

# SIMPLAIR A.2. TANK SUIT

## REUSABLE NON-GAS-TIGHT SUIT



RESPIREX™

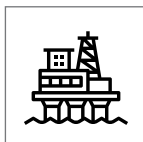
### Description

A reusable air-fed **Type 2** 'non-gas tight' suit with integral cooling designed for use with breathable air supplied from an external positive pressure compressed air source.

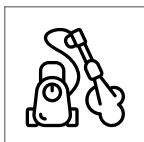
The revised Simplair A.2. design features an air distribution system that brings air into the hood above the wearers head, which allows the use of larger radio headsets and, improves wearer vision and comfort over previous versions.

Designed for heavy duty use the suit is available in a range of chemical resistant fabrics with a number of customisation options including leg endings, lifting eyes, reinforcement patches and suit identification.

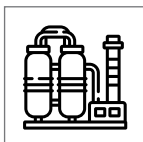
### Applications



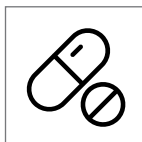
Petro-Chemical



Industrial Cleaning



Tank Entry



Pharmaceutical



### Performance



**Type 2\* | EN 943-1:2002**  
Non-Gas-Tight Chemical Protective Clothing

*\*The Simplair A2 Tank suit has been assessed by a notified body as satisfying Annex II of the PPE regulation (EU) 2016/425 using technical standard EN 943-1:2002 'Protective clothing against liquid and gaseous chemicals, including aerosols and solid particles - Part 1: Performance requirements for ventilated and non ventilated "gas-tight" (Type 1) and "non-gas-tight" (Type 2) chemical protective suits'.*

### Air Supply

Required Airflow: **360 l/m (min) to 440 l/m (max)**

The air flowing into the garment must conform to EN 12021:2014 Annex A. In the event that partial contamination may exist in the factory ring main from which the suit draws its air supply, a Respirex in-line filter unit should be fitted to the air system; this will prevent the ingress of contamination down to 5 microns in size from entering the garment.

### Fabrics

- Viton®/Butyl/Viton® (VBV) - Orange
- Viton®/Butyl/Polyester (VBP) - Yellow
- Butyl - Olive
- Neoprene - Yellow or fluorescent orange (yellow Neoprene pictured above)
- PVC - Yellow or Green

### 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.

## Features

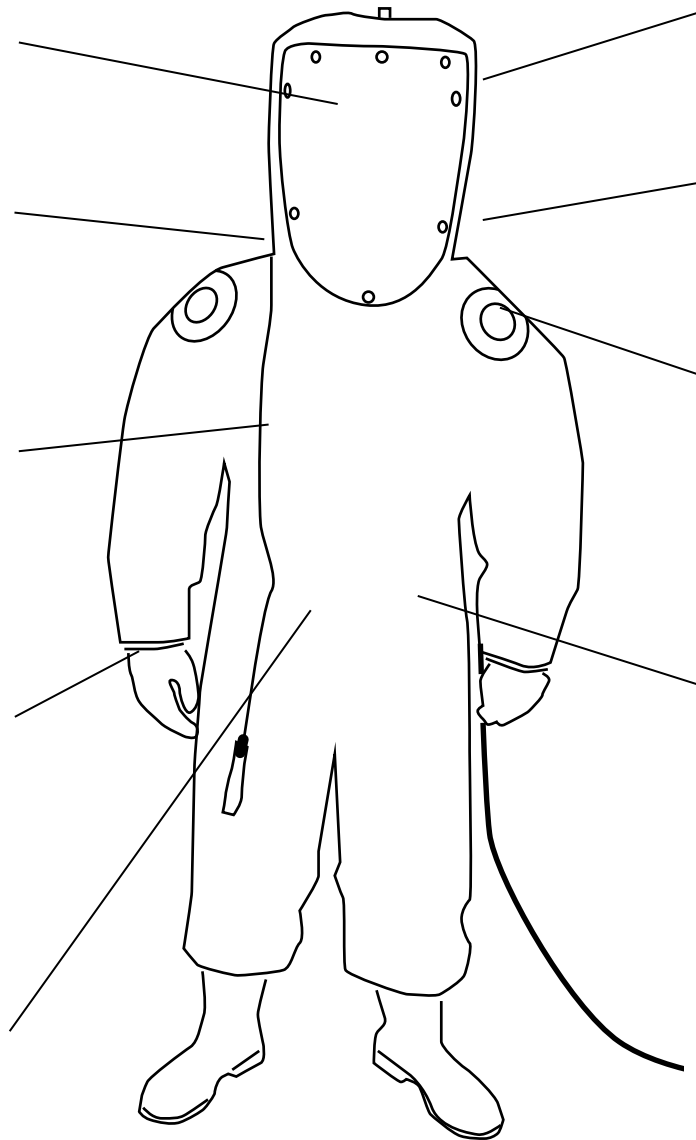
**Internal air system** providing **breathing and cooling air** to the user

**Optional lifting eye** for use with an internal safety harness

Vertical **gas-tight zip** (122cm) fitted on the right side of the suit from thigh to the top of the head

Gas-tight tight **Locking cuff system** for easy glove changes (other systems available on request)

**Adjustable internal waist belt** with a foam back pad comfortably supports the air system



Large **rigid PVC visor** with removable cover provides clear vision over a wide field of view

**Exhalation valves** with optional covers maintain a comfortable working pressure in the suit

**Three-point hanging system** helps prevent distortion during storage

Internal **low-flow warning whistle** indicates if airflow into the suit drops below the required level

A wide **range of approved airline couplings** can be fitted to the suit, but large bore couplings are recommended

## Accessories



### HAZMAX™ Boots

A chemically-protective anti-static safety boot with an integral steel toe cap and mid sole, vulcanized rubber sole for superior slip resistance and kick off lug for hands free removal.



### Three-Point Hanger

A three-point hanger designed to prevent damage to your garment from incorrect storage



### Suit Care Accessories

Cleaning agent, deodoriser, anti-fogging spray and zipper lubricant are available for maintaining your re-usable garment

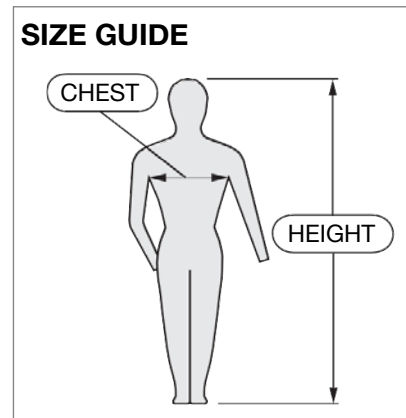


### 5 Micron Filter

An in-line filter designed to remove dust and particulate contamination down to five microns, with an easy to change filter element.

## Sizing

Size	Chest (cm)	Height (cm)
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



## Material Performance

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

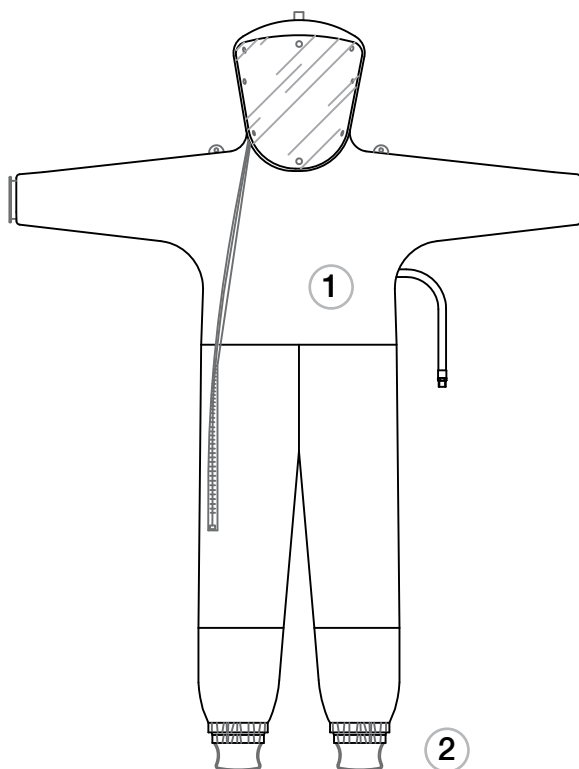
## Chemical Permeation

	CAS NO.	VBV	VBP	Butyl	Neoprene	PVC C2
Hydrochloric acid, 36%	7647-01-0	> 480 mins	> 480 mins		> 480 mins	> 480 mins
Hydrofluoric acid 48%	7664-39-3	> 480 mins	> 480 mins	> 480 mins	> 480 mins	> 480 mins
Hydrofluoric acid 73%	7664-39-3	> 480 mins			> 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	> 480 mins	> 480 mins	< 30 mins
Phosphoric acid, 85%	7664-38-2		> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sodium hydroxide, 40%	1310-73-2	> 480 mins	> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 10% - 50%	7664-93-9		> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 96%	7664-93-9	> 480 mins	> 480 mins	> 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](http://www.respirex.com) or scan the QR code.

# Specifying a Simplair A2 Tank Suit



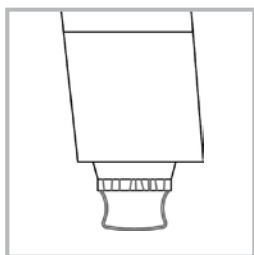
## 1 Choose the material

Select the material for the suit based in its permeation resistance to your challenge chemical(s) and its physical properties. Options available are Viton®/Butyl/Viton® (VBV), Viton®/Butyl/Polyester (VBP), Butyl, Neoprene (yellow or orange) and PVC

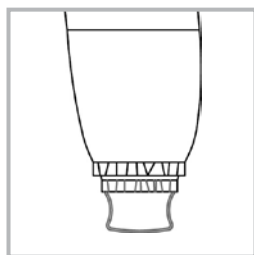
## 2 Choose the leg type

Choose the leg style that suits your application and risk; suits with elasticated legs with stirrup feet are more comfortable and easier to don and doff, sock feet provide a greater level of protection.

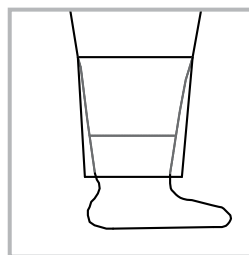
Elasticated inner  
ankle with stirrup,  
plain outer



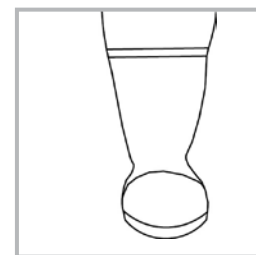
Double elasticated  
ankle with stirrup on  
inner



Sock foot with plain  
outer leg



Detachable Hazmax™  
safety boots



## 3 Customisation

Finally, specify any customisation options - this includes exhalation valve covers, lettering/ID numbers and reinforcing patches.



# RESPIREX™

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