





# Clear The Air On Welding Safety

Where welding operations are concerned, safety is directly connected to air quality. When welding must be performed in enclosed or other areas where it is difficult to provide effective ventilation or otherwise control exposure to welding fume, the last line of defense is personal protective equipment for the individual operator. The VIKING™ PAPR (Powered Air Purifying Respirator) provides effective air-purification solution all-day long.

The VIKING™ PAPR is a complete system that purifies ambient air from the shop and delivers filtered, breathable air for as much as eight hours without interruption. The two-speed blower drives filtered air through the hose into a modified VIKING™ 3350 helmet which has a perfect 1/1/1/1 optical clarity and now also features 4C™ Lens Technology. A patent pending adjustable baffling system inside the helmet directs air away from eyes to keep them from getting dry. The PAPR system has an OSHA Assigned Protection Factor of 25<sup>(3)</sup>.

Proper ventilation may not always be an option in every welding environment. Bring fume protection and filtered air directly to the operator in difficult environments and keep it there all day with the PAPR.

(3) 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).

## **See Clearly Now**

### 4C<sup>™</sup> Lens Technology

The new 4C ADF Technology improves the performance of the lens in the 4 most important categories to the welder:

1. Clarity - Optical Clarity 1/1/1/1

3. Carat - Light Weight

2. Color - Real Color View

4. Cut - Even Shade From Any Angle

The 4C Lens Technology upgrade to Lincoln Electric's VIKING™ PAPR 3350 welding helmet — improves visibility and reduces eye strain by minimizing the traditional lime green coloring in the helmet view screen.

4C technology is ideal for a range of industries such as general fabrication, power generation, shipbuilding, structural, offshore and pipeline that use multiple welding processes, including Stick, MIG and TIG. Whatever the task at hand, 4C technology gives you a clear view to productivity and quality.



Inactive State











Previous 1/1/1/1 Inactive

NEW 4C Inactive

Previous 1/1/1/1 Optical Clarity

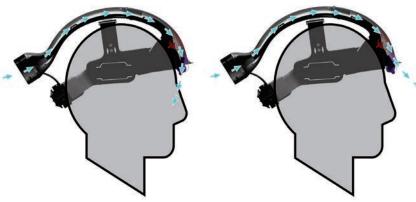
NEW 4C 1/1/1/1 Clarity

#### VIKING PAPR - Plenum

Two air flow baffles allow users to adjust the air for maximum comfort and prevent drying of the eyes.



First baffle (Red) - controls ratio of air over forehead vs temples



Second baffle (Purple) – directs air closer or further from your face

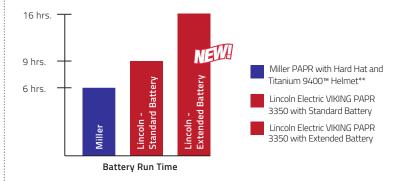
#### Comfort, Performance and Efficiency

#### Lightweight and comfortable

The blower weight is 2.20 lbs while the entire system weighs in at 6.19 pounds, most of which is in the belt pack and hose and away from the head and shoulders. The low-profile blower in the belt unit allows unrestricted movement.

#### Lasts all day (and then some)\*

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. The system also has audible and vibrating alarms to signal when the battery is low.



#### Two speeds, consistent delivery

The PAPR system maintains a positive pressure at two speeds: 180 and 210 liters per minute. The system automatically adjusts fan speeds to keep airflow constant.

<sup>\*</sup>Results based on the following test parameters side by side comparison between the Lincoln Electric K3930-1 and the Miller 9400, on the low flow setting with a 50% blocked filter.

<sup>\*\*</sup>The trademark Titanium 9400™ Miller®, and Miller Electric® are the property of Illinois Tool Works Inc.

PAPR (POWERED AIR-PURIFYING RESPIRATOR) SPECIFICATIONS	
Product Number	K3930-1
Size of Blower Assembly (W x T x D)	8 x 7.5 x 3 in (203 x 191 x 76 mm)
Weight of Blower (including battery, belt and filters)	2.20 lb. (1.0 kg)
Air Flow	Low Speed: 180+ lpm (6+ cfm) High Speed: 210+ lpm (7.4+ cfm)
Operating Temperature	23° to 131°F (-5° to 55°C)
Battery Type	Lithium Ion (Rechargeable)
Battery Charge Time	Three hours
Battery Charges	500 charges
Belt Size <sup>1</sup>	29 to 52 in (736 to 1321 mm)
Respirator Approval <sup>2</sup>	NIOSH 42 cfr 84 Approved Powered Air-Purifying Respirator (PAPR)
Assigned Protection Factor <sup>3</sup>	25
Helmet Replacement Battery	CR 2450
Battery Life (Standard)	8 Hours
Charge	115 Volt Input
Alarms	Audible and Vibrate
Head Gear	FR Flame Retardant

- (1) Belt size maximum of 60 in. (1524 mm) with belt extension accessory.
- (2) Refer to NIOSH respirator approval label for system configuration.
- (3) 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).

#### What's Included:

- » Blower Unit
- » VIKING 3350 Black Helmet
- » Head Cover
- » Hose
- » 2 Particulate Filters
- » 29-52 in. Padded Belt
- » Shoulder Strap
- >> 120V Battery Charger

- » Duffle Bag
- » Rechargeable Battery
- » Pre-Filter
- » Spark Guard
- » Hose Cover
- » Extra helmet cover lenses: inside quantity 2, outside quantity 5
- » Instruction Manual

PAPR (POWERED AIR-PURIFYING RESPIRATOR) HELMET SPECIFICIATIONS		
Optical Class	1/1/1/1 (per EN 379)	
Lens Switching Speed (sec)	1/25,000	
Variable Shade/Control	5-13 Internal	
Magnifying "Cheater" Capable Lens	Yes	
Grind Mode Shade/Control	3.5 Internal	
Light Sensitivity Control	Continuous	
Delay Control Dark to Light (sec)	0.1 -1.0 Fully Adjustable	
Arc Sensors	4	
TIG AMP Rating	DC > 2 Amp AC > 2 Amp	
Helmet Compliance	ANSI Z87.1-2010, CSA Z94.3, CE	
Cartridge Size	US 5.25 x 4.50 in (133 x 114 mm)	
View Size	3.7 x 3.34 in ( 95 x 85mm)	
Blower Assembly	1 Year Warranty	
ADF Helmet	3 Year Warranty	

#### Perfect 1/1/1/1 Optical Clarity

The PAPR system is equipped with a VIKING 3350 helmet that offers a top EN 379-1/1/1/1 optical clarity rating.



REPLACEMENT PARTS SALES NUMBER	DESCRIPTION	DIMENSIONS	PACKAGE QTY.
KP5121-1	VIKING PAPR 3350 Helmet Assembly (PKG includes Headgear and Headcovering)	N/A	1
KP2898-1	Outside Cover Lens	5.25 x 4.5 in	5
527978-32	Outside Cover Lens Seal	N/A	1
(P3045-2	3350 Auto-Darkening Lens	N/A	1
(P3044-1	Inside Cover Lens	3.53 x 3.73 in	5
527978-33	Lens Holder	N/A	1
P3942-1	Headgear (including plenum and sweatband)	N/A	1
(P3943-1	Sweatband	N/A	2
(P3940-1	Headcovering (w/hook and loop attachment)	N/A	1
(P3944-1	Blower Assembly (PKG includes filter cover assembly)	N/A	1
(P3937-1	Standard Battery (for Viking PAPR)	N/A	1
(P3938-1 <b>Valu</b>	Extended Battery (for Viking PAPR)	N/A	1
(P3424-2	HE Filter Assembly	N/A	2
(P3424-6	HE Filter Assembly	N/A	6
(P3935-1	Pre-filter	N/A	6
(P3936-1	Spark Screen	N/A	1
(P3932-1	Battery Charger	N/A	1
(P5123-1	PAPR Belt Assembly	N/A	1
(P5124-1	Shoulder Strap Assembly	N/A	1
(P3939-1	Belt Extension (extends belt to 60 in.)	N/A	1
(P5122-1	Hose Assembly with Cover	N/A	1
(P3046-100	Cheater Lens 1.00 MAG	2 X 4.25 FRAME, 1.0 MAG	1
(P3046-125	Cheater Lens 1.25 MAG	2 X 4.25 FRAME, 1.25 MAG	1
(P3046-150	Cheater Lens 1.50 MAG	2 X 4.25 FRAME, 1.5 MAG	1
(P3046-175	Cheater Lens 1.75 MAG	2 X 4.25 FRAME, 1.75 MAG	1
(P3046-200	Cheater Lens 2.00 MAG	2 X 4.25 FRAME, 2.0 MAG	1
(P3046-225	Cheater Lens 2.25 MAG	2 X 4.25 FRAME, 2.25 MAG	1
(P3046-250	Cheater Lens 2.50 MAG	2 X 4.25 FRAME, 2.5 MAG	1
(3096-1	Duffle Bag	N/A	1

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The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.