



ASM

TOOLS, PARTS AND
UPGRADES OVERVIEW

ABOUT US

VISION STATEMENT

“

To be the Supplier of choice for upkeep and capacity extensions for used ASM Furnaces & Epitaxy tools.

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PRODUCT RANGE

- Refurbishment & Turnkey Solution
- Repair and Exchange capability
- Parts for sale
- Upgrades
- On site support
- Used tool trading

ASM REFRUBISHED TOOLS

- We take in the Tool/Process specs and design a system spec for a tool to refurbish and meet the customers specs. We work together from:
 - Spec setting
 - Tool configuration
 - Tool sourcing (if non existent)
 - Complete refurb and overhaul
 - Installation and Process approval
 - Warranty on the system and function

TOOL TYPES

- Furnaces – Advance A400 / A412



- Epitaxy – Epsilon E2000 / E3200



REPAIR & EXCHANGE

REPAIRS / REFURBISH

- All PCBs, including CPU & Foxboro board
- LVC-414
- Gear box
- Injector
- Wafer Wand

EXCHANGE

- REFLECTOR
- THERMOCOUPLE

And many more!
Do check with us for your inquiries!

REPAIR & EXCHANGE

REPAIRS / EXCHANGE PARTS LIST (AND MORE)

Part Number	Description	Photo Reference
03-330714A01	PCB ASSY-68040 CPU GESSBS-41T1	
03-331904A01	MSC-1 Floppy/SCSI Controller PCB	
03-323114A02	PCB ASSY- 16ADL (AI 0-15)	
03-323404D01	SYSTEM INTERFACE BOARD	
03-321964D01	PCB ASSY-MODIFIED FOXBORO-TEMP	
65-106645A14	PRESSURE TRANSDUCER	
54-107950A03	CONTROLLER-LVC414-5 SLM H2-200%-25GR-TCS	
02-325685D01	Parts - Assy. Gearbox Xfer Arm 200mm	

PARTS FOR SALE

PARTS FOR SALE (AND MORE)

Part Number	Description	Photo Reference
53-106246A28	REGULATOR-PRESSURE	
16-350563C01 16-336164D01 16-351160B01	TEK KIT	
	O-rings in any request size	
02-140411-01	ASSY-1ATM PRESSURE SWITCH	
16-321908C01	LAMP-LINEAR-TUNGSTEN HALOGEN-6KW	
48-106661A54	FILTER-INLINE 1/2	
02-327575D01 02-323654D01 02-323653D01 02-323584D01	Bi-junction TC Side TC Rear TC Center TC	
	Power Supply	
	Gasket Restrictors in request size	
02-339046-01	Multiport Injector	

PARTS FOR SALE

PARTS FOR SALE (AND MORE)

Part Number	Description	Photo Reference
02-321154C01	ASSY-CA-MOTOR DRIVE	
02-323609C01	ASSY-CA ROTATION ASSY BRKT TO MOTOR	
30-106660A92	Blower Motor	
02-333242D01	ASSY-WTA ROTATION MOTOR-ZETA	
	Susceptor Motor	
16-330320E01	CHAMBER-PRCS-SQ-ATM-LG TUBULAT 200mm	
16-323970E01	CHAMBER-PROCESS-QTZ-200MM-RP	
16-332178E01	Chamber-Process SQ RIB 200mm	
16-325425C01/C02 16-325426C01/C02 16-325427C01/C02	Quartz Foot 125/150/200MM	

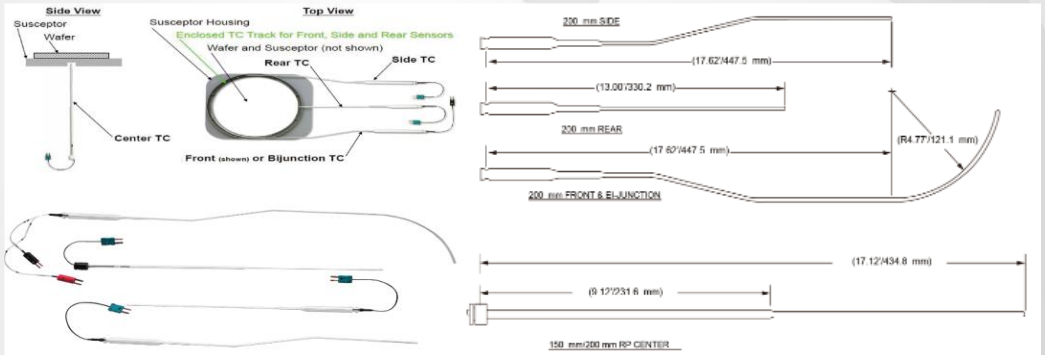
PARTS FOR SALE

PARTS FOR SALE (AND MORE)

Part Number	Description	Photo Reference
16-332807E01	REFL-S-PLATE-BOTTOM-PCE-STD	
16-323881D01	REFL-S-WELDMENT-SPOTLIGHT	
3652556-01	REFL-S-SPHERICAL	
16-323878D01	REFL-S-PLATE-FLASHLIGHT-RP	
16-328615D01 16-328615D02	REFL-D-CenturaER-UPR-LAMP ARRAY	
16-323522E01	REFL-S-PLATE-TOP-PCE W/RP	
16-320562D01	REFL-S-OUTSIDE-LOWER-DUAL PARABOLIC	
16-323958C01	REFL-S-COVER-UPPER-LP	
16-323615D01 16-323615D02	WATER COOLER SIDE REFLECTOR	

PARTS FOR SALE

Upgraded Thermocouple



Susceptor size	Name	ASM PN	Thermok PN		
			S3.8	S4.0	SC3.0
150mm	BIJ TC	02-327874D01	150-01-001	150-01-002	NA
	SIDE TC	02-323649D01	150-02-001	150-02-002	NA
	REAR TC	02-323648D01	150-03-001	150-03-002	NA
	FRONT TC	02-323647D01	150-01B-001	150-01B-002	NA
	CENTER TC	02-323584D01	NA	NA	200-04-002
200mm	BIJ TC	02-327875D01	200-01-001	200-01-002	NA
	SIDE TC	02-3236 54D01	200-02-001	200-02-002	NA
	REAR TC	02-3236 53D01	200-03-001	200-03-002	NA
	CENTER TC	02-323584D01	NA	NA	200-04-002

- S3.8, S4.0 & SC3.0 are used in ASM E2000 system
- S3.8 refers to the quartz Outer Diameter (OD) being 3.75 +/- 0.15mm
- S4.0 refers to the quartz OD being 4.0mm +/- 0.15mm
- SC3.0 refers to the centre TC quartz OD being 3.0mm +/- 0.2mm
- Thicker quartz OD provides longer lifetime. (About 20-40% longer lifetime)

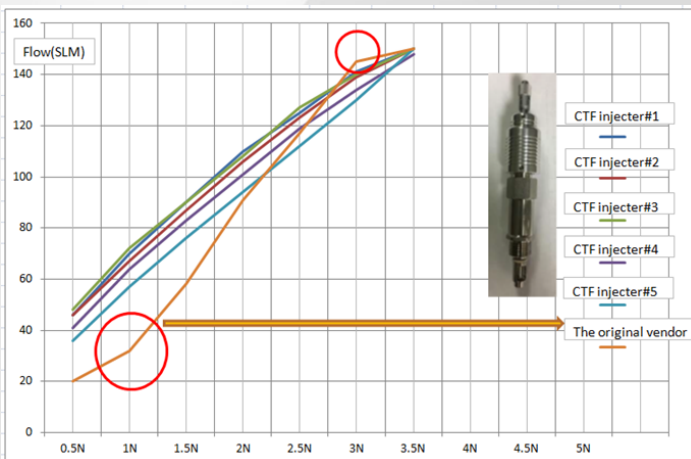
UPGRADES

ASM EPSILON MPI Upgrade



Our injector valves have been engineered to provide superior valve-to-valve linearity, repeatability, and reliability:

- Our injectors are designed to eliminate unnecessary components, resulting in lower manufacturing time and cost
- Consolidation of internal components reduces stacking tolerances, resulting in repeatability from injector-to-injector
- Calibration without shims allows excellent valve-to-valve matching
- The new valve body improves sealing and maintains helium leak integrity, while minimizing particle generation
- All stainless steel material is electro-polished to reduce surface roughness, particles, and improves corrosion resistance performance



UPGRADES

ASM A400/412 Upgrade 1

Current Systems:

Unable to detect water leakage, causing electron sensor damage or water drip to the carousel that leads to O2 level high or water dripping onto the wafer.

Solution:

Add in Water Leakage Sensor



UPGRADES

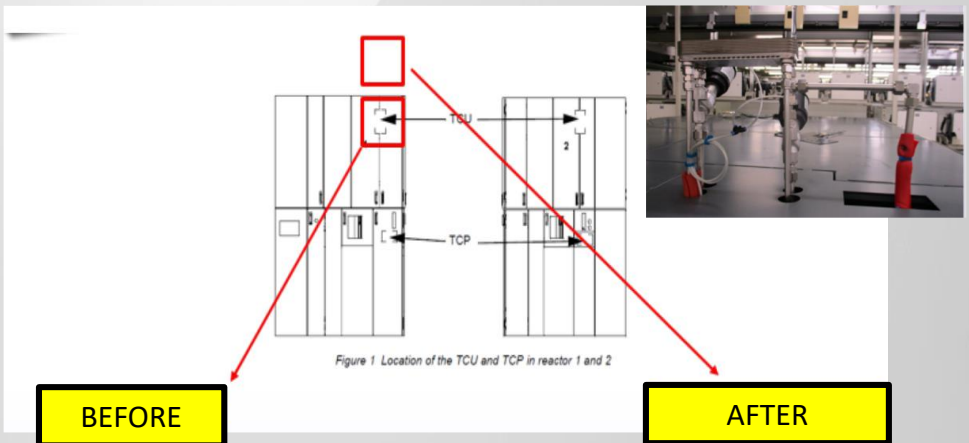
ASM A400/412 Upgrade 2

Current Systems:

When cooling piping NC/NO valve or cooling exchanger is faulty, the heater must be cooled down in order to open the reactor. The quartz tube also needs to be serviced as the coating film will be prone to peeling as temperature drop. Long down time.

Solution:

Retrofit the TCF/TCU cooling system to the top of the tool for easy replacement of damaged parts.



UPGRADES

ASM A400/412 Upgrade 3

Current Systems:

PBI Dansensor O2 analyser is out of production.

Solution:

Provide Zirox O2 analyser (ASM certified) with necessary parts for easy swap.



UPGRADES

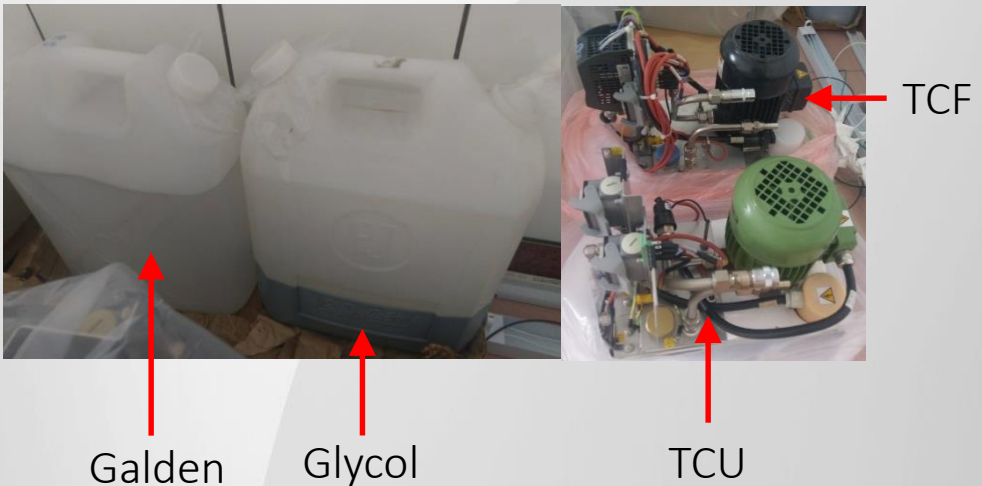
TCU->TCF / Glycol -> Galden Upgrade

Current Systems:

Glycol changes colour and hardens over a period of time, causing choking of the cooling lines. Thus, a poor temperature exchange.

Solution:

Provide an upgrade from Glycol (TCU) to Galden (TCF). A better temperature exchange material & performance. And it lasts longer!



SITE SUPPORT SERVICES

TROUBLESHOOTING, CONSULTATION,
INSTALLATION/ DE-INSTALLATION &
RELOCATION SERVICES

FAB 1



FAB 2





THANK YOU!

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<http://www.ptwsingapore.com/tools-for-sale.html>