

Instrumentation

201 MHz MICE Cavity

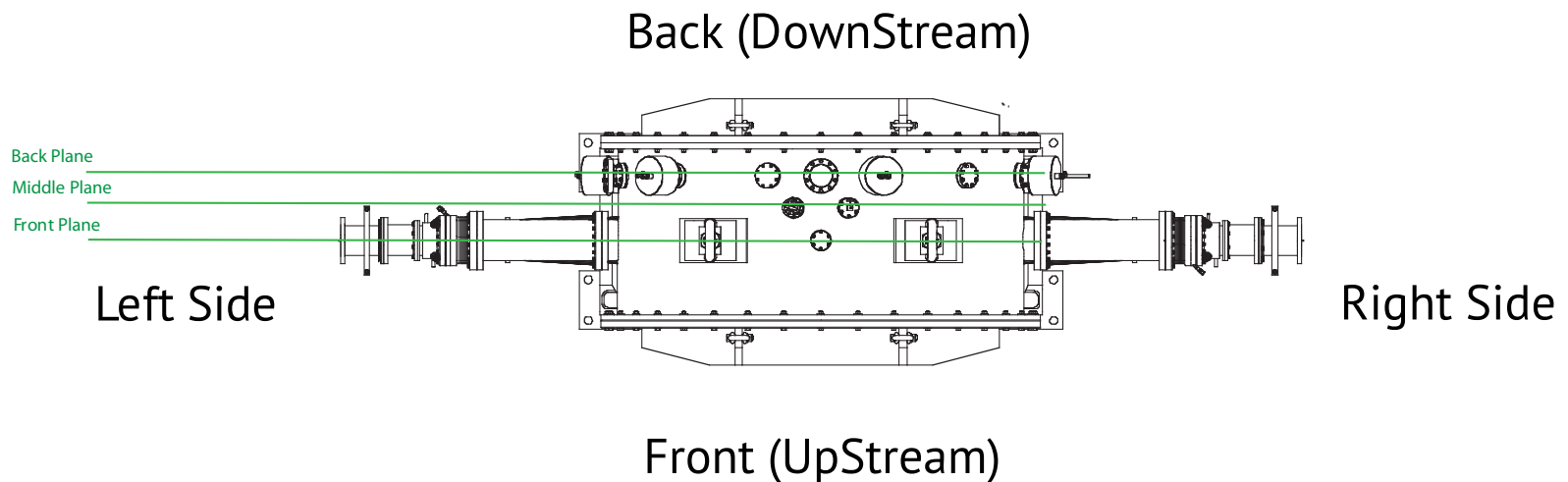
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Work Flow:

- A first GENERAL diagram of instrumentation and ports has been produced
- An “expert” responsible for each area will be chosen
- The expert will provide specific requirements
- The general diagram will be modified according with requirements.

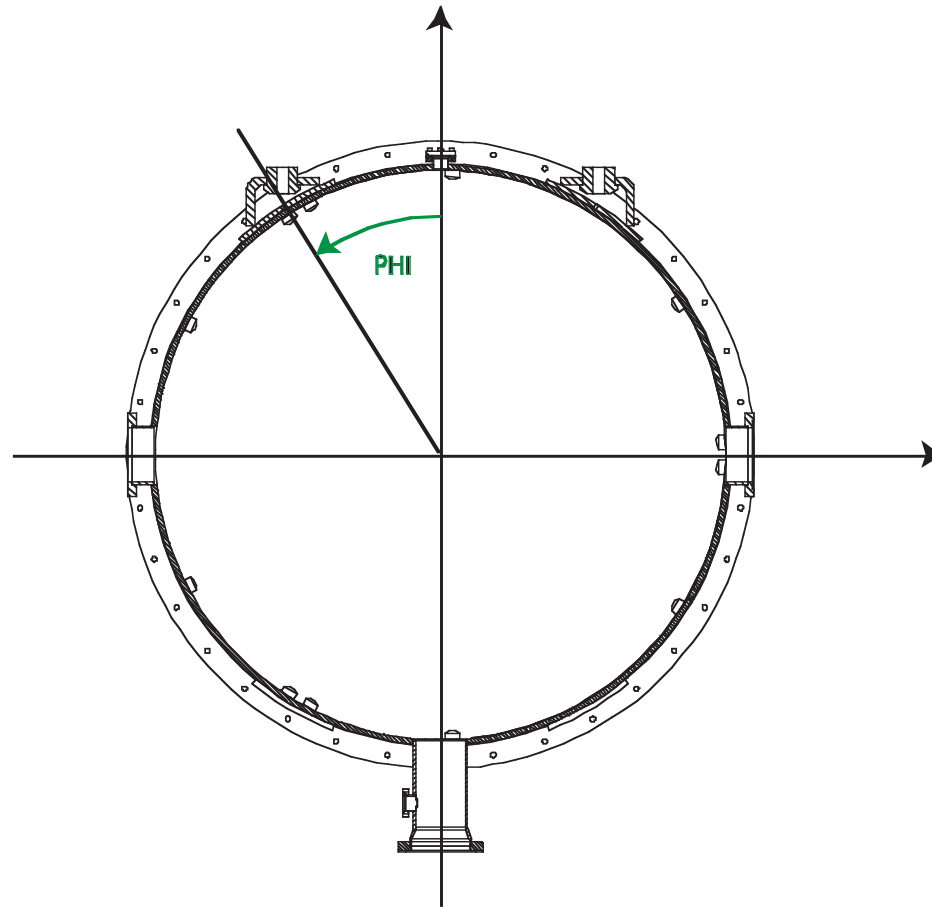
Reference Frame:



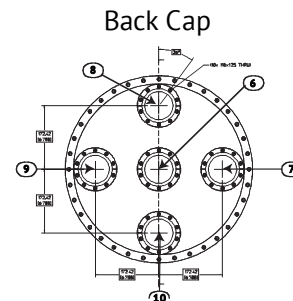
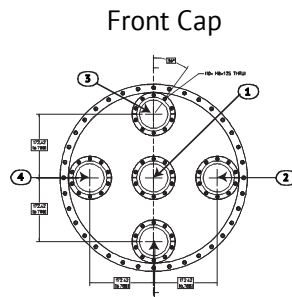
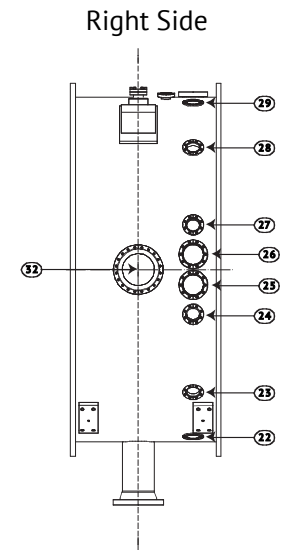
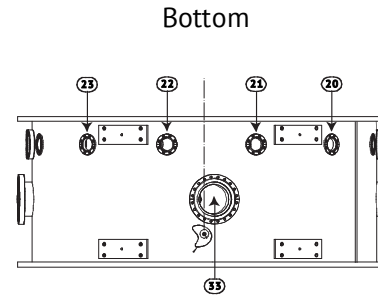
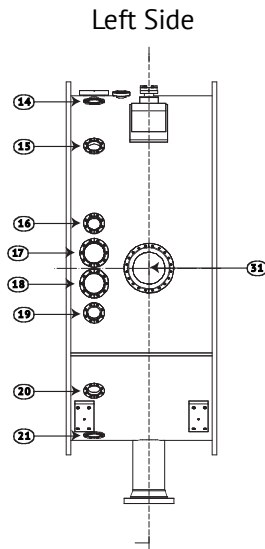
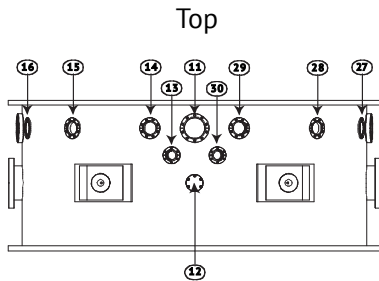
Ports Counting:

- All ports on the vacuum vessel have been numbered
- A reference system has been defined
- PDF with ports map is available

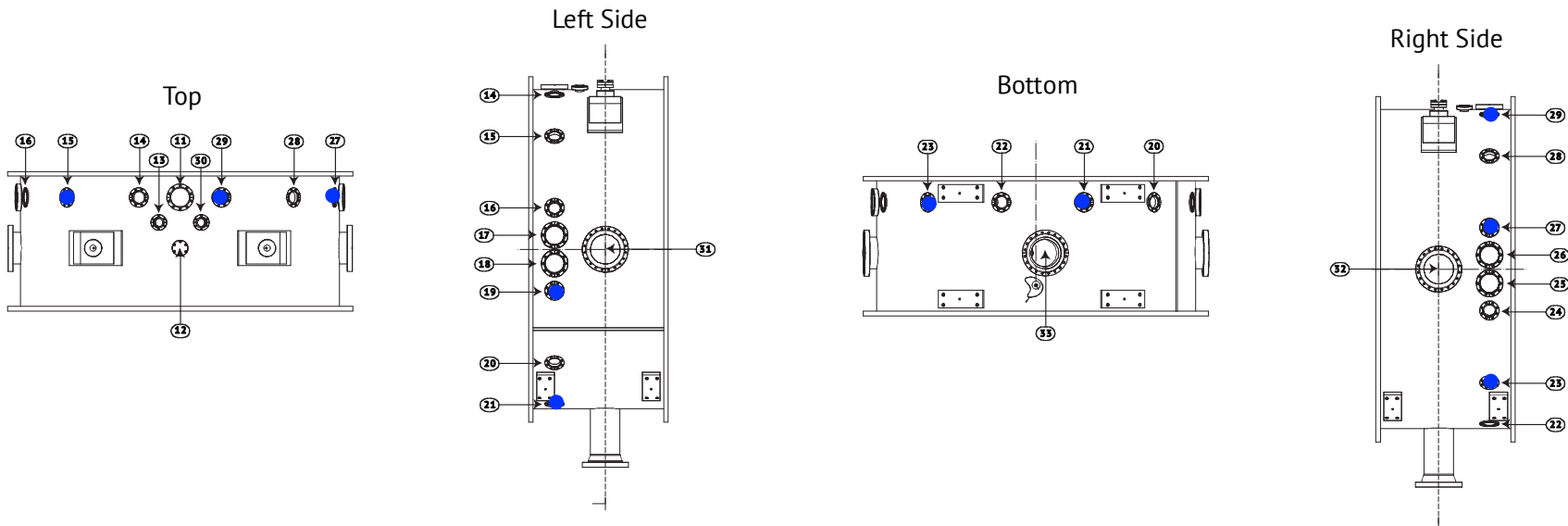
Reference Frame:



Ports Counting:



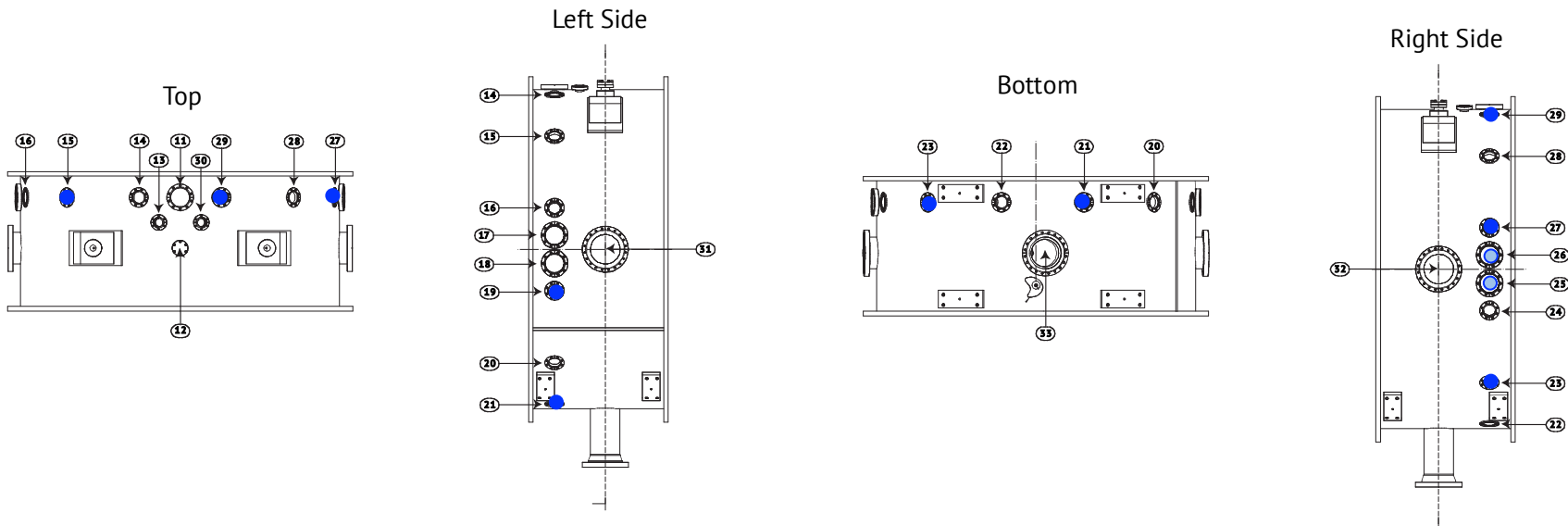
Ports Counting:



Tuners:

- Ports: 15,19,21,23,27,29
- Need for vacuum gaskets!!!

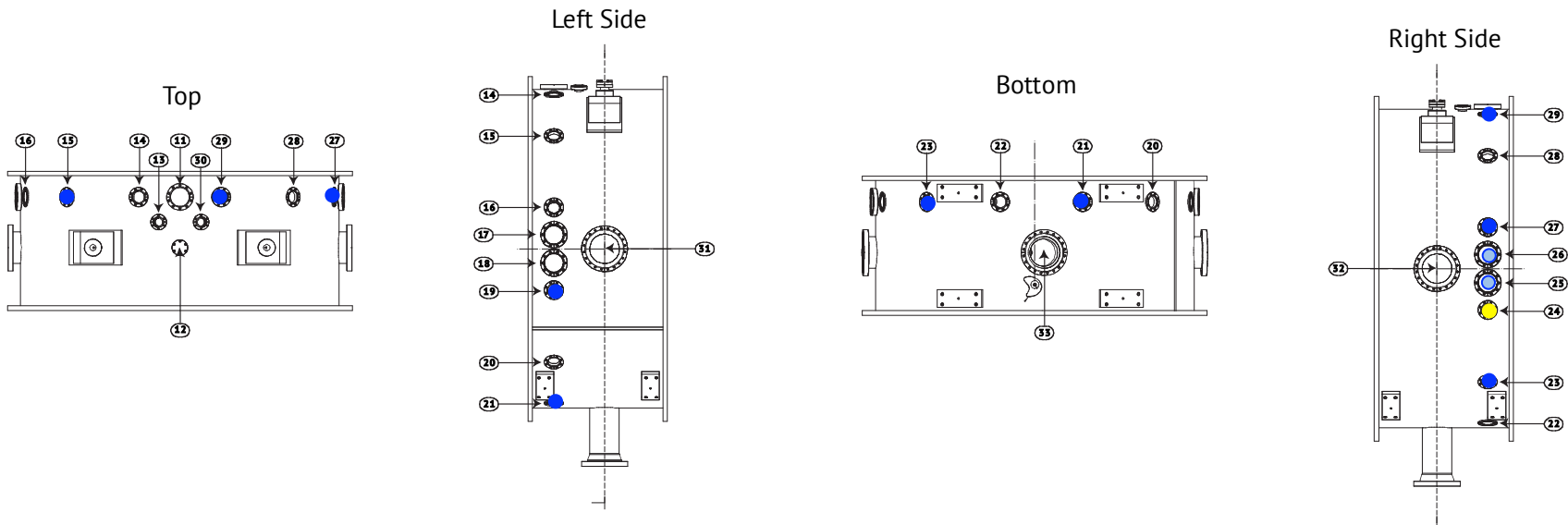
Ports Counting:



Water Feedthru:

- Ports: 25, 26
- Other instrumentation needed?
- Need to realize appropriate flanges

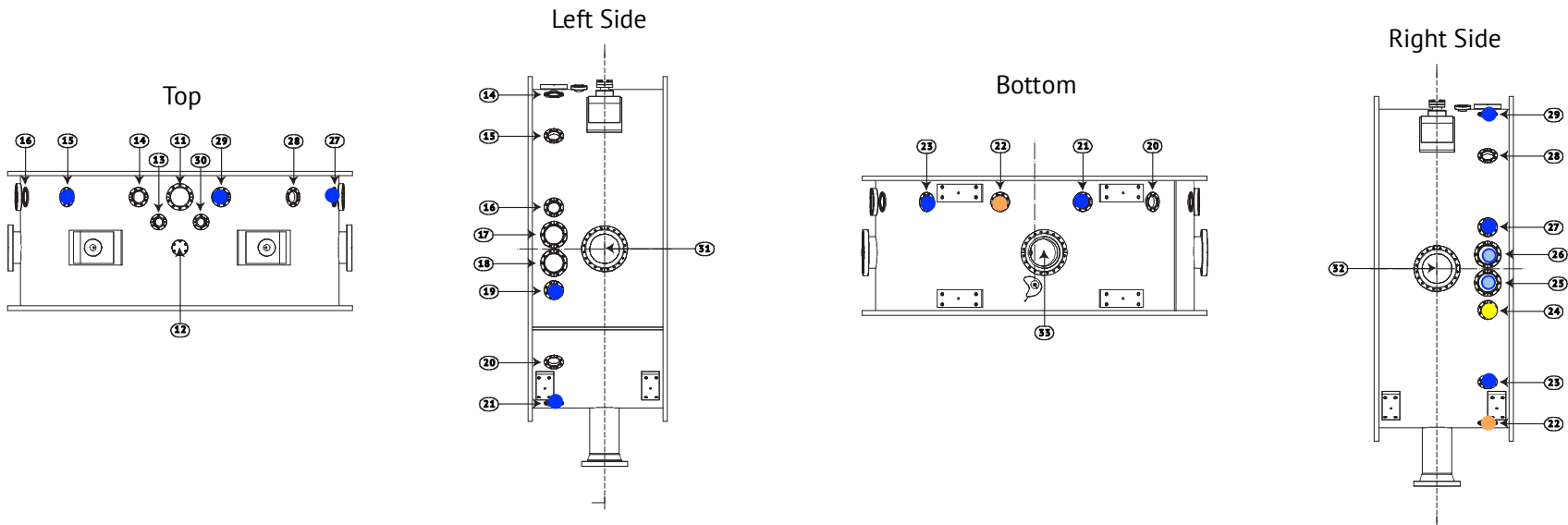
Ports Counting:



Microphones:

- Port: 24
- Need to know what connections are needed
- Need to buy/build a flange.

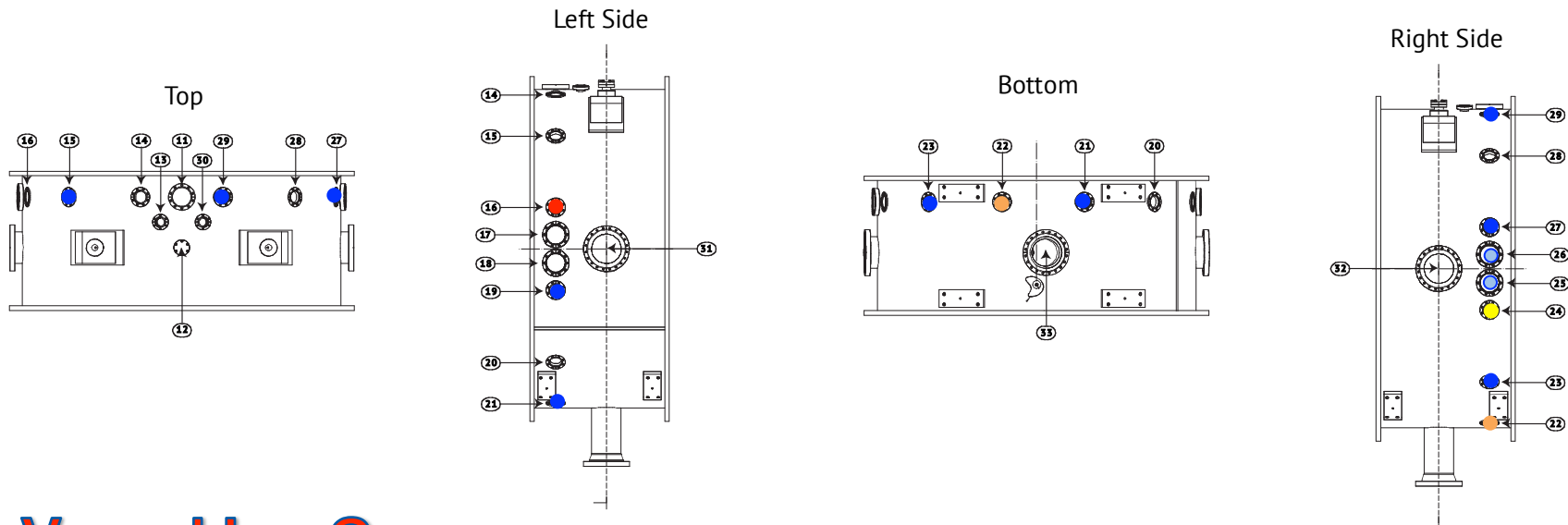
Ports Counting:



Thermocouples:

- Port: 22
- Need to define where and how many

Ports Counting:

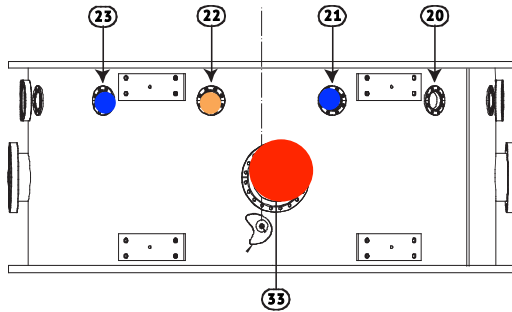


Vessel Ion Gauge:

- Port:16
- Think about shielding from magnetic field
- Think about the possibility to move the gauge away from magnetic field

Ports Counting:

Bottom

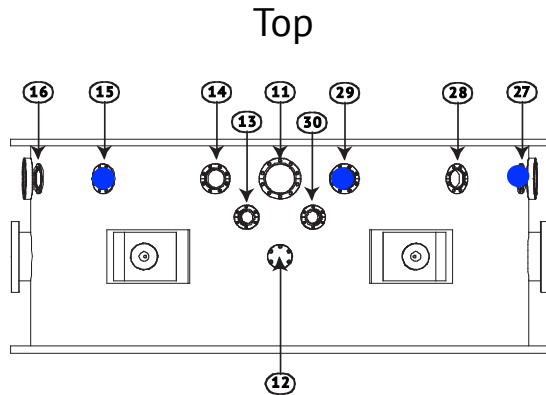


Vacuum Port:

- Port: 33
- Devices:
 - Vacuum Pump
 - Pump Ion Gauge
 - Rough Vacuum Gauge

Need to look into the piping drawings

Top Ports :



Available Ports:

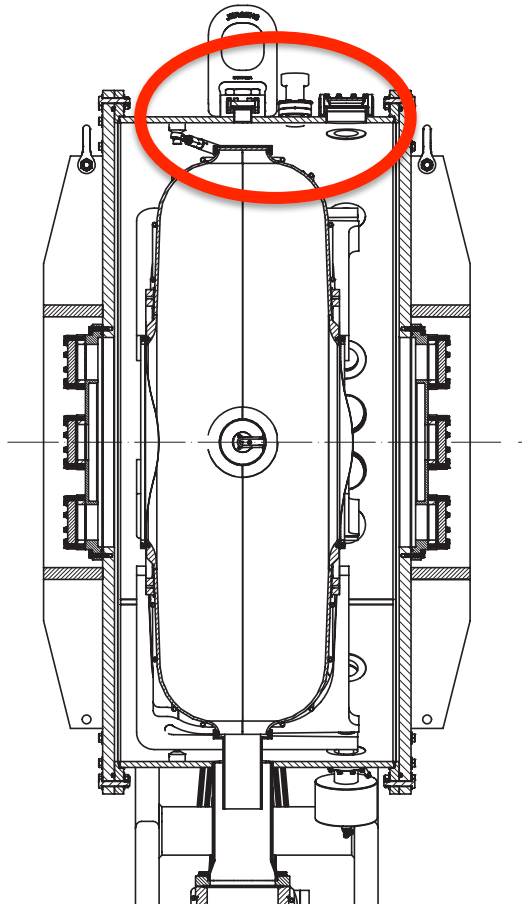
- 11, 12, 13, 14, 30

Instrumentation:

All instrumentation from inside the cavity

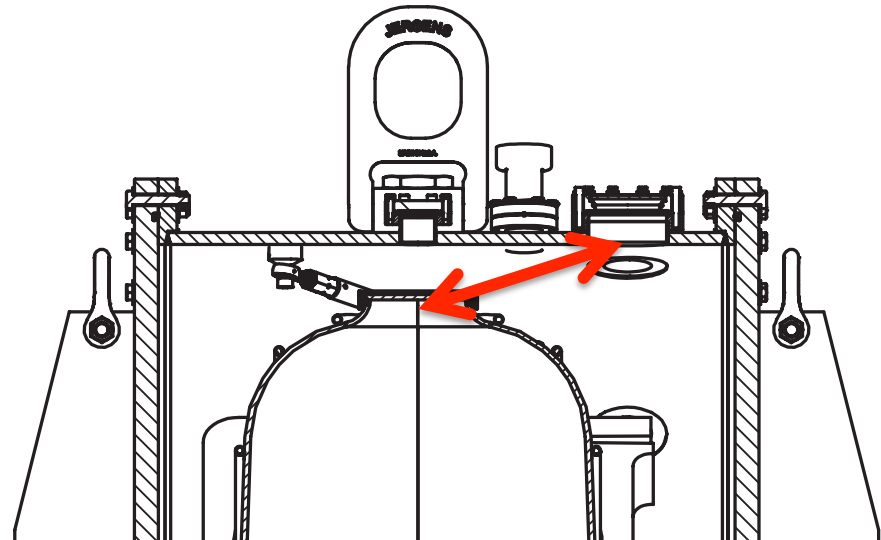
- Cavity ion gauge
- Cavity RGA
- Spark detection Fibers
- PickUp

Top Ports :

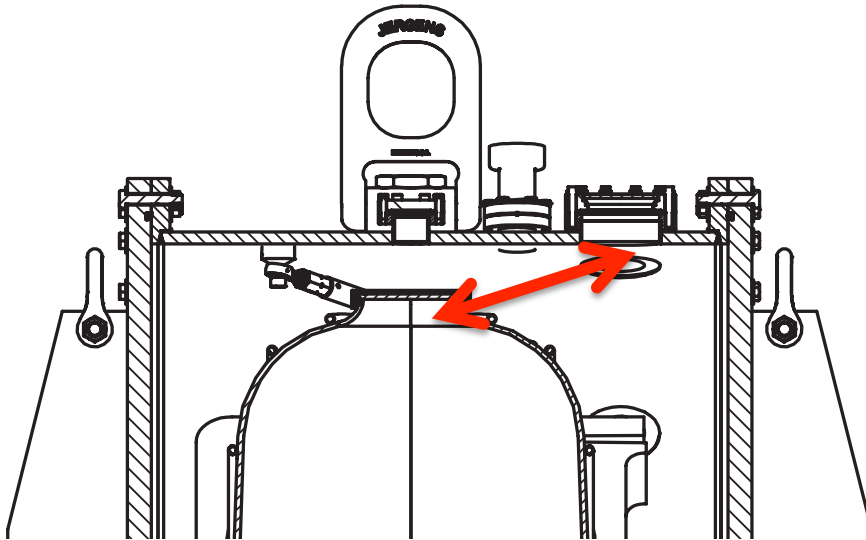


Question:

- **How to connect cavity and top ports**



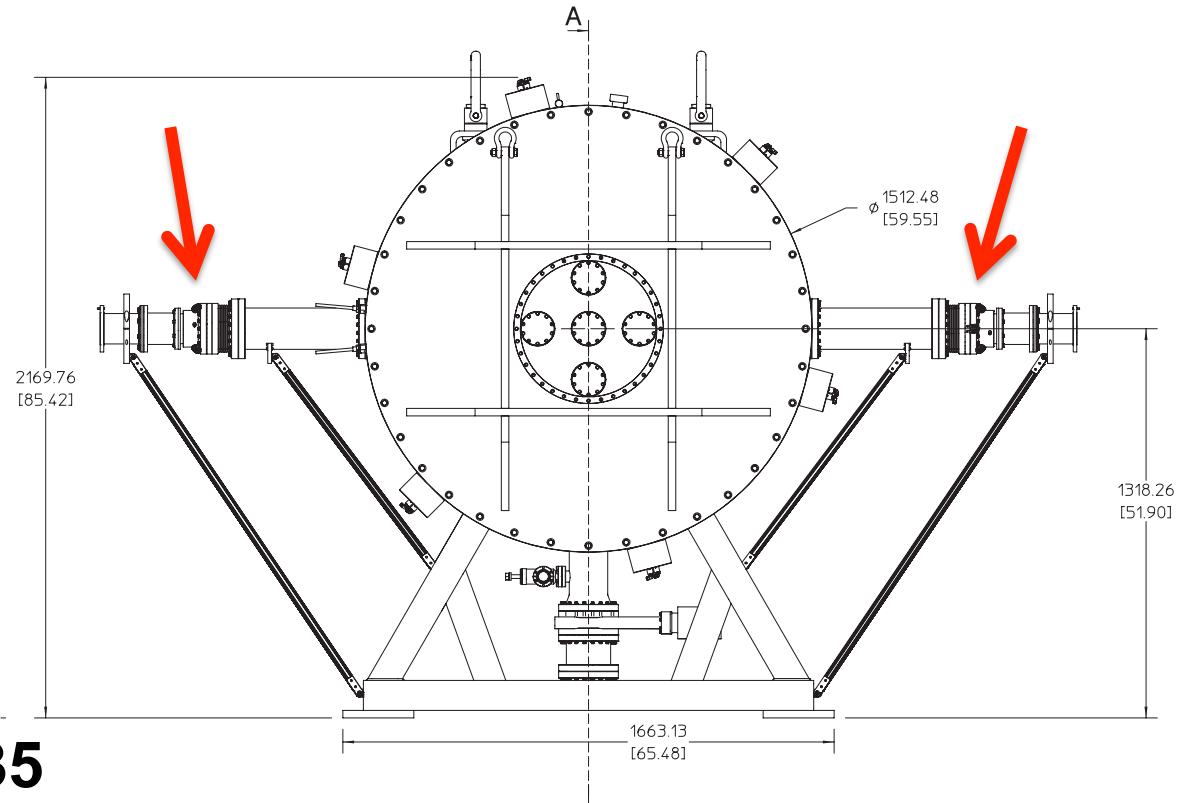
Top Ports :



Questions:

- What are the requirements for RGA and IGs?
- How long the connection can be?

Other Ports:



Couplers:

- **Ports: 34, 35**
- **Instrumentation: IGs, PMTs**
- **Need for more information on these ports**

Thanks for your help

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