Nanochem[®] MAX[™] Inert Gas Purifier High- flow and High- pressure purifier for inert gases

NANOCHEM® MAX[™] Purifiers are designed to purify high flows of gas while operating at high pressures. This combination allows for a cost-effective ambient operation for bulk gas purification.

NANOCHEM® MAX[™] uses the same In2Go[™] based purification medium that is currently in widespread use around the world for sensitive applications. In2Go[™] provides extended purifier lifetime and sub100 ppt removal efficiency to ensure the longest lifetime and highest capacity of any purifier on the market.

The compact design of the NANOCHEM® MAX[™] with no requirements for heat, electricity or exhausted enclosures allows for flexible placement in any location.

Applications

Bulk Gas operations for plants needing higher flows and pressures



Three (3) NANOCHEM® MAX[™] purifiers each capable of purifying 3000 slpm (180 m3/h)

For additional information please contact us at

purification@mathesongas.com

Features and Benefits

High Capacity Long Lifetimes Sub-ppt Efficiency Low Overall Cost of Ownership Room temperature operation No power required No conditioning required Easy to install and operate Patented technology



Specifications

Operation to 3000 slpm (180 m3/h) and 3000 psig (207 bar)

Maximum operating temperature of $40^{\circ}C$ (104°F)

0.5 micrometer SS sintered frit filter at the outlet

Components that contact the process gas stream are:

- •Type 316L stainless steel tubing, valve bodies, purifier body
- •Internal surface finish < 10 µin R
- •Nickel 200 face-seal gaskets
- •Polychlorotrifluoroethylene valve seats
- •Type 316 stainless steel valve diaphragms

Purifier mounting plates are fabricated of 12 gauge (0.1046") cold-rolled steel or 0.25" thick 6061-T6 aluminum.

Support frames are fabricated of 304 stainless steel square tube and channel.

Analytical Performance

Impurities inert gases are typically removed to the detection limits of state-of-the-art analytical techniques

Impurity	Inlet (ppb)	Outlet (ppb)
O_2	1000	0.1
CO_2	500	0.1
CO	1000	0.1
H_2O	2600	0.1



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Vessels are pressure rated and tested to ensure DOT shipping and compliance.



NANOCHEM® MAX[™] P&ID



- 1. Process Gas Inlet (½" MVCR)
- 2. Inlet Pressure Gauge
- 3. Overpressure Relief (½" tube)
- 4. Inlet Gas Filter
- 5. Outlet Gas Filter
- 6. Sample Port Gas Filter
- 7. Outlet Pressure Gauge
- 8. Process Gas Outlet (½" MVCR)
- 9. Sample Port (¼" MVCR)

Installation Information



NANOCHEM® MAX[™] purifiers must be oriented and mounted in a vertical position

Dimension	Inches	Millimeters
Width	24.0	610
Height	64.0	1626
Depth	10.5	267

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