



Argon Gas Purifier - (DG-IS-AGP): This is one of our flagship products: one of those products which a very few manufacturers' manufacture indigenously, and is mainly imported. We develop our product completely in-house.

The APG-6B Argon gas purifier is the latest in gas purification system. It is a microprocessor based unit for the purification of Argon gas in an Argon gas based spectrometer. It offers a compact system for delivery of purified gas directly to the point of use. The purifier contains reaction tube housed in a cabinet for immediate use. Just plug into the local AC power supply, connect the gas and purge the lines, turn on the power wait for 30 min and you are up and running.

It reduces the impurities to around 2 ppm, thus provides accurate and clear results with high sensitivity and stability in the excitation.

FEATURES

- ✓ Microprocessor based
- ✓ Fast warm-up time
- ✓ Easy to operate and service
- ✓ Digital display of the temperature
- ✓ Built-in attachment for moisture removal
- ✓ Quick-connect, self-sealing gas connections
- ✓ Total impurities reduced to a level of less than 2 ppm
- ✓ Automatic temperature control and protection system
- ✓ Immune to wide fluctuations in ambient temperature and electrical supply
- ✓ Fail-safe design – offers long-term, optimum performance and reliability

It consists of a furnace chamber, a microprocessor based temperature controller and indicator. The furnace temperature is continuously adjustable. The furnace chamber is ceramic fibre insulated to minimize the losses even at elevated temperatures. Digital display is provided for display of temperature of furnace and solid state SCR type temperature controller is used for temperature control in conjunction with temperature sensor inserted into the heating chamber.

The impure Argon gas is first passed through a moisture filter which absorbs moisture and then it goes to the main reaction tube where other impurities are removed. The moisture filter is provided with regeneration facility.

If the moisture filter is saturated, it may be regenerated by heating the filter contents at 140 °C after disconnecting the path of Argon gas to the main furnace.

During the normal operation the main reaction tube temperature is kept at 400 °C and the moisture filter furnace is in off position. The reaction tube is made of stainless steel duly filled with the reactant and both the ends made suitable for connecting 1/4" copper pipe to flow gas through it.

The user can refill the main reaction tube, and regenerate moisture filter when they become exhausted. The reaction tube can easily be removed from the purifier by simply undoing a couple of gas connections. The user will need to re-fill the reaction tube after about 12-18 months of use depending upon duty cycle. Refilling may be needed sooner if the gas is very impure. Normal grade-I argon gas is recommended.

Note: Mechanical dimensions and layout may change to incorporate latest design changes.

Ordering Information

Item:

Argon Gas Purifier (AGP 06B)

Category:

Import Substitute

Unique Code:

DG-IS-AGP

Accessories:

- Power Cable
- Operating Manual

Customization:

Any customisation request to be made at the time of placing the order

Order Placement:

- Via the Website
- Via E-mail
- Via Phone

SPECIFICATIONS

The unit is suitable for flow rates up to 6 litres per minute and inlet pressures up to 20 psi. The AGP-6B will remove the impurities and moisture (typically present in the range of 30-50vpm) in Argon gas, down to a concentration of less than 2 ppm. Easy to use self-sealing plug-in gas connections are provided to ensure the user cannot leave the purifier open to air contamination when the purifier is disconnected from its feed gas.

Main Furnace

Product Code	DG-IS-AGP
Category	Import Substitute
Heating Zone	450 mm
Reaction Tube	a. Material : Stainless Steel b. Inner Diameter : 31 mm c. Outer Diameter : 38 mm d. Length : 700 mm e. Coupling : Couplings at both ends for 1/4" copper tube
Flow rate	Up to 6 ltr/min
Inlet Pressure of Gas	20 psi (1.4 kg/cm ²)
Temperature Display	4.5 LED Display
Working Temperature	400 -430 °C (Recommended)
Controlling Accuracy	1 °C
Display Accuracy	0.5% of reading
Controller	Solid state SCR controller
Temperature Rise Rate	Better than 500 °C per hr
Power Supply	230V AC, 50 Hz single phase, 1 kW
Weight	15 kg
Usage Environment	0 to 55°C

Moisture Removal Attachment

Reaction Tube	a. Material	: Stainless Steel
	b. Inner Diameter	: 31 mm
	c. Outer Diameter	: 38 mm
	d. Length	: 325 mm
	e. Molecular Sieve	: Type 3Ax1.5 mm
	f. Coupling	: Couplings at both ends for 1/4" copper tube

Flow rate	Up to 6 ltr/min
Inlet Pressure of Gas	20 psi (1.4 kg/cm ²)
Temperature Display	4.5 LED Display
Working Temperature	140 °C
Controlling Accuracy	Better than 1 °C
Display Accuracy	0.5% of reading
Controller	Solid state SCR controller

Safety Devices:

- Miniature circuit breaker is provided for overload and short circuit protection.
- Broken sensor protection.

A K Goel
Managing Director
Digitech Roorkee
info@digirke.com
9897239204
Web: www.digirke.com