AIR+ ACTIVE VENTILATOR

The AIR+ ACTIVE Ventilator is recommended for use with the AIR+ Smart Mask. The ventilator consists of a micro-fan which draws out expired air within the mask. When attached to the mask, the AIR+ Active Ventilator vents out the carbon dioxide, heat and moisture from the dead space within the mask, keeping carbon dixoide levels at safe ambient levels and providing greater comfort for the user.

STANDARDS:

The AIR+ ACTIVE Ventilator is certified in conformity with the European Standard EN149:2001+A :2009 and the essential requirement of PPE Regulation (EU) 2016/425, issued by the notified body 2849 - INSPEC International B.V., Beechavenue 54-62, 1119 PW, Schiphol-Rijk, The Netherlands.

KEY FEATURES

The AIR+ ACTIVE Ventilator has the following innovative key features:

a. Certified for use with AIR+ Smart Masks under CE EN149:2001+A1:2009.

b. Reduce carbon dioxide levels within the mask dead space to less than 1%. AIR+ ACTIVE ventilator minimises physiological impact due to increased CO_2 levels.

c. Reduction of temperature and relative humidity within the mask to ensure greater comfort for the user.

d. Ergonomically designed for secure grip and durability, IP53 certified for outdoor use.

e. Simple add-on to disposable smart masks for intuitive use.

f. Uses a standard micro USB interface for recharging.

g. AIR+ ACTIVE Ventilators can be powered by an external power bank for extended runtime.

SAFETY AND PRECAUTION VENTILATOR

1. The AIR+ Active Ventilator contains a lithium polymer battery. Improper use or storage may result in battery leak or expansion, and may cause conflagration, property loss or health harm.
2. The operating temperature range of the AIR+ Active Ventilator is from -5°C to 50°C. Do not expose AIR+ Active Ventilator to fire or high temperature. When not in use please store the Active Ventilator in a clean, cool and dry atmosphere.
3. AIR+ Active Ventilator is rated IP53 and protected against light rain. However, it should not be submerged in water.
4. The AIR+ Active Ventilator should be charged using proper certified micro-USB cable (supplied) and socket.
5. Please disconnect any cable from the AIR+ Active Ventilator before using it on the mask. Do not short-circuit the battery. Do not reverse-charge or reverse-connect.
6. Do not drop, shake, puncture or disassemble the AIR+ Active Ventilator components. Once the AIR+ Active Ventilator is damaged, do not continue to use it.
7. Please dispose of all parts in accordance with local regulations. The lithium polymer battery should be recycled and should not be disposed of as general litter.
8. The "Lot" code represents the production date in yyyy/mm/dd format.

MATERIALS

Materials used in the production of the AIR+ Active Ventilators:

Description	Material
Top Case	HIPS, Elastomer
Battery	Lithium Polymer Battery
Micro Fan	ABS, Stainless Steel, Printed Circuit Board
Gasket	Silicone Rubber
Bottom Case	ABS

SPECIFICATIONS

The AIR+ ACTIVE Ventilator is sold with each pack consisting of 1 ventilator and 1 micro-USB charging cable. The specifications are:

Operating time	~4 hours
Operating Voltage	5.5V
Charging time	~1.5 hours
Number of charging cycles	>300 times
Weight of ventilator	26g
Pack Weight	70g
Pack Size	13.6cm (L) x 3.2cm (B) x 8.2 (H)

AIR+ SMART MASK

The AIR+ Smart Mask FFP1 disposable respirators will protect against solid aerosol with concentration of toxic substance up to 4 times; FFP2 up to 10 times; FFP3 up to 20 times. The indicated limits may vary in different countries due to national regulations! The threshold limit value (TLV), but it does not protect the wearer against solvents for spray painting operation, gas and vapor with harmful effect. This face mask can help protect wearers lungs against certain airborne contaminants, however, it will not prevent entry through other routes such as the skin, which would require additional personal protective equipment.

STANDARDS:

The AIR+ Smart Mask is certified in conformity with the European Standard EN149:2001+A :2009 and the essential requirement of PPE Regulation (EU) 2016/425, issued by the notified body 2849 - INSPEC International B.V., Beechavenue 54-62, 1119 PW, Schiphol-Rijk, The Netherlands.

FEATURES

The AIR+ Smart Mask has the following key features:

a. Tested and certified to EN149:2001+A :2009

b. Plush, comfortable nose cushion for a good face seal

c. Smart Valve to provide maximum exhaltion relief

d. Fully adjustable strap for a better fit and flexibility

e. Ability to be paired with AIR+ Active Ventilator add-on for enhanced comfort

MATERIALS

Materials used in the production of the AIR+ Smart Mask:

Description	Material
Filter	PP
Valve Assembly	ABS, Elastomer
Nose Clip	PE, Zinc
Straps1	Polyester, Elastomer

SAFETY AND PRECAUTION MASK

1. Do not use the mask as protection against toxic particle, gas, vapor or solvent from spray-painting operation.
2. Do not use the mask in enclosed space, tank, inadequately ventilated area, oxygen-deficient environment (<17% in volume), hazardous or explosive environment, or in any circumstance where toxic gas is likely to be present.
3. Do not use the mask when the concentration of contaminant is dangerous for life or health. The concentration toxicological characteristics and type of substance should be known.
4. Leave the work area immediately if breathing becomes difficult, dizziness or any other sign of distress occurs.
5. Ensure proper fit on your face before using the mask.
6. The mask should not be worn under any conditions preventing a proper fit on your face. Such conditions may include growth of beard, mustache, sideburn, the use of spectacles or any other device containing straps which passes between the mask's sealing edge and the user's face.
7. If allergy occurs when mask is in contact with your skin, the mask should be removed immediately.

OVERVIEW TEST RESULTS

EN149:2001+A12009 Performance test	Air+ FFP3 with Active Ventilator	Maximum permitted FFP2	Air+ FFP2 with Active Ventilator	Maximum permitted FFP2
Total Inward Leackage Mean value %	0,34	2,00	0,49	8,00
Breathing resistance mbar				
Inhalation 30 l/min	0,57	1,00	0,53	0,70
Inhalation 95 l/min	1,68	3,00	1,55	2,40
Exhalation 160 l/min	1,96	3,00	1,80	3,00

AIR+ SMART MASK

AIR+ ACTIVE VENTILATOR

Product Type	FFP2 with Smart Valve	FFP3 with Smart Valve	AIR+ ACTIVE Ventilator
Product Model no.	A+220VL	A+230VL	APR
Item no.	700000	700010	700090
Recommended use	Certified protection against particulate aerosols. Delivers FFP2 protection against airborne oil and non-oil particles.	Certified protection against particulate aerosols. Delivers FFP3 protection against airborne oil and non-oil particles.	Enhanced protection and comfort for use with AIR+ Smart Mask with valve. Reduces physiological symtoms such as headaches, dizziness and reduced alertness.
Standards	CE EN149	CE EN149	CE EN149
Approvals	EN149:2001+A1:2009 FFP2 NR	EN149:2001+A1:2009 FFP3 NR	EN149:2001+A1:2009
Features	Ergonomic fit Adjustable head strap with flexible and better fit.	Ergonomic fit Adjustable head strap with flexible and better fit.	4 hrs running time per charge. Recharged in an hour via micro-USB. Can be partially charged during breaks – just like your mobile.
Smart Valve	Yes	Yes	-
Compatible with AIR+ Micro Ventilator	Yes	Yes	Yes (All sizes)
Dimensions / weight	6g	6g	W 44 x D 44 x H 18mm 26g
Sizes	Large	Large	-
Recommended Industry	Healthcare, Construction, General Manufacturing, Transportation	Healthcare, Construction, General Manufacturing, Transportation	Healthcare, Construction, General Manufacturing, Transportation
Pcs per box	10	10	1

Certification

Certified in accordance with CE EN149:2001+A12009. Mask & ventilator certified to FFP2 700000 and FFP3 700010.

CE 2849
EN149:2001+A1:2009

European importer

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Item number	Item name
700000	AIR+ FFP2 mask w. valve 10 pcs. – foldable
700010	AIR+ FFP3 mask w. valve 10 pcs. – foldable
700090	AIR+ ACTIVE Ventilator

Model: APV

Proudly Innovated in Singapore by
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AN ST ENGINEERING OPEN LAB

Manufacturer
Innosparks Pte Ltd
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Watch the video on: **www.airplus-europe.com**

SELECTION GUIDE

AIR+ SMART MASK

Product type		FFP2	FFP3
Painting, Varnishing, Spraying, Coating, Mixing	Water-Based - brush / roller / spray applied		•
	Wood Preservatives, water based		•
	Powder Coating		•
Sanding, Stripping, Grinding, Cutting, Drilling	Rust, most Metals, Filler, Concrete, Stone	•	•
	Cement, Wood, Steel,	•	•
	Paints, Varnish, Anti-rust coating	•	•
	Stainless Steel, Anti-fouling varnish		•
	Resins, Reinforced plastics (carbon / glass fibre)	•	•
Construction / Maintenance	Scabbling, Shot-creting (concrete dust)	•	•
	Plastering, Rendering, Cement mixing	•	•
	Demolition	•	•
	Groundwork, Earth moving, Piling, Underpinning	•	•
	Spray foam, Loft Insulation	•	•
Metal working / Foundries	Electro-plating		•
	Finishing, Slotting, Drilling, Riveting, Machining, Grinding	•	•
	Molten metal handling, Smelting	•	•
	Welding		•
Cleaning / Waste Removal	Waste removal	•	•
	Asbestos handling		•
	Asbestos removal		•
Allergens / Biohazards	Pollen, Animal dander	•	•
	Mould / Fungus, Bacteria, Viruses	•	•
	Tuberculosis	•	•
	Soot		•
Agriculture / Forestry	Handling infected animals, Culling	•	•
	Feeding livestock, Cleaning sheds / harvesters	•	•
	Straw chopping, Composting, Harvesting	•	•
	Agricultural allergenes, airborne	•	•
Mining / Quarrying	Tunnelling, Drilling, Grinding, Excavation	•	•
	Pumping, Dredging, Washing	•	•
	Cutting, Sawing	•	•
	Changing Filters	•	•
Other Industrial Applications	Inks, Dyes, Particulate pigments	•	•
	Powdered Additives	•	•
	Pharmaceuticals, airborne	•	•
	Pottery, Ceramics		•
	Wood / Paper Mills	•	•

iTOOLS accepts no liability for incorrect choice of AIR+ equipment. This guide is only an outline designed to focus on products which may be appropriate for typical applications - it should not be used as the only means of selecting a product. Selection of the most appropriate personal protective equipment (PPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the assessed risks, actual working conditions and limitations of PPE.

This guide does not release the user from the obligation to comply with national application regulations and laws and is not a substitute for adhering to and understanding the product instruction manuals.

Details regarding performance and limitations are set out on the product packaging and user informat on. If in doubt, contact a safety professional or iTOOLS.

For respiratory training and advice please contact iTOOLS.
Contact: +45 5353 3315 or mail@itools.dk

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