Technical Datasheet

3M™ Aura™ 9300+ Series Particulate Respirators

Description

The 3M™ Aura™ 9300+ Series Particulate Respirators provide effective respiratory protection for use in industries where workers will be exposed to dust particles and/or non-volatile liquid particles.

- Tested and CE Approved to EN 149:2001+A1:2009
- Foldable, easy to store, proprietary 3-panel design accommodates facial movement for wearer comfort
- 3M™ Low Breathing Resistance Filter Technology gives effective filtration with low breathing resistance for consistent high quality performance
- Sculpted nose panel conforms to the nose and contours of the face and helps improve compatibility with 3M eyewear
- Innovative chin tab designed for ease of donning and adjustment to help achieve a comfortable fit
- 3M™ Cool Flow™ exhalation valve offers improved comfort in hot humid environments and/or where work is hard and physical*
- Large, soft nose foam is comfortable on the skin
- Individual hygienic packaging protects the respirator from contamination before use
- Even strap pressure improves comfort on the neck, face and head with a secure feel
- Coloured headbands for easy identification: yellow for FFP1, blue for FFP2 and red for FFP3

Materials

The following materials are used in the production of the 3M™ Aura™ 9300+ Series Particulate Respirators:

• Straps	Polyisoprene
• Staples	Steel
• Nose Foam	Polyurethane
• Nose Clip	Aluminium
• Filter	Polypropylene
• Valve*	Polypropylene
• Valve diaphragm*	Polyisoprene

These products do not contain components made from natural rubber latex.

Maximum mass of products:

- Unvalved (9310+ & 9320+) = 10g
- Valved (9312+, 9322+ & 9332+) = 15g

Standards

These products meet the requirements of recently amended European Standard EN 149:2001 + A1:2009, filtering facepiece respirators for use against particles. They should be used to protect the wearer from solid and non-volatile liquid particles only.

Products are classified by filtering efficiency and maximum total inward leakage performance (FFP1, FFP2 and FFP3), also by usability and clogging resistance.

Performance tests in this standard include filter penetration; extended exposure (loading) test; flammability; breathing resistance and total inward leakage. Reusable products are also subjected to cleaning, storage and mandatory clogging resistance tests (clogging is optional for non reusable products). A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

Designations:
R = Reusable
NR = Non reusable (single shift use only)
D = Meets the clogging resistance requirements

Approvals

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and are thus CE marked.

Certification under Article 10, EC Type-Examination and Article 11, EC quality control, has been issued for these products by BSI Product Services, Maylands Avenue, Hemel Hempstead, HP2 4SQ, UK (Notified Body number 0086).

Applications

These respirators are suitable for use in concentrations of solid and non-volatile liquid particles up to the following limits:

Model	EN 149+A1 Classification	Exhalation Valve	Threshold Limit Value, TLV
9310+	FFP1 NR D	Unvalved	4
9312+	FFP1 NR D	Valved	4
9320+	FFP2 NR D	Unvalved	12
9322+	FFP2 NR D	Valved	12
9330+	FFP3 NR D	Unvalved	50
9332+	FFP3 NR D	Valved	50

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to hazards.

* 9312+, 9322+ and 9332+ models only

Selection Guide

		FFP1	FFP2	FFP3	Organic Vapour	Acid Gas	Welding
Painting, Varnishing, Spraying, Coating, Mixing	Solvent-Based - brush / roller applied			•	•		
	Solvent-Based - spray applied		Ask 3M				
	Water-Based - brush / roller / spray applied			•	•		
	Wood Preservatives			•	•		
	Powder Coating			•			
Sanding, Stripping, Grinding, Cutting, Drilling	Rust, most Metals, Filler, Concrete, Stone	•					
	Cement, Wood, Steel,		•				
	Paints, Varnish, Anti-rust coating		•				
	Stainless Steel, Anti-fouling varnish			•			
	Resins, Reinforced plastics (carbon / glass fibre)		•	•			
Construction / Maintenance	Scabbling, Shot-creting (concrete dust)	•	•	•			
	Plastering, Rendering, Cement mixing	•	•	•			
	Demolition	•	•				•
	Groundwork, Earth moving, Piling, Underpinning		•	•			
	Spray foam, Loft Insulation		•	•			
Metal working / Foundries	Welding, Soldering		•	•			•
	Electro-plating		•	•		•	
	Finishing, Slotting, Drilling, Riveting, Machining		•	•			
	Oxyacetylene cutting		•	•			
	Molten metal handling, Smelting		•	•		•	
Cleaning / Waste Removal	Disinfection, Cleaning		•	•	•	•	
	Waste removal		•	•	•		
	Asbestos handling			•			
	Asbestos removal		Ask 3M				
Allergens / Biohazards	Pollen, Animal dander	•					
	Mould / Fungus, Bacteria**, Viruses		•	•			
	**Tuberculosis			•			
	Diesel exhaust / Smoke		•				
Agriculture / Forestry	Handling infected animals, Culling		•	•	•		
	Feeding livestock, Cleaning sheds / harvesters	•	•	•			
	Straw chopping, Composting, Harvesting		•	•			
	Pesticides, Insecticides (crop spraying)		•	•	•		
Mining / Quarrying	Tunnelling, Drilling, Grinding, Excavation		•	•			
	Pumping, Dredging, Washing		•	•			
	Cutting, Sawing		•	•			
	Changing Filters		•	•			
Other Industrial Applications	Inks, Dyes, Solvents, Chemicals		•	•	•		
	Powdered Additives / Chemicals		•	•	•		
	Pharmaceuticals		•	•	•		
	Rubber / Plastics processing		•	•	•		
	Oil and Gas Extraction / Processing		•	•	•	•	•
	Pottery, Ceramics			•			
	Wood / Paper Mills		•	•			

This selection guide is only an outline designed to focus on products which may be appropriate for typical applications - it should not be used as the only means of selecting a product. Selection of the most appropriate personal protective equipment (PPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the assessed risks, actual working conditions and limitations of PPE. Details regarding performance and limitations are set out on the product packaging and user information. If in doubt, contact a safety professional or 3M.

For respiratory training and advice please contact your local 3M representative.

Storage and Transportation

The 3M™ Aura™ 9300+ Series Particulate Respirators have a shelf life of 5 years. End of shelf life is marked on the product packaging. Before initial use, always check that the product is within the stated shelf life (use by date). Product should be stored in clean, dry conditions within the temperature range: – 20°C to + 25°C with a maximum relative humidity of <80%. When storing or transporting this product use original packaging provided.

Disposal

Contaminated products should be disposed as hazardous waste in accordance with national regulations.

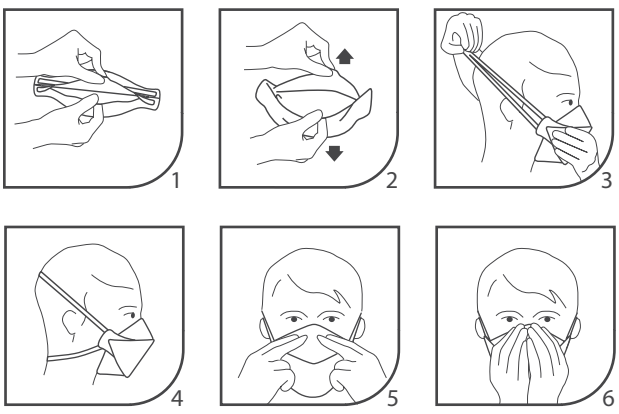
Fitting Instructions

See Figure 1.

Before fitting device, ensure hands are clean.

1. With reverse side up and using the tab, separate top and bottom panels to form a cup shape. Bend slightly at centre of the noseclip.
2. Ensure both panels are fully unfolded.
3. Cup respirator in one hand with open side towards face. Take both straps in other hand. Hold respirator under chin, with nosepiece up, and pull straps over head.
4. Locate the upper strap across the crown of the head and the lower strap below the ears. Straps must not be twisted. Adjust top and bottom panels for a comfortable fit, ensuring panels and chin tab are not folded in.
5. Using both hands, mould noseclip to the shape of the lower part of the nose to ensure a close fit and good seal. Pinching the noseclip using only one hand may result in less effective respirator performance.
6. The seal of the respirator on the face should be fit-checked before entering the workplace.

Figure 1



Fit Check

1. Cover the front of the respirator with both hands being careful not to disturb the fit of the respirator.
2. (a) UNVALVED respirator - EXHALE sharply;
   (b) VALVED respirator - INHALE sharply.
3. If air leaks around the nose, re-adjust the noseclip to eliminate leakage. Repeat the above fit check.
4. If air leaks at the respirator edges, work the straps back along the sides of the head to eliminate leakage. Repeat the above fit check.

If you CANNOT achieve a proper fit DO NOT enter the hazardous area. See your supervisor.

Users should be fit tested in accordance with national requirements.

For information regarding fit testing procedures, please contact 3M.

Product Range

9310+ respirator

9312+ respirator

9320+ respirator

9322+ respirator

9330+ respirator

9332+ respirator

⚠ Warnings and Use Limitations

- Always be sure that the complete product is:
  - Suitable for the application;
  - Fitted correctly;
  - Worn during all periods of exposure;
  - Replaced when necessary.
- Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants.
- Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness or permanent disability.
- For suitability and proper use follow local regulations, refer to all information supplied or contact a safety professional/3M representative.
- Before use, the wearer must be trained in use of the complete product in accordance with applicable Health and Safety standards/guidance.
- These products do not contain components made from natural rubber latex.
- These products do not protect against gases/vapours.
- Do not use in atmospheres containing less than 19.5% oxygen. (3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).
- Do not use for respiratory protection against atmospheric contaminants/concentrations which are unknown or immediately dangerous to life and health (IDLH).
- **Do not use with beards or other facial hair that may inhibit contact between the face and the product thus preventing a good seal.**
- Leave the contaminated area immediately if:
  a) Breathing becomes difficult.
  b) Dizziness or other distress occurs.
- Discard and replace the respirator if it becomes damaged, breathing resistance becomes excessive or at the end of the shift.
- Never alter, modify or repair this device.
- In case of intended use in explosive atmospheres, contact 3M.

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