



PRELIMINARY PRODUCT ANNOUNCEMENT
NGI Cooler

DESCRIPTION

The new Copley NGI Cooler, available from MSP in North America, is a practical, easy to use system that improves the accuracy and reproducibility of inhaler product testing for solution-based devices such as nebulizers.

New pharmacopoeia monographs for nebulizer testing recommend using the Next Generation Impactor (NGI) for droplet size analysis. They also highlight the issue of evaporative loss, which may result in artificially low particle size measurements. The new system's rapid cooling action and ability to maintain stable temperatures throughout the test help avoid this problem.



Cascade impaction measures aerodynamic particle or droplet size, a key parameter for all inhaled products that ensures product consistency and broadly indicates deposition behavior within the respiratory system. For devices such as nebulizers, which deliver the active ingredient as an aerosolized solution, evaporation during testing, caused by impactor related heat transfer, is an issue. Loss of solvent reduces droplet size, producing artificially low particle size measurements and compromising accurate characterization of the device. Cooling the impactor to approximately 5 °C is one of the most common ways around this problem.

The NGI cooler comfortably accommodates the NGI, either closed or open, allowing testing in a temperature controlled environment. Rapid cooling ensures that test temperatures, user adjustable to as low as 3 °C, are reached in less than 5 minutes; temperature stability is to within +/-1.5 °C. Large front and rear opening doors allow for easy access, with special access ports for the externally mounted device and pump tubing.

SPECIFICATIONS

- Digital control of chamber temperature to between 3°C and ambient (typically 5°C to 8°C)
- Chamber designed to comfortably accommodate NGI in open or closed position
- Temperature stability $\pm 1.5^\circ\text{C}$
- Maximum ambient conditions to achieve maximum cooling = 32°C
- Time to reach minimum temperature from ambient ≤ 5 minutes
- Front and rear loading hinged door for easy access to chamber
- Dimensions: 1000 mm (w) x 500 mm (D) x 575 mm
- Hinged flap in front and rear doors for tubing access to chamber
- Side access port to allow external nebulizer connection to induction port
- Quiet operation
- Built-in strip light for high visibility inside chamber
- Automatic defrost allows continuous operation with no loss of chamber temperature
- Laboratory bench mounted (free-standing)
- Double glazed panels ensure high energy efficiency (max power consumption = 600W)

MSP Corporation

5910 Rice Creek Parkway, Suite 300
Shoreview, Minnesota 55126, U.S.A.
Phone: 651.287.8100; Fax: 651.287.8140
sales@mspcorp.com; www.mspcorp.com

Copyright© MSP Corporation (PPA-NGI COOLER Rev. A). The MSP logo is a registered trademark of MSP Corporation. All rights reserved.