

Attn.: Customer	Title Precautions when Operating Cryopump	No.	PV-02-014897
		Date	July 10, 2013
		CANON ANELVA CORPORATION Quality Management Div	

Thank you for using CANON ANELVA products.

We would like to notify you precautions when operating the cryopumps.

If you convert the oxygen gases into plasma, ozone gases are absorbed inside the cryopump. Regenerating the cryopump under this situation causes the ozone gases to suddenly expand, and may cause damages to the cryopump.

According to our in-house evaluation of oxygen plasma using our cryopump, the ozone gases result were less than the detection lower limit when regenerating the cryopump. However, for further safe use of the System, we would like to notify you the following precautions.

1. We recommend you not to use cryopumps for the chambers which generates oxygen plasma.
2. If you use the cryopump for a chamber which generates oxygen plasma currently or in the future, take the following safety measures.
 - Add a decompressed regeneration mechanism.
Change the pumping pipe of the cryopump latter area to a metal pipe (ground potential).
 - Connect the pumping pipe of the cryopump latter area to the decompressed exhaust duct.

[Cryopump Decompressed Regeneration Mechanism]

This is a method to keep the cryopump inside in the decompressed status, to regenerate the cryopump with avoiding the “temperature – pressure where liquid ozone is existing” (where the above risk is existing).

We will continually improve the product quality and reliability to ensure customer satisfaction.

Applicable parts	Cryopump equipped to Chambers which generates oxygen gases	
Reason of report	Providing latest information of quality assurance and safety	
Action items	<p>[For new order] We recommend you turbo molecular pumps (in combination with a cryotrap). If you request cryopumps for special reasons, we will add the decompressed regeneration mechanism.</p> <p>[For existing system] We will add the cryopump decompressed regeneration mechanism with additional charge according with your inquiry. Treating the pipes of the cryopump latter area (metal pipe, grounding, connecting to decompressed duct) is scope of your work.</p>	

Price, lead time, work time	Adding the cryopump decompressed regeneration mechanism for the existing Systems requires additional charges. For details of the cost, please contact our sales representatives.	
Schedule	We will plan the schedules according with your inquiries.	
Remarks		

Feel free to contact our sales or service representatives.

<http://www.canon-anelva.co.jp/english/contacts/index.html>