



- In-Line Purifier
IGP SERIES
- Heated Getter Purifier
GASPURI SERIES
- Bulkgas Purifier
GP SERIES

PURIFIER LINE-UP



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Specification Overview

IGP SERIES

In-Line Purifier

Process Gas	Model	Impurities Removed							Lifetime	Flowrates
		O ₂	H ₂ O	CO	CO ₂	H ₂	CH ₄	N ₂		
Rare Gas	IGP-R	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb			Limited Lifetime	Up to 20,000 Nm ³ /hr
Nitrogen	IGP-N	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb			Limited Lifetime	Up to 20,000 Nm ³ /hr
Hydrogen	IGP-H	<1 ppb	<1 ppb	<1 ppb	<1 ppb				Limited Lifetime	Up to 20,000 Nm ³ /hr

GASPURI SERIES

Heated Getter Purifier

Process Gas	Model	Purification Process	Impurities Removed							Lifetime	Flowrates	
			O ₂	H ₂ O	CO	CO ₂	H ₂	CH ₄	N ₂			
Rare Gas	GP-G Series	Getter	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	Limited Lifetime	Up to 150 slpm
Nitrogen	GP-GA Series	Getter	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb		Limited Lifetime	Up to 150 slpm
Hydrogen	GP-A Series	Getter	<1 ppb	<1 ppb	<1 ppb	<1 ppb				<1 ppb	Limited Lifetime	Up to 100 slpm

GP SERIES

Bulk Gas Purifier

Process Gas	Model	Purification Process			Impurities Removed										Lifetime	Flowrates		
		Absorber	Getter	Catalyst	H ₂ O	CO	CO ₂	O ₂	H ₂	CH ₄	N ₂	Acids	Base	Organics			Refractory Compound	
Rare Gas	GP-G Series		✓		<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb						Limited Lifetime	Up to 300 Nm ³ /hr
Oxygen	GP-CA Series	✓		✓	<1 ppb	<1 ppb	<1 ppb		<1 ppb	<1 ppb							Auto-Regenerable	Up to 3,000 Nm ³ /hr
Hydrogen	GP-GA Series	✓	✓		<1 ppb	<1 ppb	<1 ppb	<1 ppb		<1 ppb	<1 ppb						Getter has a Limited Lifetime	Up to 200 Nm ³ /hr
Hydrogen	GP-A Series	✓			<1 ppb	<1 ppb	<1 ppb	<1 ppb									Auto-Regenerable	Up to 300 Nm ³ /hr
Hydrogen	GP-G Series		✓		<1 ppb	<1 ppb	<1 ppb	<1 ppb		<1 ppb	<1 ppb						Limited Lifetime	Up to 300 Nm ³ /hr
Nitrogen	GP-A Series	✓			<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb								Auto-Regenerable	Up to 300 Nm ³ /hr
Nitrogen	GP-CA Series	✓		✓	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb	<1 ppb							Auto-Regenerable	Up to 300 Nm ³ /hr
CDA	GP-A Series	✓			<1 ppb								<5 ppt	<5 ppt	<5 ppt	<5 ppt	Auto-Regenerable	Up to 300 Nm ³ /hr
CO ₂	GP-A Series	✓			<1 ppb	<1 ppb		<1 ppb	<1 ppb				<5 ppt	<5 ppt	<5 ppt	<5 ppt	Auto-Regenerable	Up to 300 Nm ³ /hr
CO ₂	GP-A Series	✓		✓	<1 ppb	<1 ppb		<1 ppb	<1 ppb	<1 ppb			<5 ppt	<5 ppt	<5 ppt	<5 ppt	Auto-Regenerable	Up to 300 Nm ³ /hr

In-Line Purifier IGP Series

Product Highlights

- **Easy to use :**
Serves UHP quality purification with simple connection
- **Performance :**
Low ppb level purification (Optionally ppt)
- **Quality :**
SUS316L Body, All leak checked, fully tested with APIMS Analyzer
- **Regenerable :**
Long lifetime by Factory Regenerable, Certified by APIMS analysis (Except some media)



Model	Maximum Flow (slpm)	Average Flow (slpm)	Maximum Pressure (psig)	Connection Type	Diameter (inches [mm])	Face-to-Face (inches [mm])	Face-to-Face with valves (inches [mm])
IGP1L	1	0.5	1000	1/4" VCR	1.5 [38.1]	3.3 [84.1]	8.91 [226.3]
IGP5L	5	1.5	1000	1/4" VCR	1.5 [38.1]	5.1 [127]	10.60 [269.2]
IGP20L	20	5	250	1/4" VCR	2.0 [50.8]	6.3 [160]	11.90 [302.2]
IGP50L	50	9	250	1/4" VCR	3.0 [76.2]	8.2 [208.3]	13.80 [350.5]
IGP75L	75	10	250	1/4" VCR	3.0 [76.2]	7.9 [201.7]	13.54 [343.9]
IGP100L	100	12	250	1/4" VCR	3.0 [76.2]	10 [254]	15.6 [396.2]
IGP120L	120	25	250	1/4" VCR	3.0 [76.2]	12.5 [317.5]	18.10 [459.7]
IGP250L	250	40	250	1/2" VCR	3.0 [76.2]	18.2 [462.3]	28.84 [629.3]
IGP300L	300	80	250	1/2" VCR	4.0 [101.6]	17.3 [439]	23.2 [606]
IGP500L	500	80	250	1/2" VCR	4.0 [101.6]	20.0 [508]	30.64 [786.4]
IGP1000L	1000	300	250	1/2" VCR	6.0 [152.4]	39.3 [999.7]	50.0 [1269.9]
IGP2000L	2000	1000	250	3/4" VCR	6.0 [152.4]	50.8 [1290]	67.1 [1705]

The IGP -Extension purifies UHP Quality gas at ambient temperature without power consumption.

IGP-Extension does not require the additional power and heating as it purifies gas at room temperature.

2 Different media follow customer's application, and additional column is available if increased flowrate is expected.

Factory regeneration is also available, and Regeneration kit can be purchased (In this case, please contact to Hipurity Sales Dept).



Optionally Available

- MFM
- Pressure Transducer
- Temperature Interlock
- Particle Removal Available

IGP Performance			
Gases Purified	Impurities Removed M Unit	Impurities Removed MN Unit	Outlet Performance
N ₂ , Rare Gases	H ₂ O or CO ₂	H ₂ O, CO, CO ₂ , H ₂ , O ₂	< 1 ppb
H ₂	H ₂ O or CO ₂	H ₂ O, CO, CO ₂ , O ₂	< 1 ppb
CDA, O ₂	H ₂ O or CO ₂	N/A	< 1 ppb

IGP Performance – Single Column (SC)							
Model	Impurities Removed	Maximum Flow (Nm ³ /hr)	Maximum Pressure Drop (bar)	Height (cm)	Width (cm)	Depth (cm)	Weight (kg)
IGP200-G*-SC-M	H ₂ O	200	1	196	71	66	< 400
IGP1000-G*-SC-M	H ₂ O	1000	1	196	188	114	< 400
IGP3000-G*-SC-M	H ₂ O	3000	1	234	127	102	< 700
IGP5000-G*-SC-M	H ₂ O	5000	1	276	155	186	< 2000
IGP200-G*-SC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	200	1	196	71	66	< 400
IGP1000-G*-SC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	1000	1	196	188	114	< 400
IGP3000-G*-SC-M	H ₂ O, CO, CO ₂ , H ₂ , O ₂	3000	1	234	127	102	< 700
IGP5000-G*-SC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	5000	1	276	155	186	< 2000

IGP Performance – Dual Column (DC)							
Model	Impurities Removed	Maximum Flow (Nm ³ /hr)	Maximum Pressure Drop (bar)	Height (cm)	Width (cm)	Depth (cm)	Weight (kg)
IGP200-G*-DC-M	H ₂ O	200	1	206	158	66	< 700
IGP1000-G*-DC-M	H ₂ O	1000	1	206	230	114	< 900
IGP3000-G*-DC-M	H ₂ O	3000	1	234	254	102	< 1300
IGP5000-G*-DC-M	H ₂ O	5000	1	276	292	186	< 2700
IGP200-G*-DC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	200	1	206	158	66	< 700
IGP1000-G*-DC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	1000	1	206	230	114	< 900
IGP3000-G*-DC-M	H ₂ O, CO, CO ₂ , H ₂ , O ₂	3000	1	234	254	102	< 1300
IGP5000-G*-DC-MN	H ₂ O, CO, CO ₂ , H ₂ , O ₂	5000	1	276	292	186	< 2700

G* : N₂, Rare Gas, H₂, O₂, CDA (Please consult with factory for other gas application.)
 * Max flow can be customized for customer's needs.



Specifications

Heated Getter Purifier

GASPURI Series

Process Gas Specifications

Gas Purified	Argon, Helium, Nitrogen, Hydrogen
Impurity Removed	H ₂ O / O ₂ / CO ₂ / H ₂ / CH ₄ / N ₂
Outlet Purity	<0.1 ppb
Maximum Flow rate	5 / 50 / 100 / 150 slpm
Maximum Inlet Pressure	10.3barg (~150psig)
Inlet Gas Temperature	0 - 35°C
Outlet Gas Temperature	< 50°C
Gas Purified	Argon, Helium, Nitrogen, Hydrogen

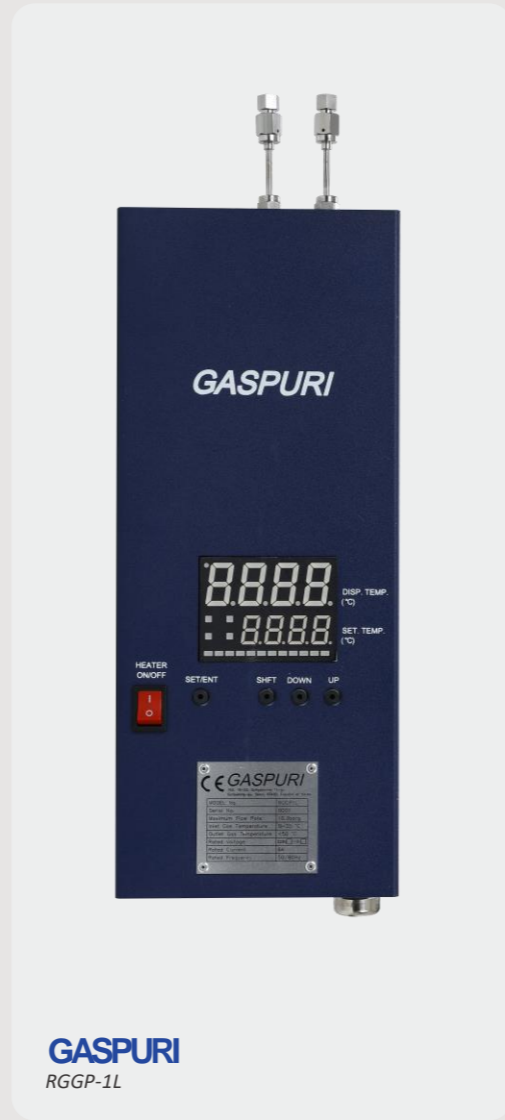
Process Gas Specifications

Power	110VAC or 220VAC (optional)
Power Consumption	330W
Operating Condition	Indoor Installation, Ambient Temperature
Dimension	R/N/HGGP-1L : 127 Width ▼ 146 Depth ▼ 388 Height (mm) R/N/HGGP-5L : 225 Width ▼ 119 Depth ▼ 700 Height (mm)
Weight	R/N/HGGP-1L : ~ 2kg R/N/HGGP-5L : ~ 11kg
Feed Gas Inlet	R/N/HGGP-1L : 1/8" VCR R/N/HGGP-5L : 1/4" VCR
Purified Gas Outlet	R/N/HGGP-1L : 1/8" VCR R/N/HGGP-5L : 1/4" VCR
Particle Filter	R/N/HGGP-1L : 0.2 µm particle filter R/N/HGGP-5L : 0.003 µm particle filter
Gas Surface Finish	Up and downstream of Getter vessel =SUS316L, SST, Welded construction

Analytical Specifications

Impurity	Inlet Purity Requirements (>5.0N)	Outlet Purity Performance*
O ₂	< 1.0 ppm	< 1 ppb
H ₂ O	< 1.0 ppm	< 1 ppb
CO	< 0.1 ppm	< 1 ppb
CO ₂	< 0.1 ppm	< 1 ppb
H ₂	< 1.0 ppm	< 1 ppb
CH ₄ *	< 0.25 ppm	< 1 ppb
N ₂	< 1.0 ppm	< 1 ppb

* GASPURI is fully tested by Thermofisher APIMS Analyzer.
* CH₄ cannot be removed in H₂ Gas.



Specifications

BULK GAS PURIFIER

GP Series

Standard Features

- Fully Automated Microprocessor Controller
- HMI (Human Machine Interface)
- Electric Gas Preheaters
- Closed-Loop Temperature controls
- Standard Customer Interface Connections Alarm Relay / Remote contact Shutdown / Gas relay
- All metal Enclosure with Doors
- Hydrogen Blending Station

Optional Equipments

- Inlet and outlet isolation valves
- Inlet Mass Flow Meter with 4-20mA Isolated Analog Output
- Inlet and Outlet Pressure Transducers with 4-20 mA Isolated Analog Output
- High temperature Hardware Interlock
- Over Pressurization Safety System
- Auto or Manual Bypass
- Particle Filter
- Separate Control Power
- MODBUS Data communication port
- Ground Fault Protection (GFI)
- Emergency Off(EMO) Button
- Purifier Hold Down Brackets
- Uninterruptable Power Supply(UPS)

