

TECMEN

***The BEST solution for LASER WELDING/CUTTING/CLEANING***

# 100LW

Laser welding helmet

## ALL-AROUND SAFETY AGAINST LASER EXPOSURE

The 100LW Laser welding helmet is specifically designed for laser welding/cutting/cleaning application to protect users. The variable shade laser lens provides full protection against direct laser exposure, as well as reflection, scattering, diffraction, and divergence from the laser beam. Meanwhile, it offers protection against UV/IR/ blue light.




Laser Protection
High-impact Resistance
Heat Resistance
Patented Design
Super Clear Vision

Laser Protection:
1000-1100 D LB7 + IR LB8
OD 7+@1000-1100nm OD 10+@1064nm

### Effective laser protection

Designed to meet EN207 OD10+ @ 1064nm, the 100LW provides full protection to prevent eye burns, retinal damage and other tissue damage.

### Ultra-clear vision

Experience exceptional clarity and details with TECMEN's light state 2.0 variable shade laser lens. Superior vision quality leads to superior work quality.

### Smart adjustment

Shade number, delay and sensitivity all easily adjustable using our user-friendly panel with LED indicators.

## Specifications

| | |
|---|---|
| Viewing Area | 96 x 46.5 mm (3.78" x 1.83") |
| Cartridge Size | 110 x 90 x 9 mm (4.33" x 3.54" x 0.35") |
| Optical Class | 1 / 1 / 1 / 2 |
| Number of Sensors | 2 |
| Power On / Off | Automatic On / Off |
| Dark Shades | 4-8/8-12 |
| Light State | 2.0 |
| Switching Speed | 1/25,000 s. from Light to Dark |
| Special Modes | GRIND / CUT / MIX / DARK |

| | |
|---|---|
| Sensitivity Control | Low - High, LED and button control |
| Delay | 0.1-1.0 s, LED and Button Control |
| UV / IR Protection | Up to Shade DIN16 at all times |
| Operating Temp. | -10°C to 55°C (14°F to 131°F) |
| Storing Temp. | -20°C to 70°C (- 4°F to 158°F) |
| Helmet Material | High Impact Resistance Nylon+metal materials |
| Laser Protection | 1000-1100 D LB7 + IR LB8 |
| Optical Density (OD) | OD 7+@1000-1100nm OD 10+@1064nm |
| Approvals | CE (EN207, EN ISO 16321) ANSI Z136.1 EAC |

# FreFlow™ V1 PAPR

with 100LW respiratory laser welding helmet

## MAKE LASER WELDING SAFE AND BREATHABLE

All-in-one integrated PAPR system for laser welding/cutting/cleaning. The 100LW helmet provides full protection against direct laser exposure, as well as reflection, scattering, diffraction, and divergence from the laser beam. Meanwhile, the FreFlow V1 blower unit delivers a stable airflow to users with clean air.

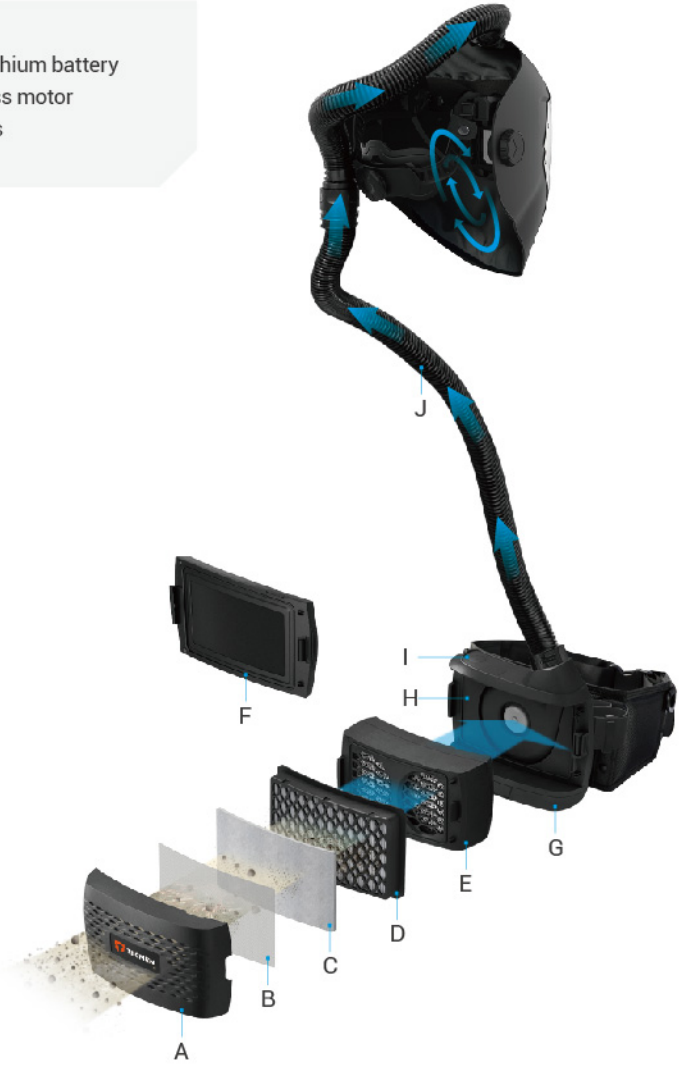



Model No.: FreFlow V1 with 100LW

## FreFlow™ Powered Air-purifying Respirator Filter Schematic

FreFlow V1 PAPR is compact, flexible, and portable, with easy maintenance. It ensures a constant airflow delivery, even when the battery is low or the filter is clogged.

- A Durable front cover
- B Spark screen
- C Pre-filter
- D Particle filter
- E Gas filter
- F Odor filter
- G Fast rechargeable Lithium battery
- H High quality brushless motor
- I Optional airflow rates
- J Hose




## Respirator Specifications

| | |
|---|---|
| Model | FreFlow V1 with 100LW |
| 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 Battery | Battery type: rechargeable Li-ion battery |
| | Standard battery duration: 170+lpm - 9 hours; 210+lpm - 6 hours |
| | Extended battery duration: 170+lpm - 15 hours; 210+lpm - 9 hours |
| | Standard battery charge time: 1 hour<br>Extended battery charge time: 2 hours |
| | Battery life: ≥ 550 charges |
| Filter | Filter efficiency: > 99.997% |
| | Alarms: Visible, audible and vibration |
| | Particle filter (P3 Filter) |
| | Gas filter (A1B1E1K1/A2/Odor Filter) |
| Temperature | Operating 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 | 1020g (Blower unit + fast-charging standard battery) |
| Respirator Approval | EN 12941 P R SL TH3<br>CE AS/NZS ERC |

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

TECMEN

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