

**PTW(CTF)**

**ASM International A412  
Vertical Atmospheric  
Furnace *Serial Number 30412***

**MFG Date: TBD**

**EQUIPMENT DETAILS:**

**Labeled as Collateral asset.**

**Tool & Auxillary Settings:**

**Vendor - ASM**

**Tool Model - A412**

**Software version - 6.80C ( MSCIII)**

**Heater Type - MRL (LP < 800 degree) (MBPTC)**

**CHR robot: Genmark GB4CT**

**WHR robot : Genmark GB4S**

**UTM/LTM : electronic control**

**Flange coolant system :TCF (Galdan oil)**

**Quartzware Configuration:**

**Outer tube - Quartz**

**Inner tube - Quartz**

**Boat - SiC boat**

**Boat fix ring/Cap quartz - Quartz**

**Back N2, Qty - N/A**

**SiH4, Qty & Type - Multihole (1) U/D/L**

**H2, Qty & Type -**

**PH3, Qty & Type - Multihole (1) U/D/L**

**ClF3, Qty & Type -**

**Vacuum Line configuration:**

**Design - original config**

**10 Torr Baratron model - MKS**

**10 Torr Baratron full scale setting - 10(F/S) 1000 Torr Baratron model - MKS**

**1000 Torr Baratron full scale setting - 1000(F/S) ATM sensor model - MKS**

## **PTW(CTF)**

**Vent Valve 1 (VV1) normally closed/open,plunger, diaphragm - Normally open,plunger**

**Check valve model - Fujikin**

**Check valve resistance pressure - 2.26 Kpa**

**Mainvalve type, Kitz or CKD - MKS**

**Pressure control : MKS throttle valve**

**Slow valve, incorporated with mainvalve or separate(AV72,AV77) - Separate (PV003) Slow valve orifice size - 2.0mm (PV003)**

**Pressure range of vacuum gauge(Inficon Pirani gauge) - 10T**

### **Control Table:**

**Alarm Watch/Table setting**

**Temp (Low Alarm Limit(deg)/High Alarm Limit(deg)/Check Time(min))**

**U - 0.7/0.7/30S**

**CU - 0.7/0.7/30S**

**C - 0.7/0.7/30S**

**CL - 0.7/0.7/30S**

**L - 0.7/0.7/30S**

**Pressure (Low Alarm Limit(Torr)/High Alarm Limit(Torr)/Check Time(S)) - 0.02/0.02/30S MFC (Low Alarm Limit(%)/High Alarm Limit(%)/Check Time(S))**

**MFC01 - N2:100sccm 2%/2%/10sec**

**MFC02 - N2: 100sccm 2%/2%/10sec**

**MFC03 - N2: 20SLM 2%/2%/10sec**

**MFC04 - N2: 20LM 2%/2%/10sec**

**MFC05 - SiH4: 1SLM 2%/2%/10sec**

**MFC06 - SiH4: 1SLM 2%/2%/10sec**

**MFC07 - SiH4: 3SLM 2%/2%/10sec**

**MFC08 - 4%H2/N2: 500sccm 1%/1%/10sec**

**MFC09 - 5%PH3/N2: 500 sccm 2%/2%/10sec**

**MFC10 - 5%PH3/N2: 100 sccm 2%/2%/10sec**

**MFC11 - 5%PH3/N2: 100 sccm 2%/2%/10sec**

**MFC12 - CIF3: 5 SLM 10%/10%/10sec**

**MFC13 - N/A**

**MFC14 - N/A**

**MFC15 - N/A**

**MFC16 - N/A**

**MFC17 - N/A**

**MFC18 - N/A**

**MFC19 - N/A**

**MFC20 - N/A**

**MFC21 - N/A**

## **PTW(CTF)**

**APC Valve Action (High (%), Low (%), Time(s)) - N/A Transfer Table**

**Wafer Charge command (charge/discharge)**

**Side Dummy - Upper:5 / Lower:10**

**Product - 100**

**Monitor - 5**

**Product & Monitor - 105**

**Time**

**2nd charge time(min) - 0**

**wafer cool time(min) - 20min**

**Leak Rate Table**

**Base pressure low Limit(Torr) - 1%**

**Base pressure High Limit(Torr) - 1%**

**Leak Check check time(s) - 60s**

**Leak Check delay time(s) - N/A**

**Leak limit(Torr) - 1%**

**Retry Limit(count) - 2**

**Loadlock Settings:**

**Loadlock configuration**

**O2 analyser model :PBI3.1 / PBI4.0 (Zirox)**

**L/A Keep Value (ppm) - 10ppm**

**N2 Flow max (L) - 1300L**

**N2 Flow min (L) - 300L**

**Check Stability Time(s) - N/A**

**Ready**

**L/A Keep Value (ppm) - 10ppm**

**N2 Flow max (L) - 1300L**

**N2 Flow min (L) - 300L**

**Check Stability Time(s) - N/A**

**Idle**

**L/A Keep Value (ppm) - 10ppm**

**N2 Flow max (L) - 1300L**

**N2 Flow min (L) - 300L**

**Check Stability Time(s) - N/A**

**L/A O2 check time (min) - N/A**

**L/A O2 limit (ppm) - 10ppm**

**POD opener O2 limit (ppm) - N/A**

**POD O2 check time(min) - N/A**

**POD check retry - N/A**