

NANOCHEM[®] SideCar-EP[™] Purifier System

Overview

The NANOCHEM[®] SideCar[™] Purifier System provides ultra-high purity process gases to the ASM[®] Epsilon[®] Single-Wafer Epitaxial Reactor for low temperature epitaxial deposition. The system purifies Nitrogen (N₂), Hydrogen (H₂) and Hydrogen Chloride (HCl), consisting of three (200mm version) or four (300mm version) process gas manifolds housed within a safety enclosure and a NANOCHEM[®] End-Point Detector Monitor. The SideCar[™] Purifier System accepts NANOCHEM[®] A-Series[™] gas purifiers allowing for purifier isolation & bypass, purging, purifier/media preconditioning and end-point detection for N₂ and H₂. The system is designed to mount directly to the ASM[®] Epsilon[®] process tool or wall mount in a remote location within the fab.

Features and Benefits

- Custom purifier system designed to integrate with the ASM[®] low temperature Epsilon[®] Single-Wafer Epitaxial Reactor process tools
- System design incorporates H₂, N₂ and HCl purifiers in a single exhausted secondary-containment enclosure to minimize space requirements in the fab
- Enhanced purge and bypass capabilities allow for complete purifier maintenance independent from any process tool systems
- Dual process isolation valves
- Critical flow orifices control flow for precise purifier conditioning
- End-Point Detector Monitor provides automatic notification that purifier has reached 75% of its life expectancy
- Meets requirements for Uniform Building Code, Uniform Fire Code, SEMI S2, CE Mark

Specifications

- H₂: Flow - 200 slpm @ 100 psig max.
Conn. - 1/4" High-Flow FVCR (Inside Cabinet)
- N₂: Flow - 200 slpm @ 100 psig max.
Conn. - 1/4" High-Flow FVCR (Inside Cabinet)
- HCl: Flow - 20 slpm @ 100 psig max.
Conn. - 1/4" FVCR (Inside Cabinet)
- Scrubbed Exhaust: Flow - 100 scfm exhaust flow
Conn. - 4" Exhaust Stack
- Power: EPD Monitor - 24 VDC, 40mA
- Purge Gas: Conn. - 1/4" FVCR (Inside Cabinet)
- Vacuum Gas: Conn. - 1/4" FVCR (Inside Cabinet)
- Acid Vent: Conn. - 1/4" High-Flow FVCR (Inside Cabinet)

Options

- Mounting configuration: left hand or right hand opening door; tool-mounted or stand-alone (for remote installation)
- Process inlet connections through the cabinet floor
- Purge and vacuum gas inlet connections through the cabinet floor
- 2000 ml purifier for HCl (200mm version only)
- H₂ and/or HCl gas detection

NANOCHEM[®] A-Series[™] Gas Purifier Options

Gas	Marketing Model	End-Point Detection	Part Number
HCl	A500-MTX	Not Available	S1060-0428-002
	A2000-MTX	Not Available	S1060-0429-002
H ₂	A-2000-OMX-Plus [™] -DC-HF	Standard	S1060-0427-002
N ₂	A-2000-OMX-Plus [™] -DC-HF	Standard	S1060-0427-002



Note: To inquire about the NANOCHEM[®] SideCar[™] Purifier System please contact your local ASM or Matheson Tri-Gas sales office. To inquire about the NANOCHEM[®] purifiers please contact your local Matheson Tri-Gas sales office.

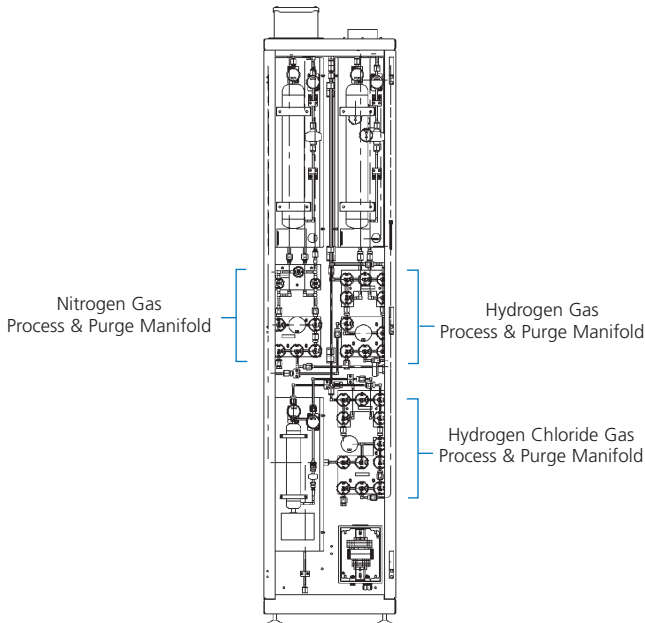
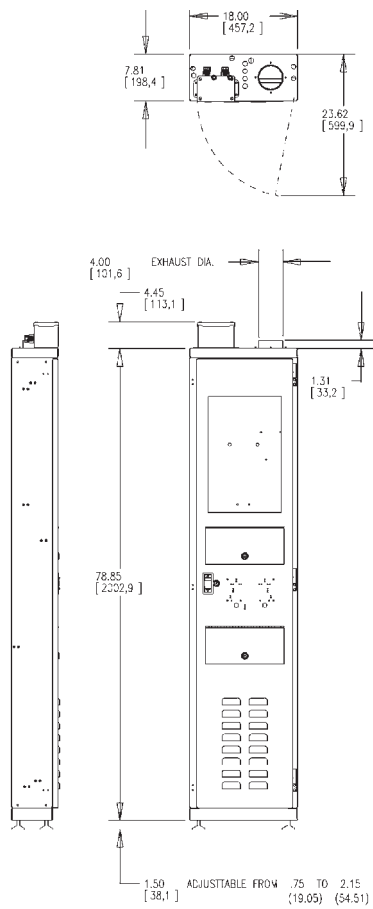


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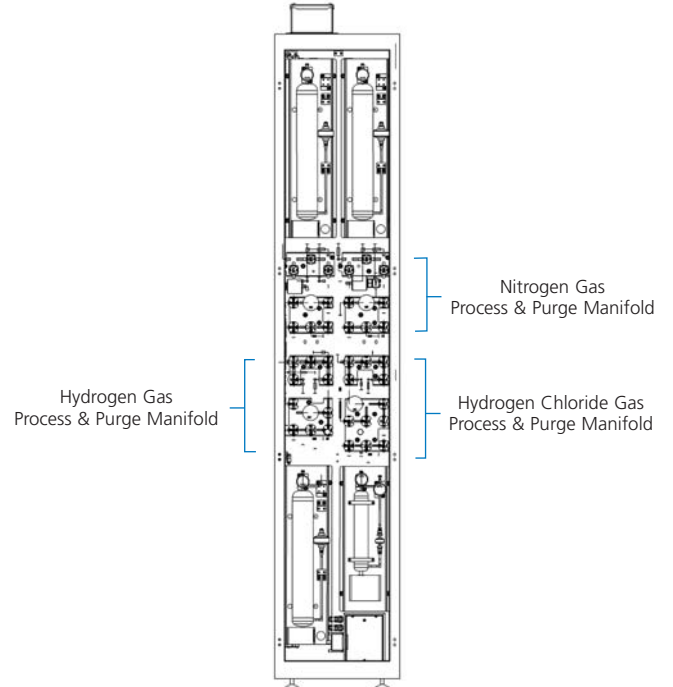
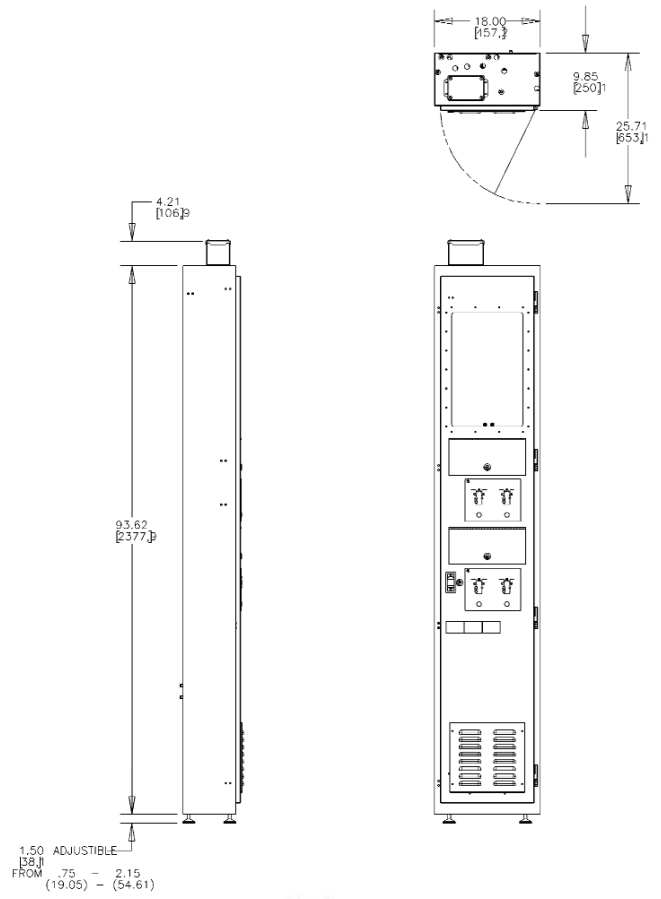
Dimensions

200mm SideCar™



Front View with Process Manifold Detail

300mm SideCar™



Front View with Process Manifold Detail

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Specifications are subject to change. Please check www.mathesontrigas.com for most current information.

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