3M Science.
Applied to Life.™

Helping enhance worker health and safety at every step.

3M™ Personal Protective Solutions for Primary Metal Manufacturing

For 50+ years,
the safety behind your success

3M helps protect workers in a changing world. Across diverse industries and applications, our technology, knowledge and energy drive innovative solutions. Our goal is to help protect you from hazards in the work environment, so you can focus on the job at hand.

Over 50 years ago, 3M introduced the first U.S. Government-approved 3M filtering facepiece respirator, and the 3M™ E-A-R™ Classic Ear Plug.

Today, 3M remains dedicated to developing Personal Protective Equipment (PPE) to help get your workers back home: we apply science to life, helping protect workers' health and safety on the job, for employees today and tomorrow. Learn more about the history of our advancements and where we are going next.

3M.com/safety50

50+ Years of Health and Safety Leadership

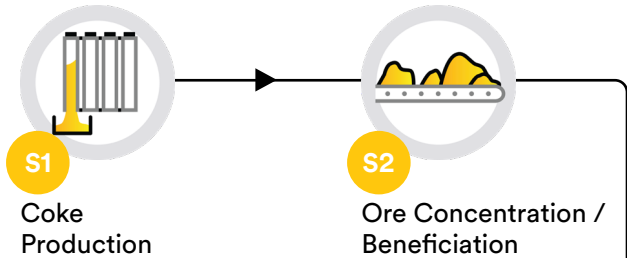# Helping enhance worker health and safety in primary metal manufacturing

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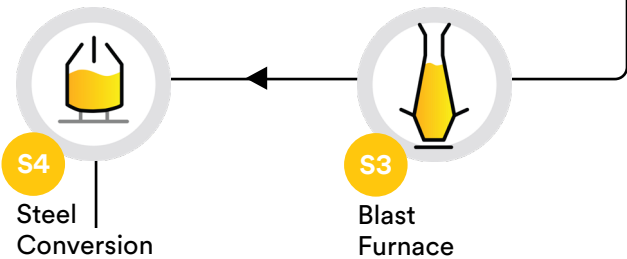
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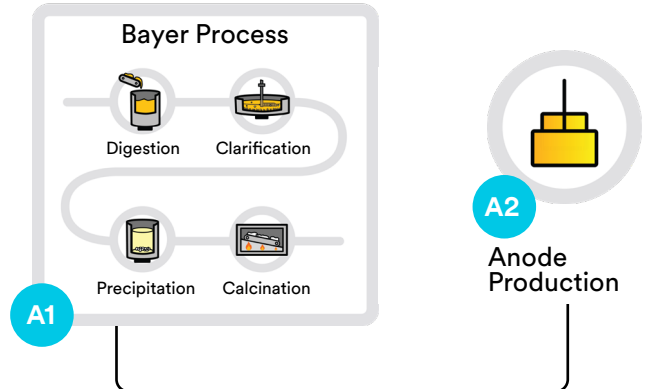
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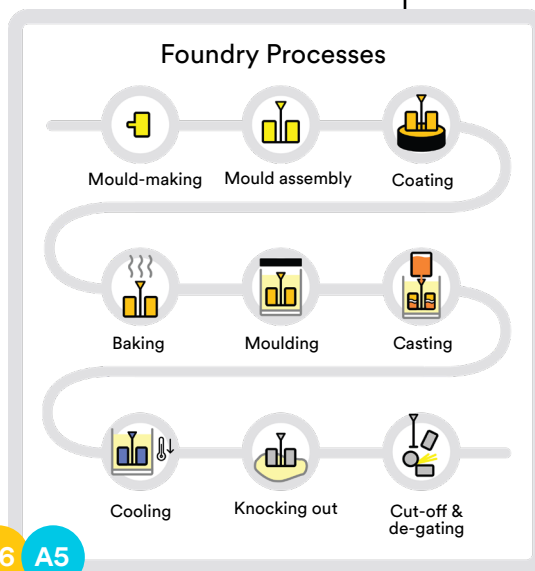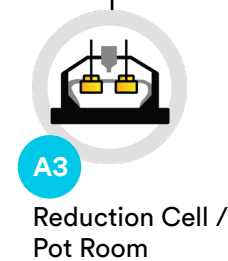
Steel Production

S1 Coke Production

Coal is baked to remove impurities to form coke that will be used in blast furnace. Processes include crushing, mixing and blending; coke battery charging; thermal distillation; coke pushing & quenching.

Hazards

- Noise
- Foreign body eye injuries (coal particles)
- Radiant heat & heat stress
- Coal dust, polycyclic aromatic hydrocarbons, nitrosamines, arsenic compounds, other hazardous substances, gases & vapours

S2 Ore Concentration / Beneficiation

Pelletization: Iron is concentrated using magnets and then mixed with clay. Fired into hard 1 cm pellets, ideal for blast furnace.

Sintering: Iron ore and coal loaded on permeable bed. Mixture combusted, fuses into a chunk.

Hazards

- Noise
- Foreign body eye injuries (coal particles)
- Radiant heat & heat stress
- Silica & particulate

S3 Blast Furnace

Coke, sintered ore and limestone loaded into blast furnace.
Hot air is blown into the furnace, coke burns releasing heat and reduces ore to molten 'pig iron'.

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat, heat stress & thermal burns
- Metal dust, fume & other particulates; carbon monoxide; carbon dioxide
- Falling objects & head impacts

S4 Steel Conversion

Various processes convert and refine "pig iron" to steel, including:
Electric Arc Furnace, Basic Oxygen Furnace and Degassing

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat, heat stress, thermal burns & arc radiation
- Metal dust and fume; carbon monoxide; carbon dioxide, hydrogen; methane
- Falling objects & head impacts

Aluminium Production

A1 Bayer Process

Bauxite is crushed and digested in concentrated sodium hydroxide. Aluminium hydroxide is precipitated from solution. Aluminium hydroxide is calcined to form Alumina (aluminium oxide).

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat, heat stress
- Silica and other particulate
- Caustic chemicals

A2 Anode Production

Anode production process takes place in the "rodding room". Carbon blocks are fused to a steel rod with molten cast iron.

Hazards
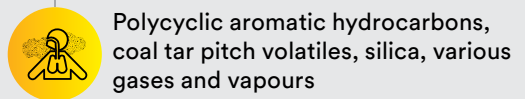
- Noise
- Foreign body eye injuries
- Polycyclic aromatic hydrocarbons, coal tar pitch volatiles, silica, various gases and vapours

A3 Reduction Cell / Pot Room

An electrolytic reduction process known as smelting dissolves the alumina in a cryolite bath inside carbon-lined cells, or pots. A powerful electric current, which is passed through the bath, separates aluminum metal from the chemical solution and the metal is siphoned off.

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat, heat stress
- Powder dust (alumina)

Steel & Aluminium Production (Similar processes)

S5 A4 Casting

Molten metal are poured into either stationary moulds for ingots or continuously cast to make slab, bloom and billet, which are semi-finished output. Hot and cold roll metal to precise thickness

Hazards

- Noise (potentially from conveyors)
- Foreign body eye injuries
- Radiant heat, heat stress & thermal burns
- Metal fume
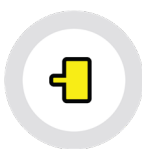
S6 A5 Foundry Processes

Processes include:

- Mould and core making
- Melting and Casting
- Shake-out / Knock-out
- Finishing and fettling

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat & heat stress
- Metal dust, fume, silica, and other particulates; carbon monoxide; carbon dioxide; fluorides; isocyanates; formaldehyde

S7 A6 Maintenance Activities

Processes include:

- Facility / building maintenance
- Equipment maintenance
- Furnace / pot relining
- Pollution control equipment operation / maintenance
- Tank and pit cleaning / maintenance

Hazards

- Noise
- Foreign body eye injuries
- Radiant heat & heat stress
- Falling objects and head impacts
- Metal dust, welding fume and other particulates; carbon monoxide; carbon dioxide; organic vapors; oil mists
- Working at height & confined space

Common Respiratory Hazards & Potential Health Effects

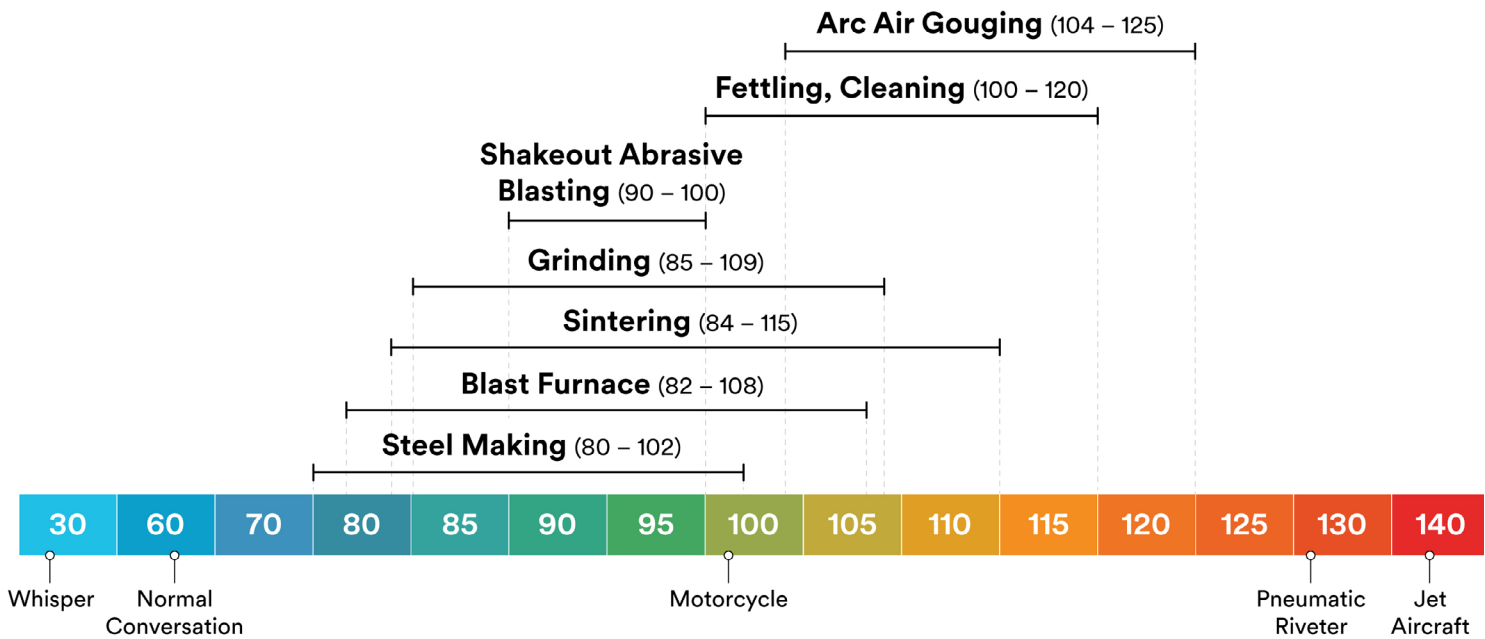| Chemical	Potential Health Effects
Coal and Ore Dust	Pneumoconiosis
Metal Dust and Fume	Eye and respiratory irritation, Metal fume fever (metal dependent) Pneumoconiosis, Chronic obstructive pulmonary disease, Cancer (metal dependent)
Refractory Fibers	Pneumoconiosis, Potential carcinogen
Respirable Crystalline Silica	Silicosis, Chronic obstructive pulmonary disease, Cancer
Polycyclic Aromatic Hydrocarbons	Cancer
Hydrogen Fluoride and Fluorides	Hydrogen Fluoride: Skin, eye and respiratory irritation Fluorides: Occupational asthma
Carbon Monoxide	Toxic gas
Carbon Dioxide	Asphyxiant gas
Ammonia	Skin, eye and respiratory irritant. Corrosive gas
Sulphur Dioxide	Skin, eye and respiratory irritant. Pulmonary Edema
Casting resins, gases and vapours	Formaldehyde: irritant and carcinogenic	Phenols: corrosive and toxic

Common Noise Levels in Steel Making

Arc Air Gouging (104 – 125)

Fettling, Cleaning (100 – 120)

Shakeout Abrasive Blasting (90 – 100)

Grinding (85 – 109)

Sintering (84 – 115)

Blast Furnace (82 – 108)

Steel Making (80 – 102)

| 30 | 60 | 70 | 80 | 85 | 90 | 95 | 100 | 105 | 110 | 115 | 120 | 125 | 130 | 140 |

Whisper | Normal Conversation | Motorcycle | Pneumatic Riveter | Jet Aircraft

Potential PPE Solutions

Steel Production

Application	Respiratory	Eyes	Head & Face	Hearing	Welding	Fall & Confined Space	SCBA
Coke production	✓	✓	✓	✓			
Ore concentration/ beneficiation; sintering	✓	✓	✓	✓			
Blast furnace (melting)	✓	✓	✓	✓			
Steel conversion (refining)	✓	✓	✓	✓			
Continuous & semi-continuous casting	✓	✓	✓	✓			
Foundry operations	✓	✓	✓	✓			
Maintenance activities (metal melting, casting, & finishing)	✓	✓	✓	✓	✓	✓	✓

Aluminium Production

Application	Respiratory	Eyes	Head & Face	Hearing	Welding	Fall & Confined Space	SCBA
Bayer process – Slurry mixing to Calcination	✓	✓	✓	✓			
Reduction cell / Pot room	✓	✓	✓	✓			
Aluminium casting	✓	✓	✓	✓			
Anode production	✓	✓	✓	✓			
Foundry operations	✓	✓	✓	✓			
Maintenance activities (metal melting, casting, & finishing)	✓	✓	✓	✓	✓	✓	✓

Notes:
1: Use of PPE subjected to individual workplace hazard & risk assessment.
Guideline is only recommendation for minimum PPE required. Each work application must be evaluated by a competent person as required by local laws and regulations for the hazard and risk before selection of right PPE. Workplace rules and regulations must take precedence, if more stringent.

We have safety down to a science

Primary metal manufacturing exposes workers to a number of risks every day, from hot working environments to respiratory hazards and the presence of chemicals. Access to appropriate PPE and training on proper use can help protect your workers against hazards faced in their work areas.

3M offers a comprehensive portfolio of quality PPE designed for comfort – and backed by over 50 years of experience in the science of safety. When you work with 3M, you get more than a global supplier: you also get access to our full suite of training solutions and our knowledgeable support staff. We can help you plan and implement a safety program that's right for you and your workforce. We also offer select safety training classes on-site, customized to the unique environment of your facility.

Why work with 3M?

- ▶ Innovative technologies
- ▶ Industry knowledge and hazard awareness
- ▶ Regulatory and standards knowledge
- ▶ PPE standardization and improvement programs
- ▶ Training centers and online education courses
- ▶ Authorized service and repair centers
- ▶ Broad channel/reseller network
- ▶ 3M PPE specialist on-site support

3M Personal Protective Solutions

- ▶ Disposable, reusable and powered and supplied air respiratory protection including radiant heat accessories
- ▶ Fall protection solutions
- ▶ Confined space entry, exit and rescue solutions
- ▶ Head, eye and face protection
- ▶ Welding safety solutions
- ▶ Hearing protection and protective communication solutions

3M™ Personal Protective Solutions for primary metal manufacturing

When worker health and safety are at stake, you want PPE you can trust – and that your workers will feel good about wearing.

With 3M Personal Protective Solutions, you can help ensure that your workers in and out of confined spaces are protected

Airborne Hazards

Foreign Body and Skin Exposure

Falling Objects

Noise Exposure

Falls from Height, Confined Space Entry, Exit and Rescue

Respiratory Protection

With more than 50 years of health and safety leadership, 3M utilizes innovative technologies and features in a variety of styles to help provide comfortable, reliable respiratory protection.
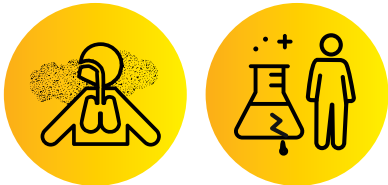
Powered Air Purifying Respirators (PAPR)

PAPR systems can offer respiratory protection with integrated head, eye and face protection that can help provide a more comfortable environment for the worker. Workers with limited facial hair may be accommodated with certain headtops. Accessories can also integrate into certain protective communication solutions for noisy environments.

3M™ Versaflo™ Powered Air Turbo Starter Kit TR-619A

Versaflo™ Powered Air Turbo Starter Kit includes TR-602E powered air turbo unit, TR-632 battery, BT-30 Breathing Tube, TR-971 Airflow indicator, TR-6600 Pre Filter, TR-662 Spark arrestor, TR-627 Easy Clean Belt, TR-641A single station battery charger. Well-balanced and ergonomically designed to fit close to the body and allow for greater movement. LED indicators on the turbo indicate battery charge level, particulate filter loading status and airflow setting. Vibratory, audible and visual alarms so the wearer can hear, see and feel when your PAPR has low-charge or low-flow. On-battery fuel gauge.

Note: Not suitablle for EMF environments

For airborne particulate protection

3M™ Versaflo™ PAPR-P3 TR-6710ANZ

For airborne particulate protection and gas/vapour protection

3M™ Versaflo™ Filter TR-6580ANZ, PAPR-A1B1E1HgP3

3M™ Versaflo™ Respiratory Helmet Assembly with Premium Visor and Flame Resistant Shroud M-407

For respiratory, eye, face and head protection with additional neck and shoulder coverage. Features a flame-resistant shroud for applications with hot particles. The M-407 Assembly includes a M-927 Premium Visor, M-444 Inner Collar, and M-447 Flame Resistant Outer Shroud. The M-927 visor is made of coated polycarbonate. The M-447 shroud is made of Nomex® flame resistant fibers.

3M™ Versaflo™ Radiant Heat Cover M-973 for M-307

Designed to be used with the 3M™ Versaflo™ M-307 Helmet with flame resistant faceseal in high temperature environments by providing improved head, neck and shoulders protection and comfort from radiant heat.

3M™ Versaflo™ Radiant Heat Cover M-975 for M-407

Designed to be used with the 3M™ Versaflo™ M-407 Helmet in high temperature environments by providing improved head, neck and shoulders protection and comfort from radiant heat.

Supplied Air Respirators (SAR)

A cost-effective way to provide a high level of respiratory protection.

3M™ Versaflo™ Vortex Cooling Assembly V-100

This supplied air respirator assembly, when used with approved headgear, breathing tube, and air line, can help regulate the flow and temperature of supplied air system. Cools the incoming compressed air up to 50F (28C).

Note: Not available in New Zealand.

3M™ Versaflo™ Supplied Air Regulator, V-500E

The 3M™ Versaflo™ V-Series Regulator V-500E regulator ensures an indiviually-adjustable, consistently-controlled airflow. The regulator requires a working pressure of 3.5-8 bar and is extremely quiet due to the integrated silencer (<65 dBA). An integrated warning whistle warns the user of low airflow into the headtop. Meets the performance standard: AS/NZS 1716.

3M™ Versaflo™ SAR Helmet with Neck & Shoulder Shroud, ALVM-406E

Versaflo™ Kit ALVM-406E c/w V-500 supplied air regulator, BT30 breathing tube, M-406 headtop and 901-00-87 tote bin. Includes 1 × 901-00-73 (CEJN 342) fitting attached.

Note: Not available in New Zealand.

Reusable Respirators

Secure Click™

3M™ Secure Click™ Full Facepiece Reusable Respirator FF-800 Series

3M Product Number	Description
FF-801	Small
FF-802	Medium
FF-803	Large

The 3M™ Secure Click™ Full Facepiece Reusable Respirator FF-800 Series helps protect against particulates and/or a wide variety of gases and vapors when used with approved 3M Secure Click filters and cartridges. This facepiece comes with exciting features that make it 3M's next generation in comfort, breathability and simplicity.

OR

3M™ Secure Click™ Half Facepiece Reusable Respirator with Speaking Diaphragm HF-800 Series

3M Product Number	Description
HF-801SD	Small
HF-802SD	Medium
HF-803SD	Large

Designed with smart and intuitive features, the 3M™ Secure Click™ Half Facepiece Reusable Respirator with Speaking Diaphragm HF-800 Series is simple, comfortable and reliable. Available in three sizes: small, medium, and large, our respirators all come with a speaking diaphragm.

3M™ Secure Click™ Cartridge D8094, A1B1E1K1P3, with Dual Flow

3M Product Number: D8094

3M™ Secure Click™ Cartridge A1B1E1K1P3 D8094 is AS/NZS 1716 approved against certain organic vapours with a boiling point above 65° C, inorganic gases, acid gases and ammonia as well as particulates. It also offers protection against formaldehyde up to 10 ppm.

OR

3M™ Secure Click™ Particulate Filter D3138, P3R, with Nuisance Level Organic Vapour/Acid Gas Relief

3M Product Number: D3138

3M™ Secure Click™ Particulate Filter P3 D3138 is AS/NZS 1716 approved for environments containing certain particles. Also, for nuisance level organic vapour relief below the OEL and for ozone protection up to 10 x Workplace Exposure Limit (WEL). This filter is commonly used in the following industries: agriculture, construction, general manufacturing, pharmaceuticals, primary metals. P3 protection achieved only when worn with a 3M™ Full Face Respirator.

6500QL
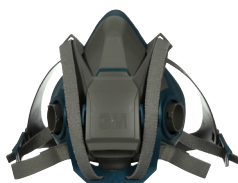
3M™ Rugged Comfort Quick Latch Half Facepiece Reusable Respirator 6500QL Series

3M Product Number	Description
6501QL	Small
6502QL	Medium
6503QL	Large

This reusable respirator has a resilient silicone faceseal that helps provide comfort, durability and stability with a soft firm seal. The facepiece features our quick latch design, which offers an easy, one-hand touch drop-down mechanism for putting the facepiece on and taking it off while moving in and out of contaminated areas.

3M™ Multi Gas/Vapour Cartridge Filter 6059, A1B1E1K1 + 3M™ Filters for Dust 5935, P2 + 3M™ Reusable Respirator Pre-Filter Retainer 501

3M Product Number: 6059, 5935, 501

3M™ Gas/Vapor Cartridges are designed to balance breathability and service life. Gas and vapor cartridges use carbon particles to adsorb contaminants, filtering the air that you breathe.

OR

3M™ Particulate Filter 2138, GP2/GP3, with Nuisance Level Organic Vapour/Acid Gas Relief

3M Product Number: 2138

This filter helps provide respiratory protection against exposure to lead, asbestos, cadmium, arsenic, and other mechanically and thermally generated particulates. It is effective for concentrations up to 10 times the Workplace Exposure Limit (WEL) with half facepieces, or 100 times WEL with quantitatively fit tested full facepieces. This filter helps protect against a wide range of oil and non-oil based particulate contaminants. The filter also offers nuisance level odour relief from organic vapors that are below the WEL.

▸ Selection of appropriate respiratory protective equipment (RPE) will depend on each situation and should be made only by a competent person knowledgeable of the actual working conditions and the limitations of RPE.

▸ Refer to applicable government regulations regarding respirator selection, which take precedence over a respirator manufacturer's guidance.

▸ Do not use respirators when airborne contaminant concentrations exceed maximum use concentrations established by regulatory agencies.

▸ Before use, the wearer must read and understand the respirator User Instructions. Failure to follow all instructions and limitations on the use of these respirators and/ or failure to wear them properly during all times of exposure can reduce respirator effectiveness and may result in sickness or death.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Respiratory Protection (cont.)

Reusable Respirators

Respiratory Kit

3M™ Welding/Particulate Kit 6528QL

3M Product Number: 6528QL

The kit comes complete with the 3M™ Half Face Reusable 6500QL Respirator for comfort and durability. It features 3M™ Cool Flow™ Exhalation Valve that reduces breathing resistance and minimizes heat build-up. The Quick Latch drop down mechanism provides ease in donning and doffing the facepiece.

Kit includes

- 1 × 6500QL Series half facepiece
- 2 × 2128 GP2 Particulate, Ozone & with nuisance level* organic vapour acid gas filter pair
- 2 × 504 Respirator wipes
- 1 x storage container

3M™ Asbestos/Dust Respirator Kit 6835, P3

3M Product Number: 6835

Convenient respiratory kit designed for asbestos removal and environments containing dust. The kit comes complete with the 3M™ Full Face 6000 Series Respirator which is light weight and easy to use. The unique solid top particulate filter casing design reduces premature caking and clogging from dirt, grime, water or dust. The protective casing also aids decontamination practices.

Kit Contains:

- 1 × 3M™ Full Face Respirator 6000 Series
- 2 x pair of 3M™ Particulate Filters 6035 P2/P3*
- 4 × 3M™ Respirator Cleaning Wipes 504
- 1 × 3M™ No-Touch™ Foam Earplugs P2000, Class 4 (SLC80: 25dB)
- 1 × 3M™ Respiratory Protection Guide
- 1 x Handy Storage Container
- Higher P3 protection factors only achieved with a 3M Full Face Respirator, otherwise P2 protection level when worn on a 3M Half Face Respirator. Suitable for certain asbestos work requiring higher protection levels: Refer to local asbestos government guidelines (Safework Australia or Worksafe NZ)

Disposable Respirators
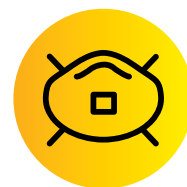
3M™ Aura™ Particulate Respirator 9322A+, P2

3M continues its long tradition of innovation with the launch of the new 3M™ Cool Flow™ Comfort Valve on the Aura™ 9322A+ model. Taking comfort to the next level, this improved exhalation valve opens easily, allowing warm moist exhaled breath to escape more quickly from inside the respirator to help improve comfort and breathability.

*Nuisance level refers to concentrations not exceeding OEL/WEL or applicable occupational exposure limit whichever is lower.

Respiratory Protection (cont.)

3M™ Cupped Particulate Respirator 8822, P2

Proprietary 3M™ Cool Flow™ exhalation valve helps to remove your hot exhaled air for a cooler and drier wear and encourages wearer compliance. Lightweight construction for added comfort that may increase wearer time. Mould nose clip to the wearer's nose shape to help reduce eyewear fogging and for a better seal and fit.

3M™ Particulate Respirator 8214, N95, with Faceseal and Nuisance Level Organic Vapor Relief

Designed to protect in welding situations, particularly with stainless, galvanized and aluminum, when ozone and nuisance-level* organic vapors are present. Comfortable foam face seal helps offer a secure seal.

3M™ Cupped Particulate Respirator 8577, GP2, with Nuisance Level Organic Vapour Relief

The lightweight, disposable GP2 particulate respirator is designed to help provide respiratory protection for certain non oil particles in applications such as welding, soldering and other operations in which metal fumes may be present.

Note: Not available in New Zealand.

3M™ Cupped Particulate Respirator 9926ANZ, P2 with Nuisance Level Acid Gas Relief

The 3M 9926ANZ disposable acid gas respirator is designed to help provide quality and reliable respiratory protection to workers from nuisance levels* of acid gas, such as, sulphur dioxide and hydrogen fluoride. The 9926ANZ particulate respirator is compatible with other 3M personal safety products, e.g. eyewear and earplugs.

3M™ Particulate Respirator 9923V, P2, with Nuisance Level Organic Vapour Relief

The 3M 9923V is a disposable specialty respirator with a non-aluminium nose clip designed specifically for use in flammable atmosphere. The activated carbon layer reduces exposure to nuisance levels* of organic vapour and odour, e.g. diesel particulate matter and unburned fuel vapour.

3M™ Cupped Particulate Respirator 8247, GP2, with Nuisance Level Organic Vapour Relief

The lightweight, disposable GP2 particulate respirator is designed to help provide respiratory protection for certain non oil particles in applications such as welding, soldering and other operations in which metal fumes may be present.

Note: Not available in New Zealand.

*Nuisance level refers to concentrations not exceeding OEL/WEL or applicable occupational exposure limit whichever is lower.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Eye Protection

3M Protective Eyewear is designed to deliver comfort and performance, helping to keep workers safe. Featuring optional 3M™ Scotchgard™ Anti-fog Coating, which resists fog up to 11x longer than traditional 3M anti-fog coating, and proprietary 3M™ SecureFit™ Pressure Diffusion temple technology that self-adjusts to the wearer's head size and shape.

3M™ Solus™ Protective Eyewear 1000 Series

Scotchgard coating resists fogging longer than traditional 3M anti-fog coatings through up to 25 washings with water*. Helps provide scratch resistance in tough work environments. Designed for working in challenging situations, such as hot and humid conditions, indoor/outdoor work, physically demanding tasks andclimate-controlled areas. Polycarbonate Lenses & Contemporary styling with soft nose bridge for added comfort. U6 rated polycarbonate lenses absorb 99.9% of UVA and UVB. Meets the requirements of AS/NZS 1337.1:2010.

3M™ SecureFit™ Protective Eyewear 500 Series

3M™ SecureFit™ 500 Series features a contemporary lens design coupled with adjustable ratcheting temples and Pressure Diffusion Temple technology to help provide a more personalized fit. The flat and flexible temple design combines well with 3M PELTOR Hearing and Communications equipment. A variety of lens tints and models with 3M™ Scotchgard™ Protector Anti-Fog Coating, which resists fog 11x longer and has 7x better anti-scratch performance than traditional 3M anti-fog coating, are offered. Some models available with foam gasket to help limit eye exposure to debris.

Face Protection
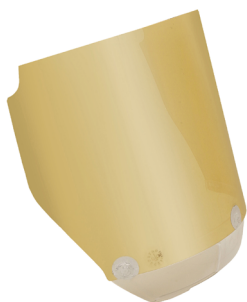
3M™ Chinguard Visor VV502

Meets the requirements of AS/NZS 1337.1:2010. High impact resistant. Provides additional chin and upper chest protection. Available in different materials to suit various applications.
Fits the 3M™ Elevated Temperature Universal Faceshield Holder and 3M™ VV766 Aluminium Visor Holder For HH40 Helmets

*Based on 3M internal testing per EN168 test method when compared with traditional 3M Anti-Fog coatings.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Head Protection

We design and manufacture hard hats and accessories to meet a diverse spectrum of needs. From safety helmets for working at height, to full-brim hard hats and solutions for working in elevated temperatures, we offer consistently reliable products.

3M™ TA580 Safety Helmet Polycarbonate Type 2 (Heat)

Suitable for general use in industry for protection of the upper part of the wearers head. The TA580 (unvented) safety helmet has been designed to meet the requirements of AS/NZS 1801 for shock absorption,resistance to penetration, lateral stiffness, ignition by flame and electrical insulation (electrical hazards up to 650V) when tested in the Hot (50°C), Cold (-5°C) and wet conditions. Type 2 polycarbonate safety helmets are suitable for higher temperature work applications such as welding and smelting.

3M™ HH44 Type 2 Non-Vented Full Brim Safety Helmet

HH44 Non-vented, Type 2 Polycarbonate for high temperature applications. Full brim for extra sun or splash protection. Six point 25mm webbing harness with injection moulded adjustable headband. Customised options available: logos, reflective tape. Accessories available: sweatband, chinstrap, headgear. Optional model: helmet with miners lamp brackets (metal or polycarbonate available for silver metalised coating to reflect heat and light).

3M™ VV765 Aluminium Visor Holder for TA500 Helmets

Easy to use visor holder can be fitted with a range of TA500 helmets that offer good balance, close fit and a secure flip up – creating a convenient solution for face protection against a range of hazards.

3M™ VV766 Aluminium Visor Holder For HH40 Helmets

Easy to use visor holder can be fitted with a range of HH40 helmets that offer good balance, close fit and a secure flip up – creating a convenient solution for face protection against a range of hazards.

All 3M Hard Hats and Visors featured are made in Australia.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Hearing Protection and Protective Communication

We don't just sell hearing protection products. We're dedicated to the success of your entire hearing conservation program from product selection to workforce training and program management. We offer a variety of disposable, push-to-fit and reusable earplugs. For environments where hearing conservation must be combined with communication, stay protected and connected with 3M™ PELTOR™ Headsets.

Earplugs

3M™ E-A-R™ Classic™ Earplugs, Corded and Uncorded Options Available

3M Product Number	Description	Rating
310-1001	Uncorded	SLC_{80} 23 dB (Class 4)
311-1101	Corded	SLC_{80} 21 dB (Class 3)

The 3M™ E-A-R™ Classic™ Earplugs set the industry standard for personal safety noise reduction as the worlds first foam earplug. Soft, slow-recovery foam is designed to mold to the shape of the ear canal for enhanced comfort and wearability. These disposable earplugs come with or without cords. A cylindrical shape is suited to fit most sizes, with a 7% smaller version also available for smaller ear canals.

Note: Not available in New Zealand.

3M™ E-A-R™ Push-Ins™ Earplugs, Corded and Uncorded Options Available

3M Product Number	Description	Rating
318-1000	Uncorded	SLC_{80} 23 dB (Class 4)
318-1001	Corded	SLC_{80} 23 dB (Class 4)

The 3M™ E-A-R™ Push-Ins™ Earplugs are designed for an easier and cleaner fit. Fitting stems help for an easier insertion of the earplugs even when wearing gloves and help keep the earplug clean for workers with dirty hands. No roll-down required—all it takes is a gentle push to insert the soft foam eartip into the ear canal. The EARform™ eartip has a smooth surface to help it slide easily into the ear canal.
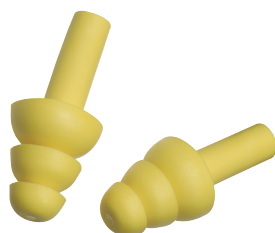
3M™ E-A-R™ UltraFit™ Earplugs, Corded and Uncorded Options Available

3M Product Number	Description	Rating
340-4003*	Uncorded	SLC_{80} 18 dB (Class 3)
340-4002	Corded	SLC_{80} 18 dB (Class 3)
340-4004	Corded	SLC_{80} 18 dB (Class 3)

The 3M™ E-A-R™ UltraFit™ Earplugs are made with a triple-flange design that is designed to contour to the different shapes and sizes of ear canals. This helps create a noise-blocking seal. These earplugs feature stem grips, making it easier for workers to insert these earplugs into their ears. No need to roll down or touch the portion of the earplug that goes into the ear. Pliable material can be washed and reused, cutting down costs and extending the hearing protector's life.

3M™ E-A-R™ Skull Screws™ Earplugs, Corded and Uncorded Options Available

3M Product Number	Description	Rating
P1300	Uncorded	SLC_{80} 26 dB (Class 5)
P1301	Corded	SLC_{80} 26 dB (Class 5)

3M™ E-A-R™ Skull Screws™ Earplugs bring rugged style as well as noise reduction. Even though they look like threaded metal, these eartips are made with ultra soft foam to help comfortably protect the wearer. The large foam ear tips of these push-to-fit earplugs are inserted into the ear canal with a simple push of the firm plastic fitting stems.

*Not available in New Zealand
These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Hearing Protection and
Protective Communication (cont.)

Earmuffs

3M™ PELTOR™ X5 Earmuffs

3M Product Number	Description	Rating
X5A	Headband	SLC_{80} 35 dB (Class 5)
X5P3GS/E	Hard Hat Attached	SLC_{80} 31dB (Class 5)

The 3M™ PELTOR™ X5 Series Earmuffs are designed for comfort and excellent noise reduction during tough jobs where loud sounds are frequent. Available in Over-the-Head and Hard Hat Attached models, they are designed to adapt the requirements of the work. Featuring an adjustable cup that angles to help create a customised fit for the worker. Electrically insulated Headband option is available.

3M™ PELTOR™ X4 Earmuffs

3M Product Number	Description	Rating
X4A	Headband	SLC_{80} 31 dB (Class 5)
X4P3GS/E	Hard Hat Attached	SLC_{80} 26 dB (Class 5)

The 3M™ PELTOR™ X4 Series Earmuffs are designed for comfort and excellent noise reduction during tough jobs where loud sounds are frequent. Available in Over-the-Head and Hard Hat Attached models, they are designed to adapt the requirements of the work. Featuring an adjustable cup that angles to help create a customised fit for the worker. Electrically insulated Headband option is available.

3M™ PELTOR™ Welding Earmuff

3M Product Number	Description	Rating
H505B	Neckband	SLC_{80} 22dB (Class 4)

The 3M™ PELTOR™ Welding Earmuff H505B is designed to fit under welding helmets, particularly under the 3M™ Speedglas™ 9100. Low profile and light weight, with comfortable sealing cushions. Hygiene kit available for replacement of sealing cushions and damping pads.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Protective Communications

3M™ PELTOR™ WS™ LiteCom Pro III Headsets

3M Product Number	Description	Rating
MT73H7A4D10EU	Headband	SLC_{80} 32 dB (Class 5)
MT73H7P3E4D10EU	Hard Hat Attached	SLC_{80} 29 dB (Class 5)
MT73H7B4D10EU	Neckband	SLC_{80} 30 dB (Class 5)

The 3M™ PELTOR™ WS™ LiteCom Pro III Headset is a hearing protector with built-in analog and digital programmable (403-470MHz) two-way communication radio, level-dependent hearing protection, Bluetooth® functionality and a jack to connect to external devices.

3M™ PELTOR™ WS™ ProTac XPI Headsets

3M Product Number	Description	Rating
MT15H7AWS6	Headband	SLC_{80} 32 dB (Class 5)
MT15H7P3EWS6	Hard Hat Attached	SLC_{80} 27 dB (Class 5)
MT15H7BWS6-111	Neckband	SLC_{80} 29 dB (Class 5)

The 3M™ PELTOR™ WS™ ProTac XPI Headset integrates hearing protection, Bluetooth® communication, and a noise-cancelling speech microphone to deliver a wireless, hands-free protective communication solution. The environmental listening technology assists workers in hearing environmental sounds in low noise and helps provide protection when it's loud. Available in the FLX2 (-111) version for reliable connections to a variety of handheld devices, as well as non-FLX2 versions.

3M™ PELTOR™ CH-3 FLX2 Headsets

3M Product Number	Description	Rating
MT74H52A-110	Headband	SLC_{80} 31 dB (Class 5)
MT74H52B-110	Neckband	SLC_{80} 30 dB (Class 5)
MT74H52P3E-110	Helmet Attached	SLC_{80} 29 dB (Class 5)
MT74H52A-111	Headband	SLC_{80} 31dB(Class 5)
MT74H52B-111	Neckband	SLC_{80} 30 dB (Class 5)
MT74H52P3E-111	Helmet Attached	SLC_{80} 29dB(Class 5)
HT52A-112	Headband	SLC_{80} 31dB (Class 5)
HT52B-112	Neckband	SLC_{80} 30dB (Class 5)
HT52P3E-112	Helmet Attached	SLC_{80} 29dB (Class 5)

The 3M™ PELTOR™ CH-3 Headsets are the next generation protective communication solution that helps workers stay protected in noisy environments while enabling clear communication on their handheld device. Incorporating the FLX2 connection jack, the CH-3 headset can be easily and reliably connected to a wide assortment of handheld devices. FLX2 cables are compatible with specific headset versions. Please contact local team for more information.

3M™ WS™ ALERT™ XPV Headset, Solar Powered, MultiPoint Bluetooth

3M Product Number	Description	Rating
MRX21A1WS7	Headband	SLC_{80} 27 dB (Class 5)

The 3M™ PELTOR™ ALERT™ XPV Solar Powered Headset is a Bluetooth® MultiPoint headset with noise-cancelling microphone and self-charging by photovoltaic power.It connects to a mobile app for more easily set-up and adjust the headset. The headset helps to protect you against hazardous noise, but also makes it easy to make phone calls with both hands free in noisy environments. Features include Bluetooth® Version: 5.2 and Bluetooth® Capabilities: Including HFP, A2DP, Bluetooth® low Energy – AVRCP, PTT over cellular and PTT over Bluetooth.

*3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user. Refer to applicable regulations and guidance on how to adjust attenuation label value(s). In the absence of applicable regulations, it is recommended that the attenuation label value(s) be reduced to better estimate typical protection. The effectiveness of a hearing protector reduces dramatically when the hearing protector does not fit properly, is incorrectly inserted or is not worn 100% of the time during ALL hazardous noise events. Removal of the hearing protector, even for brief moments, substantially reduces protection and greatly increases the risk of hearing damage.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Fall Protection

For many years, 3M Fall Protection has worked with end customers in the metalworking industry and we understand the complexity of working at height and in confined spaces.

3M offers a wide range of fall protection solutions – consisting of the three main components: Anchorages, Body Harnesses and Connectors.

Please consult your local 3M Fall Protection specialist to discuss potential solutions for your unique and specific challenges of working at height.

The ABCs of Fall Protection

With over 20,000 products designed for the specific needs of many industries with work at-height hazards, we can help find the combination of anchorages, body support and connector solutions to meet the requirements of many applications in the construction industry.
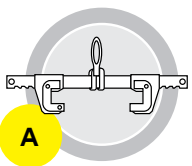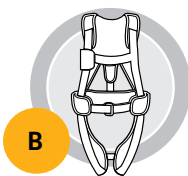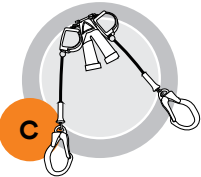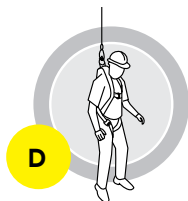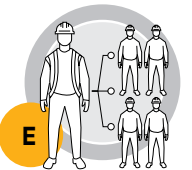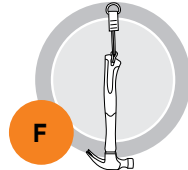
A Anchorage
This is a secure point of attachment on the structure for a personal fall arrest system (PFAS). Anchorage connectors vary by industry, job, type of installation and structure. They must be able to support the intended loads and provide a sufficient factor of safety for fall arrest.

B Body Support
Harnesses distribute fall forces over the upper thighs, pelvis, chest and shoulders. They provide a connection point on the worker for the personal fall arrest system.

C Connectors
Devices such as self-retracting lifelines or energy-absorbing lanyards connect a worker's harness to the anchorage.

D Descent and Rescue Devices
These are used to raise or lower a fallen, injured worker to safety or retrieve him from a confined space.

E Education
It is essential for employees and employers. We offer a variety of training and consultative services to fit your needs.

F Fall Protection for Tools
These solutions help make work environments safer and more productive by reducing dropped object incidents

Example of fall protection mobile anchor point

Fall Protection

Body Harness

3M™ Protecta P200 Riggers Harness Full Body Harness - Universal Size

3M Product Number	Description
1130116	Universal Size

3M™ Protecta® P200 fall arrest harnesses provide reliable protection, comfort and convenience; now with upgraded features and a sleek, modern look – all at an affordable price.Integrated Suspension Relief Straps Provide an adjustable, continuous loop for postfall, offering suspension relief.

- **D-Ring Placement**
  Conveniently placed front fall arrest D-ring helps you stay balanced and centred.
- **Lanyard Keepers**
  Provides easy parking of snap hooks or karabiners.
- **Impact Indicators**
  Rip-stitch indicators allow you to inspect the harness at a glance, for prior damaging impact loads.
- **Modern Black Components**
  Zinc plated steel with electro deposit paint finish
- **Covered Labels**
  A Velcro™ cover protects harness labels.
- **Confined Space Loops**
  Positions user in vertical position when lowering/raising from Confined spaces (when used with spreader bar).
- **Universal Size**
  One model size to accommodate a broad range of users

3M™ DBI-SALA® Delta™ Welders Harness*

3M Product Number	Description
320S2066NK	Small
320M2066NK	Medium
320L2066NK	Large
320XL2066NK	Extra Large

Ideal for use in 'Hot Work' and arc flash environments. Rear stand-up D-ring, front fall arrest rated loops, confined space loops, Nomex®/Kevlar® fibre webbing, dielectric hardware.

Note: Specially designed Welders Lanyards are also available to complement/use with this harness.

*Arc flash, flame, heat and cut resistant.

Fall Protection (cont.)

Lanyard

Z60200919NKE

Z90200909NKE

3M™ DBI-SALA® EZ-Stop™ Shock Absorbing Welders Lanyard

3M Product Number	Description
Z60200919NKE	Twin leg - Elasticated 2.0m with double action snap hook and scaffold hooks
Z90200909NKE	Single leg - Elasticated 2.0m with double action snap hooks on all connections

High temperature lanyards constructed from Nomex®/Kevlar® fibre webbing, ideal if you are welding, cutting or grinding, or in a potentially explosive or high-voltage electrical environment.

Self-Retracting Lifeline (SRL)

3M™ DBI-SALA® Nano-Lok™ Hot Work Self Retracting Lifelines

3M Product Number	Description	Connector
3101521	Nomex/Kevlar Fibre Webbing Lifeline - Single 1.8m	Scaff Hook
3101523	Nomex/Kevlar Fibre Webbing Lifeline - Single 1.8m	Snap Hook
3101524	Nomex/Kevlar Fibre Webbing Lifeline - Twin 1.8m	Scaff Hook

The 3M™ DBI-SALA® Nano-Lok™ Hot Work Self-Retracting Lifelines are specially designed for industrial applications, particularly in environments where sparks, heat, and fire-resistant properties are critical. These lifelines use fire-resistant webbing and materials to withstand hot work conditions, ensuring safety in demanding tasks such as welding, cutting, and grinding.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Fall Protection (cont.)

3M™ DBI-SALA® Sealed-Blok™ Self Retracting Lifeline

3M Product Number	Description
3400950	Galvanised Wire Rope - 15m
3400951	Stainless Steel Wire Rope - 15m
3400866	Galvanised Wire Rope - 25m
3400867	Stainless Steel Wire Rope - 25m
3400971	Galvanised Wire Rope - 40m
3400972	Stainless Steel Wire Rope - 40m

The 3M™ DBI-SALA® Sealed-Blok™ Self-Retracting Lifelines (SRLs)
represent a pinnacle of safety and reliability in fall protection systems, designed for
use in the most demanding industrial environments. These lifelines are engineered to
provide exceptional performance in harsh conditions, including areas with high levels
of moisture, dirt, grease, and other contaminants that could compromise standard fall
protection equipment. With their innovative sealed design, they ensure critical
internal components are fully protected, offering unmatched durability
and long-lasting performance.

3M™ Protecta® Self-Retracting Lifeline

3M Product Number	Description
3590624	Galvanized cable - 6m
3590625	Galvanized cable - 10m
3590626	Stainless steel cable - 10m
3590627	Galvanized cable - 15m
3590628	Stainless steel cable - 15m

Protecta SRLs are available with a durable lightweight thermoplastic housing, providing
an economical fall protection solution without compromising on performance or safety.
Integrated ergonomic carrying handle and top swivel connector ensure easy transport
and installation. Built-in fall indicator hook allows visual inspection.

Rescue

3M™ DBI-SALA® Rollgliss™ R550 Rescue and Descent Device

3M Product Number	Description
3329020	20m
3329040	40m
3329060	60m
3329100	100m

A simple rescue is a safe one. That's why we created the 3M™ DBI-SALA®
Rollgliss™ R550 Rescue and Descent Device. Its lightweight, compact and intuitive design
offers the choice of rescue, evacuation, or the versatility of assisted rescue with lifting
capabilities. From wind and cell towers, to cranes, buildings and more,
count on the Rollgliss R550 for efficient, effective rescue when you need it most.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Fall Protection for Tools

From construction sites to oil rigs, 3M™ DBI-SALA® Fall Protection for Tools makes work environments safer and more productive by drastically reducing falling object incidents that can result in personal injury, equipment damage, and tool loss.

3M™ DBI-SALA® Attachment Points

1500005

1500007

D-Rings

- D-rings can be attached to virtually any tool under 2.3 kg or 0.9 kg using our Quick-Wrap Tape
- Creates an attachment point in less than a minute.
- Dual D-rings allow for 100% tool tie-off during tool transfers.

3M Order Code	Model #	Description	Load Rating	Quantity	Non-Conductive
70007448825	1500005	D-ring 0.5" x 2.25" (1.3 cm x 5.7 cm) non-conductive	0.9kg	10 Pack	Yes
70007448841	1500007	D-ring 1" x 3.5" (2.5 cm x 8.9 cm)	2.3kg	10 Pack	No

Heavy Duty Quick-Wrap Tape

- Heavy duty 2.5 cm wide tape conforms to the shape of whatever it is applied to.
- Used with our D-Rings and Tool Cinch Attachments to create instant tethering points on virtually any tool.
- Made from a self-fusing silicone rubber that leaves no adhesive or residue behind.
- Inner fiberglass webbing increases the strength of the tape and makes the tape resistant to sharp objects.

3M Order Code	Model #	Description	Quantity	Length
70804436924	1500174	Quick wrap, yellow	1	2.743m
70804440223	1500175	Quick wrap, yellow	10	2.743m

D-Ring Cord

- Easily clinches to tools, simply pass the loop end of a D-Ring Cord through a pre-drilled hole or closed handle to create an attachment point.
- Extremely durable and reusable.

3M Order Code	Model #	Description	Load Rating	Quantity
70007448858	1500009	D-ring cord	2.3kg	10 Pack

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

3M™ DBI-SALA® Tethers & Lanyards

1500047

1500049

Bungee Tethers

Built to be more durable and longer-lasting than the competition, our bungee tethers are third-party load rated and thoughtfully designed to prevent dropped objects.

3M Order Code	Model #	Description	Load Rating	Length (relaxed)	Length (stretched)
70007449047	1500047	Hook2Loop Bungee Tether	6.8kg	81.3cm	119.4cm
70007449054	1500048	Hook2Loop Bungee Tether (10 pack)	6.8kg	81.3cm	119.4cm
70007449062	1500049	Medium-Duty Hook2Loop Bungee Tether	15.9kg	78.7cm	132.1cm

10.2 cm   30.0 cm

1500178

Coil Tethers

Easy to clean and out of the way—exactly what a tether should be. The lightweight vinyl construction and ultra-compact design of our Coil Tethers makes them an ideal alternative to classic bungee tethers.

3M Order Code	Model #	Description	Load Rating	Length (relaxed)	Length (stretched)
70804431230	1500159	Hook2Hook Coil Tether with Swivel	2.3kg	100cm	157.5cm
70804486085	1500178	Hard Hat Tether	1.8kg	10cm	90cm

1500050

Tool Lanyards
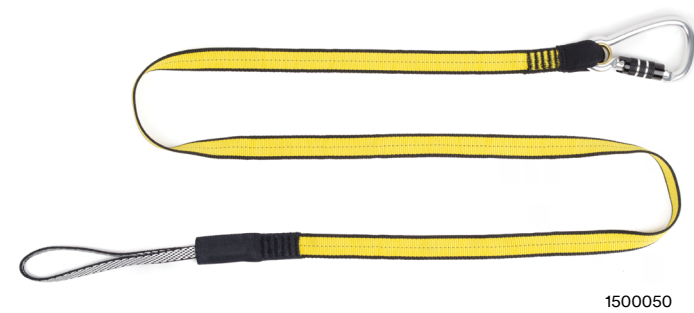
3M Order Code	Model #	Description	Load Rating	Length
70007449070	1500050	Medium-Duty Hook2Loop Lanyard	15.9kg	182.9cm

3M™ DBI-SALA® Tool Holsters

1500107   1500102   1500104

Single and Dual Tool Holsters

- Single and Dual Tool Holsters are equipped with D-rings that are load rated for 2.3 kg.
- Several variants of these holsters come with Retractors (indicated below). Retractors are load rated for 0.7 kg.
- Single and dual tool holsters feature High-Visibility Reflectors and the Magnetic Tool Staging System.
- A bottom drain vent allows the holster to perform even in wet conditions.

3M Order Code	Model #	Description	Retractors included	Attachment
70007438982	1500104	Single Tool Holster with Retractor	1x	Harness
70007449328	1500102	Single Tool Holster with Retractor	1x	Belt
70007439006	1500107	Dual Tool Holster with Retractors	2x	Belt

1500100

Tape Measure Holster with Retractor

- Designed to be used with virtually any tape measure, or the optional tape measure sleeve, allowing tape measures to be safely tethered and holstered.
- Includes a Retractor.
- The tape measure sleeve conforms to the size of nearly every tape measure.
- Features High-Visibility Reflectors.

3M Order Code	Model #	Description	Retractors included	Attachment
70007438966	1500100	Tape Measure Holster with Retractor and Sleeve Combo	1	Belt

Back of holster features pouch for Safety Retractor 1500069. Rear feed system allows retractor to tie off a scaffold wrench while staying out of the way.

Scaffold Wrench Holsters

- Quickly holster scaffold wrenches while working at height.
- Features High-Visibility Reflectors.

3M Order Code	Model #	Description	Retractors included	Tether included	Attachment
70007438933	1500097	Scaffold Wrench Holster with Retractor and Hook2Loop Bungee Tether	1	1500047	Belt

Hammer Holsters

- The Hammer Holster allows for the safe holstering of virtually any hammer under 5 lb (2.3 kg).
- D-ring on the side of the holster is load rated for 2.3 kg.
- The 1500094 combo comes with a 1500065 Hook2Quick Ring Coil Tether that is specially designed for use with the Hammer Holster. The Hook2Quick Ring Coil Tether is load rated for 2 lb (0.9 kg).
- During transport, the Hammer Holster can be locked shut with a hook and loop strap. While being used, the strap can be locked up allowing for easy hammer access and holstering.

Patent pending

Hammer Holster is locked, preventing hammer from slipping out.

3M Order Code	Model #	Description	Tether included	Attachment
70007449302	1500094	Hammer Holster & Hook2Quick Ring Coil Tether	1500065	Belt

Radio Holster

- Holster adjusts to fit virtually any hand-held radio, cell phone, and many other devices.
- Can be worn from belt or harness.
- A Micro D-Ring can be placed on the back of a device, and can then be tethered to a D-ring on the front of the adjustable Radio Holster using a 1500065 Clip2Loop Coil Tether.

Patent pending

1500089

Can be worn from a belt or harness.

3M Order Code	Model #	Description	Tether included	Attachment
70007449302	1500094	Hammer Holster & Hook2Quick Ring Coil Tether	1500065	Belt

Fall Protection for Tools (cont.)

3M™ DBI-SALA® Tool Pouches

Utility and Inspection Pouches

- Features two outside pockets for storing spud wrenches and two inner pockets for storing additional tools.
- Tools can be tethered to D-rings on the inside and outside of the pouch.
- Adjustable side-release closure system helps prevent objects from falling out when the pouch isn't being used.

3M Order Code	Model #	Description
70007449484	1500132	Utility Pouch with adjustable side-release closure system

Small Parts Pouches

- Innovative self-closure system traps objects inside, making it nearly impossible for objects to fall out once placed in the bag.
- Easy to retrieve objects since no opening or closing is necessary.
- Compatible with most tool belts; belt loops located on back of pouch.

1500119

3M Order Code	Model #	Description
70007449443	1500123	Small Parts Pouch, extra deep canvas black
70007439055	1500119	Small Parts Pouch, canvas black

Standard Safe Bucket

- Built-in connection points.
- High-quality canvas load rated for 45.4 kg, and vinyl load rated for 113.4 kg.
- Integrated carabiner and hoisting strap.
- Puncture resistant.

1500134

1500140

3M Order Code	Model #	Load Rating	Closure System	Body Material	Height/Diameter	Capacity
70007439121	1500134	45.4kg	Hook and Loop	Canvas	38cm/31.75cm	4673.6cm³
70007439162	1500140	113.4kg	Hook and Loop	Vinyl	38cm/31.75cm	4673.6cm³

Closure systems

Every Safe Bucket features either a unique, patent-pending drawstring or a locking hook and loop closure system that acts as an extra layer of spill-protection during transport and lifting. Colourful indicator tabs provide quick visual cues to indicate whether the bucket is in lockdown mode or easy-access mode.

Confined Space Solutions

With limited means of entry and exit and/or poor ventilation, confined spaces present hazards of their own – in addition to the risk of falling, plus exposure to any chemical residue that may be present inside. 3M offers a range of harnesses and accessories to help protect workers from the hazards in confined areas of your facility.
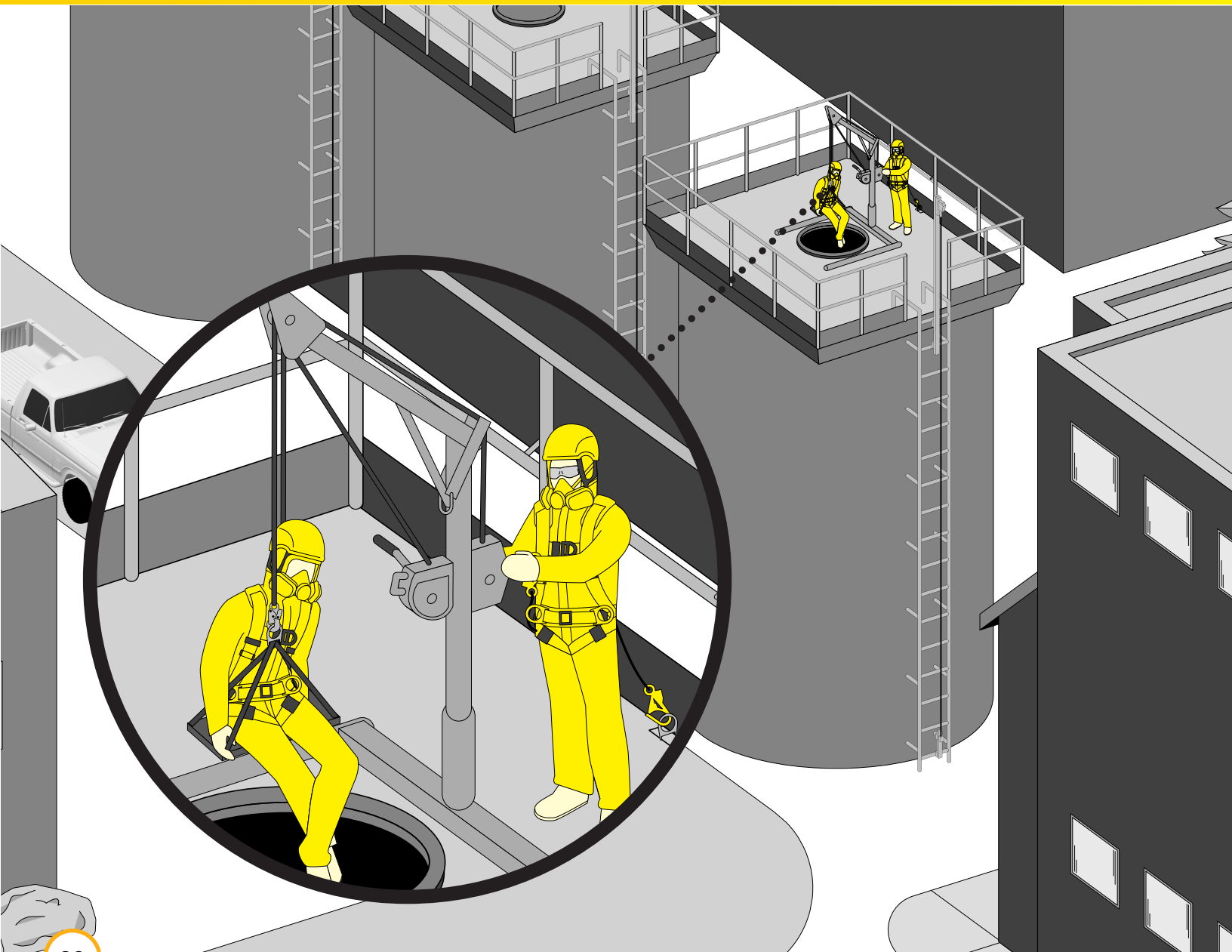
Learn more about fall protection in confined space at:
Australia: https://www.3m.com.au/3M/en_AU/fall-protection-au/applications/confined-space/

New Zealand: https://www.3mnz.co.nz/3M/en_NZ/worker-health-safety-nz/safety-equipment/industrial-safety-products/confined-space-plan-and-prepare/

Example of confined space entry

Confined Space Solutions

Confined spaces may be present at primary metal processes and call for PPE designed meet the unique hazards encountered in these environments. 3M can help identify PPE options for confined space tasks (plan, access, work inside, rescue and retrieval).

3M™ DBI-SALA®

Davit Arm System Components

Variable offset davits are designed for use where multiple offset masts are required. The variable offset masts may be equipped with front mounted and/or back mounted winches or Self-Retracting Lifelines (SRLs). For applications with overhead clearance restrictions, the adjustable height of the variable offset masts can eliminate the need for custom length masts and mast extensions. Quick-connect/release pins allow for fast and easy setup, dismantle and transport.

ABCs of Confined Spaces

Anchors: Davit systems, tripods and portable fall arrest posts are solutions where the worker's fall protection connector will be attached and is the main source of retrieval for the attendee.
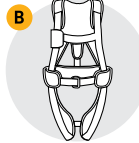
Body Support: Harnesses and work seats are two types of solutions that are designed to support the weight of the worker's body.

Connectors: Winches and retrieval SRLs are the most common types of connectors for confined spaces.

① Winch
Davits can be equipped with both primary and secondary (back-up) mechanical devices for added flexibility. Retrieval winches can be used in conjunction with a retrieval SRL or fall protection system to raise and lower personnel and equipment.

② Quick-mounting brackets
Simple detent-style winch mounting brackets make installation fast and efficient.

③ Retrieval SRL
Retrieval SRLs offer fall protection as well as emergency retrieval for non-entry rescue.

④ Lower mast extensions
Allow the user to adjust the overall anchorage height of the system.

⑤ Base options
Several portable and fixed base options are available for complete versatility.

⑥ Variable offset mast
Adjustable length of davit ensures lifelines are always centered over confined space.

⑦ Built-in pulleys
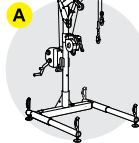Route lifelines of two mechanical devices for smooth, efficient operation.

⑧ Fall arrest anchorage
Offer 4 anchorage connections that are certified to AS/NZS 5532 for single person use.

⑨ Adjustable height
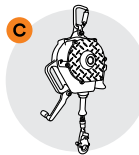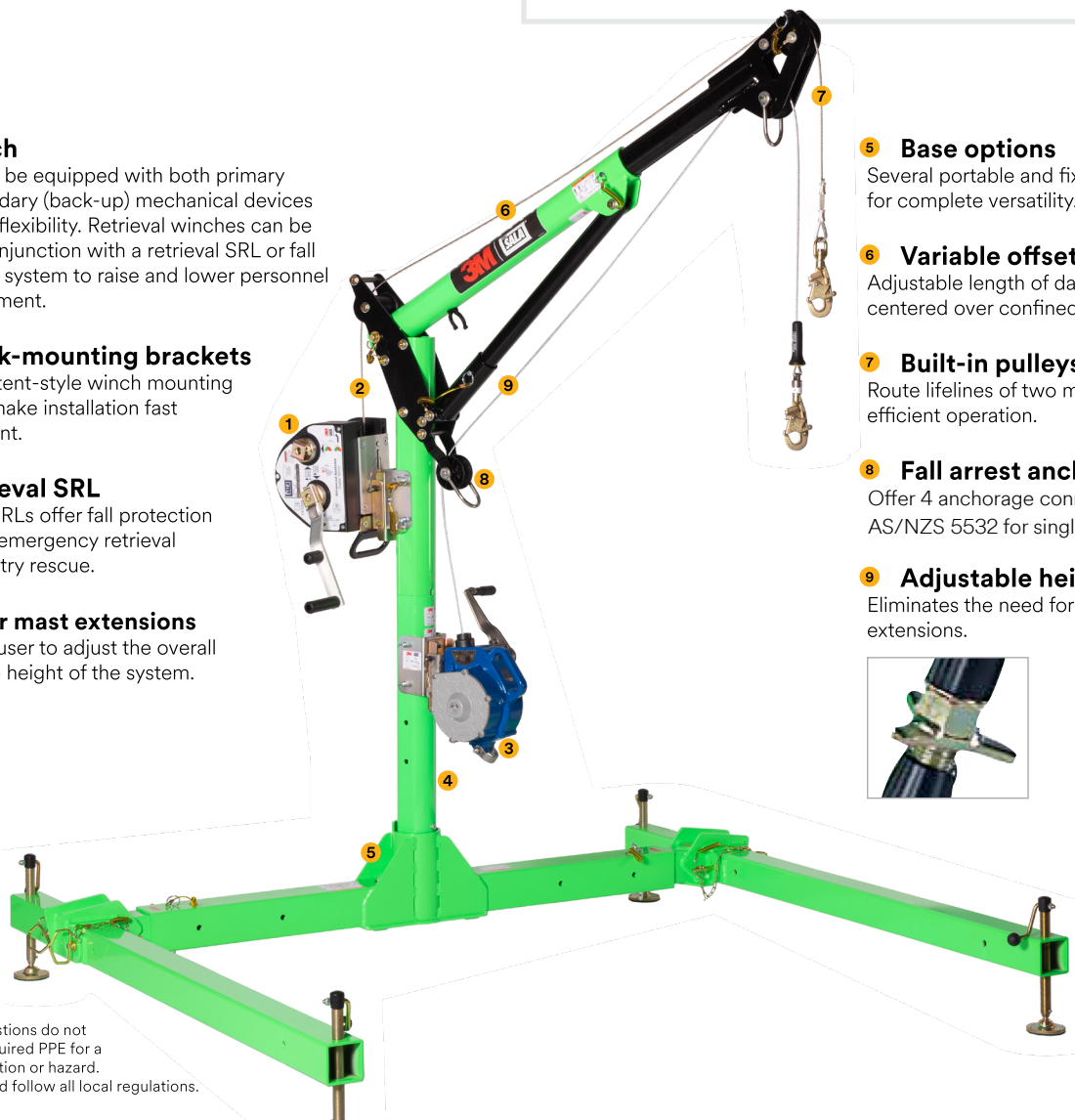Eliminates the need for custom length masts and extensions.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Confined Space

Body Harness

**3M™ DBI-SALA® ExoFit NEX™
Riggers Harnesses**

3M Product Number	Description
603S2018	Small
603M2018	Medium
603L2018	Large
603XL2018	X-Large

The ExoFit NEX harness gives workers the freedom and confidence to function to their maximum. Innovative safety devices and design features allow workers to work smart, fast and safe increasing productivity. Designed using soft yet extremely durable anti-absorbent, abrasion resistant webbing of lasting strength, harnesses can withstand the most severe demands, day in, day out. They are built to perform to the highest standards in the harshest environments.

Emergency Retrieval Sealed - Blok SRL

**3M™ DBI-SALA® Sealed-Blok™ Emergency Retrieval
Self-Retracting Lifelines**

3M Product Number	Description
3400955	Galvanised Wire Rope 15m
3400880	Galvanised Wire Rope 25m
3400985	Galvanised Wire Rope 40m

When it comes to confined space and entry rescue, the 3M™ DBI-SALA® Sealed-Blok™ Emergency Retrieval Self-Retracting Lifeline (SRL) is essential; it operates quickly and efficiently in the toughest environments. The 3M™ DBI-SALA® Sealed-Blok™ Emergency Retrieval Self-Retracting Lifeline is one of the most critical parts of a rescue system as it provides the means to retrieve an incapacitated worker to safety. The SRL's lifeline is designed to extend as the user moves away and retracts automatically, enabling the user to move around within a recommended working area at normal speeds. Should a fall occur, the SRL's internal centrifugal energy absorption system will activate, stopping the fall and reducing the forces imposed on the user to safe levels. Rescue is easier and more efficient with the built-in retrieval winch.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

Confined Space Equipment

3M™ DBI-SALA® Confined Space 5-Piece Davit Hoist System

3M Product Number: 8000132

The DBI-SALA High Capacity Davit systems are designed for manhole and confined space entry/retrieval applications. These units are constructed of lightweight materials including high strength aluminum. The davit pivots for ease of rescue and has adjustment for overhead clearance restrictions. The lower base adjusts to fit most standard entries. Many other portable and fixed bases are available to suit any jobsite need. If additional height is required, check out our lower mast extensions.

3M™ DBI-SALA® Confined Space Portable Extendable Pole Hoist T-Bar Leg Assembly

3M Product Number	Description
8560409	Extendable Pole Hoist, swivel head and hardware, includes winch bracket - 1499-1956mm
8560476	Extendable Pole Hoist, swivel head and hardware, includes winch bracket-1829-3048mm
8561235	T-Bar Leg Assemby to suit Extendable Pole Hoist

The 3M™ DBI-SALA® Confined Space Pole Hoist System easily attaches with a carabiner to a secure anchor point, allowing workers in the field or on the roadway to work many directions from many angles. The unique swivel head allows for 360-degree rotation, allowing for easy entry into tight spaces. A quick-mount bracket allows for easy addition of a winch, and the built-in pulley is ready to work in any conditions. The hoist system is available in two lengths to accommodate different job demands. Durable design, verstile and stable and easy to use.

3M™ DBI-SALA® Tripod

3M Product Number	Description
8000140	Max height 7ft
8000141	Max height 9ft

When it comes to confined space entry/rescue, it is essential that equipment operates perfectly and quickly. DBI-SALA® has an extensive line of rescue and retrieval systems with decades of proven field service. Safety engineers and site directors trust DBI-SALA® for the type of high quality, rugged systems that will ensure top performance when it is needed the most. Our aluminum tripods are extremely lightweight and portable, easily set-up by one worker and can be transported from one location to another. Ideal for confined space entry and emergency rescue applications, they can accommodate a variety of winches and fall arrest devices. Our tripods are loaded with features such as locking legs, simple detent pin style adjustment, quick-mount mechanical device bracket, safety chain to prevent movement and safety shoes that incorporate a rubber sole for flat surfaces and spiked edges for slippery surfaces.

These suggestions do not reflect all required PPE for a given application or hazard. Reference and follow all local regulations.

3M™ DBI-SALA® Salalift™II Winch

3M Product Number	Description
8102001	6mm Galvanized cable - 18m
8102003	6mm Stainless Steel Cable - 18m
8102009	5mm Galvanized cable - 27m
8102011	5mm Stainless Steel Cable - 27m
8102005	5mm Galvanised Cable - 36m

3M™ DBI-SALA® Salalift™ II Winch is an essential component of confined space rescue systems and is designed for efficiently raising and lowering workers and materials into and out of confined spaces. With a 6:1 gear ratio and reserve lifeline retention system, 3M™ DBI-SALA® Salalift™ II Winch helps provide smooth entry and extraction.

3M™ DBI-SALA® Digital Winch - Series 100

3M Product Number	Description
8518560	Galvanized Steel cable - 18m
8518561	Galvanized Steel cable - 27m
8518558	Stainless Steel cable - 18m

The 3M™ DBI-SALA® Confined Space Winch maximizes efficiency and safety for challenging fall protection and confined space situations. Triple-redundant braking system includes three independent working pawls and a backup brake for added security. Used for various applications, this winch is the primary means of support for confined space solution.

3M™ DBI-SALA® Digital Winch - Series 200 with Power Drive*

3M Product Number	Description
8518586	Stainless Steel cable - 42m
8518587	Stainless Steel cable - 58m

The 3M™ DBI-SALA® Confined Space Winch maximizes efficiency and safety for challenging fall protection and confined space situations. Triple-redundant braking system includes three independent working pawls and a backup brake for added security. Used for various applications, this winch is the primary means of support for confined space solution.

*To use the Power Drive the additional 8512936 Overload Protection Clutch is required.

Self-Contained Breathing Apparatus (SCBA)

3M™ Scott™ ProPak-i Self-Contained Breathing Apparatus

3M Product Number: 2021766

The 3M™ Scott™ ProPak-i is a Type-2 open-circuit self-contained compressed-air breathing apparatus with a padded lower harness. Suitable for a variety of environments including industrial, marine, oil and gas and firefighting applications ProPak features a rigid back-frame construction with a padded waistbelt for comfort. The compact Tempest demand valve features low breathing resistance, first-breath automatic activation and hands-free bypass. Cylinder and facemask can be purchased separately.

3M™ Scott™ Promask PP Positive Pressure Full Face Mask
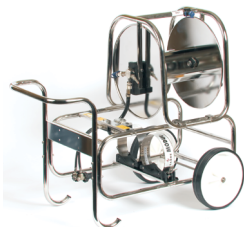
3M Product Number: 2013190

3M™ Scott™ Promask PP is a positive-pressure supplied-air facemask with a Procomp (bromobutyl/EPDM) outer mask with reflex seal and TPE oronasal inner mask. It is designed for use with 3M™ Scott™ AS/NZS 1716 certified self-contained and airline breathing apparatus. A single-curvature polycarbonate visor provides excellent panoramic vision while the forward-facing speech diaphragm makes it easier to communicate while wearing the mask.

3M™ Scott™ SCBA Compliance Kit

3M Product Number: SCBACOMP6T2

The 3M™ Scott™ Compliance Kit has everything you need for IDLH confined space entry or emergency response respiratory protection in one kit. It comes complete with a 3M Scott Sigma 2 Type 2 SCBA, Promask positive pressure full-face mask and 6.8 litre 300 bar carbon-composite cylinder all in a large carry bag. This SCBA set is suitable for a wide range of general industrial working and rescue applications.

3M™ Scott™ Modulair Airline Trolley

3M Product Number	Description
1051844	2 person, 2 cylinders
1051880	4 person, 4 cylinders

The 3M™ Scott™ Modulair trolley system is a compact, configurable, portable breathing air supply trolley available in 2 and 4 cylinder and 2 or 4 person models. Stainless-steel construction makes Modulair corrosion and chemical resistant while the hose reel conveniently stores up to 60 metres of breathing air hose. The high and medium pressure gauges and warning whistles make it easy to monitor air supply and the system incorporates non-return and bleed valves to support continuous operation in support of confined space or other long-duration operations in IDLH environments.

3M™ Scott™ Flite COV Demand Breathing and Escape Respirator

3M Product Number: 2031077

3M™ Scott™ Flite COV is a positive pressure demand breathing airline and escape respirator for use in IDLH environments. It features a bandolier harness with padded shoulder strap and waistbelt that supports an optional escape air cylinder (mandatory when used in IDLH environments). The escape cylinder is automatically activated, along with a warning whistle, should air pressure from the supplied airline drop. The escape cylinder can provide either 10 or 15 minutes of emergency air supply. Flite COV uses a Tempest demand valve and supports the 3M Scott SCBA facemask range. Cylinder and facemask sold separately.

3M™ Scott™ ELSA® Emergency Escape Breathing Device

3M Product Number: 2009419

3M™ Scott™ ELSA® is an emergency escape breathing device that provides 15 minutes of continuous-flow breathable air for escape from emergencies where the atmosphere has been compromised. The air-flow activates automatically upon removal of the hood from the carry-bag and the cuboid hood is easily donned, supporting users with eyeglasses or facial hair. The carry bag features donning pictograms to assist users with fitting during an emergency and also includes a shoulder strap for hands free use.

Education and Training

Your needs are at the core of what we do. That's why 3M offers worker health and safety training on principles, hazards, PPE products, software and other valuable information to enhance your workplace safety initiatives. Remember that safety goes beyond simply providing access to PPE – workers must also be trained in its proper wear and use. Our resources can help you ensure they have access to vital information about their PPE.

Explore our digital library on the Worker Health & Safety Portal for Australia and New Zealand at the 3M Safety Academy for topics like respiratory protection, welding, hearing conservation, fall protection, and more.

It's just one more way 3M helps you and your workers stay connected, compliant and safe.

AU   **NZ**

Ready to learn more?
Scan or Click for more details.

What's the 3M difference?

▸ Digital Training Library

▸ Dedicated Instructors

▸ Instructor-Led Courses

▸ Certified Instructor Program

▸ Regulatory Standards Compliance (where applicable)

▸ Training Centers, On-Site Delivery, or Virtual Instructor-Led Training

▸ Broad Employee Appeal

Training and education may be provided by 3M:

▸ Demonstration Training

▸ Fit Testing

▸ Selection Guides

▸ Service Life Software

▸ Fall Protection

▸ Hearing Protection and Conservation

▸ Worker Health & Safety e-Learning

▸ Virtual Reality

▸ Seminars, Webinar and Videos

▸ Understanding Regulations/ Compliance

▸ Tech Bulletins, Technical Helpline

▸ Dedicated Application Engineers etc.

▸ 3M™ Safety Mobile Training Units

Scan the QR code to contact us for a consultation or demo.
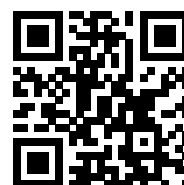
AU   **NZ**
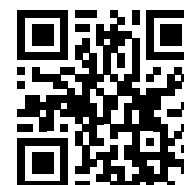
Validate your protection

Fit testing (or fit validation) is a procedure to help verify the PPE selected is providing the expected level of protection. Fit can have a significant impact on protection, therefore, fit testing is a best practice and often is required by standards and regulations.

There are many factors that affect how well PPE fits the individual wearer, including size and shape of the wearer and other equipment or clothing worn at the same time.

3M has resources that can help you test and validate fit for a variety of PPE:

Respiratory fit testing

A respirator needs to fit and seal to a wearer's face. Otherwise, contaminated air can pass around the respirator and into the wearer's breathing zone.

Applies to all tight-fitting respirators, including:

▶ Filtering facepiece particulate respirators

▶ Half and full-facepiece respirators fitted with filters and/or cartridges

▶ Tight-fitting facepieces connected to powered or supplied air turbo units or used with breathing apparatus

AU	NZ

Hearing fit testing

If earplugs or earmuffs do not fit the wearer's ear canal or head well, external noise may penetrate the inner ear, which can lead to noise-induced hearing loss.

Applies to:

▶ Earplugs

▶ Earmuffs

▶ Electronic earplugs and headsets

AU	NZ

Eyewear fit validation

Eye protection needs to provide a good field of view, security of fit, and good coverage with minimal gaps between eyewear and the wearer's face. Safety goggles should be tight fitting without any gaps. The eyewear fit validation system from 3M is intended for standard safety glasses.

Applies to all protective eyewear, protective goggles and some visors:

▶ Protective eyewear

▶ Protective goggles

AU	NZ
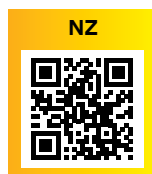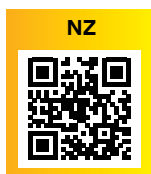
Fit testing at your fingertips

Help fit testers and wearers follow the exact fit test protocol at every step of the process with the tap of a button.

Download now for AU

Download now for NZ

For advice and support implementing a fit testing program, please contact your local 3M representative.

Hearing Protection

⚠ **WARNING**

These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury. For proper use, consult supervisor and User Instructions, or contact 3M PSD Customer Service in Australia at 1300 363 565 or 3msupport. safety.au@mmm.com and in New Zealand at 0800 252 627 or 3msupport.safety.nz@mmm.com. Always ensure the hearing protection device (HPD) is: Suitable for the application; Fitted correctly; Worn during all periods of exposure; Replaced when necessary.

3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user. Refer to applicable regulations and guidance on how to adjust attenuation label value(s). In the absence of applicable regulations, it is recommended that the attenuation label value(s) be reduced to better estimate typical protection. The effectiveness of a hearing protector reduces dramatically when the hearing protector does not fit properly, is incorrectly inserted or is not worn 100% of the time during ALL hazardous noise events. Removal of the hearing protector, even for brief moments, substantially reduces protection and greatly increases the risk of hearing damage.

Eye Protection

⚠ **WARNING**

These eye or face protection products help provide limited eye and face protection. Misuse or failure to follow warnings and instructions may result in serious potential injury, including blindness or death. For proper use, selection and applications against flying particles, optical radiation and/or splash see supervisor, read User Instructions and warning on the package or contact 3M PSD Customer Service in Australia at 1300 363 565 or 3msupport.safety.au@mmm.com and in New Zealand at 0800 252 627 or 3msupport. safety.nz@mmm.com.

Head Protection

⚠ **WARNING**

3M Head and Face Products provide limited protection only. Misuse or failure to follow warnings and User Instructions may result in serious personal injury or death. For proper use, see supervisor, User Instructions, or contact 3M PSD Customer Service in Australia at 1300 363 565 or 3msupport.safety.au@mmm.com and in New Zealand at 0800 252 627 or 3msupport.safety.nz@mmm.com.

Fall Protection

⚠ **WARNING**

Compliant fall protection and emergency rescue systems help prevent serious injuries associated with fall events. Users must read and understand the User Instructions provided with the product, and must be properly trained by their employers in the safe use of these systems before using them, per AS/NZS 1891.4:2009
Misuse or failure to follow warnings and instructions may result in serious personal injury or death. For proper use, see supervisor, User Instructions, or contact 3M PSD Customer Service in Australia at 1300 363 565 or 3msupport.safety.au@mmm.com and in New Zealand at 0800 252 627 or 3msupport.safety.nz@mmm.com.

Respiratory Protection

⚠ **WARNING**

These respirators help to protect against certain airborne contaminants. Before use, the wearer must read and understand the User Instructions provided as part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of AS/NZS 1715 or SA/SNZ ISO 16975.1 including training, fit testing and medical evaluation. Improper use may result in sickness or death. For correct use, see supervisor and User Instructions, or contact 3M PSD Customer Service in Australia at 1300 363 565 or 3msupport.safety.au@mmm.com and in New Zealand at 0800 252 627 or 3msupport.safety.nz@mmm.com.

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable national regulations and standards. Failure to properly evaluate, select, and use a 3M product in accordance with all applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty: Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

For industrial/occupational use only. Not for consumer sale or use.

3M