



## **Applied Global Services (AGS)**

**Rev. 01**  
**May 6, 2020**

### **Epi Pronto™ Minor PM Checklist**

The Epi Pronto™ 200 mm chamber is a process chamber with a wide range of capabilities. This document illustrates the field best practices for the Epi Pronto™ Chamber PM. It ensures long-term chamber repeatability. Always implement this procedure in full; partial implementation may yield unsatisfactory results.

# Table of Contents

<b>1</b>	<b>Chamber Overview.....</b>	<b>3</b>
<b>2</b>	<b>PM Planning and Preparation.....</b>	<b>4</b>
<b>3</b>	<b>Pre-PM Planning Checklist.....</b>	<b>11</b>
<b>4</b>	<b>Minor Cleaning and Maintenance: Checklist.....</b>	<b>12</b>
4.1	Prepare the Chamber.....	12
4.2	Remove Upper Clamp Ring.....	12
4.3	Install Maintenance Purge Box and Dome Centering Ring.....	13
4.4	Remove the Upper Dome and Process Kit.....	13
4.5	Remove Exhaust Line Parts Down to Isolation Valve.....	14
4.6	Inspect All Parts to be Assembled.....	14
4.7	Install the Upper Dome and Clamp Ring.....	14
4.8	Level the Susceptor With the Laser Alignment Kit.....	15
4.9	Recover the Chamber After the PM.....	15

# 1 Chamber Overview

The Epi Pronto process chamber consists of upper and lower quartz domes mounted on a stainless-steel base ring. The walls of the base ring are isolated from the process by upper and lower quartz chamber liners. The susceptor rests on a quartz susceptor support shaft and is centered within the preheat ring. The pads of the quartz wafer lift connect with the wafer lift pins that protrude through the susceptor, allowing the wafer to be raised or lowered for loading, processing, or unloading.

The process chamber is radiantly heated by upper and lower lamp modules. The chamber body is water cooled and a blower/heat exchanger provides air cooling to the lamp modules.

Reactant gases are brought into the process chamber through the gas inject system. Gas flows from the gas inject at one side of the process chamber, across the rotating wafer, and exhausts out the other side of the chamber. Purge gases can flow through the gas inject or one of several alternate flow paths.

**Note:** The residual deposits within the process chamber are reactive with air and may contain corrosive and toxic materials. To reduce the effects of exposure, the process chamber(s) and the exhaust system must be adequately purged before opening. This is accomplished through the use of pre-maintenance recipes and nitrogen purging.