

Argon Gas Purifier



EA3000 Argon gas purifier Three-tower structure

EA3000N Argon gas purifier (nitrogen removal) Three-tower structure

EA3000NQ Argon gas purifier (nitrogen removal) Four-tower structure

EA3000 Argon gas purifier

Introduction

EA3000 is the best-selling fully-automatic touchscreen Argon gas purifier specific to OES (direct-reading spectrometer) and ICP. Based on the further innovation and upgrading of manual and semi-automatic Argon gas purifiers, it realizes the perfect combination of advanced technology, exquisite design and powerful functions.

With flow rate up to 4NM³/h, EA3000 can provide the best integrated independent argon purification solution for high-performance OES, ICP and other laboratory applications with high requirements for performance and stability.

EA3000 adopts the combination of physical adsorption and catalytic reaction and has the advantages of long service life, high purification depth and strong resistance to instantaneous fluctuation of feed gas.

Features

- It has high catalyst activity and low working temperature, and the high purity argon can be obtained by purifying the bottled pure argon with this machine, which can reduce the cost for users.
- With dual structure, one unit works while the other unit is standby for regeneration, so that it can realize long-term continuous gas supply.
- It adopts the regeneration process of pure gas purge of the machine, and does not use hydrogen for regeneration, so it does not need special machine room, with good safety.
- It adopts LCD touch screen, and the pressure and temperature can be detected online on touch screen through sensor. The work and regeneration cycle of the system can be adjusted according to the actual usage amount of users, which is beneficial to save gas source.
- It adopts automatic switching function for work and regeneration and doesn't need manual operation, and the performance is more stable and reliable, thus avoiding the pollution caused by users' wrong operation to the system.
- With the principle of stage purification, the impurities such as O₂, H₂O and CO₂ in argon can be removed in advance before deep purification, which greatly extends the service life of the equipment.
- The equipment is internally provided with alarm system of overtemperature, overpressure and heating protection so as to ensure the safety and reliability of the equipment.



Application

- Purification of argon, used for arc/spark photoelectric emission spectrographic analysis.
- Purification of argon and helium carrier gas, used for gas chromatography.
- Purification of argon and helium, used for inert gas shielding.
- Any other purposes requiring gas purity and reliability.

Equipment model	EA3000						
Original gas requirements	Purity $\geq 99.9\%$ O ₂ <1000ppm; H ₂ O<1000ppm						
Pure gas Gas type	Pure gas > 99.9995%						
	O ₂	H ₂ O	CO ₂	CO	S, P oxide	NMHC	granularity
Argon and other noble gases	≤ 0.5 ppm	≤ 1 ppm	≤ 0.1 ppm	≤ 0.1 ppm	≤ 0.1 ppm	≤ 0.1 ppm	≤ 0.3 um
Working pressure	≤ 1.0 Mpa						
Maximum gas pressure difference	≤ 0.1 Mpa						
Built-in particle filter	Built-in 0.3um high efficiency filter, number of particle with outlet particle size 0.3um < 3-5 /L						
Rated gas flow rate	500-750°C						
Flow Rate Of Regenerating Argon	500-800ml/min						
Work Temperature Of Catalytic Tower	300 \pm 20°C						
Work Temperature Of The Absorber	Ambient Operating Temperature						
Regenerating Temperature Of The Absorber	400 \pm 20°C						
Voltage/Frequency	AC110/220V \pm 10%, 50/60Hz						
Maximum power consumption	1.8KW						
Power consumption at build-up	1KW						
Power consumption in operating mode	0.03kW						
Gas inlet/outlet connector	VCR connector						
Equipment external dimensions	About 360mm \times 560mm \times 1000mm						
Package Size	About 420mm \times 680mm \times 1150mm						
Weight	98KG						
Remarks	A: representing gas type; processing capacity is designed according to user requirements						

EA3000N Argon gas purifier

Introduction

EA3000N is the fully-automatic touchscreen Argon gas purifier specifically designed for OES (direct-reading spectrometer) to determine nitrogen (N) element and is aimed at removing the nitrogen in the argon so as to ensure the data stability during analysis of nitrogen element by direct-reading spectrometer in the nitrogen channel. Based on the further innovation and upgrading of manual and semi-automatic Argon gas purifiers, it realizes the perfect combination of advanced technology, exquisite design and powerful functions.

With flow rate up to 4NM³/h, EA3000N can provide the best integrated independent argon purification solution for high-performance OES and other laboratory applications with high requirements for performance and stability.

EA3000N adopts the combination of physical adsorption and nitrogen removal through high-temperature suction and has the advantages of long service life, high purification depth and strong resistance to instantaneous fluctuation of feed gas.

Features

- It has high catalyst activity and low working temperature, and the high purity argon can be obtained by purifying the bottled pure argon with this machine, which can reduce the cost for users.
- With dual structure, one unit works while the other unit is standby for regeneration, so that it can realize long-term continuous gas supply.
- It adopts the regeneration process of pure gas purge of the machine, and does not use hydrogen for regeneration, so it does not need special machine room, with good safety.
- It adopts LCD touch screen, and the pressure and temperature can be detected online on touch screen through sensor. The work and regeneration cycle of the system can be adjusted according to the actual usage amount of users, which is beneficial to save gas source.
- It adopts automatic switching function for work and regeneration and doesn't need manual operation, and the performance is more stable and reliable, thus avoiding the pollution caused by users' wrong operation to the system.
- With the principle of stage purification, the impurities such as O₂, H₂O and CO₂ in argon can be removed in advance before deep purification, which greatly extends the service life of the equipment.
- The equipment is internally provided with alarm system of overtemperature, overpressure and heating protection so as to ensure the safety and reliability of the equipment.



Application

- Purification of argon, used for arc/spark photoelectric emission spectrographic analysis.
- Purification of argon and other noble gases (helium (He), neon (Ne), krypton (Kr), xenon (Xe))
- Purification of argon and helium carrier gas, used for gas chromatography.
- Any other purposes requiring gas purity and reliability

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Equipment model	EA3000N						
Original gas requirements	Purity $\geq 99.99\%$ O ₂ <1000ppm; H ₂ O<1000ppm; N ₂ <200ppm						
Pure gas Gas type	Pure gas > 99.9999%						
	O ₂	H ₂ O	CO ₂	CO	N ₂	NMHC	granularity
Argon and other noble gases	$\leq 0.2\text{ppm}$	$\leq 0.5\text{ppm}$	$\leq 0.1\text{ppm}$	$\leq 0.1\text{ppm}$	$\leq 0.2\text{ppm}$	$\leq 0.1\text{ppm}$	$\leq 0.3\mu\text{m}$
Working pressure	$\leq 1.0\text{Mpa}$						
Maximum gas pressure difference	$\leq 0.1\text{Mpa}$						
Built-in particle filter	Built-in 0.3um high efficiency filter, number of particle with outlet particle size 0.3um <3-5 /L						
Rated gas flow rate	$\leq 4\text{NM}^3/\text{h}$						
Flow Rate Of Regenerating Argon	500-800ml/min						
Work Temperature Of Catalytic Tower	500-750°C						
Work Temperature Of The Absorber	Ambient Operating Temperature						
Regenerating Temperature Of The Absorber	$400 \pm 20^\circ\text{C}$						
Voltage/Frequency	AC110/220V $\pm 10\%$, 50/60Hz						
Maximum power consumption	1.8KW						
Power consumption at build-up	1KW						
Power consumption in operating mode	0.03kW						
Gas inlet/outlet connector	VCR connector						
Equipment external dimensions	About 360mm \times 560mm \times 1000mm						
Package Size	About 420mm \times 680mm \times 1150mm						
Weight	98KG						
Remarks	A: representing gas type; processing capacity is designed according to user requirements						

EA3000NQ Argon gas purifier

Introduction

EA3000NQ is the fully-automatic touchscreen Argon gas purifier specifically designed for OES (direct-reading spectrometer) to determine nitrogen (N) element and is aimed at removing the nitrogen in the argon so as to ensure the data stability during analysis of nitrogen element by direct-reading spectrometer in the nitrogen channel. Based on the further innovation and upgrading of manual and semi-automatic Argon gas purifiers, it realizes the perfect combination of advanced technology, exquisite design and powerful functions. With flow rate up to 4NM³/h, EA3000NQ can provide the best integrated independent argon purification solution for high-performance OES and other laboratory applications with high requirements for performance and stability.

EA3000NQ adopts the combination of tertiary purification by low temperature catalytic action, normal temperature adsorption and nitrogen removal through high-temperature suction and has the advantages of long service life, high purification depth and strong resistance to instantaneous fluctuation of feed gas.

Features

- It has high catalyst activity and low working temperature, and the high purity argon can be obtained by purifying the bottled pure argon with this machine, which can reduce the cost for users.
- With dual structure, one unit works while the other unit is standby for regeneration, so that it can realize long-term continuous gas supply.
- It adopts the regeneration process of pure gas purge of the machine, and does not use hydrogen for regeneration, so it does not need special machine room, with good safety.
- It adopts LCD touch screen, and the pressure and temperature can be detected online on touch screen through sensor. The work and regeneration cycle of the system can be adjusted according to the actual usage amount of users, which is beneficial to save gas source.
- It adopts automatic switching function for work and regeneration and doesn't need manual operation, and the performance is more stable and reliable, thus avoiding the pollution caused by users' wrong operation to the system.
- With the principle of stage purification, the impurities such as O₂, H₂O and CO₂ in argon can be removed in advance before deep purification, which greatly extends the service life of the equipment.
- The equipment is internally provided with alarm system of overtemperature, overpressure and heating protection so as to ensure the safety and reliability of the equipment.



Application

- Purification of argon, used for arc/spark photoelectric emission spectrographic analysis.
- Purification of argon and other noble gases (helium (He), neon (Ne), krypton (Kr), xenon (Xe))
- Purification of argon and helium carrier gas, used for gas chromatography.
- Any other purposes requiring gas purity and reliability

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Equipment model	EA3000NQ						
Original gas requirements	Purity $\geq 99.99\%$ O ₂ <1000ppm; H ₂ O<1000ppm; N ₂ <200ppm						
Pure gas Gas type	Pure gas > 99.9999%						
	O ₂	H ₂ O	CO ₂	CO	N ₂	NMHC	granularity
Argon and other noble gases	≤ 0.2 ppm	≤ 0.5 ppm	≤ 0.1 ppm	≤ 0.1 ppm	≤ 0.2 ppm	≤ 0.1 ppm	≤ 0.3 um
Working pressure	≤ 1.0 Mpa						
Maximum gas pressure difference	≤ 0.1 Mpa						
Built-in particle filter	Built-in 0.3um high efficiency filter, number of particle with outlet particle size 0.3um <3-5 /L						
Rated gas flow rate	≤ 4 NM ³ /h						
Flow Rate Of Regenerating Argon	500-800ml/min						
Work Temperature Of Catalytic Tower	500-750°C						
Work Temperature Of The Absorber	Ambient Operating Temperature						
Regenerating Temperature Of The Absorber	400±20°C						
Voltage/Frequency	AC110/220V±10%, 50/60Hz						
Maximum power consumption	2.2KW						
Power consumption at build-up	1.8KW						
Power consumption in operating mode	0.06kW						
Gas inlet/outlet connector	VCR connector						
Equipment external dimensions	About 440mm×600mm×1150mm						
Package Size	About 500mm×720mm×1300mm						
Weight	120KG						
Remarks	A: representing gas type; processing capacity is designed according to user requirements						