

Powered Air Purifying & Supplied Air Respirators

Industrial welding protection designed to help keep operators comfortable, productive and compliant

OSHA Hierarchy of Controls & Personal Protective Equipment

Miller is your single source solution to help you achieve weld fume compliance, with products that fulfill each tier of OSHA's Hierarchy of Controls.

When determining an action plan, start at the top and work your way down OSHA's Hierarchy of Controls – selecting the controls that are the most feasible, effective, and permanent for your workplace. It may be necessary to implement multiple solutions to achieve the desired results.

When all other options are not feasible, while they are being implemented, or when they are not able to reduce employee exposure below permissible levels, respiratory protection should be implemented.

Designed specifically for welding applications, Miller powered air purifying and supplied air respirators are designed for industrial environments – keeping operators comfortable, productive and compliant.

Process Modification / Substitution

Engineering Controls

Work Practice Controls

Personal Protective Equipment





OSHA Respiratory Protection Standard

Operators will experience the full benefits of wearing a respirator when the proper respirator is selected for the application, the respirator fits and is used correctly, and guidelines are followed.

OSHA Standard 29 CFR 1910.134 outlines rules and information regarding:

Six Steps to Setting Up Your Respiratory Program

Exposure Assessment



Respirator Selection



Fit Testing



Written Program



Medical Evaluation



Training & Maintenance

Respirator Selection

Factors to Consider When Selecting a Powered Air Purifying or Supplied Air Respirator

Powered Air Purifying or Supplied Air Respirator	PAPR	SAR
Vortex Climate Control Options		Х
Restricted Mobility Due to Air Supply Hose		Х
Operating Costs: Cartridge Replacement Expenses	X	
Need to Test for Adequate Atmospheric Oxygen*	X	Х
Battery Life Limitation	X	
Cartridges/Filters Not Available for Some Contaminants	Х	
Positive Pressure Protection	X	Х
Battery Management	Х	

Other Key Considerations:

- · Specific job
- · Materials being used
- Environment where job is performed
- Cost
- · Operator comfort & acceptance
- Training

Need help assessing your environment?

Contact us at weldingsafety@millerwelds.com and we can help connect you with an Industrial Hygienist.

* OSHA 1910.146 App B MillerWelds.com | 3

T94-R™ Series Helmets

T94-R[™] industrial welding helmets are designed for optimal comfort and visibility so the operator keeps their system on throughout long work days, increasing arc-on time and helping maintain compliance.

Dualtec™ Manifold System

Patent-pending technology optimizes airflow for high-performance output and maximum cooling effect throughout the entire helmet assembly.

Low-Profile Breathing Tube

Tube is positioned at the bottom of the neck instead of the top of the head, like many traditional systems, providing 34 percent better balance*. Operators experience 55 percent less neck torque*, reducing strain and fatigue. Tube stays flat against back for easy, unrestricted movement.



Inside View



34% Better balance*



55% Less neck torque*

Six-Point Air Distribution

Unlike some systems that connect at the top or side of the head, the Miller® Dualtec™manifold evenly distributes air throughout the helmet. Operators can target the airflow for customized cooling and reduce dry eyes and nose with adjustable air vents and dual air speeds.



Side Profile View



Motor Blower Assembly

- · Lightweight blower reduces fatigue and keeps operators comfortable all day
- Lithium-ion batteries run for up to 8 hours eliminating the need to frequently switch out or recharge; Rated for 500 cycles or charges/per battery (2 batteries included)
- Air volume can be adjusted for maximum user comfort with dual air speeds
- Audible & vibrating alarms notify users of low battery or restricted airflow even in noisy environments

Load-Bearing Shoulder Straps

- Distributes system weight to reduce lower back strain
- · Quick-release belt for easy, one-handed on & off



Optional Nuisance OV Pre-Filter

- Provides nuisance level relief from organic vapors*
- · Extends life of main HEPA filter
- Part #268841



For detailed care and use of your PAPR visit https://www.youtube.com/watch?v=INTs-TItJBM

*Miller nuisance level OV relief respirators are designed for use with organic vapor concentrations not exceeding OSHA's PELs or other applicable government occupational exposure limits, whichever is lower.

Supplied Air Respirator

Industrial welding protection has never been more comfortable – keeping operators protected and performing at their best. Miller supplied air respiratory system with the T94i-R $^{\text{TM}}$ welding helmet keeps operators cool while providing Grade D breathing air.

NIOSH 42 CFR 84 Certified
APF = 25
ANSI Z87.1+2015 (Helmet)
ANSI/Compressed Gas Association (CGA) G-7-1-1989) – Grade D Breathable Air
OSHA Classification: Loose-fitting respirator.

Fit testing not required.



C50 Air Regulator

Operators stay comfortable all day with air as cool as 50 degrees Fahrenheit entering the hood* – alleviating heat stress and fatigue. Air regulator can be positioned horizontally or vertically to align with the operator's body in varied positions.

Swivel Connection

360 degree swivel air hose connection alleviates coiling so operators can continue working without needing to frequently stop and adjust the hose.





Air Hoses

Available in straight and coiled options to best fit your application and environment. Comes with Industrial Interchange and Schrader fitting.



For detailed care and use of your SAR visit

https://www.youtube.com/watch?v=5UcbWDApS0E















BreatheAir™ Filtration Systems

The BreatheAir Filtration System provides Grade D air to the operator's breathing zone and monitors for CO during use to help ensure compliance and worker safety.

Filter Change Indicators

Operators are clearly notified when filters need to be changed, eliminating guesswork and amplifying unit performance.

- Simple filter change process is fast, minimizing downtime
- · Automatic condensation drain extends filter life
- Continuous monitoring of carbon monoxide (CO) levels in the breathing air

External Warning Lights and Alarms

Operators are quickly notified of heightened CO levels, reducing user reaction time.

Portable & Stationary Configurations

Depending on your environment and needs, select from a portable or stationary system. Both have the options to support up to two or four operators, with CO monitors set to either 10 PPM (USA) or 5 PPM (Canada).

Three-Stage Filtration Process

1st Stage Filter - Particulate/Bulk Liquid Separation Filter: Removes up to 95 percent of liquids and particulate down to 5.0 microns.

2nd Stage Filter - Oil Coalescing & Ultra Fine Particulate Filter: Removes up to 99.97 percent of fine oil mists and particulate down to .01 microns in size.

3rd Stage Filter - Activated Charcoal Filter: Removes organic vapors, odors and tastes.



For step-by-step instruction on how to change BreatheAir™ filters visit:

https://youtu.be/Ythm-S5IjCg

Ordering Information

Powered Air Purifying Respirators





Supplied Air Respirators

264871	SAR w/ T94i-R™
951800	SAR w/ T94i-R™ and 25 ft straight air hose
951801	SAR w/ T94i-R™ and 100 ft straight air hose
951802	SAR w/ T94i-R™ and 25 ft coiled air hose
951803	SAR w/ T94i-R™ and 100 ft coiled air hose



BreatheAir™ Boxes

275983	2 Person Box, 10 PPM (USA)
275984	2 Person Box, 5 PPM (Canada)
275985	4 Person Box, 10 PPM (USA)
275986	4 Person Box, 5 PPM (Canada)





BreatheAir™ Panels

275961	2 Person Panel, 10 PPM (USA)
275963	2 Person Panel, 5 PPM (Canada)
275970	4 Person Panel, 10 PPM (USA)
275981	4 Person Panel, 5 PPM (Canada)

