

DEFENDER

Elevate your welding safety and maximize performance with the Defender.



The **Defender** Welding Helmet and PAPP Unit - shielding you from every angle, empowering you to **weld with confidence and clarity.**

DEFENDER DESIGN AND FEATURES

Unique flip-up design

Stable flip-up design optimizes centre of gravity for a low profile and a seamless change between welding and grinding.

Large view for grinding

20x12cm area, large transparent grinding lens with anti-fog coating for clear view in all directions.

Lightweight shell design

Ergonomic design with high grade durable material upright position.



For use in a wide range of applications



ADF options

Auto darkening filter options:

AF-600s

98x44mm, 1/1/1/2

AF-110L

100x60mm, 1/1/1/2



Passive options

DIN glass options:
DIN 8, 9, 10, 11, 12



Highly adjustable headgear

Providing customizable fit and comfort, distributing weight evenly.

Longitudinal adjustment

Balance the centre of gravity for optimal comfort and reduced neck strain.

Spacious rear pivot

Enhanced comfort and support on the head, reducing tension over time.

DEFENDER PAPR FEATURES



User-friendly interface

Airflow indicator, battery status, and correct filter loading. Audio, visual and vibration alarms activate when necessary.

Adjustable airflow

2 selectable airflow levels:

- 170L/min
- 210L/min



Simplified maintenance

User-friendly battery and filter replacement. A sleek outer shell for easy cleaning and maintenance.

Compact design

Ergonomically designed, providing a low profile to the user, allowing for free movement in the working environment.

Quiet motor

FOC technology reduces motor noise by minimising fluctuations and vibrations, all while maintaining a high level of filtration and efficiency.

FEATURES AND BENEFITS

- User adjustable air flow 170/210 L/min - 2 stages
- Li Ion battery pack (up to 13 hours duration @ 170L/min)
- Fast charging Lithium-Ion battery (2 hours)
- P3 filter and pre-filter
- Intelligent USB-C type charger (EU & UK pins)
- Audio and Visual 'vibration' blocked filter and low battery alarms
- LED air flow indicator
- Supplied with 'comfort pad' and shoulder harness

High-performance, easy adjustment

Can be mated with AF-600S auto-darkening filter, where shade number, delay and sensitivity are all infinitely adjustable. You can also choose AF-110L ADF for expanded vision, tack welding, and dark modes. Includes flip-up grinding visor.



Defender Helmet
with PAPR



Available with
Hard Hat (white)
standard & air-fed

Respirator Specifications

Airflow Rate	Manufacturer's minimum design flow rate: 165+lpm (5.8+cfm) Low speed: 170+lpm (6+cfm) High speed: 210+lpm (7.4+cfm)
Fast-charging Standard Battery	Battery duration: 170+lpm - 11-13 hours; 210+lpm - 7-9 hours Battery charge time: 2.5 hours Battery life: ≥ 500 charges
Filter	Filter efficiency: > 99.997% Alarms: Visible, audible and vibration
Temperature	-5°C to 55°C (23°F to 131°F) Storage temperature: -10°C to 55°C (14°F to 131°F)
Relative Humidity (R.H.)	Operating R.H.: <90% Storage R.H.: <85%
Weight	950g (Blower unit + fast-charging standard battery)
Respirator Approval	EN 12941 P R SL, AS/NZS 1716



* This PAPR product is not suitable for the applications which request Intrinsic safety (IS).

Optional Filter Specifications



Model	AF-600S	AF-110L	Shade Glass
Optical Class	1/1/2		--
Viewing Area	98x44mm (2.94"x1.32")	100x60mm (3.94"x2.36")	110x90mm (4.33"x3.54")
Cartridge Size	110x90x9mm (4.33"x3.54"x0.35")		110x90x3mm (4.33"x3.54"x0.12")
Arc Sensor	2		--
Light State	DIN 3.0		--
Dark State	DIN 9-13		DIN 9/10/11/12
Shade Control	Low - High, by infinitely dial knob	Low - High, LED and button control	--
Power On/Off	Automatic On / Off		--
Sensitivity Control	Low - High, by infinitely dial knob	Low - High, LED and button control	--
UV/IR Protection	Up to Shade DIN16 at all times		--
Power Supply	Solar cell. Battery replaceable, 1 x CR2450 lithium battery	Solar cell. Battery replaceable, 2 x CR2032 lithium battery	--
Switching Time	1/16,000s. from Light to Dark		--
Delay (Dark to Light)	0.05 - 1.0 s, continuous knob	0.05 - 1.0 s, continuous knob	--
Low Amperage TIG Rated	≥ 2 amps (DC); ≥ 2 amps (AC)		--
Grinding	Yes		--
Battery Capacity Test	Yes		--
Low Battery Indicator	Yes		--
Dark Mode	--	Internal, LED and Button Control	--
Operating Temperature	-10°C to 55°C (14°F to 131°F)		-20°C to 55°C (-4°F to 131°F)
Storing Temperature	-20°C to 70°C (-4°F to 158°F)		--
Helmet Material	High Impact Resistance Nylon		--
Application Range	Stick Welding (SMAW); TIG DC&AC; TIG Pulse DC; TIG Pulse AC; MIG/MAG/CO2; MIG/MAG Pulse; Plasma Arc Cutting (PAC); Plasma Arc Welding (PAW); Air Carbon Arc Cutting (CAC-A); Oxyfuel Gas Welding (OFW); Oxygen Cutting (OC); Grinding		
Approved	CE, UKCA, ANSI Z87.1, CSA Z94.3, AS/NZS 1338.1, EAC		



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