EQUIPMENT CONFIGURATION SHEET

CONTENTS

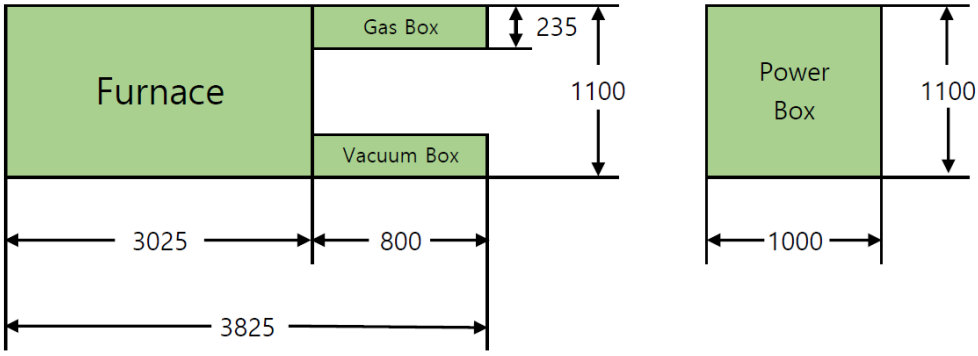
2. SYSTEM INFORMATION

A. System configuration

A-1. Furnace main body

A-1-1. Dimension

Unit Name	W × D x H
Furnace section	1100 X 3825 X 3631.5
Gas Box	235 X 800 X 3086.5
Power Box	1100 X 1100 X 2000



2. SYSTEM INFORMATION

A-1-2. Furnace mount

A-1-3. Heater & Genernal Specification

ITEM	SPECIFICATION
Safety Specification	SEMI S2-0703 / CE
Heater Model	Mid-Temp, VMM-56-002 5zone / 500-1000℃
Process Condition	LP
Maximum Operation Temperature (℃)	450℃
ART Control	None
N2 Load Lock	Yes
Wafer Type	300mm-SI SEMI STD-Notch
Qty of Production Wafers	100
Boat Operation (Handling Position)	1 Boat Type (B/E)
Software Version (WAVES)	LATEST VERSION

A-1-4. Cooling water piping

A-1-5. Process Vacuum Line

A-1-6. Base plate

A-1-7. Fan Filter unit (FFU)

A-2. Automation

A-2-1. Carrier I/O port

A-2-2. Boat elevator

A-2-3. Auto shutter

A-2-4. Buffer stage : 16 ea

A-2-5. Wafer counter : 2 ea

A-3. Utility

A-3-1. Power

→ Power Consumption

Power (AC)	Capacity	Remark
AC 110V, 3phase	62.3kVA (250A)	Heater (VMM-56-002)

→ UPS

Power (AC)	Capacity	Remark
AC 110V, 1Phase	6.9kVA (50A)	System Control, MMI etc.

2. SYSTEM INFORMATION

A-3-2. Gases

→ Gas Supply

Gas Name	Pressure (MPa)	Gas Flow (ℓ/min)	Connection Methods	Unit
Pure N2 (GB)	0.5 ~ 0.7	65.5	1/4" UJR	Gas Box
SiH4	0.2 ~ 0.3	3	1/4" UJR	Gas Box
1%PH3/He			1/4" UJR	Gas Box
ClF3	-0.03 ~ -0.08	5	1/4" UJR	Gas Box
N2(GB2)	0.5 ~ 0.7	—	1/4" Swagelok	Gas Box
Loader Vacuum	20kPa (-80kPaG)	—	3/8" Swagelok	Gas Box

→ MFCs in Gas Box

Gas Name	Full Scale (ℓ/min)	Q'TY	Application	Maker
Pure N2 (GB)	50	1	Purge	HORIBA STEC
SiH4	10	1	Process	HORIBA STEC
1%PH3/He	1	1	Process	HORIBA STEC
ClF3	5	1	Process	HORIBA STEC

→ MFMs in Gas Box

Gas Name	Full Scale (ℓ/min)	Q'TY	Application	Maker
SiH4	3	1	Process	HORIBA STEC
1%PH3/He	0.5	1	Process	HORIBA STEC
ClF3	5	1	Process	HORIBA STEC

→ Exhaust

Gas Name	Type of Exhaust	Flow Rate (㎥/min)	Connection Method	Used for
Furnace Unit	Scavenger Exhaust	4 (50~70Pa)	4" MF Flange	Heat Exhaust
	Heater Room Exhaust	4 (50~70Pa)	4" MF Flange	Heat Exhaust
Gas Box	Gas Cabinet Exhaust	3 (55~75Pa)	4" MF Flange	General Exhaust
Exhaust	Exhaust Vent	0.1	1/2" UJR	Reactor Normal Pressure Exhaust
	Vacuum Exhaust	—	ISO-MF NW-100	Process Gas Exhaust

→ Cooling Water

Gas Name	Pressure (Kgf/㎠)	Flow Rate (ℓ/min)	Connection Methods	Used for
Furnace Unit	Mas. 0.5 Mpa (Gauge) 0.4 Mpa (Delta)	18.5	RC 3/4"	Heater, Manifold, Cap, Auto Shutter, etc.
			RC 3/4"	Return

2. SYSTEM INFORMATION

A-4. Controller system

A-4-1. Process controller : WAVES (POWER BOX

A-4-2. Mechanism controller : Kawasaki controller (30C63E-A003)

A-4-3. Temp. controller (Model-560A)

A-4-4. Over temp. detector

A-4-5. Gas flow chart : front & back sid

A-4-6. Pressure Controller (CKD Valve & CKD Controller

A-5.Specification For Major Parts

A-5-1. Gas System

-. Major Designated Parts and Devics

Part	Manufacturer	Model	Remarks
Filter	PALL	Metal Type	
Air Valve	Fujikin	FPR & FBSDAL Series	
MFC	HORIBA STEC	SEC-Z512MGX	
Hand Valve	Fujikin	FUNDL-21G-6.35UGF	
Regulator	Parker	SQ Series	
Pressure Transmitter	OMRON	HYPFU-WD-420 (-0. 0-1. 5MPA) 3M	

A-5-2. Gas Exhaust System

-. Major Components

Part	Manufacturer	Model	Remarks
Exhaust Controller	CKD	VEC-VH8G-X0105	Progress
Flow Meter	CKD	KHT-X0071-FL326768	Progress

A-5-3. Manifold

- Water Cooling Flange to be applied

A-6. Temperature measurement

A-6-1. Spike T/C

A-6-2. Inner T/C (5 zone, Set-up in inside)

A-6-3. Over temp. detector T/C (single one point)

A-7. Optional Parts

A-7-1. Signal tower (3 colors)

A-7-2. Step down transformer (220V → 110V transition)

A-7-3. N2 Charge System (Upper Cover ~ Buffer Stage

A-7-4. N2 Charge System Monitor (Gas Box Side)