



VIKING™ SAR WELDING HELMET

SUPPLIED AIR RESPIRATOR





Breathe Easy While Welding Safely

While environmental systems can help filter particulates and fumes, the Viking SAR (Supplied Air Respirator) provides operators with a continuous supply of clean, cool air throughout the workday.

The SAR is known in the industry as a continuous flow respirator, and is a complete system that transports air from an air source, such as compressed air or centralized air, and delivers breathable air without interruption. The SAR regulator is designed to supply an air flow range of 180-290 LPM (liters/minute) with the ability to cool the incoming air by up to 50°F (28°C). The exhaust outlet from the regulator propels hot air away from the user, in order to ensure cool and comfortable all day use. The SAR system has an OSHA Assigned Protection Factor of 25[*]

The SAR is a great solution for jobs that do not have the proper ventilation and environmental fume solutions, and allows for confidence and all day comfort.

[*] APF=25 for loose fitting Respirator according to OSHA 3352-02 2009, when the employer implements a continuous, effective respirator program in compliance with the Respiratory Protection Standard (29 CFR 1910.134 ASTM F3388).

VIKING™ 3250D FGS® SAR

The Viking 3250D FGS SAR will provide respiratory protection while keeping you cool under the hood all day long

GRADE D AIR ONLY

This respirator must be used with breathable compressed air supply that meets at least the requirements of the specification for GRADE D BREATHING AIR, as described in the Compressed Gas Association Commodity Specification G-7, 1 - 2018 in the United States. Refer to the USA standard Z180.1, table for the quality of the compressed breathing air for Canadian requirements.

ANSI Certified
CSA Certified
NIOSH® Certified



What's Included

VIKING 32500D FGS SAR (with 25ft. hose)
K5443-2

- Industrial Duffel Bag
- VIKING 3250D FGS SAR
- Air Hose with Cover
- Leather Belt
- FR Headcovering
- Air Regulator with Hose connector
- 25 ft long input hose

What's Included

VIKING 32500D FGS SAR (no hose)
K5443-1

- Industrial Duffel Bag
- VIKING 3250D FGS SAR
- Air Hose with Cover
- Leather Belt
- FR Headcovering
- Air Regulator with Hose connector

*The air source is not covered under NIOSH approval; approval starts where the respirator's airline attaches to the service outlet. Refer to NIOSH approval letter for approved configurations. A copy of the NIOSH approval letter is included in every product.

4C[®] Lens Technology

Lincoln Electric's proprietary liquid crystal display (LCD) enhances the visible color spectrum of the display. Unlike traditional auto-darkening filters, 4C lens technology broadens the color range & hues which can be seen in both light and dark states. This eliminates imperfections and color saturation to create the clearest view of the base material, arc & puddle, while reducing eye strain.



2.5 Light State Lens

Now offers a significantly increased level of brightness in the light state and enhanced vibrancy in the dark state compared to the previous generations.



Extra Large Auto-Darkening Lens



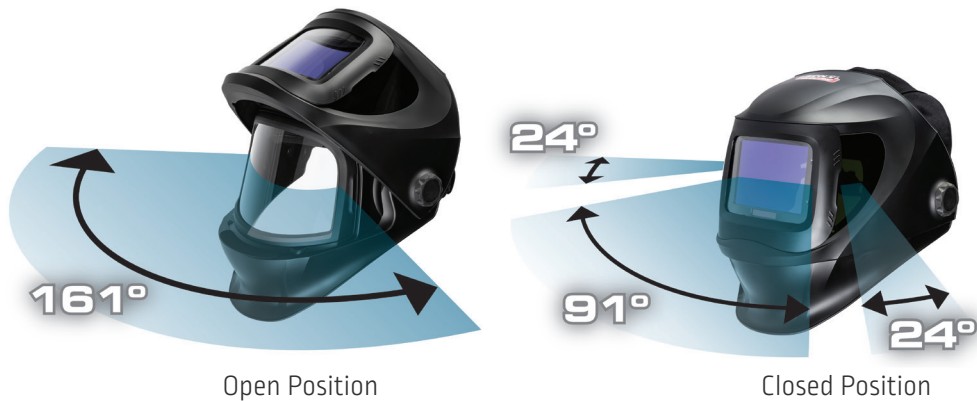
- » 12.5 Square Inch Auto-Darkening Display - offers a widescreen process view to broaden field of view and enhance operator control
- » Anti-Fog Coating helps maintain a consistently clear view
- » Digital Controls - offers clear, precise visibility of lens shade.

Auto-Darkening Lens Specs

Optical Clarity	Lens Switching Speed (sec)	Variable Shade/Control	Battery Replacement Type	Magnifying "Cheater" Capable Lens	Grind Mode Shade/Control	Light Sensitivity Control	Delay Control Dark to Light (sec)	Arc Sensors	TIG Amp Rating	View Area in (mm)	Temperature Range	Warranty
1/1/1/1	1/25,000	5-13 Internal	2 CR2450 Replaceable Batteries	Yes	2.5/Internal	Digital Display Control	0.0-1.0 Digital Adjustment	4	DC > 2 Amp AC > 2 Amp	2.95x4.25 (75x108)	Operating: 14°F - 131°F Storage: -4°F - 158°F	5 Years

Maximizing Field of View

The VIKING FGS welding helmet increases field of view in both the open and closed positions. This provides operators with various safety and productivity enhancements.



SAFETY

- The 161 Degree field of vision can help make material inspection, grinding and general movements less hazardous
- Shade 5 side windows increase peripheral vision in the closed position
- The anti-fog lens coating allows for a more consistently clear view

PRODUCTIVITY

- The integration of a clear grind shield shortens the amount of time needed to begin grinding operations and eliminates the need for a separate face shield
- The expanded field of vision in both positions can reduce setup, inspection and weld time
- The large auto-darkening viewing area enhances operator control



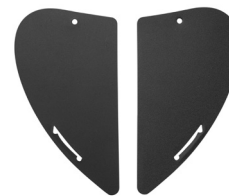
ADVANCED HEADGEAR

- Easy forward and backward slide adjustments
- Up and down orientation pin
- Vertical position lock
- Variable tightness expands versatility



COMFORTABLE HEADCOVERING

- FR Cotton with super soft seal
- Two small drawstrings to adjust fit and comfort
- Easily replaceable via hook & loop seal



SIDE WINDOW COVERS

- Used to block all light from entering through the side windows
- Lightweight & easy to install

Complete Systems and Replacement Parts

Part Number	Description
K5443-1	VIKING 32500D FGS SAR (no hose)
K5443-2	VIKING 32500D FGS SAR (with 25ft. hose)
KP5444-25	INPUT HOSE ASBLY IND INTERCHANGE 25 FT.
KP5444-50	INPUT HOSE ASBLY IND INTERCHANGE 50 FT.
KP5444-100	INPUT HOSE ASBLY IND INTERCHANGE 100 FT.
KP5657-25	INPUT HOSE ASBLY SCHRADER 25 FT.
KP5657-50	INPUT HOSE ASBLY SCHRADER 50 FT.
KP5657-100	INPUT HOSE ASBLY SCHRADER 100 FT.

Part Number	Description
9SM28540	AIR PRESSURE GAUGE
KP5529-1	NOISE REDUCTION TUBE
KP5522-1	INDUSTRIAL INTERCHANGE 1/4 PLUG W/ 1/4 FEMALE NPT
KP5523-1	SCHRADER 1/4 PLUG W/ M14 X 1 MALE THRD
KP5524-1	SCHRADER 1/4 PLUG W/ 1/4 FEMALE NPT
KP5525-1	INDUSTRIAL INTERCHANGE 1/4 SOCKET W/ 1/4 FEMALE NPT
KP5526-1	SCHRADER 1/4 SOCKET W/ 1/4" FEMALE NPT
9SM30141	HEAT SHIELD
9SM29928	LEATHER PAD
KP3046-100	1.00 MAG CHEATER LENS KIT
KP3046-125	1.25 MAG CHEATER LENS KIT
KP3046-150	1.50 MAG CHEATER LENS KIT
KP3046-175	1.75 MAG CHEATER LENS KIT
KP3046-200	2.00 MAG CHEATER LENS KIT
KP3046-225	2.25 MAG CHEATER LENS KIT
KP3046-250	2.50 MAG CHEATER LENS KIT

Part Number	Description
KP3700-1	FGS OUTSIDE COVER LENS
KP3701-1	FGS INSIDE COVER LENS
KP3702-1	FGS CLEAR GRIND SHIELD LENS
KP3703-3	REPLACEMENT 3250D ADF
9SS32652-5	SHADE 5 SIDE LENS
KP3705-1	FGS SIDE LENS COVERS
KP4471-1	FGS VIKING PAPR - HEADGEAR
KP3706-1	FGS SWEATBAND
KP4472-1	FGS VIKING PAPR - SHELL (W/SIDE WINDOW)
9SS32652-10	FRONT LENS HOLDER
9SS32652-3	GRIND SHIELD LENS HOLDER
KP4473-1	FGS VIKING PAPR - HEADCOVERING
KP4474-1	PAPR VIKING 3250D FGS HELMET ASSEMBLY
KP5519-1	LEATHER BELT
KP3939-1	BELT EXTENSION (EXTENDS BELT TO 60 IN.)
KP5601-1	AIR REGULATOR ASSEMBLY
KP5528-1	HOSE CONNECTOR
KP5122-1	HOSE ASSEMBLY W/COVER
KP3096-1	LINCOLN INDUSTRIAL DUFFLE BAG
K4799-1	WELDERS 2-IN-1 LARGE DUFFLEPACK
KP5520-1	AIR INLET FITTING
KP5521-1	INDUSTRIAL INTERCHANGE 1/4 PLUG W/ M14X1 MALE THREAD

SAR Specifications

Respirator Approval ⁽¹⁾	NIOSH CFR Title 42, Part 84 supplied air respirator for C type helmets
Classification	Loose Fitting Respirator
Assigned Protection Factor ⁽²⁾	25
Helmet Compliance	ANSI Z87.1, CSA Z94.3,
Air Flow	Low Speed: 180+ LPM (5+ LPM) High Speed: 299+ LPM (5+ LPM)
Belt Size ⁽³⁾	29 to 52 in. (736 to 1321 mm)
Weight of Helmet Assembly	32 oz. (899 g)
Operating Temperature	23 °F to 104 °F [-5 °C to 40 °C]
Storage Temperature	14 °F to 122 °F [-10 °C to 50 °C]
Warranty – SAR Assembly	1 year
Warranty – Helmet Auto Darkening Lens	5 years



[1] Refer to NIOSH respirator approval label for system configuration.

[2] APF=25 for loose fitting Respirator according to OSHA 3352-02 2009, when the employer implements a continuing, effective respirator program in compliance with the Respiratory Protection Standard (29 CFR 1910.134 ASTM F3388).

[3] Belt size maximum of 60 in.(1524 mm) with belt extension accessory (see Parts Page in this manual)

Hose Connection Requirements

Supply Air Hose length	Air Pressure in Hose	Maximum Allowable Hose Connections
25 ft.	55-70 psi	none
50 ft.	60-74 psi	1 (2 hoses)
75 ft.	64-79 psi	1 (2 hoses)
100 ft.	66-82 psi	1 (2 hoses)
200 ft.	69-85 psi	1 (2 hoses)
300 ft.	77-90 psi	2 (3 hoses)

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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See user manual for specifications and limitations regarding use. Employers are advised to comply with OSHA regulations (29 CFR Part 1910.134), which require employers to establish and maintain an effective respiratory protection program when employees must wear respirators to protect against workplace hazards and ensure the equipment's effectiveness.