



PTW ASIA PTE LTD

| ASM International A412 Nitride Vertical LPCVD Furnace | |
|--|--|
| Manufacturer | ASM |
| Model | A412 |
| Product Description | Vertical LPCVD Furnace |
| Year of Manufacture | 2006 |
| Serial Number | 30270/10 |
| Wafer size | 300mm |
| Process | NITR |
| System, General Specification | |
| Heater element Model | MRL 2 |
| Process Condition | NIT LP |
| Maximum Operating Temperature | 900c 700 Degree C |
| N2 Load Lock | Yes 1 |
| Wafer Type | 12 Inches |
| Qty. of Production Wafers | 100 pieces per boat 120 slots per boat |
| Boat Operation | Dual boat |
| Dual chamber | 4 |
| Software Version | 6.8c |
| System, Furnace | |
| Loading Area | Light White 1 |
| Force Air Coiling system | Fast ramp 2 |
| Side Maintenance | Yes |
| O2 Density control | 0-100ppm 2 |
| N2 Boat shower wafer cooling | n/a |
| Furnace Temperature Controller | MTC |
| System, Wafer/Carrier Handling | |
| Carrier Type | 12" FOUP |
| Carrier Stage Capacity | 12" FOUP 32 |
| Robot Type | GenMark 1 |
| Wafer alignment | n/a |
| Wafer Teaching method | n/a |

This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

| System, Gas Distribution | |
|---|--------------------------|
| IGS Maker / Type | Fujikin 2 |
| IGS MFC Maker / | Type HORIBA SEC-Z512MGCT |
| IGS Press Transducer Maker / Type | Mykrolis WG3S |
| System, Exhaust Specification | |
| Vacuum Gage | 2 torr N/A |
| Vacuum Gage | 10 torr MKS 2 |
| Vacuum Gage | 1000 torr MKS 2 |
| Main Valve | MKS 2 |
| Pump Maker/Model | EDWARDS 1800HTX 2 |
| Low vacuum valve | MKS 2 |
| Trap | ASM 2 |
| Vacuum Pressure Controller | MKS 2 |
| Vacuum Gage | 2 torr N/A |
| System, Reactor | |
| Process Tube (LP) | Quartz 1 |
| Outer/Inner Tube Material (LP) | Quartz 2 |
| Inner Tube Type (LP) | Quartz 2 |
| Inner T/C | TYPE-R LPC /Topco 2 |
| Boat Materail/Type | SiC 4 |
| Boat Rotation | Yes 2 |
| Pedestal Materail/Type | Quartz 4 |
| Auto Shutter | Yes 2 |
| System, Power Distribution | |
| Voltage 3phase | 480VAC |
| Voltage Single | phase 3 |
| Frequency | 60HZ |
| System, User Interface | |
| Operation Panel | Screen 3 |
| Indicator Type | Touch panel 1 |
| Operation software type | Windows |
| Gas Leak Detector | |
| Gas Leak Detector Material/Type | |
| Damage/Missing parts list | |
| Please inspect tool to reconfirm | |
| Dry pumps not included | |

This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Micron FAB11 ANITBC0400(LDNC 201 30270)



**Tool Status
R1 SCS**



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Robot Status

CHR



WHR



Power Supply Brake

R1



R2



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

TCP/ECP

R1

R2



Supply Gas Status



Heater Status

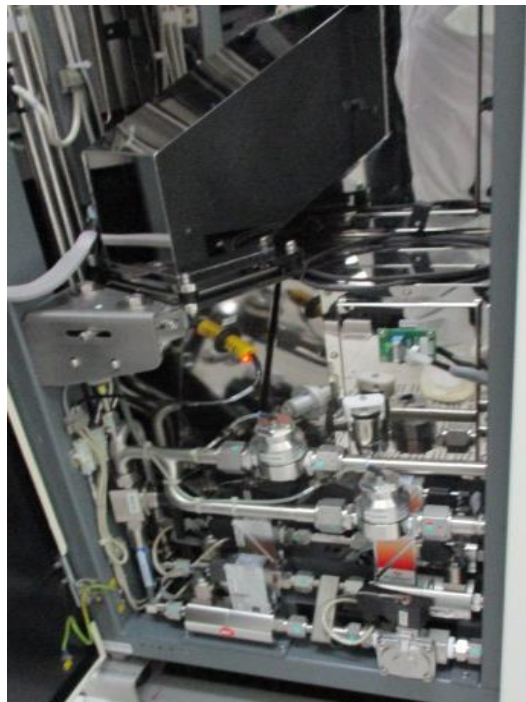


This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

TCF Status



N2 Purge Source Line



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

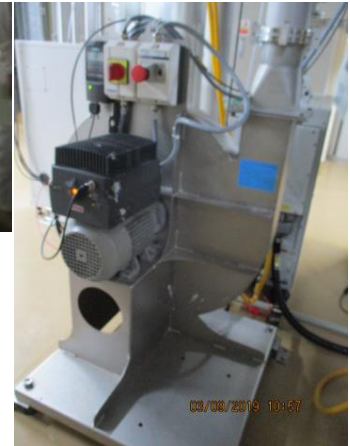
Fast ramp blower status

R1

| | |
|------|----------------------------|
| 部門 | DF擴散設備 |
| 設備名稱 | Blower |
| 設備編號 | LDNC201-R1 (LSND201-R1) |
| EXT | #8565/8582 |



| | |
|------|----------------------------|
| 部門 | DF擴散設備 |
| 設備名稱 | Blower |
| 設備編號 | LDNC201-R2 (LSND201-R2) |
| EXT | #8565/8582 |



MV jacket heater & Trap



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Software Versions

Display all Versions [User: m00794] [Automatic log out after 14:35 idle] [Tool: AS10] [Tube2: Low] [Date: 03/09/2019 11:05]

| Software versions | | | | |
|-------------------|---------|-------------|-------------|-----------|
| Software release | 6.800 | | | |
| Tool controllers | | | | |
| Model | Version | Date | | |
| MSC | A412 | 7.13 | 28-May-18 | |
| VHC | A412 | 8.02 | 11-Oct-11 | |
| CHC | A412 | 5.10 | 12-Oct-11 | |
| BTC | A412 | 2.02 | 03-Feb-11 | |
| Tube controllers | | | | |
| T1 LDNC201A | | | T2 LDNC201B | |
| Model | Version | Date | Model | Version |
| DPC | A412 | 2.V0 | DPC | A412 |
| DTC | | | DTC | |
| MTC | A412M | 2.23 | MTC | A412M |
| | | 04-Feb-11 | | |
| | | | | 04-Feb-11 |
| Robot controllers | | | | |
| Serial# | Version | MCL Version | DEE Version | |
| WHR | 506839 | GB4S-4.29A | 2.93 | |
| CHR | 30724 | GB4-4.03FC | 2.25 | |

03/09/2019 11:05

Digital I/O R1

Recipe status: Recipe 1-STBT_1 StepNr 12

| Digital Inputs | | | | | Digital Outputs | | | | | | |
|----------------|----------|--------|----|----------|-----------------|----|----------|--------|----|-----------|--------|
| Nr | Name | Status | Nr | Name | Status | Nr | Name | Status | Nr | Name | Status |
| 1 | N2-Press | OK | 17 | PmpWarn | OK | 1 | N2-D | OPEN | 17 | BypassPmp | CLOSED |
| 2 | CA-Press | OK | 18 | PmpAlarm | OK | 2 | DCS-L | CLOSED | 18 | FastPump | OPEN |
| 3 | EstGasC | OK | 19 | FlOutTmp | OK | 3 | DCS-D-Lo | OPEN | 19 | SlowPump | CLOSED |
| 4 | ReacPrs | OK | 20 | MantMod | AUTOMATC | 4 | N2-U | CLOSED | 20 | N2-UL-Mh | CLOSED |
| 5 | PmpPrs | OK | 21 | CntrRem | AUTOMATC | 5 | N2-E | OPEN | 21 | | |
| 6 | FRBlower | ON | 22 | FRH2OTmp | OK | 6 | NH3-E-Lo | OPEN | 22 | | |
| 7 | Prodrbk | OK | 23 | | | 7 | N2O | CLOSED | 23 | Evacuate | CLOSED |
| 8 | CatDoors | OK | 24 | | | 8 | FlgTmpLo | HIGH | 24 | N2-D-Mh | OPEN |
| 9 | FlngTemp | OK | 25 | LowTemp | TOO LOW | 9 | N2-L | CLOSED | 25 | Prp-DCS | OPEN |
| 10 | EstReact | OK | 26 | FRAirTmp | OK | 10 | NH3-U | CLOSED | 26 | Prp-NH3 | OPEN |
| 11 | TubeDoor | CLOSED | 27 | PrpSens | OPEN | 11 | PresCntr | LOW | 27 | | |
| 12 | OverHeat | OK | 28 | TraceTmp | OK | 12 | N2-E-Mh | OPEN | 28 | NH3-Src | CLOSED |
| 13 | H2O-Reac | OK | 29 | ElevItk | NOT ACTV | 13 | | | 29 | DCS-Src | CLOSED |
| 14 | | | 30 | ScrtFail | OK | 14 | | | 30 | NH3-UEMh | OPEN |
| 15 | | | 31 | GasAlarm | OK | 15 | FRUpStr | CLOSED | 31 | DCS-LDMh | OPEN |
| 16 | Tube-ATM | VACUUM | 32 | GasWarn | OK | 16 | FRDnStr | CLOSED | 32 | N2O-Mh | CLOSED |

Digital I/O R2

Recipe status: Recipe 2-STBT_1 StepNr 12

| Digital Inputs | | | | | Digital Outputs | | | | | | |
|----------------|----------|--------|----|----------|-----------------|----|----------|--------|----|-----------|--------|
| Nr | Name | Status | Nr | Name | Status | Nr | Name | Status | Nr | Name | Status |
| 1 | N2-Press | OK | 17 | PmpWarn | OK | 1 | N2-D | OPEN | 17 | BypassPmp | CLOSED |
| 2 | CA-Press | OK | 18 | PmpAlarm | OK | 2 | DCS-L | CLOSED | 18 | FastPump | OPEN |
| 3 | EstGasC | OK | 19 | FlOutTmp | OK | 3 | DCS-D-Lo | OPEN | 19 | SlowPump | CLOSED |
| 4 | ReacPrs | OK | 20 | MantMod | AUTOMATC | 4 | N2-U | CLOSED | 20 | N2-UL-Mh | CLOSED |
| 5 | PmpPrs | OK | 21 | CntrRem | AUTOMATC | 5 | N2-E | OPEN | 21 | | |
| 6 | FRBlower | ON | 22 | FRH2OTmp | OK | 6 | NH3-E-Lo | OPEN | 22 | | |
| 7 | Prodrbk | OK | 23 | | | 7 | N2O | CLOSED | 23 | Evacuate | CLOSED |
| 8 | CatDoors | OK | 24 | | | 8 | FlgTmpLo | HIGH | 24 | N2-D-Mh | OPEN |
| 9 | FlngTemp | OK | 25 | LowTemp | OK | 9 | N2-L | CLOSED | 25 | Prp-DCS | OPEN |
| 10 | EstReact | OK | 26 | FRAirTmp | OK | 10 | NH3-U | CLOSED | 26 | Prp-NH3 | OPEN |
| 11 | TubeDoor | CLOSED | 27 | PrpSens | OPEN | 11 | PresCntr | LOW | 27 | | |
| 12 | OverHeat | OK | 28 | TraceTmp | OK | 12 | N2-E-Mh | OPEN | 28 | NH3-Src | CLOSED |
| 13 | H2O-Reac | OK | 29 | ElevItk | NOT ACTV | 13 | | | 29 | DCS-Src | CLOSED |
| 14 | | | 30 | ScrtFail | OK | 14 | | | 30 | NH3-UEMh | OPEN |
| 15 | | | 31 | GasAlarm | OK | 15 | FRUpStr | CLOSED | 31 | DCS-LDMh | OPEN |
| 16 | Tube-ATM | VACUUM | 32 | GasWarn | OK | 16 | FRDnStr | CLOSED | 32 | N2O-Mh | CLOSED |

This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Analog I/O R1

Process Status [User: m0704] [Automatic log out after 1:42 idle] [Tool: AS10] [Tube: LDNC201A]

| Recipe | | | | Elevator | | | |
|----------|-------------|--------------|----------|----------|----------|----------|----------|
| Recipe | N2_1-STBT_1 | Process Time | 01:41:43 | | Position | 1300 mm | |
| StepName | STABILIZE | Step | 12 | Time | 00:02:00 | Setpoint | 1300 mm |
| | | WaitFor | Start | | | Speed | 0 mm/min |

| | Paddle | | | Max setpoint | Spike | | Actual | Ramp | | Power |
|----------|----------|--------|-----------|--------------|----------|--------------|--------|-------|--------|-------|
| | Setpoint | Actual | Deviation | | Setpoint | Min setpoint | | To | Rate | |
| | °C | °C | °C | °C | °C | °C | °C | °C | °C/min | % |
| Zone 1 | 508.0 | 457.0 | 50.2 | 494.6 | 456.6 | 398.6 | 443.9 | 700.0 | 10.00 | 30 |
| Zone 2 | 508.0 | 448.4 | 59.6 | 473.1 | 473.1 | 397.1 | 465.3 | 700.0 | 10.00 | 26 |
| Zone 3 | 508.0 | 451.3 | 56.7 | 483.9 | 482.9 | 387.9 | 470.0 | 700.0 | 10.00 | 35 |
| Zone 4 | 508.0 | 453.8 | 54.2 | 507.8 | 499.0 | 395.8 | 485.7 | 700.0 | 10.00 | 33 |
| Zone 5 | 508.0 | 456.6 | 51.4 | 540.2 | 540.2 | 438.2 | 530.8 | 700.0 | 10.00 | 30 |
| Top Zone | | | | | | | | | | |

| Analog I/O | | | | | | | | | | | |
|------------|----------|----------|--------|--------|-------|-----|----------|----------|--------|--------|------|
| IO | Name | Setpoint | Actual | H.L.LL | Unit | Inp | Name | Setpoint | Actual | H.L.LL | Unit |
| 1 | N2-D | 100.0 | 100.0 | 10.0 | Sccm | 1 | PrepPrs | 0.00 | 0.00 | 0.00 | Torr |
| 2 | DCS-L | 0.0 | 0.0 | 0.0 | Sccm | 2 | DCS-Prs | 0.0 | 0.1 | 0.0 | BarG |
| 3 | DCS-D-Le | 100.0 | 99.9 | 0.0 | Sccm | 3 | NH3-Prs | 0.0 | 2.0 | 0.0 | BarG |
| 4 | N2-U | 0 | 0 | 0 | Scm | 4 | Vlv-Pos | 0.0 | 100.0 | 0.0% | |
| 5 | N2-E | 5.00 | 5.00 | 0.50 | Slm | 5 | LeakRate | 0.0 | 200.0 | 0.0 | mTm |
| 6 | NH3-E-Le | 1.000 | 0.999 | 0.000 | Slm | 6 | LeakIn | 0.0 | 50.0 | 0.0 | mTm |
| 7 | N2O | 0 | 1 | 0 | Scm | 7 | N2ArgCar | 0 | 300 | 0 | Slm |
| 8 | LowPrs | 0 | 617 | 1400 | mTorr | 8 | | | | | |

| Analog I/O | | | | | | | | | | | |
|------------|----------|----------|--------|--------|------|-----|-----------|----------|--------|--------|------|
| IO | Name | Setpoint | Actual | H.L.LL | Unit | Inp | Name | Setpoint | Actual | H.L.LL | Unit |
| 9 | N2-L | 0 | 1 | 0 | Scm | 9 | N2-Prs | 0.0 | 1.8 | 0.0 | BarG |
| 10 | NH3-U | 0 | 1 | 0 | Scm | 10 | N2O-Prs | 0.0 | 0.0 | 0.0 | BarG |
| 11 | HighPrs | 0.00 | 0.63 | 0.00 | Torr | 11 | ATM-Prs | 0 | 2 | 0 | Torr |
| 12 | O2-contr | 1 | 1 | 0 | ppm | 12 | FingTemp | 140.0 | 139.1 | 0.0 | °C |
| 13 | FRBlower | 0.0 | 0.0 | 0.0% | | 13 | ATM-Setp | 0 | 676 | 0 | Torr |
| 14 | | | | | | 14 | | | | | |
| 15 | | | | | | 15 | FingList | 120.0 | 151.0 | 0.0 | °C |
| 16 | | | | | | 16 | FCOutTemp | 150.0 | 149.9 | 20.0 | °C |

Analog I/O R2

Process Status [User: m0704] [Automatic log out after 1:56 idle] [Tool: AS10] [Tube: LDNC201B]

| Recipe | | | | Elevator | | | |
|----------|-------------|--------------|----------|----------|----------|----------|----------|
| Recipe | N2_1-STBT_1 | Process Time | 01:37:12 | | Position | 1300 mm | |
| StepName | STABILIZE | Step | 12 | Time | 00:02:00 | Setpoint | 1300 mm |
| | | WaitFor | Start | | | Speed | 0 mm/min |

| | Paddle | | | Max setpoint | Spike | | Actual | Ramp | | Power |
|----------|----------|--------|-----------|--------------|----------|--------------|--------|-------|--------|-------|
| | Setpoint | Actual | Deviation | | Setpoint | Min setpoint | | To | Rate | |
| | °C | °C | °C | °C | °C | °C | °C | °C | °C/min | % |
| Zone 1 | 700.0 | 700.0 | 0.0 | 702.5 | 685.9 | 606.5 | 685.9 | 700.0 | 0.00 | 15 |
| Zone 2 | 700.0 | 700.0 | 0.0 | 682.8 | 670.8 | 606.8 | 670.8 | 700.0 | 0.00 | 10 |
| Zone 3 | 700.0 | 700.0 | 0.0 | 694.3 | 674.1 | 598.3 | 674.2 | 700.0 | 0.00 | 11 |
| Zone 4 | 700.0 | 700.0 | 0.0 | 719.4 | 683.8 | 607.4 | 683.8 | 700.0 | 0.00 | 12 |
| Zone 5 | 700.0 | 700.0 | 0.0 | 751.8 | 709.4 | 649.8 | 709.5 | 700.0 | 0.00 | 26 |
| Top Zone | | | | | | | | | | 15 |

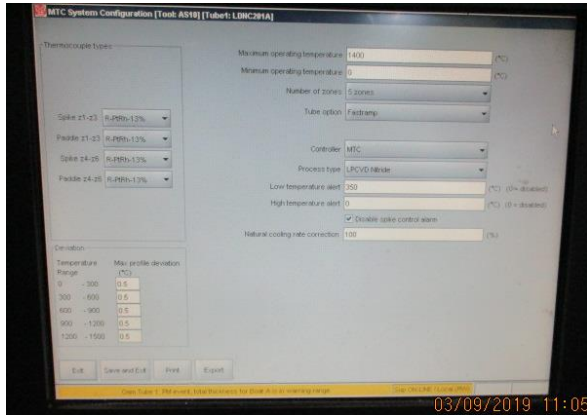
| Analog I/O | | | | | | | | | | | |
|------------|----------|----------|--------|--------|-------|-----|----------|----------|--------|--------|------|
| IO | Name | Setpoint | Actual | H.L.LL | Unit | Inp | Name | Setpoint | Actual | H.L.LL | Unit |
| 1 | N2-D | 100.0 | 100.0 | 10.0 | Sccm | 1 | PrepPrs | 0.00 | 0.00 | 0.00 | Torr |
| 2 | DCS-L | 0.0 | 0.2 | 0.0 | Sccm | 2 | DCS-Prs | 0.0 | 0.0 | 0.0 | BarG |
| 3 | DCS-D-Le | 100.0 | 100.1 | 0.0 | Sccm | 3 | NH3-Prs | 0.0 | 1.8 | 0.0 | BarG |
| 4 | N2-U | 0 | 1 | 0 | Scm | 4 | Vlv-Pos | 0.0 | 100.0 | 0.0% | |
| 5 | N2-E | 5.00 | 5.01 | 0.50 | Slm | 5 | LeakRate | 0.0 | 200.0 | 0.0 | mTm |
| 6 | NH3-E-Le | 1.000 | 1.001 | 0.000 | Slm | 6 | LeakIn | 0.0 | 50.0 | 0.0 | mTm |
| 7 | N2O | 0 | 1 | 0 | Scm | 7 | N2ArgCar | 0 | 300 | 0 | Slm |
| 8 | LowPrs | 0 | 616 | 1400 | mTorr | 8 | | | | | |

| Analog I/O | | | | | | | | | | | |
|------------|----------|----------|--------|--------|------|-----|-----------|----------|--------|--------|------|
| IO | Name | Setpoint | Actual | H.L.LL | Unit | Inp | Name | Setpoint | Actual | H.L.LL | Unit |
| 9 | N2-L | 0 | 2 | 0 | Scm | 9 | N2-Prs | 0.0 | 1.9 | 0.0 | BarG |
| 10 | NH3-U | 0 | 2 | 0 | Scm | 10 | N2O-Prs | 0.0 | 0.0 | 0.0 | BarG |
| 11 | HighPrs | 0.00 | 0.65 | 0.00 | Torr | 11 | ATM-Prs | 0 | 1 | 0 | Torr |
| 12 | O2-contr | 1 | 1 | 0 | ppm | 12 | FingTemp | 140.0 | 150.3 | 0.0 | °C |
| 13 | FRBlower | 0.0 | 0.0 | 0.0% | | 13 | ATM-Setp | 0 | 680 | 0 | Torr |
| 14 | | | | | | 14 | | | | | |
| 15 | | | | | | 15 | FingList | 120.0 | 117.9 | 0.0 | °C |
| 16 | | | | | | 16 | FCOutTemp | 150.0 | 150.7 | 20.0 | °C |

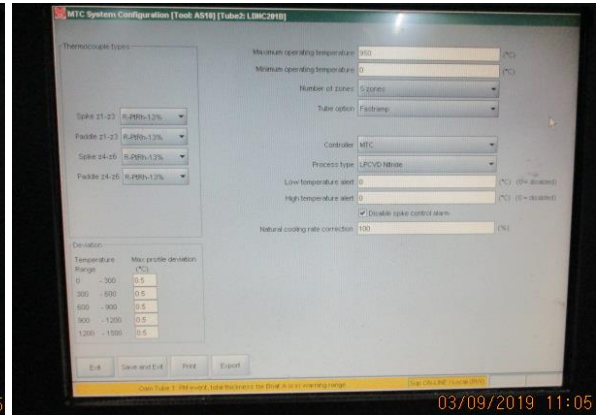
This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Temperature control system MTC

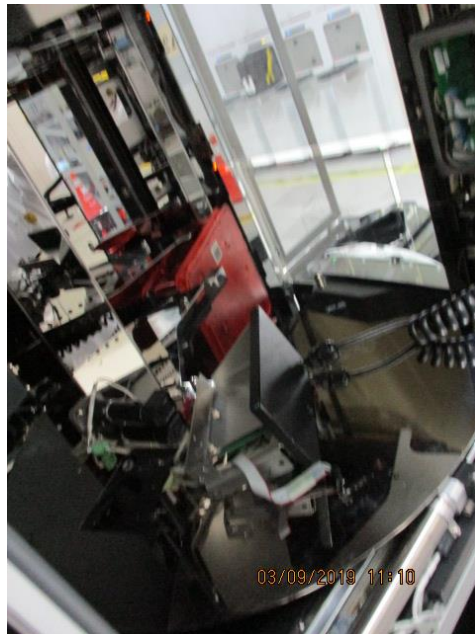
R1



R2



Stoker status UTM motor broken



This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

Motion part control status

| Control 1-16 | | | | Control 17-32 | | | |
|--------------|-------------------------------|--------------|--------|---------------|---------------------|--------------|--------|
| # | Name | Status | detail | # | Name | Status | detail |
| 1 | Loadport shields Left/Right | Underfeed | detail | 17 | VHR | Ok | detail |
| 2 | Loadport doors Left/Right | Ok | detail | 18 | Boat Pickup BTM | Ok | detail |
| 3 | Cassette IO transfer | Out of limit | detail | 19 | Gate Valve | Warning | detail |
| 4 | Upper/Lower Cassette Transfer | Ok | detail | 20 | Reactor Carousel | Out of limit | detail |
| 5 | Upper/Lower Cassette Clamp | Warning | detail | 21 | Tube Elevator R1/R2 | Out of limit | detail |
| 6 | Stocker Carousel | Ok | detail | 22 | Boat Rotation R1/R2 | Ok | detail |
| 7 | UTM/TM | Out of limit | detail | 23 | Boat pickup R1 | Warning | detail |
| 8 | CHR elevator | Ok | detail | 24 | Boat pickup R2 | Warning | detail |
| 9 | Cassette Calibration | Warning | detail | 25 | Tube Shutter R1/R2 | Warning | detail |
| 10 | Pick/Put Cassette | Ok | detail | | | | |
| 11 | Upper/Lower purge door | Out of limit | detail | | | | |
| 12 | Upper/Lower VHR door | Ok | detail | | | | |
| 13 | BTM arm | Out of limit | detail | | | | |
| 14 | BTM elevator | Out of limit | detail | | | | |
| 15 | VHR elevator | Out of limit | detail | | | | |
| 16 | Boat Calibration/Loading | Ok | detail | | | | |

Boat setting status

R1 Boat wafer slot setting

| Type | Wafer size (mm) | Slots | Pitch (1/100000") | Delta pitch (1/100000") | Offset (1/100000") | Lift/Drop (1/100000") | Distance (1/100000") | Calibration (1/100000") | Depth (1/100000") | Warning space | Max space | Warning limit | Max limit | Phys. space | |
|--------|-----------------|-------|-------------------|-------------------------|--------------------|-----------------------|----------------------|-------------------------|-------------------|---------------|-----------|---------------|-----------|-------------|-----|
| Boat A | 300mm120 | 300 | 120 | 3006 | 0 | 1000 | 150 | 100 | 90 | 100 | 225 | 250 | 80 | 100 | 130 |
| Boat B | 300mm120 | 300 | 120 | 3006 | 0 | 1000 | 150 | 100 | 90 | 100 | 225 | 250 | 80 | 100 | 130 |
| Boat C | None | | | | | | | | | | | | | | |

R2 Boat wafer slot setting

| Type | Wafer size (mm) | Slots | Pitch (1/100000") | Delta pitch (1/100000") | Offset (1/100000") | Lift/Drop (1/100000") | Distance (1/100000") | Calibration (1/100000") | Depth (1/100000") | Warning space | Max space | Warning limit | Max limit | Phys. space | |
|--------|-----------------|-------|-------------------|-------------------------|--------------------|-----------------------|----------------------|-------------------------|-------------------|---------------|-----------|---------------|-----------|-------------|-----|
| Boat A | 300mm120 | 300 | 120 | 3006 | 0 | 1000 | 150 | 100 | 90 | 100 | 225 | 250 | 80 | 100 | 130 |
| Boat B | 300mm120 | 300 | 120 | 3006 | 0 | 1000 | 150 | 100 | 90 | 100 | 225 | 250 | 80 | 100 | 130 |
| Boat C | None | | | | | | | | | | | | | | |

This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.

PTW ASIA PTE LTD



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

Visit our web site at www.ptwsingapore.com © 2019 PTW ASIA PTE LTD.

This data sheet is provided to you on a strictly confidential basis and contains commercially sensitive and valuable information. No part of its content may be provided to any person without our prior written consent. This data sheet is not an offer capable of acceptance. The information contained in this data sheet is, to our knowledge and information, accurate, but it may contain typographical errors and we do not warrant the completeness or accuracy of the information contained herein. Any offer by you to purchase of the equipment described in this data sheet shall be subject to our standard terms and conditions of sale. The Equipment being quoted is described as used, and is being sold "AS IS, WHERE IS" with all defects, known or unknown, entirely at Buyer's own risk and reliance solely upon Buyer's own inspection of the goods and without reliance upon any representation or description by Seller or seller's representative concerning the goods.