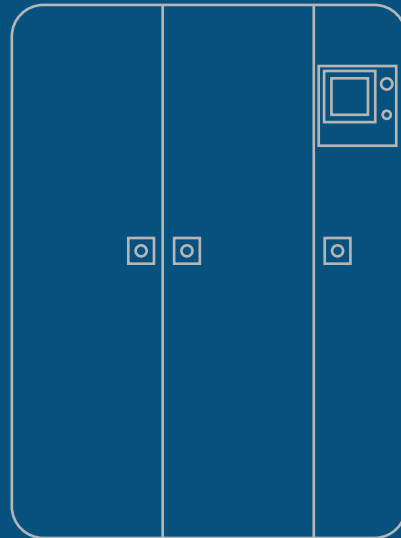
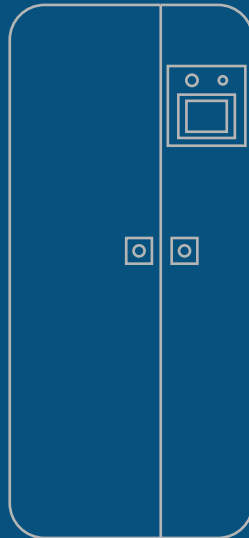


7N SERIES

Economical Gas Purification Products



SIMPURE
先普

Product Overview

SimPure 7N series economical gas purifiers include POU (Point-of-Use) gas purifier, getter-based gas purifier and in-situ regeneration gas purification system which use catalyst/adsorber and getter technologies designed specifically to provide ultra-high purity bulk gases, such as Nitrogen, Argon, Helium, Hydrogen, Oxygen and so forth. The 7NP series gas purifiers can remove impurities such as H₂O, O₂, CO, CO₂, H₂, CH₄, NMHC, etc. to less than five part-per-billion (ppb) at flow rate from 2 slm to 20000Nm³/h.



High Quality Purification Media
Pressure Vessel Certification Providable
Effectively Remove Impurities
to Less than 5 ppb



World-Class Brands Valves,
Pipes and Fittings
Welded and Assembled in
CLASS 1000 Clean Room



Assembled and Tested in Clean Room

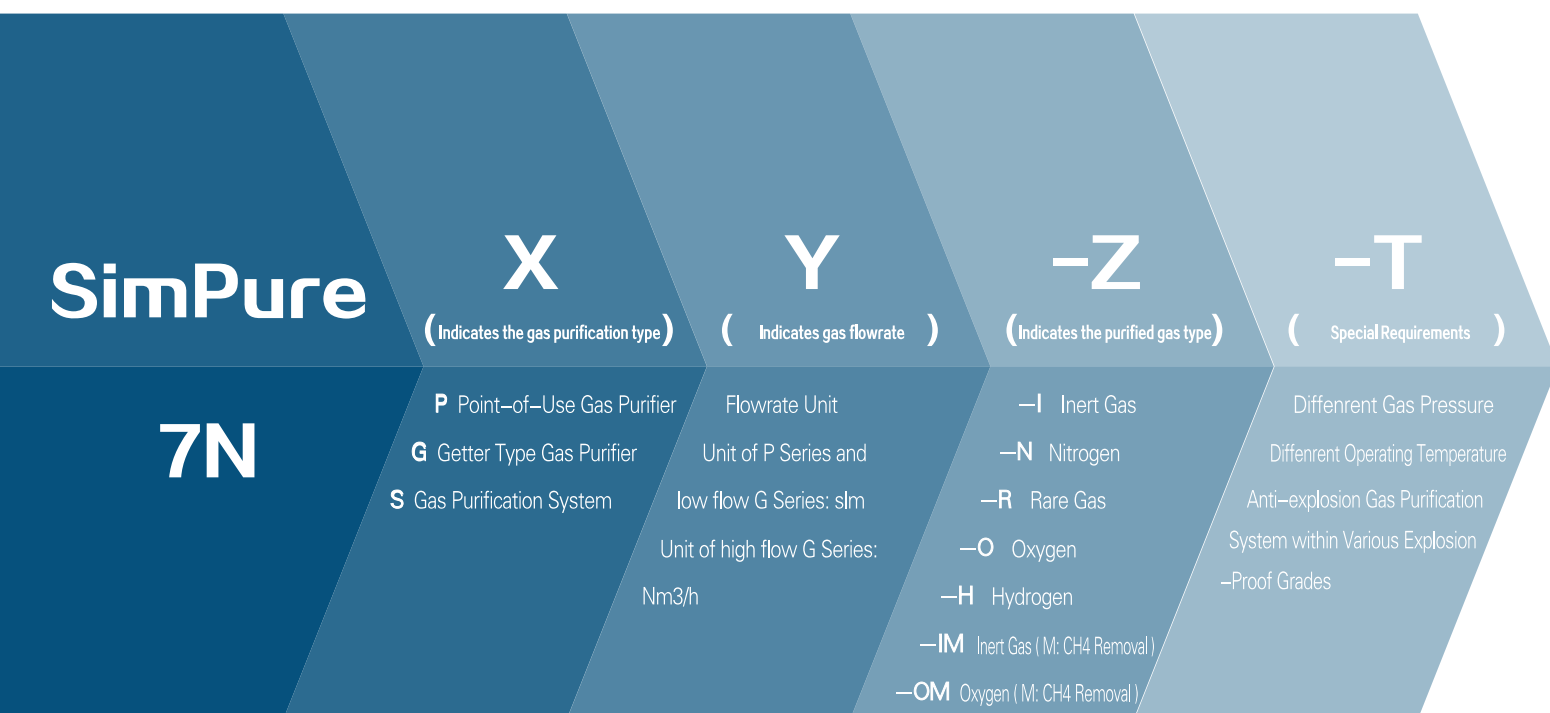


World-Class Brands Touch Screen, PLC,
Temperature Controllers, etc.
Fully Automated System Operation



Model selection information

7N Series Gas Purification Products Ordering Information



Contact SimPure for more information

7N Series Purification Products Selection Guide

Product Series	7NP	7NG	7NS	7NS-IM	7NS-OM
Typical Gas Type*	N2, Ar, He, H2, O2, CDA, etc.	N2, H2, Ar, He, Xe, Ne, etc.	N2, Ar, He, H2, O2, CDA, etc.	N2, Ar, He, etc.	O2
Flow Rate Range	30–1200slm	2slm–720Nm3/h	10–20000Nm3/h	30–6000Nm3/h	10–3000Nm3/h
Operating Pressure Range	1.0MPa	1.0MPa	1.0MPa	1.0MPa	1.0MPa
Filtration Removal Rating	1 μm**	1 μm***	1 μm***	1 μm***	1 μm***
Purification Technology	Catalyst/Adsorber	Getter	Catalyst/Adsorber	Heating Catalyst+ Catalyst/Adsorber	Heating Catalyst+ Adsorber
Regeneration Method	Regenerable at manufacturer	Cannot be regenerated. Change the purification unit after saturation.	In-situ regeneration	No need to regeneration for the heating catalyst purification unit. In-situ regeneration for adsorber purification units.	

* Contact SimPure for more gas types and purified gases.

** Built-in particle filter for 7NP Series

*** Options for partial models

7NP SERIES

SimPure 7NP series economical gas purifiers use catalyst/adsorber technology designed specifically to provide ultra-high purity gases under ambient temperature conditions. The 7NP Series gas purifiers can remove impurities such as H₂O, O₂, CO, CO₂, NMHC, etc. to less than 5 ppb (part-per-billion). The 7NP Series gas purifier features a built-in 1 µm filter in the 316L stainless steel canister.

Product Features

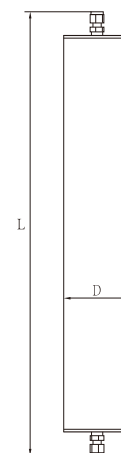
- Operate at ambient temperature
- Maximum flow rate from 30 to 1200slm
- Outlet impurity level < 5ppb
- Built-in a 1 µm 316L SS particle filter
- 316L SS purification canister
- Options for the purifier to mounted with dual valves, three valves, four valves, etc.
- Regenerable at manufacturer
- Low cost-of-ownership



7NP SERIES

Purification Specification

Gas Type*	Purified Gases*	Impurities	Outlet Impurity Level
Inert Gas-I	N ₂ , Ar, He, Xe, Ne, Kr	H ₂ O, O ₂ , CO, CO ₂ , H ₂ , NMHC	< 5 ppb
Oxygen-O	O ₂ , CDA	H ₂ O, CO ₂ , NMHC	
Hydrogen-H	H ₂ The mixture gas of hydrogen and inter gas	H ₂ O, O ₂ , CO, CO ₂ , NMHC	



* Contact SimPure for more gas types and purified gases.

General Specifications

Model	Nominal Flow Rate (slm)	Max. Flow Rate (slm)	Max. Pressure (MPa)	Max. Pressure Drop* (MPa)	Filtration Removal Rating (μm)	Inlet/Outlet Fitting	Length (Face-to-Face) -L	Outside Diameter -D
7NP020	30	75	1.0	0.1	1	1/4" Compression Fitting	12.1" (308mm)	2" (50.8mm)
7NP100	150	300	1.0	0.1	1	1/4" Compression Fitting	20.0" (508mm)	3" (76.2mm)
7NP400	400	600	1.0	0.1	1	1/2" MVCR	23.9" (608mm)	4" (101.6mm)
7NP800	800	1200	1.0	0.1	0.003	1/2" MVCR 1/2" FVCR	2.6" (67mm)**	6" (152.4mm)

Contact SimPure for more requirements.

* Max. Pressure Drop @ nominal flow rate and maximum gas pressure

** Inlet and outlet fittings of 7NP800 are located on the same side.

7NG SERIES

SimPure 7NG series economical gas purifiers consist of two parts: the gas purifier and the electrical controller. The gas purifier is composed of heated getter purification columns, valves, gas pipelines and heat sinks. It uses Getter technology and can be outfitted with 1 μ m filters in the 316L stainless steel canister to remove impurities such as H₂O, O₂, CO, CO₂, CH₄, NMHC, etc. to less than 5 ppb (part-per-billion). The electrical controller continually monitors system operation, providing fault detection and temperature control to ensure smooth operation.

Product Features

- Maximum flow rate from 2slm to 720Nm³/h
- Outlet impurity level < 5ppb
- Remove CH₄ from rare gases and nitrogen
- Remove N₂ from rare gases and hydrogen
- 316L SS purification canister

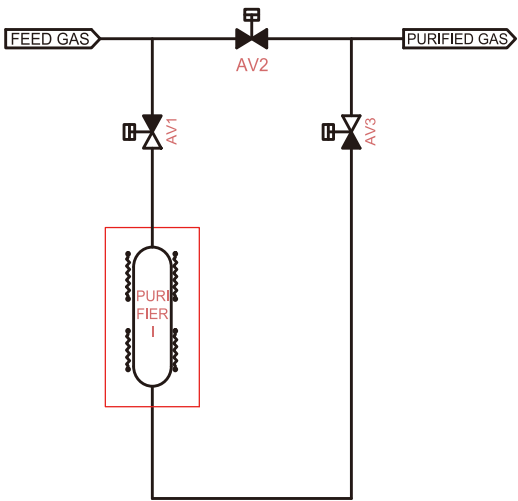


7NG SERIES

Purification Specification

Gas Type*	Purified Gases*	Impurities	Outlet Impurity Level
Rare Gas –R	Ar, He, Xe, Ne, Kr	H2O, O2, CO, CO2, H2, CH4, NMHC, N2	< 5 ppb
Hydrogen –H	H2	H2O, O2, CO, CO2, CH4, NMHC, N2	
Nitrogen –N	N2	H2O, O2, CO, CO2, H2, CH4, NMHC	

* Contact SimPure for more gas types and purified gases.



General Specifications

Model	Nominal Flow Rate	Max. Pressure (MPa)	Max. Pressure Drop (MPa)	Filtration Removal Rating (µm)
7NG002—060	2, 10, 60slm	1.0	0.2	1
7NG150—1000	10, 20, 30, 60Nm3/h	1.0	0.2	1
7NG2000—8500	120, 200, 240, 360, 500Nm3/h	1.0	0.2	N/A
7NG10000—12000	600, 720Nm3/h	1.0	0.2	N/A

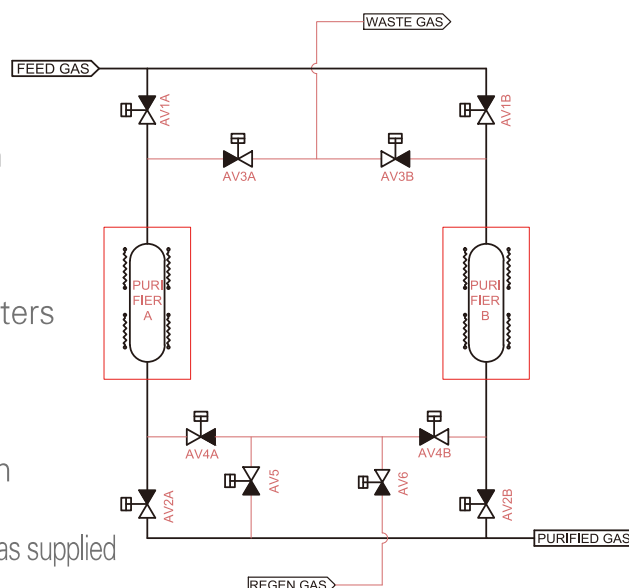
* Contact SimPure for more requirements.

7NS SERIES

SimPure 7NS series economical gas purification system consists of two parts: the gas purifier and the electrical controller. The gas purifier is composed of multi-vessel designed purification columns, valves, gas pipelines and heat sinks. It uses catalyst/adsorber technology and automatic in-situ regeneration to provide ultra-high purity gases. The electrical controller features a touch screen, PLC and temperature controllers to continually monitor system operation. It provides fault detection and control over the purification and regeneration process. The 7NS Series gas purification system can remove impurities such as H₂O, O₂, CO, CO₂, NMHC, H₂, etc. to less than 5 ppb (part-per-billion). Moreover, the 7NS Series gas purification system can be outfitted with optional 0.003 μm filters.

Product Features

- Maximum flow rate from 10 to 20000Nm³/h
- Outlet impurity level < 5ppb
- Options to configure 0.003 μm particle filters
- 316L SS purification canister
- Multi-vessel design, in-situ regeneration
- Fully automated system operation with continuously gas supplied



Purification Specification

Gas Type*	Purified Gases*	Impurities	Outlet Impurity Level
Inert Gas-I	N ₂ , Ar, He, Xe, Ne, Kr	H ₂ O, O ₂ , CO, CO ₂ , H ₂ , NMHC	< 5 ppb
Oxygen-O	O ₂ , CDA	H ₂ O, CO ₂ , H ₂ , NMHC	
Hydrogen-H	H ₂ The mixture gas of hydrogen and inter gas	H ₂ O, O ₂ , CO, CO ₂ , NMHC	

* Contact SimPure for more gas types and purified gases.

General Specifications

Model	Nominal Flow Rate* (Nm ³ /h)	Max. Pressure* (MPa)	Max. Pressure Drop* (MPa)	Filtration Removal Rating* (μm)
7NS010-060	10, 20, 30, 40, 60	1.0	0.1	1
7NS100-2000	100, 150, 200, 300, 400, 600, 800, 1000, 1500, 2000	1.0	0.1	1
7NS3000-8000	3000, 4000, 6000, 8000	1.0	0.1	N/A
7NS10000-20000	10000, 15000, 20000	1.0	0.1	N/A

* Contact SimPure for more requirements.

7NS-IM SERIES

SimPure 7NS-IM series economical inert gas purification system consists of two parts: the gas purifier and the electrical controller. The gas purifier is composed of a heating catalyst purification column and multi-vessel designed ambient temperature catalyst/adsorber purification columns, valves, gas pipelines and heat sinks. It uses catalyst/adsorber technology and automatic in-situ regeneration to provide ultra-high purity gases. The electrical controller features a touch screen, PLC and temperature controllers to continually monitor system operation. It provides fault detection and control over the purification and regeneration process. The 7NS-IM Series gas purification system can remove impurities such as H₂O, O₂, CO, CO₂, CH₄, NMHC, H₂, etc. to less than 5 ppb (part-per-billion). Moreover, the 7NS-IM Series gas purification system can be outfitted with optional 0.003 µm filters.

Product Features

Maximum flow rate from 30 to 6000 Nm³/h

Outlet impurity level < 5ppb

Remove CH₄ from inert gas

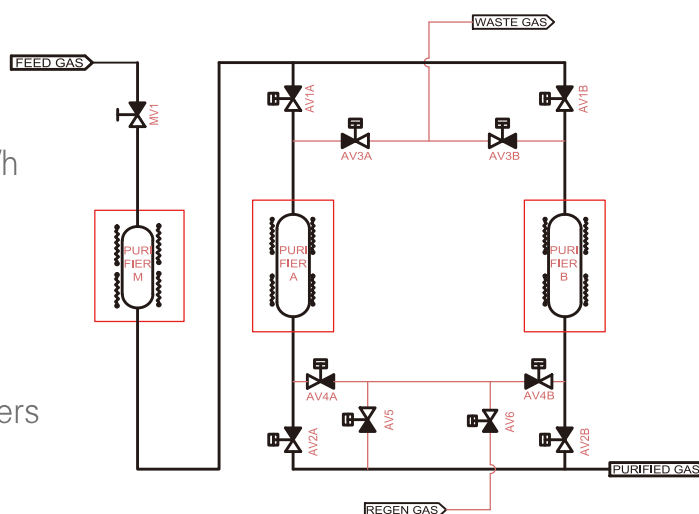
Options to configure 0.003 µm particle filters

316L SS purification canister

No need to regenerate the heating catalyst purification unit.

In-situ regeneration for ambient temperature catalyst/adsorber purification unit.

Fully automated system operation with continuously gas supplied



Purification Specification

Gas Type*	Purified Gases*	Impurities	Outlet Impurity Level
Inert Gas-I	N ₂ , Ar, He, Xe, Ne, Kr	H ₂ O, O ₂ , CO, CO ₂ , H ₂ , CH ₄ , NMHC	< 5 ppb

* Contact SimPure for more gas types and purified gases.

General Specifications

Model	Nominal Flow Rate* (Nm ³ /h)	Max. Pressure* (MPa)	Max. Pressure Drop* (MPa)	Filtration Removal Rating* (µm)
7NS030-200-IM	30, 40, 60, 100, 150, 200	1.0	0.1	1
7NS300-800-IM	300, 400, 600, 800	1.0	0.1	N/A
7NS1000-6000-IM	1000, 1500, 2000, 3000, 4000, 6000	1.0	0.1	N/A

* Contact SimPure for more requirements.

7NS-OM SERIES

SimPure 7NS-OM series economical oxygen purification system consists of two parts: the gas purifier and the electrical controller. The gas purifier is composed of a heating catalyst purification column and multi-vessel designed ambient temperature catalyst/adsorber purification columns, valves, gas pipelines and heat sinks. It uses catalyst/adsorber technology and automatic in-situ regeneration to provide ultra-high purity gases. The electrical controller features a touch screen, PLC and temperature controllers to continually monitor system operation. It provides fault detection and control over the purification and regeneration process. The 7NS-OM Series gas purification system can remove impurities such as H₂O, CO, CO₂, CH₄, NMHC, H₂, etc. to less than 5 ppb (part-per-billion). Moreover, the 7NS-OM Series gas purification system can be outfitted with optional 0.003 μ m filters.

Product Features

Maximum flow rate from 10 to 3000 Nm³/h

Outlet impurity level < 5ppb

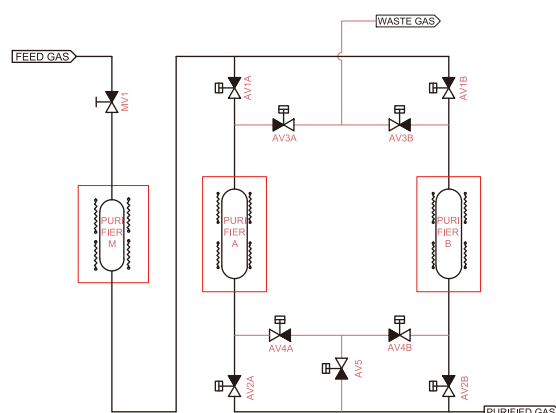
Remove CH₄ from oxygen

Options to configure 0.003 μ m particle filters

316L SS purification canister

No need to regenerate the heating catalyst purification unit
In-situ regeneration for ambient temperature adsorber purification unit

Fully automated system operation with continuously gas supplied



Purification Specification

Gas Type*	Purified Gases*	Impurities	Outlet Impurity Level
Oxygen-O	O ₂	H ₂ O, CO, CO ₂ , H ₂ , CH ₄ , NMHC	< 5 ppb

* Contact SimPure for more gas types and purified gases.

General Specifications

Model	Nominal Flow Rate* (Nm ³ /h)	Max. Pressure* (MPa)	Max. Pressure Drop* (MPa)	Filtration Removal Rating* (μ m)
7NS010-200-OM	10, 20, 30, 40, 60, 100, 150, 200	1.0	0.1	1
7NS300-800-OM	300, 400, 600, 800	1.0	0.1	N/A
7NS1000-3000-OM	1000, 1500, 2000, 3000	1.0	0.1	N/A

* Contact SimPure for more requirements.

7N SERIES

Purification Products Applications

Bulk Gases Purification

Solar Cell

Weld Gas and Purge Gas Purification of Tubing Installation

High Purity Gas, Standard Gas, Mixture Gas,
Electronics Gas Production

Purge Gas, Carrier Gas, Zero Gas Purifying

R&D



9N Series High Performance Gas Purification Products:

- 9NP Series High Performance POU Gas Purifier
- 9NG Series High Performance Getter Type Gas Purifier
- 9NS Series High Performance Gas Purification System
- 9NS-IM/OM Series High Performance CH₄ Removal Gas Purification System

7N Series Economical Gas Purification Products

- 7NP Series Economical POU Gas Purifier
- 7NG Series Economical Getter Type Gas Purifier
- 7NS Series Economical Gas Purification System
- 7NS-IM/OM Series Economical CH₄ Removal Gas Purification System

HP/UP High/Ultra High Pressure Series Gas Purification Products

- 9NP HP Series POU Gas Purifier
- 7NP HP Series POU Gas Purifier
- 7NK HP/UP Series Gas Purification System
- 7NG HP/UP Series Getter Type Gas Purifier

GC Series Low Flow Gas Purifier for Gas Analytical Instruments

SimPure Technology (Shanghai) Co., Ltd
Building 17, No. 1288 ZhongChun Road,
MinHang District, Shanghai, 201109
Tel: 86-21-5442-7619
Fax: 86-21-5483-2239x807
Website: www.simpuretech.com

