RESPIRATORY PPE GUIDE

MANUFACTURING FOR SAFETY, HEALTH & WELLBEING

LEADING THE WAY IN RESPIRATORY EXCELLENCE

Every year thousands of workers are affected by breathing airborne dusts and gases that are hazardous to health. As experts in safety, we are committed to helping keep workplaces safe and healthy.

JSP design and manufacture high quality, innovative respiratory protective equipment (RPE) to help combat workplace exposure hazards, leading the industry with the first range of RPE assured by the BSI Kitemark™ scheme. Our respiratory products are developed using the recently upgraded Respiratory test facility and batch-release tested in the dedicated quality assurance laboratory, ensuring top performance levels are achieved and maintained. Respiratory protection seminars and fit test training courses on offer at our manufacturing headquarters in Oxfordshire provide detailed information on respiratory hazards, RPE, and the importance of fit testing.

CONTENTS

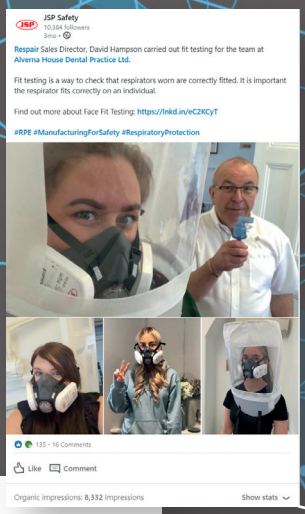
SUPPORTING THE FIGHT AGAINST COVID-19

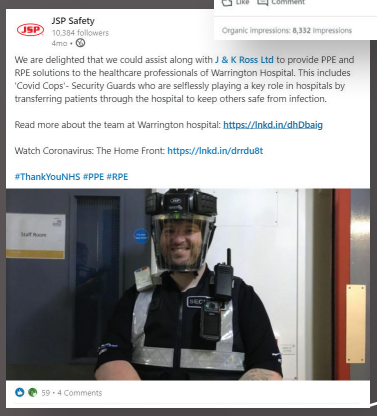
JSP are proud to have had the opportunity to support the NHS and other key workers, helping our distribution partners to provide immediate relief to the frontline by delivering PPE to meet the needs of a diverse range of wearers, and to address issues with existing PPE, such as poor fit and comfort factors.

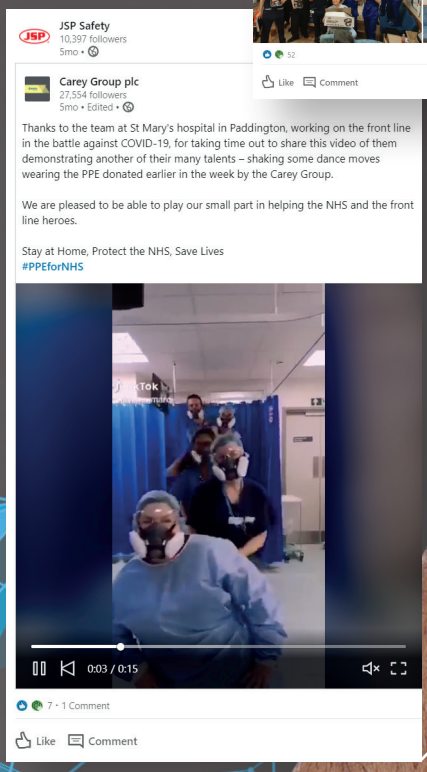
Members of our team have also been visiting hospitals and other key healthcare facilities to provide face fit testing of respiratory protective equipment, along with training on selection and use.

For the full story, go to our social media platforms on LinkedIn, Twitter, Facebook, and YouTube.

Working through a pandemic - Lessons from COVID-19 by Oxford University Hospitals NHS Foundation Trust.
https://jspsafety.info/OUH







JSP Safety
10,384 followers
3mo •

We are happy to have recieved this photo from G Wizz Cleaning.

We were able to help them out by sending replacement harnesses for their masks so they could continue safely working as key workers,

Thank you G Wizz Cleaning for helping people during this time.

#ManufacturingForSafety #RespiratoryProtection #RPE

10 • 1 Comment

Like Comment

Raymond Puffitt • 1st
Google Squared Graduate ★ Digital Marketing Manager ★ Website management ...
4mo •

Good to see the figures are heading in the right direction. Distancing and the right applications for PPE must be working.

Spotted these officers wearing JSP Safety half-masks in this article from The Times. Read full article below.

https://lnkd.in/deaASwk

#covid19 #ppe #rpe #respiratoryprotection #lightattheendofthetunnel

UK coronavirus death figures fall for third week in a row
thetimes.co.uk • 1 min read

10

Emma Hallett
@eb6348

Thank you so much to @ross_safety and @jspltd for really going the extra mile to ensure that all of us in the ENT team at RGH @CwmTafMorgannwg have been supplied with our lovely new force10 typhoon masks! #PPE #reusable #initforthelonghaul #allENTisaerosolgenerating #COVID19

Tweet

Izwiz @izzybbb · Mar 26
Well done to @jspltd Not all heroes wear capes ❤️

Andrew Glass @andrew2709 · Mar 26
Everyday I'm proud to work for @JSPLtd but right now with the 24/7 outstanding effort they are putting in to get PPE to the NHS and equipment to essential services it is simply amazing.Everyone deserves an applause especially those at our specialist respiratory division #team

1 2

Andrew Glass
@andrew2709

eplying to @izzybbb and @JSPLtd

The effort the team are putting in is humbling. They are doing everything from manufacture, delivery and full training. It's is humbling to be associated to such an amazing team doing all it can to support the #NHS heroes #safety #wewillbeatthis 👏👏

PM · Mar 26, 2020 · Twitter for Android

Retweet 2 Likes

Shaun Scott
@upyrbike

@JSPLtd the Force10 'Typhoon' mask is superb, thankyou!
★★★★★

I managed to wear my Nooz armless 'pince nez' glasses - they fit nicely above mask nosepiece, stayed on for 2hr procedure 👍

#NHS #COVID19 #Intubation #emergency #surgery #awakeintubation #ATI #FOI

You and 5 others
1:28 PM · Apr 6, 2020 · Twitter for iPhone

1 Quote Tweet 1 Like

JSP Safety
10,397 followers
5mo •

David Hampson • 2nd
Sales Director at Respair a division of JSP
5mo •

Had a great time helping fit testing at the hospital with Chris Ross
Thanks to Paul Chamberlain for his social distancing advice

Warrington and Halton Teaching Hospitals NHS Foundation Trust
facebook.com • 1 min read

8

Like Comment

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5mo •

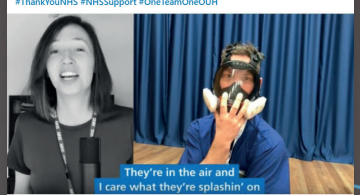
Well done to the amazing staff at Oxford University Hospitals NHS Foundation Trust in creating this excellent video in support of Oxford Hospitals Charity

Listen at https://lnkd.in/dRdNx4e

Show your support here
https://lnkd.in/dTBNBd8

Learn more about Oxford Hospitals Charity here https://lnkd.in/dzAngRm

#ThankYouNHS #NHSSupport #OneTeamOneOUH



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Like Comment

THE MARK OF ASSURANCE

The prestigious and globally-recognised BSI Kitemark™ is a symbol of quality, integrity, and safety, demonstrating that products are in conformity with the applicable specifications at all times. Through product testing and assessment of factory production controls, a Kitemark™ provides assurance that products are manufactured to a consistently high standard.

The Kitemark™ schemes covering JSP respiratory, head, hearing, and eye protection ranges involve product testing and regular assessment of our production control procedures which, in addition to our mandatory audit requirements, means JSP production sites are independently assessed by BSI up to four times a year.

JSP are committed to leading the market with innovative, quality products, and by specifying the BSI Kitemark™ we ensure that our PPE performs effectively and efficiently every time, meaning procurement managers can be certain that they have invested in the very best products offering user-friendly, high protection that lasts.

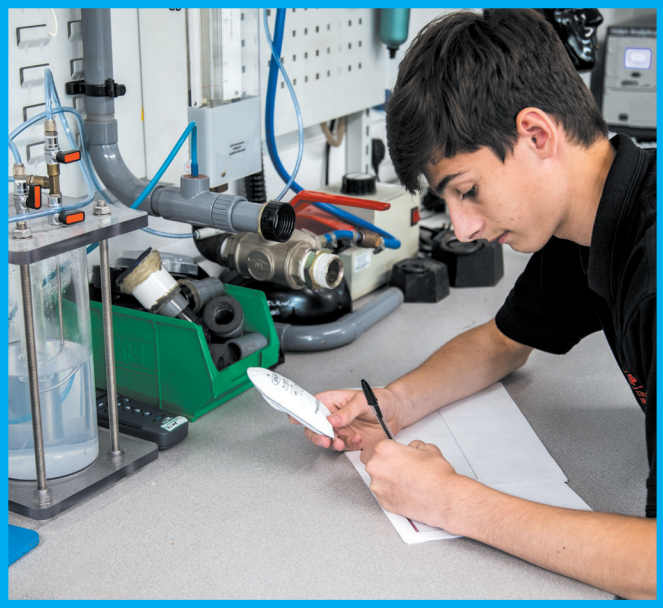
Kitemarks held by JSP:

bsi.

BS EN 136	BS EN 12941	BS EN 12492	BS EN 1731
BS EN 140	BS EN 14387	BS EN 14052	BS EN 352
BS EN 143	BS EN 397	BS EN 50365	
BS EN 149	BS EN 812	BS EN 166	

KITEMARK™

ABOUT THE KITEMARK™
For more info visit:
http://bit.ly/bsi-kitemark



"The Kitemark™ is the ultimate accreditation of quality – it is evidence that ALL production is ongoing batch tested to the relevant EN Standard which is then audited and verified by the British Standard Institution.

- A CE Certificate is the minimum requirement for PPE, with monitoring in place for certain product types, but employing voluntary Kitemark™ schemes ensures all products are subject to the same stringent controls."

JSP RPE Manufacturing Facility, Oxford, UK

UNDERSTANDING EXPOSURE HAZARDS

Workplace respiratory exposure hazards are encountered in four forms: solid particulates, liquid particulates, gases, and vapours. Regularly breathing harmful contaminants over a extended period of time can cause a variety of lifelong illnesses, including lung disease and cancer. Typically it takes several years for the effects of exposure to respiratory hazards in the workplace to develop and symptoms often do not arise until several years after exposure, by which time it may already be too late and result in permanent disability or early death.

PARTICULATES

Dust particles can be classed as one of two types depending on their size:

Inhalable dust: larger sized particles that are visible to the naked eye - these particles reach the upper sections of the throat, airways and lung.

Respirable dust: Smaller sized dust particles that can be invisible to the naked eye or smaller - these particles become trapped in the lower sections of the lung.

Liquid particulates include water and oil-based aerosols and mists.

SILICA DUST

The amount of silica dust that would result in personal exposure to the UK legal limit is indicated above the penny.

UK law requires companies to ensure exposure to silica dust is well below the amount illustrated here.

Substance	% Silica
Brick	Up to 30
Concrete, Cement, Mortar	25 - 70
Tile	30 - 45
Sandstone, Gritstone, Quartzite	70 +
Granite	Up to 30
Sand and gravel	70 +
Slate	Up to 40
Flint	80 +

GAS / VAPOUR HAZARDS

Gas / vapour hazards encountered in the workplace include:

- Ammonia and acidic vapours
- Formaldehyde
- Chlorine
- Volatile Organic Compounds (VOCs)
- Isocyanates (require airfed RPE)

EXPOSURES FOUND IN THE WORKPLACE

SOLVENTS
Breathing solvent vapours or fumes can cause headaches, dizziness and nausea.

WOOD DUST
May cause allergic respiratory and mucosal symptoms, in addition to general respiratory irritation.

ASBESTOS
Inhalation of asbestos fibres leads to mesothelioma – a rare type of lung cancer.

WELDING FUMES
Prolonged exposure can lead to cancer, as well as damage to the nervous systems and kidneys.

SILICA DUST
Breathing silica dust can result in respiratory illnesses such as silicosis.

CLEANING UP
Sweeping can produce high levels of dust in the air, causing irritation and illness. Chemicals in cleaning sprays can cause respiratory problems and illness due to toxic ingredients.

ENGINEERED WOOD DUST
Use of power tools with MDF, for example, releases formaldehyde which is highly toxic via inhalation, and can cause nasal and lung cancer.

DIESEL EXHAUST FUMES
Irritation occurs within minutes; prolonged exposure over extended period is extremely harmful.

IMPACTS ON EMPLOYEE HEALTH

When risks are not controlled effectively, it can have devastating effects on employee health. Breathing harmful levels of respiratory hazards found in the workplace can lead to lifelong and irreversible illnesses.

CANCER

- Lung cancer and mesothelioma are the most common forms of cancer leading to death.
- Occupational exposure to asbestos is the leading cause of cancer death.
- Construction jobs pose the highest risk of occupational cancer, with the industry contributing 3500 deaths and 5500 diagnoses each year*.
- Mesothelioma is mainly caused by inhalation of asbestos fibres. Awareness has improved but 2500+ deaths in the UK from mesothelioma still occur every year due to the slow development of the condition long after exposure (HSE, Mesothelioma statistics for Great Britain, 2019).

COPD

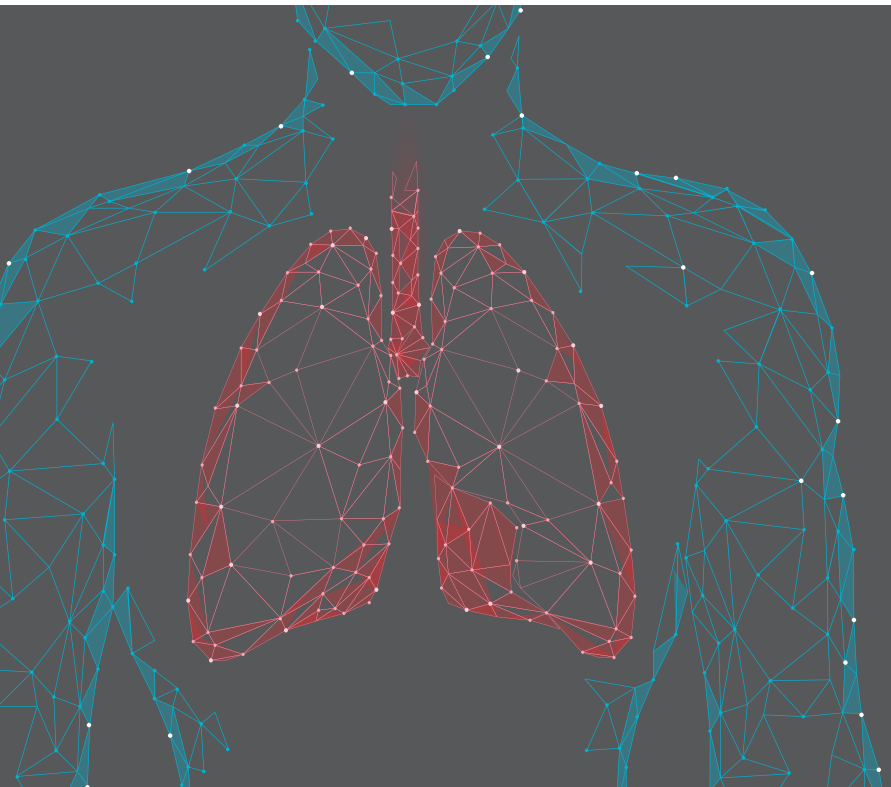
- Chronic obstructive pulmonary disease (COPD) occurs in later life: it is estimated that over a million individuals currently have the disease in the UK, with over 25,000 deaths each year.
- The leading cause is smoking, but past exposure to fumes, chemicals and dusts at work have also contributed to many present cases. Research shows that about 15% of COPD cases are likely to be work-related, indicating as many as 4000 occupational deaths each year in the UK**.
- Hazardous substances in the workplace that are likely to lead to COPD later in life include: various dusts (including coal, grain, silica), as well as certain fumes and chemical vapours (including welding fume, isocyanates and polycyclic aromatics hydrocarbons).

SILICOSIS

- Silicosis is an incurable lung disease caused by inhaling silica dust, usually over a period of many years.
- Silica dust can cause inflammation when particles enter the lung and, over time, lead to areas of hardened and scarred lung tissue (fibrosis).

ASTHMA

- Occupational asthma is an allergic reaction that can occur in certain individuals when exposed to certain substances.
- These substances, referred to as 'respiratory sensitisers' or asthmagens, cause a change in the airways known as 'hypersensitive state'.
- Substances and materials that can cause occupational asthma include:
  - Chromium (VI) compounds: present in stainless steel welding fume, cement, and used in electroplating
  - Hardwood dusts: general term covering a variety of wood dusts, around 40 species of which can cause occupational asthma.
  - Softwood dusts: general term covering a variety of dusts mainly derived from coniferous trees. Occupational exposure to cedar dusts is particularly associated with the development of asthma.



EFFECTS ON THE BODY

NERVOUS SYSTEM DISORDERS
Alzheimer's and Parkinson's disease have been linked to workplace air pollution.

BLADDER CANCER
Fumes such as diesel exhaust can cause bladder cancer.

HEART DISEASE
Angina, arrhythmia, hypertension and heart disease are linked to workplace pollution.

DAMAGE TO REPRODUCTIVE SYSTEM
Workplace pollution, pre- and post- conception can affect parents, foetuses, and newborns.

* HSE: Occupational Cancer statistics in Great Britain, 2019
** HSE: Work-related Chronic Obstructive Pulmonary Disease (COPD) statistics in Great Britain, 2019

COMBAT THE DANGERS WITH A RESPIRATORY PROTECTIVE EQUIPMENT PROGRAMME

Implementation of a Respiratory Protective Equipment (RPE) programme can help to ensure workers are protected from exposure to hazardous substances. To develop an RPE programme, employers must assess the risks, identify the actions and resources required to adequately control them, then put those measures into place and ensure they remain effective. RPE may be one of several controls - ideally the last line of defence after substitution, extraction and other engineering controls.

KEY STEPS TO IMPLEMENT AN EFFECTIVE RPE PROGRAMME

1 AVOID THE TASK

Think about the risks before work begins. Is the task absolutely necessary?

2 USE AN ALTERNATIVE

If the task must be carried out, is there an alternative material that could be used to reduce or eliminate the respiratory hazard?

3 USE A DIFFERENT PROCESS

If the task cannot be avoided and there is no suitable alternative material, could the material be processed in another way? Could materials be cut or formed prior to being transported on site?

7 ASSESS RESIDUAL RISK

Methods of enclosure, extraction, and suppression may not remove all contaminants - it is therefore necessary to assess the amount still present: To assess residual contaminant levels, measurements must be taken using equipment such as personal dosimeters or air sampling pumps. These measurements are used to determine the Required Protection Factor (RPF).

8 SELECT ADEQUATE RPE

Select RPE that will provide adequate protection against the hazard – this involves understanding the concentration of the hazard and the performance of different respirator types. See page 11 for more information on selecting adequate RPE.

9 SELECT SUITABLE RPE

Select RPE that will be suitable for use – this means considering the type of task, work environment, and the wearer. See page 12 for more information on selecting suitable RPE.

4 ISOLATE THE HAZARD

Identify the location or task where hazardous substances are released into the workplace, this may be a singular location or task or many that could change, and begin planning how to manage the risks.

5 ENCLOSURE

Enclosing the hazard will help to minimise exposure by preventing substances escaping into other areas of the workplace.

6 SUPPRESSION & EXTRACTION

Consider employing equipment to suppress a particulate hazard at source or to extract hazardous gas / vapours from the work area.

10 TRAIN & MAINTAIN

An effective system of maintenance for RPE is essential to ensure the equipment continues to provide the level of protection for which it is designed. Maintenance includes cleaning, examination, replacement, repair, and testing.

Correct maintenance of RPE is essential to ensure the respirator continues to perform and provide the correct protection level. Information on how to maintain RPE can be found in the accompanying user instruction manual and further guidance can be gained from the RPE manufacturer - it is important to check instructions and guidance for each respirator as cleaning, maintenance, and storage requirements can vary for different products. Replacing exhausted or faulty parts and keeping the equipment clean will help to ensure protection and maximise product life.

Information and training is vital to ensure RPE is used and maintained correctly and safely in the workplace. This includes how to read markings and expiry dates, as well as how to conduct pre-use and fit checks to ensure the respirator is in working order and is donned correctly. For reusable and semi-disposable products, training should also include how often to change filters and how to store and clean the RPE; for powered RPE, battery life and charging should be covered in training as well.

Contact our Sales team on +44 (0)1993 826050 to find out more about how we can help with RPE training.

JSP TECHNICAL SERVICES

JSP can provide assistance with selection, use, and maintenance of RPE. Contact our Technical helpline to find out more:

T: +44 (0) 1993 826051

E: technical@jspsafety.com

SELECTING AN ADEQUATE RESPIRATOR

In publication HSG53 'Respiratory protective equipment at work', HSE define an 'adequate respirator' as 'right for the hazard and reduces exposure to the level required to protect the wearer's health'. To determine if a respirator is adequate for use, various factors must be considered, and it may be necessary to consult several sources for information and guidance. Some key considerations include the form of the hazardous substance(s), whether the task will be carried out in an oxygen deficient atmosphere, relevant COSHH guidance from HSE and safety data sheets (SDSs) published by suppliers of hazardous substances.

ASSIGNED PROTECTION FACTORS

In some cases, COSHH guidance from HSE or SDSs for substances will detail the appropriate Assigned Protection Factor (APF) for protection against a hazardous substance. For example, HSE now state that an APF of 20 is required for woodworking. Where there is no protection factor stipulated by the HSE or advised by material suppliers, the appropriate APF must be identified by calculating the Required Protection Factor (RPF) using the equation shown below:

$$RPF = \frac{\text{Measured level of contamination}}{\text{Exposure limit for contaminate}}$$

First the level of hazardous substance must be measured. The measured value is then divided by the Workplace Exposure Limit (WEL) for that contaminate to determine the RPF.

Workplace Exposure Limits (WELs) are set nationally for many substances and are published in EH40/2005 Workplace exposure limits which is available for free download on HSE's website.

In the example below, the WEL is 50mg/m^3 and the measured level of contamination is 900mg/ m^3
RPF = 900mg/m^3 ÷ 50mg/m^3
RPF = 18

There are only a select number of APFs in the UK: 4, 10, 20, 40, 2000. For adequate protection, a respirator with an APF of at least the RPF or higher is required. This means in the example given respiratory protection with an APF of 20 is required.

The form of the hazardous substance must also be taken into account; a particulate respirator will not protect against a gas/vapour hazard, nor can a half mask with gas/vapour cartridges filter dusts. Some tasks can create multiple forms of hazardous substance at once. For example, using power tools with MDF creates fine wood dust requiring particulate protection but also releases formaldehyde vapours as friction heats up the glues within the material. Protection for MDF work with power tools therefore requires ABEK1P3 filters for high efficiency particulate filtering and the gas/vapour element necessary to protect against formaldehyde.

Safety data sheets from substance suppliers give details on the forms of substances. The Filter Types table on page 45 also helps to explain the different forms of respiratory hazard encountered in the workplace. Other considerations include oxygen deficiency, in which case specialist guidance and equipment should be sought.

The information required to select an adequate respirator for example on the left, assuming the hazard is a particulate contaminant, would be: protection against particles with APF of 20. In order to determine the appropriate type of RPE, suitability factors need to be considered.

SELECTING A SUITABLE RESPIRATOR

HSG53 defines a 'suitable respirator' as 'right for the wearer, task and environment, such that the wearer can work freely and without additional risks due to the RPE'. In order to assess the suitability of a respirator it is necessary to consider factors relating to the wearer as well as those relating to the work task and environment.

Suitability factors relating to the wearer include any medical conditions or allergies that could affect the selection or use of RPE, and whether the wearer requires corrective spectacles, contact lenses, or other PPE at work. The respirator must be compatible with any other PPE or spectacles required to be worn by the user or task. This can be achieved by using a combined unit or by ensuring that each piece of PPE is compatible with each other. If unsure about compatibility of PPE, contact the manufacturer for guidance.

Another important consideration is facial hair; this can determine whether tight-fitting RPE is an option. Tight-fitting RPE includes disposable respirators, half masks, and full face masks which rely on creating a seal with the face. Facial hair and stubble can compromise the fit by interfering with the seal and allowing inward leakage of harmful substances. For tight-fitting RPE, ensuring a good fit is also part of determining suitability. Face fit testing assesses how well RPE fits an individual, taking into account the compatibility of other PPE and prescription spectacles. See page 17 for more information on fit testing.

Factors relating to the task and environment are things such as wear time and work rate – how long does the RPE need to be worn continuously for and how hard will the wearer be working? Is the work in a tight or confined space? Temperature, humidity, movement and vision requirements are also important factors to consider.

For a respirator to be suitable, the wearer must not be impeded in any or way or put in danger as a result of the equipment selected. Impediment can range from a hose getting caught up in a confined space to a contact lens becoming lodged in a face mask valve, meaning all relevant factors need to be carefully considered.

ENSURING A GOOD FIT WITH RESPIRATORY EQUIPMENT

Tight-fitting RPE relies on creating a seal between the mask body and the wearer's face to provide protection – a poorly fitted facepiece that leaks around the face seal cannot provide the correct level of protection to the wearer. Tight-fitting RPE products include disposable respirators, half masks and full face masks: face fit testing should be carried out for all employees required to wear these types of respirators.

3 SIMPLE STEPS FOR A GREAT FACE FIT

1 FACE SIZE & SHAPE

2 ENSURE COMPATIBILITY

3 GET FIT TESTED


PRESSCHECK
F-4003
P3 R D
JSP

STEP 1 FACE SIZE AND SHAPE

Face size and shape are important considerations when selecting RPE. The mask must fit the wearer's facial features to create a seal and provide protection. Respirators are available in a range of sizes to fit different facial dimensions. To ensure a good fit, face shape and size must be considered and, if possible, measured prior to selection.

The five headforms are derived from measured facial dimensions of human test subjects, and are used for designing respiratory protective equipment as well as helping with selection. Respirators are designed to fit specific size designations and are tested on the relevant headform size.

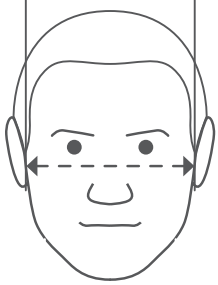
Respirator sizes are based on dimensions given in international standard ISO 16976-2, Anthropometrics. Five headform sizes are described in the standard: Small, Short-Wide, Medium, Long-Narrow, and Large.

For your **FREE** face size guide contact your local sales office.

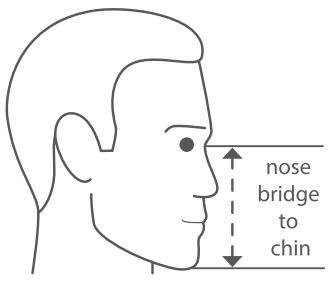
SIZE SELECTION GUIDE

Force™ Size Guide is available to measure facial dimensions in order to check whether a Small (S), Medium (M), or Large (L) mask would provide the best fit.

The Force™8 half mask and Force™10 Typhoon™ full face mask are available in Small (S), Medium (M), and Large (L) sizes to provide a great fit for a wide range of users. The Force™8 half mask is available in an additional size, Short-Wide (SW), which provides an alternative fit to Small (S) and Medium (M) masks. The Force™8 SW is designed to fit a different facial profile with a slightly wider nose bridge.



	120 - 133mm	133 - 145mm	145 - 160mm
129 - 139mm	L	L	L
119 - 129mm	M	M	L
109 - 119mm	M	M	M
99 - 109mm	S	SW	M



This chart is a guide to selecting a size of mask, it is not definitive, correct face fit test methods should be used to ensure the suitability of the selected size for the individual wearer.

STEP 2 COMPATIBILITY

In some cases, it is necessary to wear other PPE in combination with a tight-fitting respirator. Equipment selected must be compatible with the respirator to ensure that protection is maintained. The sealing area around the mask must not be interrupted, and other equipment must not push or move the mask out of place while the wearer is working.

During fit testing (see page 19) all other PPE must be worn to check that the wearer can achieve a good respirator fit while wearing the other items.

FACESHIELDS

Helmet and browguard mounted faceshields must be designed to be used in combination with the respirator, so that the mask body and filters fit behind the visor and allow freedom of movement.

SAFETY EYEWEAR & PRESCRIPTION SPECTACLES

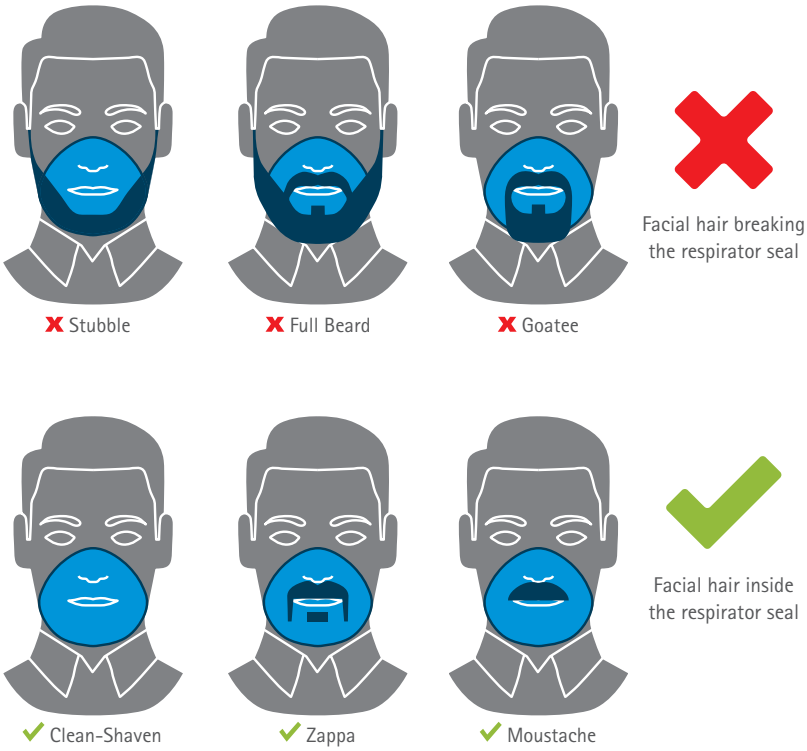
Eyewear fits close to the nose bridge and must not compromise the mask seal in this area. Compatible goggles and safety spectacles fit correctly with the mask to ensure proper protection. RX inserts are available for those required to wear a full face mask with prescription lenses.

JSP complete above-the-neck solutions are designed and tested to work together for optimum performance and the highest levels of protection.

WHICH FACTORS AFFECT FIT?

In order to provide a good fit, the face seal area of a respirator must not be interrupted so that it can seal effectively with the wearer's face. Some factors affecting the fit of tight-fitting respirators include:

- Facial hair – wearers of tight-fitting RPE must be clean-shaven in areas that are in contact with respirator seal.
- Eyewear & other PPE – prescription spectacles and other PPE can affect respirator fit, and any eyewear or protective items worn at work should also be worn during a fit test to ensure compatibility.
- Jewellery & make up - must be removed if in contact with respirator seal.

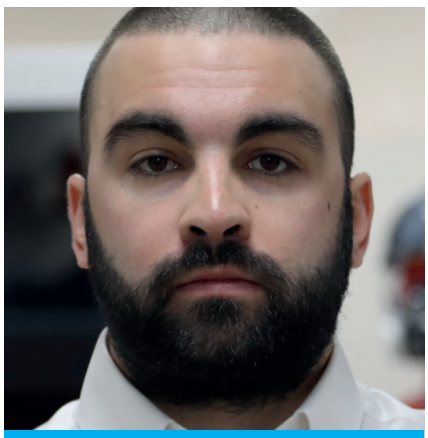


Suitability of some facial hair styles for disposable and reusable half mask wearers.

HOW DOES FACIAL HAIR AFFECT HALF MASK FIT?

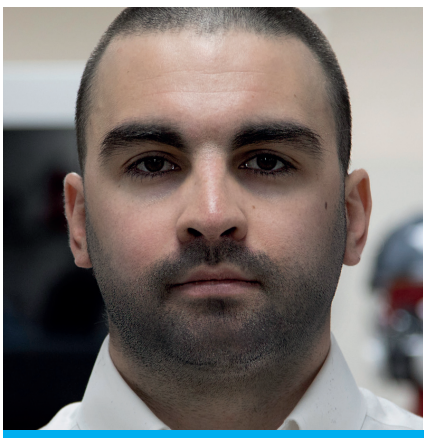
Facial hair can interrupt the seal area of the respirator, meaning a fit cannot be achieved. Quantitative fit checks with the Force™8 half mask demonstrated that both a full beard and stubble did not allow the respirator to seal with the face, whereas the same test performed clean-shaven delivered an extremely high fit factor and showed the mask sealed effectively.

WATCH THE FULL TEST HERE
or view the video at:
http://jspsafety.info/FaceFitBeard



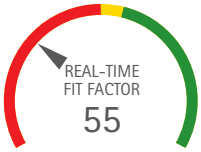
Full beard

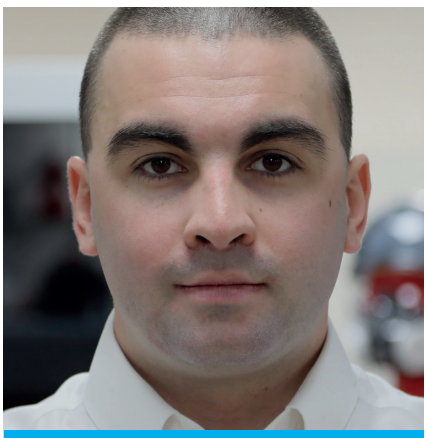
NO FIT



Stubble

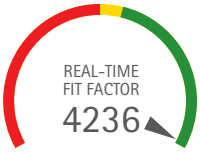
NO FIT





Clean-shaven

GREAT FIT



Fit factor reported by TSI Portacount™ quantitative fit testing device.

STEP 3 FIT TESTING

Fit testing should be carried out on initial selection or, at least, before an individual uses a tight-fitting respirator in a hazardous environment. Tight-fitting RPE refers to disposable respirators, half masks, and full face masks. Fit testing should be repeated at regular intervals, determined through company policy and risk assessment, and when there is a change such as:

- The wearer gains or loses a significant amount of weight
- The wearer undergoes major dental work, facial surgery, or sustains a facial injury
- There is a change in respirator type or size

TWO TYPES OF FIT TESTING

Qualitative:

- Method whereby a respirator worn by a test subject is challenged using a substance to be detected by taste or smell
- Applicable to disposable dust masks and half masks

Quantitative:

- Methods using ambient particle counting (APC) or controlled negative pressure (CNP)
- APC method applicable to disposable, half, and full face masks
- CNP method applicable to half and full face masks

All methods require the test subject to carry out exercises to simulate movements made during work tasks.

FURTHER INFORMATION

For more information on fit testing see HSE fit testing information document INDG 479 and accompanying BSIF Fit2Fit Companion documents, available for free download on HSE and BSIF websites:

HSE

https://www.hse.gov.uk/pubns/indg479.pdf

fit2fit ACCREDITED RPE Fit Test Provider

SCAN FOR BSIF QUALITATIVE GUIDANCE DOCUMENT
https://www.fit2fit.org/wp-content/uploads/2019/04/Guidance-document-Qualitative.pdf

SCAN FOR BSIF APC GUIDANCE DOCUMENT
https://www.fit2fit.org/wp-content/uploads/2019/04/Guidance-document-Quantitative-APC.pdf

SCAN FOR BSIF CNP GUIDANCE DOCUMENT
https://www.fit2fit.org/wp-content/uploads/2019/04/Guidance-document-Controlled-Negative-Pressure.pdf

FACE FIT SUPPORT

JSP can help with respirator face fitting and fit testing in a number of ways. From testing to training, we provide a host of solutions to ensure JSP RPE wearers are able to achieve a good fit and get fit tested safely.

FIT TESTING

JSP have Fit2Fit accredited personnel who are able to conduct face fit testing. Testing can be arranged at the customer site for an agreed number of individuals using JSP RPE. Contact our Sales team on +44 (0)1993 826050 to discuss fit testing options.

There are also a number of independent fit testing companies who can conduct testing. Fit2Fit accredited testers are listed here: https://www.fit2fit.org/find-a-tester/

FIT TESTING KITS

Kits and equipment for fit testing are available. The JSP Fit Test Starter Kit is ideal for new fit testing businesses, or those beginning to use JSP RPE. The JSP Qualitative Test Kit provides everything needed to conduct a qualitative fit test.

Adaptors for quantitative fit testing JSP Force™ masks are also available. Find out more about JSP fit testing kits and accessories on pages 75 - 76.

TRAINING

JSP also offer fit testing training courses. The JSP Test Kit Course is an introduction to the JSP Qualitative Test Kit and how to use it. The new Fit2Fit Accredited Course prepares candidates for full Fit2Fit accreditation in qualitative fit testing.

For more information on JSP fit testing training courses see pages 21 - 22.

FACE FIT CHECK TECHNOLOGY

Each time tight-fitting RPE is worn the wearer must perform a 'fit check', before entering the hazard area, in addition to fit testing on selection. This ensures that the respirator has been adjusted correctly to create a tight seal.

PressToCheck™ filters provide an easy way to check the seal of Force™8 and Force™10 Typhoon™ respirators with daily face fit check technology. Find out more on pages 41 - 42.

FACE FIT TRAINING COURSES

In addition to providing on-site face fit testing through our Respair® division, JSP also offer fit testing training courses. Our established half-day training course offers a useful first step toward achieving competency in the use of our qualitative test kit. A new training course has also been developed to prepare candidates for full Fit2Fit accreditation in qualitative fit testing.

JSP Innovation Hub, Oxford, UK

JSP TEST KIT COURSE

This 2-3-hour course provides a basic foundation of knowledge necessary to understand and use the JSP Qualitative Test Kit. Attendees will learn key principles and techniques, enabling effective ongoing practice to become competent fit testers. Individuals attending this course should have basic level knowledge in using RPE.

Attendees are required to obtain a JSP qualitative test kit, JSP respirator, and a subject to practice on, prior to the course. With these requirements, this course is best suited to a pair of fit testers or two employees. This course is available to anybody with purchase of JSP qualitative test kit and JSP respirator.

Course topics:

- Importance of fit testing
- Overview of legislation, guidance, and best practice
- Selecting 'adequate' and 'suitable' respirators
- Overview of pre-use inspection and checks
- Fitting, and performing a fit check
- How to perform a qualitative taste test method fit test
- Handling results – pass or fail
- Diagnosing issues causing failure
- Reporting
- Documentation

Attendees will receive a JSP certificate confirming completion of the course.

JSP Test Kit course	
Duration:	Half day
Entry Requirements:	Minimum age 18. Must be fluent in English language
Equipment Requirements:	Attendees must obtain test kit, respirator, and test subject prior to training
Instructor Ratio:	1:6
Assessment:	Practical & multiple choice test
Certification:	JSP Certificate confirming completion
Validity Period:	N/A

FIT2FIT ACCREDITED TRAINING COURSE

JSP's BSIF Fit2Fit Accredited training course has been developed to take those unfamiliar with fit testing to full Fit2Fit Accredited Fit Tester status. BSIF's RPE Fit Tester accreditation scheme is not compulsory, and employers are free to take other action to comply with the requirements, but achieving this accreditation is an established route to understanding and demonstrating good practice.

The course includes two days of face-to-face instruction, with guided self-learning to be completed between, ultimately delivering competency in practical 'Qualitative Fit Testing (QLFT) Methods'. Training is delivered by Fit2Fit Accredited fit testers with a proven track record of training individuals that have successfully fulfilled Fit2Fit requirements for accredited status in both the Qualitative and Quantitative (Ambient Particle Counting) methods of fit testing.

Assessment involves written and practical exams, which can be arranged by JSP for those wishing to complete Fit2Fit accreditation as a group at our Oxfordshire headquarters, at additional cost to the candidate(s). Alternatively, candidates can liaise directly with BSIF to arrange accreditation.

This course will provide instruction and guidance on using respirators of all types that are widely available in UK workplaces from a range of different manufacturers, including modules on legal requirements, record keeping, the use, operation, and maintenance of respirators and fit test equipment.

Course competencies:

- Understand the terms 'Assigned Protection Factor' (APF), 'Nominal Protection Factor' (NPF), and 'fit factor'
- Selection of adequate and suitable RPE
- Inspect and identify poorly maintained RPE
- The ability to correctly fit a mask and understand the importance of a pre-use seal check / fit check
- Knowledge of legislation and guidance that deals with fit testing
- Awareness of external factors that could affect the fit test
- The purpose and applicability of fit testing
- The difference between qualitative and quantitative fit testing and when to use
- The purpose of fit test exercises
- Understand capabilities and limitations of fit test methods
- Preparation of facepieces for fit testing
- How to carry out diagnostic tests on the facepiece and fit test equipment
- How to correctly perform a fit test with the chosen method
- Awareness and knowledge of how to prevent and correct problems during fit testing
- Interpretation of results
- Record keeping requirements

Teaching methods include PowerPoint presentations, written assessments, instructor & student practical demonstrations, with a syllabus that raises real workplace scenarios.

BSIF Fit2Fit Accredited course	
Duration:	2 separate days over 3-week period.
Entry Requirements:	Minimum age 18. Must be fluent in English language.
Equipment Requirements:	Attendees must obtain test kit; a selection of test respirators will be provided.
Instructor Ratio:	1:10
Assessment:	Practical and written
Certification:	BSIF Fit2Fit Accreditation (With additional assessment)
Validity Period:	3 years

fit2fit ACCREDITED RPE Fit Test Provider

STANDARDS EXPLAINED

Personal Protective Equipment (PPE) must be certified under the PPE Regulation (Regulation (EU) 2016/425), which is most often achieved through conformity with one or more European (EN) standards. These standards set out specifications and assessment requirements, ensuring that new PPE products are fit for purpose and safe to use.

Recent changes brought in with the new PPE Regulation mean that products must be recertified every five years, or sooner if a relevant standard is updated, ensuring that equipment remains state-of-the-art. RPE products are covered by a number of different EN standards, introductions to each of the standards relevant to products in this guide are given on the following pages.

JSP RPE QA Test Facility, Oxford, UK

RESPIRATORY PROTECTION STANDARDS

EN 136 – Respiratory protective devices. Full face masks. Requirements, testing, marking.

This standard covers full face masks, with assessments including field of vision, flammability, and strength of connections, and tests including breathing resistance, carbon dioxide content, and inward leakage. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Specifications and requirements are also given for cleaning & disinfecting, marking, packaging, and user information.

Additionally, this standard requires assessment of the visor or eyepiece for mechanical strength, distortion, misting and leak tightness, which is assessed before and after mechanical strength testing. If the respirator includes a speech diaphragm it must be tested for strength and function.

EN 136 classifies full face masks as:
Class 1: Light Duty,
Class 2: General Use,
Class 3: Special Use

EN 140 – Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking.

Half and quarter masks are covered in this standard, which includes assessments of field of vision, head harness, and strength of connections, and tests covering breathing resistance, carbon dioxide content and inward leakage. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Demountable parts and replaceable components are also assessed to ensure the mask can be used and maintained correctly. Requirements for markings and user information are also given in the standard.

EN 143 – Respiratory protective devices. Particle filters. Requirements, testing, marking.

This standard sets out the requirements for particulate filters for use with respiratory protective devices and includes review and assessment of materials, connections, markings, and user information. Filters are tested for breathing resistance, clogging, and penetration. Filter penetration testing is carried out before and after clogging with dolomite dust to ensure the product continues to perform at the marked level.

Filters are classed as below:
P1 = Low filter performance (80% efficiency)
P2 = Medium filter performance (94% efficiency)
P3 = High filter performance (99.5% efficiency)

EN 149 – Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking.

This standard covers particle filtering half masks, commonly called disposable dust masks, and sets out requirements for materials, field of vision, performance, markings, and user information. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Testing covers breathing resistance, penetration, clogging, and carbon dioxide of the air, as well as strength of connections and valves.

Masks are divided into three classes:
FFP1 – Low filter performance (80% efficiency),
FFP2 – Medium filter performance (94% efficiency),
FFP3 – High filter performance (99% efficiency)

EN 529, Respiratory protective devices – Recommendations for selection, use, care and maintenance – Guidance document

This standard provides guidance on best practice for establishing and implementing a suitable respiratory protective equipment programme. The guidance is published to set minimum guidelines for the proper selection, use, care, and maintenance of respiratory protective devices, covering risk assessments, adequacy and suitability, and protection factors.

Two types of protection factor are outlined in the standard:
NPF: Nominal Protection Factor, refers to the level of respiratory protection the device provides under laboratory conditions.
APF: Assigned Protection Factor, refers to the workplace level of respiratory protection the device provides, and is used when selecting adequate RPE.

EN 12941 – Respiratory protective devices. Powered filtering devices incorporating a helmet or a hood. Requirements, testing, marking.

This standard sets out requirements for powered filtering respirators incorporating a helmet or a hood, with assessments covering materials, field of vision, inward leakage, carbon dioxide content, connections, markings, and user information. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Additionally, requirements are given for the visor incorporated as part of the product, and for the function of warning facilities and noise level from the motor inside the unit.

Powered air devices are classed as follows:
TH1 – Low filter performance (90% efficiency)
TH2 – Medium filter performance (98% efficiency)
TH3 – High filter performance (99.8% efficiency)

EN 14387 – Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking.

This standard covers gas and combined filters, and involves review of materials and construction, connections, markings, and user information.

Filters are tested for gas capacity and breathing resistance, with combined filters subject to additional penetration testing. Combined filters that pass the optional clogging requirement are marked with the letter 'D'. Filters are designated by type and class, determined by the gases or vapours they are intended for use against.

Types **A, B, E, K,** and multi-type gas filters are classified further by capacity, with 1 (low) to 3 (high) following the letter, e.g. A2.

Filter types:
Type A – Organic gases and vapours with a boiling point of >65°C.
Type B – Inorganic gases and vapours.
Type E – Sulphur dioxide and other acid gases and vapours.
Type K – Ammonia and organic ammonia derivatives.

JSP QA Test Facility, Oxford, UK

Type AX – Organic gases and vapours with a boiling point <65°C, as specified by the manufacturer.
Type SX – Specially named gases and vapours, as specified by the manufacturer.
Type Hg-P3 – Mercury vapours and particles.
Type NO-P3 – Oxides of nitrogen, nitro gases and vapours and particles.

Additionally, combined filters include classification from EN 143 which follows the complete gas element marking, e.g. A2P3.

NIOSH CFR 42 Part 84 – Respiratory Protective Devices.

This is a national respiratory protection standard used in the USA which covers all respirator types, unlike EN where requirements for each type are set out in separate standards. Requirements are given for classification, testing and assessment, as well as information supplied via labels and instruction manuals.

Respirator types include self-contained breathing apparatus and supplied air, gas masks, and air-purifying particulate respirators which can be powered or non-powered.

Air-purifying particulate respirators are designated by series: N series filters are for use in workplaces without oil-based aerosols, R and P series filters can be used for particulate hazard environments with oil-based liquid particles.

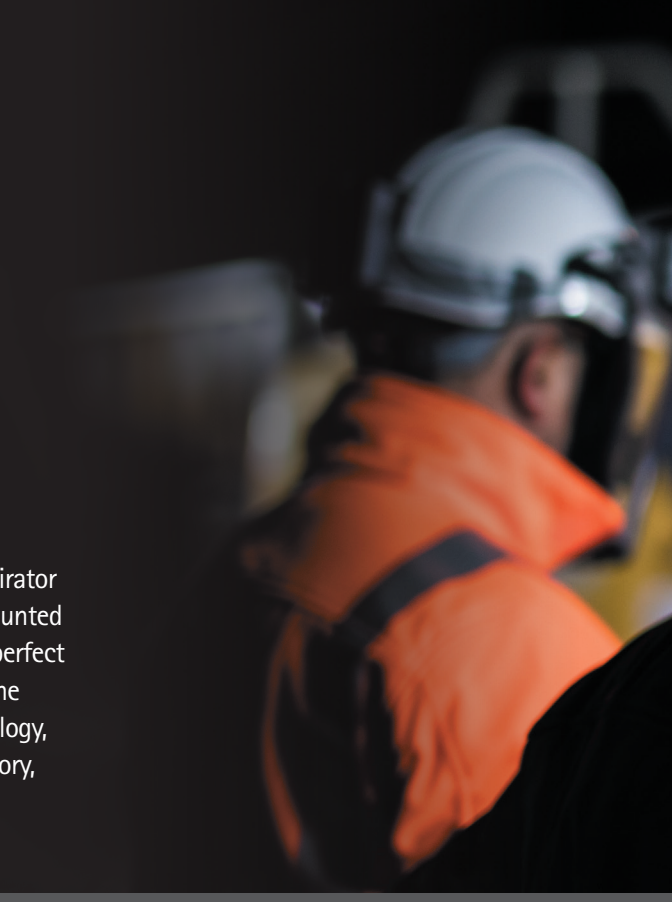
Non-powered devices are classed by efficiency:
N100, R100, P100 –
Minimum efficiency of 99.97%
N99, R99, P99 –
Minimum efficiency of 99%
N95, R95, P95 –
Minimum efficiency of 95%

Powered air devices are designated by class and series:
PAPR100-N – Intended for workplaces free from oil-based liquid particles
PAPR100-P – Can be used where oil-based aerosols are present
HE – Stands for high efficiency

All powered air-purifying respirators must have minimum efficiency of 99.97%.

POWERCAP INFINITY®

TH3 POWERED AIR PURIFYING RESPIRATOR



4 IN 1 FULLY INTEGRATED PROTECTION

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. Giving the wearer complete above the neck 4 in 1 protection. The perfect choice for many industries where dust poses a great danger to health. The unit provides the very latest in Powered Air Purifying Respiratory technology, combining decades of innovation from JSP in the fields of head, respiratory, eye and face and hearing protection.

1. 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.

Conforming to: EN 397

evo5® Mk5 evolution

bsi Head Protection KITEMARK™ KM 579403 BS EN 397

2. HIGH EFFICIENCY FILTER PAIR

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.

Provides users with filtered air to a level of EN 12941:1998 + A2: 2008 TH3P – the highest possible rating, with an NPF of 500 (UK APF 40).

bsi Respiratory Protective Devices KITEMARK™ KM 586271 BS EN 12941

No need to
FACE FIT test

**VIDEO &
INFORMATION**
http://bit.ly/PowerCapInfinity

3. 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.

Conforming to: EN166.1.B

bsi Personal Eye Protection KITEMARK™ KM 716350 BS EN 166

4. SONIS® EAR DEFENDERS*

Seamlessly integrates with 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 cushion surface area work to provide optimum cushion pressure and comfort.

Conforming to: EN352-3

SONIS

bsi Protective Hearing Equipment KITEMARK™ KM 662534 BS EN 352-3

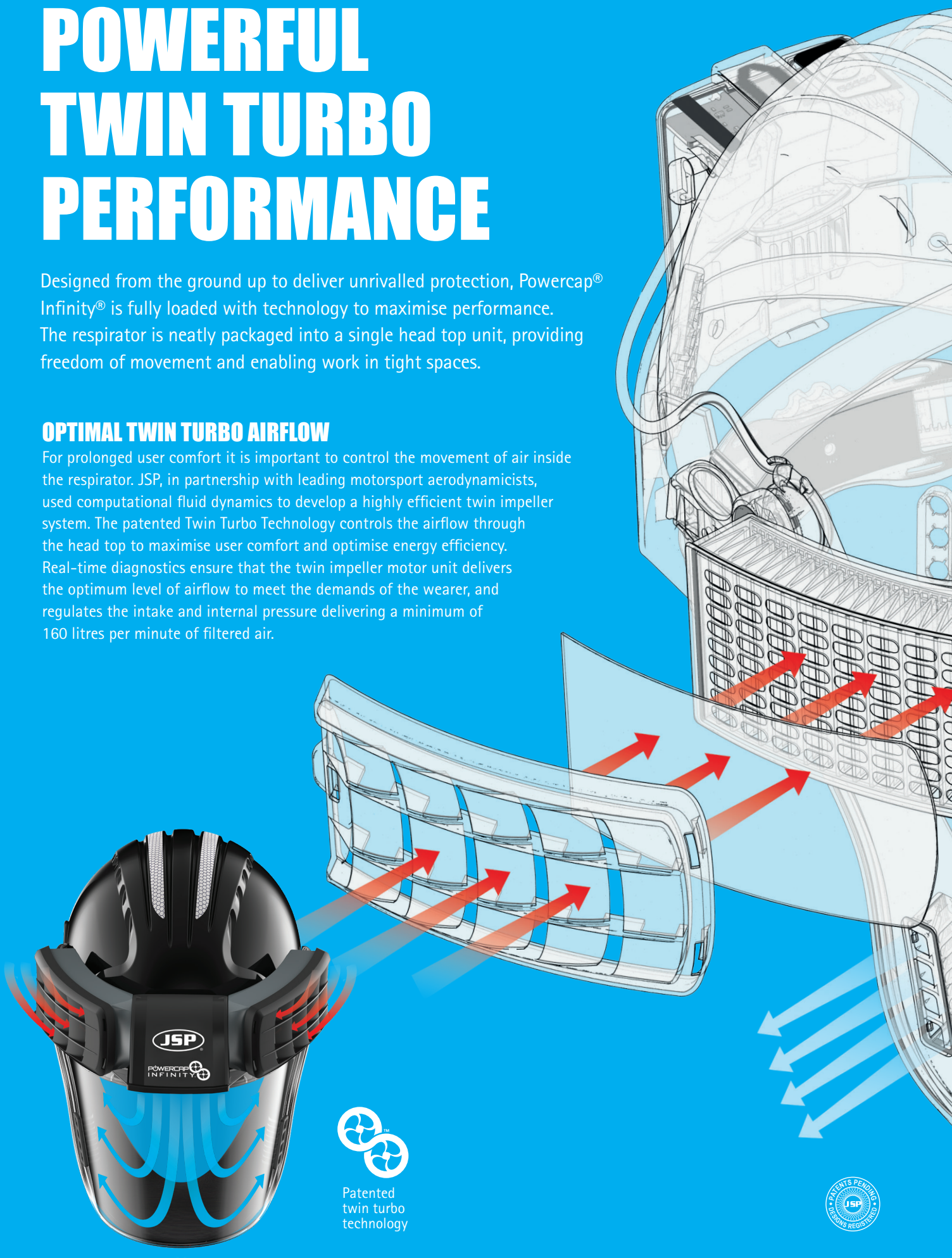
*Sonis® helmet mounted ear defenders are optional.

POWERFUL TWIN TURBO PERFORMANCE

Designed from the ground up to deliver unrivalled protection, Powercap® Infinity® is fully loaded with technology to maximise performance. The respirator is neatly packaged into a single head top unit, providing freedom of movement and enabling work in tight spaces.

OPTIMAL TWIN TURBO AIRFLOW

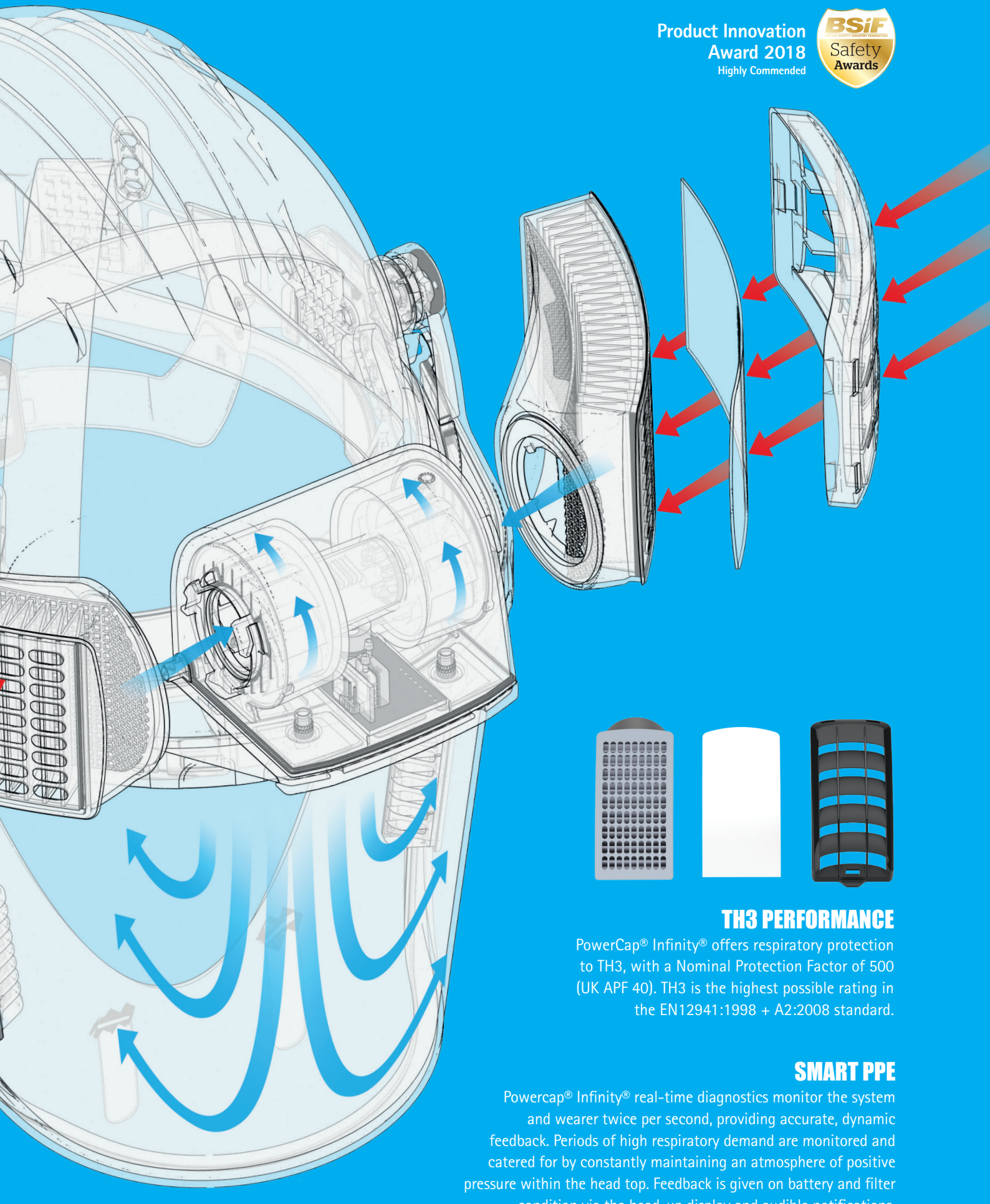
For prolonged user comfort it is important to control the movement of air inside the respirator. JSP, in partnership with leading motorsport aerodynamicists, used computational fluid dynamics to develop a highly efficient twin impeller system. The patented Twin Turbo Technology controls the airflow through the head top to maximise user comfort and optimise energy efficiency. Real-time diagnostics ensure that the twin impeller motor unit delivers the optimum level of airflow to meet the demands of the wearer, and regulates the intake and internal pressure delivering a minimum of 160 litres per minute of filtered air.



Patented twin turbo technology

PATENTS PENDING • DESIGNS REGISTERED • JSP

Product Innovation Award 2018
Highly Commended



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

Powercap® Infinity® real-time diagnostics monitor the system and wearer twice per second, providing accurate, dynamic feedback. Periods of high respiratory demand are monitored and catered for by constantly maintaining an atmosphere of positive pressure within the head top. Feedback is given on battery and filter condition via the head-up display and audible notifications.

PERFECT FIT TO COMBAT DUST

Dust in the workplace is a significant issue. HSE research from November 2020 estimates 17,000 new cases of work-related respiratory disease, and a total estimated 48,000 people working in the 12 month period (April 2019 - March 2020) suffered lung or breathing issues. 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, the equipment is often not suitable for the person or environment in which it is being used.

NO NEED TO FACE FIT TEST

The suitability of tight-fitting RPE is assessed by face fit testing. In many cases, however, it is not carried out or there are errors in the test or subsequent use of RPE, ultimately leading to poor fit. One of the biggest factors is facial hair. The HSE issued a number of reports showing the results of fit testing for individuals with varying degrees of facial hair. JSP have carried out a number of tests and found, like the HSE, that a tight-fitting mask works very well when the wearer is clean shaven but performance levels drop quickly when the user has facial hair. PowerCap® Infinity® removes the need for fit testing, ensuring that a high volume of clean air is delivered to the breathing zone to provide a high level of protection.

POWERCAP® INFINITY®
SPARES & MAINTENANCE

PowerCap® Infinity® has been developed as a modular system, making it easy to disassemble and reassemble for effortless cleaning and maintenance. To ensure the optimal performance of PowerCap® Infinity® it is important that maintenance is carried out on a regular basis. The main components can be cleaned down with a damp cloth or brush. The face seal can be easily removed for machine washing with a mild detergent at 30°C.

MINIMAL MAINTENANCE

The smart technology embedded in PowerCap® Infinity® will identify when the filters are blocked and need changing, however as a general guide pre-filters should be changed daily and filters weekly. The visor and skirt will also need periodic replacement. All parts are available as indicated in the replacement parts tables below.

REUSABLE

POWERCAP® INFINITY®
EN 12941, EN 397, EN 166

Powercap® Infinity® TH3 powered air purifying respirator

CEA646-000-100	Powercap® Infinity® complete unit - White - Box Qty 1
CEA646-000-500	Powercap® Infinity® complete unit - Blue - Box Qty 1
CEA646-001-100	Powercap® Infinity® complete unit - Black - Box Qty 1

No need to FACE FIT test

INSTRUCTIONAL VIDEOS AVAILABLE

Comprehensive instructional videos can be found by visiting the JSP YouTube page or by scanning the QR code below.

FITTING & CARE VIDEOS
http://bit.ly/Infinity-videos

CAU660-000-400	PowerCap® Infinity® Filters (Pair)	Qty 1
CEU100-006-500	PowerCap® Infinity® Pre-Filter (5 Pairs) and Pre-Filter Covers	Qty 1
CEU150-000-000	PowerCap® Infinity® Pre-Filter (50 Pairs)	Qty 1
CEU220-001-100	Replacement Black Self-Adhesive Foam Elastomer Seal (10 Pairs)	Qty 1
CEU120-001-300	PowerCap® Infinity® Twin-Turbo Drive Unit and Visor Carrier Assembly	Qty 1
CEU170-000-000	PowerCap® Infinity® Battery Pack	Qty 1
CEU210-001-100	PowerCap® Infinity® Replacement Cable Clip (10 Pack)	Qty 1
CEU180-000-000	PowerCap® Infinity® Face Seal Skirt	Qty 1
AJA 840-000-200	Chamlon™ Sweatband (10 Pack)	Qty 1

CEU110-001-300	PowerCap® Infinity® Visor	Qty 1
CAU180-000-000	PowerCap® Infinity® Peel Off Visor Protectors (10 Pack)	Qty 1
AKG179-P01-100	Black* Evo®5 Helmet for PowerCap® Infinity® *Other colours available on request	Qty 1
CEU190-000-000	Helmet Harness Strap	Qty 1
CEU130-001-100	PowerCap® Infinity® Charge Dock and Power Supply	Qty 1
CEU140-001-100	PowerCap® Infinity® Airflow Indicator Test Unit	Qty 1
CEU170-001-100	PowerCap® Infinity® Carry Case	Qty 1
CEU230-000-000	PowerCap® Infinity® Replacement Hygiene Bag (10 Pack)	Qty 1
AJA 830-001-100	4mm Brushed Nylon Foam Sweatband (Black)	Qty 1

JETSTREAM®
SWITCH & GO UNIT

Jetstream®

Jetstream® is a belt-mounted rechargeable respirator with a large capacity disposable filter supplying clean air through a highly flexible reinforced hose to a variety of head tops for different applications.

NO FACE FIT TESTING

As a loose-fitting respirator, Jetstream® is suitable for users with neatly trimmed, well-groomed facial hair and does not require face fit testing.

HIGH PERFORMANCE

180 litres of air per minute are delivered through the Jetstream® filter via a highly flexible hose to the desired head top.

COMFORT

Waist mounted blower unit with fully automatic alarm and integrated battery attached to a wide comfortable waist belt. Complete unit and belt weigh just 765g.

JETSTREAM® DUST
EN12941-TH2

Jetstream® dust kit carry case contains:

- White head top
- Hose
- PSL dust filters
- Flow meter
- Battery, charger & plug

No need to FACE FIT test

CBB610-211-100	Jetstream® TH2PSL filter	Qty 1

JETSTREAM® GAS & VAPOURS
EN12941-TH2

Jetstream® gas & vapours kit carry case contains:

- White head top
- Hose
- A2 or A2PSL filters
- Flow meter
- Battery, charger & plug

No need to FACE FIT test

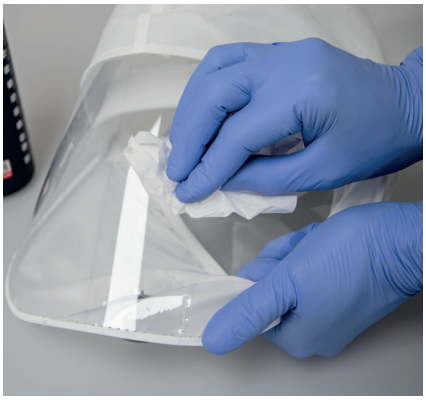
A2 filter

A2PSL filter

CCA630-211-100	Jetstream® A2 filter	Qty 1
CCA620-211-100	Jetstream® A2PSL filter	Qty 1

JETSTREAM® - SPARE PARTS

CBH030-000-000	Replacement hood	Box Qty 1
CBU210-001-100	Replacement Switch & Go power unit	Box Qty 1
CBU190-000-000	Replacement waist belt	Box Qty 1
CBU020-001-100	1m replacement hose	Box Qty 1



ADAPTABLE
Choice of filters suitable for dust and gas/vapour hazards. Wide range of kits available to suit different applications.

EASY CLEANING
Quick and easy cleaning; hood, filter housing, blower unit, and hose can be wiped clean with a damp cloth soaked in mild detergent solution.

SIMPLE MAINTENANCE
Key components are available as spare parts, enabling simple maintenance and the option to purchase several head tops or filters.

JETSTREAM® KITS

JETSTREAM® WELDER KIT

Jetstream®: EN12941-TH2 Cobra™ Welding head top: EN175 Auto darkening lens: EN379 Grinding visor: EN166

Jetstream® Welder kit carry case contains:

- Cobra™ welding/grinding head top shade 9-13 auto darkening filter
- Filter unit
- Hose
- Flow meter
- Battery, charger & plug

No need to FACE FIT test

CBP010-001-100	Jetstream® PSL Welder kit	Qty 1

CDP010-901-100	Jetstream® A2PSL Welder kit	Qty 1

JETSTREAM® INDUSTRIAL KIT

Jetstream®: EN12941-TH2 Grinding visor: EN166

Jetstream® Industrial kit carry case contains:

- Grinding visor head top
- Filter unit
- Hose
- Flow meter
- Battery, charger & plug

No need to FACE FIT test

CBP030-001-300	Jetstream® PSL Industrial kit	Qty 1

CDP030-201-300	Jetstream® A2PSL Industrial kit	Qty 1

JETSTREAM® CONSTRUCTOR KIT

Jetstream® EN12941-TH2 Mk®7 Helmet: EN397 Visor: EN166

Jetstream® Constructor kit carry case contains:

- Mk®7 safety helmet complete with sealed polycarbonate visor.
- Filter unit
- Hose
- Flow meter
- Battery, charger & plug

No need to FACE FIT test

CBP020-000-000	Jetstream® PSL Constructor kit	Qty 1

CDP020-000-000	Jetstream® A2PSL Constructor kit	Qty 1

POWERCAP® ACTIVE™
NO FACE FIT TESTING REQUIRED

Powercap® Active™ is a lightweight powered air purifying respirator with EN 812 bump cap protection. The IP version provides additional eye and face protection. Firm-fitting and ergonomically designed, the Powercap® Active™ is designed to protect the user from dust and other airborne particulate pollutants to EN 12941 TH1P.

POWERED AIR
Protection to EN 12941 TH1P gives a cooling, comfortable supply of filtered air at 160 litres per minute, eliminating breathing resistance and visor misting.

BUMP CAP HEAD PROTECTION
The cap uses JSP HardCap A1+™ bump cap technology, exceeding the EN 812 standard. The cap cover is also easily removable, wipeable and machine washable.

EYE AND FACE PROTECTION
The IP version offers eye and face impact protection to EN 166 1B, ideal for working in environments where there is a danger of flying particles. Peel-off covers available.

EASY TO USE CHARGING DOCK
The 8 hour rechargeable battery can be charged whilst still attached to the cap, and the whole unit can be conveniently sat in the charging dock, ideal for overnight charging.

No need to FACE FIT test

POWERCAP Active

POWERCAP® ACTIVE™

Respirator: EN 12941 TH1P Bump cap: EN812

- 0.375mm thick polycarbonate visor - attached by a Velcro® seal.

CAE601-941-100	PowerCap® Active™	Qty 1

IMPACT PROTECTION

No need to FACE FIT test

POWERCAP Active IP

POWERCAP® ACTIVE™ IP

Respirator: EN 12941 TH1P Bump cap: EN 812 Visor: EN 166.1B

- 1mm thick polycarbonate visor with aluminium edges providing impact protection - attached by rivets.

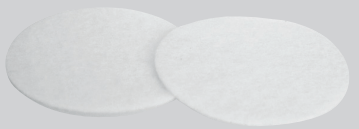
CAE602-941-100	PowerCap® Active™ IP	Qty 1

POWERCAP® ACTIVE™ SPARE PARTS

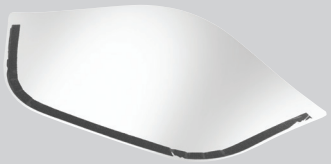
CAU330-001-100	Replacement cap

CAU340-001-100	Replacement battery

CAU601-001-100	Replacement filters (pair)



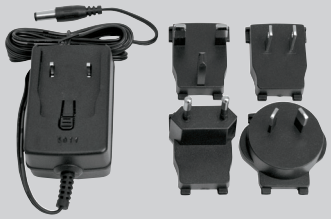
CAU610-000-010	Pre-filter pads (10 pack)



CAU030-000-000	Standard visor

CAU080-000-000	Impact protection visor

CAU070-001-100	Powercap® face seal
CAU071-001-100	Powercap® IP face seal



CAU350-000-000	Multi-region charger

CAU150-000-000	Peel-off visor (10 pack)

PRESSTOCHECK™

DAILY FACE FIT CHECK TECHNOLOGY

Face fit testing is reassuring, but how can you be sure that you have donned the mask correctly each time you wear it? With PressToCheck™ filters you can instantly check that you have the correct seal every time you don your mask before entering the hazard zone.

SCAN FOR RELATED VIDEOS
or view the video at:
http://bit.ly/JSPForce8

PRESSTOCHECK™ FILTER TESTING AND MANUFACTURING

JSP's state-of-the-art European production facility has the ability to produce filter components on demand, reducing unnecessary material, storage and delivery wastage. Automated in-house testing of PressToCheck™ filter units, in addition to batch release testing, ensure the filters are fully compliant with Category 3 CE marking requirements. JSP's rigorous testing procedures provide the highest quality reassurance for PressToCheck™ filter end users.

European production facility

Batch testing at European production facility's test lab

☑ FIT IT

DON THE MASK
Put the straps and harness over your head and pull the straps to a suitably tight and comfortable fit.

☑ PRESS IT

PRESSTOCHECK™
Press the front & backs of both filter covers together to stop air from entering through the filters.

☑ CHECK IT

INHALE - No air should come through the mask. ① **look forward** and adjust the mask until a seal is created. Repeat this process whilst looking ② **up**, ③ **down**, ④ **left** and ⑤ **right** to complete the check.

PRESSTOCHECK™ FILTER COMPATIBILITY

Our full range of PressToCheck™ filters are sleek and low-profile, enabling maximum compatibility with other JSP products such as the EVOGuard® visor range. PressToCheck™ filters are for use with both the Force™8 half mask and Force™10 Typhoon™ full face mask.

FORCE10™ TYPHOON™

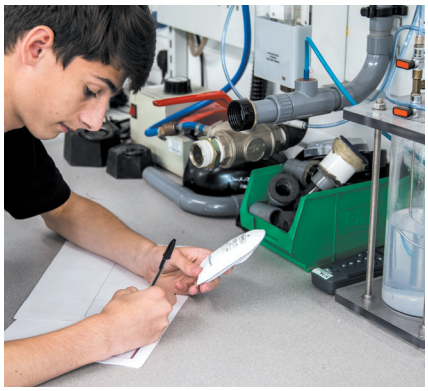
FORCE8™

PRESSTOCHECK™
RESPIRATORY FILTER RANGE

bsi Respiratory Protective Devices KITEMARK™
KM 586271
BS EN 143
BS EN 14387

PressToCheck™ is the easiest way to face-fit check the seal of your respirator, every time you put it on! High filtration exceeding 99.97% and low breathing resistance, with daily face fit check technology.

PRESSTOCHECK™



RIGOROUS FILTER TESTING

Automated in-house testing of PressToCheck™ filter units, as well as batch release testing, ensure the filters are fully compliant with Category 3 CE marking requirements.

MAXIMISED COMPATIBILITY

PressToCheck™ filters are sleek and low-profile, offering complete compatibility with other JSP products such as the EVO® VISTA®. Filters are for use with both the Force™8 half mask and Force™10 Typhoon™ full face mask.

INCREASED PRODUCT LIFE

PressToCheck™ encapsulated filters offer ultimate longevity – the durable design makes the filters easy to clean and reuse. Correct cleaning, maintenance and storage increases the useful life of the product.

1 DAY RECOMMENDED DAILY USAGE

50g

PRESSTOCHECK COMPACT

PRESSTOCHECK™ P3 COMPACT

PressToCheck™ P3 Compact filter: EN 143

PressToCheck™ P3 Compact dust filters.

BGC310-001-000	Qty 10

5 DAYS RECOMMENDED WEEKLY USAGE

88g

PRESSTOCHECK

PRESSTOCHECK™ P3

PressToCheck™ P3 filter: EN 143

PressToCheck™ P3 dust filters.

BMN990-001-700	Qty 10

5 DAYS RECOMMENDED WEEKLY USAGE

228g

PRESSTOCHECK

PRESSTOCHECK™ A2P3

PressToCheck™ A2P3 filter: EN 14387

PressToCheck™ A2P3 organic gas vapour + dust filters.

BMN740-000-600	Qty 10

5 DAYS RECOMMENDED WEEKLY USAGE

250g

PRESSTOCHECK

PRESSTOCHECK™ ABEK1P3

PressToCheck™ ABEK1P3 filter: EN 14387

PressToCheck™ ABEK1P3 multi-gas vapour + dust filters.

BMN750-000-600	Qty 10

HOW MUCH WILL YOU SAVE?

Force™8 Half Mask with PressToCheck™ filters can **SAVE £1000s** a year when compared to disposable masks.

CALCULATE YOUR SAVINGS AT
www.presstocheck.com

SELECTING FILTERS FOR HALF AND FULL FACE MASKS

Filters for half and full face masks protect against various forms of hazardous substance, including particulates and gas / vapours. Both half masks and full face masks are tight-fitting RPE and require face fit testing upon selection and regularly thereafter - see page 19 for more information on fit testing and which methods are applicable to each type of mask. Selection of the correct filters is essential to ensure protection is provided to the wearer. A full risk assessment must be completed to determine the correct protection factor and filter type - this section gives general guidance on the appropriate filters for various hazardous substances.

FILTER TYPES

Respiratory filters are colour-coded and marked with letters to show the type of protection provided.

TYPE	COLOUR CODE	DESCRIPTION
A		Organic vapours and gases with boiling points > 65°C
B		Inorganic gases excluding carbon monoxide
E		Sulphur dioxide and acidic gases
K		Ammonia and organic ammonia derivatives
P		Solid & liquid hazardous & radioactive particles

HALF MASK & FILTER USE SELECTION CHART

	DUSTS			ODOURS		FUMES	WOODS			FIBRES		PAINTING							MAINTENANCE				
	Silica	Concrete & Stone Cutting	Plaster	Earth Moving Contaminated	Resins	Welding (Ferrous & Lead)	Woods Hard	Woods Soft	MDF (Machine Tooling)	Asbestos Removal	Fibres & Fibre Glass	Water Based	Brush - Solvent Based	Spray - Solvent Based	Manual Prep	Powered Prep	Chemical Paint Stripping	Heat Paint Stripping	White Spirit	Chlorine	Glyphosate (Weed Killer)	Brick Acid	Ammonia
P2												☑			☑								
P3	☑	☑	☑			☑	☑	☑			☑	☑			☑	☑					☑		
A					☑								☑				☑	☑	☑				
B																				☑			
K																							☑
AB					☑			☑							☑		☑	☑		☑			
A P3					☑							☑	☑	☑	☑	☑	☑	☑	☑				
AB P3					☑							☑	☑	☑	☑	☑	☑	☑	☑	☑			
ABEK P3				☑	☑							☑	☑	☑	☑	☑	☑	☑	☑	☑		☑	☑

FULL FACE MASK & FILTER USE SELECTION CHART

	DUSTS			ODOURS		FUMES	WOODS			FIBRES		PAINTING							MAINTENANCE				
	Silica	Concrete & Stone Cutting	Plaster	Earth Moving Contaminated	Resins	Welding (Ferrous & Lead)	Woods Hard	Woods Soft	MDF (Machine Tooling)	Asbestos Removal	Fibres & Fibre Glass	Water Based	Brush - Solvent Based	Spray - Solvent Based	Manual Prep	Powered Prep	Chemical Paint Stripping	Heat Paint Stripping	White Spirit	Chlorine	Glyphosate (Weed Killer)	Brick Acid	Ammonia
P2												☑			☑	☑							
P3	☑	☑	☑			☑	☑	☑		☑	☑	☑			☑	☑					☑		
A					☑								☑				☑	☑	☑				
B																				☑			
K																							☑
AB					☑								☑				☑	☑	☑	☑			
A P3	☑	☑	☑		☑	☑	☑	☑			☑	☑	☑	☑	☑	☑	☑	☑	☑		☑		
AB P3	☑	☑	☑		☑	☑	☑	☑			☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑		
ABEK P3	☑	☑	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑

TWIN CARTRIDGE FILTER USAGE GUIDE

PRESSTOCHECK™ FILTER RANGE






Filter Name	F-3103	F-4003	F-4123	F-4713	F-2713	F-2712
Filter Type	P3	P3	A2 P3	ABEK1 P3	ABEK1 P3	ABEK1 P2
Product Code	BGC310-001-000	BMN990-001-700	BMN740-000-600	BMN750-000-600	BMP520-011-700	BMP580-011-700
Organic Vapours (>WEL*) (A)			✓	✓	✓	✓
Inorganic Vapours (>WEL*) (B)				✓	✓	✓
Acidic Vapours (>WEL*) (E)				✓	✓	✓
Ammonia Vapours (>WEL*) (K)				✓	✓	✓
Nuisance Odours (<WEL*)	✓		✓	✓	✓	✓
Dusts (P)	✓ APF 40**	✓ APF 40**	✓ APF 20**	✓ APF 20**	✓ APF 20**	✓
Mists	✓	✓	✓	✓	✓	✓
Water Based Painting	✓	✓	✓	✓	✓	✓
Solvent Based Painting			✓	✓	✓	✓
Rubbing Down Paint	✓ Power Tool	✓ Power Tool	✓	✓	✓	✓
Paint Stripping			✓	✓	✓	✓
White Spirit			✓	✓	✓	✓
Chlorine (Cleaning & Pools)				✓	✓	✓
Glyphosate (Weed Killer)	✓	✓	✓	✓	✓	
Brick Acid (Graffiti Removal)				✓	✓	✓
Formaldehyde				✓	✓	✓
Fibres & Fibre Glass	✓	✓	✓	✓	✓	✓
Plaster	✓	✓	✓ (Force™ 10 only)	✓ (Force™ 10 only)	✓ (Force™ 10 only)	
Silica (Concrete/Stone Cutting)	✓	✓	✓ (Force™ 10 only)	✓ (Force™ 10 only)	✓ (Force™ 10 only)	
Woods (Hard & Soft)	✓	✓	✓ (Force™ 10 only)	✓ (Force™ 10 only)	✓ (Force™ 10 only)	
MDF (Machine tooling)				✓ (Force™ 10 only)	✓ (Force™ 10 only)	
Welding (Ferrous & Lead)	✓	✓	✓ (Force™ 10 only)	✓ (Force™ 10 only)	✓ (Force™ 10 only)	
Earth Moving (Contaminated)				✓	✓	✓

PRESS TO CHECK™ FORCE™

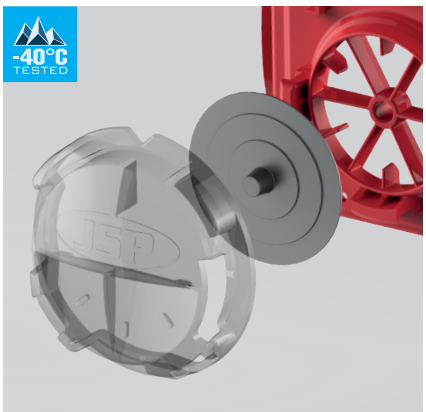
CLASSIC FORCE™ FILTER RANGE

F-2710 ABEK1 BMN330-011-700	F-2512 AB1 P2 BMP540-011-700	F-2510 AB1 BMN320-011-700	F-2123 A2 P3 BMP300-011-700	F-2112 A1 P2 BMP550-011-700	F-2120 A2 BMN190-011-700	F-2110 A1 BMN210-011-700	F-2002 P2 BMN380-011-700
✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓					
✓							
✓							
✓	✓	✓	✓	✓	✓	✓	
	✓ APF 20**		✓ APF 20**	✓ APF 20**			✓ APF 20**
	✓		✓	✓			✓
	✓		✓	✓			✓
	✓		✓	✓			
	✓		✓	✓			✓ Hand Tool
	✓		✓	✓			
✓	✓	✓	✓	✓	✓	✓	
✓	✓						
	✓		✓				✓
✓							
✓	✓	✓					
	✓		✓	✓			✓
			✓ (Force™ 10 only)				
			✓ (Force™ 10 only)				
			✓ (Force™ 10 only)				
			✓ (Force™ 10 only)				

*Wel (Workplace exposure Level)- This table is for guidance purposes only. A proper risk assessment by qualified personnel should be carried out before selecting an appropriate filter cartridge. **Only when used with a Force™ 10 Typhoon™ respirator

FORCE™10 TYPHOON™
AIRBORNE HAZARD DEFENCE

The NEW Force™10 Typhoon™ is an extremely lightweight, easy to maintain full face mask with panoramic visor. With 3 available sizes (S,M,L) and the ability to fit PressToCheck™ filters, the user can feel reassured of an excellent fit.



EXCELLENT FACE SEAL

Extensive research has been carried out by NIOSH (ISO 16976-2) to distinguish the 5 most common facial shapes worldwide. Using this research, JSP have digitally optimised the ergonomics of the Force™10 Typhoon™ face seal to maximise wearer compatibility.

TYPHOON™ VALVE

Low resistance exhalation valve for easy breathing, with stable mask configuration. Made from silicone it performs well at very low temperatures.

LIGHTWEIGHT COMFORT

Comfort is a key feature of this ultra lightweight mask, the web like structure of the harness cradles the user's head – ensuring wearer comfort throughout the working day.

FORCE™10 SMALL (MASK ONLY)
Force™10 respirator: EN 136

BPB003-104-000-UK Qty 1

FORCE™10 MEDIUM (MASK ONLY)
Force™10 respirator: EN 136

BPB003-004-000-UK Qty 1

FORCE™10 LARGE (MASK ONLY)
Force™10 respirator: EN 136

BPB003-204-000-UK Qty 1

EFFORTLESS MAINTENANCE FOR MAXIMUM REUSE

The Force™10 Typhoon™ has been meticulously engineered to incorporate a small number of key components. Disassembly, cleaning and maintenance are effortless with replacement parts available if necessary.

- ☑ EXTEND PRODUCT LIFE
- ☑ REDUCE WASTE

SCAN FOR MAINTENANCE GUIDE
or view the video at:
http://jspsafety.info/F10MaintainGO

☑ FILTER COMPATIBILITY
Fully compatible with PressToCheck™ twin filter cartridges, providing daily face fit reassurance with the easiest way to check the seal each time the mask is donned.
Fit it - Press it - Check it.

☑ AVAILABLE IN 3 SIZES
Available in Small, Medium and Large to provide an even better fit to a wider range of head sizes and shapes improving the seal and level of protection. A size guide is available for use with Force™8 and Force™10 Typhoon™ respirator masks.

☑ ADJUSTABLE RX INSERT
Enables the use of corrective lenses with the respirator, preventing traditional prescription spectacles interrupting the face seal and compromising protection.

AST000-000-000 Qty 1

FORCE™8
HALF MASK RESPIRATOR

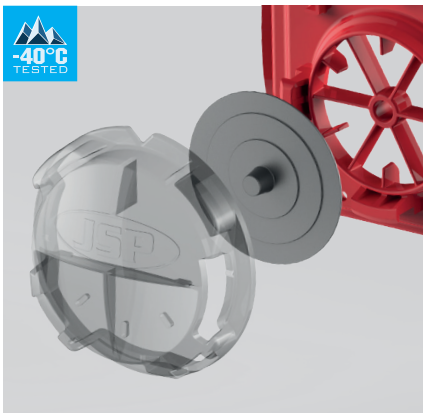
The Force™8 twin cartridge half mask with Typhoon™ valve offers superior low breathing resistance and a 4-point suspension harness with quick release buckles. The mask accepts the full range of low-profile PressToCheck™ filters, providing protection against particulates, many gases and vapours.

bsi Respiratory Protective Devices KITEMARK™
KM 586271
BS EN 140
BS EN 143
BS EN 14387

★★★★★
Consistently rated 5 stars in online reviews

SUPERIOR COMFORT & FIT

Durable thermoplastic rubber mask available in three sizes for superior fit to most face shapes. Fully adjustable 4-point cradle suspension ensuring an effective facial fit.



TYPHOON™ VALVE

Low resistance exhalation valve for easy breathing, with stable mask configuration. Made from silicone it performs well at very low temperatures.

COMPATIBILITY

The low-profile, swept-back design Force™8 PressToCheck™ enables excellent visibility, allowing the filters to be worn effectively behind all types of faceshield and welding visor.

FORCE™8 SHORT WIDE
Force™8 respirator: EN 140

Force™8 half mask only

BHG002-0L5-000	Qty 10

FORCE™8 SMALL
Force™8 respirator: EN 140

Force™8 half mask only

BHG003-1L5-000	Qty 10

FORCE™8 MEDIUM
Force™8 respirator: EN 140

Force™8 half mask only

BHT003-0L5-000	Qty 10

FORCE™8 LARGE
Force™8 respirator: EN 140

Force™8 half mask only

BHG003-2L5-000	Qty 10

FORCE™8 + PRESSTOCHECK™ P3
Force™8 respirator: EN 140
PressToCheck™ P3 filter: EN 143

Force™8 (medium) fitted with PressToCheck™ P3 dust filters

BHT0A3-0L5-N00	Qty 10

FORCE™8 + PRESSTOCHECK™ A2P3
Force™8 respirator: EN 140
PressToCheck™ A2P3 filter: EN 14387

Force™8 (medium) complete with PressToCheck™ A2P3 organic gas / vapour + dust filters

BHT0B3-0L5-N00	Qty 10

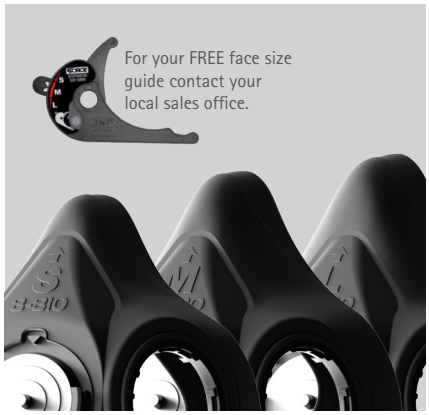
FORCE™8 + PRESSTOCHECK™ ABEK1P3
Force™8 respirator: EN 140
PressToCheck™ ABEK1P3 filter: EN 14387

Force™8 (medium) complete with PressToCheck™ ABEK1P3 multi-gas / vapour + dust filters

BHT0C3-0L5-N00	Qty 10

FILTER COMPATIBILITY
Fully compatible with PressToCheck™ twin filter cartridges, providing daily face fit reassurance with the easiest way to check the seal each time the mask is donned.
Fit it - Press it - Check it.

EFFORTLESS MAINTENANCE
The Force™8 half mask has been meticulously engineered to incorporate a small number of key components. Disassembly, cleaning and maintenance are effortless with replacement parts available if necessary.



AVAILABLE IN 4 SIZES
Small, Medium, Large, and Short-Wide sizes provide an ever better fit to a wider range of head sizes and shapes, improving the seal and protection level. A size guide is available for use with Force™ respirators.

✓ USE
✓ CLEAN
✓ REPEAT

CLEANING AND MAINTAINING RPE

Maintaining RPE correctly is important in order to maximise the lifespan of products. Instructions are provided with respirators that detail how to clean and maintain the product safely. Appropriate cleaning and maintenance ensure good hygiene, as well as helping to reduce costs and improve sustainability.

SCAN FOR MAINTENANCE GUIDE
or view the video at:
https://jspsafety.info/3cqjqsq

DISASSEMBLE


Remove filters (discard if blocked)


Remove exhalation valve cover


Remove harness


Remove diaphragm

CLEAN


Clean mask body with soapy water


Clean exhalation valve cover


Clean diaphragm


Dry all components

REASSEMBLE


Replace diaphragm


Replace harness


Replace exhalation valve cover


Replace filters (new pair if required)

REUSABLE BENEFITS

Reusable RPE provides an alternative to disposable masks, enabling reduced costs and reduced waste. Masks are easy to clean and maintain for reuse, with separate filters able to be replaced once expired.

☑ EXTEND PRODUCT LIFE

Half masks and full face masks with separable filters provide longer-lasting protection than disposable respirators. Cleaning and maintaining the mask in accordance with the instructions ensures optimum performance and helps to extend product life further.

☑ REDUCE WASTE

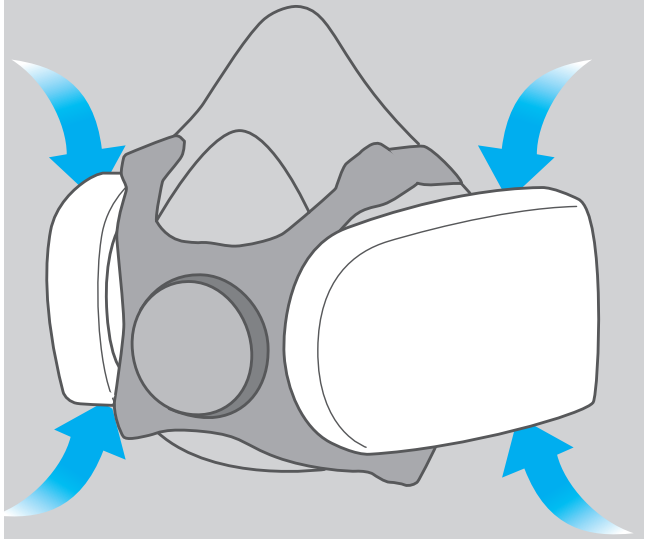
Reusable half and full face masks can be used for several years with the correct cleaning and maintenance. As well as offering increased comfort and an improved fit, reusable respirators reduce waste from single-shift disposables and masks with integral filters.

EXHALATION VALVE BENEFITS

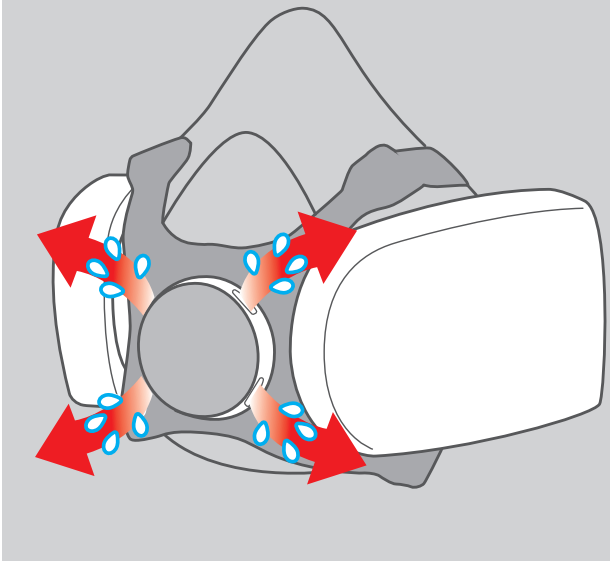
Exhalation valves provide greater comfort to wearers, with lower CO_2 levels and reduced heat and moisture build-up. Used safely, exhalation valves can help wearers retain energy and in turn improve morale. In situations with high work rates, where pulmonary stress can occur, and in hot environments, exhalation valves can be vital for safe use of RPE.

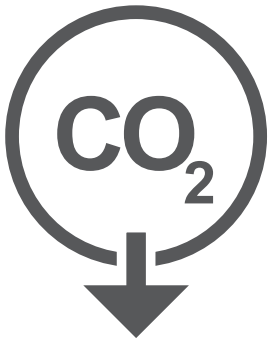
HOW DO EXHALATION VALVES WORK?

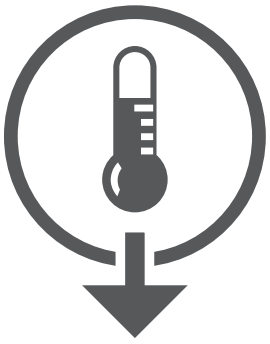
INHALATION: Air is inhaled through the filters. The diaphragm in the exhalation valve is closed to prevent inhalation through the valve.

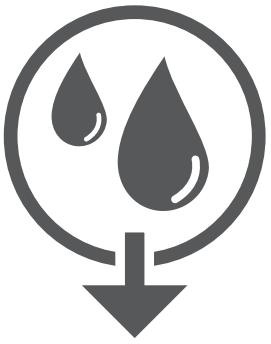


EXHALATION: When the wearer exhales, the diaphragm opens to allow air to pass through. This reduces the amount of air flowing back through the filter media, directing the warm and moist exhaled air out through the valve.









☑ REDUCED CO_2

All JSP respirators are tested for CO_2 content to ensure it remains below a safe level of 1% volume. Exhalation valves work more efficiently, reducing CO_2 even further to avoid feelings of drowsiness or fatigue.

☑ REDUCED HEAT

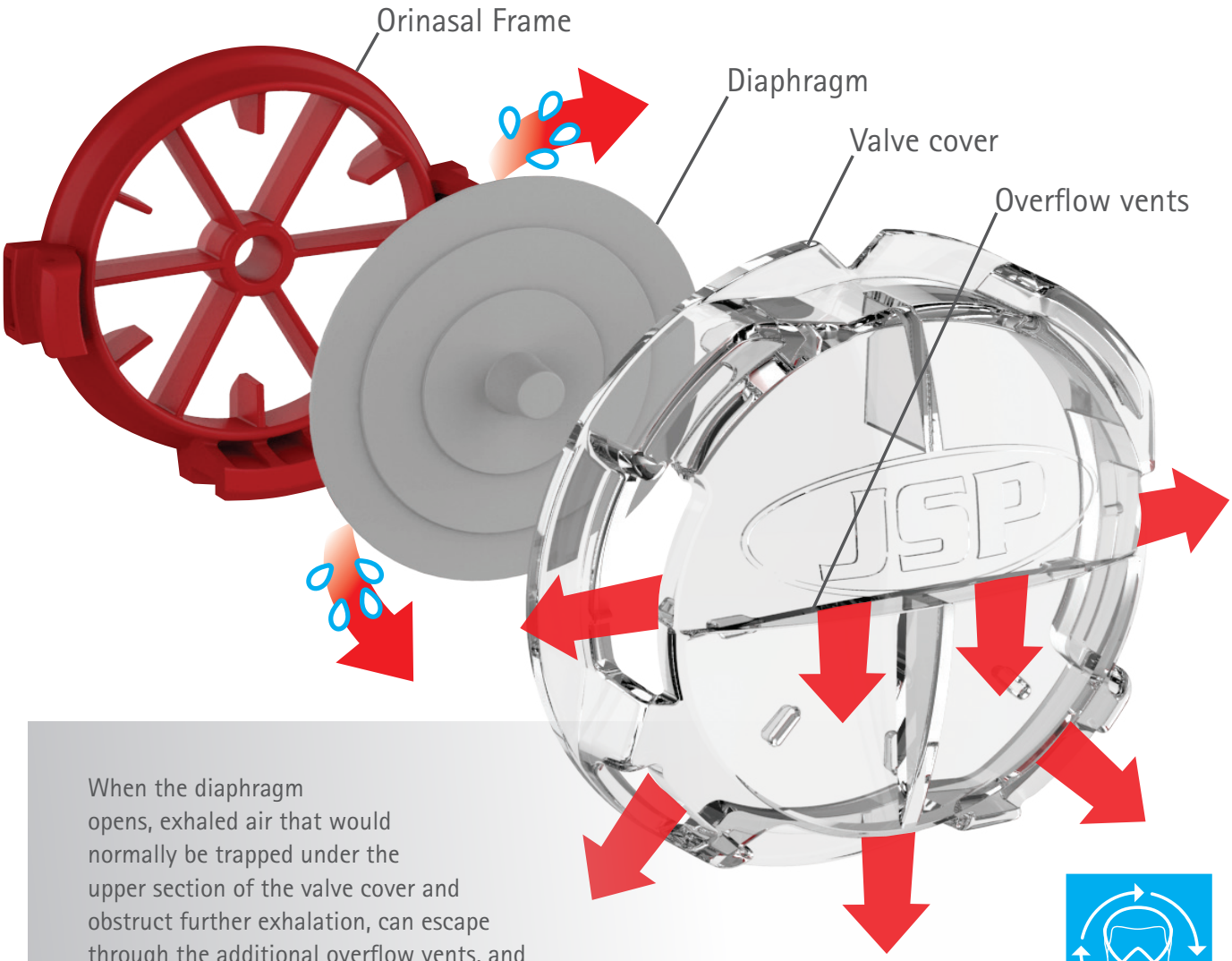
Exhalation valves help to reduce heat build-up within the mask for more comfortable wear. This is especially important in warm environments and climates, and at high work rates, when a mask can feel claustrophobic.

☑ REDUCED MOISTURE

The moisture in exhaled air can clog the filter media, reducing the filtration ability of the mask. An exhalation valve directs exhaled air out to prevent a build-up in the filter material in order to improve performance and filter life.

TYPHOON ADVANCED VALVE TECHNOLOGY

All exhalation valves make a difference in lowering breathing resistance and improving comfort, but some offer higher performance than others. The JSP Typhoon™ valve is designed to ensure air can easily escape through the valve, to provide extremely low breathing resistance for enhanced comfort during wear.



When the diaphragm opens, exhaled air that would normally be trapped under the upper section of the valve cover and obstruct further exhalation, can escape through the additional overflow vents, and assure unrivalled low breathing resistance. The diaphragm is made from silicone, ensuring it is not affected by moisture and can therefore be used with the same high performance under very low temperatures.

REUSABLE

Effortless disassembly for cleaning

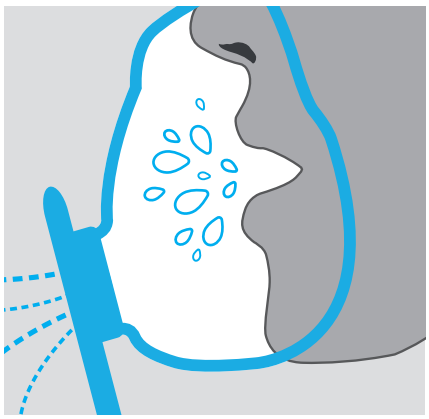
EXHALATION PROTECTION

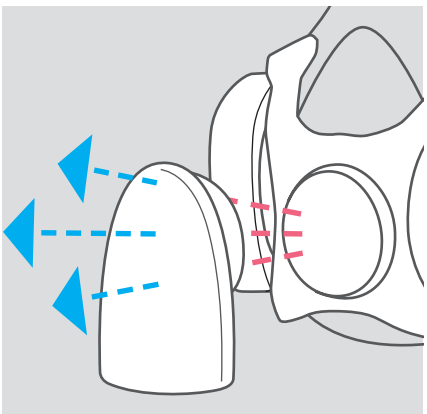
The Force™ Exhalation Valve Guard can be fitted to JSP Force™8 and Force™10 Typhoon™ masks, enabling use with filtering of exhaled breath. See pages 57 - 58 for details.

FORCE™ EXHALATION VALVE GUARD
FOR FORCE™8 / FORCE™10 TYPHOON™

DESIGNED & MANUFACTURED IN OXFORD, ENGLAND

The NEW Force™ Exhalation Valve Guard fits to Force™8 and Force™10 Typhoon™ masks to provide filtering of exhaled breath. The valve guard captures aerosols and droplets exhaled by the wearer, in order to protect the working environment. Meets bacterial filtration efficiency and splash resistance performance requirements for EN14683 Type IIR.





PROTECTION
Captures aerosols and droplets exhaled by the wearer, protecting the working environment.

PERFORMANCE
Fibre insert dissipates exhaled breath through outer filter media.

RATED TYPE IIR
Meets bacterial efficiency and splash protection performance requirements for EN14683 Type IIR

FORCE™8 / FORCE™10 EXHALATION VALVE GUARD

BTU000-000-100	Force™8 / Force™10 Exhalation Valve Guard	Qty 10

Force™8 / Force™10 respirators not included.

EASY FITTING

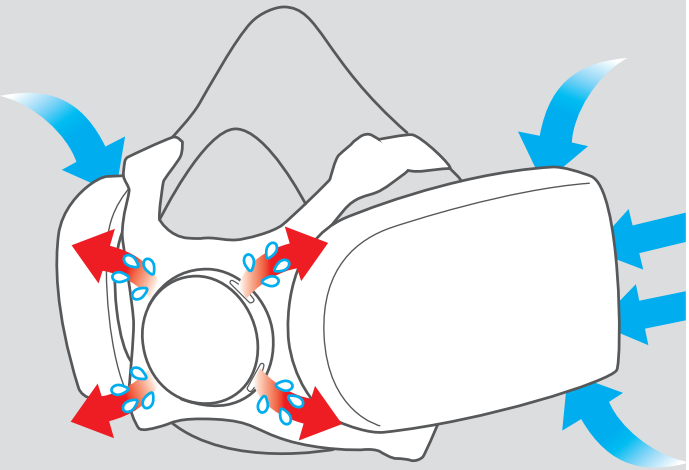
Snap on feature for quick and easy fitting to Force™8 and Force™10 Typhoon™ masks. To remove, simply press at top and bottom of valve guard.

SCAN FOR FITTING GUIDE
or view the video at:
http://jspsafety.info/F-ValveGuardGO

VALVE GUARD ALLOWS FOR EXHALATION COMFORT

The Force™ exhalation valve guard allows the valve to safely reduce moisture, heat and CO_2 build-up for enhanced exhalation comfort and lower wearer fatigue, whilst ensuring both the wearer and working environment are protected.

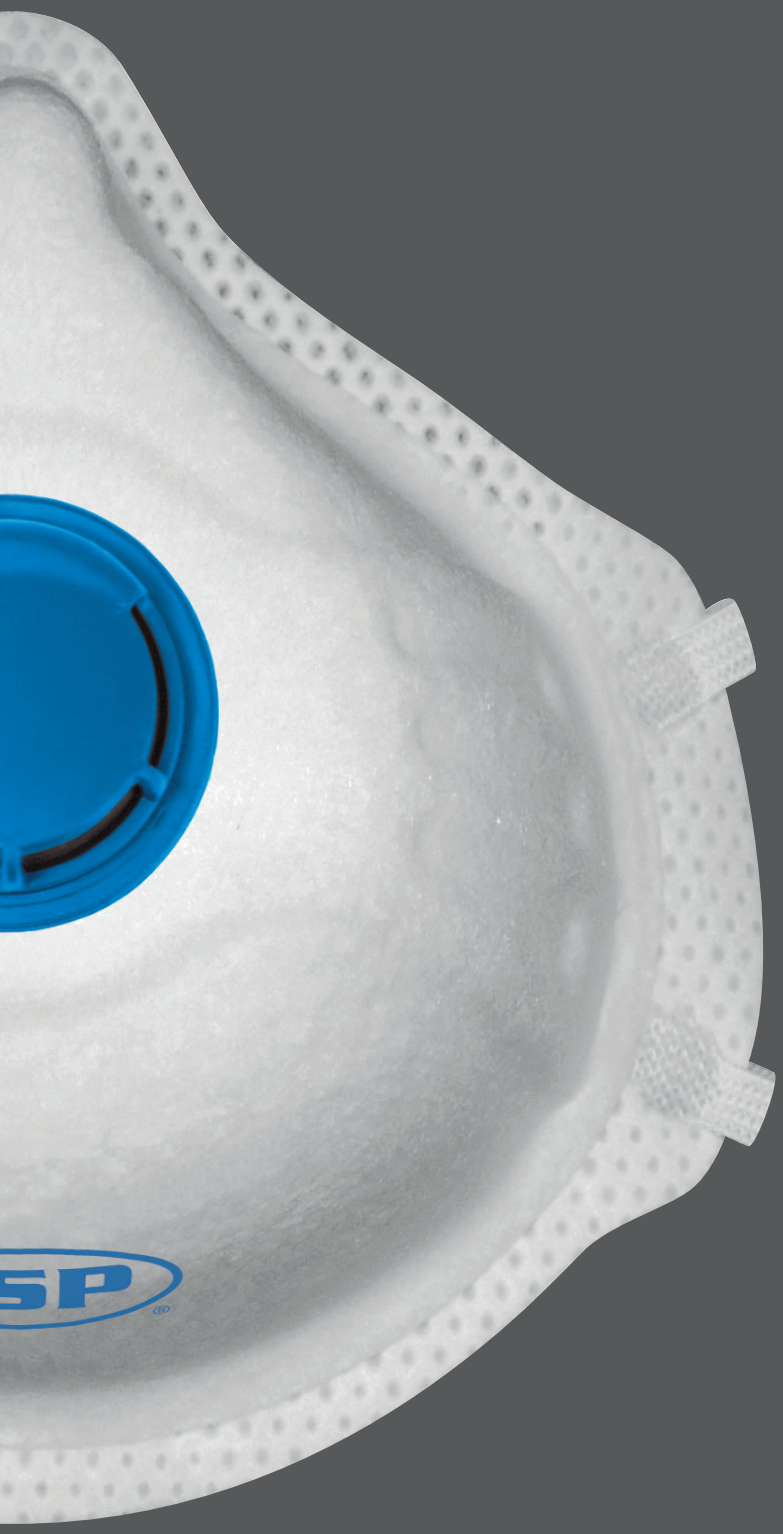
For more valve information see pages 55 - 56



REDUCE WASTE
Enables use of reusable valved respiratory protection in healthcare settings, for reduced waste and costs.

COMPATIBILITY
Compatible with Force™8 half mask and Force™10 Typhoon™ full face mask.

HYGIENE
Disposable for optimum hygiene. Valve guard should be removed and disposed of safely before cleaning mask components for reuse.



SELECTING DISPOSABLE MASKS

Disposable respirators provide protection against particulates and are a cost-effective solution for use in dusty environments.

Disposable respirators provide a lightweight solution for protection against solid and liquid particulate hazards. Masks are available with or without an exhalation valve, and in three styles: horizontal fold flat, vertical fold flat, and moulded. Disposable respirators are tight-fitting RPE meaning face fit testing is required on selection and regularly thereafter - see page 19 for more information on fit testing.

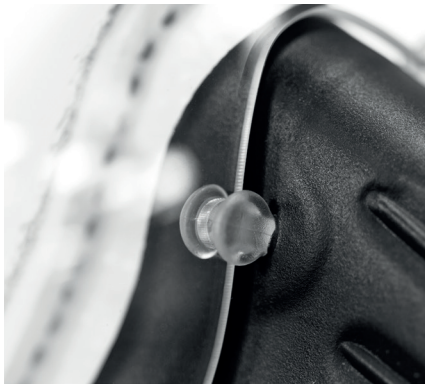
A full risk assessment is required to determine the correct performance class and type of respirator - the following table gives some general guidance on the protection levels appropriate for various hazardous substances.

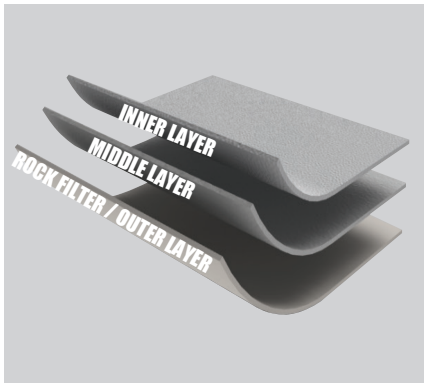
DISPOSABLE MASK SELECTION CHART

	Filtration Efficiency	CONSTRUCTION DUSTS					METAL FUMES			FIBRES			WOODS			PAINTING			
		Silica	Brick Dust	Concrete	Plaster	Sandstone	Welding	Ferrous Metal Fume	Lead Fume	Fibre Glass Strand	Mineral Fibres	Rockwool Insulation	Wood Soft	Wood Hard	MDF Hand Tools	Water Based	Powered Prep	Manual Prep	Mechanical Stripping
FFP3OV High efficiency odour carbon layer with valve	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FFP3V High efficiency with valve	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FFP2OV Medium efficiency odour carbon layer with valve	94%									✓	✓	✓				✓		✓	✓
FFP2AV Medium efficiency acid carbon layer with valve	94%									✓	✓	✓				✓		✓	✓
FFP2V Medium efficiency with valve	94%									✓	✓	✓				✓		✓	✓
FFP2 Medium efficiency	94%									✓	✓	✓				✓		✓	✓

FILTERSPEC®
THE INTEGRATED SOLUTION TO INCOMPATIBILITY

Worn together, safety eyewear and respirators often reduce each other's effectiveness because eyewear frames compromise the seal of the respirator and lead to lens misting and reduced respiratory protection. FilterSpec® combines both protective devices into an integrated unit.





INTEGRATION

FilterSpec's unique design overcomes the problem of ill-fitting masks, fogged lenses, and non-conformity that can often occur when one item of PPE compromises another.

QUALITY LENS

The FilterSpec® Pro goggle has a 5.5 base curve lens. FilterSpec® has a 6.5 base curve lens. Both offer optimal coverage and have anti-mist and anti-scratch lens coatings.

EFFICIENT FILTER

The easily replaceable filters are made from 3 layers for exceptional performance. Available with a low breathing resistance valve to reduce moisture and CO_2 build-up.

FILTERSPEC®

Respirator: EN149 Spectacle: EN166
Clear lens: EN170 / Smoke lens: EN172

- 6.5 base, one-piece lens offers optimal coverage
- Anti-mist and anti-scratch lens coating
- Choice of clear or smoke lens

SPECTACLE STANDARDS & MARKINGS			Ultraviolet filter scale number	Sunglare filter performance	Optical class (1=high, 3=low)	Low energy impact 45 m/s	Protection at extremes of temperature
	Frame: Black Lens: Clear	EN166 EN170	2-1.2		1	F	T
	Frame: Black Lens: Smoke	EN166 EN172		5-1.7	1	F	T

ASG124-121-100	Black/clear FFP2V	Qty 10
ASG144-121-100	Black/clear FFP2OV	Qty 10
ASG134-121-100	Black/clear FFP3V	Qty 10
ASG134-125-800	Black/smoke FFP3V	Qty 10

FILTERSPEC® PRO

Respirator: EN149 Goggle: EN166
Clear lens: EN170 / GW5 lens: EN169

- 5.5 base, one-piece lens offers optimal coverage
- Anti-mist and anti-scratch lens coating
- Choice of clear lens or gas welding/cutting lens

GOGGLE STANDARDS & MARKINGS			Ultraviolet filter scale number	For use with acetylene flow of 70 to 200 lt/hr	Optical class (1=high, 3=low)	Low energy impact 45 m/s	Protection at extremes of temperature
	Frame: Black Lens: Clear	EN166 EN170	2-1.2		1	B	T
	Frame: Black Lens: GW5	EN166 EN169		5	1	B	T

AGE120-201-100	Black/clear FFP2V	Qty 10
AGE130-201-100	Black/clear FFP3V	Qty 10

REPLACEMENT FILTERS

EN149

- Compatible with FilterSpec® & FilterSpec® Pro

			Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
ASG03B-101-100		FFP3 valved filters - Pk10	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Qty 1
ASG04B-101-100		FFP2 odour valved filters - Pk10	94%					✓		✓	✓		✓				✓		Qty 1
ASG02B-101-100		FFP2 valved filters - Pk10	94%					✓		✓	✓		✓				✓		Qty 1

SPRINGFIT™ MASK
INTEGRATED STRUCTURAL COMFORT

bsi Respiratory Protective Devices KITEMARK™
KM 586271
BS EN 149

The NEW SpringFit™ fold flat disposable mask achieves an unrivalled secure fit with the use of a unique endoskeleton structure. SpringFit™ introduces an abundance of features that maximise fit, comfort, compatibility and performance.

SPRINGFIT™

☑ COMPACT
The fold flat design makes SpringFit™ more compact, and easily pocketed. SpringFit™ is also individually packed to ensure a high level of hygiene.

☑ COMPATIBILITY AND VISION
The low-profile design of the SpringFit™ provides exceptional compatibility with other above the neck PPE, such as eyewear. The low profile also offers an improved field of vision for the wearer.

☑ COMFORT
The welded nose piece gives a tighter fit and minimises irritation. The adjustable strap means that SpringFit™ can be fitted comfortably to all head sizes and shapes. A foam area around the inside of the mask provides enhanced comfort.

ENDOSKELETON STRUCTURE

The internal skeleton frame guarantees that each mask keeps its shape, increasing performance and maintaining rigidity. The integrated spring feature absorbs facial movements ensuring a secure face fit and seal.

SPRINGFIT™ FFP3 ODOUR VALVED
EN149

- High efficiency (99% minimum) filtering.
- Low resistance exhale valve.
- Carbon layer for relief from nuisance odours.

SPRINGFIT™ FFP3 VALVED
EN 149

- High efficiency (99% minimum) filtering.
- Low resistance exhale valve.

SPRINGFIT™ FFP2 VALVED
EN 149

- Medium efficiency (94% minimum) filtering.
- Low resistance exhale valve.

SPRINGFIT™ FFP2 & FFP3
EN 149

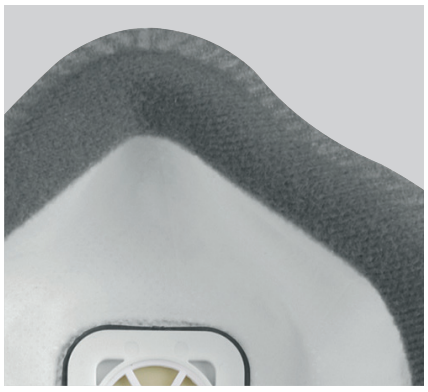
- Medium efficiency (94% minimum) filtering (FFP2).
- High efficiency (99% minimum) filtering (FFP3).
- Non-valved to ensure exhaled air is filtered.

SPRINGFIT™ NON-RETAIL AND RETAIL PACKS

			Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	Minimum Order Quantity
BGA122-202-000		421ML FFP2 (Box of 10)	94%					✓		✓	✓		✓				✓		10 Boxes
BGA132-206-000		431ML FFP3 (Box of 10)	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 Boxes
BGA172-202-000		425ML FFP2 with Typhoon™ Valve (Box of 10)	94%					✓		✓	✓		✓				✓		10 Boxes
BGA182-206-000		435ML FFP3 with Typhoon™ Valve (Box of 10)	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 Boxes
BGA802-206-000		436ML FFP3 with Typhoon™ Valve and Nuisance Carbon Layer (Box of 10)	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10 Boxes
BGA172-202-N00		425ML FFP2 with Typhoon™ Valve Retail Packed	94%					✓		✓	✓		✓				✓		10
BGA182-206-N00		435ML FFP3 with Typhoon™ Valve Retail Packed	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
BGA802-206-N00		436ML FFP3 with Typhoon™ Valve and Nuisance Carbon Layer Retail Packed	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10

FLEXINET®
DELUXE MOULDED MASKS

The Flexinet® disposable mask has an ergonomic 3D design to fit most face shapes, and has extremely low breathing resistance due to the mask's advanced valve design.



COMFORT
A 360° comfort foam area around the inside of the mask provides a perfect fit.

PROTECTIVE GRILL
Flexible cover to protect and retain the shape of the mask and protect the wearer against possible damage to the filter.

ADVANCED VALVE
Advanced design valve allows for lower breathing resistance.

FLEXINET® 832 - FFP3 VALVED
EN 149

- ☑ High efficiency (99% minimum) filtering.
- ☑ Low resistance exhale valve.
- ☑ Fully adjustable 4-point harness.

FLEXINET® 823 - FFP2 ODOUR VALVED
EN 149

- ☑ Medium efficiency (94% minimum) filtering.
- ☑ Low resistance exhale valve.
- ☑ Activated carbon layer to remove nuisance odours.

FLEXINET® 822 - FFP2 VALVED
EN 149

- ☑ Medium efficiency (94% minimum) filtering.
- ☑ Low resistance exhale valve.

FLEXINET® 821 - FFP2
EN 149

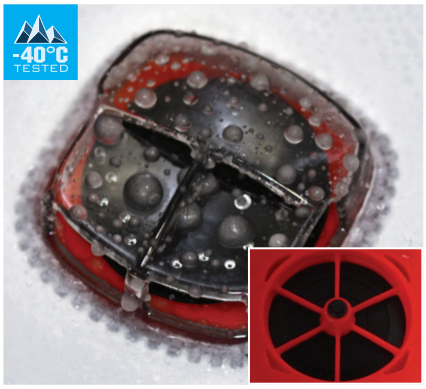
- ☑ Medium efficiency (94% minimum) filtering.
- ☑ Non-valved to ensure exhaled air is filtered.

FLEXINET® SERIES			Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BER130-001-M00		Flexinet® 832 - FFP3 valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 5
BER152-201-A00		Flexinet® 823 -medium/large FFP2 odour valved	94%					☑		☑	☑		☑				☑		Qty 10
BER122-201-A00		Flexinet® 822 - FFP2 valved	94%					☑		☑	☑		☑				☑		Qty 10
BEQ122-201-A00		Flexinet® 821 - medium/large FFP2	94%					☑			☑		☑				☑		Qty 10

700 SERIES HIGH PERFORMANCE TYPHOON™ MOULDED MASKS

bsi Respiratory Protective Devices KITEMARK™
KM 586271
BS EN 149

The range features the unique Typhoon™ Valve for extremely low breathing resistance, low heat, moisture and CO_2 build-up.



PERFORMANCE

Silicone valve is unaffected by any moisture, and therefore can be used with the same performance under very low temperatures, tested at -40°C.

COMFORT

A 360° comfort foam area around the inside of the mask provides a perfect fit and maximum resistance.

FIT

The welded nose piece prevents any irritation, misshaping and gives a tighter fit. Adjustable strap means it can be fitted comfortably to all head sizes and shapes.

735 FFP3 VALVED
EN149

- High efficiency (99% minimum) filtering.
- Exhale valve for lower resistance breathing.
- 4-point harness to create a firmer fit.

726 FFP2 ODOUR VALVED
EN149

- Medium efficiency (94% minimum) filtering.
- Exhale valve for lower resistance breathing.
- Activated carbon layer to remove nuisance organic odours.

725 FFP2 VALVED
EN149

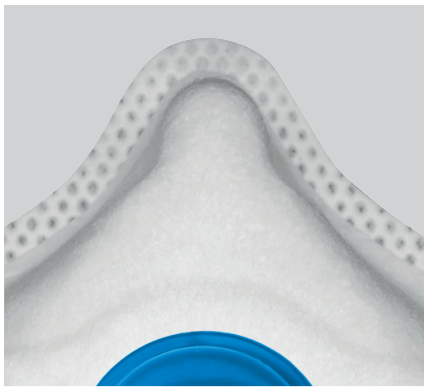
- Medium efficiency (94% minimum) filtering.
- Exhale valve for lower resistance breathing.

700 SERIES

			Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BEK136-101-A00		735 - FFP3 valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 5
BEP150-001-A00		726 - FFP2 odour valved	94%					☑		☑	☑		☑				☑		Qty 10
BEP120-001-A00		725 - FFP2 valved	94%					☑			☑		☑				☑		Qty 10

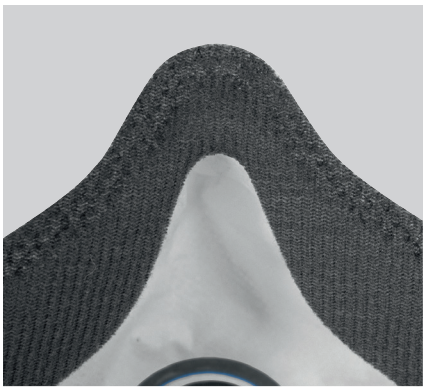
MARTCARE®
DISPOSABLE MOULDED MASKS

The Martcare® range offers a cost effective solution with fit for purpose being the main consideration; JSP does not compromise on its rigorous batch testing procedures to ensure that every piece of personal protective equipment in this section goes through the same disciplines as the rest of the JSP range of products.



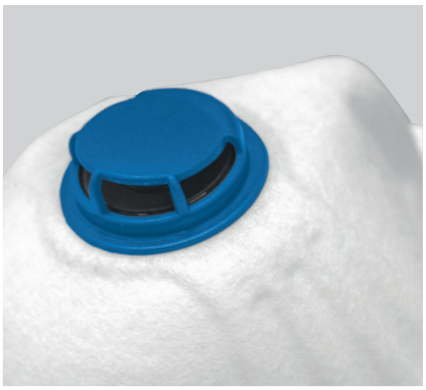
ERGONOMIC FIT

The mask has an ergonomic rigid nose shape for an improved fit and less chance of encroaching on the wearer's vision.



COMFORT

A comfort foam area around the nose area of the inside of the mask provides a comfortable and improved face-fit.



VALVE

Valved models allow for lower breathing resistance.

M32 FFP3 VALVED
EN 149

- High efficiency (99% minimum) filtering.
- Exhale valve for lower resistance breathing.
- Staple-free straps.

M31 FFP3 NON-VALVED
EN 149

- High efficiency (99% minimum) filtering.
- Staple-free straps.
- Non-valved to ensure exhaled air is filtered.

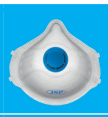
M22 FFP2 VALVED
EN 149

- Medium efficiency (94% minimum) filtering.
- Exhale valve for lower resistance breathing.
- Staple-free straps.

M21 FFP2 NON-VALVED
EN 149

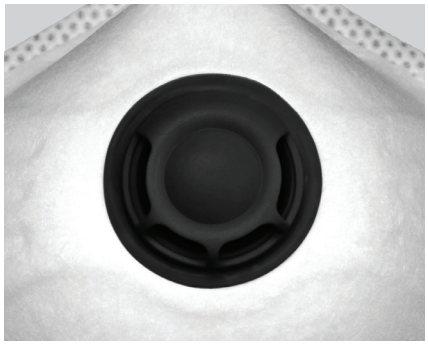
- Medium efficiency (94% minimum) filtering.
- Staple-free straps.
- Non-valved to ensure exhaled air is filtered.

MARTCARE® MOULDED MASKS

		Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BEB130-002-A00	 M32 - FFP3 valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 10
BEB120-002-A00	 M22 - FFP2 valved	94%					☑		☑	☑		☑				☑		Qty 10
BEH130-002-B00	 M31 - FFP3 non-valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 20
BEH120-002-B00	 M21 - FFP2 non-valved	94%					☑			☑		☑				☑		Qty 20

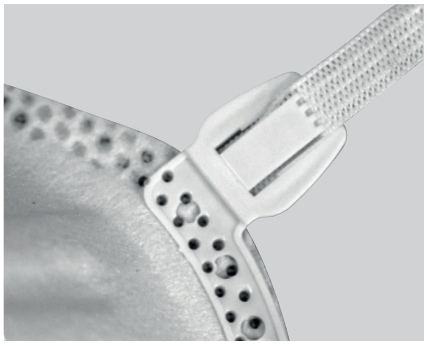
532
DISPOSABLE MOULDED MASK

Moulded disposable respirator with exhalation valve for low breathing resistance. Passes optional clogging (D) requirements. An adjustable 4-point head strap and 360° comfort foam enables a comfortable fit for all head sizes and shapes.



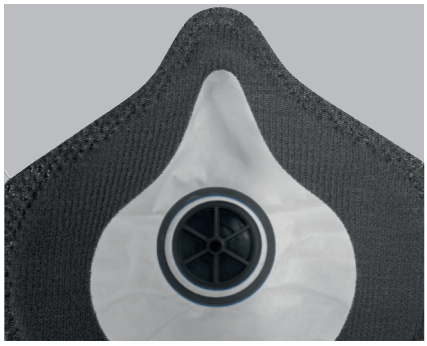
☑ EXHALATION VALVE

Low resistance exhalation valve for easy breathing.



☑ 4-POINT ADJUSTABLE STRAPS

Metal free, 4-point adjustable straps create a firm and adaptable fit.



☑ 360° INNER FOAM

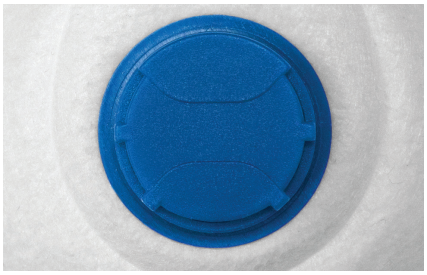
A 360° foam area around the inside of the mask provides comfort and a perfect fit.

M632 DISPOSABLE MOULDED MASK
EN 149

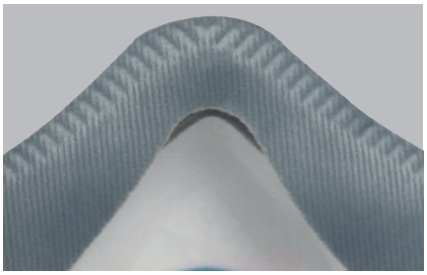
		Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BEK130-002-M00	M362 - FFP3 valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 10

M632
DISPOSABLE MOULDED MASK

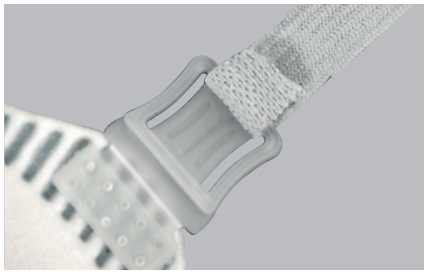
Moulded disposable respirator with comfort foam surround, adjustable nose clip, 4-point harness and exhalation valve.



EXHALATION VALVE
Low resistance exhalation valve for easy breathing.



FOAM PADDED NOSE BRIDGE
A mouldable nose bridge and 360° foam area around the inside provide comfort and a firmer fit.



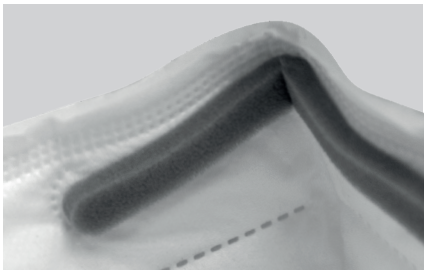
4-POINT ADJUSTABLE STRAPS
Metal-free, 4-point adjustable straps create a firm and adaptable fit.

M632 DISPOSABLE MOULDED MASK
EN 149

		Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BGZ130-000-A00	M362 - FFP3 valved	99%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Qty 10

F600 SERIES
DISPOSABLE FOLD FLAT MASKS

Vertical fold flat respirators with foam padded adjustable nose clip and extended chin coverage. The F622 model additionally features an exhalation valve.



☑ FOLDS FLAT

Fold flat design is compact and easy to carry in a pocket.

☑ FOAM PADDED NOSE BRIDGE

A mouldable nose bridge with foam pad on the inside for comfort and a firmer fit.

☑ TOGGLE ADJUSTMENT

Toggle adjuster on each strap to achieve an effective facial fit.

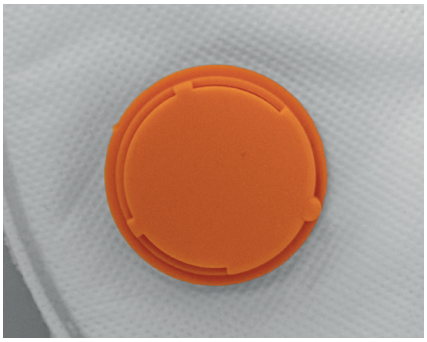
F621 / F622 DISPOSABLE FOLD FLAT MASKS

EN 149

		Filtration efficiency	Fine dusts	Brick dust	Concrete	Ferrous metal fume	Fibre glass	Lead fume	MDF (hand tools)	Mineral fibres	Plaster	Rockwool	Sandstone	Silica	Welding	Wood soft	Wood hard	
BGR180-000-S00	F632 - FFP3 valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 30
BGW170-000-S00	F622 - FFP2 valved	94%					☑		☑	☑		☑				☑		Qty 30
BGX130-000-Q00	F631 - FFP3 non-valved	99%	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	Qty 40
BGV120-000-Q00	F621 - FFP2 non-valved	94%					☑			☑		☑				☑		Qty 40

RESPAIR® MODEL X
DISPOSABLE RESPIRATORS

A single-use, lightweight, fold flat disposable respirator for protection against particles, available individually wrapped for hygiene and storage. The unique filter material offers low breathing resistance.



FOLDS FLAT
Fold flat design is compact and, available with individual wrapping, easy to carry in a pocket.

EXHALATION VALVE
P2V & P3V respirators have a low resistance exhalation valve for easy breathing.

NOSE CLIP
The nose clip ensures a good seal for any face shape.

RESPAIR® MODEL X FFP3
Fold flat disposable respirator: EN 149

FFP3V-10	Respair® Model X	FFP3 - 99% minimum filtration efficiency	Valved	Qty 10
FFP3V-100	Respair® Model X	FFP3 - 99% minimum filtration efficiency	Valved	Qty 100
FFP3-20	Respair® Model X	FFP3 - 99% minimum filtration efficiency	Non-Valved	Qty 20

RESPAIR® MODEL X FFP2
Fold flat disposable respirator: EN 149

FFP2V-10	Respair® Model X	FFP2 - 94% minimum filtration efficiency	Valved	Qty 10
FFP2-20	Respair® Model X	FFP2 - 94% minimum filtration efficiency	Non-Valved	Qty 20
FFP2-200	Respair® Model X	FFP2 - 94% minimum filtration efficiency	Non-Valved	Qty 200

FACE FIT TESTING

Fit2Fit ACCREDITED RPE Fit Test Provider

Respirators commonly fail to do the job they are intended to do due to poor fitting and care by the user. Face fit testing can be used not only as a test method to ensure staff are properly protected, but also as an effective method of training to demonstrate the correct way of fitting a mask. The Qualitative Face Fit Testing Kit is suitable for disposable dust masks and half masks only. A quantitative fit testing adaptor is available for the Force™8 half mask and Force™10 Typhoon™ full face mask.

QUALITATIVE FACE FIT TESTING KIT

Replacement fit test solution available

Kit includes:

- 1 Hood
- 1 Collar
- 2 Nebulisers (1 Sensitivity, 1 Fit Test)
- 2 Bottles of solution (1 Sensitivity, 1 Fit Test)
- 1 Instruction manual
- 10 Test report forms

BPT050-000-000 Box Qty 1

FORCE™ PORTACOUNT / ACCUFIT QUANTITATIVE FIT TEST ADAPTOR

The Force™ Portacount / AccuFIT Quantitative Fit Test adaptor enables connection of Force™ respirators to TSI Portacount & AccuFIT quantitative fit testing equipment.

SCAN FOR FITTING GUIDE
or view the video at:
https://jspsafety.info/Quantitative-Videos

BPT092-000-000 Box Qty 1

JSP FACE FIT STARTER KIT

The NEW Face Fit Starter Kit from JSP contains everything necessary to conduct face fit testing or training using JSP disposable and reusable RPE.

The kit includes particulate filters, with equipment and adaptors to support both qualitative and quantitative testing methods. Products can also be selected separately, if only one filter type or testing method is required.

We are offering up to 50% special trade savings please contact sales for details: +44 (0) 1993 82050

REUSABLE RESPIRATORS / ACCESSORIES

BHG003-1L5-000	Force™ 8 Half Mask (F8-810) No Filters - Small		Qty 10
BHT003-0L5-000	Force™ 8 Half Mask (F8-820) No Filters - Medium		Qty 10
BHG003-2L5-000	Force™ 8 Half Mask (F8-830) No Filters - Large		Qty 10
BPB003-104-000-UK	Force™10 Typhoon™ Full Face Mask (F10-1010) - Small		Qty 4
BPB003-004-000-UK	Force™10 Typhoon™ Full Face Mask (F10-1020) - Medium		Qty 4
BPB003-204-000-UK	Force™10 Typhoon™ Full Face Mask (F10-1030) - Large		Qty 4
BMN990-001-700	PressToCheck™ P3 (F-4003) Dust Filters - 2 pack		Qty 50
BTU000-000-100	Force™10/ Force™8 Exhale Valve Guard		Qty 10
BHU000-000-100	Force™ Size Guide		Qty 25

FACE FIT TESTING EQUIPMENT

BPT050-000-000	Qualitative Face Fit Testing Kit		Qty 1
BPT060-000-000	Qualitative Face Fit Test Hood		Qty 4
BPT080-000-000	Bitrex™ Fit Test Solution - 2 pack		Qty 1
BPT092-000-000	Force™ Portacount / AccuFIT Quantitative Fit Test Adaptor		Qty 2

DISPOSABLE RESPIRATORS

BGZ130-000-A00	Disposable Moulded Mask FFP3 Valved (M632)		Qty 12
BGR180-000-S00	Disposable Vertical Fold Flat Mask FFP3V (F632)		Qty 6
BGV120-000-Q00	Disposable Vertical Fold Flat Mask FFP2 (F621)		Qty 5
FFP3V-10	Respair® X Model X P3 Valved FFP3		Qty 5

RESPIRATORY PROTECTION Q&A

Q What is the expected working life of a filter?

A This is a very difficult question to answer. It will depend on the concentration of the hazard and the tempo of work being applied to the task. Other factors including damage, damp and excessive dirt and contamination to the filter can have a detrimental effect to its functionality. Please remember that once a gas vapour filter is removed from its packaging it will start to absorb contamination from the environment in which it is used or stored.

It is important not to extend a filter's expected working life of 28 days once exposing the filter from its vacuum sealed bag. It is unwise and poor practice. It would be detrimental to your health to smell or taste the hazardous environment during extended or prolonged use beyond the 28 day rule.

If breathing through the filter becomes difficult, excessive or laboured, it may be time to change the filter before being compromised to the hazard. It is good practice to store the mask and filters in a sealed bag away from the hazardous environment. Filters should be changed within 28 days of first use, regardless of usage.

Q How long will a disposable mask last?

A Disposable dust masks are designed for single use only, after each wearing they should be discarded. A single use should not exceed eight hours. However the mask may not last this long in heavy concentrations of hazard, when the mask becomes clogged the hazard will start to be drawn in around the edge of the mask, the easiest way in, so it is very important that they are not used for too long. Used masks should be disposed of safely as they are contaminated by the substance they have been used to protect against, meaning they are hazardous themselves.

Q I have been told that some disposable dust masks are reusable, is that true?

A Surprisingly, this is true. You will find "NR" - not reusable or "R" - reusable marked on the disposable dust mask. Reusable masks must be carefully stored to avoid cross contamination, ensuring that hazardous substances do not get inside the mask. The face seal area should also be kept clean. In practice it can be difficult to keep a disposable dust mask in a way in which it can be reused. All FFP (filtering face pieces) dust masks are disposable and aligned to an 8 hour working life expectancy although there may be times when you decide otherwise on inspection of the respirator.

Q How do I clean my half mask?

A Please visit page 53 for Force™8 cleaning instructions to clean and maintain your half mask or refer to the instructional video below.

SCAN TO VIEW VIDEO
or visit https://www.jspsafety.com/link/en/force8-cleaning/e/

Q Is there a respirator that can accommodate all facial features and face sizes?

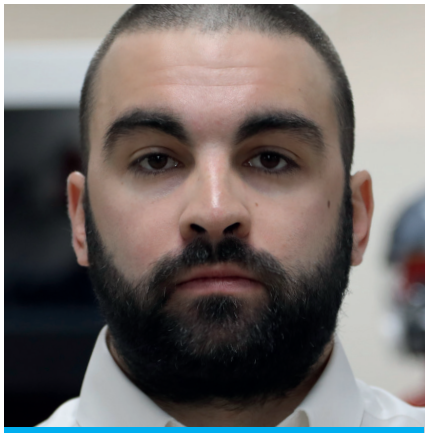
A Respirators are designed to fit the vast majority (99.9%) of the adult population - including men, women, and some youths. Just like shoe sizes we must make the effort to capture the correct size for the individual concerned. Respirators are available in a range of sizes. See pages 15 - 16 for more information on respirator sizes. Never assume the size you require. JSP will be able to offer advice, product familiarisation and training, offering the solution best suited to your task and environment. JSP do have a size guide available. Please contact our sales office to obtain one.

Q Can I wear a beard or moustache when using a disposable dust mask, half mask or full face respirator?

A There should be no facial hair under the face seal of the respirator when it is worn in the correct position. The US Centers for Disease Control and Prevention (CDC) provide guidance on facial hair styles suitable for half mask respirators - see page 18 for more information.

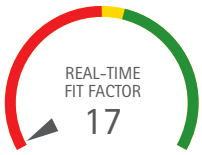
Q What is meant by clean-shaven?

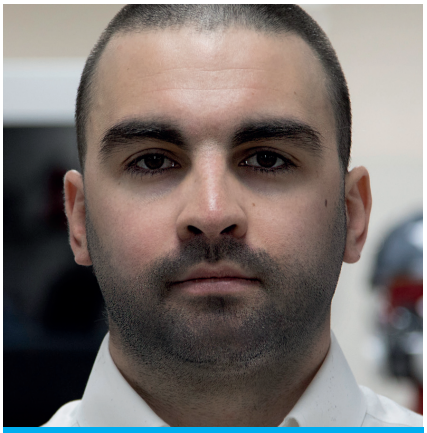
A The UK HSE have defined this as having shaved within 8 hours of starting work. It should be noted, however, that each individual's rate of hair growth varies, some may need to shave during their working day to ensure an effective face seal can be maintained.



Full beard

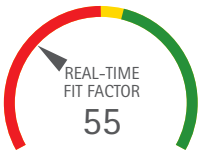
NO FIT

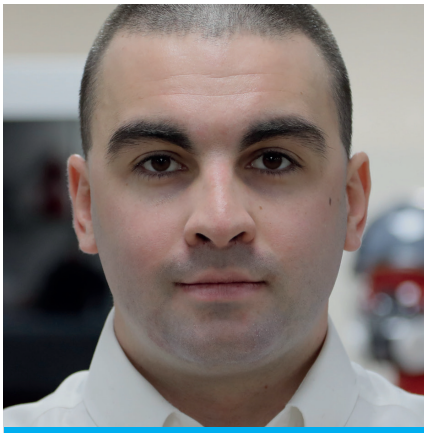




Stubble

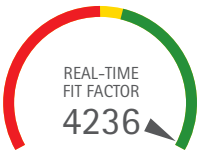
NO FIT





Clean-shaven

GREAT FIT



Fit factor reported by TSI Portacount™ quantitative fit testing device.

Q I often hear abbreviations in conversations about respiratory hazards and protection, such as APF, FFP, WEL and others, what do they mean?

A

- APF: Assigned Protection Factor
- NPF: Nominal Protection Factor
- RPF: Required Protection Factor
- WEL: Workplace Exposure Limit
- HAZMAT: Hazardous Material
- SCBA: Self-Contained Breathing Apparatus
- COSHH: Control of Substances Hazardous to Health
- MSDS: Material Safety Data Sheet - sometimes called SDS
- FFP: Filtering Face Pieces – normally known as disposable dust mask

Q I have seen different filters with different colour bands on them, what does that mean?

A Each colour signifies a different type of contaminate that the filter is designed to filter out. The table below taken from UK HSE publication HSG53 shows the different colours and what they mean. For more information on applications suitable to different filter types see pages 45 - 46.

FILTER TYPES

Respiratory filters are colour-coded and marked with letters to show the type of protection provided.

TYPE	COLOUR CODE	DESCRIPTION
A		Organic vapours and gases with boiling points > 65°C
B		Inorganic gases excluding carbon monoxide
E		Sulphur dioxide and acidic gases
K		Ammonia and organic ammonia derivatives
P		Solid & liquid hazardous & radioactive particles

Q What is a combination filter and what is its purpose?

A An example of a combination filter is the JSP PressToCheck™ ABEK1P3. filter. This filter type has several coloured bands in brown, grey, yellow, green and white. This will offer protection against a wide variety of gas/vapour and particulate (dust) hazards. JSP can help to identify the appropriate type of filter for your task or environment.

Q I work with hard and soft wood materials, including MDF. Will a P3 filter provide protection for all wood types?

A Hard and soft woods require particulate protection to level APF20 (HSE WIS14), which can be achieved using P3 filters with a half mask. Hard and soft woods require particulate protection to level APF20 (HSE WIS14), which can be achieved using P3 filters with a half mask. Medium-density fibreboard (MDF) is made from recycled pieces of wood pressed together with adhesives, solvents, or binders. Under high temperatures gases and vapour will be given off, such as when cutting with power tools. In this application a combined filter for protection against gas/vapours and particulates is required. It is important to select the appropriate mask and filters to ensure the correct APF - for more information see pages 45 - 48.

Q What type of filter can a pre-filter be fitted to?

A They can only be fitted to gas / vapour filters. They must not be fitted to dust filters as this makes the breathing resistance too high, causing the mask to leak around the face seal, thus offering little actual protection.

Q How do I know when a dust is fine or very fine?

A Most observations record PM10 and PM2.5, which refers to particulate matter with a particle size of 10 and 2.5 µm. In general, for respiratory products:

'Dust' is particle size above 5µm

'Fine dust' is between 5 and 2 µm

'Very fine dust' is smaller than 2µm

Q What type of respiratory filter should be identified for asbestos work?

A Asbestos removal will usually need to be carried out by specially trained and licensed organisations. The correct grade of filter for asbestos is P3. For people working with asbestos we would always recommend a full face respirator fitted with a P3 filter. In addition, a quantitative face fit test must be carried out to ensure adequate protection.

Q How do I identify the correct respirator and filter for the application of paint spraying, lacquering, and sealing?

A More information is required to provide guidance as to the correct filtering for paint spraying, lacquering, and sealing. Some paint spraying applications will use water-based paint, whereas others may use paints with higher concentrations of hazardous solvents and varnishing vapours/odours. Be mindful that enclosed spaces without adequate ventilation may displace oxygen levels. It is important to study the Material Safety Data Sheet (MSDS) and/or Control of Substances Hazardous to Health (COSHH) data sheets, along with product labelling. Workplace risk assessments are also a good source of information to consider. The product chemical name may sometimes be enough to identify the filter required. If you have a MSDS for the substance, you can contact the JSP technical helpline for guidance on filter selection, call +44 (0) 1993 826051.

Q Is there a respirator and filter best identified for protection against vehicle exhaust fumes?

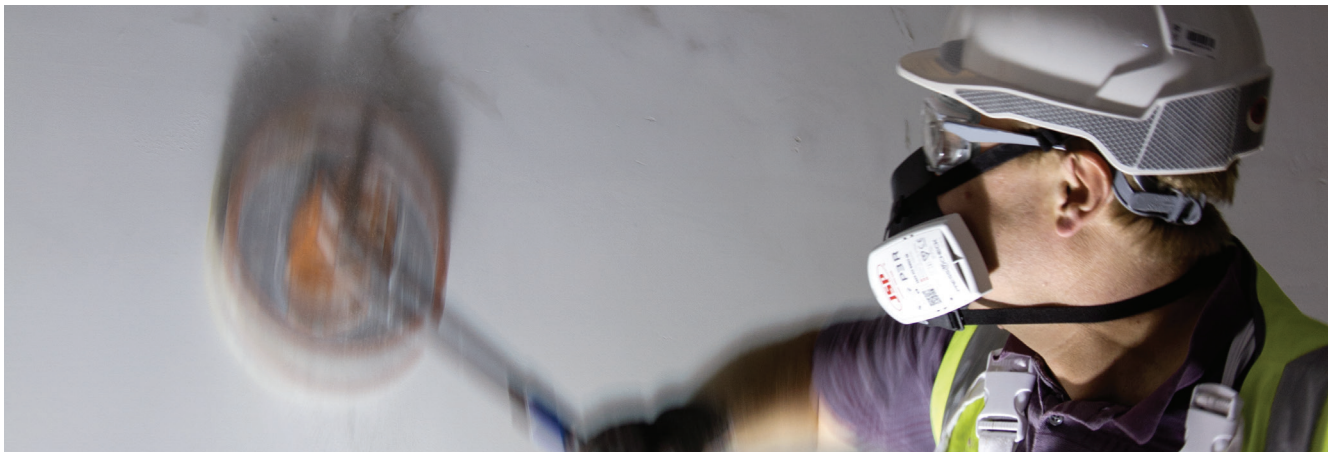
A There are filters available that can offer protection from soot particles and unburnt hydrocarbons (fuel) however filtering out harmful carbon monoxide is extremely difficult. The ideal solution would be a supplied air system (airline fed or self-contained breathing apparatus). Ideally work that generates carbon monoxide will be carried out in a well-ventilated atmosphere where carbon monoxide cannot accumulate.

Q I have been told that I need to be fit tested wearing my mask/respirator, what is fit testing?

A It is a way to check that the respirator being worn will actually offer the protection that it has been designed for. Be mindful that although respirators are designed to fit the vast majority of the adult population, along with some youths, every user has a differently sized and shaped face. Just like shoe sizes, we must make the effort to capture the correct size for the individual concerned. Fit testing delivers a pass/fail result and must be carried out by an appropriately trained, competent individual. The fit tester will also offer guidance on correct fitting and use of the mask.

Q Can I use PressToCheck™ filters instead of doing a fit test?

A The PressToCheck™ filter provides the user with a unique ability to check that they have fitted the respirator/mask correctly. The PressToCheck™ filter can be considered as a functionality exercise by the wearer to deliver confidence each time the respirator is donned. The PressToCheck™ exercise when carried out correctly will deliver a good fit, however it is not a test defined by the UK HSE.



Q What is meant by the Assigned Protection Factor (APF) of a respirator?

A It is the level of protection that a wearer can reasonably expect in the workplace. It is different to the Nominal Protection Factor (NPF) which is a value determined by the performance of the respirator in a standardised test. The APF is used to select an adequate and suitable respirator after the required protection factor (RPF) has been determined. Different countries will have varying APFs and it is therefore important to check local regulations.

Q An assessment has shown that one of the chemicals I use is six times over the WEL. What does WEL stand for and what should I do?

A WEL stands for the Workplace Exposure Limit which is derived to safeguard workers during tasks. A WEL is a concentration limit of a contaminant aligned to gas, vapour, aerosol or dusts that are airborne. The hazard concentration is measured and then averaged over a reference period of which workers can be exposed by inhalation, ingestion or absorption into the body. WELs can apply to individual substances or classes/ groups of substances. WELs will identify a required protection factor (RPF). WELs can be found in the UK HSE publication EH40.

Q We have been advised that we should have a respiratory protection plan in place that meets the EN, what is this?

A We cannot answer this question completely since the COSHH handbook is a large volume and it is therefore not possible to provide all the relevant information in this guide. A copy of the COSHH handbook is available online and in book stores. We can, however, outline some of the salient points for you. As an employer it is your duty to ensure that you have a comprehensive risk assessment carried out with a written report. It may be that you do not have the ability to perform this assessment yourself, since it requires such action as measuring the contaminant in the air. There are commercial Health and Safety Consultants who can perform this assessment for you. Once the risks are known, the regulations require the introduction of control measures and the maintenance of these measures. You are also required to monitor the effectiveness of these measures on the health of your staff. For more information on respiratory protection planning see pages 9 - 10.

Q I know what the contaminant is and there is no practical way of reducing the exposure, so all I have to do is buy masks. What is the secret to selecting the correct mask?

A There are several things that should be considered when selecting respiratory protection. The first thing to consider is the suitability of a mask to the contaminant and the nature of the contaminant as it is experienced. For example, there is no point using a dust mask to protect against acidic vapours. Secondly, you should also bear in mind whether you wish to use disposable or reusable respirators. The advantage of disposable masks is that there are no requirements to keep records under current legislation however reusable respirators may be more cost-effective over time and have the added advantage that the same mask can be multifunctional by changing the filter cartridge.

Q Do JSP provide COSHH data sheets that would identify the respirator and filter I require for the task?

A Control of Substances Hazardous to Health (COSHH) along with Material Safety Data Sheets (MSDS) are useful information guides that allow you to understand the hazardous material that could be detrimental to your health during your working practice. You should file these documents for reference purposes as the data can be used to either prevent or reduce workers' exposure to substances that are hazardous to their health and wellbeing. The MSDS should identify the PPE required for tasks at section 8.2, however many do not. The JSP Technical Helpline will be able to offer advice based on your MSDS to identify the most adequate and suitable respiratory protection for the task.

Please call our dedicated team on the technical helpline +44 (0)1993 826051, please leave a message outside of office hours.

VIDEO FITTING GUIDES

Q How do I fit my disposable mask?

SCAN TO VIEW VIDEO
or visit:
http://bit.ly/FittingDisposables

Q How do I fit my Force™10 full face mask?

SCAN TO VIEW VIDEO
or visit:
http://bit.ly/FittingForce10

Q How do I fit my Powercap® Infinity® powered air respirator

SCAN TO VIEW VIDEO
or visit:
http://bit.ly/FittingInfinity

MANUFACTURING FOR SAFETY, HEALTH & WELLBEING

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