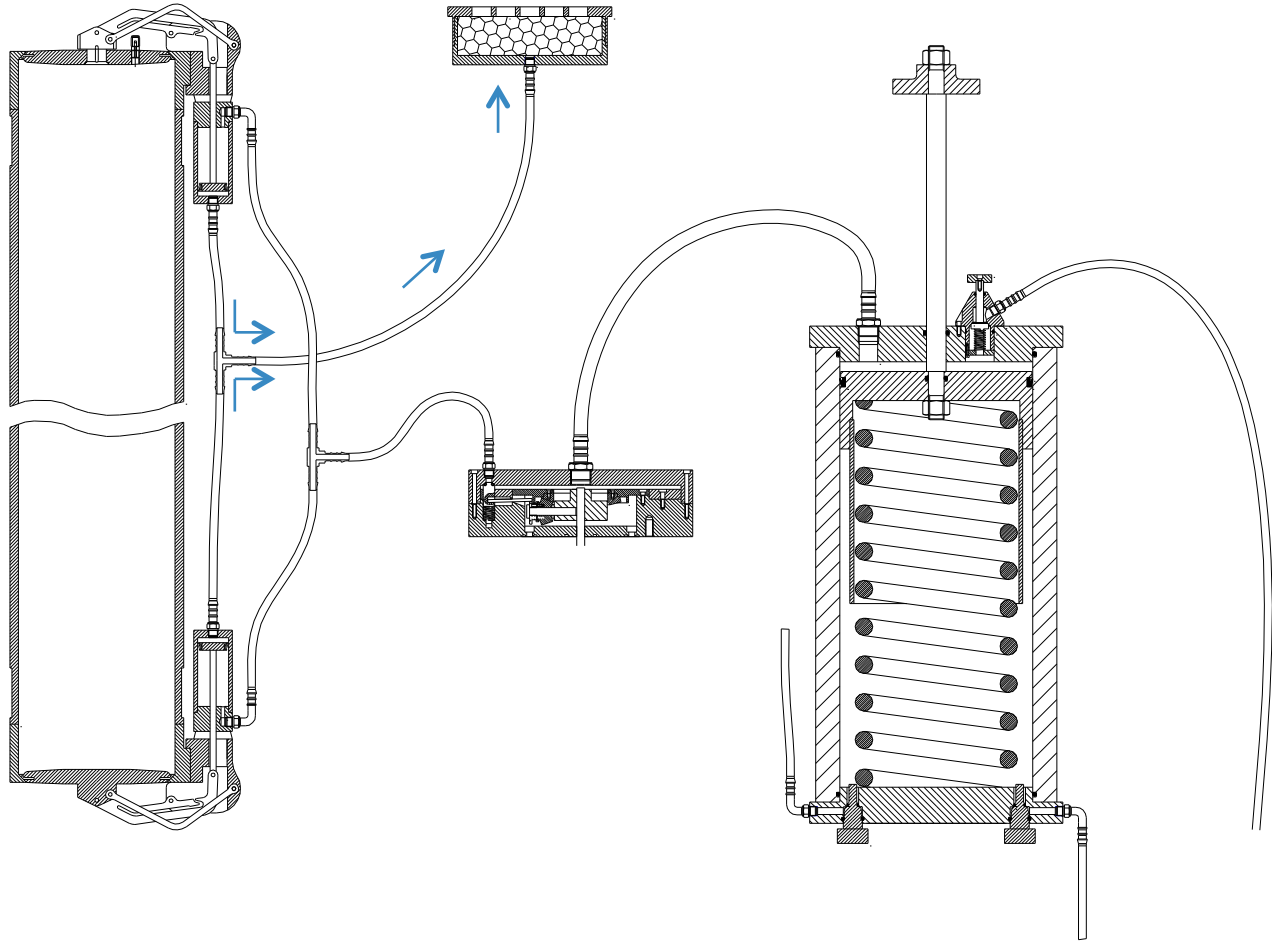
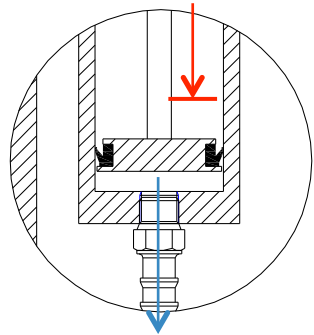




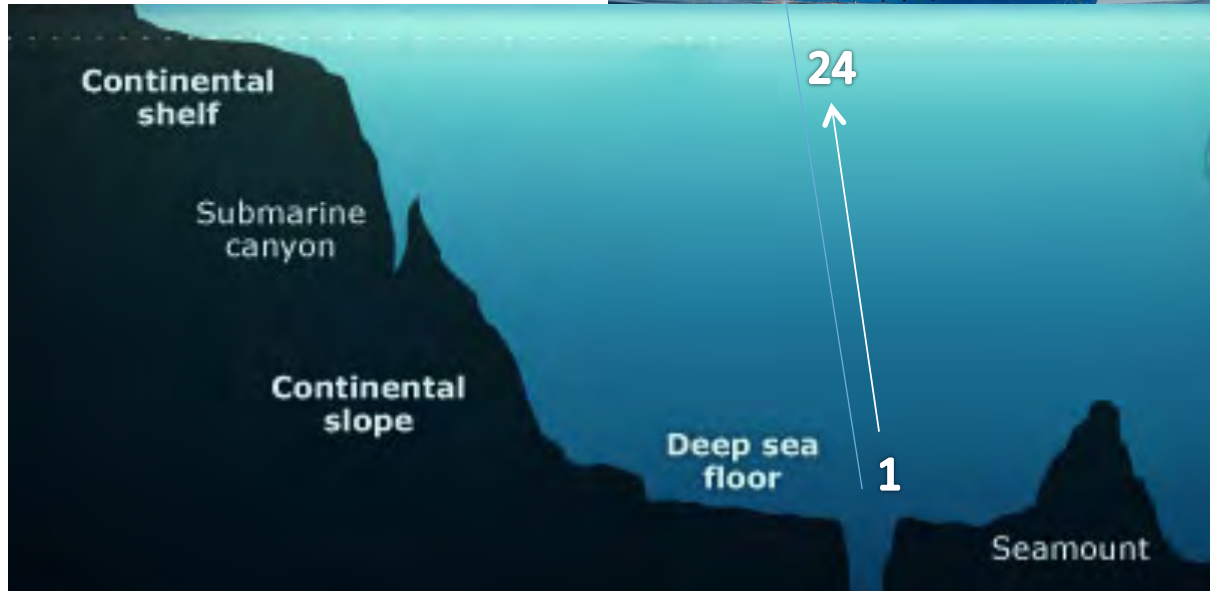


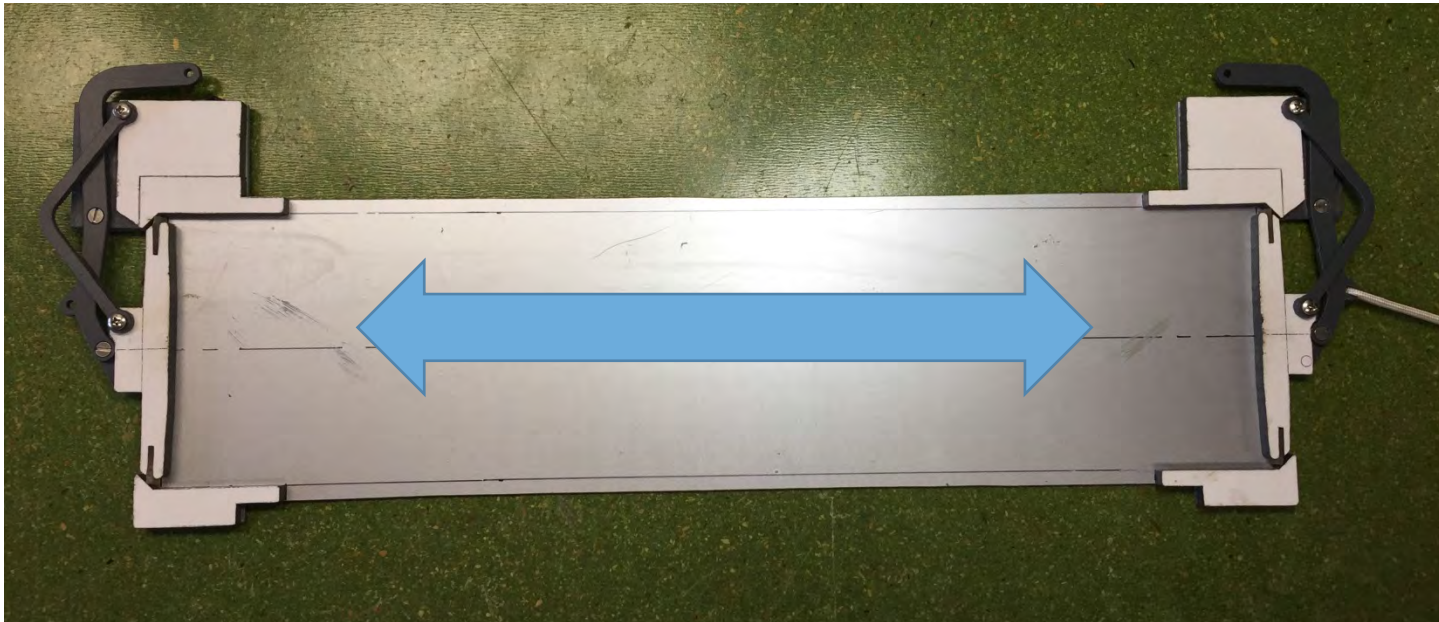


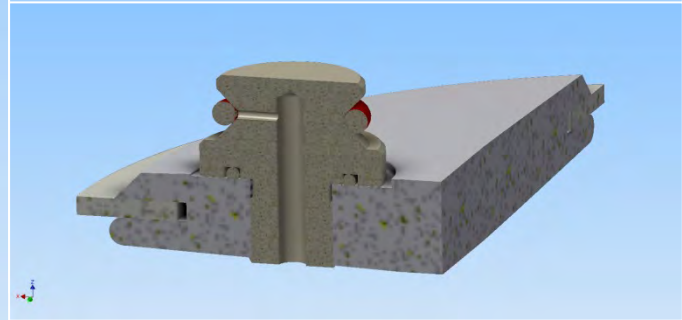
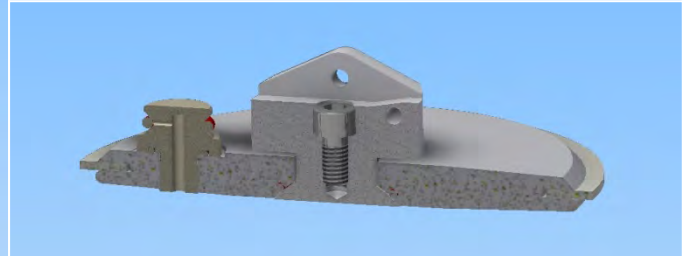
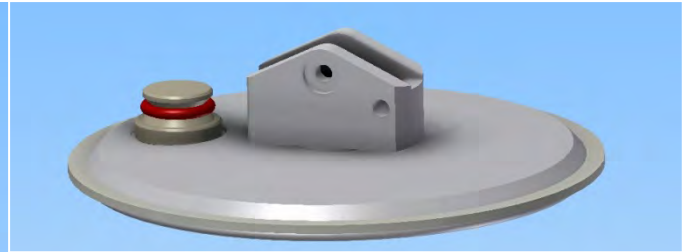













$N_2$  over pressure

A red arrow pointing downwards from the text " $N_2$  over pressure" to the top of the equipment in the left image.





- Quick & easy to prepare
- From the inside out closing mechanism
- Large opening butterfly valve
- Self-powering accumulator providing hydraulic pressure
- Direct filtering from the bottle
- Excluding surface pollution intake
- Resetting for next deployment done in seconds

