

STYX MILL®

OUR STORY

Welcome to our 2017 / 2018 Fire & Arc Clothing Catalogue.

Styx Mill brings you purpose designed outerwear, developed and manufactured in New Zealand. Our garments span the spectrum, from cutting edge latest technology fabrics and design to general use fire and antistatic products, strong enough to withstand a hard working life and beautiful to wear wherever you choose.

This catalogue brings new styles and product improvements which we are excited to add to the range. Enjoy reading, visit www.styxmill.com and let us know what you think.

Humphrey Mitchell General Manager

25 years

MANUFACTURING EXCELLENCE

Styx Mill was established in 1991 and has been both developing fabrics and manufacturing ever since then. 2017 brings more state of the art machinery capable of making a world class range of products.



OUR PARTNERSHIP

The Department of Conservation (DOC) is the government agency charged with conserving New Zealand's natural and historic heritage.

Styx Mill and DOC are working together to promote the environment and enhance staff safety for the Visitor Asset Team in the unique 1.2 million hectare (2.96m acre) Fiordland National Park, southwest New Zealand.

For a manufacturer like Styx Mill, this partnership means a lot. Our export customers are acutely aware of New Zealand's unspoilt natural beauty and the values it represents. We are passionate about this region and thankful to DOC for the opportunity to work together in partnership

Browse this catalogue and read about a selection of Fiordland places throughout this booklet. Enjoy what we enjoy!

Premium

QUALITY LASTING PRODUCTS

Styx Mill offers a comprehensive product warranty, in part because of the high quality level of materials and professional construction of the product ranges.

Quality

NEW ZEALAND MANUFACTURER

Styx Mill has its own manufacturing facility in Christchurch, New Zealand, ensuring the highest levels of quality and product finish.



FEATURES

A lightweight tropical structural firefighting suit, (500gsm) designed to be highly breathable with excellent levels of moisture management. Design features include articulated elbow and knee movement management, excellent break open properties and multiple fit adjusters.

- + 500gsm complex weight
- + EN version compliant to EN 469:2005
- + AS/NZS version compliant to AS/NZS 4967:2009
- + Available in a range of colours
- + FR Reflective meeting EN 469:2005
- + AS/NZS 4602.2:2013 Classification 2
- + New Zealand Made





AS/NZS Standard

TROPICAL FIREFIGHTERS STRUCTURAL SUIT

CODE 111B

BEIGE

COLOUR SIZING SML-5XL EN Standard

TROPICAL FIREFIGHTERS STRUCTURAL SUIT



BEIGE

COLOUR SIZING SML-5XL











Caractéristiques

Une tenue de lutte contre les incendies structurels, d'une complexe légère, conçue pour les conditions tropicales avec un taux de respirabilite' élevé et une gestion d'humidité optimise'. Les caractéristiques de la conception incluent la nouvelle technologie au niveau de la flexibilité des coudes et des genoux. Le vêtement est équipe' de plusieurs points de réglage pour optimiser le confort au porteur.

- + Complexe de 500g/m²
- + Conforme à EN 469:2005
- + Conforme à AS/NZS 4967:2009
- + Disponible dans une gamme de couleurs
- + Confectionné en NZ



EN Standard

TENUE APPROCHE FEU TROPICALE



COLOUR SIZING
BEIGE SML-5X



SML-5XL



Fiordland

MILFORD SOUND

Piopiotahi

Milford Sound / Piopiotahi, and the iconic Mitre Peak, is one of the most recognised and photographed sites in the world. Located in the northwest of Fiordland National Park, the fiord is enclosed by sheer rock faces rising 1200m (3900ft) or more either side. Further up the valley is the famous Milford Track, leading to the majestic Sutherland Falls (shown) and the distinctive Mackinnon Pass. One of the wettest areas in New Zealand, with a mean annual rainfall of 6412mm (252in), the mountains of Milford Sound / Piopiotahi regularly erupt into a cascade of waterfalls.



Department of Conservation Te Papa Atawhai

Styx Mill and DOC are working together to promote the environment and enhance staff safety for the Visitor Asset Team in the unique 1.2 million hectare (2.96m acre) Fiordland National Park, southwest New Zealand.



Photo credit: southernlakeshelicopters.co.nz

FEATURES

An entry level structural fire suit, made from an intimate blend of meta-aramid and para-aramid with an "all in one" moisture management membrane compliant to AS/NZS 4967:2009. Design features include new generation construction technology, articulated elbow and knee movement management and multiple fit adjusters.

- + Compliant to AS/NZ 4967.2009
- + Colour Navy
- + 600gsm complex weight
- + FR Reflective meeting EN 469:2005
- + New Zealand Made



EN Standard

FIRE FIGHTERS **STRUCTURAL** SUIT

















First Responder

WET WEATHER FR ANTISTATIC RAINWEAR



CODE 27ANX





COLOUR SIZING
YELLOW SML-5XL

First Responders rainwear, lightweight, breathable and waterproof. FR rated to EN ISO 14116:2015, Anti-static compliant to EN 1149-5:2008, Chemical resistance rated EN 13034.2005. Design includes chest radio pocket. High Vis and reflective taped to meet AS/NZS 4602.1.2011 class D/N.



First Responder

WET WEATHER FR ANTISTATIC **OVERALLS**



CODE 27ANO



COLOUR SIZING
YELLOW SML-5XL



First Responders one piece waterproof breathable overall with hood. Seam sealed finish with an angle zip and zip gutter, pleated arms with glove rebates and made from a hydro polymer FR chemical resistant fabric meeting EN 13034.2005, Fluoro meets AS/NZS 4602.1.2011 class D.







Flame Retardant

WILDLAND FIRE FIGHTING **JACKET**



CODE 111W





COLOUR SIZING
GOLD SML-5XL

A lightweight high performance mid length fire jacket for Wildland firefighting, based on a lightweight inherent FR fabric made from a blend of meta-aramid, wool and FR viscose with a weight of 235gsm. Fabric compliant to AS/NZS 4824:2006.

Waterproof membrane version pending.



Flame Retardant

WILDLAND FIRE FIGHTING **OVERALLS**



CODE 111F



/NAVY



COLOUR SIZING
YELLOW SML-5XL

Wildland flame retardant overalls, 220gsm fabric weight, meeting AS/NZ 4824:2006 and also AS/NZS 4602.1.2011 class D/N. Made from a blend of meta-aramid rich inherent flame retardant fabric. The fluoro fabric is a proprietary blend of aramid & spun dyed fibres optimising full FR and high visibility.



FEATURES

Aluminised fire suit meeting ISO 15538:2001 in particular section 6.1 to 6.5 of this standard. Suit consists of Jacket & Bib Trousers with a fabric outer weight of 350gsm. Complex construction is an aluminised outer fabric based on a proprietary blend of aramids and other inherent FR fibres over a quilted meta-aramid liner of 350gsm. Designed for firefighting in confined spaces or very harsh environments.

- + Comes as jacket & bib trouser set
- + Superior radiant heat reflecting properties
- + Fabric inert to water borne chemicals
- + Radio pocket on chest
- + Sizing Small to 5XL
- + New Zealand Made









COLOUR SIZING
SILVER SML-5XL





FEATURES

Woollen thermal Jacket with 100% wool 480gsm weight outer and 180g aramid/FR Viscose blend inner. Meets ISO 11612:2015, specifically the vertical flame test A, B1, C1 and NFPA 70E HRC2. Comes as a jacket or pullover style garment with an attached hood. New Zealand made.

- + 100% natural fibre Outershell
- + Eco sustainable
- + High insulating properties
- + High moisture management
- + Natural Anti-Static properties
- + Low flammable properties
- + Low Conductivity of heat transfer
- + New Zealand Made



Thermal

WOOLLEN UTILITIES **FR JACKET**



COLOUR SIZING
ORANGE SML-5XL



WOOLLEN UTILITIES **FR PULLOVER**



ORANGE

SML-5XL





















PER	FOR	MAN	ICE L	EVEL

FR POLYESTER (A/S)

MODACRYLIQUE BLENDS ARAMID BLENDS

VERY POOR * * * * * POOR * * * * * AVERAGE * * * *	BEST GREAT GOOD	Polyester treated with oxygen scavenger which results in any flames self extinguishing upon removal of source of ignition. This limits flame spread. See page 24-25	Pre-oxydised poly-acrylonitrile fibre blended with either aramids or cellulosic fibres. See page 22-23	Blends of meta- and para-aramid fibres with anti-static fibres and possibly FR Viscose. See page 20-21
FLAME SPREAD		****	****	****
SELF EXTINGUISH		****	****	****
MELT		****	****	****
HOLE FORMATION		****	****	****
EDGE IGNITION		****	****	****
HEAT SHRINKAGE		****	****	****
ABRASION		****	****	****
PILLING		****	****	****
ANTI-STATIC		****	****	****
HIGH VISIBILITY		****	****	****





Fiordland

DOUBTFUL SOUND

Patea

Deep in the heart of Fiordland is
Doubtful Sound/Patea, a place of
solitude surrounded by high rugged
mountains. With no direct road access,
Doubtful Sound/Patea is quieter and
more remote than its famous neighbour
Milford Sound. A place of immense
rainfall, the top 2-10m of the fiord is
fresh water, fed from the thundering
cascades coming down the jagged
mountains. At 40.4km long, Doubtful
Sound "the Sound of Silence" is one of
New Zealand's largest fiords and home
to one of the southernmost populations
of bottlenose dolphins in the world.



Department of Conservation Te Papa Atawbai

Styx Mill and DOC are working together to promote the environment and enhance staff safety for the Visitor Asset Team in the unique 1.2 million hectare (2.96m acre) Fiordland National Park, southwest New Zealand.





CSA Standard

NFPA 70E **BREATHABLE** ARAMID RAINWEAR





YELLOW & ORANGE



SIZING

SML-5XL



ANSI Standard

NFPA 70E

ARAMID

BREATHABLE

RAINWEAR









AS/NZS Standard

NFPA 70E **BREATHABLE** ARAMID RAINWEAR





COLOUR YELLOW & ORANGE



SIZING SML-5XL



Product

FEATURES

Wet weather electric arc rated rainwear made from a 3 layer composite laminate. Meeting NFPA 70E HRC 2 18cal. The Outer shell is an aramid rich proprietary blend with other spun dyed fibres (to optimize High visibility and FR properties). This is laminated to a breathable waterproof EPTFE membrane. The inner layer is an inherent FR scrim.

- + Compliant to CSA Z96 Class 3 / Level 2
- + Compliant to ANSI / ISEA 107-2015 Class 3, reflective Level 2
- + Compliant to AS/NZS 4602.1.2011 Class D/N
- + Greater than 5000mm waterproof
- + Highly breathable (ret < 8 m2Pa/W)
- + Hardhat adaptable 3 point adjusting hood
- + Sizing Small to 5XL
- + New Zealand Made











CSA Standard

NFPA 70E **MODACRYLIQUE** RAINWEAR

CODE 27200



SIZING SML-5XL



ANSI Standard

NFPA 70E **MODACRYLIQUE** RAINWEAR

CODE 27201



SIZING SML-5XL



AS/NZS Standard

NFPA 70E **MODACRYLIQUE** RAINWEAR

CODE 27204



YELLOW & ORANGE



SIZING SML-5XL



Product

FEATURES

Wet weather electric arc rated rainwear made from a 2.5 layer complex. Meeting NFPA 70E HRC 2 15.8cal. The outer shell comprises a modacrylique cellulosic blend, the inner being a polyurethane membrane with an abrasion resistant coating. FR to EN ISO 14116:2015

- + Compliant to Z96.15 Class 3 / Level 2
- + Compliant to ANSI / ISEA 107-2015 Class 3, reflective Level 2
- + Compliant to AS/NZS 4602.1.2011 Class D/N
- + Greater than 5000mm waterproof
- + Highly breathable (ret < 8 m²Pa/W)
- + Hardhat adaptable 3 point adjusting hood
- + Sizing Small to 5XL
- + New Zealand Made

FEATURES

Breathable wet weather rainwear with FR properties compliant to ISO 14116:2015, antistatic protection meeting EN 1149-5:2008, chemical resistant to EN 13034.2005 and meeting High Vis standard AS/NZS 4602.2011 class D/N. Fully seam sealed with foldaway hood and double storm flap.

- + Articulated arms and recessed cuffs
- + Seamless shoulder design
- + Slightly longer tail
- + Front pockets, hand warmers & chest pocket
- + Performance garment design
- + New Zealand Made



Breathable

WET WEATHER FLAME RETARDANT ANTISTATIC RAINWEAR



YELLOW & ORANGE

SML-5XL









FEATURES

Thermal wool lined high vis sleeveless vest. Made from a 300D breathable outer with a carbon grid ensuring the garment is fire retardant to ISO 14116:2015, anti-static meeting EN 1149-5:2008, chemical resistant properties to EN 13034.2005, fluoro and reflective to AS/NZS 4602.2011.

- + Side hand warmers & cargo pockets
- + Antistatic zip
- + Extra length tail design
- + Wool thermal liner
- + New Zealand Made



Antistatic

WET WEATHER FLAME RETARDANT WOOL LINED VEST





YELLOW & ORANGE













Antistatic

COMMAND **SAFETY VEST**



CODE 30NT



COLOUR YELLOW & ORANGE



SIZING SML-5XL

Command safety vest, fire retardant to ISO 14116:2015, anti-static to EN1149-5:2008, fluoro and reflective to AS/NZS 4602.1-2011 class D/N. Comes with chest radio pocket and zip front design. Able to have reflective name title tabards attached.

Antistatic

SAFETY VEST



HWMANT



COLOUR YELLOW & ORANGE



SIZING SML-5XL

Entry level antistatic safety vest, fire retardant to ISO 14116:2015, antistatic to EN1149-5:2008, fluoro to AS/NZS 4602.1-2011 class D/N. Available in orange or yellow.



Fiordland

KEPLER MOUNTAINS

These majestic mountains give a special taste of remote Fiordland, New Zealand. Rising across the lake from Te Anau township, the range is a changing scene of beech forest, mountain slopes, alpine lakes, waterfalls, hanging valleys and snow clad mountain tops. To the north sit the Murchison Mountains, home of the incredibly rare takahē bird. The Kepler Mountains include the high and remote Mt Kidd, and are renowned as a distinctly picturesque area amid Fiordland's spectacular scenery.



southernlakeshelicopters.co.nz

Department of Conservation *Te Papa Atawhai*

Styx Mill and DOC are working together to promote the environment and enhance staff safety for the Visitor Asset Team in the unique 1.2 million hectare (2.96m acre) Fiordland National Park, southwest New Zealand.

FEATURES

- + Radio pockets & Mic loops
- + Rear document pocket
- + Front & rear plastic tabard sleeves
- + Large front storage pockets
- + Yellow & Orange
- + New Zealand Made



Flame Retardant

INCIDENT **MANAGEMENT SAFETY VEST**



CODE 30NA



YELLOW & ORANGE



SIZING SML-5XL

Incident management multi pocket response vest, fire retardant to ISO 14116:2015, fluoro to AS/NZS 4602.1-2011 class D/N. Design includes multiple pockets, including role designation clear pockets, plus a backpack with zip enclosure.

OPERATIONS MANAGER

INCIDENT CONTROLLER

Reflective

CUSTOM NAME **TABARDS**







SIZING LG (FRONT) SML (REAR)

Reflective fabric tabards with a personalised choice of words. Able to be sewn directly onto garments or inserted into a clear plastic sleeve on the garment. Sizing front & rear.











Flame Retardant

BRANDED STATION **SHIRT**



CODE





Station wear shirt made from a proprietary blend of FR inherent fibres. Lightweight at only 180gsm with high abrasive properties and comfort levels. Meets AS/NZS 4824:2006 Class 1 and NFPA 70E HRC 1.

HRC 2 version pending.



Flame Retardant

NFPA 70E **ARAMID HIGH VIS SHIRT**



CODE



/NAVY



COLOUR SIZING
ORANGE SML-5XL

High Vis anti-static FR shirt meeting NFPA 70E HRC 1. Made from an inherent proprietary blend of FR & anti-static fibre. Very comfortable design including button flap and chest pocket. Reflective to AS/NZS 4602.2011 Class N.



Branded

PRINTED COTTON **TEE-SHIRT**







100% cotton t-shirt, made from a 190gsm weight ring spun jersey knit fabric. Comes with twin needle double stitched seams and complies with UPF protection AS/NZS 4399:1996.













ARAMID FLASH HOOD







ONE SIZE

Aramid flash hood made from a blend of meta-aramid and FR viscose, very comfortable with a soft handle finish.



Flame Retardant

ARAMID FRONT ADJUSTING FLASHHOOD







Adjustable face piece flash hood made from a blend of meta-aramid and FR viscose, very comfortable with a soft handle finish.



Flame Retardant

HELMET NECK SHIELD







FR Neck shield for fire helmets made from a 180gsm fabric with a proprietary blend of FR resistant fibres. Compliant to standard AS/NZS 4824:2006











Adjustable

MULTI PURPOSE BRACES



CODE BBC1



COLOUR ORANGE



SIZING ONE SIZE

Heavy duty metal alligator clip braces with 40mm width quality elastic. Adjustable from 78cm to 106cmone size fits all.



Leather

PUMPING GLOVES WITH FR CUFFING



TL21FR



OLOUR Rev



SIZING SML-2XI

Soft handle leather drivers glove with a FR aramid knit cuff





Flame Retardant

UTILITIES SWITCHING GLOVES



CODE



) COLOU BLACK



SIZING

Utilities gloves made from a 3-layer complex of a fully inherent blend of meta-aramid and FR viscose. Includes a silicone palm area for grip and dexterity. Compliant to NFPA 70E HRC 4 (50 Cal)





Fiordland

DUSKY SOUND

Tamatea

Dusky Sound/Tamatea is a majestic fiord in the southwest corner of New Zealand. Only accessible by air or sea, Dusky Sound's isolation has helped it to remain one of the least modified parts of mainland New Zealand. Rich in both Māori and European history, unique place names within include Supper Cove and Wet Jacket Arm. Dusky Sound is the site of one of the world's first conservation reserves, and the area is still home to a huge variety of native wildlife including the rare, flightless kākāpō - the largest parrot in the world.



Department of Conservation *Te Papa Atawhai*

Styx Mill and DOC are working together to promote the environment and enhance staff safety for the Visitor Asset Team in the unique 1.2 million hectare (2.96m acre) Fiordland National Park, southwest New Zealand.

OUR SINCERE THANKS TO ALL THOSE INVOLVED IN THIS CATALOGUE

- Christchurch International Airport Fire Station
- + Air BP, Christchurch International Airport
- + Dave Richards Photography
- + Goodbrand Design Agency
- + Models Mark, Emily, Airport Red Team
- + Simone Thurlow Stylist

STYX MILL PRODUCT WARRANTY

All Styx Mill products are warranted against faulty materials and workmanship. We will honour our obligations as stated in the Consumer Guarantees Act. Garments for warranty claims need to be taken back to the retailer they were purchased from to

process your claim.

Styx Mill products are able to be purchased through a network of retail distributors. Visit www.styxmill.com to view the range and see these dealers.

©Styx Mill Clothing Company Ltd 2017 / 2018

TERMS OF USE

While every effort has been made to ensure the accuracy of the data in this catalogue, Styx Mill takes no responsibility for any errors in the product details and images therein. Images are intended to show the colours and style as closely as possible, due to the printing process actual product colours may vary.

Styx Mill reserves the right to change product details and specifications without notice. While Styx Mill offers advice with regard to the use of products in this catalogue, this is no substitute for professional advice to match the users working environment. Styx Mill takes

no responsibility for any accidents caused by inappropriate use, lack of or inadequate equipment for the working situation.

No part of this publication may be reproduced or copied without written permission of the directors of Styx Mill. Styx Mill will not hesitate to take appropriate legal action if its rights in this respect are infringed upon.

Please note some products & specifications may change or have pending standards because of testing updates.

PRODUCT STANDARDS GLOSSARY

EN 469:2005

Protective clothing for firefighters —Performance requirements for protective clothing for firefighting

AS/NZS 4967:2009

Protective clothing for firefighters — Requirements and test methods for protective clothing used for structural firefighting

EN 13034.2005

Protective clothing
against liquid chemicals
— Performance
requirements for
chemical protective
clothing offering
limited protective
performance against
liquid chemicals (Type
6 and Type PB [6]
equipment)

AS/NZS 4602.1.2011

High Visibility Safety Garments

EN ISO 14116:2015

Protective clothing

— Protection against
flame — Limited flame
spread materials,
material assemblies
and clothing

ISO 15538:2001

Protective clothing
for firefighters —
Laboratory test methods
and performance
requirements for
protective clothing with
a reflective outer surface

NFPA 70E

Standard for electrical safety in the workplace

CSA Z96-15

High Visibility Safety Apparel (Canadian)

ISO 11612:2015

Protective clothing —
Clothing to protect
against heat and
flame — Minimum
performance
requirements

EN 1149-5:2008

Protective clothing —
Electrostatic properties
(Antistatic)

AS/NZS 4602.2:2013 Classification 2

High Visibility Safety Garments for Fire Service Personnel

ANSI/ISEA 107.2015

American National Standard for High Visibility Safety Apparel And Accessories

AS/NZS 4824:2006

Protective clothing for firefighters requirements and test methods for protective clothing used for wildland firefighting (ISO 15384:2003)

AS/NZS 4399:1996

Sun protective clothing



(ii)

website

LinkedIn

/styx-mill

styxmill.com



—— Facebook

Google Plus

8+

/styxmillouterwear

styxmillouterwear



Twitter

@styxmillapparel



—— Instagram

styxmill outerwear



Pinterest

/styxmillapparel



YouTube

/styxmillouterwear







