



# VIKING™ 3250D FGS™ PAPR

POWERED AIR PURIFYING RESPIRATOR

**LINCOLN**®  
**ELECTRIC**



**ANSI Certified**  
**CSA Certified**  
**NIOSH® Certified**

## What's Included

- FGS 3250D PAPR Welding Helmet
- 2 HEPA Filters
- Blower Unit
- Pre-Filter
- Lithium Ion Battery
- Spark Screen
- 120V Battery Charger
- Hose with Cover
- Padded Belt (29-52 in.)
- Headcovering
- Shoulder Straps
- Duffle Bag

## VIKING 3250D FGS PAPR

When choosing a PAPR for a fabrication environment, its blower design, field of view & optic quality are 3 important variables to consider.

The VIKING™ FGS™ Powered Air Purifying Respirator features a smart blower system, integrated grind shield & side windows and a extra large 12.5 Sq. Inch auto-darkening lens with our exclusive 4C® Lens technology.

# 4C<sup>®</sup> 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 and hues which can be seen in both light and dark states. This eliminates visual imperfections and color saturation to create the clearest view of the base material, arc and puddle, while reducing eye strain.



## Extra Large Auto-Darkening Lens



Viking FGS PAPP

12.5 in

Viking 3350 PAPP

12.5 in

Competitor 1

12 in

Competitor 2

9 in

Competitor 3

7.5 in

### 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	Weight oz (g)	Warrenty
1/1/1/1	1/25,000	5-13 Internal	2 CR2450 Replaceable Batteries	Yes	4/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	28 (793)	3 Years

# Maximizing Field of View

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



Open Position



Closed Position

## 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 positionlock
- Variable tightness expands versatility



## COMFORTABLE HEADCOVERING

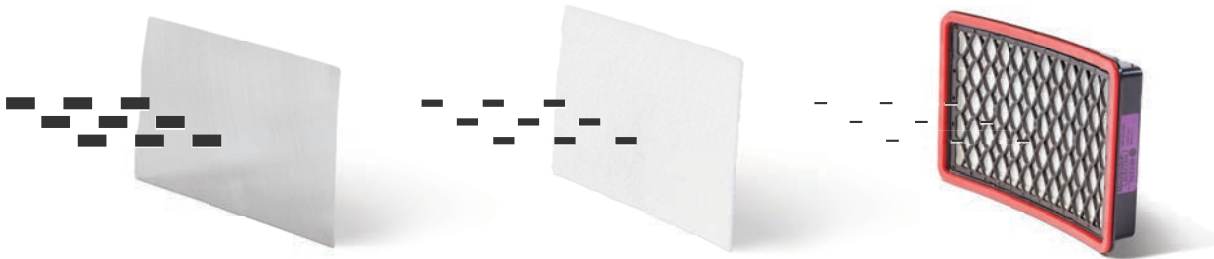
- FR Cotton with super soft seal
- Two small drawstrings to adjust fit and comfort
- Easily replaceable via hook & loop seal



## SIDE WINDOW COVERS

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

# Multi-Component Filter System



## SPARK SCREEN

- Protects filter media from fire
- Filters large particulate

## PRE FILTER

- Filters medium size particulate
- Increases life of HEPA filter

## HEPA FILTER

- Filters 99.97% of particulate at .3 microns

## HEPA FILTER INFORMATION



Manufactured in an automated assembly line for meticulous consistency



Made in the USA for excellent quality and supply control



Provides rated protection against respirable dust and metal fume particles which include but is not limited to: hexavalent chromium, manganese, iron, zinc oxide, aluminum, nickel, beryllium cadmium, and lead fumes

# Calculating the Maximum Protection of the Respirator<sup>1</sup>

## Maximum Use Concentration (MUC)

The maximum concentration of atmospheric particulate which a user can be protected from when using a specific class of respirator



Assigned Protection Factor (APF)



OSHA Permissible Exposure Limit (PEL)



Maximum Use Concentration (MUC)

## Respiratory Specs

Certification	Classification	Assigned Protection Factor <sup>2</sup>	Filter Type	Air Flows	Alerts	Suspension	Weight
NIOSH 42CFR Part 84	Loose Fitting Powered Air Purifying Respirator	APF = 25	High Efficiency Particulate Air Filter (HEPA)	Low Speed: 180+ lpm (6+ cfm) High Speed: 210+ lpm (7.4+ cfm)	Audible & Vibratory	Waist mounted via belt & shoulder straps	Blower: 2.20 lb

<sup>1</sup>MUC calculation does not apply to conditions that are immediately dangerous to life or health (IDLH).

<sup>2</sup>Requires employer to implement a continuing, effective respirator program in compliance with 29 CFR 1910.

# Simple, Smart Respiratory System



## Superior Battery Life<sup>1</sup>

Operators can work a full shift (or more) without interruption. The PAPR comes with a standard battery that outpaces the battery life of competing systems.

Additionally, Lincoln offers an extended battery which has a run time of up to 16 hours. This extra battery capacity provides flexibility when working overtime and is a safeguard when the system is not recharged overnight.

**Lincoln Extended Battery**

16 hrs

**Lincoln Standard Battery**

9 hrs

Competitor

6 hrs

<sup>1</sup>Results based on low flow setting and 50% blocked filter.

# Complete Systems and Replacement Parts

Product Type	Part Number	Description
Complete PAPR Systems	K4550-1	VIKING™ FGS PAPR System w/Standard Battery
	K4550-3	VIKING™ FGS PAPR System w/Extended Battery
Cover Lenses / Face Shield	KP3700-1	Outside Cover Lens - FGS™ Series
	KP3701-1	Inside Cover Lens - FGS™ Series
	KP3702-1	Anti-Fog Grind Shield - FGS™ Series
Filter Components	KP3424-2	HEPA Filter (Order in QTY of 2 EA)
	KP3424-6	HEPA Filter (Order in QTY of 6 EA)
	KP3935-1	PAPR Pre-Filter
	KP3936-1	PAPR Spark Screen
Battery & Blower	KP3937-1	Standard Battery (for Viking PAPRs)
	KP3938-1	Extended Battery (for Viking PAPRs)
	KP3932-1	PAPR Battery Charger
	KP3944-1	PAPR Blower Assembly
Belt, Hose & Straps	KP5123-1	PAPR Belt Assembly
	KP5124-1	PAPR Shoulder Strap Assembly
	KP3939-1	PAPR Belt Extension (ext. belt to 60 in.)
Headcovering & Hose	KP4473-1	FGS PAPR - Headcovering
	KP5122-1	PAPR Hose Assembly with Cover
Various Helmet Parts	KP4474-1	FGS PAPR Replacement Welding Helmet
	KP4471-1	FGS PAPR Headgear
	KP2930-1	Replacement Sweatbands
	KP3703-3	FGS™ Series Auto Darkening Cartridge
	KP3705-1	FGS™ Series Side Window Covers
	KP4472-1	FGS PAPR - Helmet Shell
	S32652-10	FGS™ Series Outside Cover Lens Holder
	S32652-3	FGS™ Series Grind Shield Lens Holder
S32652-5	FGS™ Series - Shade 5 Side Lens	

# PAPR Specifications

Product Number	K4550-1	K4550-3
Respirator Approval <sup>1</sup>	NIOSH 42 CFR 84 Approved Powered Air-Purifying Respirator (PAPR)	NIOSH 42 CFR 84 Approved Powered Air-Purifying Respirator (PAPR)
Classification	Loose Fitting Powered Air Purifying Respirator	Loose Fitting Powered Air Purifying Respirator
Assigned Protection Factor <sup>2</sup>	25	25
Filter Type	High Efficiency Particulate Air Filter (HEPA)	High Efficiency Particulate Air Filter (HEPA)
Helmet Compliance	ANSI Z87.1-2010, CSA Z94.3	ANSI Z87.1-2010, CSA Z94.3
Air Flow	Low Speed: 180+ lpm (6+ cfm)	Low Speed: 180+ lpm (6+ cfm)
Alarms	Audible and Vibrate	Audible and Vibrate
Battery Type	Lithium Ion (Rechargeable)	Lithium Ion (Rechargeable)
Battery Charge Time	3 Hours	4.5 Hours
Battery Charges	500 charges	500 charges
Battery Life	9 Hours (180 lpm)	16 Hours (180 lpm)
Charge Type	115 V	115 V
Head Covering	FR Flame Retardant	FR Flame Retardant
Belt Size	29 to 52 in (736 to 1321 mm)	29 to 52 in (736 to 1321 mm)
Dimensions of Blower	8 L x 7.5 H x 3 W in (203 x 191 x 76 mm)	8 L x 8.2 H x 3 W in (203 x 208 x 76 mm)
Weight of Blower (including battery, belt and filters)	2.20 lb. (1.0 kg)	2.70 lb (1.2 kg)
Operating Temperature	23° to 131° F (-5° to 55° C)	23° to 131° F (-5° to 55° C)
Warranty - Blower Assembly	1 Year	1 Year
Warranty - Helmet Auto Darkening Lens	3 Years	3 Years

<sup>1&2</sup>APF=25 for loose fitting Powered Air-Purifying Respiratory 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).

## CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information 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. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose 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.