



PROTECTING THE WORLD'S FIREFIGHTERS



Structural



Bristol

A global force in firefighter protection

With 50 years' experience in the specification, design and manufacture of firefighter Personal Protective Equipment (PPE) it is little wonder that Bristol's garments now protect firefighters in over 110 countries.

This catalogue contains details of Bristol's clothing designed for use in structural fire fighting situations, known in some countries as bunker or turnout gear. The main standards covering structural firefighting garments are EN469:2005 in Europe and the NFPA standards in the USA. You will find more information on these, together with test methods and a glossary of terms, on pages 6 and 7 of the Bristol technical introduction catalogue.

The European standard EN469:2005 tests for compliance with:

- Heat transfer of flame and radiation
- Resistance to liquid chemicals
- Water vapour resistance

In the USA, the NFPA 1971 2007 standard also calls for compliance with:

- Thermal Protective Performance (TPP)
- Conductive and Compressive Heat Resistance (CCHR)
- Blood/viral protection
- Total Heat Loss (THL)

This catalogue shows the base styles from which Bristol's many product variations are made. With over 3500 separate models on offer, we can rightly claim to provide a unique bespoke service to meet firefighters' exact needs.

On pages 10 and 12 of the Bristol technical introduction catalogue, you will see the most commonly used feature additions. And you can of course get further information from Bristol or your local distributor.

Structural firefighting clothing to Level 2 must consist of:

- An outer layer to protect the wearer from flame injuries.
- Moisture barrier to give protection from external water penetration and allow internal moisture vapour to escape.
- Thermal barrier and inner layer/lining providing heat protection from proximity to flame.

There are also minimum requirements for reflective material that may be specified as part of EN471. All Bristol garments conform to EN343 water resistance requirements and most to EN1149 for protection against static electricity.

Bristol also meets the variations to European standards, such as French NIT standard and the German HuPF. So, whatever your circumstances, you can be confident that our expertise and product range will meet your needs.



Fabrics Chart

Fabric Code Reference	Description	Weight Sq Mtr
Outer Materials		
A1	Aluminised Fabric	543grms
PM1	PBI Mattrix	205grms
PS1	PBI Gold Ripstop	205grms
PT2	PBI Gold Twill	220grms
RR1	Kermel HTA Ripstop	210grms
HT8	55% Modacrylic, 45% Cotton Twill Fabric	320grms
XF4	Nomex III	265grms
XF9	Nomex Delta C	265grms
XR2	Nomex Hainsworth TITAN with Repel+	220grms
XR6	Nomex Hainsworth TITAN Atlas with Repel+	270grms
XR7	Nomex Hainsworth TITAN Metis with Repel+	175grms
XS2	Nomex Delta T Ripstop	220grms
XS4	Nomex Delta T Ripstop	240grms
XS5	Nomex Delta T Ripstop	185grms
XT5	Nomex Delta T Twill	195grms
Moisture Barrier		
M03	Gore-tex Fireblocker	130grms
M05	Membrane laminated to Nomex Viscose	135grms
M06	Gore-tex Membrane laminated to Nomex Viscose	140grms
M08	Membrane laminated to Kermel Viscose	160grms
M09	Gore Crosstech	171grms
M10	Gore-tex Airlock	210grms
M12	Gore Crosstech SR	166grms
M13	Gore Crosstech Airlock	210grms
Thermal Barrier		
F31	Nomex Kevlar (E89)	51grms
N26ME	Nomex/Meta Aramid Viscose with Kevlar Strip Spacers	195grms
Q01	Nomex/Meta Aramid Viscose Quilted to Thermal Barrier	205grms
Q02	F.R. Cotton Quilted to Thermal Barrier	300grms
Q03	Nomex/Meta Aramid Viscose Quilted to Thermal Barrier	205grms
Q04	Delta C Quilted to Thermal Barrier	205grms
Q05	Delta C Quilted to Thermal Barrier	255grms
Q08	Aramid Viscose Quilt	205grms
Linings		
N21ME	Nomex Viscose	105grms
P21	F.R. Cotton	200grms
N27RE	Nomex low friction	120grms
N20PO	Nomex Delta C	105grms

It is possible that fabric and garment specifications may change or be withdrawn if circumstances demand. However, plenty of notice will be given, and you can always confirm availability by contacting Bristol or its nominated distributors.

NOMEX
DUPONT

PBI PERFORMANCE
PRODUCTS, INC.



HAINSWORTH
TITAN



B-Tech

Standard EN469:2005 Level 2

B-Tech is Bristol's entry level for a structural firefighting coat and trousers to EN469:2005 Level 2.

The short style coat is designed with ergonomic fit. The trouser measurements provide adequate overlap, so that there is no gap between coat and trousers when bending.

Features

Coat

- Two outer lower welt pockets with mitred flaps
- One internal patch pocket
- Plain cuffs with Neoprene anti-wicking barrier
- Neoprene anti-wicking barrier in hem
- Hanger loop on under collar
- Moulded zip front with velcro fastened flap Neoprene lined
- Flip back throat tab Gore-tex lined
- Articulated sleeves

BT/A with silver reflective

BT/B with triple trim reflective

Trousers

- Standard waist trousers with side elasticsation
- Fixed braces crossed at back
- Back seat with yoke
- Self cloth outer curved kneepads, twin stitched seam and Aramid felt internal knee pads
- One internal hip patch pocket
- Plain trouser hems with Neoprene anti-wicking panels

TBT/A with silver reflective

TBT/B with triple trim reflective

Usual fabric combination:

XT5 Nomex Delta T
M03 Gore-tex Fireblocker
Q02 FR Felt quilted to FR Cotton lining

Standard Colours

Dark navy
Brigadier blue
Orange
Yellow

Sizes

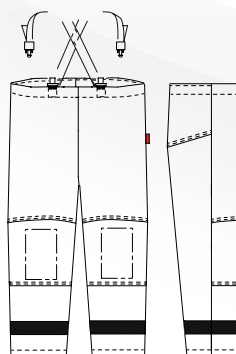
Chest/waist: Small to 4XL
Height fittings: short/regular/tall/extra tall
28 male and 28 female sizes



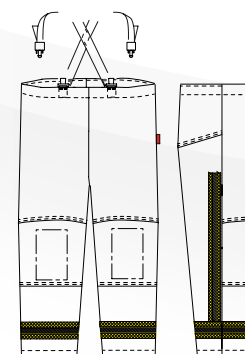
BT/A coat



BT/B coat



TBT/A trouser



TBT/B trouser



BT/A Coat. TBT/A Trousers



BT/B Coat. TBT/B Trousers



Wessex fire coat and trouser

Standard EN469:2005 Level 2

Since its introduction, the Wessex fire coat and trouser has proved to be a particular favourite with many brigades, not just in the UK, but in many other parts of the world too.

A comfortable, practical garment, it provides Level 2 EN469 protection without compromising on comfort or safety.

Features

- Traditional bunker length
- Internal Kevlar felt shoulder pads to protect against BA strap pressure
- Heavy moulded zip covered with Velcro front fastening flap
- Two external and four internal pockets
- One row of 50mm silver 3M Scotchlite™ reflective tape
- Meets Gore rain room test

Usual fabric combination:

XT5 Nomex Delta T
M03 Gore-Tex Fireblocker
Q01 FR Felt quilted to Nomex
Viscose lining

Standard Colours

Dark navy
Brigadier blue
Orange
Yellow

Sizes

Coat - male and female sizes:
Small to 4XL.

Height fitting: short, regular, tall and extra tall.

Trousers - male

Waist	Fitting
Small and large	extra short
Small, large, XL, 2XL	short
Small, large, XL, 2XL, 3XL	regular and tall
Small, large, XL, 2XL,	extra tall

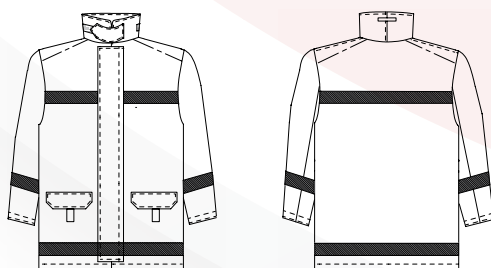
Trousers - Female

Waist	Fitting
Small to 4XL	short, regular, tall and extra tall

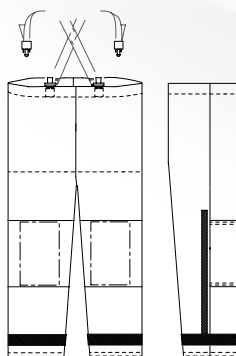
Models

Coat – W/A

Trouser – TC/B



W/A coat



TC/B trouser





W/A coat, TC/B trouser



W/A coat, TC/B trouser



Ergotech fire coat and trouser

Standard EN469:2005 Level 2

Bristol's Ergotech brand has quickly established itself as a leading style for many UK and overseas brigades. Ergonomically designed, it is the result of careful research into the type of tasks that firefighters perform regularly.

Using the latest materials, designed in collaboration with the world's leading fabric producers, the Ergotech range provides improved fit, wearer comfort, and a lighter weight ensemble, without compromising on any levels of operational protection.

Minimizing wearer heat stress has been key to the design process; the Ergotech range helps reduce internal body heat build up for greater safety under extended operational conditions.

Usual fabric combinations:

XR2 Hainsworth TITAN
M10 Gore-Tex Airlock
N21ME Nomex Viscose Lining

PS1 PBI
M10 Gore-Tex Airlock
N21ME Nomex Viscose Lining

Colours

XR2 Hainsworth TITAN

Paris blue
Yellow
Orange
Red/orange
Desert tan
Red
Grey

PBI

Gold
Available to order:
Black, navy, red

Also available to order
PBI Matrix.

Ergotech coat model E2/A

- Tapered girth with sleeve featuring articulated construction and underarm gusset
- Closed cell foam padding to shoulders and elbows
- Extended lined and laminated zip flap

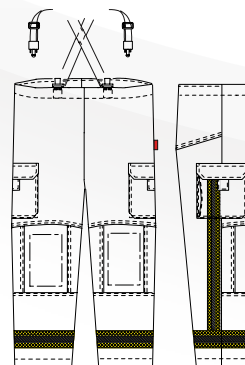
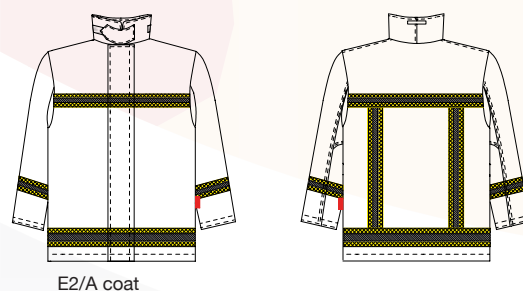
Ergotech trouser model TE2/A

- Articulated seat and knee construction for greater wearer comfort and manoeuvrability
- Arashield external knee panels with closed cell foam and Kevlar felt padding

Sizes

Chest/waist: small-4XL
Height fittings: short, regular, tall and extra tall

28 male and female sizes





E2/A coat, TE2/A trouser



E2/A coat, TE2/A trouser



Ergotech Action fire coat and trouser

Standard EN469:2005 Level 2

Ergotech Action coat model EA2/A

- Collar and throat tab shape provide optimal compatibility with helmet and fire hood
- Shoulder shape and increased upper sleeve allow full rotational mobility in shoulder and arm
- Shaped panel over the shoulder eliminates the shoulder seam and makes a smoother line with greater comfort when wearing breathing apparatus
- Increased underarm gusset allows more manoeuvrability when reaching overhead
- Two action pleats added at the back shoulder

Ergotech Action trouser model TEA2/A

- Articulated knees with convex seams around the knee for greater flexibility when bending/climbing
- Shaped seaming on back of knee to reduce fullness when crawling
- Top of trouser contoured to the body with raised back and elasticated adjustment across lumbar region
- H pattern braces
- Two large half bellow pockets

Usual fabric combinations:

XR2 Hainsworth TITAN
M10 Gore-Tex Airlock
N21ME Nomex Viscose Lining

PS1 PBI
M10 Gore-Tex Airlock
N21ME Nomex Viscose Lining

Colours

XR2 Hainsworth TITAN

Paris blue
Yellow
Orange
Red/orange
Desert tan
Red
Grey

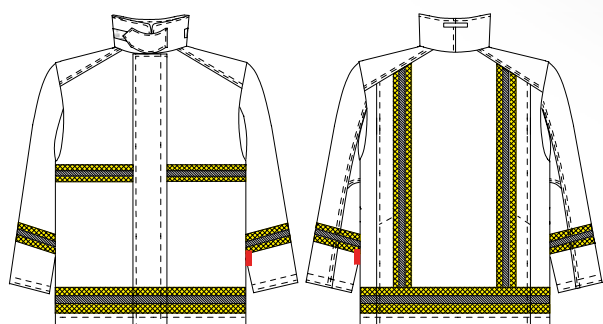
PBI

Gold
Available to order: *Black, navy, red*
Also available to order *PBI Matrix*.

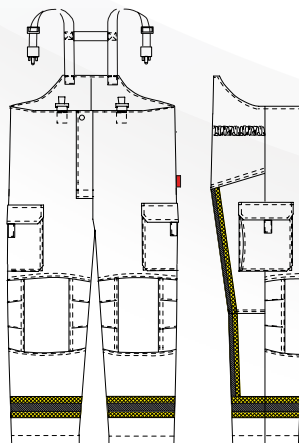
Sizes

Chest/waist: small - 4XL
Height fittings: short, regular, tall and extra tall

28 male and female sizes



EA2/A coat



TEA2/A trouser



H braces and elastication in lumbar region



Back pleat



Articulated knee

EA2/A coat, TEA2/A trouser



EA2/A coat, TEA2/A trouser



Dual level multi-task coverall and coat

Multi-purpose coat and coverall

Because today's firefighters are involved in many situations for which the Level 2 Structural fire fighting garment may be unsuitable, such as road traffic accidents and general rescue, Bristol's designers have come up with a solution: a one piece coverall, which can be used for technical rescue and accident work, but which, with the addition of a coat, becomes an ensemble, providing protective clothing for structural firefighting to meet EN469:2005.

Fully lined coverall UNC9

In certain areas, a one-piece garment is preferred to the coat and trouser. Bristol offers a practical solution which is durable, yet comfortable.

Features

- Two half bellow thigh pockets with drainholes
- One internal pocket
- Plain waist (no elastic)
- Two way zip covered with Velcro fastening flap
- 50mm silver 3M Scotchlite™ reflective tape
- Available in sizes: small, medium, large, X-large, XX-large

Usual fabric combination:

XT5 Nomex Delta T
M03 Gore-Tex Fireblocker
Q01 Nomex Viscose Lining

Colours

Dark navy
Brigadier blue
Yellow
Orange

Sizes

Chest/waist: small - 4XL
Height fittings: short, regular, tall and extra tall

28 male and female sizes



UNC9

Coverall model UNC90

- Body and sleeves in Hi-Viz material with Crosstech SR moisture barrier
- Waist to ankle XR2 Hainsworth TITAN outer with Crosstech Airlock moisture barrier and N20PO Nomex Delta C lining

Standards

- EN ISO 11612 General flame
- EN471 Class 3

Features

- Zip front with Velcro flap
- Yoke back with thigh pleats
- Two half bellow side pockets with Velcro flaps and pull tabs
- Elastic waist
- Knitted cuff with thumbloops
- Articulated knee assembly with Kevlar felt and foam kneepad and Arashield outer panels
- Padded elbows with Arashield outer panels
- Underarm gussets with vent panel
- Silver 3M reflective on top part
- Yellow Reflexite below waist

UNC90



= EN ISO 11612
EN471 Class 3

UNC91



UNC90 & 91



= EN 469:2005 Level 2
EN471 Class 1



Coat model UNC91

XR2 Hainsworth TITAN
N20PO Nomex Delta C

Standards

- EN471 Class 1
- EN469: 2005 Level 2 **BUT ONLY WHEN WORN IN CONJUNCTION WITH MULTI-TASK COVERALL**
- It is also possible for the ensemble to meet EN471 Level 2 with extra reflective

Features

- Zip front with Velcro fastened flap
- One inside patch pocket
- One jetted pocket under zip flap
- Padded shoulders
- Underarm gussets
- Shaped collar with Velcro flip back tab
- Action pleats in back

Usual fabric combination - coverall:

Coverall - Upper Body: High visibility FR Cotton blend / M12 Crosstech SR / N20PO Nomex Delta C

Waist Down: XR2 Hainsworth TITAN / M13 Crosstech Airlock / N20PO Nomex Delta C

Standard colours - coverall:

High viz yellow / Paris blue

Usual fabric combination - coat:

XR2 Hainsworth TITAN
N20PO Nomex Delta C

Standard colours - coat

Paris blue

Sizes

Chest/waist: small -4XL
Height fittings: short, regular, tall and extra tall
28 male and female sizes



UNC90 & UNC91



North American style – NFPA

Standard NFPA 1971:2007

Based on the Ergotech model, Bristol manufactures firefighter garments which meet the North American standard NFPA. They are tested independently by Underwriters Laboratories Inc. (UL), who carry out rigorous testing on all materials, components and garments.

Not surprisingly, Bristol was the first company to have sold NFPA type garments, manufactured in the UK from European fabrics, into the United States market.

Coat N2/A

Features

- Bristol design Drag Rescue Device (DRD)
- Underarm gussets
- Flip back throat tab
- Articulated sleeves
- Action pleats on back
- Elbow and shoulder pads
- Two lower box bellow pockets with flaps, pull tabs and drainholes, handwarmer pockets behind
- One inside patch pocket on lining
- Two vertical jetted pockets under front flap
- Radio pocket
- Two microphone loops
- Two D rings on front
- Torch loop
- 75mm triple trim reflective tape

Trouser TN2/A

Features

- Two box bellow pockets with flaps, pull tabs and drainholes
- Zip fly with Velcro flap
- Detachable 'H' braces
- Articulated knees with Arashield centre panel
- High back
- One inside hip patch pocket
- 75mm triple trim reflective tape
- Two side waist adjusters and elastication at back

Sizes

Coat 34" - 60", trousers 30" - 60"

Height fittings: short, regular, tall and extra tall

Usual fabric combination:

XR2 Hainsworth TITAN

M09 Crosstech

Q08 Thermal Quilt

Standard colours

Paris blue

Yellow

Orange

Red/orange

Desert tan

Grey



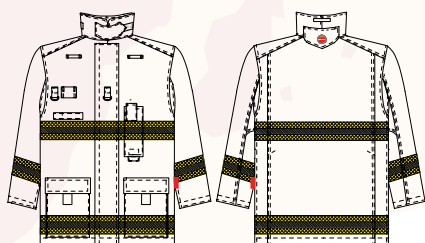
DRD (Drag Rescue Device)



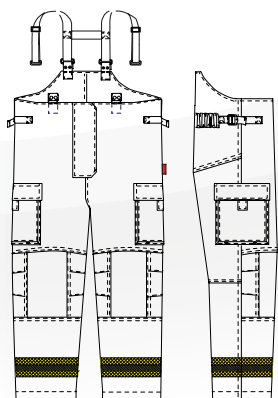
Bellow pockets - trouser thigh



Detachable braces and
elastication in lumbar area



N2/A coat



TN2/A trouser .



N2/A coat, TN2/A trouser



PROTECTING THE WORLD'S FIREFIGHTERS



Bristol Uniforms Limited

Wathen Street
Staple Hill
BRISTOL
BS16 5LL
UNITED KINGDOM

T: +44 117 956 3101
F: +44 117 956 5927
E: enquiries@bristoluniforms.com
W: www.bristoluniforms.com



Introduction
Technical



Structural



Urban Search and
Rescue (USAR)



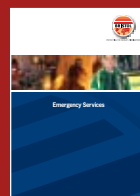
Wildland
Firefighting
Garments



Marine /
Aluminised
Firefighting
Garments



Compatible PPE
and Rescue Tools



Emergency
Services



Integrated
Clothing Project
(ICP)



Ergoflex System