



## PTW ASIA PTE LTD

ASM International A412 Doped Poly Vertical LPCVD Furnace	
Manufacturer	ASM
Model	A412
Product Description	Vertical LPCVD Furnace
Year of Manufacture	TBD
Serial Number	30297
Wafer Size	300mm
Software version	6.80C
Heater Type	MRL
Loader configuration, 4 or 5 loader - 4	
<b>Quartzware Configuration</b>	
Outer tube	Quartz
Inner tube	Quartz
Boat	SiC boat
Boat fix ring/Cap quartz	Quartz
Adiabatic plate quantity	6
Back N2, Qty	N/A
BCl3, Qty & Type (L-type, Straight, Diffuser, Shower)	N/A
SiH4, Qty & Type (L-type, Straight, Diffuser, Shower)	Multihole (1) U/D/L
O2, Qty & Type (L-type, Straight, Diffuser, Shower)	Multihole (1) E
PH3, Qty & Type (L-type, Straight, Diffuser, Shower)	Multihole (1) U/D/L
ClF3, Qty & Type (L-type, Straight, Diffuser, Shower)	N/A
<b>Vacuum Line configuration</b>	
Design	original config
10 Torr Baratron model	MKS
10 Torr Baratron full scale setting	10(F/S)
1000 Torr Baratron model	MKS

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1000 Torr Baratron full scale setting	1000(F/S)
ATM sensor model	MKS
Vent Valve 1 (VV1) normally closed/open,plunger, diaphragm	Normally open,plunger Check valve model
Check valve model	Fujikin
Check valve resistance pressure	2.26 Kpa
Mainvalve type, Kitz or CKD	MKS
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
<b>Control Table</b>	
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
<b>MFC (Low Alarm Limit(%)/High Alarm Limit(%)/Check Time(S))</b>	
MFC1	N2: 2%/2%/10sec
MFC2	N2: 2%/2%/10sec
MFC3	N2: 2%/2%/10sec
MFC4	N2: 2%/2%/10sec
MFC5	SiH4: 2%/2%/10sec
MFC6	SiH4: 2%/2%/10sec
MFC7	SiH4: 2%/2%/10sec
MFC8	1%O2/Ar: 1%/1%/10sec
MFC9	5%PH3/N2: 2%/2%/10sec
MFC10	5%PH3/N2: 2%/2%/10sec
MFC11	5%PH3/N2: 2%/2%/10sec
MFC12	CIF3: 10%/10%/10sec
MFC13	N/A
MFC14	N/A
MFC15	N/A
MFC16	N/A
MFC17	N/A

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MFC18	N/A
MFC19	N/A
MFC20	N/A
MFC21	N/A
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
<b>Loadlock Settings</b>	
Loadlock configuration	
O2 analyser model, NGK or Toray	PBI3.1 / PBI4.0
Process	
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

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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

**Missing/Damaged Parts List:  
None report, please inspect tool to reconfirm**



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All Equipment is offered subject to prior sale. This item will be quoted based upon specific terms and configuration required. Interested parties may contact PTW Asia Pte Ltd at:

[ask@ptwsingapore.com](mailto:ask@ptwsingapore.com)

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