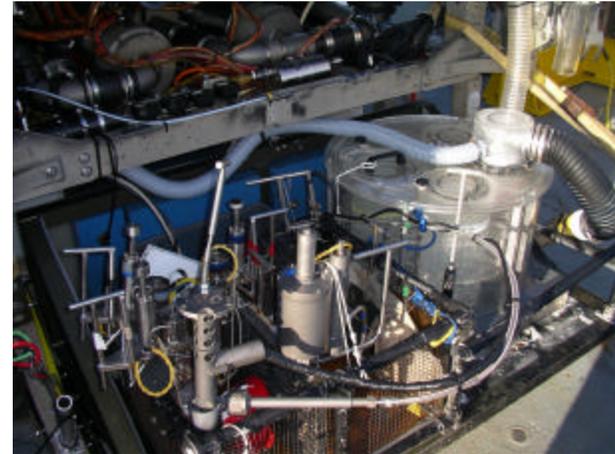


# Multi-chamber Suction Sampler

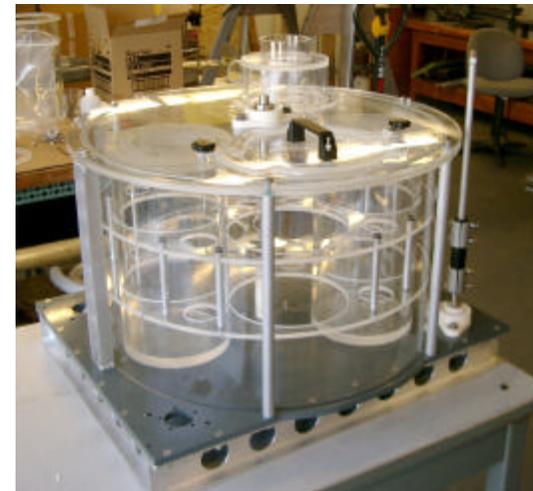
## General Characteristics

- 5 x 9 liter insulated sample chambers
- Interchangeable filter screens (250 micron to 5 mm)
- Up to 3 inch suction hose
- Can be placed on Jason basket or under tool sled
- Variable suction



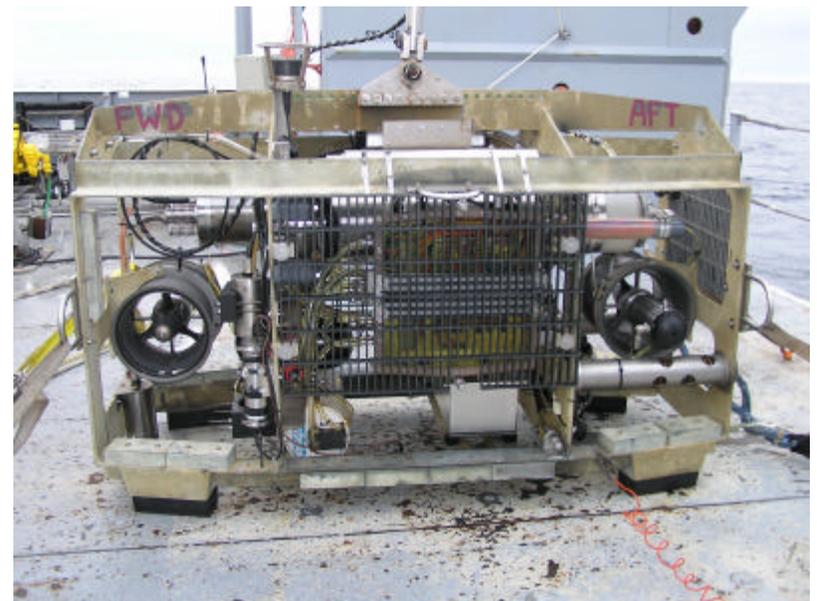
## General Comments

- Initial tests on Embley “Ring of Fire” hampered by faulty hydraulic flow control valve and learning curve
- Insufficient suction for 4 inch hose can be corrected by connecting thruster motor directly to water pump (gain 30% more suction)
- Second unit ready for test on Alvin Fall ‘06



## Upgraded Medea

- Obstacle avoidance sonar
- High frequency Jason relative acoustic navigation
- Stand-alone operation when required
- Dual video uplinks (one color)
- Science interfaces
- Digital still camera
- Thrusters with auto heading control
- Additional lighting circuits



# Embley Ring of Fire

## Extreme Environmental Conditions

- CO<sub>2</sub>
- Molten sulfur
- Zero visibility
- Poor acoustics
- High currents
- Falling rock
- High overpressure?

