NEPS1000 ADVANTAGE
Nitrogen Purging System

The **NEPS1000 ADVANTAGE** is the latest development for improving the effective and efficient use of dry nitrogen, which purges electronic, optical, high voltage laser systems, and equipment requiring gas drying and inhibiting of oxygen.

AGM Container Controls, Inc. • 3526 E Fort Lowell Rd • Tucson AZ 85716
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Specialist Purging Technology

The Complete Purging System
The NEPS1000 ADVANTAGE is designed to maximize the dry gas purging process for humidity removal, with a host of capabilities and functionality for effective and efficient control during the purging operation.

Easy Operation
NEPS1000 ADVANTAGE is fully self-contained. Simply connect a dry gas source to the inlet connection and the equipment port. The NEPS1000 ADVANTAGE is ready to operate.

Economic Gas Use
One of the NEPS1000 ADVANTAGE benefits is its use of the purge gas used for purging. By using a single pipe connection the purge gas is controlled and dispersed throughout the instrument or system being purged. During the depressurization phase of purging the purge gas is isolated.

User-Friendly
The NEPS1000 ADVANTAGE has easy-to-use selectable programming, which can be set to view process control values and display dew point measurements in ºC or ºF with pressure in Kpa or psi. Highly visible liquid crystal displays provide constant information and readouts during operation and use.

Equipment Leak Testing
The NEPS1000 ADVANTAGE comes with a selection of three built-in leak testing capabilities to verify the sealing standard of the equipment to be purged. Pressure testing can be conducted in pressures of 10.3 Kpa (1.5 psi), 17.2 Kpa (2.5 psi), and 34.5 Kpa (5.0 psi). Pressure leak/rate display resolution is 0.01 psi.

Gas Quality Testing
The dryness of the gas is important to the effectiveness of the purging operation and the NEPS1000 ADVANTAGE dew point monitor can be used to check the dryness of the gas prior to commencing the purging operation.

Universal Voltage
The NEPS1000 ADVANTAGE can be operated globally. Voltages and frequencies range from 100 to 230 VAC at 50-60 Hz.

Single Connection Purging
Traditional conditioning with dry nitrogen, gas or air depends on the flow of gas from an entry connection to an outlet port. In this mode the gas will follow the simplest and easiest path to the outlet connection. This can often lead to “pockets” of unconditioned gas.

Using NEPS1000 ADVANTAGE the mode of operation changes to a more efficient single connection purging process, which also uses a choice of three selectable pressure cycles to ensure the dry gas influences all the space volume within equipment.

There are two states in the purge cycle. In state one, the unit under test (UUT) is connected to the supply gas until the selected psi is reached. In state two, the unit is connected to the exhaust line until zero psi is reached. The NEPS ADVANTAGE cycles between these two states until the selected dew point is achieved.

KEY FEATURES & BENEFITS

- Easy-to-Use Single Connection Purging
- Dew Point and Pressure Readout
- Remote Dew Point Sensing Option
- Portable and Robust
- User-Programmable
- Automatic Purging Operation
- Dewpointstat Gas Control
- Dew Point Display from +20ºC to -80ºC
- Maintainable Online
- NATO Approved

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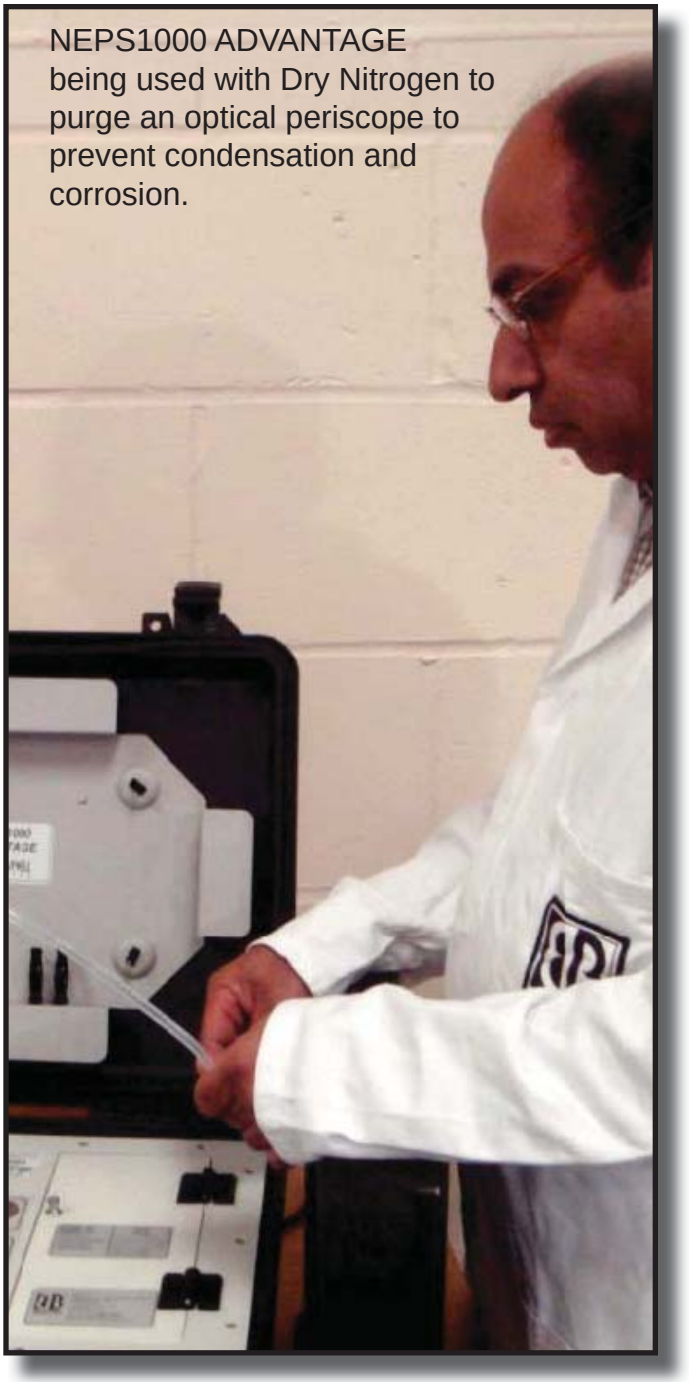
AGM CONTAINER CONTROLS, INC. OFFERS A COMPREHENSIVE RANGE OF PURGING INSTRUMENTS FOR MOISTURE REMOVAL IN EQUIPMENT AND SYSTEMS TO PREVENT CONDENSATION AND HUMIDITY DAMAGE

NEPS1000 ADVANTAGE APPLICATIONS

- Optical Instruments
- LASER Systems
- SF6 Switch Gear
- Printed Circuit Board Conditioning
- Double Glazing Cavities
- Electronic Housings
- Workstations
- Storage Containers
- Surveillance Instruments
- Underwater Equipment
- Thermal Imaging
- Image Intensifiers



NEPS1000 ADVANTAGE being used with Dry Nitrogen to purge an optical periscope to prevent condensation and corrosion.

What is Dew Point?

The temperature to which air or gas must be cooled for the formation of condensation or frost.

This means dew point is ideal for stating the quality control requirement for purging an instrument or enclosure.

Why Purge?

Modern systems that use printed circuit boards, wires, electronic components, rubbers and plastics in their construction will have potentially significant amounts of moisture. The amount of hygroscopic moisture can be significant in comparison to the moisture (water vapor) contained within the air.

The Use of Nitrogen

Nitrogen is a stable and safe gas which fails to support combustion and has little or no reactive capability with other elements when compared to oxygen. Nitrogen gas is widely used for nitrogen blanketing to prevent moisture adsorption and product deterioration.

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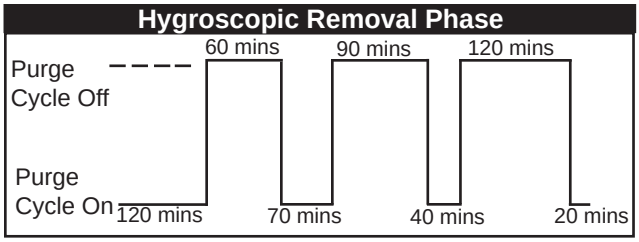
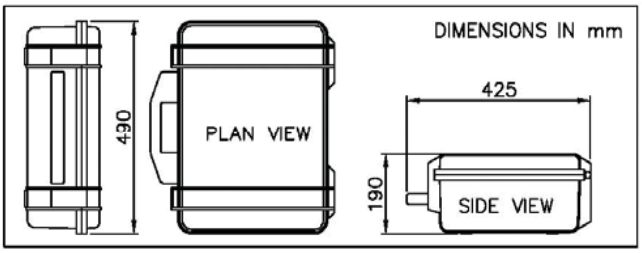
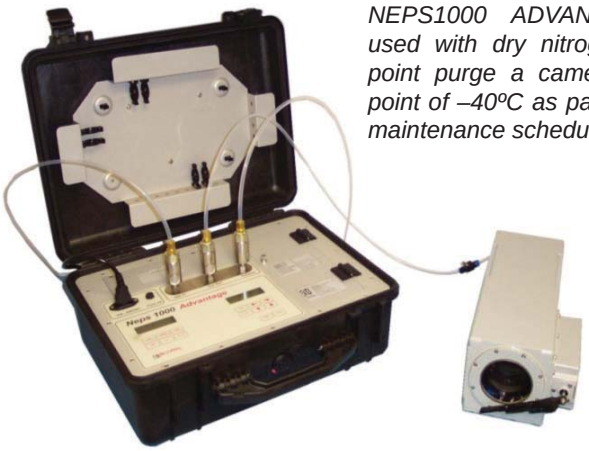
NEPS1000 ADVANTAGE DEWPOINTSTAT

The Dewpointstat feature of NEPS1000 ADVANTAGE enables users to determine the amount of moisture contained within equipment and to implement an optimized gas and purging procedure for production control.

Using the remote dew point sensor option the NEPS1000 ADVANTAGE monitors the progress of the dew point dryness within the equipment being purged. It then switches off and isolates the dry gas when the selected dew point is achieved. (See graph on right.)







NEPS1000 ADVANTAGE being used with dry nitrogen to single point purge a camera to a dew point of –40ºC as part of a routine maintenance schedule.

TECHNICAL SPECIFICATIONS

Usable Gases	Air, Nitrogen, SF6, Helium, Argon	Power	100-230 volt 50 hz - 60 hz
Selectable Pressure Ranges	10.3 Kpa (1.5 psi)	Power Consumption	3 amps
	17.2 Kpa (2.5 psi)	Dimensions (mm)	490W x 425D x 190H (closed)
	34.4 Kpa (5.0 psi)	Weight	10 kg (23 lbs)
Display Range Pressure	0 to 34.4 Kpa (0-5.0 psi)	Ingress Protection	IP54 (closed case)
Display Range Dew Point	(Selectable)	Operating Temp	-10ºC to +50ºC (14ºF to 122ºF)
	+20ºC to –80ºC dew point	Storage Temp	-50ºC to + 65ºC (-58ºF to 149ºF)
	+68ºF to –94ºF dew point	Proof Pressure	input 137 Kpa (20 PSI)
Resolution	0.1ºC dew point	Flow Rate (typical)	20 liters per minute (0.71 CFM)
Accuracy	± 2ºC dew point	Optional Extras	See NEPS Accessories
Data Output Pressure	0 - 5 Volts	**Nato Stock NSN**	**4440-99-551-4115**
Data Output Dew Point	0 - 5 Volts	**Order Code**	**N240-AGM**

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