

TECHNICAL SPECIFICATION

RESPIRATORY PROTECTION



Powercap® Infinity® Respirator

Black / CEA646-001-100



DESCRIPTION

The PowerCap® Infinity® PAPR – a fully integrated TH3 powered air respirator offering four of the highest levels of protection in one intuitive head-mounted unit. Offering 4-in-1 above the neck protection, PowerCap® Infinity® is the perfect choice for many industries where dust poses a danger to health. The unit represents the very latest in Powered Air Purifying Respiratory technology, combining decades of innovation from JSP in the fields of respiratory, head, eye and face protection.

OPTIONS

Black (CEA646-001-100)

Blue (CEA646-000-500)

White (CEA646-000-100)

SAFETY STANDARDS

EN 12941 • EN 397 • EN 166 • ANSI/ISEA Z89.1



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SPECIFICATIONS



Impact Resistance
50 Joules



Lateral Deformation
Yes



Maximum Temperature
+50°C



ABS Shell
Yes



Textile
Harness



Slip Ratchet
Wheel



Reflective Option
Fitted



JSPCheck
Yes

Classification
TH3



Exhalation Valve
Twin Exhalation Valve To Reduce CO2 Build-Up

Maximum Total Inward Leakage (TIL)
**0.2% When Fitted To PowerCap® Infinity®
Respirator**

UK Assigned Protection Factor
40

Face Seal Type
Hypoallergenic Material

Metal Free
No

Filter Material
Pleated Media



RADIATION PROTECTION BREAKDOWN filtering effect
Scale Number
2



Manufacturer's Trademark
JSP Dagger



Medium Energy Impact resists a 6 mm, 0.86g ball @ 120
m/s Maximum protection for goggles.
B



BSI Kitemark
Yes

Noise Level
61.1dB



Electrical Insulation
1000V



Molten Metal
Yes



Minimum Temperature
+5°C



Recyclable
Shell



Depth Adjustment
3D Harness



Ventilation
No



Integrated Eyewear
Optional



Optional 4 point chinstrap (EN397 Compliant)
Optional

Usage
**P R SL (A Reusable Solid & Liquid Particulate
Aerosol Filter)**

Minimum Filtration Efficiency
99.8%

Nominal Protection Factor
500

Mask Design
**A Turbo Hood Powered Air Purifying Respirator
(Loose Fitting)**

Latex free
Yes

Filter Shelf Life
5 Years

Battery Type
**Rechargeable Lithium-ion 3.6v, 5.2Ah, 18.72Wh.
Expected Life Of 500 Cycles When Charged, Stored
and Used In Accordance With User Instructions**



LIGHT TRANSMISSION BREAKDOWN Lens Shade number
1.2



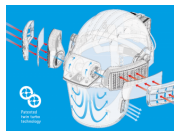
Optical Class (1 – Class 1 – High quality for regular use. 2 –
Class 2 – Medium quality for occasional use. 3 – Class 3 –
Low quality for exceptional use)
1



Resistance to Molten Metals and Hot Solids (optional)
9



Product Weight
1042g



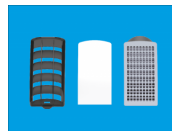
Powerful Twin Turbo Performance

The patented Twin Turbo Technology controls the airflow through the headtop to maximise user comfort and optimise energy efficiency. Real time diagnostics ensure that the twin impeller motor unit delivers the optimum level of airflow depending on the wearer's demands and regulates the intake and internal pressure delivering a minimum of 160 litres a minute of filtered clean air.



No need to FACE FIT test

PowerCap® Infinity® removes the need for fit testing, ensuring that a high volume of clean air is delivered to the breathing zone giving a high level of protection.



TH3 Performance

PowerCap® Infinity® offers respiratory protection to TH3, with a Nominal Protection Factor of 500 (UK APF 40). TH3 is the highest possible rating in the EN12941:1998 + A2:2008 standard.



Smart PPE

Real time diagnostics monitor the system and the wearer twice per second, giving the user accurate, dynamic feedback. Periods of high respiratory demand are monitored and catered for by constantly maintaining a positive pressure inside the respirator. Feedback is given on battery and filter condition via the heads up display and audible notifications.



Head Protection

The head protection element of the PowerCap® Infinity® is based on the EVO®5 Olympus® industrial safety helmet. The helmet combines a super strong ABS shell designed for superior all day protection with the comfort benefits of the Evolution® 3D-Adjustment™ harness system.



Panoramic Impact Visor

The optical class 1 visor conforms to EN166.B offering impact protection at speeds of up to 270 mph (tested using a 6mm steel ball bearing). The visor has a replaceable peel-off visor protector to prolong its life.



High Efficiency Filters

The high capacity HEPA filters coupled with the aerodynamically optimised pre-filter covers ensure that PowerCap® Infinity® delivers 160 litres per minute of clean air to the user with maximum battery efficiency. Filters can be effortlessly replaced using an intuitive quick-change bayonet system.



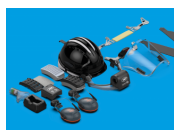
Ear Defenders

The PowerCap® Infinity® has been developed to seamlessly integrate with the optional Sonis® helmet mounted ear defenders. Designed by the JSP R&D team and working with a leading UK acoustic engineering research facility, the Sonis® helmet mounted range peaks at an unbeaten SNR 36dB. The helmet adaptor and the cushion surface area work together to provide optimum cushion pressure and comfort.



Tested to the MAX

Hundreds of hours of human treadmill tests were conducted in a purpose built salt dust challenge chamber to optimise mass, balance and sealing elements. Extensive user trials were conducted, putting the PowerCap® Infinity® to the test in a variety of harsh conditions.



Minimal Maintenance

PowerCap® Infinity® has been developed as a modular system, making it easy to disassemble and reassemble for ease of cleaning and maintenance. To ensure the optimal performance of PowerCap® Infinity® it is important that maintenance is carried out on a regular basis. No specialist tools required.



Perfect Fit to Combat Dust

Dust in the workplace is a significant issue. The latest HSE figures (2017) show that 18,000 new cases of work-related respiratory disease were diagnosed. A significant proportion of these were the result of exposure to silica. While the problem is widely acknowledged and use of respiratory equipment is high, it is often not suitable for the person or the environment it is being used in.

APPLICATIONS

Aerospace

Airports

Agricultural

Construction and Infrastructure



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Facilities Management

Hospitals, Healthcare & Pharmaceuticals

Manufacturing

Mining, Aggregates and Quarrying

Rail and Tunnelling

Scaffolding and Roofing

Utilities Contractors

Food and Drink Manufacturing

Law Enforcement

Maritime

Oil, Gas and Chemical Companies

Renewable, Wind and Solar Energy

Sole Trader

Welding

ACCESSORIES

EVO® Sweatband

Powercap® Infinity® Airflow Indicator Test Unit

PowerCap® Infinity® Pre-Filters

Powercap® Infinity® Visor with Black Valves

Replacement Powercap® Infinity® Battery Pack

Replacement Powercap® Infinity® Filters

Replacement Powercap® Infinity® Pre-Filters with covers

Sonis®1 Helmet Mounted Ear Defenders

Stainless Steel Spark Guard for Powercap® Infinity® Pre Filter (1 Pair)

Replacement Peel-off Polycarbonate Visor Cover for PowerCap® Infinity®

Powercap® Infinity® Charge Dock and Power Supply

Powercap® Infinity® Twin Turbo Drive Unit and Visor Carrier Assembly

Replacement Helmet for Powercap® Infinity®

Replacement Powercap® Infinity® Face Seal Skirt

Replacement Powercap® Infinity® Harness Strap

Sonis® Compact Helmet Mounted Ear Defenders

Sonis®3 Helmet Mounted Ear Defenders

PPE Cleaning Station & Accessories

COMPATIBLE PRODUCTS

EVO® Sweatband

Powercap® Infinity® Airflow Indicator Test Unit

Powercap® Infinity® Respirator

Powercap® Infinity® Visor with Black Valves

Replacement Powercap® Infinity® Battery Pack

Replacement Powercap® Infinity® Face Seal Skirt

Replacement Powercap® Infinity® Harness Strap

Sonis® Compact Helmet Mounted Ear Defenders

Sonis®3 Helmet Mounted Ear Defenders

Replacement Peel-off Polycarbonate Visor Cover for PowerCap® Infinity®

Powercap® Infinity® Charge Dock and Power Supply

Powercap® Infinity® Twin Turbo Drive Unit and Visor Carrier Assembly

Replacement Helmet for Powercap® Infinity®

Replacement Powercap® Infinity® Carry Case

Replacement Powercap® Infinity® Filters

Replacement Powercap® Infinity® Pre-Filters with covers

Sonis®1 Helmet Mounted Ear Defenders

Stainless Steel Spark Guard for Powercap® Infinity® Pre Filter (1 Pair)

RANGE

VIDEOS



- youtu.be/jS1Fr-xVS1I
- youtu.be/IMJIVCKiDdo
- youtu.be/u7dUKX-_vAc

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