

**ISO-Gard™ Mask
with ClearAir™ Technology**

Reduce the Invisible Risk





THE MOST CRITICAL AREA IN THE PACU

The breathing zone, directly in front of the patient's mouth, is where waste anesthetic gases (WAG) may linger as they're exhaled from the patient. This becomes the primary source point for clinician exposure to WAG as they provide bedside care to patients.¹



VISUALIZING WAG WITH INFRARED IMAGING

Thanks to advances in infrared thermographic imaging technology, it's now possible to see WAG. Tuning the equipment to visualize N₂O emissions yields images of patients exhaling WAG.²



PREVENTION IS THE BEST MEDICINE

OSHA recommends that a responsible approach to worker health and safety dictates that any exposure to WAGs and anesthetic agents, even at trace levels, should be kept to the lowest practical level.¹

BUT HOW CAN PACU MANAGERS ACHIEVE THIS?

LEARN THE FACTS:

PACU nurses are exposed to Waste Anesthetic Gas (WAG) in the PACU while caring for their patients.⁴

OSHA warns that WAG can produce hazardous health effects such as fatigue, nausea and dizziness.³

The National Institute for Occupational Safety and Health (NIOSH) recommends reducing WAG to protect healthcare practitioners.⁴

The ambient air in the PACU may contain multiple anesthetic gases, which can include nitrous oxide, halothane, enflurane, isoflurane, desflurane and sevoflurane.³

NIOSH recommends monitoring WAG in the breathing zones of the most heavily exposed workers while they perform standard procedures.¹

NIOSH recommendations for WAG exposure limits:

- 2 parts per million of ceiling concentration for halogenated gases
- 25 parts per million of time weighted average for nitrous oxide¹



An Invisible Risk Exists in the PACU

An Invisible Risk exists in the Post-Anesthesia Care Unit (PACU). Patients are exhaling waste anesthetic gas (WAG) into the breathing zone of their attending nurses, and although it cannot be detected by sight or odor, PACU clinicians can take action to protect themselves from the potential health effects.¹

While there are sophisticated scavenging systems in the OR, those systems do not currently exist in the PACU, and measurements of WAG may not account for the clinicians' breathing zones as they provide bedside care. Since the patients' exhalation is the primary source point of WAG, it can be difficult for PACU managers to limit their clinicians' exposure—that is, without a little help.¹

Introducing the ISO-Gard™ Mask with ClearAir™ Technology

A revolutionary product with a simple purpose, the ISO-Gard Mask with ClearAir Technology assists in protecting clinicians by helping to reduce the hazardous waste anesthetic gas (WAG) in the PACU environment.

PACU managers and nurses can rest easier knowing this simple, safe and effective device is simultaneously scavenging WAG and delivering oxygen to their patients.

The ISO-Gard Mask with ClearAir Technology

- Reduces hazardous WAG within breathing zone of caregiver
- Minimizes the cumulative effect of low-level exposure of WAG to caregiver
- Provides unidirectional flow of oxygen through mask to ensure maximum FIO₂

Additional Key Features

- CO₂ monitoring port for sampling expired gas
- Fits into existing PACU workflow
- Delivers up to 10 LPM of oxygen flow



To learn more or request a sample kit, scan this code with your mobile device or visit

[ISO-GardMask.com](https://www.iso-gardmask.com)

The Solution
The ISO-Gard™ Mask with ClearAir™ Technology

ClearAir O₂ DELIVERY

Source point for oxygen delivery to the patient.

MASK MANIFOLD

Patent-pending technology allows for unidirectional gas flow through mask for effective oxygen delivery while simultaneously scavenging patient exhalation.



CO₂ MONITORING PORT WITH TETHERED CAP

Allows sampling of expired gas.

EXPANDABLE SUCTION TUBE

Extends to provide easy reach to the vacuum source.





ONE-WAY INHALATION VALVES

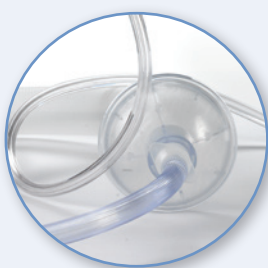
Prevents WAG escape while allowing for low work-of-breathing entrainment of room air to supplement incoming oxygen flow as needed.



ClearAir WAG SUCTION

Provides for the evacuation of scavenged gas and ensures effective disposal of WAG.

Suction should be set between 30-50 mm Hg when suction tubing is in use.

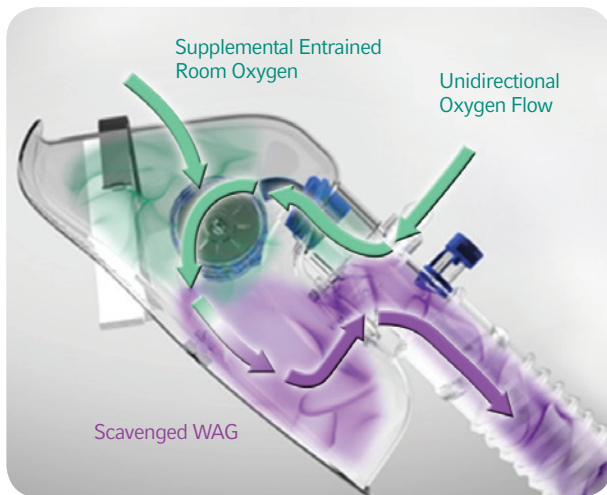


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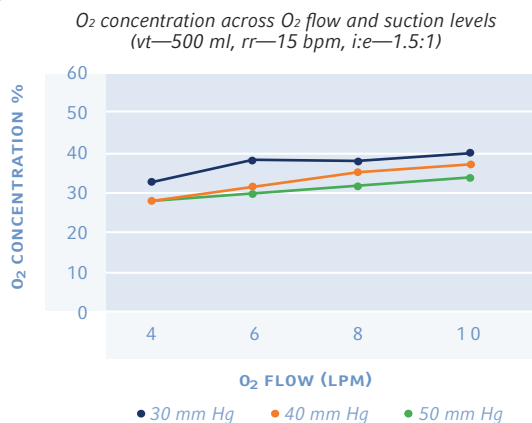
Optional filter for suction line helps to control contamination of the hospital vacuum system.

An In-Depth Look at the ISO-Gard™ Mask with ClearAir™ Technology

As the only available solution for “source control” of WAG, the ISO-Gard Mask with ClearAir Technology is a combination scavenging and oxygen delivery mask with a CO₂ monitoring port. It’s placed on the patient like other oxygen masks, but unlike standard masks, it employs a special, patent-pending Oxygen/Gas-Scavenging manifold to help reduce WAG in the clinician’s breathing zone.



The design of the ISO-Gard™ Mask with ClearAir™ Technology creates a unidirectional flow of fresh oxygen to the patient’s nasal/oral area for inhalation. At the same time, negative pressure or suction is applied to the port in the lower portion of the mask to scavenge the patient’s exhalation. In order to maximize patient comfort, a tight mask seal to the face is not required.



Testing has demonstrated a suction level of 30-50 mm Hg will effectively scavenge WAG and deliver desired FIO₂.⁵

Our Commitment

Teleflex is committed to providing solutions that enable healthcare providers to enhance patient and provider safety

The ISO-Gard family of products features simple, effective respiratory solutions that help clinicians control contaminants and guard against patient/caregiver exposure.

The ClearAir Promise

ClearAir Technology provides clinicians source control for contaminants, such as WAG, helping hospitals comply with OSHA and NIOSH recommendations for workplace safety and giving clinicians peace of mind as they deliver bedside care to their patients.

PRODUCT INFORMATION

REF	MASK	SUCTION TUBE	OXYGEN TUBE	FILTER	WYE	CLAMPS (2)
8011	X	X	X			
8012	X	X	X	X		
8013	X	X	X		X	X
8014	X	X	X	X	X	X

REFERENCES:

- 1 Occupational Safety & Health Administration, U.S. Department of Labor. (Revised 18 May 2000). *Anesthetic Gases: Guidelines for Workplace Exposures*. Retrieved from: <http://www.osha.gov/dts/osta/anestheticgases/>.
- 2 Rademaker, April M., MS, McGlothlin, James D., MPH, PhD, Moenning, John E., DDS, MSD, Bagnoli, Michael, DDS, MD, Carlson, Gary, PhD, Griffin, Carl, MD. Evaluation of Two Nitrous Oxide Scavenging Systems Using Infrared Thermography to Visualize and Control Emissions. *JADA* February 2009, 140:190-9.
- 3 Occupational Safety & Health Administration, U.S. Department of Labor. 19 May 2008. *Waste Anesthetic Gases*. Retrieved from <http://www.osha.gov/SLTC/wasteanestheticgases/index.html>.
- 4 National Institute for Occupational Safety and Health, Center for Disease Control. Sept 2007. *Waste Anesthetic Gases—Occupational Hazards in Hospitals*. Retrieved from <http://www.cdc.gov/niosh/docs/2007-151/>.
- 5 Data on file with Teleflex Incorporated.

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Teleflex is a global provider of medical products designed to enable healthcare providers to protect against infections and improve patient and provider safety. The company specializes in products and services for vascular access, respiratory, general and regional anesthesia, cardiac care, urology and surgery. Teleflex also provides specialty products for device manufacturers.

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