

# Chemical protective jackets Instructions for use



EN14605:2005+A1:2009 TYPE PB[3], TYPE PB[4] TYPE 3, TYPE 4

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### **General information**

Respirex JKT series chemical protective jackets are supplied with or without integral hood; with a variety of options for termination of wrist; and in a range of sizes and materials. All jackets are CE and UKCA marked to indicate compliance with European Regulation 2016/425 on personal protective equipment (PPE) and Regulation 2016/425 on personal protective equipment, as amended to apply in GB and comply with the harmonized standard EN14605:2005+A1:2009 (protective clothing against liquid chemicals); this specifies the performance requirements both for the materials of construction and for the garment as a whole. Refer to the data sheet supplied for further information on the performance results for the garment's main material of construction and seams.

All declarations of conformity: http://www.respirex.co.uk/doc

# Limitations & warnings

- Always follow the instructions carefully otherwise there may be a drastic impact upon the protection offered by the garment. JKT series chemical protective jackets should only be worn in areas where there is a low risk of chemical spillage occurring. In areas of high risk Respirex can advise on alternative items of PPE that will provide the necessary level of protection.
- End-users should carry out a suitable risk assessment in accordance with local legislation to ensure that appropriate PPE is selected for the intended use. Respirex International cannot accept responsibility for the selection or use of inappropriate PPE.
- When worn individually a JKT series chemical protective jacket provides partial body protection and meets the performance requirements of TYPE PB[3] and TYPE PB[4] chemical protective clothing. If full body protection is required, a JKT series chemical protective jacket must form part of a two-piece suit worn with chemical protective trousers; both parts of the suit should be manufactured from the same fabric so as to offer a uniform degree of chemical protection to all parts of the body. In addition the two-piece suit must be worn with a suitable full face mask, appropriate protective gloves and safety footwear. Worn as a combination with the items of PPE described, the JKT series chemical protective jacket meets the performance requirements of TYPE 3\* (liquid-tight) and TYPE 4\* (spray-tight) chemical protective clothing.



\*To ensure the performance requirements of TYPE 3 (liquid-tight) and TYPE 4 (spray-tight) chemical protective clothing are met, jackets with integral hoods should be worn in combination with a full face mask which is "tape sealed" to the hood. Alternatively jackets without integral hoods should be worn in combination with a separate "tape sealed" hood which totally covers the head and neck. If the trousers contain an outer zipper flap along the leg, the flap will require to be sealed shut with tape. It is also necessary to tape the outer zipper flaps of the jacket and dependant upon the style of wrist, it may also be necessary to tape cuffs to achieve the claimed protection.

- Wearers of JKT series chemical protective jackets should be physically fit and capable of wearing the garments under the anticipated conditions of work. If in doubt please seek medical guidance before wearing.
- JKT series chemical protective jackets are manufactured from non-breathable materials and should only be worn within a temperature range that maintains wearer's comfort and safety. Wearers are advised to take suitable precautions to avoid heat stress occurring, e.g. working to a planned work/rest schedule. Always leave the work area and remove the jacket before becoming distressed.
- Materials that may come into contact with the wearer's skin are not known to release substances that are toxic, carcinogenic, mutagenic, allergenic, toxic to reproduction or otherwise harmful to the majority of individuals. These products contain no components made from natural rubber latex
- Always use compatible PPE, e.g. trousers, gloves and boots advised by Respirex.
- Flammable Material, keep away from fire

For any further information, please contact the Respirex customer services department on Tel: +44(0) 1737 778600 or Fax: +44(0) 1737 779441

#### **Pre-checks**

It is recommended that pre-checks are carried out in a clean area at least once per month, and always before the start of each shift cycle.

- 1. Visually inspect the jacket for any damage that may reduce the level of protection offered (see service and maintenance section)
- 2. Check that garment is free from contamination both externally and internally
- 3. Where applicable, check that the gloves are correctly fitted (see overleaf)
- 4. All gloves shall conform to EN ISO 374-1 and a risk assessment should be carried out to assess their suitability before use.

Jackets that have defects identified during the pre-checks should be withdrawn from use.

#### Fitting gloves into soft rubber cuff

- Insert a tapered cone approximately 3-4 cms into the glove so that the glove stretches over the cone (see Fig. 1 & Fig. 2).
- 2. Slide the glove and cone down the jacket sleeve and into the rubber cuff; make sure that the little finger of the glove is in-line with the seam of the sleeve (see Fig. 3).
- 3. Push the glove and cone firmly into the cuff with equal pressure all around its circumference; the cone should sit as tightly as possible in the cuff (see Fig. 4).

















#### Fitting gloves into locking cuff

- 1. Turn the sleeves of the jacket inside out.
- 2. Insert a tapered cone approximately 3-4 cms into the glove so that the glove stretches over the cone (see Fig. 5 & Fig. 6).
- 3. Position the glove and cone into the cuff body; make sure that the little finger of the glove is in-line with the seam of the sleeve (see Fig. 7).
- 4. Push the glove and cone firmly into the cuff body with equal pressure all around its circumference (see Fig. 8).







Fig. 7











Fig. 10

- 5. Locate the locking ring over the gauntlet of the glove and screw into the cuff body (see Fig. 9). If the gauntlet of the glove is too long and interferes with the locking ring it should be trimmed down using scissors.
- 6. Turn the sleeves of the jacket correct way out by pulling on the gloves (see Fig. 10).

Check that there are no creases in the glove around the cuff seal; if any creases are visible or if the glove is pinched in any way it should be removed and re-fitted. Provided the cuff and glove have been assembled as described there should be a gas-tight seal around the wrist.

#### **Donning procedure**

Consult the body measurement chart (see page 8) and select the correct size garment. Suitable underclothing should be worn beneath the jacket. After carrying out the pre-checks as detailed in these instructions, open the jacket fully and where applicable fit gloves as detailed in the glove fitting instructions. Don the jacket in the following stages:

- 1. Remove any personal affects which may result in damage to the jacket (e.g. pens, badges, jewellery etc.).
- 2. Place your arms into the sleeves of the jacket one at a time until the hands are placed comfortably into the gloves.
- 3. Fasten the zipper to chest height.
- 4. If applicable, don a full face mask in accordance with the manufacturer's instructions. Tilt your head forwards slightly and with the aid of a dressing assistant ease the hood of the jacket over your head and fasten the zipper to its fullest extent. The dressing assistant should stretch and manipulate the elasticated section of the hood until it fits closely around the face mask. Alternatively, if a drawstring is fitted to the hood of the jacket, this should be tightened around the face mask. It is strongly recommended that jackets without hoods are worn in combination with other items of PPE, e.g. helmet and neck cloth, to provide adequate protection to the wearer's head and face.
- 5. Close the outer zip flaps securely with the velcro or press stud closures. Where velcro closures are fitted, seal down the outer zip flaps trying to leave a minimum of gaps and ridges for the possible ingression of spray or splash.
- 6. In order to ensure a complete seal against fluid ingress, where applicable Respirex strongly recommends taping the hood to face mask, over and around the elasticated section; wrists to gloves, over and around the elasticated hems and outer zip flaps where they join together, using a suitable liquid impermeable tape (recommended tape width 75mm).
- 7. The dressing procedure is now complete and you are ready to enter the work environment.

#### Correct use of double elasticated cuff

- Don the jacket as described in stages 1 and 2 above except for; roll back the outer sleeves approximately 15 cm, don gloves with the inner sleeve of the jacket to the inside of the gloves, roll the outer sleeves down over the exterior of the gloves.
- 2. Continue with the donning procedure as described from stage 3 onwards.

# **Doffing procedure**

It is recommended that the doffing procedure is carried out with the aid of a dressing assistant. Depending upon the contaminant encountered, it may be necessary for the assistant to wear appropriate PPE selected by qualified safety personnel.

- 1. If fitted, remove all sealing tape from around the face mask, wrists and zip flaps.
- 2. Open the zip flaps by unfastening the velcro or press stud closures, then unfasten the zipper.
- 3. Where applicable, fold the hood of the jacket up and over the wearer's head.
- 4. Continue to roll the jacket down over the wearer's shoulders keeping the exterior surfaces away from wearer at all times.
- 5. As the jacket continues to be rolled down to waist level the wearer's arms should be removed from the sleeves.
- 6. Used jackets should be cleaned in accordance with the procedures detailed below.

#### **Recommended cleaning procedures**

If jackets are contaminated by acid splash they should be drenched in a neutralising bath with a pH value of 9 for approximately 10 minutes. The recommended neutraliser is a solution of bicarbonate of soda and water (6% bicarbonate of soda W/V). If contaminated with an alkali, the alkali should be removed by drenching in clean water for approximately 10 minutes.

After decontamination the outer surfaces of the jackets should be wiped with a sponge using a diluted solution of Citrikleen and warm water (temperature not exceeding 50°C). Mix one part Citrikleen to 19 parts water, i.e. 5% solution. Never use Citrikleen in neat form as this will cause damage to the garment materials. After wiping with the diluted Citrikleen solution the jackets should be rinsed with cold water.

Limited light mechanical washing can be carried out using a 5% Citrikleen solution with a water temperature not exceeding 30°C. Note: excessive or hard mechanical washing could reduce the lifespan and level of protection offered by your garment. Jackets should be allowed to dry naturally or hung in a drying cabinet or warm room with a temperature not exceeding 30°C. Garments used by more than one person must be cleaned, inspected and sanitised after each use; if not cleaned contamination may cause illness or disease.

Sanitise the garment by cleaning as described above or by liberally applying Synodor to the inside surface of the fabric.



# **Cleaning Accessories**

For cleaning garment outer surfaces use Citrikleen, Part No. F00938.

For cleaning garment inner surfaces use Respirex Synodor Odor San, Part No. F00936.

To order these accessories contact Respirex customer services on Tel: +44(0) 1737 778600 or Fax: +44(0) 1737 779441.

# Servicing & maintenance

Jackets manufactured from polymer rubber materials, e.g. Neoprene, can be repaired using a Respirex repair kit\*. Garments manufactured from thermoplastic materials, e.g. PVC, require specialist equipment and will need to be returned to the manufacturer for repairs.

\*Respirex does not guarantee any repairs carried out by the end-user.

It is recommended that used garments are periodically returned to our care and maintenance department for overhaul, repairs, and where necessary report on the condition of your equipment. When your garments should be returned for inspection will depend upon the extent of usage.

There is no pre-determined life expectancy for your garments; this will depend upon usage, maintenance and washing. However, the level of protection offered by your garment will be seriously diminished by the existence of the following;

- 1. Lifting seam tapes
- 2. Degradation/Thinning of materials
- 3. Broken closures
- 4. Holes/Tears
- 5. Excessive dirt
- 6. Stretched or worn cuff seals

For further enquiries on servicing & maintenance contact Respirex customer services on Tel: +44(0) 1737 778600 or Fax: +44(0) 1737 779441.

#### Storage

Jackets should always be stored in a clean and dry condition and if being stored for long periods of time, out of direct sunlight. The storage environment should be clean, dry and of ambient temperature.

Respirex recommends storing jackets on a hanger; if being stored folded do not stack more than four high. Before first time use the storage shelf life of a jacket is ten years from date of manufacture – each year of storage or before first time use, the jacket should be carefully opened and given a visual check over for any signs of damage or deterioration – following a successful overview the jacket can be repacked - security sealed and stored ready for first time use for up to ten years from the date of manufacture.

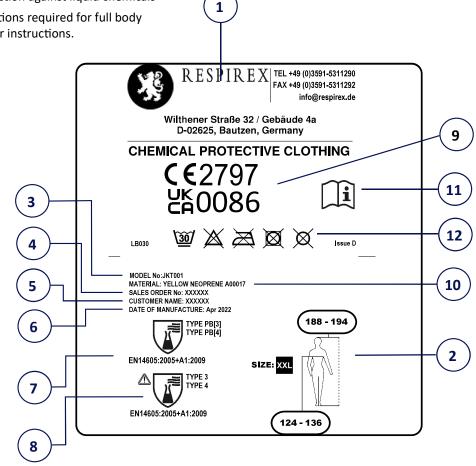
Always store the jacket in a dry area of ambient temperature, not exceeding 30°C and out of direct sunlight. Decontaminated and cleaned with the zip fully open.

#### ALWAYS STORE THE JACKET IN A DRY CONDITION.

In order to maintain the level of protection offered, care should be taken to minimize the risk of damage occurring to the jacket during transportation between work areas. It is recommended that all chemical protective jackets are transported in a suitably sized rigid container resistant to penetration by sharp objects, abrasive surfaces, chemicals, oils, solvents etc.

# **Product labelling**

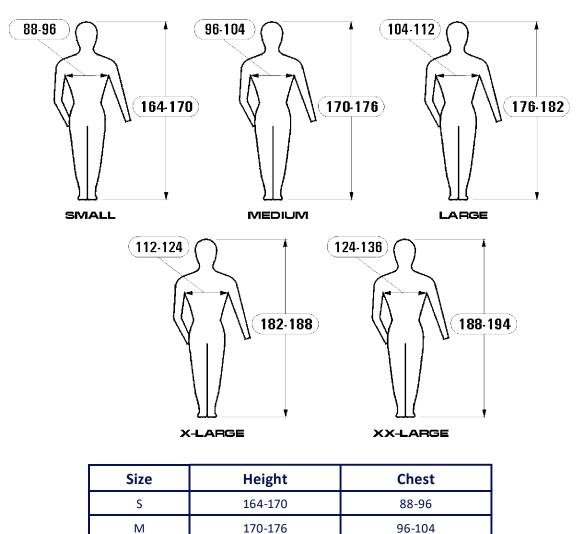
- 1. Manufacturer of garment and address: Respirex International Ltd.
- 2. Garment size
- 3. Manufacturer's Model number
- 4. Manufacturer's Order No.
- 5. Customer Name
- 6. Date of manufacture; Day/Month/Year
- 7. Symbol denoting protection against liquid chemicals
- 8. Warning: Special conditions required for full body protection, refer to user instructions.



- 9. CE and UKCA mark with Notified Body and UK Approved Body code.
- 10. Material of Manufacture
- 11. "Open Book Pictogram"; wearer must refer to the "Instructions for use" for further information
- 12. Five care pictograms indicating that clothing is not suitable for cleaning and reuse
  - Pictogram 1 Light mechanical washing only
  - Pictogram 2 Do not bleach
  - Pictogram 3 Do not iron
  - Pictogram 4 Do not machine dry
  - Pictogram 5 Do not dry clean 🖄

#### Sizes

The following pictograms designate the range of height & chest sizes suitable for specific sizes of jacket suit, check your body measurements and select the correct size of suit. Body measurements in cm.



176-182

182-188

188-194

104-112

112-124

124-136

L

XL

XXL

#### Whole suit performance testing

Performance requirement	Test method	Property value	Result
EN14605:2005+A1:2009 clause 4.3.4.3	EN ISO 17491- 3:2008	Resistance to penetration by a jet of liquid (jet test)	Pass*
EN14605:2005+A1:2009 clause 4.3.4.2	EN ISO 17491- 4:2008	Resistance to penetration by a spray of liquid (spray test)	Pass*

\*With taping as described under the "Limitations & Warnings" section of this document

For further information on the performance results of each specific material refer to the data sheet supplied with your garment.

#### **Risk assessment**

The summary of the risks taken into account in the design of the Jacket.

- Full-body protective clothing with liquid-tight connections between different parts of the clothing (Type 3: liquid-tight clothing) and with liquid-tight connections to component parts, such as hoods, gloves, boots, visors or respiratory protective equipment, which may be specified in other European Standards.
- Full-body protective clothing with spray-tight connections between different parts of the clothing (Type 4: spraytight clothing) and spray-tight connections to component parts, such as hoods, gloves, boots, visors or respiratory protective equipment, which may be specified in other European Standards.
- Partial body protection garments offering protection to specific parts of the body against permeation of chemical liquids. Partial body protection only protects the localised parts of the body that are covered by relevant PPE.

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Module B and D B Type Examination By: D

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