



**OPTI-FIT™ APR FACEPEICE**  
**Full Facepiece Air Purifying Respirator (APR)**  
**Product Specification Sheet**

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**I. Purpose**

To establish a minimum performance requirement for a full facepiece air purifying respirator (APR).

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**II. Type**

Full facepiece APR with side-mounted filters or canisters that includes integrated particulate filters, gas purification cartridges, or combination of the two. This type of respirator consists of a facepiece, onto which are fitted various disposable chemical cartridges or filters (depending on the type of contaminants that are present).

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**III. Approvals**

- A. The device shall be certified by the National Institute for Occupational Safety and Health (NIOSH). Filter cartridges shall, at minimum, be P100 type filters certified by NIOSH under 42 CFR Part 84.
- B. The facepiece shall be approved for use with Multi-Gas / Vapor/ P100 filter cartridges.

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**IV. General Features**

- A. The facepiece shall be constructed of durable materials.
- B. The facepiece shall have field-replaceable components throughout.
- C. The facepiece skirt contacting the face of the user shall be made from black silicone rubber providing both comfort and durability.

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**V. Cartridge Mounting**

- A. The facepiece shall have the ability to mount two filters, cartridges, or combinations on the sides of the facepiece.
- B. The cartridge / filter interface to the mask shall be of either a threaded type, or alternately of a bayonet type connection.

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**VI. Lens**

- A. The facepiece shall contain a replaceable, non-shatter-type, polycarbonate, lens located to provide a satisfactory field of vision.
- B. The lens shall be coated on the outside and inside surfaces to help prevent abrasion.
- C. The lens shall be secured in the facepiece by a durable plastic retainer.

- D. The lens shall be designed for application of an anti-fog compound.
- E. The lens shall be optically correct Anti-Scratch ANSI Z87.1-2003 polycarbonate lens to provide distortion free visibility, optical clarity and high impact resistance with:
- Field of view per EN136 standard, single lens = overlap 96% min., effective 87% min.
  - Visual Field Score (VFS) = 105 or higher (95% of full score of 110)
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## **VII. Nose Cup**

- A. The facepiece shall have a removable nose cup. The nose cup shall be able to be removed and re-installed without the need for any special tools. The nose cup shall be available in three sizes (small, medium, large), and shall be interchangeable.
- B. The design shall allow air to enter the facepiece in a manner that will reduce the possibility of moisture accumulation on the lens.
- C. The nose cup shall contain an easily removable exhalation valve designed for easy cleaning.
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## **VIII. Straps**

- A. The facepiece shall employ an adjustable 5-strap headband assembly held in place by buckles designed to prevent inadvertent loosening.
- B. All straps shall be attached to the rim of the facepiece, rather than the Silicone skirt, to reduce distortion of the sealing surface when tightened.
- C. Head strap buckles shall be operable with a single hand (tightening and loosening).
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## **IX. Sizes**

- A. The facepiece shall have an in turned lip seal that provides a seal for a wide range of facial contours
- B. The facepiece shall be available in three sizes: small, medium, and large.
- C. The nose cups shall be available in three different sizes as an alternate accessory kit.
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## **X. Audio Transmission**

- A. The facepiece shall provide exceptional audio transmission without a speaking diaphragm.
- B. The facepiece shall provide exceptional audio transmission without an electronically amplified audio device.
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## **XI. Corrective Lenses Accessory**

- A. The mask shall have provision for mounting corrective lenses inside the facepiece.
- B. The corrective lens kit shall not require tools for installation.
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## **XII. Fit Test Adapter Accessory**

- A. A Fit Test Adapter shall be available for use with the mask to allow users to perform quantitative fit tests when used with a TSI PortaCount.
- B. The fit test adapter shall not require tools for installation and when removed, allow use of the mask without further alteration.