

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°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 ₂ O	2600	0.1



MATHESON

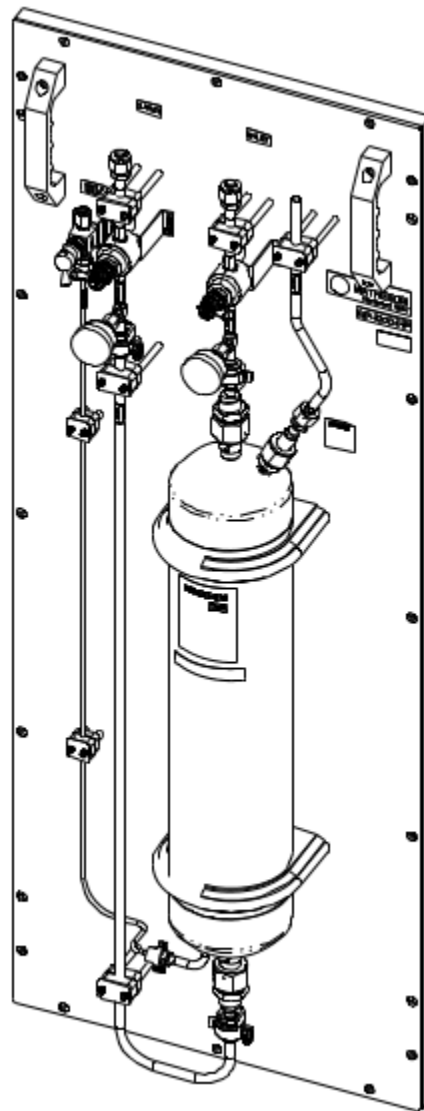
ask...The Gas Professionals™

Nanochem® MAX™ Inert Gas Purifier

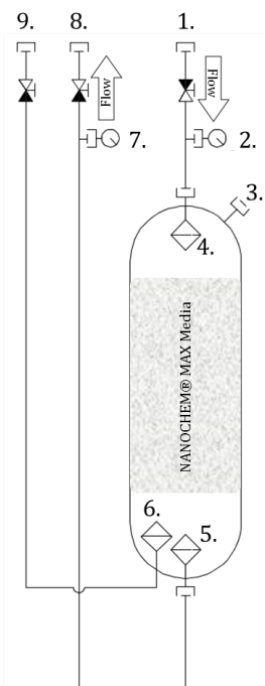
High- flow and High- pressure purifier for inert gases

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

Installation Information



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)

NANO-CHEM® 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

For additional information please contact us at

purification@mathesongas.com



MATHESON

ask...The Gas Professionals™