

# **GCC Oxidation Cleaning Procedure**

## **PROCEDURE**

### **M-CC-005 REVISION A**

#### **General Description**

This protocol specifies the requirements for personnel who enter and exit the GCC to clean the rust contamination from the internal welds. It addresses gowning and wiping procedures, as well as the appropriate materials appropriate for use in cleaning.

#### **Materials**

- Class 100 cleanroom garments
- Cleanroom approved gloves: VWR nitrile sterile gloves
- Cleanroom wipes: VWR Miracle Wipes, Tex Wipe wipe
- Isopropyl Alcohol: 100% IPA, 10% IPA/DI (v/v)
- CitriSurf 2210
- DI Water
- Safety Glasses
- Cleanroom ladder
- Cleanroom tacky mat
- Ultrastinger Bright Light
- ULO: ultra low outgassing polyethylene sheets

Note: No tools are to be placed on the GCC internal vacuum surfaces. If a tool must be put down, put a cleanroom wipe under the tool.

#### **Gowning Procedure**

Follow the procedure in M-CC-P-004 OMEGA EP Cleanroom Gowning/Degowning Procedure.

#### **Material wipe down**

Wipe down all tools and materials that will be used to install the GCC with 100% IPA using a TexWipe wipe. After wipe down, inspect the tools and materials for any visual defects. If defects are observed wipe the tool or material again.

#### **Execution**

Note: There must be one individual stationed outside the GCC at all times to assist the workers inside the GCC. This person should assist by inspecting gowning, tools, and provide material handling, so one does not need to exit and enter the GCC multiple times.

1.	Before entry into the vacuum surface of the GCC inspect cleanroom gloves and boots. (If they are visibly dirty, exit the Laser Bay and replace them). Step onto the tacky mat to insure that all debris is off the bottom of the boots. Move multiple times within the tacky mat to remove all debris from the boots. Wipe down the cleanroom garment using a dry Miracle wipe.
2.	If a ladder is to be used, completely wipe it down with 100% IPA and a TexWipe, and tape a new clean disposable cleanroom boot over the bottom of each leg with cleanroom tape.
3.	Place ULO on the GCC base surface under the work area.
4.	<p>Perform precision cleaning of the GCC welds using the following methods:</p> <ol style="list-style-type: none"><li>Saturate a Miracle wipe with CitriSurf 2210.</li><li>Wipe the saturated wipe on the “rusted” areas of the welds. Continue wiping CitriSurf on the rusted area until the area is completely covered.</li><li>Let the applied CitriSurf stand for 5-10 minutes depending on the severity of the rust. Do not allow the CitriSurf to dry.</li></ol> <p>After standing per the above time period, remove the CitriSurf solution from the treated surface, 6” of adjacent surface and any additional run-off and dripping. Use the following method to remove:</p> <ol style="list-style-type: none"><li>Apply 10% IPA/DI water to the treated surface using a saturated Miracle wipe. 10% IPA/DI will be mixed on site and should be mixed volume/volume.</li><li>Wipe with a Miracle wipe.</li><li>Repeat until there is no visual rust or CitriSurf on the surface and wipe.</li><li>Wipe the surface with a 100% IPA saturated wipe and let dry.</li></ol>
5.	Inspect all welds using the Ultrastinger Bright Light. Follow procedure M-CC-P-001 Bright Light Inspection. If additional rust is observed repeat step 4.
6.	Upon exiting the GCC, remove the ULO on the base surface.
	End of Procedure

## **M-CC-P-005 GCC Oxidation Cleaning Procedure**

### **Document Release:**

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