Pure Ozone Generator

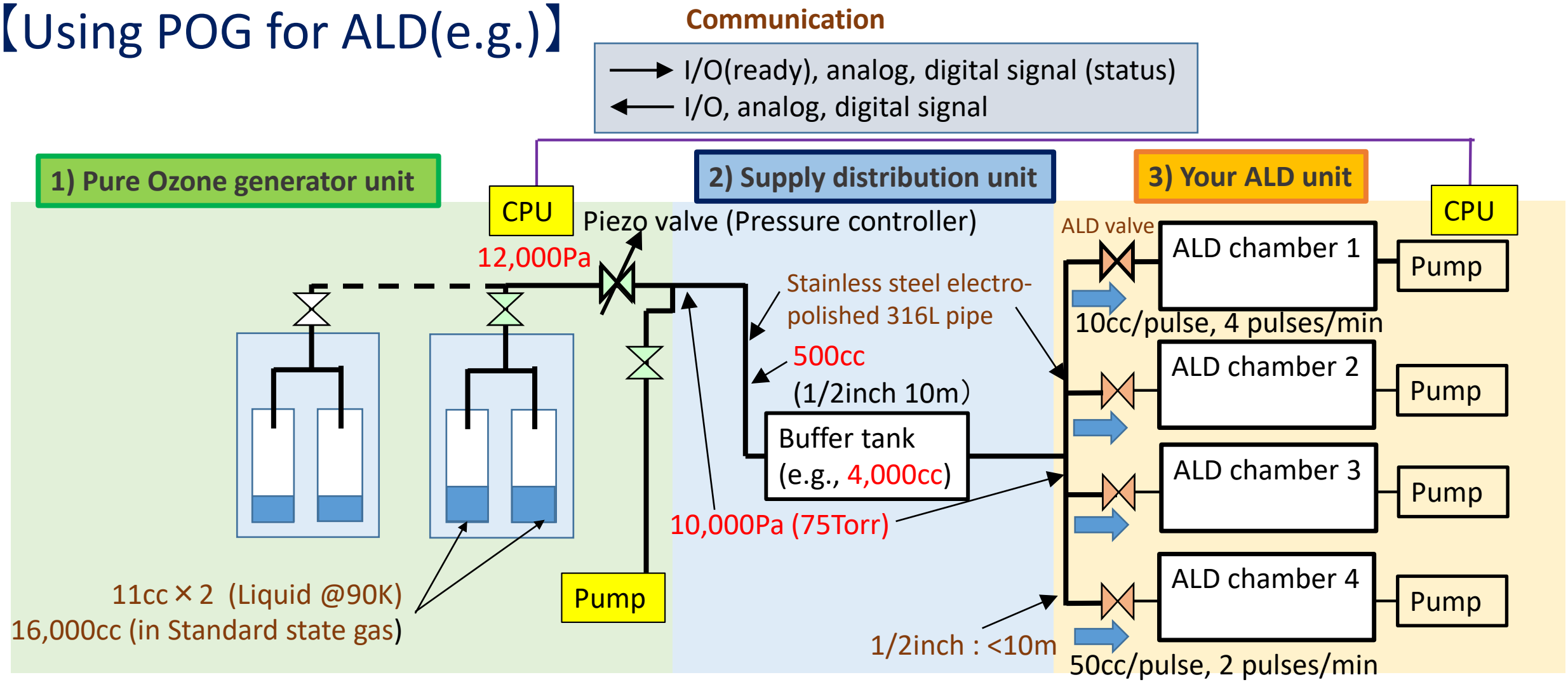
Perfect for ALD!

- Based on experience **Over 20 years R&D** on high concentration and purity ozone
- **Patented technology from NPI** and AIST*
- **SEMI-S2 certified** and has been working in **semiconductor factories 24/7 all over the world.**
- Can be expanded and customized as a function per customer request!

* Advanced Industrial Science and Technology

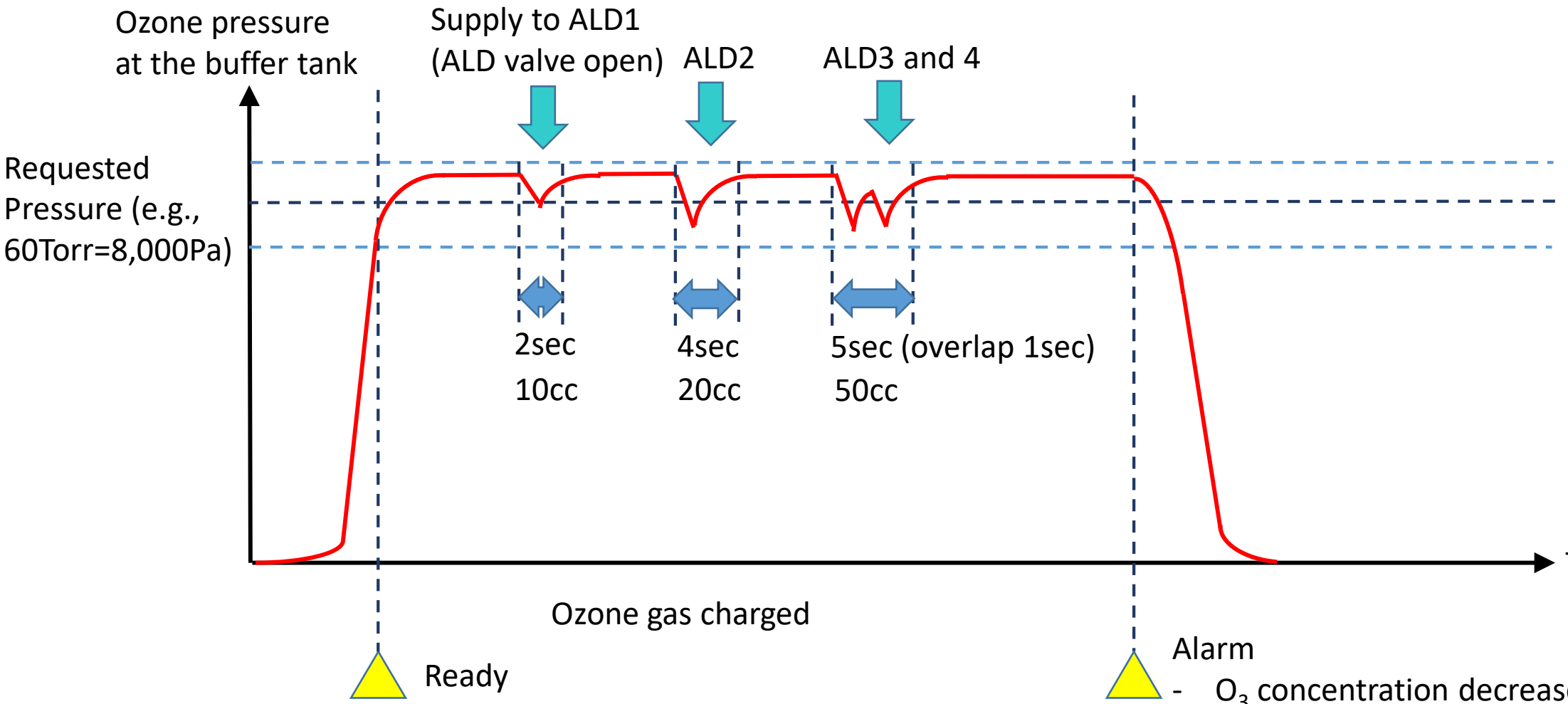
1.PLUG&PLAY VERSATILE ozone gas Platform

【Using POG for ALD(e.g.)】



Introduce just one optimized POG unit for your multiple ALD systems

Typical working Pattern

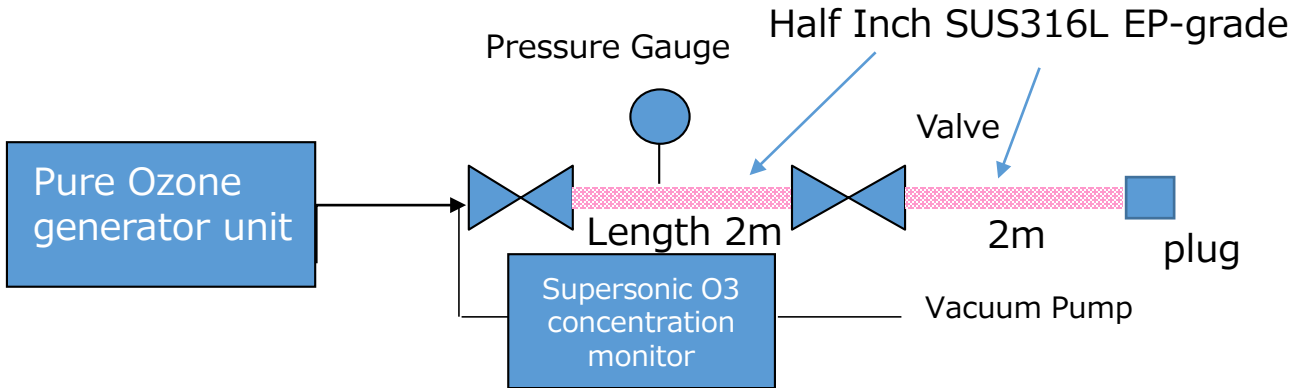


Ozone pressure at ALD valve inlet is kept constant at any ALD pulse request

2. Long lifetime of Pure Ozone

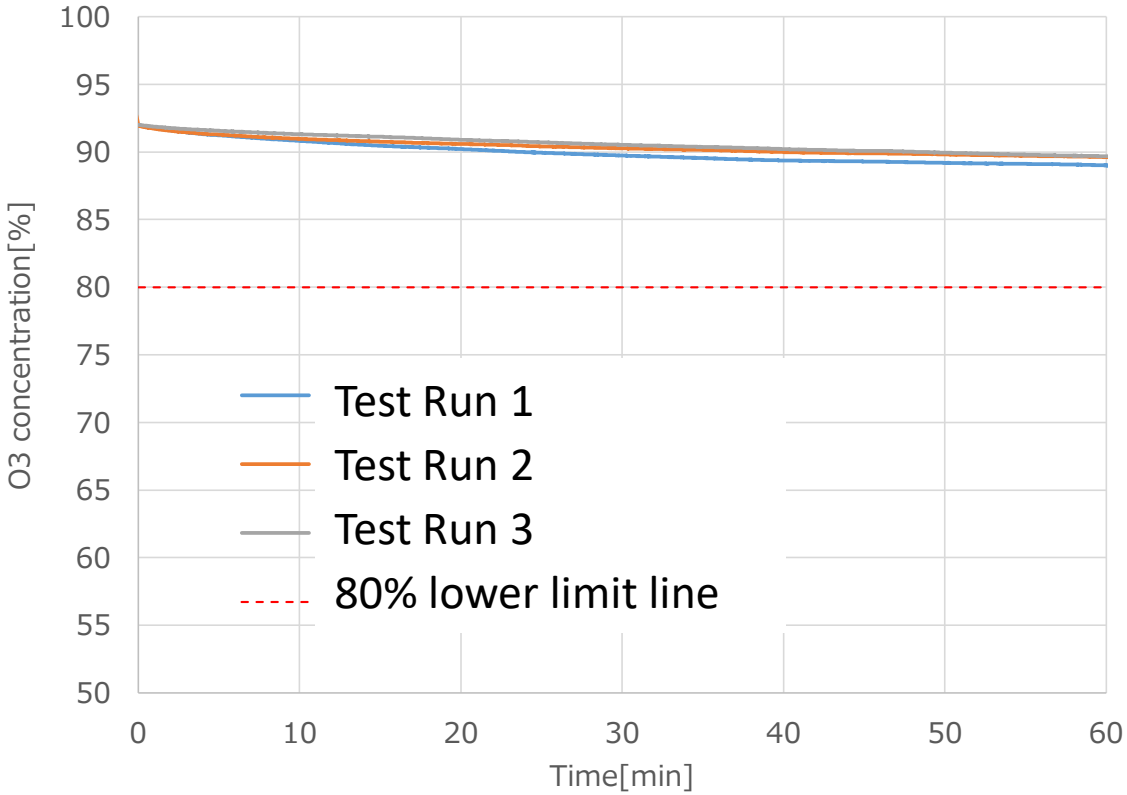
Measurement Conditions

- Initial charged O_3 Pressure 10,000Pa
- Surrounding temperature: 25°C
- Initial O_3 concentration: 92% (measured with a supersonic O_3 concentration monitor)
- Piping: Electrochemically polished SUS316L (4m) with two metal diaphragm valves (material: Body: SUS316L, Diaphragm: SUS631)



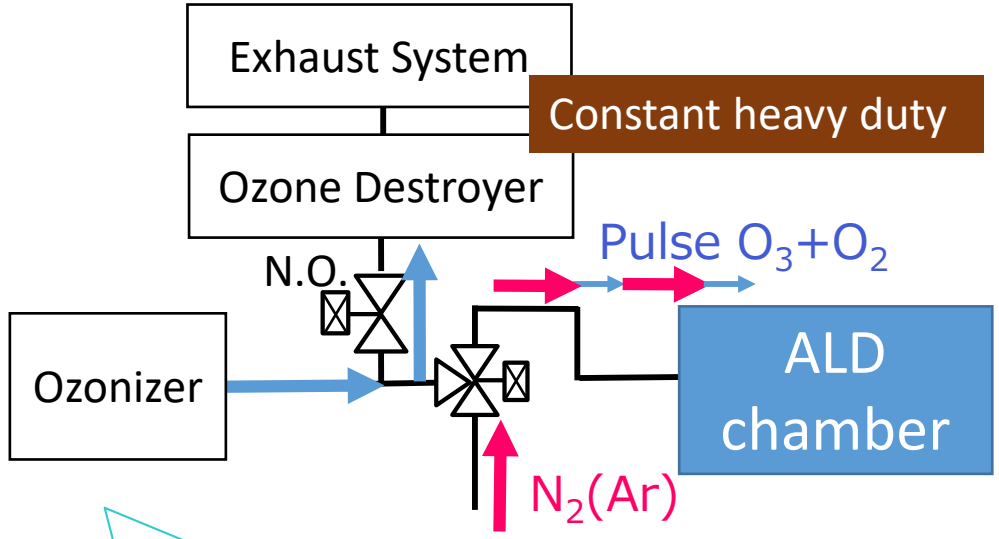
Guideline for >10min storage

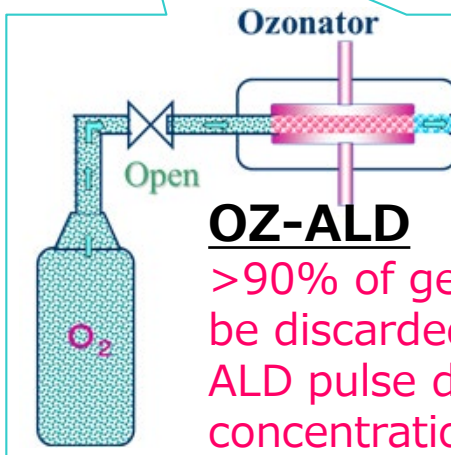
- Temperature: <40°C (<30 °C recommended)
- No welding-originated surface defects such as pit, cracking, undercut and overlap
- Piping for gas transfer: SUS316L with electrochemically polished grade (Rz <0.7μm)
- Gas control Valve: diaphragm type, SUS316L, PTFE (Polytetrafluoroethylene) and PFA (Perfluoroalkoxy alkanes) with surface roughness (Rz) of <0.7μm
- Maximum piping length:15m (<10m recommended)



3.On-demand supply of Pure ozone

Conventional

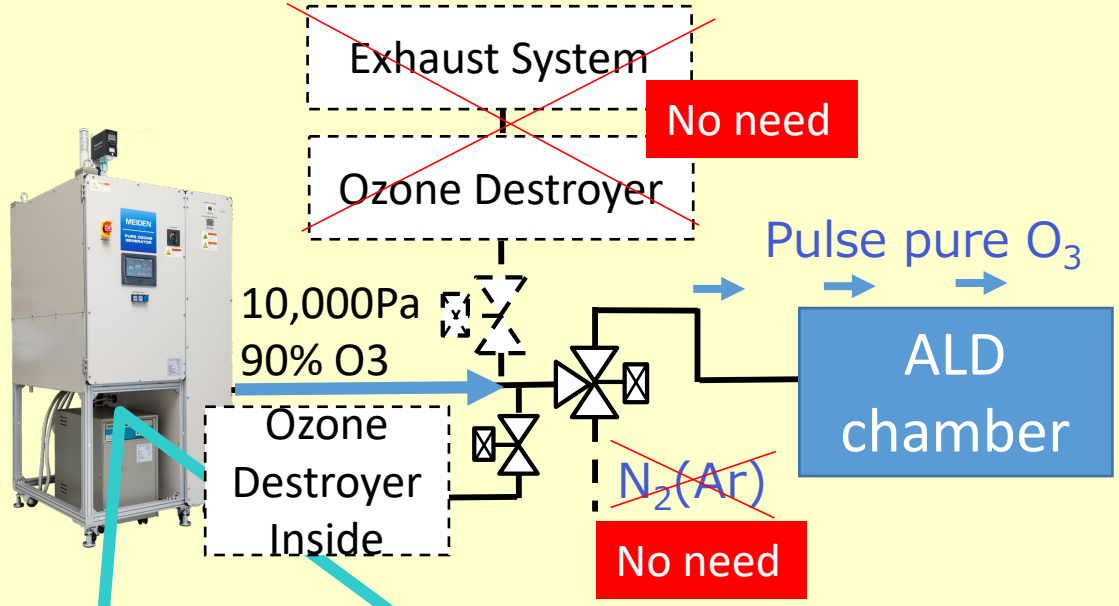


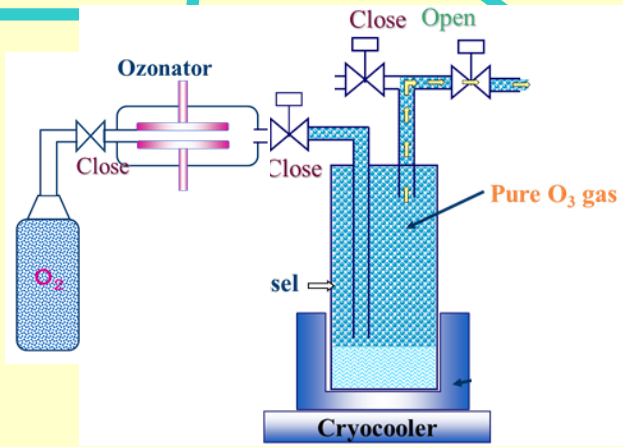


OZ-ALD

>90% of generated O_3 gas has to be discarded because of <10% O_3 ALD pulse duty and unstable O3 concentration when interrupting

Our Proposal





POG – ALD

Generated pure O_3 gas is utilized without loss thanks to a long lifetime of pure O_3 (>10min)

4. Running Cost Comparison

(image)