Science. Applied to Life.

3M Personal Safety

The complex hazards in the melting and casting process.

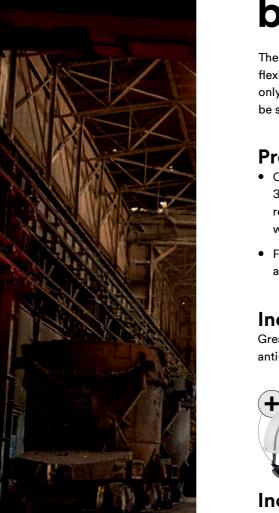
3M[™] PPE solutions for the processing of metallic raw materials.

The hazards of the melting and casting process.

After the complex production of metallic raw materials such as iron, steel, copper and aluminium, they typically undergo further processing. A common next step is the casting process; remelting, further refining and creation of alloys, mould creation, pouring into the mould, knock-out and finishing. These processes are used to produce intermediate products such as engine blocks, turbine housings, and a wide range of cast metal parts both large and small. Casting process steps can result in worker exposures to extreme heat, infrared radiation, flying sparks, noise, dust, fumes, gases and vapours, leading to the need for reliable, adequate personal protection equipment.

> Your team is exposed to a wide variety of extreme hazards due to:

- Strong radiant heat
- Splashing melt and flying sparks
- Respiratory exposure to particulates including metal fume and respirable crystalline silica (quartz dust)
- Respiratory exposure to hazardous gases and vapours such as combustion gases
- Glare caused by molten metal, embers and arcs
- Falling objects and flying particles
- A High noise levels
- Diffused light and poor lighting
- Working at height



Extreme conditions – best possible protection:

The hazards of processing metallic raw materials are many and diverse. Comprehensive, flexible personal protection equipment (PPE) solutions are commonly needed that not only provide protection to the wearer, but can work in combination with each other and be suitable for use in onerous high heat applications.

Protect yourself optimally

- welding protection.
- Fall protection during (renovation) work at height with 3M[™] Fall Protection products.

Increase wearing acceptance

Great wearing comfort with light-weight helmets, low breathing resistance, premium anti-fog coatings for fog-free glasses and integrated communication.



Increase your productivity Reduce physical strain and increase wearing times with ergonomic and flexibly usable PPE for fast, clean work.

Save space

Everything from a single cast:

The modular 3M line of products and accessories is designed to work together optimally.

Find more segment-specific information on applications and hazards in the metal industry at www.3m.co.uk/safety/metals

· Comprehensive protection thanks to flexible and combination use of 3M[™] PPE solutions designed with wearing comfort in mind: from respiratory, head and face protection to hearing conservation and





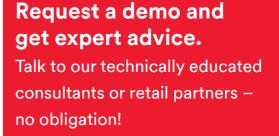








Reduce inventory and increase flexibility with high PPE compatibility.



The fast, flexible solution for hot jobs.

The **3M[™] G3501 Heat Protection Helmet** and its accessories provide protection from high temperatures and splashing metal.

For long, hot extreme cases.

Modular **3M[™] powered air purifying respirator systems with heat protection covers** offer comprehensive protection from radiant heat.

Robust and lightweight

t just 385 grams

Optimum heat protection from high levels of radiant heat

Standard visor

Enables permanent respiratory protection
Mechanical protection from solid and liquid particles of

Comfortable and secure fit

thanks to the 3M ratchet syste

Compatibility with other 3M PPE and accessorie Heat protection cover made of an aluminized textile that reflec radiant heat

3M[™] Hearing Conservation

Protection from strong grinding and machine noise



3M[™] Visors Eye and face protection from high levels of radiant heat, liquid metal spray and glare

3M[™] Respiratory Protection Protection from fine dusts

3M[™] Protective Eyewear

Protection against flying particles



3M[™] Versaflo[™] M series

Heat protection solution with integrated head, respiratory, eye and face protection, including glare and heat protection and optionally to be equipped with hearing protection



3M[™] Air Hose with additional heat protection cover

Gold-plated visor

- Over the standard visor - Reflects radiant heat and provides glare protection

Powered air purifying respirators

 Permanent respiratory protection from solid and gaseous hazardous substances

 Integrated protection
 Cooling air flow in respiratory faceshield



3M[™] Versaflo[™] TR-600 Power Air Purifying Respirator System

with 3 air flow levels for more comfort and a wide filter portfolio

Modular, flexible solution Complete integrative protection

Special features

	Floduct	Special realures	≥∓	0 0
Θ	3M™ G3501 Safety Helmet	 + Extremely robust and especially lightweight at just 385 g + Optimum combination of secure seating and comfort thanks to a ratchet system + Electrical insulation (1000 volts) as required by EN 50365 + Approved for working temperatures from - 30° C bis + 150° C + Protection against liquid metal splashes (MM) 		
	3M [™] V5 Face Shield Holder	+ Secure folding mechanism: quick replacement of visor possible		
	3M [™] 5XG-IR5 Visor	 Polycarbonate visor, gold-plated IR 5.0, thickness: 1mm, weight: 90 g Protection from liquid metal splashes, IR radiation, radiant heat and medium energy impacts Anti-fog coating 		
	3M [™] 5F-11 Face Shield	 Protection from flying particles Made of robust polycarbonate Anti-fog, scratch-resistant coating 		
	3M [™] Front heat shield and neck protection for helmet combinations	 + Aluminised textile + Robust, flame-retardant and heat-resistant 		
Θ	3M [™] SOLUS [™] 1000	 + Various premium coatings [3M[™] Scotchgard[™] Anti-Fog, RAS (scratch resistance)] and tints available + For better sealing fit with optimal foam gasket 		
	 3M[™] Versaflo[™] powered air purifying respirator systems TR-300/TR-600/Adflo with headtop M-307/M-407 (tested according to EN397) + Additional radiant heat kit available to reflect radiant heat Gold-plated protective visor (UV/IR 5.0) Heat protection cover for helmet part and air hose (Additional heat protection for our power air purifier systems available through partners. Please contact us!) 	 Safety helmet with integrated head, eye, face and respiratory protection No breathing resistance Three (TR-600) or two (TR-300) air flow levels for better wearing comfort Wide variety of filters (particles and gas/vapours) available 		
	3M [™] 6000, 6500 and 7500 Half Facepiece Series	 Wide variety of filters (particles, gas/vapours and combination filters) available 6500QL: particularly robust, with quick release for ease of wearing and removal – even with helmet. 		
	3M [™] Aura [™] 9322+Gen3 (FFP2) and 9332+Gen3 (FFP3) Particulate Respirator	 + Low breathing resistance thanks to innovative filter technology and 3M[™] Cool Flow[™] comfort valve + Valve grip function for holding, putting on and correction the position of the mask + Sealing points on top of mask reduce fogging on glasses + Hygienic individual packages, folded flat, easy to carry 		
	3M [™] Speedglas [™] Welding Helmet	 + Speedglas[™] 9100MP welding helmet, can be combined with power air purifier and compressed air systems + Speedglas[™] 9100QR welding helmet with adapter for 3M[™] G3501 safety helmet 		
0	3M [™] Ear Plugs	 + Hygienically packaged in pairs + Wide variety of insulating performance for various requirements 		
	3M [™] Peltor [™] communications solutions (LiteCom series)	 Compatible with headtops and helmets Certified hearing conservation with integrated radio unit (eight channels) Noise-compensating microphone Integrated Bluetooth technology 		
B	3M [™] Fall Protection	 Full-body harnesses, connectors and technical systems for fall protection during (renovation) work at height Available with flame-retardant or dirt-resistant equipment 		



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