GTB™ GAS-TIGHT SUIT

EN943-1

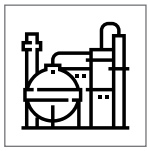
RESPIREX™

Description

The fully encapsulating GTB is a **Type 1A** enhanced robustness reusable gas tight suit covering both the wearer and breathing apparatus.

The suit is available in a **range of chemically resistant fabrics**, depending on the application and chemical challenge.

Applications



Industry

Certification

TYPE 1A | EN 943-1:2015+A1:2019
Gas-Tight Chemical Protective Suits

Fabrics

- Neoprene
- Butyl
- PVC

Product Documentation

The CE Certificate, Declaration of Conformity and user instructions can all be downloaded from the product page on the Respirex website, links are in the downloads tab.

There are also additional photos and videos on donning procedure.

: www.respirex.com : +44 (0)1737 778600

Key Features

Encapsulating design for **Self Contained Breathing Apparatus (SCBA) worn inside the suit**

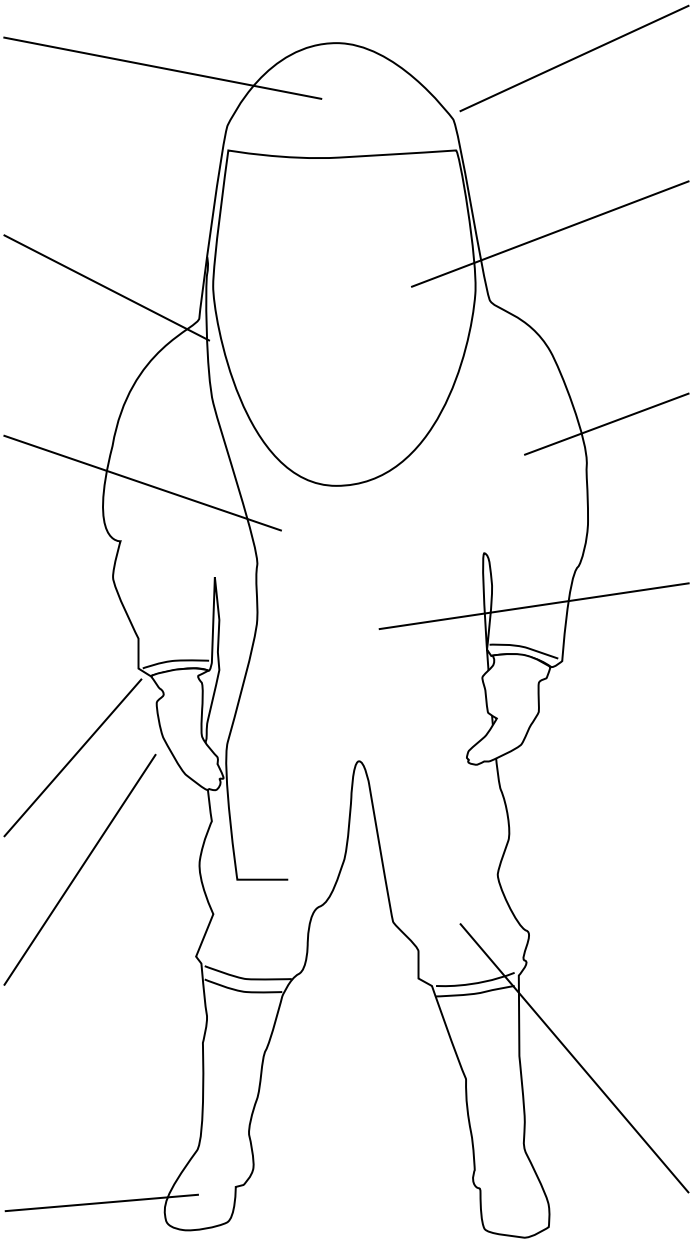
Gas-tight zip running from side of head to lower thigh

Protection against liquid & gaseous chemicals (**Type 1**), infective agents and chemical warfare agents

Gas-tight locking cuff system for changing gloves

Gloves compatible with the choice of suit material

Choice of **fixed or detachable chemical safety boots or sock feet** (see below)



Two exhalation valves maintain a comfortable working pressure inside the suit

Chemically resistant, laminated, rigid visor providing clear undistorted vision and a wide field of view

Bat-wing sleeves allow wearer to remove their hand from the glove to check gauges and other equipment inside the suit

Adjustable **internal support belt**

Fifteen year shelf-life, with internal pressure test required annually or after each use

Internal pressure test based on ISO 17491-1:2012 (Clause 5.3, Method 2) conducted before despatch **to confirm the suit is gas-tight**

Foot or Boot Configuration

Sock Foot and Outer Leg

A sock foot of the suit fabric is fitted with an outer splash guard leg, allowing the use of customers own heat & flame resistant chemical safety boots (required as par of EN943-2). This also reduces pack size.

Detachable Boots

Detachable **Hazmax™ FPA** heat and flame resistant chemical safety boots are attached by a locking ring and can be replaced during suit servicing.

Fixed Boots

Hazmax™ FPA heat and flame resistant chemical safety boots are permanently attached to the suit. The suit needs to be returned to Respirex for boot replacement.

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Suit Options

Fall Arrest

Fall arrest facility for use with an internal fall arrest harness with a back D ring fixing and used in conjunction with a retractable type fall arrester

Suit Ventilation (GTVB Model)

Adjustable ventilation system for the arms and legs of the suit, fed from the wearers BA set. Adjustable in steps from 0 to 100l/m from a control valve mounted on the chest.

Suit/Brigade ID

Customer Identification names & codes can be added to the base of the visor or on the back of the suit.

Pass-Through

Allows the connection of a second cylinder or an air-line to the second man attachment on the wearers breathing apparatus during decontamination.

Anchor Hook

External equipment attachment point

Personal Line Attachment

External equipment attachment point

DSU Attachment

External equipment attachment point for a Distress Signal Unit (DSU)

Torch Ring Attachment

External equipment attachment point

Accessories

Hazbag Containment Bag

A hazardous material containment bag manufactured from Chemprotex™ 300 material. Supplied with a cable tie, tag and wallet for sealing and identification. Dimensions: 1050 x 1370 mm

Gas-Tight Suit Test Unit -

Computer controlled test unit that automatically inflates a suit from a compressed air supply and performs an internal pressure test to ISO 17491-1:2012

Training Suit

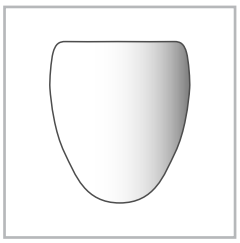
A training version of the operational suit manufactured in green PVC and designed for multiple re-use with no testing required.

Manual Gas-Tight Suit Test Box

Operator controlled test unit that can be used to inflate a suit from a compressed air supply and perform an internal pressure test to ISO 17491-1:2012

Suit Care & Maintenance

A selection of suit care products including cleaning and deodorising agents, anti-fogging spray for visors and lubricating wax for zips.



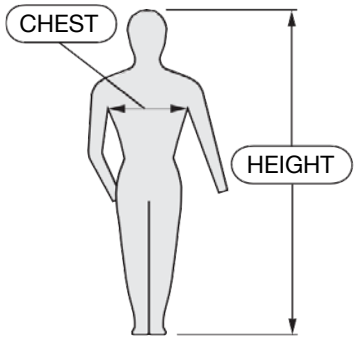
Disposable Outer Visor

Tear-off outer visor held on by hook and loop pads. Provides additional mechanical and chemical protection.

Sizing

Size	Chest (cm)	Height (cm)
X-Small	79-88	150-164
Small	88-96	164-170
Medium	96-104	170-176
Large	104-112	176-182
X-Large	112-124	182-188
XX-Large	124-136	188-194

SIZE GUIDE



Material Performance

		Butyl	Neoprene	PVC C2
Abrasion Resistance	EN 530 Method 2	> 2,000	> 2,000	> 2,000
Flex Cracking Resistance	EN ISO 7854 Method B	> 15,000	> 5,000	> 100,000
Tear Resistance	EN ISO 9073-4	> 60 N	> 40 N	> 100 N
Tensile Strength	EN ISO 13934-1	> 500 N	> 500 N	> 500 N
Puncture Resistance	EN 863	> 50 N	> 10 N	> 50 N
Resistance to Ignition	EN 13274-4 Method 3	Pass	Pass	Pass
Seam Permeation Resistance	EN ISO 6529	> 480 min	> 240 min	> 480 min
Seam Strength	EN ISO 13935-2	> 300 N	> 500 N	> 500 N

Chemical Permeation

	CAS NO.	Butyl	Neoprene	PVC C2
Hydrochloric acid, 36%	7647-01-0		> 480 mins	> 480 mins
Hydrofluoric acid 48%	7664-39-3	> 480 mins	> 480 mins	> 480 mins
Hydrofluoric acid 73%	7664-39-3		> 240 mins	< 30 mins
Nitric acid, 10%	7697-37-2		> 480 mins	> 480 mins
Nitric acid, 60% - 70%	7697-37-2	> 480 mins	> 480 mins	< 30 mins
Phosphoric acid,85%	7664-38-2	> 480 mins	> 480 mins	> 480 mins
Sodium hydroxide, 40%	1310-73-2	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 10% - 50%	7664-93-9	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 96%	7664-93-9	> 240 mins	> 240 mins	> 60 mins

A garments resistance to chemical permeation depends on the material selected. A selection of common industrial chemicals is shown in the table above, but for the full list please check the Respirex permeation guide - visit www.respirex.com

RESPIREX™

Living + Breathing Personal Protection

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